

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana

[Major element data expressed in weight percent; trace element data expressed in ppm (parts per million) or µg/g, dry weight basis]

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Titanium
Number (fig. 1)	Number	percent	percent	percent	percent	percent	percent	percent	percent
BOULDER RIVER									
1S	97-BMS-137	8.2	2.0	1.6	2.1	0.47	2.4	0.05	0.26
	98-BMS-114	8.5	2.3	1.1	1.8	0.39	2.7	0.06	0.21
2S	96-BM-135	8.0	2.8	3.3	2.0	1.1	2.2	0.10	0.43
3S	97-BMS-115	8.2	3.0	4.0	2.1	1.2	2.4	0.10	0.61
	98-BMS-113	7.7	2.9	5.1	1.9	1.0	2.3	0.09	0.83
4S	96-BM-121	7.8	2.7	3.5	2.0	1.1	2.2	0.10	0.41
5S	96-BM-125A	7.5	2.4	5.0	2.0	0.98	2.0	0.11	0.46
	96-BM-125B	7.6	2.7	3.9	2.0	1.1	2.1	0.11	0.43
6S	96-BM-124A	7.8	2.6	3.0	2.0	1.0	2.2	0.09	0.35
	96-BM-124B	7.6	2.5	3.9	2.1	0.94	2.0	0.11	0.40
7S	97-BMS-114	8.5	2.9	4.1	2.3	1.0	2.4	0.10	0.49
8S	96-BM-127A	7.6	2.5	3.6	2.1	0.95	2.1	0.10	0.36
	96-BM-127B	7.4	2.6	5.0	2.0	0.94	2.1	0.12	0.51
9S	96-BM-128A	6.6	2.0	6.5	1.8	0.80	1.6	0.12	0.43
	96-BM-128B	7.7	2.5	3.9	2.2	0.91	2.1	0.10	0.37
10S	97-BMS-112	8.4	2.7	4.8	2.5	0.94	2.3	0.08	0.48
	98-BMS-116	7.6	2.5	4.4	2.1	0.96	2.3	0.08	0.48
11S	96-BM-130A	7.8	2.3	3.4	2.2	0.94	1.9	0.09	0.32
	96-BM-130B	7.2	2.5	9.0	2.0	0.91	2.0	0.13	0.68
12S	96-BM-129A	7.1	2.2	6.8	2.0	0.87	1.8	0.12	0.47
	96-BM-129B	6.7	2.2	6.3	2.0	0.84	1.8	0.10	0.40
13S	96-BM-137A	8.0	2.3	8.5	1.9	0.90	1.8	0.12	0.55
	96-BM-137B	8.0	2.1	9.4	1.7	0.79	1.6	0.11	0.45

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Titanium
Number (fig. 1)	Number	percent	percent	percent	percent	percent	percent	percent	percent
14S	97-BMS-119	6.2	1.7	18	2.1	0.74	1.3	0.14	0.83
	97-BMS-111	8.5	2.6	4.3	2.6	0.84	2.3	0.07	0.39
	98-BMS-106	7.6	2.4	3.4	2.2	0.87	2.2	0.07	0.34
15S	96-BM-138	5.9	2.5	7.1	2.1	0.93	2.0	0.14	0.46
16S	96-BM-132	7.3	2.0	4.7	2.2	0.79	1.8	0.12	0.39
17S	96-BM-134	7.7	2.6	3.2	2.2	0.86	2.2	0.12	0.44
18S	96-BM-133	6.9	3.1	4.1	2.0	1.2	1.8	0.11	0.48
<u>BASIN CREEK</u>									
20S	98-BMS-104	7.7	2.3	11	2.3	1.1	1.5	0.19	0.75
21aS	97-BMS-101-19	8.3	2.6	18	2.4	1.2	1.9	0.27	1.0
21bS	97-BMS-101-A7	8.4	2.3	12	2.4	1.1	1.6	0.19	0.68
21cS	97-BMS-101-B7	8.3	2.5	15	2.3	1.3	1.8	0.24	0.99
21dS	97-BMS-101-C7	7.6	2.3	30	2.3	1.1	1.5	0.26	1.3
21eS	96-BM-136	7.9	2.0	7.5	2.0	1.2	1.3	0.17	0.55
22S	96-BM-107	7.0	0.6	3.3	2.9	0.34	0.89	0.06	0.21
23S	96-BM-109	7.1	1.0	3.4	2.5	0.50	1.1	0.08	0.22
24S	98-BMS-103	7.3	1.4	5.0	2.6	0.58	1.1	0.14	0.44
25S	98-BMS-101	7.3	1.1	2.6	2.7	0.45	1.4	0.09	0.35
26S	98-BMS-102	6.9	2.4	9.1	2.3	1.1	1.5	0.12	0.85
27S	96-BM-110	7.6	1.9	4.8	2.3	0.91	1.4	0.12	0.40
28S	96-BM-123	7.3	2.0	4.5	2.4	0.83	1.6	0.13	0.40
29S	96-BM-122	7.3	1.8	3.9	2.5	0.76	1.4	0.12	0.36
30S	97-BMS-117	7.6	1.9	4.3	2.9	0.74	1.5	0.11	0.44
	98-BMS-110	7.2	1.8	4.7	2.6	0.80	1.4	0.10	0.48
31S	96-BM-126	7.4	1.8	4.1	2.6	0.72	1.5	0.12	0.38

