462517112173001 08N06W25AABB01 (LUTTRELL WELL EPA-1)

LOCATION.--Lat 46°25'17", long 112°17'30" (NAD 83), in $NW^1/_4NE^1/_4NE^1/_4$ sec.25, T.8 N., R.6 W., Jeffferson County, Hydrologic Unit 10030101.

HYDROGEOLOGIC UNIT.--Tertiary volcanics.

WELL CHARACTERISTICS.--Drilled in May 1999, casing diameter 4 in., depth 108 ft.

DATUM.--Measuring point, top of PVC casing, 1.20 ft above land surface datum. Elevation of land-surface datum is 7,565.63 ft (NGVD 29).

PERIOD OF RECORD.--October 2001 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	70.00	July 18	58.59
Nov. 9	72.49	Sept. 20	68.99
May 25	65.67	Sept. 30	69.78
June 17	54.41		

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
MAY									
25...	1100	.3	--	3.9	138	5.5	<1	.21	.071
JUN									
17...	1100	.5	.9	3.8	152	6.0	1	.32	.110
SEP									
20...	1100	.6	.1	3.7	142	6.5	<1	.25	.087

Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
MAY									
25...	4.72	2	3.21	50	<2	.29	<.1	56.0	44.3
JUN									
17...	5.10	1	3.29	48	<2	.43	<.1	54.5	50.0
SEP									
20...	5.21	1	3.37	49	<2	.30	<.1	56.6	45.1

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
MAY								
25...	3,950	.4	.57	1.2	216	7.72	4.7	153
JUN								
17...	4,550	.3	.57	2.9	245	12.7	5.0	171
SEP								
20...	3,530	1.3	.50	1.4	262	6.84	5.4	177

462507112170601 08N05W30BBCD01 (LUTTRELL WELL EPA-6)

LOCATION.--Lat 46°25'07", long 112°17'06" (NAD 83), in $SW^1/_4NW^1/_4NW^1/_4$ sec.30, T.8 N., R.5 W., Lewis and Clark County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Boulder batholith quartz monzonite.

WELL CHARACTERISTICS.--Drilled in June 2000, casing diameter 2 in., depth 84.5 ft.

DATUM.--Measuring point, top of PVC casing, 2.60 ft above land surface datum. Elevation of land-surface datum is 7,689.44 ft (NGVD 29).

PERIOD OF RECORD.--June 2000 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	36.01	July 18	32.11
Nov. 9	36.74	Aug. 17	34.80
June 16	44.24	Sept. 30	36.99

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
JUN 16...	1200	6.2	1.6	6.7	109	8.0	35	8.29	3.35	1.38
AUG 17...	1300	--	.4	6.4	107	7.5	41	10.3	3.72	1.50

Date	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN 16...	.4	4.90	23	41	44	.26	.3	27.5	8.5	84	.11
AUG 17...	.3	4.42	18	42	46	.24	.3	28.7	8.3	89	.12

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 16...	E1	E.1	<.04	E.2	3,120	<.08	328	6.1
AUG 17...	2	<.2	<.04	<.4	4,040	<.08	326	6.1

E--Estimated.

462503112172302 08N06W25ADAC02 (LUTTRELL WELL EPA-4S)

LOCATION.--Lat 46°25'03", long 112°17'23" (NAD 83), in $NE^1/_4SE^1/_4NE^1/_4$, sec.25, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Tertiary volcanics.

WELL CHARACTERISTICS.--Drilled in June 2000, casing diameter 2 in., depth 98.5 ft.

DATUM.--Measuring point, top of PVC casing, 1.60 ft above land surface datum. Elevation of land-surface datum is 7,521.47 ft (NGVD 29).

PERIOD OF RECORD.--June 2000 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	23.00	June 15	14.21
Nov. 9	22.06	July 18	17.84
May 20	14.72	Aug. 16	19.54
May 24	14.08	Sept. 30	20.61

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
MAY										
24...	1100	230	--	4.9	65	8.0	5	1.44	.232	4.00
JUN										
15...	1400	--	4.6	4.7	51	9.0	4	1.20	.177	3.75
AUG										
16...	1100	--	3.4	4.7	60	10.0	4	1.22	.201	3.83

Date	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
MAY											
24...	1	5.87	57	<2	1	4.79	<.1	33.5	14.9	66	.09
JUN											
15...	1	4.31	52	--	<2	4.08	<.1	33.8	16.8	E65	E.09
AUG											
16...	1	5.64	58	<5	<2	4.53	<.1	32.1	16.4	E65	E.09

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
MAY								
24...	191	E.1	.12	3.0	24	46.8	11.7	83.8
JUN								
15...	307	<.2	.12	2.6	422	43.5	13.0	76.9
AUG								
16...	362	<.2	.12	2.7	22	53.0	9.7	104

E--Estimated.

462503112172301 08N06W25ADAC01 (LUTTRELL WELL EPA-4)

LOCATION.--Lat 46°25'03", long 112°17'23" (NAD 83), in $NE^1/_4SE^1/_4NE^1/_4$ sec.25, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Boulder batholith quartz monzonite.

WELL CHARACTERISTICS.--Drilled in May 1999, casing diameter 4 in., depth 170 ft.

DATUM.--Measuring point, top of PVC casing, 3.0 ft above land surface datum. Elevation of land-surface datum is 7,521.1 ft (NGVD 29).

PERIOD OF RECORD.--October 2001 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	37.23	June 15	29.79
Nov. 9	38.64	July 18	31.41
May 20	32.27	Aug. 16	36.24
May 24	31.43	Sept. 30	36.12

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
MAY										
24...	1200	140	--	6.9	125	6.5	34	9.64	2.53	5.51
JUN										
15...	1500	--	2.1	6.8	123	7.0	40	11.5	2.72	6.01
AUG										
16...	1200	--	2.7	6.5	127	8.0	41	11.8	2.78	6.08

Date	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
MAY											
24...	.4	5.41	22	19	19	.34	.2	40.0	34.3	111	.15
JUN											
15...	.3	3.71	15	19	19	.38	.2	42.1	34.2	114	.15
AUG											
16...	.2	3.43	13	18	17	.28	.2	39.7	33.5	109	.15

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
MAY								
24...	<2	1.3	<.04	E.3	1,330	.14	150	6.9
JUN								
15...	<2	.9	<.04	E.3	1,540	<.08	142	7.3
AUG								
16...	E1	.6	<.04	1.1	1,360	.08	141	10.5

E--Estimated.

462500112170701 08N05W30BCBD01 (LUTTRELL WELL EPA-5)

Lat 46°25'00", long 112°17'07" (NAD 83), in $NW^1/_4SW^1/_4NW^1/_4$ sec.30, T.8 N., R.5 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Boulder batholith quartz monzonite.

WELL CHARACTERISTICS.--Drilled in June 1999, casing diameter 4 in., depth 110 ft.

DATUM.--Measuring point, top of PVC casing, 0.8 ft above land surface datum. Elevation of land-surface datum is 7,577.99 ft (NGVD 29).

PERIOD OF RECORD.--October 2001 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	28.25	July 18	26.60
Nov. 9	29.00	Aug. 16	29.30
May 20	25.13	Sept. 30	30.45
June 16	24.01		

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
JUN 16...	1400	66	2.0	6.3	67	6.0	18	3.17	2.52	1.07
AUG 16...	1400	--	1.0	6.2	66	5.5	18	3.11	2.50	1.04

Date	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN 16...	.5	5.31	37	25	22	.38	.3	33.1	8.0	68	.09
AUG 16...	.6	5.51	38	25	20	.28	.3	31.6	7.5	64	.09

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 16...	3	.2	<.04	E.3	55	<.08	105	5.5
AUG 16...	2	.2	<.04	.5	38	<.08	93.5	7.8

E--Estimated.

462347112173301 08N06W36DCAA01 (BUCKEYE WELL BTMW-9)

LOCATION.--Lat 46°23'47", long 112°17'33", (NAD 27) in NE$^1/_4$ SW$^1/_4$ SE$^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 15.3 ft.

DATUM.--Measuring point, top of protective casing, 2.7 ft above land surface datum. Elevation of land-surface datum is 7,040 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	0.30
Aug 24	2.75

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Pump or flow period prior to sampling, minutes (72004)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN 13...	1000	5	--	6.0	904	3.0	460	140	27.8	6.42
AUG 24...	0900	3	6.9	6.1	911	5.0	490	147	30.7	7.19

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN 13...	.2	12.2	38	39	.85	E.1	40.4	431	689	.94
AUG 24...	.2	11.3	49	45	.81	E.1	44.6	436	708	.96

Date	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 13...	4	2.5	23.4	7.9	2,880	.96	1,580	1,530
AUG 24...	<1.6	1.1	23.5	3.4	650	.16	1,380	1,210

E--Estimated.

462344112173701 08N06W36DCAC01 (BUCKEYE WELL BTMW-1)

LOCATION.--Lat 46°23'44", long 112°17'37", (NAD 27) in NE$^1/_4$ SW$^1/_4$ SE$^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 10.6 ft.

DATUM.--Measuring point, top of PVC casing, 2.8 ft above land surface datum. Elevation of land-surface datum is 7,040 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	0.18
Aug 24	3.32

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Pump or flow period prior to sampling, minutes (72004)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)
JUN 13...	1040	5	4.2	518	3.0	170	53.8	9.11	2.40	.3	8.22	<2	.67
AUG 24...	0930	3	4.0	575	7.0	190	57.3	10.3	2.88	.2	7.48	--	.74

Date	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 13...	.4	41.6	235	6,200	.7	45.1	698	436	74.4	5,220	5,210
AUG 24...	.3	39.8	259	4,860	.6	27.9	426	1,240	81.5	5,770	3,880

462342112174201 08N06W36DCBD02 (BUCKEYE WELL BTMW-3)

LOCATION.--Lat 46°23'42", long 112°17'42", (NAD 27) in NW$^1/_4$ SW$^1/_4$ SE$^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 10.5 ft.

DATUM.--Measuring point, top of PVC casing, 3.0 ft above land surface datum. Elevation of land-surface datum is 7,035 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	3.27
Aug 24	4.33

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Pump or flow period prior to sampling, minutes (72004)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN										
13...	1120	5	--	6.1	575	4.0	190	54.0	13.4	1.37
AUG										
24...	1000	3	.6	5.9	456	6.5	160	46.1	10.8	1.01

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN									
13...	.3	8.62	31	.90	.1	43.0	234	425	.58
AUG									
24...	.2	6.85	34	.49	.3	37.1	192	358	.49

Date	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN								
13...	43	4,190	3.73	<8.4	43,300	1.25	1,830	1,260
AUG								
24...	67	2,930	3.34	1.0	37,300	1.97	1,700	1,310

462342112174601 08N06W36DCBC01 (BUCKEYE WELL BTMW-6)

LOCATION.--Lat 46°23'42", long 112°17'46", (NAD 27) in NW$^1/_4$ SW$^1/_4$ SE$^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 10 ft.

DATUM.--Measuring point, top of PVC casing, 3.2 ft above land surface datum. Elevation of land-surface datum is 7,035 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	1.02
Aug 24	3.27

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Pump or flow period prior to sampling, minutes (72004)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN 13...	1130	5	6.7	381	4.0	150	44.3	10.1	3.30
AUG 24...	1100	3	6.5	360	10.0	180	54.2	11.9	3.70

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN 13...	.4	11.2	83	79	.46	.1	17.2	86.2	224	.30
AUG 24...	.2	7.46	106	96	.41	.1	19.9	89.6	250	.34

Date	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 13...	<2	1.9	.14	.8	53	<.08	3,220	6.6
AUG 24...	4	9.9	<.04	3.1	1,180	.38	3,700	5.2

462341112174601 08N06W36DCCB01 (BUCKEYE WELL BTMW-7)

LOCATION.--Lat 46°23'41", long 112°17'46", (NAD 27) in $SW^1/_4SW^1/_4SE^1/_4$ sec.36, T.8N., R.6W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 11 ft.

DATUM.--Measuring point, top of PVC casing, 2.9 ft above land surface datum. Elevation of land-surface datum is 7,035 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	2.05
Aug. 24	2.91

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)
JUN									
13...	1200	--	6.6	318	5.0	97	27.2	7.04	1.58
AUG									
24...	1030	1.0	6.3	314	10.5	100	28.9	7.25	1.80

Date	Sodium adsorp-tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN											
13...	.2	5.15	10	21	58	.43	.3	27.2	94.0	224	.30
AUG											
24...	.2	5.37	10	18	54	.38	.3	31.0	96.1	231	.31

Date	Alum-inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan-ese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN								
13...	5	443	<.04	.8	24,100	.30	2,300	5.4
AUG								
24...	6	538	<.04	.6	24,500	.41	2,400	6.1

462342112174801 08N06W36DCBC02 (BUCKEYE WELL BTMW-8)

LOCATION.--Lat 46°23'42", long 112°17'48", (NAD 27) in NW$^1/_4$ SW$^1/_4$ SE$^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006.

HYDROGEOLOGIC UNIT.--Quaternary alluvium.

WELL CHARACTERISTICS.--Drilled in December 1998, casing diameter 2 in., depth 10.5 ft.

DATUM.--Measuring point, top of PVC casing, 2.8 ft above land surface datum. Elevation of land-surface datum is 7,035 ft (NGVD 29).

PERIOD OF RECORD.--December 1998 to current year.

REMARKS.--All water levels are reported as distance, in feet below land-surface datum.

MEASURED WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 2005

DATE	WATER LEVEL
June 13	4.23
Aug 24	5.53

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Pump or flow period prior to sampling, minutes (72004)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
JUN 13...	1210	5	6.7	306	4.0	110	33.4	7.63	1.45
AUG 24...	1200	3	6.8	281	7.5	120	33.7	7.54	1.85

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JUN 13...	.2	5.74	77	92	.66	.3	30.2	55.7	204	.28
AUG 24...	.2	4.89	91	104	.54	.2	27.7	33.5	184	.25

Date	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)
JUN 13...	47	65.3	.10	.5	10,700	E.04	1,040	2,210
AUG 24...	10	87.7	<.04	E.3	11,300	E.06	771	184

E--Estimated.

462347112180401 BASIN CREEK BELOW BUCKEYE MINE, NEAR LOGGING ROAD, NEAR BASIN, MT

LOCATION.--Lat 46°23'47", long 112°18'04" (NAD 27), in $SW^1/_4SE^1/_4NW^1/_4$ sec.36, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, at old logging road crossing, 0.5 mi downstream from the Buckeye Mine, and 8.7 mi north of Basin.

DRAINAGE AREA.--2.54 mi^2.

PERIOD OF RECORD.--January 2000 to current year.

GAGE.--None. Elevation at site is 6,940 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
MAY											
04...	1410	2.4	6.8	80	10.0	1.0	34	10.0	2.17	43.8	56
24...	0830	10	7.6	43	4.0	1.5	18	5.16	1.18	10.2	13
AUG											
03...	0900	.76	7.4	75	14.0	8.0	29	8.48	2.00	13.9	14
SEP											
21...	0900	.89	7.6	82	4.0	3.5	35	10.2	2.21	15.5	20.5

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY											
04...	.70	.75	7.3	8.4	1.35	3.42	133	128	71	3	.02
24...	.26	.29	3.6	4.6	.94	3.23	41.6	45	71	4	.11
AUG											
03...	.11	.10	1.6	1.6	.29	.58	27.3	30	48	2	<.01
SEP											
21...	.06	.13	.9	1.7	.20	2.15	23.7	24	55	2	<.01

462500112170201 UNNAMED STREAM (LAD 1) DRAINING LUTTRELL REPOSITORY AREA, NEAR RIMINI

LOCATION.--Lat 46°25'00", long 112°17'03" (NAD 83), in $NE^1/_4SW^1/_4NW^1/_4$ sec.30, T.8 N., R.5 W., Jeffferson County, Hydrologic Unit 10020006.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--June 2004.

GAGE.--None. Elevation at sampling location is 7,560 ft (NGVD 29).

REMARKS.--No flow during September 2005 sampling trip.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)
JUN 15...	1115	.01	5.7	67	10.0	3.5	19	5.42	1.44	.65	.4

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)
JUN 15...	3.68	28	.30	<.1	10.8	22.8	98	.9	<2	.05	.05

Date	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recoverable, ug/L (01055)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)
JUN 15...	2.3	2.8	38	40	E.07	.08	4.4	4	3.9	4

E--Estimated.

462500112170501 UNNAMED STREAM (LAD 2) DRAINING LUTTRELL REPOSITORY AREA, NEAR RIMINI

LOCATION.--Lat 46°25'00", long 112°17'06" (NAD 83), in $NE^1/_4$ $SW^1/_4$ $NW^1/_4$ sec.30, T.8 N., R.5 W., Jeffferson County, Hydrologic Unit 10020006.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.-- June 2004.

GAGE.--None. Elevation at sampling location is 7,560 ft (NGVD 29).

REMARKS.--No flow during September 2005 sampling trip.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)
JUN 15...	1045	.01	5.9	82	10.0	3.0	21	5.67	1.77	.90	.5	5.43

Date	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
JUN 15...	34	7	.54	<.1	11.3	27.4	57	.08	.00	57	1.4	E1

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recoverable, ug/L (01055)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)
JUN 15...	.07	.07	2.2	2.5	28	30	E.04	E.05	1.2	1	6.2	6

E--Estimated.

462442112174602 UNNAMED TRIBUTARY TO GRUB CREEK AT MOUTH, SS NO. 6, NEAR RIMINI, MT

LOCATION.--Lat 46°24'42", long 112°17'46" (NAD 27), $SW^1/_4NW^1/_4SE^1/_4$ sec.25, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, 30 ft upstream from Grub Creek and 5.9 mi south of Rimini.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.-July 2003 to current year.

GAGE.--None. Elevation at sampling site is 7,320 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)
JUN													
15...	1245	1.8	9.7	6.7	76	--	7.5	24	6.97	1.52	2.27	.2	2.21
JUL													
29...	1100	.06	--	6.4	120	19.0	10.0	38	10.9	2.55	3.27	.3	4.79
AUG													
22...	1300	.02	8.8	6.2	114	22.5	10.5	38	10.6	2.71	3.41	.3	3.60

Date	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
JUN												
15...	15	7	1.14	E.1	8.07	23.1	50	.07	.24	69	1.1	2
JUL												
29...	20	11	1.84	E.1	12.5	35.2	78	.11	.01	16	.5	<2
AUG												
22...	16	13	1.66	E.1	14.1	33.4	77	.11	.00	19	.6	.86

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recoverable, ug/L (01055)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)
JUN												
15...	.36	.38	5.7	6.9	91	290	.25	1.97	73.9	73	73.0	70
JUL												
29...	.21	.20	2.3	2.4	62	170	.11	.36	99.7	98	48.5	50
AUG												
22...	.11	.10	1.4	1.6	64	180	.13	.51	80.5	80	31.5	33

E--Estimated.

462442112174601 GRUB CREEK ABOVE MOUTH OF UNNAMED TRIBUTARY (GC03), NEAR RIMINI, MT

LOCATION.--Lat 46°24'42", long 112°17'46" (NAD 27), $NE^1/_4$ $NW^1/_4$ $SE^1/_4$ sec.25, T.8 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, 1.1 mi upstream from Basin Creek and 5.9 mi south of Rimini.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--July 2003 to current year.

GAGE.--None. Elevation at sampling site is 7,290 ft (NGVD 29).

REMARKS.--Only one sample available this water year due to no flow on July 29 and Aug. 23 sampling trips.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)
JUN 15...	1300	1.8	9.4	6.5	27	6.5	10	2.82	.65	.52	.2	1.15

Date	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)
JUN 15...	7	.32	E.1	7.95	5.1	23	.03	.11	146	.9	2	<.04	.32

Date	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recoverable, ug/L (01055)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)
JUN 15...	1.7	17.1	31	60	.24	.22	1.1	2	E1.6	56

E--Estimated.

462155112181501 JACK CREEK ABOVE BULLION MINE TRIBUTARY, NEAR BASIN, MT

LOCATION.--Lat 46°21'55", long 112°18'15" (NAD 27), in $NW^1/_4SW^1/_4SW^1/_4$ sec.12, T.7 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, 0.2 mi upstream of Bullion Mine tributary, 2.4 mi upstream of Basin Creek, and 7.1 mi north of Basin.

DRAINAGE AREA.--2.55 mi^2.

PERIOD OF RECORD.--October 1996 to August 1999, March 2003 to current year.

GAGE.--None. Elevation at site is 6,580 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
MAY											
02...	1400	.78	7.7	118	7.0	0.0	52	15.5	3.23	4.0	4
24...	1130	7.7	7.4	58	6.0	2.0	25	7.21	1.60	4.0	5
AUG											
03...	1100	.94	7.4	86	17.5	9.0	36	10.9	2.20	6.1	6
SEP											
21...	1200	.73	7.2	98	12.0	5.0	43	13.0	2.54	5.2	5.3

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY											
02...	.16	.16	2.8	3.3	<.08	.12	27.0	26	41	2	<.01
24...	.06	.07	4.2	25.6	.11	.93	9.0	12	46	4	.08
AUG											
03...	.10	.08	2.8	2.4	<.08	.11	12.7	14	50	1	<.01
SEP											
21...	.21	.21	3.0	3.3	<.08	.07	31.5	31	43	1	<.01

462120112173701 BULLION MINE ADIT NEAR BASIN, MT

LOCATION.--Lat 46°21'20", long 112°17'37" (NAD 27), in $NW^1/_4SW^1/_4SE^1/_4$ sec.13, T.7 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, at PVC pipe draining the Bullion mine adit about 400 ft upstream from the Bullion mine tributary, 2 mi upstream from Jack Creek, and 6.3 mi northwest of Basin.

DRAINAGE AREA.--Indeterminate (subsurface).

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--None. Elevation at site is 7,360 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)
NOV													
09...	0930	<.01	2.9	1,540	8.0	4.5	290	71.0	27.4	--	--	--	--
MAY													
04...	1300	<.01	3.3	1,350	15.5	6.5	370	94.2	33.3	3.50	.1	5.90	3
24...	1030	.01	3.5	1,570	4.5	6.5	350	83.9	33.1	5.13	.2	6.79	4
JUL													
12...	1100	.01	3.4	2,630	24.0	6.0	910	222	85.7	7.61	.2	11.2	3
AUG													
03...	1030	.01	2.6	2,520	12.0	5.0	330	81.7	30.9	2.64	.1	4.25	3
SEP													
21...	1045	.01	2.8	2,000	10.0	4.5	300	75.4	28.3	--	--	--	--

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)
NOV									
09...	--	--	--	--	--	--	521	300	--
MAY									
04...	.51	.4	43.6	733	10,500	16.3	1,650	378	1.1
24...	<1.00	.4	36.4	900	10,300	17.2	3,840	376	1.0
JUL									
12...	1.25	.5	114	1,440	24,000	39.0	5,320	630	3.7
AUG									
03...	1.14	.5	40.0	1,260	21,000	29.0	2,920	523	3.2
SEP									
21...	--	--	--	--	--	--	1,210	410	--

Date	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)
NOV								
09...	4,870	--	295	--	--	--	--	33,000
MAY								
04...	3,540	195,000	298	20,400	<.01	63.9	.4	37,000
24...	3,370	210,000	301	19,800	<.01	79.9	E.1	47,600
JUL								
12...	18,700	300,000	664	29,000	E.01	129	E7	82,200
AUG								
03...	13,700	251,000	536	25,800	<.01	110	.6	56,000
SEP								
21...	9,100	--	433	--	--	--	--	38,800

E--Estimated.

462153112181701 BULLION MINE TRIBUTARY AT MOUTH, NEAR BASIN, MT

LOCATION.--Lat 46°21'53", long 112°18'17" (NAD 27), in $SE^1/_4NW^1/_4NW^1/_4$ sec.13, T.7 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, near confluence with Jack Creek, 2.2 mi upstream from Basin Creek, and 6.7 mi northwest of Basin.

DRAINAGE AREA.--1.19 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--None. Elevation at site is 6,595 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)
NOV													
09...	0830	.17	6.2	185	4.0	0.0	66	18.6	4.75	1.0	4	24.2	22.9
MAY													
02...	1430	.30	7.5	147	7.0	0.0	54	15.6	3.70	2.0	17	12.1	12.7
24...	1200	3.6	7.2	60	6.0	3.0	22	6.36	1.46	5.1	28	3.11	3.20
JUL													
12...	1200	1.1	7.2	118	25.0	11.0	39	11.4	2.58	2.2	38	17.1	18.1
AUG													
03...	1130	.37	4.5	218	17.5	11.0	70	20.1	4.76	2.1	41	36.4	35.5
SEP													
21...	1130	.25	4.0	290	12.0	6.0	92	26.2	6.40	1.5	22.3	49.9	51.2

Date	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV									
09...	115	197	.32	2.68	2,530	2,760	96	3	<.01
MAY									
02...	40.0	137	.64	7.15	1,350	1,480	56	5	<.01
24...	36.5	53.4	1.98	18.2	340	370	37	13	.13
JUL									
12...	112	294	.34	5.11	1,950	2,080	97	4	.01
AUG									
03...	604	659	4.39	9.78	4,240	4,510	97	16	.02
SEP									
21...	760	866	8.95	12.5	5,120	5,740	99	11	.01

462047112201901 JACK CREEK AT MOUTH, NEAR BASIN, MT

LOCATION.--Lat 46°20'47", long 112°20'19" (NAD 27), in NW$^1/_4$SE$^1/_4$SE$^1/_4$ sec.22, T.7 N., R.6 W., Jefferson County, Hydrologic Unit 10020006, at Basin Creek road crossing, 7 mi northwest of Basin.

DRAINAGE AREA.--8.55 mi^2.

PERIOD OF RECORD.--January 2000 to current year.

GAGE.--None. Elevation at site is 6,260 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)
MAY													
02...	1220	4.9	7.6	92	4.0	0.5	35	9.93	2.44	4.1	11	1.58	2.04
24...	0945	22	7.4	52	6.0	2.0	20	5.83	1.40	4.3	13	.80	.96
AUG													
03...	1000	2.3	7.4	99	16.5	9.0	36	10.3	2.46	4.4	7	3.76	3.56
SEP													
21...	1000	1.8	7.6	107	9.5	4.5	40	11.6	2.69	2.6	4.7	3.16	3.54

Date	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY									
02...	17.6	33.2	.63	4.34	226	261	70	7	.09
24...	14.1	21.0	.44	4.26	93.3	109	34	12	.72
AUG									
03...	23.9	40.5	.35	1.09	414	434	87	2	.01
SEP									
21...	13.6	27.0	.08	.32	406	423	91	1	<.01

06031600 BASIN CREEK AT BASIN, MT

LOCATION.--Lat 46°16'16", long 112°15'42" (NAD 27), in $NE^1/_4NW^1/_4SW^1/_4$ sec.17, T.6 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, at county bridge on old Interstate 15 in Basin.

DRAINAGE AREA.--41.1 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--None. Elevation at site is 5,340 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
MAY											
02...	1100	24	7.7	76	4.0	1.0	28	8.14	1.87	4.1	6
23...	1315	131	7.4	42	13.0	6.0	15	4.22	.975	4.2	7
AUG											
03...	1300	7.3	7.8	85	23.0	17.0	31	8.76	2.13	6.9	7
SEP											
21...	1330	4.8	8.0	103	14.5	10.5	40	11.7	2.61	4.9	5.4

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY											
02...	.28	.33	5.3	7.2	.36	1.21	56.7	62	46	6	.40
23...	.29	.38	6.7	9.2	.37	3.28	36.4	48	53	11	3.9
AUG											
03...	.24	.23	4.6	4.8	.16	.30	31.9	37	89	1	.02
SEP											
21...	.22	.22	3.8	3.0	.13	.17	37.2	35	57	1	.01

461905112144201 CATARACT CREEK ABOVE UNCLE SAM GULCH, NEAR BASIN, MT

LOCATION.--Lat 46°19'05", long 112°14'42" (NAD 27), in $SE^1/_4SE^1/_4NE^1/_4$ sec.32, T.7 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, 100 ft upstream from Uncle Sam Gulch and 3.4 mi northeast of Basin.

DRAINAGE AREA.--22.2 mi^2.

PERIOD OF RECORD.--October 1996 to September 2003, May to August 2005.

GAGE.--None. Elevation at site is 6,320 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)
MAY													
04...	1100	16	7.8	84	10.0	1.0	36	11.0	2.08	2.0	2	.17	.20
24...	1400	85	7.6	47	9.5	4.0	19	5.63	1.14	2.5	4	.17	.25
AUG													
04...	1030	3.5	7.9	110	17.0	10.0	48	15.0	2.51	3.0	3	.21	.20
SEP													
22...	1115	2.8	7.6	120	11.5	4.0	53	16.7	2.80	2.4	2.6	.22	.24

Date	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY									
04...	6.0	6.8	.29	1.05	45.5	44	73	2	.09
24...	6.6	9.1	.33	2.58	40.7	49	46	9	2.1
AUG									
04...	4.3	4.3	.19	.33	43.7	42	60	3	.03
SEP									
22...	3.6	3.7	.09	.20	54.4	53	80	1	.01

462053112153601 CRYSTAL MINE ADIT NEAR BASIN, MT

LOCATION.--Lat 46°20'53", long 112°15'36" (NAD 27), in NE$^1/_4$SW$^1/_4$NW$^1/_4$ sec.20, T.7 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, adit discharge from Cyrstal Mine, about 3 mi upstream from the mouth of Uncle Sam Gulch, and 5.25 mi north of Basin.

DRAINAGE AREA.--Indeterminate (subsurface).

PERIOD OF RECORD.--June 2003 to current year.

GAGE.--None. Elevation at site is 7,600 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)
NOV													
09...	1130	.04	4.0	809	10.0	5.0	200	51.5	16.8	--	--	--	--
MAY													
04...	0900	.03	4.1	639	6.0	4.5	210	55.9	17.2	E1.17	.1	4.07	--
26...	0915	.06	3.7	682	--	4.5	190	49.7	16.1	2.48	.1	4.06	4
JUL													
12...	1000	.07	4.6	836	20.0	5.5	230	62.3	17.1	1.51	.1	3.30	3
AUG													
04...	1130	.08	4.4	836	--	7.0	230	61.9	17.7	1.42	.1	3.60	3
SEP													
22...	1230	.06	4.5	790	20.0	5.5	200	54.5	16.0	--	--	--	--

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NOV													
09...	--	--	--	--	--	--	--	--	--	76.2	607	--	5,260
MAY													
04...	.41	E.1	22.5	341	E442	E.60	E.03	1,810	1.39	57.3	642	<.8	4,420
26...	.38	E.1	21.1	353	E447	E.61	E.06	1,830	.96	37.0	588	<.8	4,300
JUL													
12...	.79	.1	22.1	494	E605	E.82	E.07	6,090	2.59	213	630	<.8	8,630
AUG													
04...	.78	.2	22.3	495	E603	E.82	E.08	5,930	2.55	159	622	<.8	7,740
SEP													
22...	--	--	--	--	--	--	--	--	--	110	586	--	5,170

Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)
NOV							
09...	--	37.5	--	--	--	--	43,600
MAY							
04...	42,000	18.7	14,600	<.01	31.6	.9	50,000
26...	20,100	22.1	12,400	<.01	37.5	<.2	44,300
JUL							
12...	47,800	51.9	11,800	<.01	38.1	<.2	50,500
AUG							
04...	51,800	67.4	12,500	<.01	38.0	<.2	46,900
SEP							
22...	--	56.8	--	--	--	--	34,800

E--Estimated.

461904112144401 UNCLE SAM GULCH AT MOUTH, NEAR BASIN, MT

LOCATION.--Lat 46°19'04", long 112°14'44" (NAD 27), in $SE^1/_4SE^1/_4NE^1/_4$ sec.32, T.7 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, at confluence with Cataract Creek, 3.4 mi northeast of Basin.

DRAINAGE AREA.--3.06 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--None. Elevation at site is 6,315 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
NOV											
09...	1230	.55	6.3	142	11.0	2.0	55	16.2	3.42	3.9	4
MAY											
04...	1020	1.0	7.5	112	10.0	2.0	44	13.1	2.63	4.9	9
24...	1445	7.0	7.1	57	9.0	4.5	20	6.00	1.25	7.2	66
JUL											
12...	0830	1.6	7.8	101	18.0	8.5	37	11.1	2.18	5.5	18
AUG											
04...	1000	.74	7.7	*142	17.0	8.5	58	17.7	3.29	6.5	8
SEP											
22...	1045	.81	7.3	162	11.5	3.5	64	19.6	3.69	4.0	5.5

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV											
09...	19.5	18.3	54.3	60.0	.33	.99	1,740	1,850	50	1	<.01
MAY											
04...	12.5	12.5	60.9	71.2	.63	3.90	1,180	1,200	75	2	.01
24...	5.12	7.17	70.1	176	1.17	38.2	452	578	35	40	.76
JUL											
12...	12.6	13.4	75.8	107	1.03	6.47	1,200	1,310	83	2	.01
AUG											
04...	22.7	21.0	82.8	95.2	.99	2.48	1,960	1,990	62	1	<.01
SEP											
22...	21.9	23.4	61.2	80.2	.41	1.41	1,970	1,950	80	1	<.01

*--Laboratory measurement of specific conductance.

06031960 CATARACT CREEK AT BASIN, MT

LOCATION.--Lat 46°16'17", long 112°14'28" (NAD 27), in $NE^1/_4NW^1/_4SW^1/_4$ sec.16, T.6 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, at county bridge, 0.1 mi upstream from the Boulder River, and 1 mi east of Basin.

DRAINAGE AREA.--29.3 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--None. Elevation at site is 5,270 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
MAY											
02...	1000	7.4	7.8	104	5.5	0.5	44	13.4	2.59	2.7	4
23...	1230	118	7.6	47	9.5	4.5	19	5.61	1.13	2.9	11
AUG											
03...	1400	5.1	7.8	123	21.0	17.0	53	16.6	2.91	5.3	5
SEP											
22...	0930	3.3	7.8	145	6.0	4.5	66	20.3	3.60	3.7	3.9

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY											
02...	1.34	1.49	12.8	15.9	.56	2.23	160	167	63	3	.06
23...	.67	.98	15.7	25.9	.52	7.57	77.8	102	34	17	5.4
AUG											
03...	2.07	1.90	11.1	12.1	.25	.76	155	177	82	2	.03
SEP											
22...	2.56	2.66	8.7	8.6	.15	.29	245	245	75	1	.01

06032400 BOULDER RIVER BELOW LITTLE GALENA GULCH, NEAR BASIN, MT

LOCATION.--Lat 46°14'58", long 112°10'27" (NAD 27), in $NE^1/_4NE^1/_4NW^1/_4$ sec.25, T.6 N., R.5 W., Jefferson County, Hydrologic Unit 10020006, at county bridge, 0.2 mi downstream from Little Galena Gulch, and 2.5 mi northeast of Basin.

DRAINAGE AREA.--318 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--None. Elevation at site is 5,020 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
MAY											
02...	0830	82	7.7	111	2.0	1.0	43	12.8	2.64	3.3	4
23...	0930	703	7.5	60	10.5	5.5	22	6.48	1.43	4.0	8
AUG											
04...	0830	32	7.9	140	12.0	13.5	55	16.7	3.27	5.8	5
SEP											
22...	0830	27	7.6	158	1.5	5.5	61	18.4	3.77	4.5	5

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAY											
02...	.29	.32	6.6	8.0	.28	.76	55.5	62	83	4	.88
23...	.23	.38	8.1	15.7	.38	4.41	35.2	53	53	26	49
AUG											
04...	.45	.45	7.1	7.5	.14	.32	65.4	77	76	2	.17
SEP											
22...	.46	.55	5.2	6.1	E.07	.39	92.6	99	80	2	.15

E--Estimated.

06033000 BOULDER RIVER NEAR BOULDER, MT

LOCATION.--Lat 46°12'40", long 112°05'27" (NAD 27), in $SE^1/_4NE^1/_4SW^1/_4$ sec.3, T.5 N., R.4 W., Jefferson County, Hydrologic Unit 10020006, on left bank 40 ft downstream from county bridge, 1.1 mile downstream from Muskrat Creek, 2.0 mi southeast of Boulder, and at river mile 44.1.

DRAINAGE AREA.--381 mi^2.

PERIOD OF RECORD.--May 1929 to December 1932, March 1934 to September 1972, October 1984 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1931.

GAGE.--Water-stage recorder. Elevation of gage is 4,810 ft (NGVD 29). Prior to Aug. 29, 1946, nonrecording gage at present site and elevation.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversions for irrigation of about 3,500 acres upstream from station. Several unpublished observations of water temperature and specific conductance were made during the year. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1981, reached a discharge of 7,000 ft^3/s, gage height, 12.3 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	22	22	e18	25	21	34	94	409	273	35	19
2	28	34	24	e15	25	21	39	88	522	239	33	17
3	29	34	25	e16	24	22	45	91	797	214	36	16
4	29	24	27	e17	24	22	56	99	1,020	193	34	16
5	29	26	25	e15	25	23	47	123	914	176	31	16
6	31	36	23	e17	23	24	47	174	996	166	28	15
7	30	33	24	e18	22	26	69	226	851	154	28	15
8	32	32	24	e17	23	31	106	274	696	141	28	15
9	34	34	25	e16	23	37	89	292	604	128	36	14
10	31	35	25	e16	22	47	71	521	540	127	30	15
11	30	28	29	e17	21	47	55	544	515	127	29	17
12	30	23	30	e18	21	50	57	425	604	113	26	18
13	31	20	23	e15	22	31	65	363	619	98	27	18
14	31	24	24	e13	22	33	84	390	522	89	27	18
15	32	26	28	e13	21	34	66	434	531	85	27	18
16	32	32	26	e15	e18	31	71	522	507	82	26	18
17	30	30	24	e20	e18	30	91	786	585	80	23	19
18	32	24	25	e25	e18	21	107	655	519	76	21	27
19	33	28	27	e22	19	30	89	742	448	66	19	26
20	34	26	26	22	19	31	77	745	390	60	17	23
21	36	18	24	28	19	29	68	756	354	57	17	20
22	39	18	23	26	20	26	63	635	327	53	17	20
23	39	28	e15	26	20	e22	90	618	340	55	19	19
24	36	33	e17	32	20	e20	123	522	270	49	19	23
25	28	37	22	30	20	e22	148	442	244	47	18	25
26	29	31	24	30	20	25	164	397	273	50	17	25
27	32	20	23	30	20	32	159	374	385	46	16	24
28	36	20	22	29	20	39	119	366	394	42	16	23
29	35	23	22	28	---	48	107	364	354	40	15	24
30	36	22	22	27	---	47	108	336	322	39	16	24
31	33	---	e20	26	---	35	---	312	---	36	19	---
TOTAL	995	821	740	657	594	957	2,514	12,710	15,852	3,201	750	587
MEAN	32.1	27.4	23.9	21.2	21.2	30.9	83.8	410	528	103	24.2	19.6
MAX	39	37	30	32	25	50	164	786	1,020	273	36	27
MIN	28	18	15	13	18	20	34	88	244	36	15	14
AC-FT	1,970	1,630	1,470	1,300	1,180	1,900	4,990	25,210	31,440	6,350	1,490	1,160

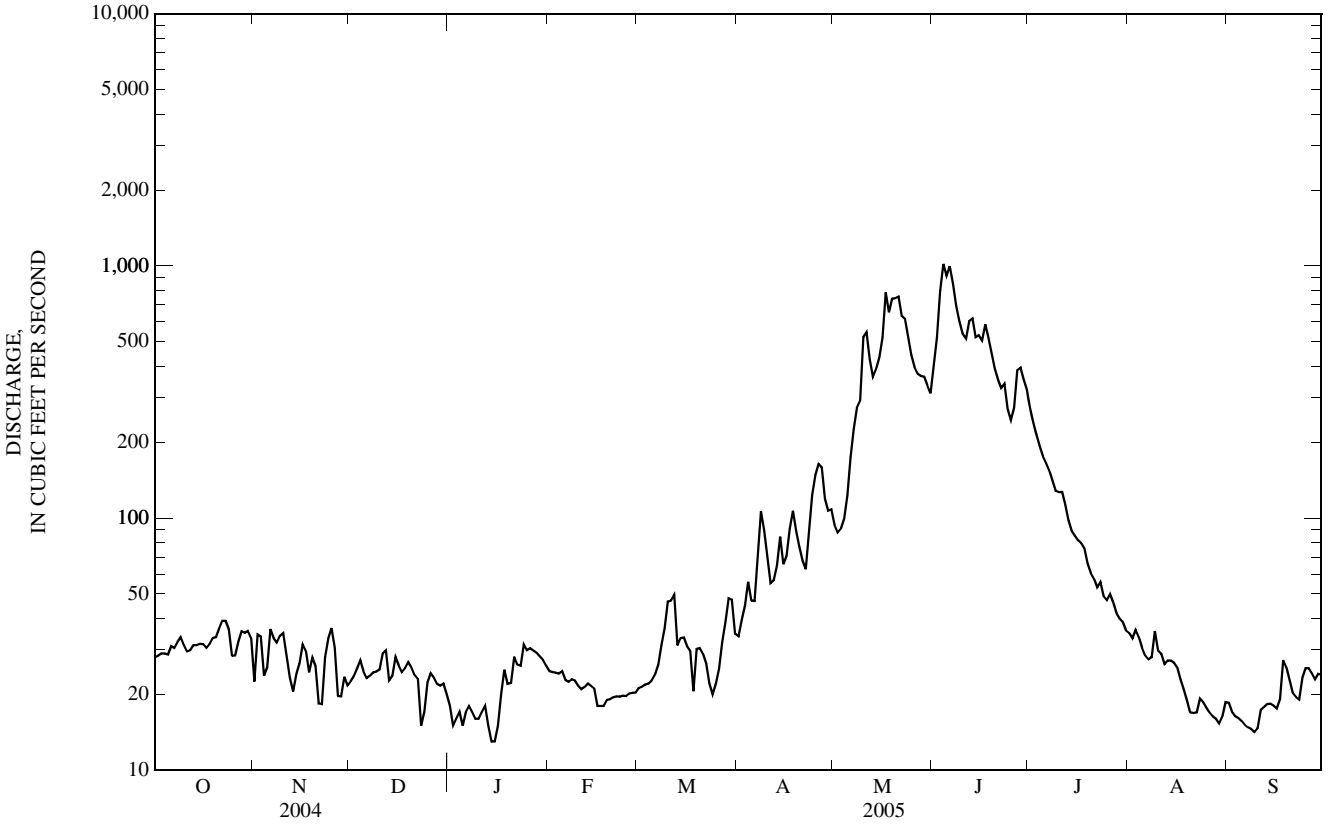
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)*

MEAN	36.2	34.5	28.4	26.2	30.3	47.9	165	457	404	93.9	30.8	28.3
MAX	113	71.2	53.0	42.1	68.5	121	511	961	1,027	374	194	156
(WY)	(1966)	(1966)	(1996)	(1969)	(1971)	(1986)	(1930)	(1948)	(1965)	(1938)	(1993)	(1993)
MIN	5.85	9.09	7.45	10.1	7.71	20.7	46.0	126	70.4	10.9	7.11	5.69
(WY)	(1936)	(1936)	(1936)	(1937)	(1937)	(1937)	(1967)	(1992)	(2000)	(1931)	(1931)	(1935)

06033000 BOULDER RIVER NEAR BOULDER, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1929 - 2005*	
ANNUAL TOTAL	27,634.9		40,378			
ANNUAL MEAN	75.5		111		116	
HIGHEST ANNUAL MEAN					211	1965
LOWEST ANNUAL MEAN					48.2	2000
HIGHEST DAILY MEAN	478	Jun 11	1,020	Jun 4	2,400	May 22, 1948
LOWEST DAILY MEAN	9.2	Aug 17	13	Jan 14	0.00	Jul 15, 1931
ANNUAL SEVEN-DAY MINIMUM	11	Aug 16	15	Sep 4	1.0	Jan 21, 1930
MAXIMUM PEAK FLOW			1,110	Jun 4	3,490	Jun 9, 1964
MAXIMUM PEAK STAGE			7.82	Jun 4	10.90	Jun 9, 1964
INSTANTANEOUS LOW FLOW					0.00	Jul 15, 1931
ANNUAL RUNOFF (AC-FT)	54,810		80,090		83,830	
10 PERCENT EXCEEDS	206		390		334	
50 PERCENT EXCEEDS	30		30		36	
90 PERCENT EXCEEDS	18		18		16	

*--During periods of operation (May 1929 to December 1932, March 1934 to September 1972, October 1984 to present).
e--Estimated.



06035000 WILLOW CREEK NEAR HARRISON, MT

LOCATION.--Lat 46°43'23", long 111°44'25" (NAD 27), in $SE^1/_4$ $SW^1/_4$ $NW^1/_4$ sec.28, T.1 S., R.1 W., Madison County, Hydrologic Unit 10020005, on right bank 2.2 mi upstream from Willow Creek Dam, 2.5 mi northeast of Harrison, and at river mile 13.6.

DRAINAGE AREA.--83.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to September 1982, October 1982 to October 2002, March 2004 to current year (seasonal records only). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1559: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,750 ft (NGVD 29). Prior to Oct. 8, 1946, water-stage recorder at elevation 0.22 ft higher, with different concrete control.

REMARKS.--Seasonal water-discharge records good except those for Mar. 1 to May 10, which are fair, and those for estimated daily discharges, which are poor. Diversions for irrigation of about 12,500 acres of which 3,500 acres are in Norwegian Creek drainage. U.S. Geological Survey satellite telemeter at station. Several unpublished observations of water temperature and specific conductance were made during the season.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						21	25	27	131	121		
2						e18	24	26	114	113		
3						e16	18	25	97	98		
4						e15	19	25	90	86		
5						e15	20	23	81	78		
6						16	19	27	102	74		
7						16	15	32	100	68		
8						18	16	41	98	60		
9						21	14	46	102	51		
10						21	12	109	94	50		
11						19	12	159	90	46		
12						21	11	97	124	35		
13						e19	12	82	116	32		
14						e17	14	76	91	28		
15						e18	11	77	95	25		
16						20	11	94	121	20		
17						20	14	131	166	15		
18						e18	23	125	203	15		
19						21	26	140	188	13		
20						21	28	153	185	7.9		
21						30	28	172	200	5.1		
22						26	31	154	249	5.4		
23						24	34	172	295	5.6		
24						e22	30	152	288	5.1		
25						e20	28	129	250	5.5		
26						e25	29	110	227	6.9		
27						34	31	103	203	5.8		
28						35	30	96	189	4.9		
29						30	27	84	159	6.0		
30						26	30	85	134	5.9		
31						e23	---	77	---	4.9		
TOTAL						666	642	2,849	4,582	1,097.0		
MEAN						21.5	21.4	91.9	153	35.4		
MAX						35	34	172	295	121		
MIN						15	11	23	81	4.9		
AC-FT						1,320	1,270	5,650	9,090	2,180		

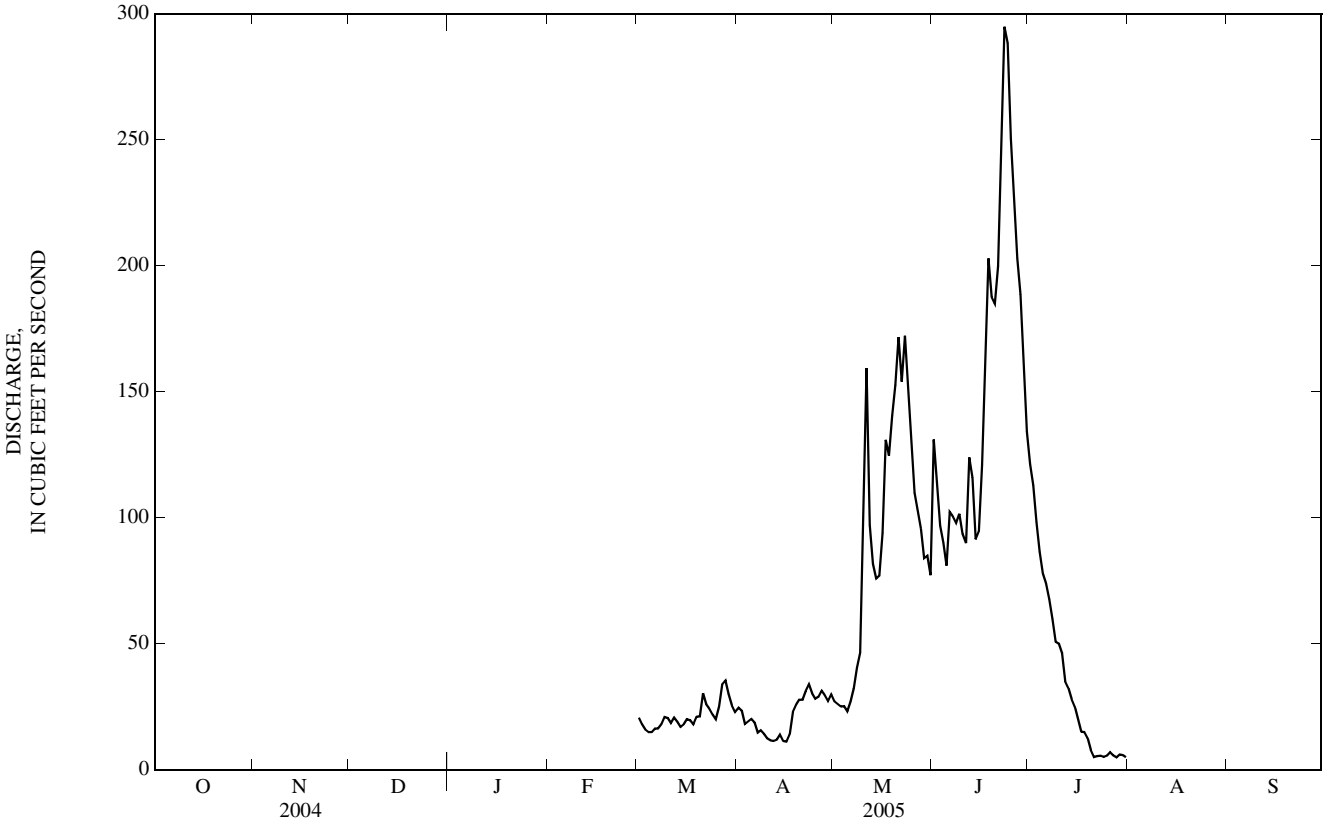
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)*

MEAN	29.1	33.7	29.9	24.7	27.4	31.3	40.9	62.3	111	60.0	12.3	18.9
MAX	80.1	56.5	47.4	43.6	60.9	44.7	72.5	167	300	278	61.0	62.4
(WY)	(1983)	(1947)	(1948)	(1976)	(1963)	(1974)	(1996)	(1984)	(1995)	(1975)	(1993)	(1965)
MIN	2.01	9.40	11.5	10.0	12.0	18.0	11.1	11.1	10.1	1.52	1.12	2.01
(WY)	(1989)	(1955)	(1955)	(1940)	(1940)	(1940)	(1961)	(2002)	(1966)	(1988)	(1988)	(1956)

06035000 WILLOW CREEK NEAR HARRISON, MT—Continued

SUMMARY STATISTICS	FOR 2005 SEASON		WATER YEARS 1938 - 2002*		SEASONS 1983 - 2005*	
ANNUAL MEAN			40.7			
HIGHEST ANNUAL MEAN			76.0	1975		
LOWEST ANNUAL MEAN			19.2	1954		
HIGHEST DAILY MEAN	295	Jun 23	591	Jun 27, 1944	423	Jun 6, 1995
LOWEST DAILY MEAN	4.9	Jul 28	1.6	Sep 16, 1952	0.59	Jul 23, 1988
ANNUAL SEVEN-DAY MINIMUM			1.6	Sep 16, 1952		
MAXIMUM PEAK FLOW	305	Jun 24	813	Feb 3, 1963	448	Jun 6, 1995
MAXIMUM PEAK STAGE	2.63	Jun 24	4.24	Feb 3, 1963	3.38	Jun 6, 1995
INSTANTANEOUS LOW FLOW	a4.5	Jul 21	b1.4	Sep 17, 1956	c0.32	Jul 21, 1988
ANNUAL RUNOFF (AC-FT)			29,480			
10 PERCENT EXCEEDS			88			
50 PERCENT EXCEEDS			30			
90 PERCENT EXCEEDS			6.9			

*--During periods of operation (April 1938 to September 1982; October 1982 to October 2002, March 2004 to current year, seasonal records only).
a--Gage height, 0.41 ft.
b--Gage height, 0.39 ft.
c--Gage height, 0.26 ft.
e--Estimated.



WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 2002 to September 2002, March to July 2004, April to July 2005 (seasonal records only).

INSTRUMENTATION.--Temperature probe installed Apr. 23, 2002.

REMARKS.--Daily water temperatures record rated fair. Several unpublished observations of water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (seasonal records): Maximum, 29.5°C, July 13,14, 2002, minimum, 0.0°C Oct. 24-27,2002 and Mar. 2-7 and 11, 2004.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: During period of seasonal operation, maximum, 26.5°C, July 23; minimum, 0.0°C, many days in March.

06035000 WILLOW CREEK NEAR HARRISON, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		MARCH			APRIL			MAY			JUNE	
1	6.0	0.5	2.5	8.0	1.0	4.0	13.0	2.5	7.5	9.0	7.0	8.0
2	6.0	0.0	2.5	11.0	2.5	6.5	13.5	3.5	8.0	9.0	6.5	7.5
3	6.0	0.0	2.5	9.0	3.0	6.0	13.5	4.5	8.5	11.0	7.0	8.5
4	6.5	0.0	2.5	6.0	4.0	5.0	14.0	5.5	9.5	16.0	7.5	11.5
5	7.0	0.0	3.0	10.0	2.0	5.5	14.0	7.0	10.5	15.0	8.0	11.5
6	6.5	1.0	3.5	13.0	2.5	7.0	15.0	7.5	11.0	11.0	8.0	9.5
7	5.5	0.5	2.5	13.0	5.0	8.5	13.5	8.0	10.5	11.5	6.5	8.5
8	7.5	1.5	4.5	8.5	6.0	7.5	12.0	8.5	10.0	10.5	7.0	8.5
9	9.5	3.0	5.5	9.0	3.5	6.0	10.5	7.0	8.0	11.0	6.5	8.5
10	9.5	2.5	5.5	10.5	2.5	6.0	8.0	6.0	7.0	12.5	6.5	9.5
11	8.0	1.5	4.5	10.0	1.5	6.0	6.0	4.5	5.5	12.5	7.5	10.0
12	4.5	1.5	3.0	12.5	3.5	8.0	7.5	3.5	5.0	10.5	8.0	9.0
13	3.5	0.0	1.5	14.5	5.0	9.5	12.5	4.0	8.0	14.5	6.5	10.0
14	3.0	0.0	1.5	9.5	4.5	6.5	14.0	6.5	10.0	16.5	8.5	12.0
15	5.0	0.0	2.0	13.0	1.5	6.5	11.5	8.0	10.0	16.0	10.0	13.0
16	4.5	0.5	2.5	15.0	3.0	8.5	10.5	8.0	9.5	14.5	9.5	12.0
17	3.0	0.5	1.5	14.0	5.5	9.5	9.0	6.5	8.0	13.0	9.5	11.5
18	5.5	0.0	2.0	9.0	4.0	5.5	11.0	5.0	8.0	11.5	7.5	10.0
19	3.5	0.5	2.0	5.0	2.5	3.5	11.0	7.0	9.0	14.0	7.0	10.5
20	5.5	0.5	2.5	5.0	2.0	3.5	10.5	6.5	8.5	16.0	8.5	12.0
21	7.0	1.5	4.0	7.5	2.0	4.5	13.0	6.0	9.0	14.0	9.0	12.0
22	5.5	2.0	3.5	13.5	4.0	7.5	14.5	6.0	10.0	15.5	10.0	12.5
23	2.5	0.0	0.5	12.5	4.5	8.5	13.0	7.0	10.0	15.5	9.5	12.5
24	2.0	0.0	0.5	12.5	5.0	9.0	9.5	6.5	8.0	15.0	8.5	11.5
25	4.0	0.0	1.0	15.5	5.0	10.0	12.0	4.5	8.0	13.0	8.5	11.0
26	4.5	0.0	1.5	11.5	6.5	8.5	13.0	5.0	9.0	11.5	8.0	10.0
27	7.5	0.5	3.5	8.0	3.0	5.5	14.0	6.0	10.0	12.5	8.0	10.5
28	6.0	3.0	4.5	7.5	1.5	4.0	15.0	6.5	10.5	12.0	8.0	10.0
29	7.5	1.5	4.0	11.0	0.5	5.5	13.5	6.5	10.0	12.0	8.5	10.0
30	5.0	0.5	2.5	12.0	2.5	6.5	13.0	5.5	9.0	15.0	8.0	11.5
31	8.5	0.0	3.5	---	---	---	10.5	6.0	8.0	---	---	---
MONTH	9.5	0.0	3.0	15.5	0.5	6.5	15.0	2.5	9.0	16.5	6.5	10.5

DAY	MAX	MIN	MEAN
		JULY	
1	15.5	9.0	12.5
2	14.5	10.0	12.0
3	15.0	8.5	11.5
4	16.5	9.0	12.5
5	17.5	9.5	13.5
6	18.0	11.0	14.0
7	18.5	11.5	15.0
8	18.5	11.5	15.0
9	18.0	12.0	14.5
10	16.0	11.5	13.5
11	20.0	11.0	15.0
12	22.0	11.5	16.5
13	21.0	14.0	17.5
14	22.5	13.0	17.5
15	23.5	12.5	18.0
16	23.0	15.0	18.5
17	22.5	12.0	17.0
18	24.5	12.0	18.0
19	24.0	13.5	19.0
20	25.0	14.0	19.5
21	25.5	13.5	20.0
22	23.0	16.5	19.5
23	26.5	16.0	20.5
24	25.5	14.0	19.5
25	20.0	14.5	16.5
26	22.5	11.0	16.5
27	24.5	12.5	18.0
28	19.0	13.5	16.5
29	21.5	12.0	16.5
30	25.5	14.0	19.5
31	20.5	15.0	18.5
MONTH	26.5	8.5	16.5

06036650 JEFFERSON RIVER NEAR THREE FORKS, MT

LOCATION.--Lat 45°53'52", long 111°35'45" (NAD 27), in $SW^1/_4SW^1/_4NW^1/_4$ sec.27, T.2 N., R.1 E., Broadwater County, Hydrologic Unit 10020005, on left bank 50 ft downstream from bridge on U.S. Highway 10, 2.5 mi northwest of Three Forks, and at river mile 2,329.3.

DRAINAGE AREA.--9,532 mi^2.

PERIOD OF RECORD.--October 1978 to current year.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 4,076.76 ft (NGVD 29).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Some regulation by Ruby River Reservoir (station number 06020500) and Clark Canyon Reservoir (station number 06015300). Diversions for irrigation of about 390,000 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	1,240	e800	e600	e900	799	917	981	2,490	3,460	335	297
2	916	1,200	e900	e600	e850	792	859	905	3,440	3,160	299	295
3	919	1,200	e1,000	e600	e850	792	845	846	4,030	2,880	342	293
4	907	1,210	1,060	e600	e850	789	866	780	4,320	2,640	357	299
5	886	1,240	e1,050	e600	e850	783	902	714	4,320	2,400	333	301
6	865	1,190	e1,110	e600	e800	786	901	660	4,150	2,170	297	298
7	881	1,180	1,100	e650	e850	788	874	662	4,310	1,940	286	291
8	880	1,200	1,110	e650	e900	797	849	693	4,510	1,750	274	275
9	875	1,210	1,100	e650	e900	812	891	946	4,320	1,470	277	257
10	877	1,200	1,110	e700	e900	833	976	1,420	4,160	1,460	282	243
11	882	1,210	1,070	e700	e900	891	978	2,090	3,890	1,500	291	256
12	898	1,210	1,100	e700	e900	971	929	2,820	3,800	1,400	289	290
13	911	1,180	1,040	e650	e900	1,020	868	2,770	4,050	1,330	302	331
14	922	1,160	e1,050	e600	908	1,030	834	2,430	4,390	1,220	323	352
15	933	1,120	1,070	e550	906	1,010	860	2,170	4,470	1,060	358	371
16	944	1,090	1,050	e600	854	966	898	2,120	4,250	912	350	367
17	963	1,090	1,010	e700	880	943	878	2,460	4,090	758	332	362
18	986	1,100	991	e850	869	894	935	3,380	4,380	652	342	400
19	1,010	1,130	1,010	e1,000	830	873	1,040	3,900	4,690	565	330	441
20	1,060	1,100	1,010	e1,100	883	831	1,100	4,200	4,470	475	321	458
21	1,090	1,040	978	e1,200	823	894	1,120	4,660	4,090	410	312	500
22	1,170	979	931	e1,100	803	911	1,070	4,890	3,810	390	298	500
23	1,180	1,000	e650	e1,100	776	933	1,010	4,780	3,890	366	283	541
24	1,190	981	e650	e1,000	775	871	963	4,610	3,920	330	259	674
25	1,170	1,090	e680	e1,000	784	874	964	4,320	3,510	333	247	877
26	1,190	1,140	e750	e1,000	794	801	977	3,750	3,300	326	245	897
27	1,170	1,130	e700	e1,000	797	835	1,020	3,200	3,430	318	238	889
28	1,190	e1,000	e650	e950	791	866	1,110	2,810	3,640	341	241	886
29	1,210	e900	e700	e900	---	900	1,120	2,500	3,710	334	241	860
30	1,270	e750	e700	e900	---	960	1,070	2,450	3,690	315	248	848
31	1,270	---	e650	e900	---	974	---	2,330	---	309	267	---
TOTAL	31,527	33,470	28,780	24,750	23,823	27,219	28,624	77,247	119,520	36,974	9,199	13,949
MEAN	1,017	1,116	928	798	851	878	954	2,492	3,984	1,193	297	465
MAX	1,270	1,240	1,110	1,200	908	1,030	1,120	4,890	4,690	3,460	358	897
MIN	865	750	650	550	775	783	834	660	2,490	309	238	243
AC-FT	62,530	66,390	57,090	49,090	47,250	53,990	56,780	153,200	237,100	73,340	18,250	27,670

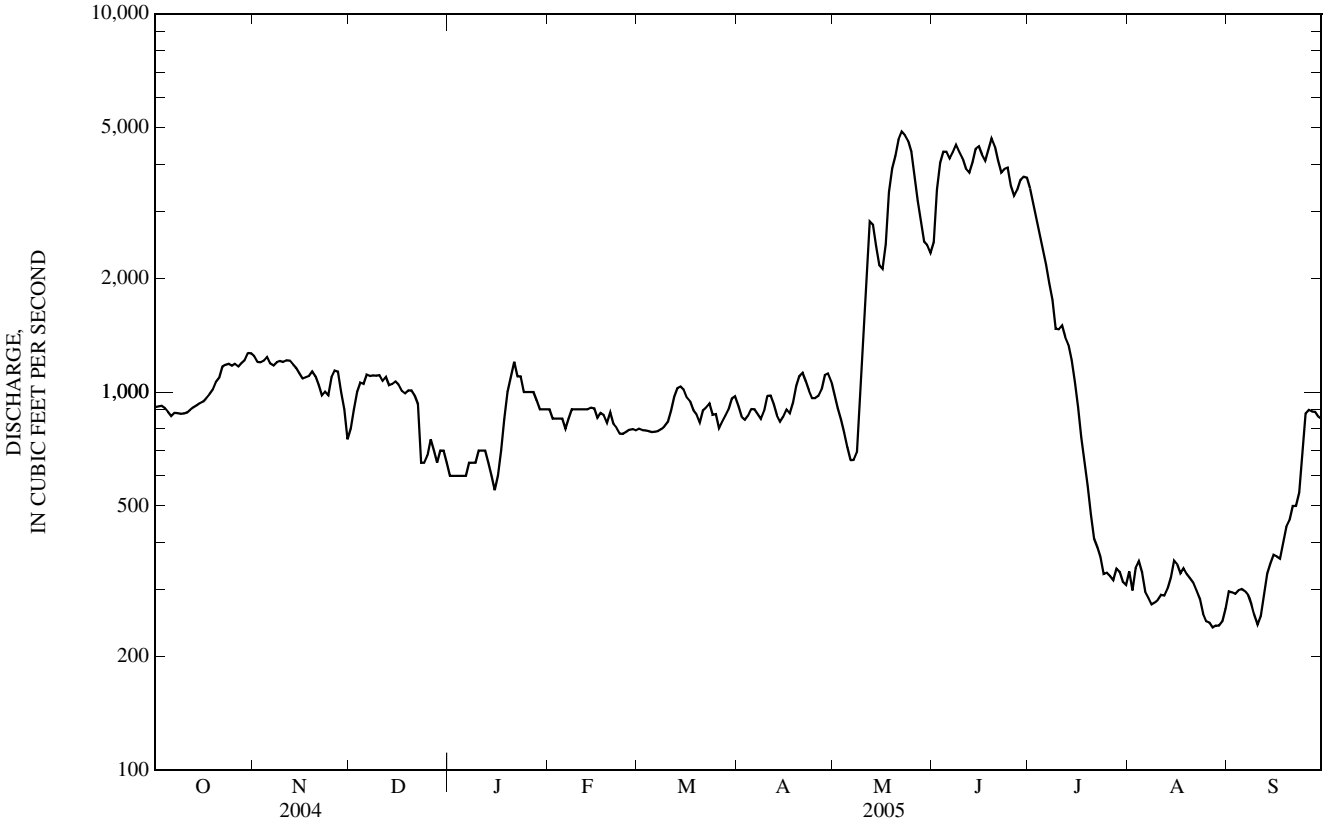
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2005, BY WATER YEAR (WY)

MEAN	1,529	1,591	1,311	1,182	1,259	1,500	2,289	3,627	4,930	1,958	847	1,085
MAX	3,163	2,805	1,993	1,929	1,964	2,295	4,444	7,679	11,420	5,505	3,030	3,303
(WY)	(1985)	(1984)	(1999)	(1983)	(1984)	(1996)	(1996)	(1997)	(1997)	(1995)	(1984)	(1984)
MIN	698	1,039	805	553	728	824	954	990	988	352	59.1	262
(WY)	(2004)	(1989)	(1993)	(2004)	(2004)	(2002)	(2005)	(1992)	(1992)	(1988)	(1988)	(1994)

06036650 JEFFERSON RIVER NEAR THREE FORKS, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1978 - 2005	
ANNUAL TOTAL	354,708		455,082			
ANNUAL MEAN	969		1,247		1,925	
HIGHEST ANNUAL MEAN					3,650	1984
LOWEST ANNUAL MEAN					936	2004
HIGHEST DAILY MEAN	3,000	Jun 12	4,890	May 22	16,800	Jun 9, 1995
LOWEST DAILY MEAN	141	Aug 16	238	Aug 27	44	Aug 19, 1988
ANNUAL SEVEN-DAY MINIMUM	156	Aug 12	246	Aug 24	48	Aug 19, 1988
MAXIMUM PEAK FLOW			5,040	May 22	b17,000	Jun 9, 1995
MAXIMUM PEAK STAGE			5.64	May 22	c9.88	Jan 3, 1997
INSTANTANEOUS LOW FLOW			a223	Aug 30	d43	Aug 19, 1988
ANNUAL RUNOFF (AC-FT)	703,600		902,700		1,394,000	
10 PERCENT EXCEEDS	1,670		3,430		3,720	
50 PERCENT EXCEEDS	904		901		1,400	
90 PERCENT EXCEEDS	427		322		576	

a--Gage height, 1.92 ft.
b--Gage height, 9.00 ft.
c--Backwater from ice.
d--Gage height, 1.31 ft.
e--Estimated.



06036650 JEFFERSON RIVER NEAR THREE FORKS, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980-81, 1986-87, May 1999-July 2003, September 2005, discontinued.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1980 to September 1981, October 1999 to September 2003.

REMARKS--Mercury concentrations are in nanograms per unit volume or mass. Several unpublished observations of water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum 28.0°C, July 19-21, 2003, minimum, 0.0°C, many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP												
12...	1100	290	8.5	509	12.0	2.5	3.4	.43	.88	17.4	.56	.01

443406110500701 FIREHOLE RIVER BELOW LOWER GEYSER BASIN, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'06", long 110°50'07 (NAD 27)", Teton County, Wyoming, Hydrologic Unit 10020007.

PERIOD OF RECORD.--August 2005, discontinued.

GAGE.--None, elevation at site, 7,150 ft (NGVD 27).

REMARKS.--Mercury concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
AUG 31...	1545	195	8.6	554	22.0	.6	5.7

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
AUG 31...	4.44	20.2	1,100	.16	.19	.20	.11

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°37'13", long 110°51'44" (NAD 27), Yellowstone National Park, Hydrologic Unit 10020007, on right bank 1.6 mi south of Madison Junction, 12 mi east of West Yellowstone, and at river mile 1.8.

DRAINAGE AREA.--282 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to March 1996, October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft (NGVD 29).

REMARKS.--Water-discharge records good. No regulation or diversions upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	258	252	261	247	246	251	288	533	290	263	247
2	248	262	250	258	243	244	255	297	562	283	261	245
3	247	268	251	260	244	244	271	308	443	275	259	243
4	247	266	251	257	246	245	281	332	409	271	252	243
5	248	263	250	257	250	242	262	365	402	268	251	242
6	247	262	249	256	249	244	258	386	528	267	248	242
7	247	260	256	260	250	244	290	411	462	263	245	242
8	247	260	257	272	245	245	310	406	401	259	246	242
9	246	263	254	268	245	251	281	412	385	259	248	245
10	256	265	254	265	243	256	266	466	372	270	252	256
11	255	266	266	263	243	255	262	448	355	271	259	251
12	249	260	262	253	248	257	273	393	427	261	258	257
13	248	258	254	240	246	249	308	368	421	255	250	255
14	248	255	256	248	259	245	322	406	367	248	250	252
15	250	256	258	256	249	246	283	466	362	248	248	250
16	252	254	254	263	244	246	287	604	372	243	247	250
17	249	258	252	261	248	247	316	621	364	243	255	263
18	267	254	251	260	247	246	346	495	348	244	285	266
19	266	260	252	263	250	252	304	778	333	242	368	254
20	287	255	250	267	253	252	297	810	322	241	269	251
21	288	245	246	263	253	249	292	782	320	242	258	252
22	270	249	244	257	250	251	285	653	329	242	255	253
23	278	252	237	254	248	258	320	638	372	247	255	258
24	280	252	249	251	247	260	346	585	372	254	250	287
25	269	256	251	250	247	253	374	512	321	266	248	271
26	272	254	249	250	246	248	366	459	304	255	248	259
27	278	255	248	250	244	250	367	441	325	247	245	258
28	283	253	251	251	244	263	319	435	321	245	244	256
29	275	239	254	250	---	270	302	433	319	247	243	256
30	274	252	259	248	---	264	295	419	304	251	243	254
31	272	---	268	245	---	250	---	407	---	273	248	---
TOTAL	8,093	7,710	7,835	7,957	6,928	7,772	8,989	14,824	11,455	7,970	7,951	7,600
MEAN	261	257	253	257	247	251	300	478	382	257	256	253
MAX	288	268	268	272	259	270	374	810	562	290	368	287
MIN	246	239	237	240	243	242	251	288	304	241	243	242
AC-FT	16,050	15,290	15,540	15,780	13,740	15,420	17,830	29,400	22,720	15,810	15,770	15,070

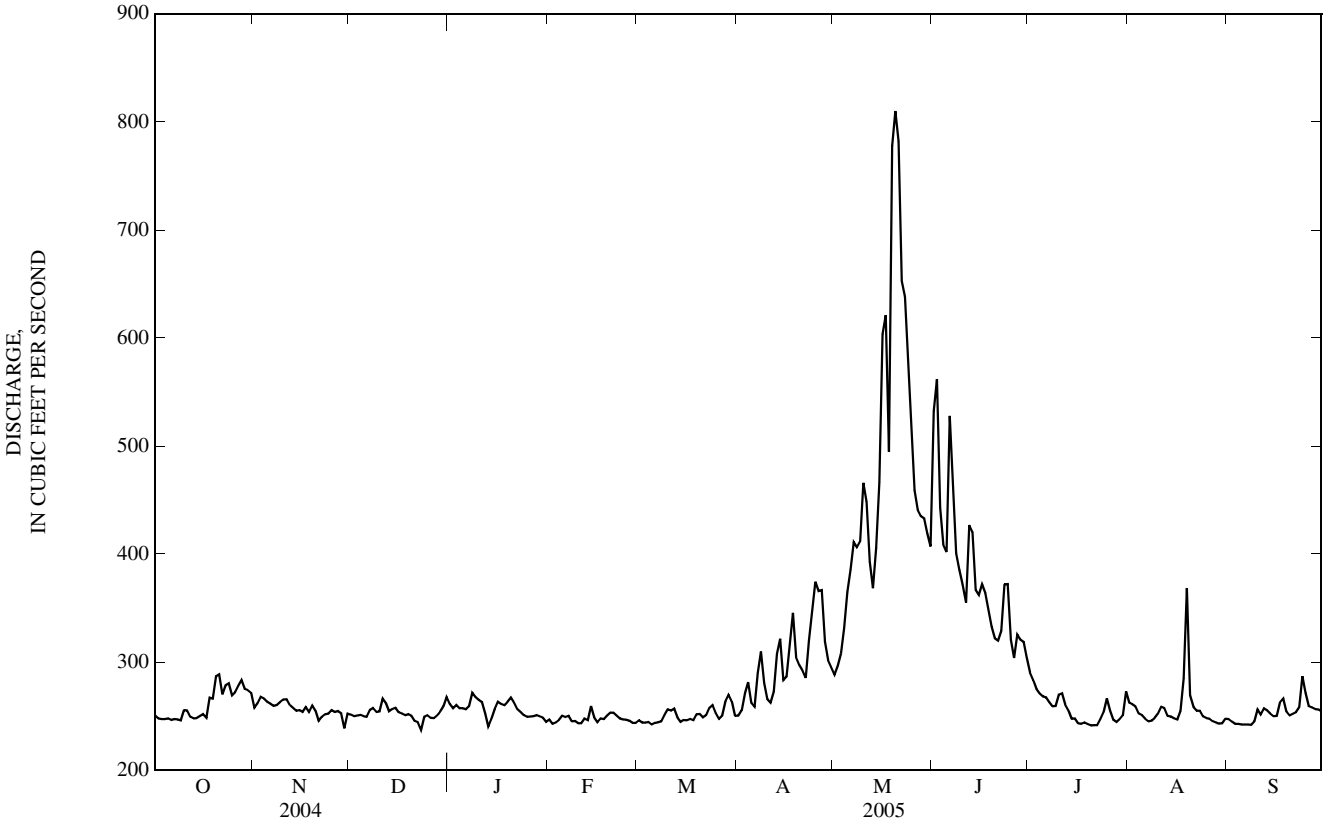
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)*

MEAN	276	273	266	262	260	269	327	482	422	291	270	270
MAX	356	348	316	298	304	336	398	613	756	415	371	368
(WY)	(1984)	(1984)	(1984)	(1985)	(1986)	(1986)	(1986)	(1986)	(1986)	(1986)	(1986)	(1986)
MIN	225	227	220	223	226	239	276	367	273	221	212	217
(WY)	(1989)	(1993)	(1993)	(1993)	(1993)	(1992)	(1993)	(1987)	(1992)	(1988)	(1994)	(1988)

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005*	
ANNUAL TOTAL	103,705		105,084			
ANNUAL MEAN	283		288		305	
HIGHEST ANNUAL MEAN					399	1986
LOWEST ANNUAL MEAN					264	1988
HIGHEST DAILY MEAN	579	May 29	810	May 20	1,240	May 31, 1986
LOWEST DAILY MEAN	226	Mar 6	237	Dec 23	201	Dec 4, 1992
ANNUAL SEVEN-DAY MINIMUM	235	Mar 1	242	Jul 16	205	Aug 15, 1994
MAXIMUM PEAK FLOW			1,070	May 20	b2,050	May 18, 1996
MAXIMUM PEAK STAGE			4.75	May 20	c6.10	May 18, 1996
INSTANTANEOUS LOW FLOW			a220	Dec 23	d190	Dec 4, 1992
ANNUAL RUNOFF (AC-FT)	205,700		208,400		221,000	
10 PERCENT EXCEEDS	371		378		416	
50 PERCENT EXCEEDS	258		256		271	
90 PERCENT EXCEEDS	240		245		234	

*--During periods of operation (October 1983 to March 1996, October 2002 to current year).
a--Gage height, 2.93 ft.
b--From rating curve extended above 1,540 ft^3/s.
c--From floodmark.
d--Gage height, 3.03 ft.