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Titanium
Number (fig. 1)	Number	percent	percent	percent	percent	percent	percent	percent	percent
JACK CREEK									
32S	97-BMS-102s1	8.0	3.1	8.2	2.0	1.6	1.8	0.13	0.80
33S	97-BMS-102s2	7.5	1.6	8.2	2.9	0.94	1.3	0.08	0.45
34S	96-BM-115	5.9	0.9	9.0	1.8	0.74	0.82	0.09	0.27
35S	97-BMS-104G	2.4	0.0	1.8	1.0	0.08	0.04	0.02	0.06
36S	97-BMS-105G	2.4	0.0	2.0	1.0	0.08	0.02	0.02	0.07
	97-BMS-105S	8.4	2.2	3.7	1.9	1.2	1.6	0.07	0.51
37S	97-BMS-106G	2.8	0.03	0.89	1.2	0.10	0.03	0.04	0.10
38S	97-BMS-140	7.8	3.2	13	2.2	1.4	2.0	0.28	0.80
	99-BMS-107	7.6	2.6	10	2.4	1.3	1.7	0.15	0.70
39S	97-BMS-122	6.5	1.5	8.2	1.9	1.3	1.3	0.15	0.46
	98-BMS-112	7.0	2.6	11	2.2	1.3	1.6	0.15	0.77
40S	96-BM-111	7.5	2.2	6.2	2.0	1.2	1.4	0.14	0.48
	97-BMS-107GA	8.8	2.0	4.7	2.0	1.4	1.5	0.09	0.60
	98-BMS-111	7.3	2.4	6.5	2.2	1.2	1.7	0.13	0.55
	97-BMS-107GB	4.8	0.88	3.0	1.7	0.53	0.69	0.08	0.27
	97-BMS-116	7.9	2.9	12	2.4	1.3	1.8	0.15	0.82
43S	96-BM-113	7.2	1.9	4.2	2.2	1.1	1.2	0.12	0.40
43S	96-BM-114	3.1	7.2	21	0.90	0.52	0.26	0.07	0.14
41S	96-BM-112	6.2	2.3	15	1.8	1.1	1.4	0.16	0.84
42S	96-BM-108	7.4	2.3	4.6	2.1	1.1	1.6	0.12	0.40
CATARACT CREEK									
44S	97-BMS-120	8.8	2.7	7.0	2.3	1.2	2.2	0.18	0.59
45S	97-BMS-124	8.4	2.0	12	2.7	0.86	1.6	0.13	0.76

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Titanium
Number (fig. 1)	Number	percent	percent	percent	percent	percent	percent	percent	percent
46S	96-BM-120	8.1	2.7	7.1	1.9	1.1	2.2	0.14	0.55
	97-BMS-121	8.2	3.0	22	2.2	1.0	2.3	0.16	1.3
	98-BMS-109	6.8	2.6	17	1.8	0.96	2.1	0.13	1.1
47S	97-BMS-126	7.2	1.5	5.5	2.4	0.65	1.3	0.11	0.47
48S	96-BM-119	7.5	2.6	8.4	1.9	0.89	2.0	0.16	0.62
49S	97-BMS-127	8.6	2.7	5.4	2.4	1.0	2.2	0.13	0.54
50S	96-BM-117	7.0	2.1	3.1	2.4	0.71	1.7	0.08	0.27
	97-BMS-136	7.5	2.3	5.3	2.3	0.73	2.1	0.09	0.52
	98-BMS-118	7.6	2.3	4.7	2.3	0.84	2.0	0.10	0.44
51S	96-BM-131	7.7	2.3	5.6	2.2	0.94	1.9	0.13	0.45
52S	97-BMS-128	9.6	2.1	6.0	2.7	0.38	2.9	0.09	0.31
53S	96-BM-106	7.5	2.0	6.5	2.2	0.82	1.6	0.13	0.44
	97-BMS-113	8.0	2.4	6.6	2.6	0.82	2.0	0.12	0.55
	98-BMS-117	7.9	2.5	6.4	2.5	1.1	1.8	0.12	0.51
UNCLE SAM GULCH									
54S	97-BMS-108s1	9.1	2.2	1.9	1.7	0.45	2.8	0.06	0.35
55S	96-BM-116	7.7	1.2	5.6	2.4	0.48	1.4	0.08	0.29
56S	97-BMS-134	4.4	1.0	7.8	1.4	0.45	1.0	0.07	0.34
57S	96-BM-118	7.6	2.0	4.2	2.3	0.72	1.8	0.10	0.40
HIGH ORE CREEK									
58S	98-BMS-115	8.1	2.0	2.3	2.4	1.0	1.8	0.07	0.31
59S	96-BM-101	3.2	1.4	8.0	0.92	0.61	0.37	0.05	0.09
60S	96-BM-102	2.8	2.0	6.0	0.87	0.74	0.47	0.05	0.09
	98-BMS-107	3.6	1.6	8.2	1.1	0.65	0.76	0.06	0.08
61S	96-BM-103	5.4	2.2	6.0	1.8	0.87	1.3	0.11	0.31