06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to 1993, October 2002 to current year.

PERIOD OF DAILY RECORD.--
SEPCIFIC CONDUCTANCE: August 1983 to September 1986, October 1987 to September 1988.
WATER TEMPERATURE: October 1983 to September 1993, October 2002 to current year.

INSTRUMENTATION.--Temperature recorder installed Sept. 18, 2002.

REMARKS.--Daily water temperature records excellent except those for May 30 to June 15, which are good. Several unpublished observations of specific conductance and water temperature were made during the year. Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 633 microsiemens per centimeter (µS/cm) at 25.0°C, Apr. 1, 1988; minimum daily, 140 µS/cm at 25.0°C, June 5, 1986.
WATER TEMPERATURE: Maximum daily, 30.0°C, June 24, 1988; minimum daily, 0.5°C Dec. 21, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.0°C, July 12, 14, and 21; minimum, 3.0°C, Dec. 23 and Jan. 13.

WATER-QUALITY DATA, SEPTEMBER 2004 TO AUGUST 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
SEP 2004							
15...	0930	297	8.3	484	13.0	--	--
AUG 2005							
31...	1745	247	8.6	517	22.5	.7	1.9

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP 2004								
15...	4.87	14.8	466	.15	.24	.33	.39	.05
AUG 2005								
31...	3.19	15.2	370	--	--	--	.42	.05

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	15.0	17.0	11.0	8.0	9.5	8.5	7.0	7.5	10.0	7.5	8.5
2	20.0	14.5	17.5	13.0	9.0	11.0	9.5	8.0	8.5	10.5	7.5	9.0
3	20.0	14.5	17.5	13.0	11.0	12.0	10.0	7.5	8.5	11.0	9.5	10.0
4	19.0	14.5	17.0	15.0	10.5	12.5	11.0	8.0	9.5	10.5	7.0	9.0
5	20.0	14.5	17.0	14.0	10.5	12.5	9.0	7.0	8.0	9.5	6.5	8.0
6	19.5	14.5	17.0	14.0	10.0	12.0	8.5	7.0	8.0	8.0	6.5	7.0
7	18.0	15.0	16.5	14.5	10.0	12.0	8.0	7.0	7.5	8.5	6.5	7.5
8	18.5	13.5	16.0	14.5	10.0	12.5	8.5	7.5	7.5	8.5	5.5	7.0
9	18.0	14.0	16.0	16.5	13.0	14.5	10.0	7.5	9.0	9.0	7.5	8.0
10	16.5	14.5	15.5	15.0	13.0	14.0	11.5	9.5	10.5	11.5	9.0	10.0
11	18.0	14.0	15.5	15.0	12.5	13.5	11.5	10.0	11.0	11.0	9.5	10.0
12	17.0	14.5	15.5	14.0	11.0	12.5	12.5	9.5	11.5	9.5	4.0	7.0
13	17.5	12.5	15.0	13.5	10.5	12.0	11.0	8.5	9.5	5.5	3.0	4.0
14	17.5	13.0	15.5	12.5	10.5	11.5	12.0	10.5	11.0	5.5	4.0	4.5
15	16.5	14.5	15.5	13.0	10.5	11.5	12.0	10.5	11.0	8.0	4.0	5.5
16	16.0	13.5	14.5	13.0	9.5	11.5	11.5	10.0	10.5	9.5	6.0	8.0
17	15.5	12.5	14.0	14.5	12.0	13.5	11.0	9.0	10.0	12.0	9.0	10.5
18	14.5	10.0	12.5	12.5	10.5	12.0	12.0	10.5	11.0	11.5	10.5	11.0
19	14.5	10.0	12.0	11.5	9.5	10.5	11.0	9.5	10.5	13.0	11.0	12.0
20	14.0	12.5	13.0	10.5	8.5	10.0	10.5	6.0	7.5	14.5	10.5	12.5
21	13.5	13.0	13.5	10.0	7.5	8.5	8.5	6.5	7.5	13.5	11.0	12.5
22	14.0	11.5	13.0	10.5	7.5	9.0	8.0	5.5	6.5	13.0	10.0	11.5
23	12.5	10.5	11.5	11.5	10.0	10.5	6.5	3.0	5.0	13.0	9.5	11.5
24	12.5	9.5	11.0	10.0	9.0	9.5	8.5	6.0	7.0	12.0	8.5	10.5
25	13.0	9.0	11.0	10.5	9.0	10.0	10.5	8.0	9.0	11.5	8.0	10.0
26	13.5	10.5	12.0	10.5	8.0	9.5	11.0	8.0	9.5	12.5	9.0	10.5
27	15.5	12.5	13.5	10.0	8.0	8.5	12.0	10.0	11.0	12.5	10.0	11.0
28	14.0	12.5	13.5	8.5	5.5	7.0	13.0	11.5	12.5	13.5	12.0	12.5
29	13.0	11.5	12.0	7.0	4.0	5.5	13.0	11.0	12.0	13.5	11.0	12.0
30	11.5	10.5	11.0	8.0	5.5	7.0	11.0	6.0	8.0	12.5	10.0	11.5
31	12.0	9.5	11.0	---	---	---	9.0	7.0	8.0	11.0	7.5	9.5
MONTH	20.0	9.0	14.5	16.5	4.0	11.0	13.0	3.0	9.0	14.5	3.0	9.5
		FEBRUARY			MARCH			APRIL			MAY	
1	12.5	9.5	11.0	15.5	11.5	12.5	16.0	9.5	12.5	19.5	11.0	15.0
2	11.5	7.5	9.5	15.0	9.0	12.0	17.5	11.0	14.0	18.5	12.5	15.5
3	12.5	8.0	10.0	15.0	9.5	12.0	15.0	12.0	14.0	19.5	13.5	16.0
4	12.0	8.5	10.5	15.5	10.0	12.5	14.5	12.5	13.5	21.0	14.0	17.0
5	11.0	8.0	9.5	15.5	9.5	12.5	15.5	12.0	13.5	18.0	15.0	16.5
6	11.0	7.5	9.0	15.5	10.0	12.5	20.0	11.0	15.0	18.5	13.5	16.0
7	12.5	9.0	10.5	13.5	10.0	12.0	19.5	13.0	16.0	17.0	12.5	14.5
8	10.5	8.0	9.0	16.5	10.5	13.0	15.5	13.0	14.0	16.5	13.5	15.0
9	11.0	8.0	9.0	17.0	12.0	14.5	16.0	11.5	13.5	15.5	13.5	14.5
10	11.5	7.0	9.5	17.0	12.0	14.5	16.5	11.5	14.0	14.5	12.0	13.5
11	11.5	6.5	9.0	16.0	10.5	13.5	17.5	10.5	14.0	14.0	10.5	12.5
12	12.5	10.5	11.0	13.5	9.5	12.0	18.0	12.5	15.0	15.5	11.5	13.5
13	11.0	7.5	9.0	12.5	8.0	10.0	18.5	12.0	15.0	19.0	12.5	15.5
14	10.5	7.5	8.5	11.5	7.5	9.5	14.0	8.0	11.0	20.0	13.0	17.0
15	9.5	5.0	7.0	12.5	8.5	10.5	18.0	9.0	13.0	18.0	12.0	15.0
16	9.0	4.0	7.0	13.0	10.0	11.5	19.5	11.0	15.0	15.5	12.0	13.0
17	10.0	4.5	7.5	12.5	7.0	9.5	19.0	12.0	15.5	13.5	9.5	11.5
18	11.0	6.0	8.5	12.0	8.0	10.0	15.5	12.0	13.5	14.5	10.5	12.5
19	12.5	10.0	11.0	15.0	10.0	12.5	15.0	11.5	13.0	15.0	10.5	13.5
20	13.5	11.0	12.0	15.0	12.5	13.5	17.0	10.5	13.5	16.5	10.0	13.0
21	12.5	9.5	11.0	14.5	11.0	12.5	15.5	12.5	14.0	16.0	11.5	13.5
22	13.5	9.5	11.5	15.0	11.5	13.0	21.0	12.5	16.5	17.0	11.5	14.5
23	13.0	8.0	10.5	14.0	10.5	13.0	19.5	13.0	16.0	17.5	13.0	15.5
24	13.5	7.5	10.5	13.5	7.5	10.5	19.5	13.0	16.0	16.0	12.0	14.0
25	14.0	8.0	11.0	15.5	9.5	12.0	19.0	11.5	15.0	16.5	11.5	14.0
26	13.5	8.0	11.0	14.5	10.0	12.0	18.0	11.5	15.0	19.0	12.0	15.5
27	13.5	8.0	11.0	12.5	10.5	11.5	16.0	11.5	13.5	20.0	13.0	16.5
28	14.0	8.5	11.0	15.0	11.0	13.0	17.5	9.5	13.0	19.0	14.5	17.0
29	---	---	---	13.5	9.5	11.0	16.5	10.0	13.0	19.0	15.5	17.0
30	---	---	---	14.5	9.5	11.5	17.0	11.5	14.0	18.0	14.0	16.0
31	---	---	---	16.0	8.5	12.0	---	---	---	17.0	13.0	15.0
MONTH	14.0	4.0	10.0	17.0	7.0	12.0	21.0	8.0	14.0	21.0	9.5	15.0

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	11.5	14.0	25.5	18.5	22.0	25.0	19.5	22.0	23.5	16.0	19.5
2	15.0	10.0	12.0	24.0	19.0	21.0	26.5	21.5	23.5	23.0	16.0	19.5
3	15.5	13.0	14.5	24.5	17.5	20.5	26.0	20.5	23.0	22.5	17.5	20.0
4	18.5	14.5	16.0	25.5	18.0	22.0	27.0	19.5	23.5	23.0	17.5	20.0
5	19.5	15.0	17.5	26.5	19.0	23.0	26.5	19.5	23.5	22.5	17.0	19.5
6	18.5	13.0	15.0	26.5	19.5	23.0	26.5	20.0	23.5	23.0	16.5	19.5
7	14.0	11.5	12.5	27.0	20.0	23.5	26.5	20.5	23.5	23.0	16.0	19.5
8	15.5	11.0	13.0	27.5	20.5	24.0	26.0	20.5	23.0	23.0	17.0	20.0
9	16.0	13.5	14.5	26.5	20.5	23.5	25.5	20.0	23.0	20.5	18.0	19.5
10	17.0	13.5	15.5	23.5	21.0	22.0	25.5	20.5	22.5	19.0	16.0	17.0
11	18.5	14.5	16.5	27.5	19.5	23.0	23.5	19.5	21.5	17.0	14.5	15.5
12	18.5	14.5	16.0	29.0	20.0	24.5	23.0	18.5	20.5	17.0	15.0	16.0
13	19.0	13.0	15.5	28.5	21.5	25.0	24.0	17.5	20.5	17.5	14.0	15.5
14	21.0	14.5	17.5	29.0	21.5	25.0	24.0	17.5	20.5	20.0	13.5	16.5
15	23.0	17.5	20.0	28.5	21.5	25.0	25.5	17.5	21.5	20.5	14.5	17.5
16	21.5	17.0	19.5	25.0	21.5	23.0	22.0	18.0	20.0	20.5	14.5	17.5
17	23.0	17.0	19.5	26.5	19.0	22.5	22.0	19.0	20.5	17.0	15.5	16.5
18	20.5	17.5	19.0	26.5	19.0	23.0	20.5	18.5	19.5	17.5	14.5	16.0
19	23.0	16.0	19.5	26.5	19.5	23.0	22.5	16.0	19.0	19.5	13.5	16.5
20	24.0	18.0	21.0	27.5	20.0	23.5	25.5	17.5	21.5	20.0	14.5	17.0
21	24.0	19.0	21.5	29.0	20.5	24.5	27.0	18.5	23.0	19.0	17.0	18.0
22	25.0	18.5	21.5	26.5	23.5	25.0	26.0	19.5	23.0	19.5	15.5	17.5
23	25.0	18.5	21.5	28.0	21.0	24.0	25.0	20.0	22.0	19.0	17.0	17.5
24	25.0	18.0	21.5	27.5	20.5	24.0	23.0	19.0	20.5	17.5	16.0	16.5
25	24.5	18.5	21.5	25.0	20.5	22.5	23.5	16.5	20.0	17.0	14.5	15.5
26	22.0	19.0	20.5	26.5	18.5	22.0	23.5	16.5	20.0	19.5	13.0	16.0
27	22.5	17.0	19.5	26.5	19.0	23.0	24.5	17.0	20.5	17.5	15.5	16.5
28	20.0	17.5	19.0	24.5	19.5	22.5	25.0	18.0	21.5	20.0	14.5	17.0
29	22.0	17.5	19.5	24.0	20.0	21.5	24.5	17.5	21.0	20.0	14.0	17.0
30	24.5	18.5	21.0	26.0	20.0	23.0	21.0	17.5	19.0	17.5	15.0	16.0
31	---	---	---	24.0	20.0	22.0	22.5	14.5	18.5	---	---	---
MONTH	25.0	10.0	18.0	29.0	17.5	23.0	27.0	14.5	21.5	23.5	13.0	17.5

06036940 TANTALUS CREEK AT NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°43'59", long 110°42'49" (NAD 27), Yellowstone National Park, Hydrologic Unit 10020007, on right bank 0.9 mi northwest of Norris Junction, Yellowstone National Park, and at river mile 0.3.

DRAINAGE AREA.--1.29 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 2004 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,460 ft (NGVD 29).

REMARKS.--Water-discharge records good. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.0	4.1	5.1	4.1	4.3	4.4	3.0	6.7	3.6	3.5	3.5
2	2.6	3.5	4.0	4.6	4.0	4.3	4.6	3.2	4.3	3.6	4.1	3.5
3	2.6	3.9	4.2	5.1	4.2	4.2	5.4	3.3	4.0	3.3	3.9	3.5
4	2.7	3.6	4.7	4.9	4.8	4.1	5.5	3.2	3.9	3.2	3.4	3.5
5	2.7	3.6	4.4	4.8	4.9	4.1	4.1	3.5	4.3	3.3	3.4	3.4
6	2.5	3.7	4.0	5.0	4.6	4.2	4.3	3.4	6.4	3.4	3.5	3.5
7	2.5	3.7	4.4	5.1	4.7	4.3	5.0	3.7	4.6	3.3	3.5	3.4
8	2.4	3.9	4.6	5.8	4.3	4.1	5.7	3.4	4.5	3.2	3.5	3.6
9	2.6	3.8	3.9	5.3	4.1	4.2	5.0	4.1	4.4	3.2	3.4	4.1
10	2.9	3.4	4.2	5.2	4.2	4.1	4.2	4.0	4.0	5.3	4.3	3.9
11	2.5	3.7	4.6	5.6	4.6	4.3	4.2	3.3	4.0	3.9	3.8	3.7
12	2.5	3.7	4.4	4.5	4.9	4.8	4.4	3.8	5.9	3.5	3.8	4.3
13	2.5	3.6	3.9	4.7	4.7	4.2	4.4	3.0	4.6	3.5	3.7	3.9
14	2.8	3.4	4.5	4.4	5.1	4.4	4.1	3.0	4.1	3.4	3.7	3.7
15	3.2	3.6	4.3	4.1	4.1	4.6	4.1	3.3	3.9	3.4	3.5	3.7
16	3.3	3.6	4.0	4.8	4.2	4.6	4.3	4.5	4.2	3.4	3.6	3.9
17	3.1	3.5	4.2	4.8	4.4	4.8	4.5	3.6	4.0	3.3	4.1	4.7
18	3.6	3.8	4.2	5.2	4.8	4.6	5.2	3.5	3.6	3.3	5.6	4.1
19	3.2	4.0	4.6	5.2	5.1	5.0	4.7	4.2	3.3	3.3	4.0	3.6
20	4.0	3.6	4.4	5.5	4.9	4.7	4.7	3.7	3.2	3.2	3.6	3.7
21	3.5	3.5	4.0	5.0	4.8	4.2	4.9	3.2	3.6	3.2	3.7	4.1
22	3.4	3.7	3.9	4.7	4.4	4.7	4.4	3.2	4.4	3.3	4.1	4.0
23	4.8	3.7	4.0	4.6	4.3	5.0	4.3	3.3	4.8	3.2	4.0	4.4
24	3.9	4.2	4.1	4.7	4.4	4.5	4.2	3.3	4.1	3.3	3.7	5.3
25	3.8	4.8	4.5	4.7	4.5	4.5	3.7	3.1	3.8	3.8	3.4	3.8
26	3.7	4.1	4.4	4.7	4.4	4.0	3.6	3.2	3.9	3.4	3.4	3.8
27	3.8	4.4	4.2	4.7	4.3	4.6	4.2	3.3	4.2	3.4	3.6	4.1
28	4.2	3.7	4.4	4.6	4.3	5.5	3.6	3.4	4.0	3.4	3.6	3.7
29	3.8	3.6	5.1	4.4	---	5.1	3.2	3.2	3.9	3.5	3.7	4.0
30	4.1	4.0	5.0	4.2	---	5.0	3.1	3.2	3.6	3.4	3.6	3.9
31	3.8	---	5.5	4.2	---	3.9	---	3.3	---	3.5	3.5	---
TOTAL	99.7	112.3	134.7	150.2	126.1	138.9	132.0	106.4	128.2	107.0	116.2	116.3
MEAN	3.22	3.74	4.35	4.85	4.50	4.48	4.40	3.43	4.27	3.45	3.75	3.88
MAX	4.8	4.8	5.5	5.8	5.1	5.5	5.7	4.5	6.7	5.3	5.6	5.3
MIN	2.4	3.0	3.9	4.1	4.0	3.9	3.1	3.0	3.2	3.2	3.4	3.4
AC-FT	198	223	267	298	250	276	262	211	254	212	230	231

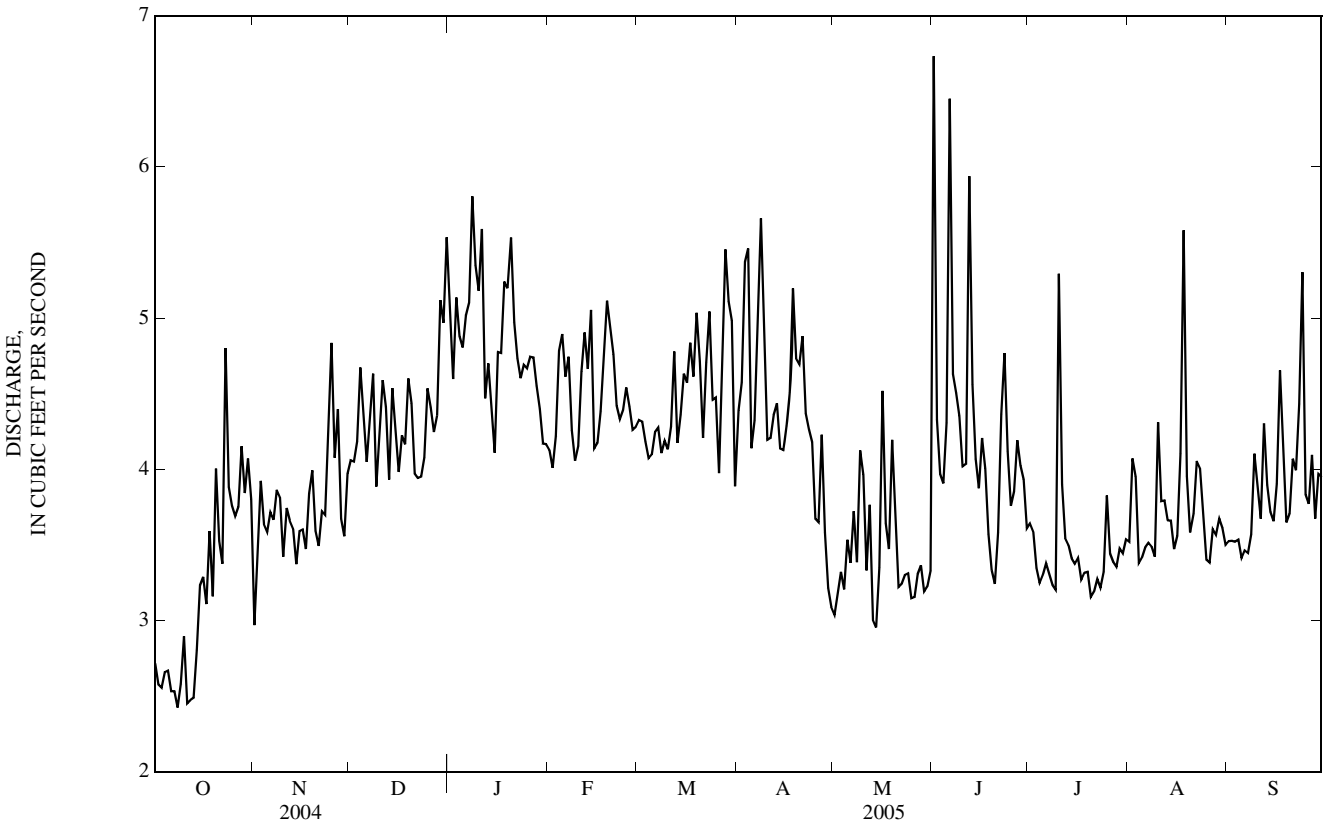
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	3.22	3.74	4.35	4.85	4.50	4.48	4.40	3.43	4.27	3.70	3.86	4.11
MAX	3.22	3.74	4.35	4.85	4.50	4.48	4.40	3.43	4.27	3.95	3.97	4.33
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2004)
MIN	3.22	3.74	4.35	4.85	4.50	4.48	4.40	3.43	4.27	3.45	3.75	3.88
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	1,468.0			
ANNUAL MEAN	4.02		4.02	
HIGHEST ANNUAL MEAN			4.02	2005
LOWEST ANNUAL MEAN			4.02	2005
HIGHEST DAILY MEAN	6.7	Jun 1	9.7	Sep 14, 2004
LOWEST DAILY MEAN	2.4	Oct 8	2.4	Oct 8, 2004
ANNUAL SEVEN-DAY MINIMUM	2.6	Oct 6	2.6	Oct 6, 2004
MAXIMUM PEAK FLOW	18	Jul 10	b22	Jul 3, 2004
MAXIMUM PEAK STAGE	2.39	Jul 10	b2.60	Jul 3, 2004
INSTANTANEOUS LOW FLOW	a2.0	Oct 8	b2.0	Oct 8, 2004
ANNUAL RUNOFF (AC-FT)	2,910		2,910	
10 PERCENT EXCEEDS	4.9		4.9	
50 PERCENT EXCEEDS	4.0		4.0	
90 PERCENT EXCEEDS	3.2		3.2	

a--Gage height, 1.34 ft.
b--For period of U.S. Geological Survey record only.

06036940 TANTALUS CREEK AT NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK—Continued



06036940 TANTALUS CREEK AT NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 2004 to current year.

REMARKS.--Daily water temperature records rated excellent, except those for Feb. 1-28 and May 15 to Sept. 30, which are fair, and those for Mar. 1-May 14, which are poor. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 37.5°C, July 16, 2004; minimum, 11.0°C, Jan. 13, 2005.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 37.0°C, July 21; minimum, 11.0°C, Jan. 13.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	28.0	22.5	24.0	22.5	15.0	17.5	19.5	16.5	17.5	19.5	16.5	18.5
2	29.5	22.0	24.0	23.0	16.5	19.5	18.0	15.0	17.0	22.5	15.5	19.0
3	31.0	22.0	24.5	24.0	20.5	21.5	19.5	15.5	17.5	22.0	19.5	20.5
4	30.0	22.5	24.5	27.0	19.0	22.0	23.5	18.5	20.0	20.5	16.5	18.5
5	29.5	22.5	24.5	25.5	20.0	21.5	21.5	17.0	18.5	21.5	17.0	18.5
6	29.0	22.0	24.0	25.0	19.0	21.5	19.5	14.5	17.5	18.0	15.5	17.0
7	27.0	22.0	23.5	26.5	20.0	22.0	17.5	15.5	16.5	20.5	17.0	18.5
8	28.0	21.0	23.5	28.0	20.0	23.5	18.0	15.0	17.0	19.5	13.0	17.0
9	26.5	21.5	23.5	28.5	23.0	25.0	19.5	14.0	17.5	19.5	16.0	18.5
10	25.0	21.0	23.0	25.0	22.5	23.5	21.5	18.0	19.5	22.5	17.0	20.0
11	29.0	21.5	24.0	28.0	21.5	23.5	22.0	17.5	19.0	23.0	19.0	21.0
12	25.0	21.5	23.0	27.5	21.0	23.0	23.0	17.0	20.0	19.5	14.5	17.5
13	27.0	20.0	23.0	27.0	21.0	23.0	22.5	16.5	19.5	17.5	11.0	15.5
14	25.5	21.5	23.0	25.5	19.5	21.5	23.0	19.5	21.5	19.0	12.0	16.0
15	26.5	23.0	24.5	25.0	19.0	21.5	21.5	19.5	20.5	21.0	15.0	16.5
16	25.5	20.5	24.0	25.5	20.0	22.0	21.5	19.5	20.0	20.0	16.5	18.5
17	25.5	22.0	23.0	25.0	21.0	22.5	22.5	19.5	20.5	20.5	17.5	19.0
18	23.0	18.5	20.5	26.0	18.0	21.0	22.5	19.0	20.5	21.5	18.0	19.0
19	24.0	19.5	22.0	23.5	18.5	21.0	22.0	15.0	20.0	23.0	18.5	21.0
20	24.0	22.0	23.0	20.5	17.0	19.5	19.0	14.5	17.0	26.5	22.0	23.5
21	24.0	20.5	22.0	22.5	16.5	18.5	20.0	15.5	17.5	25.0	21.0	22.5
22	23.5	17.0	20.5	23.0	18.0	19.5	19.0	13.0	16.5	26.5	20.5	22.5
23	21.0	17.5	19.5	20.0	18.5	19.0	17.5	13.5	15.5	26.5	20.5	22.5
24	21.5	17.0	19.5	20.0	16.5	18.5	18.0	14.5	17.0	27.0	20.0	22.0
25	24.5	18.5	21.0	20.5	17.5	19.0	20.5	16.5	19.0	26.0	19.5	22.0
26	25.5	19.5	22.0	20.5	16.0	18.0	23.0	18.5	20.5	26.5	20.5	22.5
27	28.5	22.0	24.0	22.0	16.5	19.0	24.5	19.5	21.5	25.5	20.5	23.0
28	25.5	20.0	22.5	18.0	14.0	16.5	22.5	20.5	21.5	24.5	22.5	23.5
29	23.5	18.5	21.0	19.5	12.5	15.5	24.0	17.5	22.0	26.5	21.0	23.0
30	21.0	15.5	19.0	18.0	15.5	16.5	20.0	14.0	17.5	23.0	19.5	21.5
31	23.5	17.0	19.5	---	---	---	21.0	15.5	19.5	24.5	18.5	20.5
MONTH	31.0	15.5	22.5	28.5	12.5	20.5	24.5	13.0	19.0	27.0	11.0	20.0

06036940 TANTALUS CREEK AT NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	25.0	19.0	21.0	24.0	18.5	21.0	26.0	18.5	21.0	30.0	20.5	24.0
2	24.5	18.5	20.5	27.0	19.0	22.0	25.0	18.5	21.5	31.5	21.0	25.0
3	26.0	18.0	21.5	27.0	19.0	22.0	26.0	20.0	22.5	31.0	21.5	25.0
4	25.5	20.0	21.5	27.5	19.0	22.0	25.0	21.0	22.5	29.0	22.5	25.0
5	21.5	16.0	18.5	27.0	19.0	22.0	24.5	20.5	22.0	29.5	24.0	26.5
6	22.5	18.0	20.0	25.0	18.5	21.0	31.0	21.0	25.0	30.0	24.5	26.5
7	24.5	18.5	20.5	23.5	19.0	20.5	30.0	22.5	25.0	29.5	24.0	26.0
8	21.0	17.0	19.0	25.0	18.0	21.5	26.0	22.0	24.0	28.0	24.5	25.5
9	20.0	17.5	18.5	26.0	20.5	22.5	27.0	22.5	24.0	29.0	24.5	26.0
10	23.5	17.0	19.5	27.0	20.5	23.0	27.5	22.0	24.0	28.5	22.0	25.5
11	26.0	17.0	20.5	25.5	19.5	22.0	26.5	21.0	23.0	25.5	20.0	22.0
12	23.0	19.0	21.0	23.0	15.0	20.5	27.5	22.5	24.0	30.0	20.5	23.0
13	20.0	15.0	18.0	24.0	17.0	19.5	27.5	19.5	24.0	31.0	21.0	24.5
14	21.0	15.0	17.5	22.5	17.5	19.5	22.5	15.5	18.5	34.0	23.0	26.5
15	21.5	15.0	17.0	21.0	17.0	19.0	28.5	19.5	23.0	29.0	22.5	25.0
16	22.5	14.5	17.5	22.5	15.5	18.5	29.0	21.0	24.0	29.0	24.0	26.0
17	23.5	15.0	18.5	21.5	13.5	18.5	28.0	23.0	24.5	25.5	19.0	23.0
18	24.5	16.5	19.5	23.0	17.0	19.5	27.5	23.0	25.0	24.0	19.0	22.0
19	23.5	19.0	21.0	24.5	19.5	21.5	25.5	19.5	22.5	27.0	21.5	23.5
20	22.5	17.5	20.5	24.0	18.5	21.5	27.0	19.5	22.5	30.0	22.5	25.5
21	22.5	18.0	19.5	24.0	19.0	21.0	26.0	22.5	24.0	28.5	21.0	24.0
22	26.5	19.0	21.5	23.5	20.5	22.0	31.5	22.0	26.0	30.0	20.5	25.0
23	26.5	17.0	20.5	26.0	17.0	21.5	31.0	23.0	26.0	30.5	20.0	25.0
24	27.0	17.5	21.0	23.0	16.0	19.5	29.5	22.0	25.5	27.5	21.5	24.0
25	26.5	18.0	21.0	28.5	19.0	22.0	31.5	22.5	25.5	30.5	21.0	24.5
26	27.0	18.0	21.0	24.0	16.5	20.0	28.0	23.0	25.0	33.0	21.5	25.5
27	26.0	17.5	20.5	20.5	16.5	18.5	26.5	20.5	23.5	35.0	22.0	27.5
28	26.0	18.0	20.5	23.0	13.0	19.5	29.0	17.0	22.5	34.0	24.5	28.0
29	---	---	---	21.0	15.0	19.0	28.5	19.0	22.5	32.5	22.0	26.5
30	---	---	---	23.0	18.0	20.0	28.5	20.0	23.0	32.5	22.0	25.5
31	---	---	---	25.0	16.5	19.5	---	---	---	28.5	23.0	25.5
MONTH	27.0	14.5	20.0	28.5	13.0	20.5	31.5	15.5	23.5	35.0	19.0	25.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	19.0	23.5	32.5	23.0	28.0	33.0	26.0	29.0	32.0	23.0	26.5
2	26.5	21.0	23.0	31.5	20.0	25.5	36.0	24.5	29.5	32.0	23.0	26.0
3	27.5	22.0	24.5	32.5	23.5	27.0	35.5	26.5	29.5	31.0	23.0	25.5
4	31.5	23.5	26.5	33.5	24.0	27.5	35.5	25.5	30.0	30.5	21.0	25.0
5	31.5	24.0	27.0	34.5	24.5	28.5	34.5	26.0	29.5	29.5	23.0	25.0
6	27.5	22.0	25.5	33.5	25.5	28.5	34.5	26.0	29.5	31.5	22.0	25.5
7	30.0	19.5	24.5	33.5	25.0	28.5	35.5	24.5	29.5	32.0	22.0	25.5
8	26.5	20.0	22.5	34.5	26.0	29.0	34.0	26.0	29.5	31.0	23.0	26.0
9	27.5	20.5	24.5	32.5	24.0	28.0	35.0	25.0	29.0	28.5	21.0	25.5
10	29.0	23.5	25.5	29.5	24.5	26.5	36.0	20.0	29.0	25.0	20.5	22.5
11	31.5	24.5	26.5	34.5	26.5	29.5	34.0	25.0	28.0	25.5	21.0	22.5
12	27.0	23.5	25.5	36.5	25.5	30.0	34.5	22.5	26.5	28.5	21.5	24.0
13	30.0	22.0	26.0	36.0	24.5	29.5	31.5	23.0	26.0	28.0	22.5	24.0
14	33.0	24.0	27.5	36.0	27.0	30.0	33.5	23.5	27.0	28.5	21.0	24.0
15	31.0	24.0	27.5	34.0	26.5	30.0	34.5	23.5	27.5	28.0	21.5	24.0
16	34.0	24.5	28.0	30.5	22.0	27.0	32.0	24.0	26.5	30.5	22.5	24.5
17	31.5	23.0	27.5	35.0	22.0	28.0	29.5	20.5	26.5	26.5	21.0	24.0
18	31.0	23.0	25.5	31.5	24.5	27.5	29.0	24.0	26.5	26.0	22.5	24.0
19	32.5	23.5	27.0	31.5	24.5	27.5	31.0	25.0	27.5	27.0	19.5	23.5
20	31.0	24.5	27.5	33.0	24.5	28.0	33.0	24.0	28.0	28.5	20.5	24.0
21	34.5	24.5	28.5	37.0	25.0	30.5	35.5	24.5	29.5	28.0	23.0	25.0
22	33.0	21.5	28.0	34.0	24.5	29.5	35.0	25.5	28.5	27.5	22.0	25.0
23	32.5	22.5	28.5	33.0	25.0	29.0	32.0	23.0	27.5	29.0	23.5	25.0
24	33.0	22.0	28.0	33.5	25.5	28.5	28.0	23.0	25.5	27.0	23.0	25.0
25	32.0	24.5	28.0	34.5	23.0	27.5	31.0	22.5	25.5	24.0	21.0	23.0
26	30.0	21.5	27.0	35.0	25.5	28.5	30.5	22.5	26.0	29.0	22.0	24.5
27	32.0	23.0	27.0	33.0	24.5	28.5	33.0	23.5	27.0	28.5	21.5	24.5
28	30.0	23.0	26.5	32.0	25.0	28.0	33.0	23.5	27.0	30.0	22.0	24.5
29	30.0	24.0	26.5	33.0	26.0	28.0	32.5	23.5	26.5	29.5	22.0	24.5
30	32.0	25.5	27.5	36.5	26.5	29.5	26.5	21.5	24.5	27.0	22.0	24.0
31	---	---	---	34.0	26.5	29.0	32.0	21.5	26.0	---	---	---
MONTH	34.5	19.0	26.5	37.0	20.0	28.5	36.0	20.0	27.5	32.0	19.5	24.5

06037100 GIBBON RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°38'26", long 110°51'38" (NAD 27), Yellowstone National Park, Hydrologic Unit 10020007, on left bank 40 ft downstream from highway bridge, 0.4 mi south of Madison Junction, 14 mi east of West Yellowstone, and at river mile 0.2.

DRAINAGE AREA.--126 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 2001 to September 2001, October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,800 ft (NGVD 29).

REMARKS.--Water-discharge records good. No regulation or diversions upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	95	92	95	85	83	81	117	195	133	100	92
2	92	100	91	91	81	81	82	120	250	129	101	90
3	91	103	91	93	82	81	87	127	197	125	106	89
4	91	100	92	92	84	81	93	142	170	120	99	89
5	91	99	90	86	87	80	88	166	164	117	96	89
6	90	98	88	93	83	81	84	190	238	115	95	88
7	90	99	92	92	86	82	95	207	218	112	95	88
8	91	99	94	97	84	81	107	226	196	e110	95	88
9	91	101	94	95	83	82	99	230	195	e110	95	89
10	95	103	92	95	81	84	91	267	181	e120	99	92
11	98	102	99	95	81	84	88	249	164	e125	104	92
12	94	98	98	89	85	86	90	206	197	e120	99	94
13	93	94	88	90	86	81	101	189	241	e115	99	95
14	93	94	94	90	88	79	115	179	193	e115	97	92
15	94	94	93	e82	e80	83	102	197	165	106	95	90
16	100	92	90	89	e78	83	100	258	156	104	94	89
17	97	94	90	91	e80	84	115	295	165	102	97	96
18	103	92	90	94	82	80	140	233	150	102	112	100
19	103	96	90	94	84	86	123	312	144	101	129	93
20	108	92	90	95	85	85	114	328	137	99	104	90
21	118	84	84	94	85	83	110	298	133	98	99	89
22	108	89	85	90	84	83	105	248	142	98	98	90
23	108	92	e80	89	81	85	122	228	175	97	102	94
24	114	92	85	86	82	82	147	211	178	96	97	105
25	105	96	88	85	83	82	182	192	146	98	95	103
26	105	96	87	87	82	80	185	172	136	103	94	93
27	105	90	87	88	81	80	178	160	139	99	93	92
28	108	94	88	88	81	84	149	153	153	97	92	91
29	108	e85	89	87	---	84	133	146	154	98	91	89
30	104	91	93	86	---	85	123	140	145	99	92	89
31	107	---	94	81	---	78	---	136	---	98	93	---
TOTAL	3,089	2,854	2,798	2,799	2,324	2,553	3,429	6,322	5,217	3,361	3,057	2,760
MEAN	99.6	95.1	90.3	90.3	83.0	82.4	114	204	174	108	98.6	92.0
MAX	118	103	99	97	88	86	185	328	250	133	129	105
MIN	90	84	80	81	78	78	81	117	133	96	91	88
AC-FT	6,130	5,660	5,550	5,550	4,610	5,060	6,800	12,540	10,350	6,670	6,060	5,470

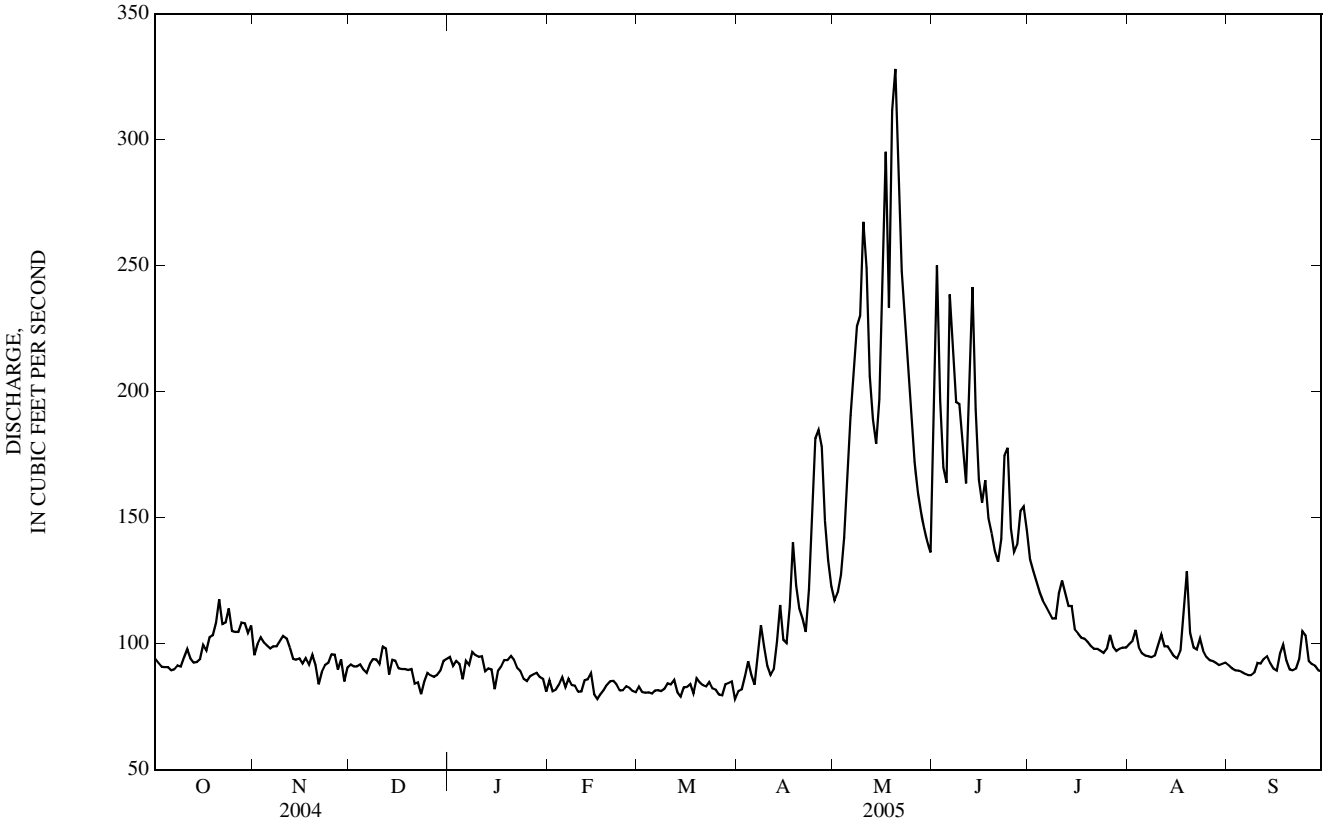
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)*

MEAN	95.4	90.8	89.8	89.1	88.1	89.1	134	239	169	110	93.8	92.6
MAX	99.6	95.1	92.5	94.2	93.6	93.6	152	315	216	114	98.6	104
(WY)	(2005)	(2005)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2005)	(2004)
MIN	89.9	84.7	86.7	82.9	83.0	82.4	114	190	137	108	87.7	82.6
(WY)	(2004)	(2004)	(2004)	(2004)	(2005)	(2005)	(2005)	(2004)	(2001)	(2004)	(2001)	(2001)

06037100 GIBBON RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005*	
ANNUAL TOTAL	40,528		40,563			
ANNUAL MEAN	111		111		116	
HIGHEST ANNUAL MEAN					129	2003
LOWEST ANNUAL MEAN					109	2004
HIGHEST DAILY MEAN	301	May 23	328	May 20	584	May 16, 2001
LOWEST DAILY MEAN	75	Jan 5	78	Feb 16	75	Jan 5, 2004
ANNUAL SEVEN-DAY MINIMUM	79	Jan 16	81	Mar 2	79	Jan 16, 2004
MAXIMUM PEAK FLOW			373	May 20	674	May 16, 2001
MAXIMUM PEAK STAGE			5.08	May 20	5.93	May 16, 2001
INSTANTANEOUS LOW FLOW			a74	Mar 31	b72	Dec 18, 2003
ANNUAL RUNOFF (AC-FT)	80,390		80,460		84,300	
10 PERCENT EXCEEDS	159		173		182	
50 PERCENT EXCEEDS	96		95		95	
90 PERCENT EXCEEDS	83		83		84	

*--During periods of operation (April 2001 to September 2001, October 2002 to current year).
a--Gage height, 3.93 ft.
b--Gage height, 3.93 ft, but may have been lower during period of ice effect.
e--Estimated.



06037100 GIBBON RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2002 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 2002 to current year.

INSTRUMENTATION.--Temperature recorder installed Sept. 19, 2002.

REMARKS.--Daily water temperature records rated excellent. Missing daily water temperature data for July 8-14 due to equipment problems. Several unpublished observations of specific conductance and water temperature were made during the year. Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C, July 21, 2003; minimum, 0.0°C, several days during winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.0°C, July 14, 15, and 21; minimum, 0.0°C, several days November through February.

WATER-QUALITY DATA, SEPTEMBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
SEP 2004							
15...	1130	151	7.0	463	9.5	--	--
SEP 2005							
01...	0745	93	7.2	439	11.5	.7	3.0

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP 2004								
15...	6.07	31.5	148	.22	.34	.17	.71	.02
SEP 2005								
01...	2.53	6.52	717	--	--	--	.28	.07

06037100 GIBBON RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	11.0	13.0	6.0	2.5	4.5	3.5	0.5	2.0	5.0	4.0	4.5
2	15.0	10.0	12.5	7.5	4.0	5.5	4.5	3.0	3.5	4.5	3.0	4.0
3	16.0	10.0	12.5	8.0	6.0	7.0	4.0	2.5	3.5	5.0	4.0	4.5
4	14.5	10.0	12.5	9.0	5.0	7.0	5.0	2.5	3.5	4.5	1.0	3.0
5	15.0	9.5	12.0	9.0	5.5	7.0	3.5	1.0	2.5	2.5	0.5	1.5
6	15.0	9.0	12.0	8.5	5.0	6.5	4.0	1.5	3.0	2.5	1.5	2.0
7	14.5	10.5	12.0	8.5	4.5	6.5	4.0	3.5	3.5	3.5	1.0	2.0
8	14.5	9.0	11.5	8.5	5.0	7.0	4.5	4.0	4.0	3.0	1.5	2.5
9	14.0	9.0	11.5	11.0	7.5	9.0	5.0	3.0	4.0	5.0	2.5	3.5
10	12.5	10.0	11.0	10.5	8.5	9.5	7.5	5.0	6.5	6.5	4.0	5.0
11	14.0	9.0	11.0	10.0	7.0	8.5	8.0	7.0	7.0	6.0	3.5	4.5
12	12.5	9.0	11.0	9.0	5.5	7.5	8.0	4.5	7.0	3.5	1.0	2.5
13	12.5	8.0	10.5	8.0	5.0	6.5	5.0	2.5	4.0	1.5	0.0	1.0
14	13.5	8.0	10.5	7.0	4.5	6.0	6.5	4.0	5.5	1.5	0.0	0.5
15	12.5	9.5	11.0	8.0	5.5	6.5	7.0	5.5	6.5	1.0	0.0	0.5
16	12.0	10.0	11.0	8.0	4.5	6.5	6.5	5.5	5.5	4.5	0.5	2.0
17	11.0	8.0	9.5	9.5	7.0	8.5	6.5	4.5	5.5	6.5	4.0	5.0
18	10.0	7.5	9.0	8.0	5.0	6.5	6.5	5.5	6.0	6.0	5.5	6.0
19	10.0	7.0	8.5	6.5	5.0	6.0	6.0	4.5	5.5	8.5	6.0	7.0
20	10.0	8.5	9.0	6.0	3.5	5.0	6.0	2.5	3.5	9.0	5.5	7.5
21	9.5	8.5	9.0	4.5	1.5	3.0	3.0	1.0	2.0	8.5	6.0	7.5
22	9.5	7.5	8.5	5.5	2.0	3.5	2.5	0.0	1.5	7.5	4.0	6.0
23	8.0	6.0	7.0	6.0	4.5	5.0	0.5	0.0	0.0	7.0	4.0	5.5
24	8.5	5.5	6.5	5.0	4.5	4.5	1.5	0.5	1.0	6.0	2.5	4.5
25	7.0	3.5	5.5	6.5	5.0	5.5	4.5	1.5	3.5	5.5	2.0	4.0
26	9.0	5.5	7.0	6.0	3.0	4.5	5.0	2.0	3.5	7.0	3.0	4.5
27	10.5	7.5	8.5	4.5	2.5	3.5	6.5	4.0	5.5	7.0	3.5	5.5
28	9.0	8.0	8.5	3.5	0.5	2.5	7.5	6.5	7.0	8.0	6.5	7.0
29	8.5	6.5	7.5	1.0	0.0	0.5	8.0	6.0	6.5	8.0	5.5	7.0
30	7.5	6.5	7.0	1.5	0.5	1.0	6.5	4.0	5.0	7.5	4.5	6.5
31	7.5	4.5	6.5	---	---	---	4.5	4.0	4.0	5.5	2.0	4.0
MONTH	16.0	3.5	10.0	11.0	0.0	5.5	8.0	0.0	4.0	9.0	0.0	4.0
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	4.0	5.0	9.5	5.5	7.0	11.0	4.0	7.5	15.0	6.5	10.0
2	5.5	1.5	3.5	9.5	3.0	6.0	13.0	6.5	9.5	13.5	7.5	10.5
3	6.5	1.5	4.0	9.5	3.5	6.5	11.5	7.5	9.5	14.5	8.0	11.0
4	7.0	2.5	4.5	10.5	4.0	7.0	10.5	8.0	9.0	15.5	9.5	12.0
5	5.5	2.0	4.5	10.5	4.0	7.0	11.0	7.5	9.0	12.5	10.5	11.5
6	5.5	1.5	3.5	10.5	4.5	7.5	15.0	6.0	10.5	13.5	8.5	11.0
7	6.5	3.5	4.5	8.5	4.5	6.5	15.0	8.0	11.5	11.5	8.5	10.0
8	5.5	2.5	4.0	11.5	5.0	8.0	11.5	9.0	10.0	11.0	9.0	9.5
9	5.5	2.5	4.0	12.5	7.0	9.5	12.0	7.5	9.5	10.0	8.5	9.5
10	5.5	0.5	3.0	13.0	7.5	10.0	12.0	8.0	9.5	9.5	8.0	9.0
11	5.5	0.0	3.0	11.0	5.5	8.5	13.0	6.0	9.5	10.0	6.5	8.0
12	6.5	4.5	5.5	9.0	5.0	7.5	14.0	8.0	11.0	10.0	7.0	8.5
13	6.0	4.5	5.5	8.0	2.5	5.0	15.5	8.0	11.5	13.5	7.5	10.5
14	5.5	3.0	4.0	7.0	2.0	4.5	11.5	6.5	8.5	15.5	10.0	12.5
15	3.0	0.0	1.5	8.0	4.0	5.5	13.5	5.0	8.5	13.5	10.5	12.0
16	2.0	0.0	1.0	8.5	5.0	7.0	15.5	6.5	11.0	12.0	11.0	11.5
17	3.0	0.0	1.5	8.0	4.0	6.0	15.5	8.0	11.5	11.0	9.0	9.5
18	5.0	0.0	2.5	7.0	3.0	5.5	11.5	8.0	9.5	10.5	8.5	9.0
19	7.0	4.0	5.5	11.0	5.5	8.0	11.0	7.0	9.0	13.5	10.0	11.5
20	8.5	6.0	7.0	10.0	8.0	9.0	11.5	6.0	8.5	14.5	11.0	12.5
21	9.0	5.5	7.0	10.5	7.0	8.5	11.5	7.5	9.0	15.0	11.0	13.0
22	9.0	4.0	6.0	10.5	7.5	8.5	16.5	7.5	11.5	16.5	10.5	13.5
23	8.0	2.0	5.0	9.5	6.5	8.5	15.5	9.0	12.0	16.0	12.5	14.0
24	8.0	1.5	5.0	8.5	4.0	6.0	15.5	9.0	12.0	14.0	11.0	12.5
25	8.5	2.0	5.0	11.0	4.5	7.5	15.0	8.0	11.0	14.5	9.0	11.5
26	8.5	2.0	5.0	10.0	5.5	7.5	12.0	7.5	9.5	17.0	9.0	12.5
27	8.5	2.0	5.0	7.5	6.5	7.0	10.0	7.0	8.5	18.5	10.0	14.0
28	8.5	2.5	5.5	11.5	7.0	8.0	12.5	4.5	8.0	19.0	11.5	15.0
29	---	---	---	9.0	5.0	7.0	12.0	5.0	8.5	18.0	13.0	15.5
30	---	---	---	9.5	4.5	6.5	12.0	6.5	9.0	17.5	11.5	14.0
31	---	---	---	10.5	2.5	6.5	---	---	---	15.5	10.5	13.0
MONTH	9.0	0.0	4.5	13.0	2.0	7.0	16.5	4.0	10.0	19.0	6.5	11.5