62S	96-BM-104	4.8	1.9	6.3	1.6	0.78	1.0	0.11	0.24
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Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Titanium
Number (fig. 1)	Number	percent	percent	percent	percent	percent	percent	percent	percent
63S	96-BM-105A	4.7	2.0	9.0	1.6	0.79	1.0	0.12	0.27
	96-BM-105B	4.0	2.2	6.2	1.4	0.97	0.66	0.10	0.21
	97-BMS-118	5.0	2.0	8.9	2.0	0.72	1.2	0.08	0.27
	98-BMS-108	5.0	1.8	11	1.8	0.69	1.2	0.12	0.30
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	7.2	3.2	13	1.6	1.5	1.9	0.16	0.70
	97-BMS-110	8.1	3.6	13	2.1	1.4	2.2	0.15	0.80
	98-BMS-105	6.2	3.2	20	1.6	1.3	1.8	0.14	1.1

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Arsenic ppm	Barium ppm	Beryllium ppm	Cadmium ppm	Cerium ppm	Chromium ppm	Cobalt ppm	Copper ppm
BOULDER RIVER									
1S	97-BMS-137	13	1,100	2	<2	65	31	5	18
	98-BMS-114	24	900	2	<2	66	31	5	9
2S	96-BM-135	26	860	2	<2	110	46	12	23
3S	97-BMS-115	<10	870	2	<2	220	51	11	16
	98-BMS-113	19	870	2	<2	220	58	9	6
4S	96-BM-121	14	860	2	<2	110	50	12	25
5S	96-BM-125A	120	910	2	4	110	56	14	400
	96-BM-125B	58	860	2	2	120	51	16	210
6S	96-BM-124A	53	860	2	4	73	42	15	310
	96-BM-124B	67	860	2	2	97	48	14	100
7S	97-BMS-114	30	910	2	<2	130	49	10	51
8S	96-BM-127A	49	850	2	4	94	45	15	140
	96-BM-127B	68	920	2	2	130	58	13	160
9S	96-BM-128A	150	790	2	6	100	57	14	380
	96-BM-128B	120	760	2	8	100	47	17	190
10S	97-BMS-112	80	940	2	<2	120	53	11	110
	98-BMS-116	57	840	2	<2	120	53	12	97
11S	96-BM-130A	93	840	2	11	80	43	17	240
	96-BM-130B	69	840	2	7	170	100	20	150
12S	96-BM-129A	210	790	2	11	120	74	20	440
	96-BM-129B	1,000	810	2	12	92	59	20	260
13S	96-BM-137A	730	820	2	15	120	90	23	300
	96-BM-137B	2,600	690	2	22	110	75	26	610