06037100 GIBBON RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	8.5	11.0	21.5	14.0	17.5	21.5	15.0	18.0	19.5	11.0	15.0
2	12.5	7.5	9.5	20.0	14.5	17.0	23.0	17.0	19.0	19.5	11.5	15.5
3	14.0	9.5	11.0	20.0	12.5	16.0	24.0	16.0	19.5	19.5	13.0	16.0
4	15.5	11.0	13.0	21.5	13.5	17.5	24.5	15.5	19.5	18.5	12.5	15.5
5	17.5	11.5	14.5	22.0	14.0	18.0	24.0	15.5	19.5	18.5	12.0	15.5
6	14.5	10.5	12.0	22.5	14.5	18.5	22.5	15.5	19.5	19.0	11.5	15.5
7	11.5	9.0	10.0	23.0	15.5	19.5	22.5	15.5	19.0	19.0	11.5	15.0
8	12.0	8.0	10.0	---	16.0	---	23.0	15.5	19.0	19.5	12.0	15.5
9	12.5	9.0	10.5	---	---	---	21.5	16.0	19.0	18.0	13.5	15.5
10	15.0	10.0	12.0	---	---	---	20.5	16.5	18.5	15.5	12.0	13.5
11	15.0	11.0	13.0	---	---	---	20.0	15.0	17.5	13.0	11.0	11.5
12	13.5	10.5	11.5	---	---	---	19.0	14.0	16.5	13.0	10.0	11.5
13	15.0	9.0	11.5	---	---	---	21.0	13.0	16.5	13.5	9.0	11.0
14	18.0	10.5	14.0	25.0	---	---	20.5	12.5	16.5	15.5	9.0	12.0
15	19.5	13.5	16.5	25.0	16.5	20.5	22.0	13.0	17.5	16.5	9.5	13.0
16	18.0	13.0	15.5	22.5	17.5	20.0	18.0	13.5	16.0	16.5	10.0	13.0
17	20.0	13.0	16.0	23.0	15.0	18.5	19.5	15.0	16.5	13.0	11.0	12.0
18	18.0	14.0	15.5	23.0	14.5	18.5	16.5	14.5	15.5	13.0	10.0	11.5
19	19.5	12.0	15.5	23.0	14.5	19.0	20.5	12.5	16.0	16.0	9.0	12.0
20	21.0	13.0	17.0	23.5	15.5	19.5	22.0	13.5	17.5	16.5	9.5	13.0
21	20.5	14.5	17.5	25.0	16.0	20.0	23.5	14.0	18.5	15.0	13.0	14.0
22	21.5	15.0	18.0	23.0	18.5	20.5	21.5	15.0	18.0	16.5	10.5	13.5
23	20.5	15.0	17.5	24.5	17.0	20.5	21.5	15.0	18.0	15.5	11.5	13.5
24	21.5	14.5	18.0	23.0	15.5	19.5	20.0	15.0	17.0	13.0	11.5	12.5
25	21.0	14.5	17.5	21.0	16.0	18.0	19.5	12.0	15.5	12.5	10.0	11.0
26	18.0	14.5	16.5	22.5	13.0	17.5	20.0	12.0	16.0	15.5	8.5	12.0
27	18.0	13.0	15.5	23.0	14.0	18.5	21.0	12.5	16.5	13.5	11.0	12.0
28	16.5	13.0	15.0	21.5	14.5	18.0	21.0	13.0	17.0	15.5	9.5	12.0
29	17.5	13.0	15.0	20.0	15.0	17.0	21.0	13.0	17.0	15.5	9.0	12.5
30	19.5	14.0	16.5	23.0	15.0	18.5	17.5	13.5	15.5	14.0	10.0	12.0
31	---	---	---	20.0	15.5	18.0	18.5	10.0	14.0	---	---	---
MONTH	21.5	7.5	14.0	25.0	12.5	18.5	24.5	10.0	17.5	19.5	8.5	13.5

443824110531601 MADISON RIVER NEAR MADISON JUNCTION, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°38'24", long 110°53'16" (NAD 27), Teton County, Wyoming, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004 and August 2005, discontinued.

GAGE.--None, elevation at site, 6,780 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, SEPTEMBER 2004 TO AUGUST 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
SEP 2004							
15...	1230	433	7.4	490	13.0	--	--
AUG 2005							
30...	1400	335	7.5	514	18.0	.8	1.7

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP 2004								
15...	5.05	19.5	179	.18	.16	.34	.47	.02
AUG 2005								
30...	2.62	10.1	737	--	--	--	.20	.10

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°39'25", long 111°04'03" (NAD 27), in $NE^1/_4$ $NW^1/_4$ $SW^1/_4$ sec.36, T.13 S., R.5 E., Gallatin County, Hydrologic Unit 10020007, Yellowstone National Park, on left bank 0.7 mi downstream from Montana-Wyoming stateline, 1.5 mi east of West Yellowstone, 16.4 mi downstream from Gibbon River, and at river mile 132.7.

DRAINAGE AREA.--420 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986, October 1988 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 6,650 ft (NGVD 29). Prior to Oct. 20, 1918, nonrecording gage, and Oct. 20, 1918 to June 29, 1930, nonrecording gage or water-stage recorder at sites 2.5 mi upstream at different elevations. Supplementary nonrecording gage at site 0.3 mi downstream at different elevation used at time during 1927-30.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. No regulation or diversions upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	395	382	389	370	380	383	494	705	466	419	363
2	387	393	381	381	367	375	387	506	901	454	405	362
3	384	400	381	381	367	377	402	525	734	436	404	358
4	381	401	381	381	369	375	421	566	675	430	395	358
5	381	396	380	378	372	374	410	605	639	424	392	358
6	385	395	379	385	370	371	394	671	750	418	380	358
7	387	392	384	387	378	372	417	710	795	411	375	356
8	387	390	388	402	375	371	459	738	697	405	375	357
9	387	392	389	403	378	375	440	762	687	403	375	358
10	389	396	387	398	377	381	415	832	666	411	385	369
11	400	397	396	398	377	381	405	865	612	453	398	369
12	392	392	398	391	385	383	405	807	655	426	394	370
13	387	388	387	372	386	378	435	783	761	406	387	374
14	387	382	385	e350	395	372	481	768	667	399	383	369
15	387	378	387	e370	388	373	444	820	611	397	375	363
16	392	379	384	e390	e380	377	430	950	602	397	372	363
17	389	380	381	384	e385	381	452	1,130	579	395	378	371
18	400	378	379	385	386	383	499	1,040	540	395	411	391
19	409	380	375	387	388	389	482	1,070	522	393	526	372
20	423	381	376	393	389	388	459	1,160	496	389	420	364
21	438	371	370	392	389	386	453	1,080	484	387	393	363
22	420	372	362	386	387	385	436	951	496	387	387	363
23	417	375	e350	381	384	391	461	890	568	387	388	369
24	431	375	e360	378	381	396	498	841	587	387	383	396
25	412	375	e370	373	383	390	546	779	523	388	375	409
26	411	375	372	372	382	386	562	715	490	404	375	377
27	413	372	369	372	381	381	577	674	495	396	369	370
28	420	375	374	374	378	394	536	655	512	392	363	369
29	418	e360	375	373	---	406	505	648	509	392	363	367
30	411	e380	381	375	---	404	500	625	492	392	363	363
31	410	---	391	369	---	388	---	607	---	401	363	---
TOTAL	12,425	11,515	11,754	11,850	10,647	11,863	13,694	24,267	18,450	12,621	12,071	11,049
MEAN	401	384	379	382	380	383	456	783	615	407	389	368
MAX	438	401	398	403	395	406	577	1,160	901	466	526	409
MIN	381	360	350	350	367	371	383	494	484	387	363	356
AC-FT	24,640	22,840	23,310	23,500	21,120	23,530	27,160	48,130	36,600	25,030	23,940	21,920

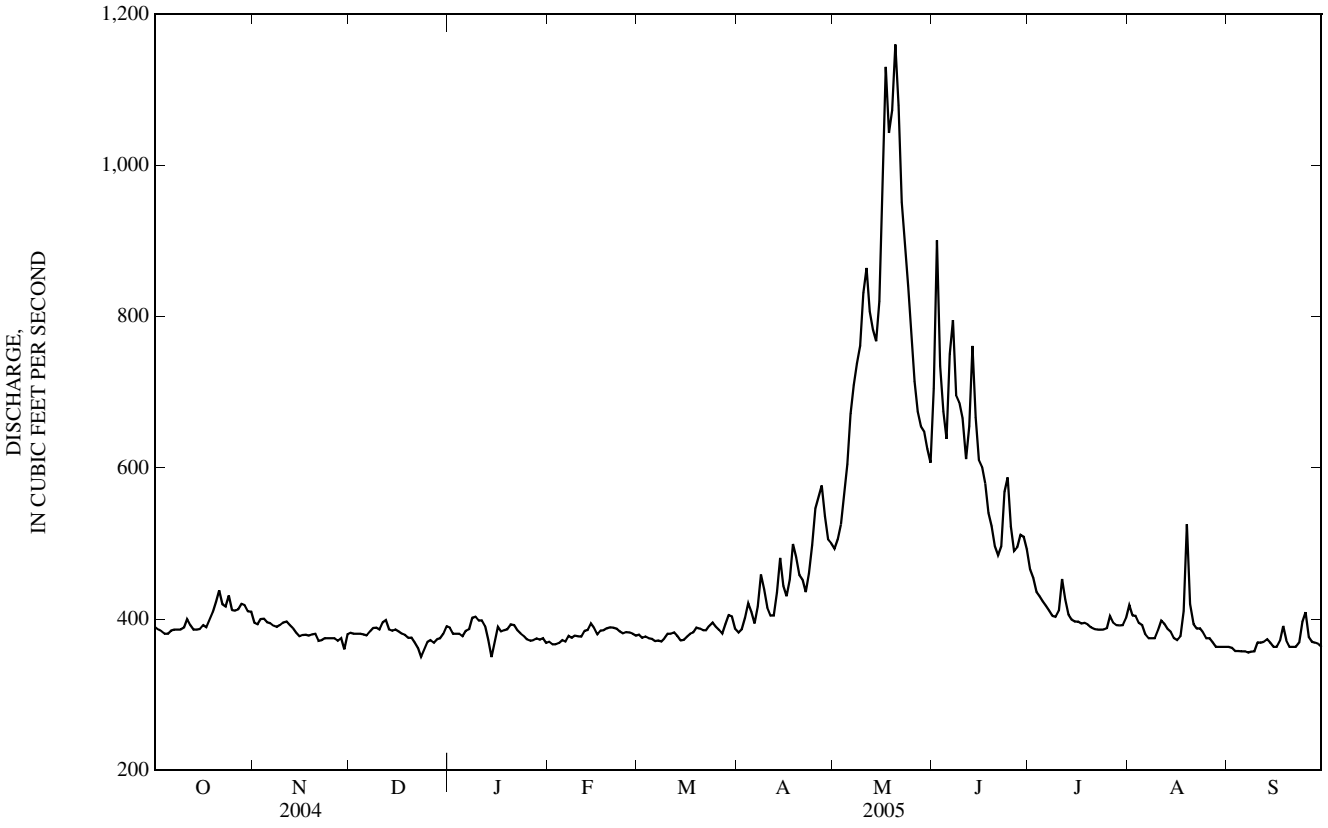
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2005, BY WATER YEAR (WY)*

MEAN	432	423	414	403	398	405	495	847	806	496	432	425
MAX	710	697	641	586	572	539	671	1,725	1,479	917	759	704
(WY)	(1914)	(1914)	(1997)	(1997)	(1914)	(1917)	(1925)	(1997)	(1997)	(1913)	(1913)	(1913)
MIN	297	297	304	304	303	313	369	388	341	282	273	282
(WY)	(1935)	(1932)	(1932)	(1932)	(1932)	(1943)	(1941)	(1934)	(1931)	(1931)	(1934)	(1934)

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1913 - 2005*	
ANNUAL TOTAL	155,270		162,206			
ANNUAL MEAN	424		444		497	
HIGHEST ANNUAL MEAN					789	1997
LOWEST ANNUAL MEAN					337	1934
HIGHEST DAILY MEAN	864	May 23	1,160	May 20	2,750	May 18, 1996
LOWEST DAILY MEAN	250	Jan 6	350	Dec 23	245	Jan 1, 1942
ANNUAL SEVEN-DAY MINIMUM	311	Jan 5	358	Sep 3	267	Aug 6, 1931
MAXIMUM PEAK FLOW			1,260	May 20	a2,820	May 18, 1996
MAXIMUM PEAK STAGE			2.68	May 20	b10.00	Jan 8, 1937
INSTANTANEOUS LOW FLOW					c100	Feb 7, 1933
ANNUAL RUNOFF (AC-FT)	308,000		321,700		359,900	
10 PERCENT EXCEEDS	570		643		739	
50 PERCENT EXCEEDS	389		389		430	
90 PERCENT EXCEEDS	341		370		339	

*--During periods of operation (June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986, October 1988 to current year).
a--Gage height, 3.78 ft.
b--About, backwater from ice.
c--Result of freezeup.
e--Estimated.



06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983-86, 1989-95, October 2003 to September 2004, discontinued.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1983 to July 1986.
WATER TEMPERATURE: July 1983 to July 1986.

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass. Several unpublished observations of water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 558 microsiemens per centimeter (µS/cm) at 25.0°C, Mar. 24, 25, 1986; minimum, 78 µS/cm at 25.0°C, May 30, 1986.
WATER TEMPERATURE: Maximum, 25.5°C, Aug. 6, 9, 1983; minimum, 0.0°C, many days during winter months.

WATER-QUALITY DATA, APRIL 2004 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
APR 2004													
19...	1045	482	8.1	470	--	4.99	26.3	--	--	--	--	--	--
AUG													
04...	1200	375	--	491	16.5	3.79	9.79	--	.20	--	--	--	--
04...	1400	381	8.3	492	19.5	3.25	9.06	--	.27	--	--	--	--
04...	1600	381	8.4	496	22.5	3.55	8.50	--	.26	--	--	--	--
04...	1800	381	8.4	498	22.5	3.70	8.89	--	.24	--	--	--	--
04...	2000	381	8.4	497	21.5	3.60	9.33	--	.27	--	--	--	--
04...	2200	381	8.3	492	20.5	3.52	8.71	--	.19	--	--	--	--
04...	2359	381	8.3	493	19.5	2.93	8.94	--	.22	--	--	--	--
05...	0200	381	8.2	496	19.0	3.64	8.86	--	.21	--	--	--	--
05...	0445	381	8.2	494	18.0	3.12	9.12	--	.15	--	--	--	--
05...	0600	381	8.2	495	18.0	3.67	9.38	--	.14	--	--	--	--
05...	0800	381	8.3	495	17.5	2.87	9.06	--	.15	--	--	--	--
05...	1100	381	8.4	498	20.0	3.24	9.05	--	.23	--	--	--	--
05...	1300	381	8.4	498	22.0	3.34	9.96	--	.20	--	--	--	--
SEP 2004													
14...	1630	516	8.3	466	13.0	4.30	17.4	175	.19	.23	.39	.51	.04

444349111081901 HEBGEN LAKE, MADISON ARM NEAR GRAYLING, MT

LOCATION.--Lat 44°43'49", long 111°08'19 (NAD 27)", in $SE^1/_4SW^1/_4NE^1/_4$ sec.5, T.13 S., R.5 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,535 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004 30...	1000	187	<.13	.62	.02

444548111144401 UPPER HEBGEN LAKE NEAR GRAYLING, MT

LOCATION.--Lat 44°45'48", long 111°14'44 (NAD 27)", in $SE^1/_4NE^1/_4NW^1/_4$ sec.28, T.12 S., R.4 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,535 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004					
30...	1100	741	<1.35	.06	.12

444710111102301 HEBGEN LAKE, GRAYLING ARM NEAR GRAYLING, MT

LOCATION.--Lat 44°47'10", long 111°10'23 (NAD 27)", in $NW^1/_4NW^1/_4SW^1/_4$ sec.18, T.12 S., R.5 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,535 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004 30...	1130	70.5	<.37	.22	.13

444909111161201 MIDDLE HEBGEN LAKE NEAR GRAYLING, MT

LOCATION.--Lat 44°49'09", long 111°16'12 (NAD 27)", in $NE^1/_4SW^1/_4NW^1/_4$ sec.5, T.12 S., R.4 E, Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,534 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004					
30...	1230	571	<1.23	.07	.11

445122111193501 LOWER HEBGEN LAKE NEAR GRAYLING, MT

LOCATION.--Lat 44°51'22", long 111°19'35 (NAD 27)", in $NE^1/_4SE^1/_4SW^1/_4$ sec.23, T.11 S., R.3 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,534 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004 30...	0900	745	<1.99	.04	.16

06038500 MADISON RIVER BELOW HEBGEN LAKE, NEAR GRAYLING, MT

LOCATION.--Lat 44°52'00", long 111°20'15" (NAD 27), $NE^1/_4\ NE^1/_4\ NE^1/_4$ sec.22, T.11 S., R.3 E., Gallatin County, Hydrologic Unit 10020007, Gallatin National Forest, on right bank 1,500 ft downstream from Hebgen Dam, 8 mi northwest of Grayling, 17 mi upstream from West Fork, and at river mile 108.8.

DRAINAGE AREA.--905 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1909 to current year. Prior to October 1938 adjusted runoff only, published in WSP 1309. Prior to October 1949, published as "below Hebgen Reservoir".

REVISED RECORDS.--WSP 1509: 1948. WSP 1559: Drainage area. WSP 1629: 1943. WSP 1709: 1959. WSP 1729: 1943.

GAGE.--Water-stage recorder. Elevation of gage is 6,448.47 ft (after 1959 earthquake) (NGVD 29). Prior to July 13, 1943, nonrecording gage in stilling well.

REMARKS.--Water-discharge records excellent. Flow completely regulated by Hebgen Lake (station number 06038000). Diversions for irrigation of about 1,100 acres upstream from station. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--96 years, 1,017 ft^3/s, 15.26 in/yr, 736,800 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s, Aug. 17, 1959, caused by wave over Hebgen Dam during earthquake, gage height, 5.3 ft, from floodmark, from rating curve extended above 3,500 ft^3/s on basis of slope-area measurement of peak flow; maximum observed unaffected by wave over dam, 5,090 ft^3/s, June 3, 1943, gage height, 3.69 ft; minimum daily, 5.0 ft^3/s, May 9-12, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,180 ft^3/s, June 15, gage height, 2.56 ft; minimum daily, 789 ft^3/s, July 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	906	888	887	873	865	846	835	843	928	879	1,030	1,020
2	904	886	886	872	860	842	833	844	983	879	1,030	1,010
3	900	869	884	872	857	841	832	847	1,050	879	1,030	1,010
4	898	843	883	874	853	841	835	850	1,050	879	1,030	1,010
5	898	841	880	870	850	841	841	849	1,050	837	1,030	1,010
6	898	838	879	870	850	841	836	850	1,130	789	1,030	1,020
7	898	835	879	869	850	841	832	850	1,310	793	1,030	1,020
8	898	862	879	871	851	841	832	850	1,440	793	1,030	965
9	898	898	880	873	850	840	833	851	1,440	793	1,030	918
10	898	898	879	874	850	842	832	857	1,440	794	1,030	919
11	897	897	880	872	850	841	832	866	1,430	794	1,030	918
12	895	895	879	871	850	841	831	869	1,430	794	1,030	918
13	894	894	879	872	850	841	831	869	1,590	795	1,030	918
14	891	892	879	869	850	841	834	869	1,750	795	1,030	918
15	890	890	879	869	850	841	832	869	1,950	795	1,030	918
16	889	888	879	869	850	841	832	870	2,120	797	1,030	918
17	888	888	879	869	850	841	832	878	2,110	795	1,030	918
18	888	888	879	869	850	841	838	879	2,110	797	1,030	918
19	888	888	879	869	850	840	840	880	2,110	836	1,030	918
20	888	888	879	869	850	840	841	891	2,100	918	1,030	917
21	888	888	879	869	850	841	841	898	2,100	958	1,030	911
22	888	888	878	869	850	840	841	899	1,980	1,010	1,030	906
23	888	888	877	869	850	840	841	903	1,750	1,060	1,030	905
24	888	888	875	869	850	840	840	909	1,560	1,050	1,030	907
25	888	888	876	869	849	840	841	912	1,450	1,040	1,030	904
26	887	888	873	869	849	839	841	917	1,430	1,040	1,030	899
27	887	888	871	869	849	837	841	918	1,350	1,040	1,030	898
28	887	888	871	869	847	837	841	918	1,170	1,040	1,020	898
29	888	888	871	869	---	837	842	923	1,040	1,040	1,020	898
30	887	888	873	869	---	838	841	927	939	1,040	1,020	898
31	888	---	872	869	---	837	---	928	---	1,040	1,020	---
TOTAL	27,668	26,446	27,223	26,975	23,830	26,050	25,094	27,283	45,290	27,789	31,890	28,105
MEAN	893	882	878	870	851	840	836	880	1,510	896	1,029	937
MAX	906	898	887	874	865	846	842	928	2,120	1,060	1,030	1,020
MIN	887	835	871	869	847	837	831	843	928	789	1,020	898
AC-FT	54,880	52,460	54,000	53,500	47,270	51,670	49,770	54,120	89,830	55,120	63,250	55,750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY) (UNADJUSTED)

MEAN	1,341	1,379	978	896	839	839	922	851	1,255	1,025	1,077	1,126
MAX	2,477	2,535	2,838	1,407	1,905	1,574	2,343	2,494	2,940	2,058	1,722	1,688
(WY)	(1962)	(1960)	(1960)	(1944)	(1943)	(1947)	(1948)	(1996)	(1943)	(1965)	(1939)	(1982)
MIN	215	501	410	180	181	291	217	45.5	96.0	503	662	368
(WY)	(1942)	(1941)	(1940)	(1940)	(1940)	(1941)	(1961)	(1962)	(1960)	(1978)	(1960)	(1941)

06038500 MADISON RIVER BELOW HEBGEN LAKE, NEAR GRAYLING, MT—Continued

ADJUSTED FOR CHANGE IN CONTENTS IN HEBGEN LAKE

MEAN†	728	744	722	746	684	697	888	1,968	1,668	864	747	715
CFSM†	0.80	0.82	0.80	0.82	0.76	0.77	0.98	2.17	1.84	0.95	0.83	0.79
IN†	0.93	0.92	0.92	0.95	0.79	0.89	1.10	2.51	2.06	1.10	0.95	0.88
AC-FT†	44,780	44,260	44,400	45,900	37,970	42,870	52,870	121,020	99,230	53,120	45,950	42,550

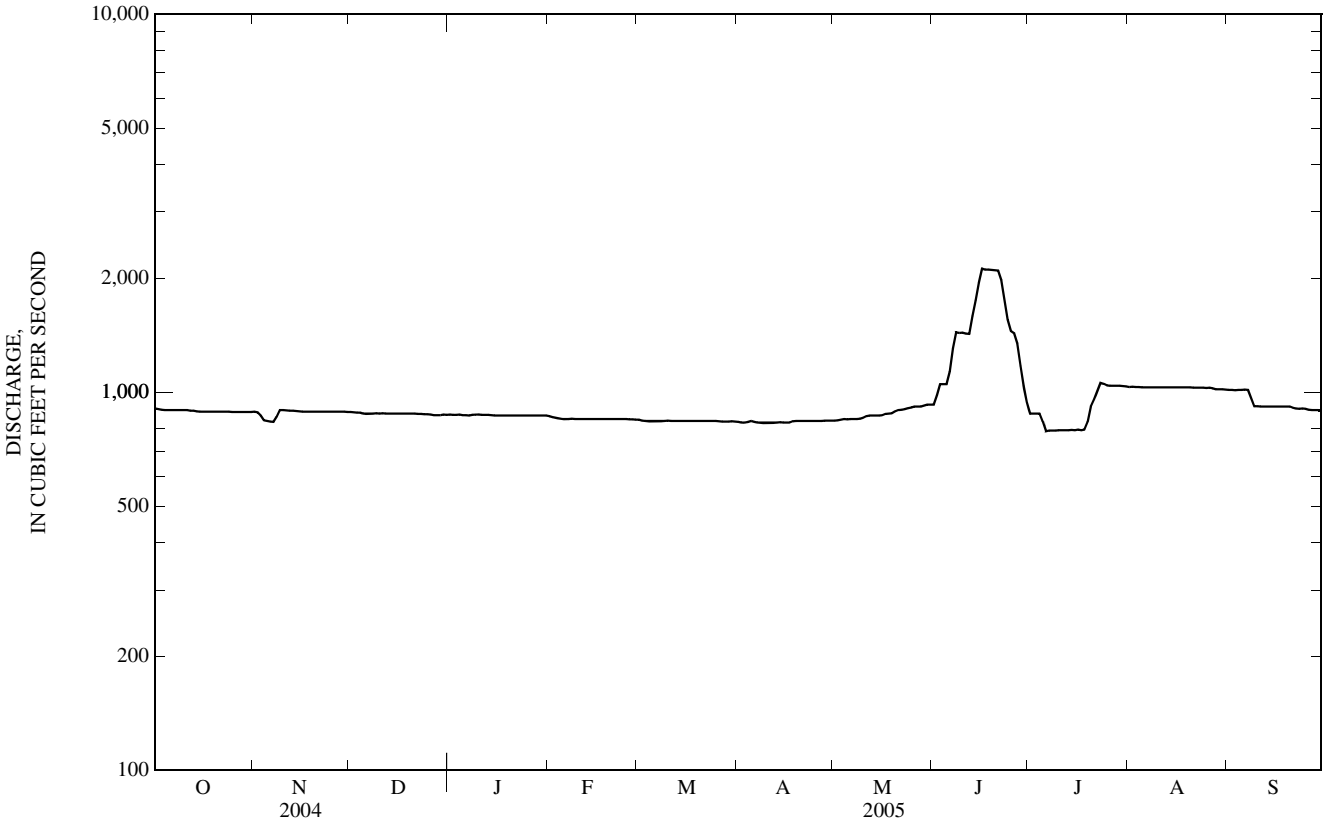
OBSERVED

CALENDAR YEAR 2004	TOTAL	293,181	MEAN	801	MAX	1,170	MIN	406	AC-FT	581,500
WATER YEAR 2005	TOTAL	343,643	MEAN	941	MAX	2,120	MIN	789	AC-FT	681,600

ADJUSTED

CALENDAR YEAR 2004	TOTAL	309,150	MEAN	845	CFSM	0.93	IN	12.70	AC-FT	613,200
WATER YEAR 2005	TOTAL	340,257	MEAN	932	CFSM	1.03	IN	13.98	AC-FT	674,900

†--Adjusted for change in contents in Hebgen Lake.



06038500 MADISON RIVER BELOW HEBGEN LAKE, NEAR GRAYLING, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986-88, 1990-95, October 2003 to current year, discontinued.

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass. Several unpublished observations of specific conductance and water temperature were made during the year.

WATER-QUALITY DATA, APRIL 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
APR 2004							
19...	1200	758	7.9	352	--	--	--
SEP							
14...	1400	918	8.3	283	15.0	--	--
SEP 2005							
15...	1210	918	8.5	254	15.5	1.9	4.6

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water fltrd, **ng/L** (50285)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
APR 2004								
19...	1.54	2.11	--	--	--	--	--	--
SEP								
14...	.79	1.02	30.9	.07	.06	.55	.56	.02
SEP 2005								
15...	.59	.81	15.4	--	.07	--	.74	.01

445107111214501 UPPER QUAKE LAKE NEAR GRAYLING, MT

LOCATION.--Lat 44°51'07", long 111°21'45 (NAD 27)", in $NE^1/_4NW^1/_4NE^1/_4$ sec.28, T.11 S., R.3 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,388 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004					
		Sample from upper 2 inches of core			
29...	1430	24.4	3.16	.26	.06
		Sample from lower 7-9 inches of core			
29...	1445	30.1	.59	.53	.07

445220111213601 BEAVER CREEK NEAR MOUTH, NEAR GRAYLING, MT

LOCATION.--Lat 44°52'20", long 111°21'36" (NAD 27), in $SW^1/_4NE^1/_4SE^1/_4$ sec.16, T.11 S., R.3 E., Gallatin County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2005, discontinued.

GAGE.--None, elevation at site, 6,500 ft (NGVD 27)

REMARKS.--Mercury concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP												
14...	1630	39	8.3	121	10.5	.6	1.5	.22	.33	19.3	.52	.04

444950111251201 LOWER QUAKE LAKE NEAR GRAYLING, MT

LOCATION.--Lat 44°49'50", long 111°25'12" (NAD 27), in $NW^1/_4NE^1/_4SE^1/_4$ sec.36, T.11 S., R.2 E., Madison County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 6,388 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004					
29...	1600	364	<1.11	.07	.09

06038800 MADISON RIVER AT KIRBY RANCH, NEAR CAMERON, MT

LOCATION.--Lat 44°53'22", long 111°34'46" (NAD 27), in $NE^1/_4$ $NE^1/_4$ $SE^1/_4$ sec.10, T.11 S., R.1 E., Madison County, Hydrologic Unit 10020007, 75 ft upstream from county bridge, 0.2 mi upstream from West Fork Madison River, and 22 mi south of Cameron, and at river mile 89.8.

DRAINAGE AREA.--1,065 mi^2.

PERIOD OF RECORD.--September 1959 to September 1963, May 1978 to September 1994 (seasonal records only), October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,860 ft (NGVD 29). Aug. 31, 1959 to Oct. 2, 1959, nonrecording gage 75 ft downstream at elevation 0.96 ft lower. Oct. 3, 1959 to September 1963, water-stage recorder at present site and elevation. May 1978 to September 1994, nonrecording gage 75 ft downstream at present elevation.

REMARKS.--Records good. Flow regulated by Hebgen Lake (station 06038000). Diversions for irrigation of about 1,500 acres upstream from station. U.S. Geological Survey satellite telemeter at station. Several unpublished observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	960	945	927	e925	922	913	871	933	1,410	1,250	1,160	1,080
2	960	951	930	922	919	909	873	935	1,400	1,230	1,170	1,070
3	956	952	933	921	919	908	877	948	1,420	1,210	1,180	1,070
4	953	930	934	e920	921	902	882	959	1,400	1,160	1,150	1,070
5	948	918	928	e915	928	904	878	986	1,400	1,130	1,140	1,070
6	939	914	928	915	926	907	874	1,030	1,520	1,070	1,140	1,070
7	942	915	934	914	926	916	879	1,050	1,670	1,050	1,130	1,060
8	943	918	937	926	924	911	886	1,050	1,820	1,050	1,130	1,050
9	936	950	937	922	924	913	884	1,080	1,810	1,040	1,130	980
10	938	959	938	916	922	908	875	1,110	1,780	1,050	1,130	981
11	938	961	940	914	923	900	869	1,090	1,760	1,070	1,130	968
12	938	959	944	e915	930	898	873	1,050	1,800	1,030	1,130	963
13	935	955	935	913	932	886	877	1,020	1,830	1,010	1,130	967
14	935	952	930	913	933	878	890	1,030	2,030	1,010	1,120	958
15	937	958	937	e910	e930	875	885	1,070	2,160	1,010	1,120	967
16	945	954	937	907	e925	877	881	1,190	2,560	980	1,110	964
17	942	952	932	907	e930	877	893	1,420	2,640	972	1,120	974
18	941	950	931	910	930	873	930	1,330	2,660	962	1,140	981
19	943	947	934	912	932	876	918	1,420	2,630	960	1,130	961
20	956	947	927	914	924	886	905	1,600	2,620	1,010	1,110	963
21	955	933	928	913	934	886	896	1,660	2,660	1,080	1,110	964
22	953	932	925	913	931	882	890	1,630	2,660	1,100	1,110	958
23	973	942	922	914	913	884	897	1,680	2,550	1,170	1,100	e970
24	964	953	e920	914	916	883	914	1,610	2,270	1,190	1,090	e960
25	956	954	920	915	915	875	952	1,500	2,040	1,180	1,090	e950
26	955	949	920	915	913	875	982	1,410	1,940	1,170	1,090	e950
27	957	943	921	915	912	876	984	1,390	1,860	1,170	1,090	e950
28	958	935	922	917	914	883	961	1,410	1,680	1,160	1,080	940
29	965	927	928	911	---	879	945	1,460	1,520	1,160	1,080	938
30	959	927	931	914	---	876	939	1,440	1,350	1,160	1,080	938
31	959	---	927	914	---	870	---	1,400	---	1,160	1,080	---
TOTAL	29,439	28,282	28,837	28,366	25,868	27,586	27,060	38,891	58,850	33,954	34,700	29,685
MEAN	950	943	930	915	924	890	902	1,255	1,962	1,095	1,119	990
MAX	973	961	944	926	934	916	984	1,680	2,660	1,250	1,180	1,080
MIN	935	914	920	907	912	870	869	933	1,350	960	1,080	938
AC-FT	58,390	56,100	57,200	56,260	51,310	54,720	53,670	77,140	116,700	67,350	68,830	58,880

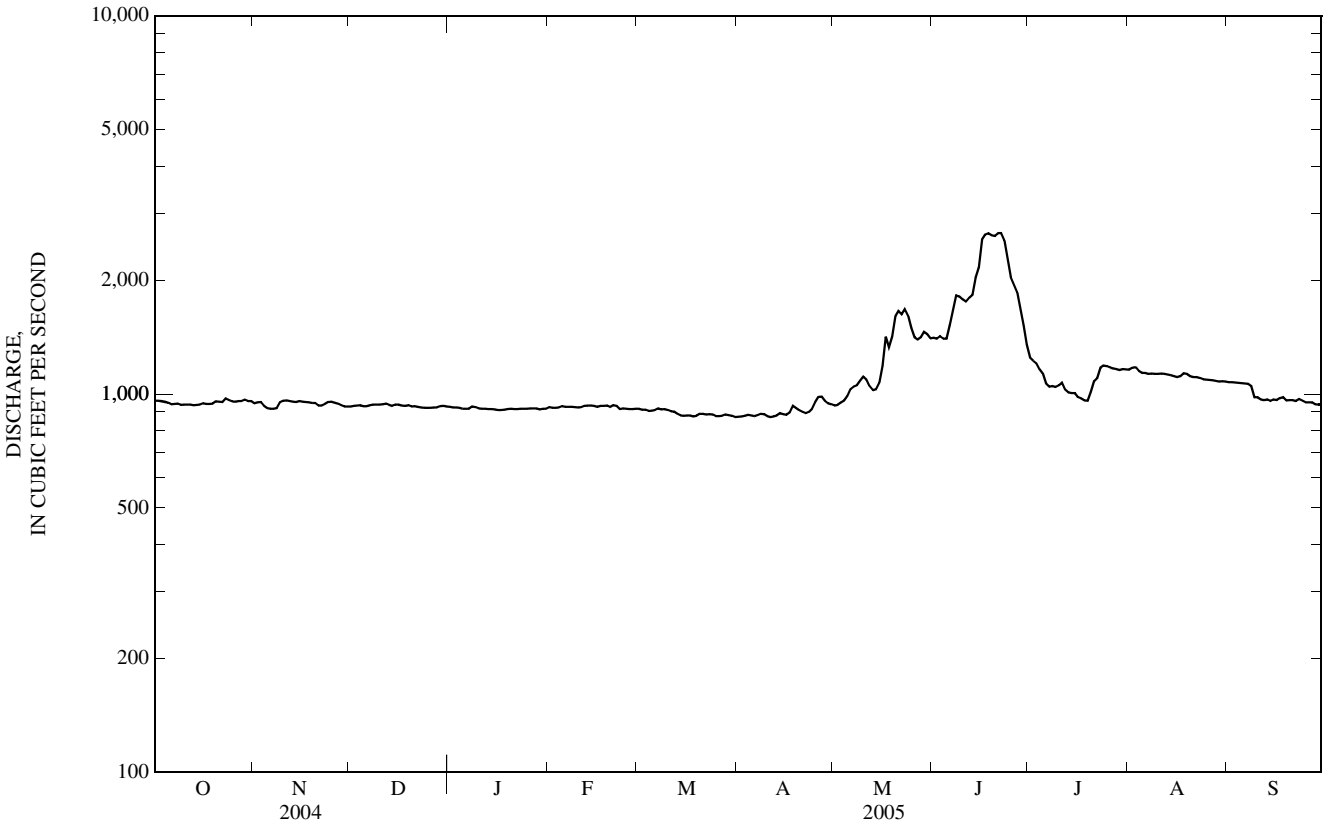
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2005, BY WATER YEAR (WY)*

MEAN	1,473	1,469	1,171	1,019	1,011	1,015	987	1,353	1,839	1,312	1,122	1,144
MAX	2,570	2,780	3,005	1,449	1,521	1,611	1,527	2,865	3,862	2,125	1,672	1,567
(WY)	(1962)	(1960)	(1960)	(1999)	(1999)	(1999)	(1995)	(1997)	(1997)	(1982)	(1997)	(1996)
MIN	854	736	739	737	626	525	370	445	619	716	734	732
(WY)	(2004)	(1961)	(1961)	(1961)	(1963)	(1963)	(1961)	(1961)	(1960)	(1979)	(1960)	(1960)

06038800 MADISON RIVER AT KIRBY RANCH, NEAR CAMERON, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1959 - 2005*	
ANNUAL TOTAL	342,046		391,518			
ANNUAL MEAN	935		1,073		1,254	
HIGHEST ANNUAL MEAN					1,896	1997
LOWEST ANNUAL MEAN					733	1961
HIGHEST DAILY MEAN	1,440	Jul 8	2,660	Jun 18	5,030	May 31, 1993
LOWEST DAILY MEAN	662	May 15	869	Apr 11	139	Sep 1, 1959
ANNUAL SEVEN-DAY MINIMUM	700	May 13	875	Mar 31	152	Sep 1, 1959
MAXIMUM PEAK FLOW			2,720	Jun 22	b5,030	May 30, 1993
MAXIMUM PEAK STAGE			3.01	Jun 22	3.97	Jun 7, 1996
INSTANTANEOUS LOW FLOW			a860	Mar 31	c139	Sep 1, 1959
ANNUAL RUNOFF (AC-FT)	678,400		776,600		908,700	
10 PERCENT EXCEEDS	1,020		1,410		1,990	
50 PERCENT EXCEEDS	940		948		1,120	
90 PERCENT EXCEEDS	808		892		740	

*--During periods of operation (September 1959 to September 1963; May 1978 to September 1994 (seasonal records only), October 1994 to current year).
a--Gage height, 1.80 ft.
b--Observed, gage height, 3.15 ft; previous site at present datum.
c--Observed, present site and datum.
e--Estimated.



06038800 MADISON RIVER AT KIRBY RANCH, NEAR CAMERON, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1994-2002, October 2003 to September 2005, discontinued.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1994 to 2002.

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD:
WATER TEMPERATURE: Maximum 21.5°C, July 2, 3, 2001, July 12, 2002; mimimum, 0.0°C many days during winter months.

WATER-QUALITY DATA, APRIL 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
APR 2004							
19...	1315	892	8.3	356	--	--	--
SEP							
14...	1130	982	8.4	273	12.5	--	--
SEP 2005							
15...	1045	971	8.5	258	13.0	1.6	1.9

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
APR 2004							
19...	1.10	1.87	--	--	--	--	--
SEP							
14...	.64	.99	6.83	--	.20	.60	.03
SEP 2005							
15...	.42	.71	6.15	.04	--	.72	.01

06039200 WEST FORK MADISON RIVER NEAR CAMERON, MT

LOCATION.--Lat 44°53'15", long 111°34'55" (NAD 27),in $SW^1/_4NE^1/_4SE^1/_4$ sec.10, T.11 S., R.1 E., Madison County, Hydrologic Unit 10020007, on bridge 0.25 mi upstream from mouth and 22 mi southeast of Cameron.

DRAINAGE AREA.--220 mi^2.

PERIOD OF RECORD.--Water years 1986 and 1988, September 2005, discontinued.

GAGE.--None. Elevation at site is 5,870 ft (NGVD 29).

REMARKS.--Data for water years 1986 and 1988 published in Open-File Reports 87-124 and 88-722 respectively. Mercury concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP												
14...	1330	53	8.7	230	9.0	1.0	3.6	.25	.39	11.5	.44	.06

06040000 MADISON RIVER NEAR CAMERON, MT

LOCATION.--Lat 45°14'00", long 111°45'00" (NAD 27), at center of south line of sec.8, T.7 S., R.1 W., Madison County, Hydrologic Unit 10020007, at site of former gaging station, 30 ft downstream from Varney Bridge, 1.8 mi downstream from Wigwam Creek, and 4.1 mi northwest of Cameron.

DRAINAGE AREA.--1,669 mi^2.

PERIOD OF RECORD.--Water years 1988, 1993-1995, 2004-2005, discontinued.

GAGE.--None. Elevation at site is 5,135 ft (NGVD 29).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, SEPTEMBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
SEP 2004								
14...	0830	1,090	8.2	270	7.0	11.0	--	--
SEP 2005								
15...	0800	1,020	8.3	260	--	10.0	1.8	2.0

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP 2004							
14...	.67	.90	12.7	--	1.04	.25	.09
SEP 2005							
15...	.18	.67	6.47	<.04	--	.62	.02

452518111412201 UPPER ENNIS LAKE NEAR ENNIS, MT

LOCATION.--Lat 45°25'18", long 111°41'22" (NAD 27), in $NE^1/_4NE^1/_4NW^1/_4$ sec.11, T.5 S., R.1 W., Madison County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 4,815 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004					
29...	1200	14.6	<.13	.61	.02

452702111393001 LOWER ENNIS LAKE NEAR ENNIS, MT

LOCATION.--Lat 45°27'02", long 111°39'30" (NAD 27), in $NW^1/_4NW^1/_4NW^1/_4$ sec.31, T.4 S., R.1 E., Madison County, Hydrologic Unit 10020007.

PERIOD OF RECORD.--September 2004, discontinued.

GAGE.--None, elevation at site, 4,815 ft (NGVD 27).

REMARKS.--Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Mercury solids, total, **ng/g** (62978)	Methyl-mercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ig-nition, bed sed percent (64178)
SEP 2004 29...	1100	64.7	<.68	.12	.10

06040800 MADISON RIVER ABOVE POWERPLANT, NEAR MCALLISTER, MT

LOCATION.--Lat 45°29'12", long 111°37'59" (NAD 27), in $NW^1/_4$ $NE^1/_4$ $SW^1/_4$ sec.17, T.4 S., R.1 E., Madison County, Hydrologic Unit 10020007, on right bank 160 ft upstream from Madison powerplant, 1.4 mi downstream from Ennis Lake, 5.6 mi northeast of McAllister, and at river mile 38.9.

DRAINAGE AREA.--2,186 mi^2.

PERIOD OF RECORD.--April 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,690 ft (NGVD 29).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Hebgen Lake (station number 06038000) and Ennis Lake (station number 06040500). Diversions for irrigation of about 23,000 acres upstream from station. Flow through Madison Powerplant bypasses the station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	421	139	e98	210	102	173	222	1,030	966	97	94
2	114	344	139	98	209	103	212	222	1,310	681	273	94
3	240	338	139	98	154	103	212	223	1,100	693	105	96
4	219	291	138	e98	101	145	212	224	866	695	99	95
5	222	256	138	e98	102	208	214	225	755	569	107	94
6	222	256	138	e97	102	208	214	215	721	230	201	98
7	258	254	138	97	102	207	217	209	949	189	198	102
8	305	253	140	e96	102	172	218	216	1,810	251	153	103
9	302	253	141	e97	102	103	215	221	1,660	251	135	97
10	299	379	142	98	102	169	215	236	1,280	253	142	93
11	255	417	193	99	103	203	214	340	1,170	307	108	93
12	215	382	325	99	103	188	212	492	1,190	537	109	93
13	216	380	339	e98	179	152	211	484	1,370	390	109	93
14	215	378	314	e98	417	153	212	452	1,850	269	110	92
15	217	375	314	e98	549	152	210	444	1,700	274	110	94
16	218	372	313	e98	543	152	210	340	1,910	240	101	98
17	218	370	313	99	486	128	212	360	2,610	112	95	102
18	223	368	312	227	346	97	214	663	2,890	345	99	100
19	223	366	312	319	148	97	216	808	2,860	142	101	100
20	224	363	311	396	106	98	216	897	2,350	164	101	101
21	225	361	308	534	107	99	217	1,310	2,340	286	99	101
22	226	358	306	524	199	99	218	1,750	e2,700	210	90	101
23	226	357	301	469	321	98	210	1,860	e2,900	148	85	100
24	227	356	295	462	280	99	205	1,840	2,930	134	85	101
25	305	355	170	372	218	100	216	1,580	2,180	87	87	102
26	448	353	95	309	163	99	218	1,020	1,800	89	89	105
27	498	351	96	308	101	96	218	694	1,800	90	89	105
28	495	e350	96	308	101	95	219	702	1,480	101	91	103
29	495	e350	96	307	---	94	221	711	1,380	145	92	101
30	492	e280	128	306	---	93	222	722	1,500	98	94	101
31	484	---	e150	275	---	92	---	729	---	100	98	---
TOTAL	8,639	10,287	6,479	6,780	5,756	4,004	6,393	20,411	52,391	9,046	3,552	2,952
MEAN	279	343	209	219	206	129	213	658	1,746	292	115	98.4
MAX	498	421	339	534	549	208	222	1,860	2,930	966	273	105
MIN	113	253	95	96	101	92	173	209	721	87	85	92
AC-FT	17,140	20,400	12,850	13,450	11,420	7,940	12,680	40,490	103,900	17,940	7,050	5,860

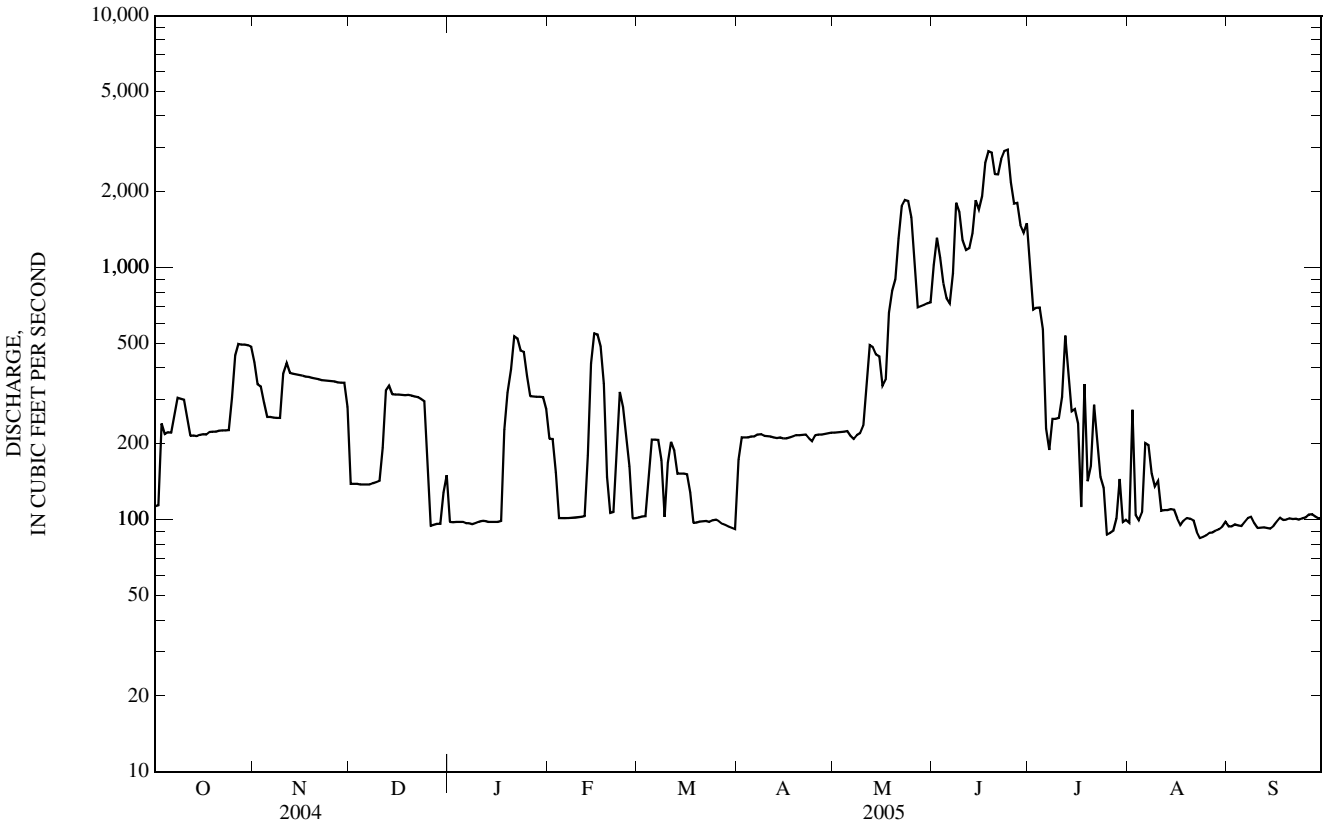
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	260	236	131	169	140	120	252	562	1,093	416	160	154
MAX	279	343	209	219	206	129	351	1,031	1,746	560	203	247
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2002)	(2003)	(2005)	(2002)	(2002)	(2002)
MIN	229	110	85.7	113	103	111	213	216	615	292	115	98.4
(WY)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)	(2005)	(2004)	(2004)	(2005)	(2005)	(2005)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	91,495		136,690			
ANNUAL MEAN	250		374		304	
HIGHEST ANNUAL MEAN					374	2005
LOWEST ANNUAL MEAN					217	2004
HIGHEST DAILY MEAN	2,140	Jun 11	2,930	Jun 24	3,540	May 31, 2003
LOWEST DAILY MEAN	80	Jan 5	85	Aug 23	73	Dec 27, 2002
ANNUAL SEVEN-DAY MINIMUM	86	Jan 3	88	Aug 22	77	Dec 22, 2002
MAXIMUM PEAK FLOW			3,080	Jun 23	3,940	Jun 2, 2002
MAXIMUM PEAK STAGE			8.57	Jun 23	9.42	Jun 2, 2002
ANNUAL RUNOFF (AC-FT)	181,500		271,100		220,100	
10 PERCENT EXCEEDS	427		831		639	
50 PERCENT EXCEEDS	208		215		152	
90 PERCENT EXCEEDS	95		97		93	

e--Estimated.

06040800 MADISON RIVER ABOVE POWERPLANT, NEAR MCALLISTER, MT—Continued



WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2003 to September 2004, discontinued.

REMARKS.-- Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass. Several unpublished observations of water tempeature and specific conductance were made during the year.