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Arsenic ppm	Barium ppm	Beryllium ppm	Cadmium ppm	Cerium ppm	Chromium ppm	Cobalt ppm	Copper ppm
14S	97-BMS-119	1,500	330	1	7	210	170	23	540
	97-BMS-111	330	850	2	<2	120	41	11	120
	98-BMS-106	200	820	2	3	84	38	12	110
15S	96-BM-138	530	730	2	13	120	75	20	220
16S	96-BM-132	350	770	2	4	99	46	12	460
17S	96-BM-134	84	790	2	2	140	39	10	92
18S	96-BM-133	27	740	2	5	110	120	14	95
<u>BASIN CREEK</u>									
20S	98-BMS-104	45	630	2	<2	160	110	18	27
21aS	97-BMS-101-19	380	460	2	<2	250	200	23	100
21bS	97-BMS-101-A7	880	460	2	<2	160	110	20	76
21cS	97-BMS-101-B7	4,000	480	2	<2	230	160	22	130
21dS	97-BMS-101-C7	4,200	480	2	<2	280	310	20	190
21eS	96-BM-136	4,500	410	2	5	110	58	23	130
22S	96-BM-107	35	340	6	<2	69	32	10	13
23S	96-BM-109	500	540	4	4	78	31	24	49
24S	98-BMS-103	140	820	3	2	96	42	15	29
25S	98-BMS-101	44	790	3	<2	84	24	10	13
26S	98-BMS-102	330	720	2	2	180	95	19	130
27S	96-BM-110	340	650	2	8	100	42	25	180
28S	96-BM-123	210	660	2	7	94	43	17	110
29S	96-BM-122	210	680	2	7	92	34	17	120
30S	97-BMS-117	150	730	2	<2	100	36	14	74
	98-BMS-110	170	750	3	4	110	42	16	110
31S	96-BM-126	110	700	2	4	110	39	15	93

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Arsenic ppm	Barium ppm	Beryllium ppm	Cadmium ppm	Cerium ppm	Chromium ppm	Cobalt ppm	Copper ppm
JACK CREEK									
32S	97-BMS-102s1	45	560	2	<2	150	90	19	47
33S	97-BMS-102s2	2,300	650	2	<2	110	69	18	320
34S	96-BM-115	4,600	390	1	4	62	30	15	360
35S	97-BMS-104G	3,800	62	<1	5	18	8	<1	300
36S	97-BMS-105G	5,600	89	<1	2	16	8	<1	77
	97-BMS-105S	160	540	2	3	100	47	16	110
37S	97-BMS-106G	2,900	67	<1	<2	20	13	<1	54
38S	97-BMS-140	210	450	2	<2	220	160	21	160
	99-BMS-107	200	520	2	<2	170	100	22	68
39S	97-BMS-122	1,400	500	2	3	130	85	55	570
	98-BMS-112	290	620	2	<2	170	120	21	130
40S	96-BM-111	940	460	2	15	110	52	31	610
	97-BMS-107GA	170	620	2	4	120	57	28	120
	98-BMS-111	420	560	2	3	130	63	22	200
	97-BMS-107GB	2,400	250	1	<2	56	34	5	120
	97-BMS-116	760	520	2	5	180	130	28	290
43S	96-BM-113	84	770	2	<2	83	44	23	58
43S	96-BM-114	430	360	1	6	30	21	80	3,500
41S	96-BM-112	690	390	1	12	190	170	35	380
42S	96-BM-108	690	530	2	19	97	36	36	470
CATARACT CREEK									
44S	97-BMS-120	35	610	2	<2	150	47	20	51
45S	97-BMS-124	240	560	2	<2	200	110	39	1,100

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Arsenic ppm	Barium ppm	Beryllium ppm	Cadmium ppm	Cerium ppm	Chromium ppm	Cobalt ppm	Copper ppm
46S	96-BM-120	63	520	2	<2	140	61	17	47
	97-BMS-121	25	510	1	<2	280	220	15	41
	98-BMS-109	<10	770	2	<2	260	180	12	8
47S	97-BMS-126	65	920	2	3	120	53	18	61
48S	96-BM-119	150	590	2	3	150	72	16	140
49S	97-BMS-127	150	650	2	4	140	46	14	190
50S	96-BM-117	570	540	2	20	83	23	24	630
	97-BMS-136	980	610	2	9	170	38	25	680
	98-BMS-118	570	630	2	12	130	33	24	620
51S	96-BM-131	660	560	2	21	120	51	30	660
52S	97-BMS-128	19	630	3	<2	130	44	8	21
53S	96-BM-106	380	710	2	23	120	64	26	560
	97-BMS-113	580	680	2	8	180	58	26	460
	98-BMS-117	410	620	2	5	120	57	22	240
UNCLE SAM GULCH									
54S	97-BMS-108s1	39	440	3	<2	170	24	6	36
55S	96-BM-116	3,600	390	2	7	130	22	16	560
56S	97-BMS-134	3,900	650	1	9	74	60	9	220
57S	96-BM-118	1,300	540	2	39	110	26	43	2,300
HIGH ORE CREEK									
58S	98-BMS-115	19	840	2	<2	54	66	10	12
59S	96-BM-101	8,100	390	1	150	42	13	66	2,000
60S	96-BM-102	6,500	350	<1	23	34	12	28	510
	98-BMS-107	7,400	420	1	44	59	10	52	870
61S	96-BM-103	2,500	550	1	14	82	44	25	220
62S	96-BM-104	4,100	270	1	30	76	31	30	400