WATER-QUALITY DATA, APRIL 2004 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
APR 2004												
19...	1545	233	8.5	362	--	--	.79	1.71	--	--	--	--
SEP 2004												
13...	1600	1,180	8.8	285	13.5	15.0	1.02	.87	1.59	<.13	.62	.01

06041000 MADISON RIVER BELOW ENNIS LAKE, NEAR MCALLISTER, MT

LOCATION.--Lat 45°29'25", long 111°38'00" (NAD 27), in $SW^1/_4$ $SE^1/_4$ $NW^1/_4$ sec.17, T.4 S., R.1 E., Madison County, Hydrologic Unit 10020007, on right bank 500 ft downstream from Madison powerplant, 1.5 mi downstream from Ennis Lake, 5.7 mi northeast of McAllister, and at river mile 38.8.

DRAINAGE AREA.--2,186 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1901 to December 1905, October 1906 to current year. Prior to October 1938 adjusted monthly runoff only, published in WSP 1309. Published as "below Madison Reservoir" 1938-49. Records published as "near Red Bluff" 1890-94 and as "near Norris" 1910 are not equivalent and are published as "near Norris" in WSP 1309.

REVISED RECORDS.--WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,689.03 ft (levels by U.S. Army Corps of Engineers) (NGVD 29). Prior to May 7, 1941, nonrecording gage in wooden stilling well at present site at different elevation. May 7, 1941, to Jan. 13, 1945, nonrecording gages in concrete stilling well at present site and elevation.

REMARKS.--Water-discharge records excellent. Flow regulated by Hebgen Lake (station number 06038000) and Ennis Lake (station number 06040500). Diversions for irrigation of about 23,000 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,210	1,500	1,230	1,210	1,300	1,210	1,230	1,310	2,330	2,270	1,340	1,310
2	1,210	1,420	1,230	1,210	1,300	1,210	1,210	1,310	2,620	2,010	1,360	1,310
3	1,310	1,420	1,230	1,210	1,250	1,220	1,210	1,310	2,380	2,020	1,410	1,310
4	1,300	1,380	1,230	1,210	1,210	1,250	1,210	1,310	2,160	2,020	1,340	1,310
5	1,300	1,340	1,230	1,210	1,210	1,320	1,210	1,340	2,080	1,910	1,360	1,310
6	1,300	1,340	1,230	1,200	1,210	1,340	1,220	1,340	2,050	1,600	1,450	1,320
7	1,330	1,340	1,230	1,200	1,210	1,340	1,280	1,340	2,250	1,560	1,430	1,350
8	1,380	1,340	1,230	1,200	1,210	1,310	1,320	1,350	3,130	1,620	1,390	1,380
9	1,390	1,340	1,230	1,210	1,210	1,250	1,320	1,360	2,970	1,620	1,370	1,280
10	1,390	1,420	1,240	1,210	1,210	1,290	1,320	1,520	2,560	1,620	1,380	1,230
11	1,350	1,450	1,280	1,210	1,210	1,300	1,310	1,720	2,440	1,670	1,380	1,230
12	1,310	1,460	1,410	1,200	1,210	1,290	1,250	1,860	2,470	1,880	1,400	1,230
13	1,310	1,460	1,420	1,210	1,280	1,260	1,200	1,850	2,660	1,750	1,400	1,180
14	1,310	1,450	1,390	1,210	1,320	1,260	1,200	1,820	3,180	1,630	1,390	1,140
15	1,310	1,440	1,390	1,210	1,330	1,260	1,200	1,810	3,020	1,630	1,400	1,160
16	1,310	1,450	1,390	1,200	1,340	1,250	1,200	1,710	3,250	1,600	1,400	1,240
17	1,310	1,450	1,390	1,200	1,330	1,230	1,200	1,730	3,990	1,480	1,390	1,300
18	1,320	1,450	1,380	1,320	1,290	1,200	1,210	2,000	4,310	1,620	1,440	1,250
19	1,320	1,430	1,380	1,410	1,240	1,200	1,300	2,120	4,290	1,390	1,460	1,250
20	1,320	1,440	1,380	1,480	1,200	1,200	1,330	2,200	3,740	1,400	1,460	1,270
21	1,320	1,440	1,380	1,620	1,210	1,200	1,310	2,600	3,730	1,510	1,460	1,290
22	1,320	1,430	1,380	1,610	1,290	1,200	1,320	3,090	4,130	1,450	1,350	1,290
23	1,320	1,430	1,370	1,560	e1,410	1,210	1,310	3,210	4,310	1,440	1,250	1,290
24	1,320	1,430	1,360	1,550	1,370	1,230	1,290	3,200	4,350	1,370	1,240	1,290
25	1,390	1,420	1,240	1,460	1,320	1,240	1,300	2,910	3,570	1,300	1,250	1,290
26	1,530	1,430	1,180	1,400	1,270	1,230	1,300	2,320	3,120	1,300	1,270	1,330
27	1,580	1,380	1,180	1,390	1,200	1,220	1,300	2,030	3,130	1,300	1,270	1,370
28	1,560	1,360	1,180	1,390	1,210	1,220	1,310	2,040	2,770	1,410	1,270	1,340
29	1,580	1,420	1,180	1,390	---	1,220	1,310	2,050	2,660	1,450	1,260	1,320
30	1,570	1,360	1,220	1,390	---	1,220	1,310	2,060	2,790	1,380	1,320	1,320
31	1,570	---	1,250	1,360	---	1,200	---	2,060	---	1,380	1,370	---
TOTAL	42,350	42,420	40,040	40,840	35,350	38,580	37,990	59,880	92,440	49,590	42,260	38,490
MEAN	1,366	1,414	1,292	1,317	1,262	1,245	1,266	1,932	3,081	1,600	1,363	1,283
MAX	1,580	1,500	1,420	1,620	1,410	1,340	1,330	3,210	4,350	2,270	1,460	1,380
MIN	1,210	1,340	1,180	1,200	1,200	1,200	1,200	1,310	2,050	1,300	1,240	1,140
AC-FT	84,000	84,140	79,420	81,010	70,120	76,520	75,350	118,800	183,400	98,360	83,820	76,340

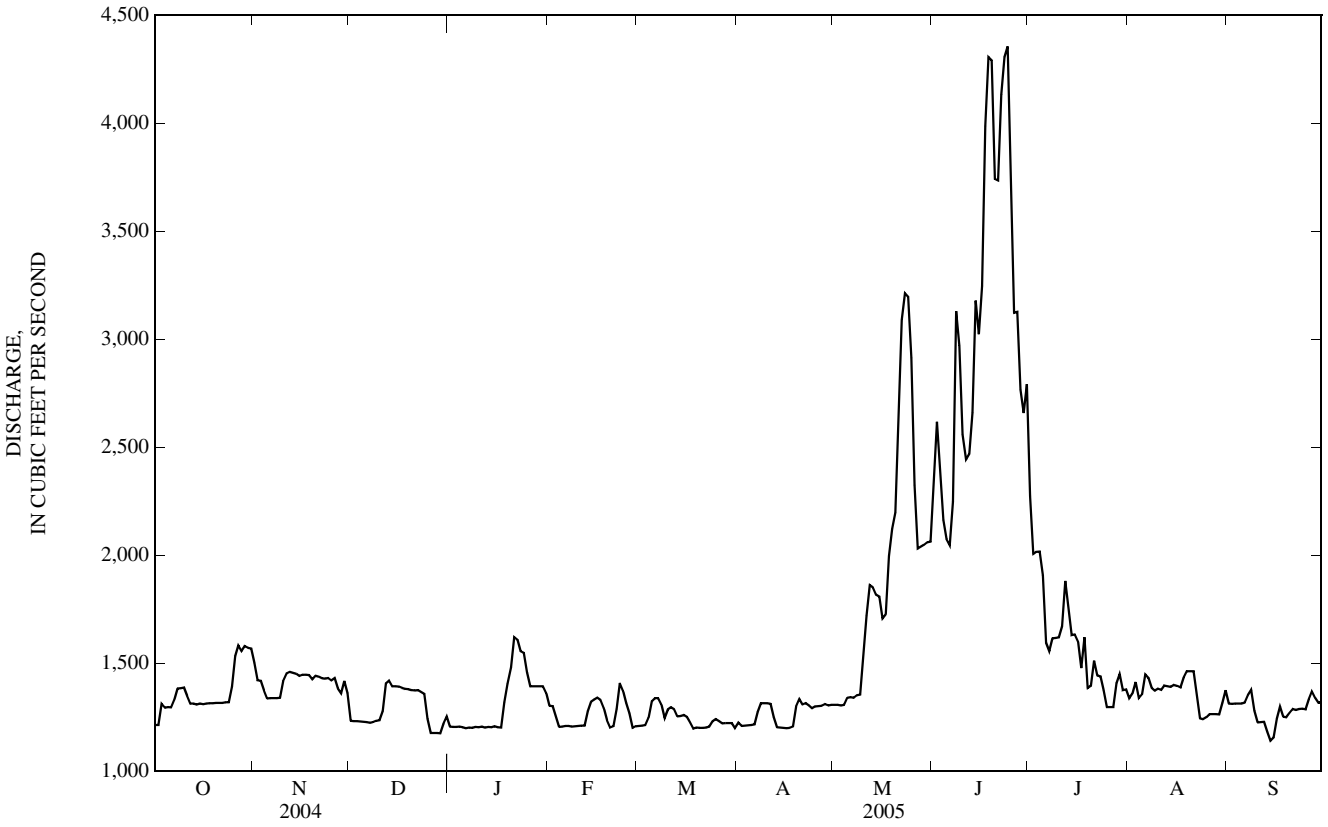
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	1,908	1,977	1,512	1,387	1,392	1,442	1,546	2,003	2,969	1,850	1,520	1,607
MAX	2,963	3,318	3,243	2,061	2,336	2,087	3,008	4,189	6,135	3,454	2,339	2,298
(WY)	(1960)	(1960)	(1960)	(1999)	(1943)	(1939)	(1948)	(1969)	(1997)	(1965)	(1971)	(1972)
MIN	810	961	974	767	781	891	717	859	1,122	972	1,044	934
(WY)	(1942)	(1941)	(1940)	(1940)	(1940)	(1941)	(1941)	(1961)	(1992)	(1961)	(1961)	(1941)

06041000 MADISON RIVER BELOW ENNIS LAKE, NEAR MCALLISTER, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	485,910		560,230			
ANNUAL MEAN	1,328		1,535		1,759	
HIGHEST ANNUAL MEAN					2,530	1997
LOWEST ANNUAL MEAN					1,047	1941
HIGHEST DAILY MEAN	3,160	Jun 11	4,350	Jun 24	9,210	Jun 11, 1970
LOWEST DAILY MEAN	1,110	Apr 29	1,140	Sep 14	210	Aug 25, 1959
ANNUAL SEVEN-DAY MINIMUM	1,120	Apr 29	1,200	Dec 26	390	Aug 23, 1959
MAXIMUM PEAK FLOW			4,470	Jun 23	9,550	Jun 12, 1970
MAXIMUM PEAK STAGE			5.48	Jun 23	8.01	Jun 12, 1970
ANNUAL RUNOFF (AC-FT)	963,800		1,111,000		1,274,000	
10 PERCENT EXCEEDS	1,510		2,140		2,680	
50 PERCENT EXCEEDS	1,310		1,340		1,550	
90 PERCENT EXCEEDS	1,130		1,210		1,100	

e--Estimated.



06041000 MADISON RIVER BELOW ENNIS LAKE, NEAR MCALLISTER, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1977 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1977 to current year.

INSTRUMENTATION.--Temperature recorder since June 21, 1977.

REMARKS.--Daily water temperature records rated excellent. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.5°C, July 22 and 23, 2003; minimum, 0.0°C several to many day during winter months most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.5°C, July 16, 20-25, and Aug. 7, 8; minimum, 0.0°C, Nov. 28, 29.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.5	13.0	4.5	4.0	4.0	0.5	0.5	0.5	1.0	1.0	1.0
2	13.0	12.5	12.5	4.0	3.5	3.5	1.0	0.5	0.5	1.5	1.0	1.0
3	13.0	12.5	12.5	3.5	3.0	3.0	1.0	1.0	1.0	1.5	1.0	1.0
4	13.0	12.5	12.5	3.0	2.5	3.0	1.5	1.0	1.0	1.0	1.0	1.0
5	13.0	13.0	13.0	3.5	3.0	3.0	1.5	1.5	1.5	1.0	1.0	1.0
6	13.0	12.5	13.0	3.5	3.0	3.5	1.5	1.5	1.5	1.0	1.0	1.0
7	13.5	13.0	13.0	3.5	3.5	3.5	2.0	1.5	1.5	1.0	1.0	1.0
8	13.0	13.0	13.0	3.5	3.5	3.5	2.0	1.5	1.5	1.0	1.0	1.0
9	13.0	12.5	13.0	4.0	3.5	4.0	1.5	1.5	1.5	1.0	0.5	1.0
10	12.5	12.0	12.0	4.0	4.0	4.0	2.0	1.5	2.0	1.0	1.0	1.0
11	12.0	11.5	11.5	4.5	4.0	4.5	2.0	1.5	2.0	1.0	1.0	1.0
12	11.5	11.0	11.5	5.0	4.5	5.0	1.5	1.0	1.5	1.0	1.0	1.0
13	11.5	11.0	11.0	5.0	4.5	4.5	1.5	1.0	1.5	1.0	0.5	0.5
14	11.0	11.0	11.0	4.5	4.5	4.5	1.5	1.5	1.5	1.0	0.5	0.5
15	11.0	11.0	11.0	4.5	3.5	4.0	1.5	1.5	1.5	1.0	1.0	1.0
16	11.0	10.5	10.5	4.0	3.5	4.0	1.5	1.5	1.5	1.5	1.0	1.0
17	10.5	9.5	10.0	4.0	3.5	3.5	2.0	1.5	2.0	1.5	1.0	1.0
18	9.5	9.0	9.5	3.5	3.0	3.5	2.0	2.0	2.0	1.5	1.0	1.5
19	9.0	9.0	9.0	3.5	3.0	3.0	2.0	2.0	2.0	1.5	1.0	1.5
20	9.0	8.5	8.5	3.0	2.0	2.5	2.0	2.0	2.0	1.5	1.5	1.5
21	8.5	8.0	8.5	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5
22	8.5	8.0	8.5	2.0	1.0	1.5	2.0	1.5	2.0	2.0	1.5	1.5
23	8.0	7.5	8.0	1.5	1.0	1.0	2.0	1.5	1.5	2.0	1.5	2.0
24	7.5	7.0	7.5	1.0	1.0	1.0	1.5	1.5	1.5	2.0	1.5	2.0
25	7.0	6.0	6.5	1.0	1.0	1.0	2.0	1.5	1.5	2.0	2.0	2.0
26	6.0	6.0	6.0	1.0	1.0	1.0	2.0	1.5	1.5	2.5	2.0	2.0
27	6.0	6.0	6.0	1.0	0.5	0.5	1.5	1.5	1.5	2.5	2.0	2.5
28	6.0	5.5	6.0	0.5	0.0	0.5	1.5	1.5	1.5	2.5	2.0	2.5
29	5.5	5.0	5.5	0.5	0.0	0.0	2.0	1.5	1.5	2.5	2.0	2.5
30	5.0	5.0	5.0	0.5	0.5	0.5	2.0	1.5	1.5	2.5	2.0	2.5
31	5.0	4.5	5.0	---	---	---	1.5	1.0	1.0	2.5	2.0	2.0
MONTH	13.5	4.5	10.0	5.0	0.0	3.0	2.0	0.5	1.5	2.5	0.5	1.5

06041000 MADISON RIVER BELOW ENNIS LAKE, NEAR MCALLISTER, MT—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2.0	2.0	2.0	5.0	4.5	4.5	4.0	3.0	3.5	7.0	5.5	6.5
2	2.5	2.0	2.0	5.0	4.0	4.5	5.0	4.0	4.0	7.5	6.5	7.0
3	2.5	2.0	2.0	5.0	4.0	4.5	5.0	4.5	5.0	8.5	7.5	8.0
4	2.5	2.0	2.5	5.0	4.5	5.0	5.0	5.0	5.0	9.5	8.5	9.0
5	2.5	2.5	2.5	5.0	4.5	5.0	5.0	4.5	5.0	10.5	9.5	10.0
6	2.5	2.5	2.5	5.0	4.5	5.0	6.0	5.0	5.5	10.5	10.0	10.5
7	2.5	2.5	2.5	5.0	5.0	5.0	7.0	6.0	6.5	11.0	10.5	11.0
8	3.0	2.5	2.5	5.5	5.0	5.0	7.0	6.5	7.0	11.5	11.0	11.0
9	3.0	2.5	3.0	6.0	5.0	5.5	7.5	7.0	7.0	12.0	11.5	11.5
10	3.0	2.5	3.0	6.0	5.0	5.5	7.5	7.0	7.0	12.0	11.5	12.0
11	3.5	3.0	3.0	5.0	4.5	4.5	7.5	7.0	7.5	11.5	8.5	10.5
12	3.5	3.0	3.0	5.0	4.0	4.5	8.5	7.5	8.0	9.5	9.0	9.5
13	3.0	3.0	3.0	4.0	2.0	3.0	9.0	8.5	8.5	9.5	9.0	9.0
14	3.0	3.0	3.0	2.5	1.5	2.0	9.0	7.5	8.5	11.0	8.5	9.5
15	3.0	2.5	2.5	2.5	2.0	2.0	8.0	7.5	7.5	12.5	11.0	12.0
16	3.0	2.5	3.0	3.0	2.5	2.5	8.0	7.5	8.0	12.5	12.0	12.0
17	3.5	3.0	3.0	3.0	2.5	2.5	8.5	8.0	8.5	12.0	11.5	11.5
18	3.5	3.0	3.5	2.5	2.0	2.0	8.0	7.0	7.5	11.5	11.0	11.5
19	4.0	3.5	3.5	2.0	1.5	2.0	7.0	7.0	7.0	12.0	11.5	11.5
20	4.0	3.5	4.0	3.0	2.0	2.5	7.0	5.5	6.0	12.5	12.0	12.0
21	4.0	3.5	4.0	3.0	2.5	2.5	6.0	6.0	6.0	13.0	12.0	12.5
22	---	---	---	3.0	3.0	3.0	7.5	6.0	6.5	13.5	12.5	13.0
23	---	---	---	3.0	2.0	2.5	8.5	6.5	7.5	14.0	13.0	13.5
24	3.5	3.0	3.0	2.0	1.0	1.5	8.5	8.0	8.5	13.0	12.5	13.0
25	4.0	3.0	3.5	1.5	1.0	1.0	9.0	8.0	8.5	14.5	12.5	13.5
26	4.0	3.5	4.0	2.0	1.0	1.5	9.5	8.5	9.0	14.0	13.0	13.5
27	4.5	4.0	4.0	2.5	2.0	2.5	9.5	8.5	9.0	14.0	12.5	13.0
28	4.5	4.0	4.5	3.0	2.5	3.0	8.5	8.0	8.5	14.5	12.5	13.5
29	---	---	---	3.0	3.0	3.0	8.5	7.0	7.5	15.0	13.0	14.5
30	---	---	---	3.0	3.0	3.0	7.5	6.0	6.5	15.0	14.0	14.5
31	---	---	---	3.0	2.5	3.0	---	---	---	15.0	14.5	14.5
MONTH	4.5	2.0	3.0	6.0	1.0	3.5	9.5	3.0	7.0	15.0	5.5	11.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.5	13.5	14.0	18.0	17.0	17.5	21.5	21.0	21.0	17.5	17.0	17.5
2	13.5	12.5	13.0	17.5	17.0	17.5	21.0	19.5	20.5	17.5	17.0	17.5
3	12.5	12.5	12.5	18.5	17.0	17.5	20.5	20.0	20.5	17.5	17.0	17.0
4	14.0	12.0	12.5	19.0	17.5	18.0	21.0	20.0	20.5	17.5	17.0	17.5
5	14.5	13.0	13.5	19.5	19.0	19.0	22.0	20.5	21.0	17.0	17.0	17.0
6	14.0	13.0	13.0	20.5	19.0	19.5	22.0	21.5	22.0	17.0	16.5	17.0
7	13.0	12.5	12.5	21.0	20.5	20.5	22.5	21.5	22.0	17.5	16.5	17.0
8	13.0	12.5	13.0	21.0	20.5	20.5	22.5	21.5	22.0	18.0	17.0	17.5
9	13.0	12.5	13.0	21.0	20.5	20.5	21.5	21.0	21.0	18.0	17.5	18.0
10	14.0	13.0	13.0	20.5	20.0	20.0	21.5	21.0	21.0	17.5	16.0	16.5
11	14.5	13.5	14.0	21.0	20.0	20.0	21.0	20.5	21.0	16.0	15.0	15.5
12	14.0	13.0	13.5	22.0	20.5	21.0	20.5	20.0	20.5	15.0	14.5	14.5
13	14.0	12.5	13.0	22.0	21.5	21.5	20.0	18.5	19.0	14.5	14.0	14.5
14	15.0	13.5	14.0	21.5	21.0	21.5	18.5	18.0	18.0	14.5	14.0	14.5
15	15.0	14.5	14.5	22.0	21.0	21.5	18.5	17.5	18.0	15.0	14.5	14.5
16	16.0	14.5	15.0	22.5	21.5	22.0	18.5	18.0	18.0	15.0	14.5	15.0
17	16.0	15.5	16.0	21.5	21.0	21.0	18.5	18.0	18.0	14.5	14.0	14.0
18	16.0	15.0	15.5	21.5	20.5	21.0	18.0	17.5	18.0	14.0	13.5	14.0
19	16.5	15.0	15.5	22.0	21.5	21.5	18.0	17.5	18.0	14.0	13.5	14.0
20	17.5	15.0	16.0	22.5	21.5	22.0	19.0	18.0	18.5	14.0	13.5	13.5
21	18.0	16.0	17.0	22.5	21.5	22.0	19.5	19.0	19.0	14.0	13.5	13.5
22	17.5	16.5	17.0	22.5	22.0	22.5	19.5	19.0	19.0	13.5	13.0	13.5
23	18.0	17.0	17.0	22.5	22.0	22.0	19.5	19.0	19.5	13.5	13.0	13.5
24	18.5	16.5	17.5	22.5	22.0	22.0	19.0	18.5	19.0	13.0	12.0	12.5
25	18.0	17.0	17.5	22.5	21.0	21.5	18.5	18.0	18.0	12.0	11.5	11.5
26	17.5	17.0	17.5	21.0	20.0	20.5	19.0	18.0	18.5	11.5	11.0	11.5
27	18.0	16.5	17.0	21.0	20.0	20.5	19.0	18.5	18.5	12.0	11.5	11.5
28	17.5	16.5	17.0	21.5	20.5	21.0	19.5	18.5	19.0	11.5	11.0	11.5
29	16.5	16.0	16.5	20.5	20.0	20.5	19.0	19.0	19.0	11.5	11.0	11.5
30	18.0	16.0	16.5	21.0	20.0	20.5	19.0	17.5	18.0	12.0	11.5	11.5
31	---	---	---	21.0	20.5	20.5	17.5	17.0	17.0	---	---	---
MONTH	18.5	12.0	15.0	22.5	17.0	20.5	22.5	17.0	19.5	18.0	11.0	14.5

06041300 HOT SPRINGS CREEK NEAR NORRIS, MT

LOCATION.--Lat 45°35'07", long 111°35'38" (NAD 27), in $NE^1/_4SW^1/_4SW^1/_4$, sec.10, T.3 S., R.1 E., Madison County, Hydrologic Unit 10020007, 0.1 mi south of State Highway 84, 0.2 mi upstream from mouth, and 5.5 mi northeast of Norris.

DRAINAGE AREA.--72.5 mi^2.

PERIOD OF RECORD.--Water year 1986, June 1993 to May 1994, September 2005, discontinued.

GAGE.--None. Elevation at site is 4,500 ft (NGVD 29).

REMARKS.--Data for for water year 1986 published in Open-File Report 87-124. Mercury concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
SEP												
14...	1100	2.9	8.5	536	9.5	3.4	7.8	1.65	12.6	883	.28	.05

06042600 MADISON RIVER AT THREE FORKS, MT

LOCATION.--Lat 44°54'05", long 111°31'29" (NAD 27), in $SE^1/_4NE^1/_4NW^1/_4$, sec.30, T.2 N., R.2 E., Gallatin County, Hydrologic Unit 10020007, at bridge on old U.S. Highway 10, 1.5 mi east of Three Forks, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--2,531 mi^2.

PERIOD OF RECORD.--Water years 1986-87, 1993-95, 2004-2005, discontinued.

GAGE.--None. Elevation at site is 4,050 ft (NGVD 27).

REMARKS.--Data for water years 1986-87 published in Open-File Reports 87-124 and 87-697. Mercury data for 2004 that was unavailable to publish last year are provided in this 2005 volume; concentrations are in nanograms per unit volume or mass.

WATER-QUALITY DATA, APRIL 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
APR 2004							
19...	1720	--	8.5	361	--	--	--
SEP							
13...	1130	1,080	8.3	292	13.0	--	--
SEP 2005							
12...	1500	1,090	8.9	274	14.0	2.0	5.7

Date	Mercury water fltrd, **ng/L** (50287)	Mercury water unfltrd **ng/L** (50286)	Mercury solids, total, **ng/g** (62978)	Methylmercury water unfltrd **ng/L** (50284)	Methylmercury solids, total, **ng/g** (62979)	Bed sed dry wt, percent of wet wt (64177)	Loss on ignition, bed sed percent (64178)
APR 2004							
19...	.73	2.10	--	--	--	--	--
SEP							
13...	.48	.87	13.8	--	.20	.51	.02
SEP 2005							
12...	.43	.63	6.06	.10	--	.64	.02