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Arsenic ppm	Barium ppm	Beryllium ppm	Cadmium ppm	Cerium ppm	Chromium ppm	Cobalt ppm	Copper ppm
63S	96-BM-105A	4,800	480	1	32	82	63	33	460
	96-BM-105B	4,300	110	1	68	66	28	29	740
	97-BMS-118	3,900	120	1	30	75	63	34	680
	98-BMS-108	4,000	710	2	19	120	93	30	480
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	37	380	2	2	140	110	22	29
	97-BMS-110	<10	410	2	<2	190	120	16	26
	98-BMS-105	<10	740	2	<2	190	210	18	4

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Gallium ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm	Neodymium ppm	Nickel ppm	Niobium ppm
BOULDER RIVER										
1S	97-BMS-137	12	37	18	28	540	<2	28	10	20
	98-BMS-114	20	38	26	27	330	<2	25	11	21
2S	96-BM-135	19	65	15	23	1,100	<2	46	14	21
3S	97-BMS-115	17	120	20	22	1,100	<2	86	14	25
	98-BMS-113	18	120	24	20	1,300	<2	83	16	31
4S	96-BM-121	19	64	20	23	1,100	<2	47	13	21
5S	96-BM-125A	19	67	100	24	1,100	<2	51	15	23
	96-BM-125B	19	70	44	23	1,500	<2	46	14	20
6S	96-BM-124A	19	42	51	24	1,500	<2	32	13	19
	96-BM-124B	18	59	63	23	1,100	<2	40	12	24
7S	97-BMS-114	16	68	46	22	900	<2	56	12	23
8S	96-BM-127A	20	56	64	24	1,500	<2	39	15	21
	96-BM-127B	18	79	120	23	1,100	<2	53	13	22
9S	96-BM-128A	17	62	160	25	1,100	<2	44	14	23
	96-BM-128B	18	61	120	23	1,300	<2	41	13	22
10S	97-BMS-112	17	64	79	22	980	<2	52	13	21
	98-BMS-116	18	62	81	22	960	<2	46	16	22
11S	96-BM-130A	19	48	100	26	1,700	<2	33	15	19
	96-BM-130B	19	110	93	22	1,400	<2	68	17	32
12S	96-BM-129A	18	68	210	24	1,600	<2	48	16	26
	96-BM-129B	17	57	360	25	2,500	<2	37	12	23
13S	96-BM-137A	18	71	270	22	2,400	<2	48	17	24
	96-BM-137B	17	67	650	21	3,600	<2	42	14	20

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Gallium ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm	Neodymium ppm	Nickel ppm	Niobium ppm
14S	97-BMS-119	16	110	620	25	1,800	4	88	20	16
	97-BMS-111	14	65	150	23	1,100	<2	47	10	20
	98-BMS-106	17	43	120	22	1,200	<2	34	14	22
15S	96-BM-138	18	73	230	22	2,100	<2	46	14	19
16S	96-BM-132	18	62	240	25	1,000	<2	40	11	22
17S	96-BM-134	18	88	89	21	840	<2	55	10	27
18S	96-BM-133	18	65	53	21	2,300	<2	43	25	21
<u>BASIN CREEK</u>										
20S	98-BMS-104	19	83	91	31	1,500	3	60	23	15
21aS	97-BMS-101-19	22	140	210	38	2,700	3	110	28	20
21bS	97-BMS-101-A7	17	91	460	37	1,800	3	74	19	21
21cS	97-BMS-101-B7	19	130	1,500	40	2,100	4	99	22	25
21dS	97-BMS-101-C7	23	160	2,200	38	2,900	3	120	28	13
21eS	96-BM-136	20	69	1,600	39	2,000	<2	49	17	26
22S	96-BM-107	25	34	61	43	640	<2	32	8	74
23S	96-BM-109	21	44	340	35	2,200	<2	40	14	37
24S	98-BMS-103	17	47	200	30	1,300	3	40	15	28
25S	98-BMS-101	18	42	87	27	680	<2	33	9	31
26S	98-BMS-102	14	95	210	23	1,600	2	63	20	27
27S	96-BM-110	18	62	190	31	1,500	<2	45	16	26
28S	96-BM-123	18	54	140	27	1,400	<2	40	14	30
29S	96-BM-122	17	56	160	29	1,500	<2	40	13	26
30S	97-BMS-117	14	54	170	24	1,000	<2	43	10	24
	98-BMS-110	16	56	160	26	1,200	2	42	15	27
31S	96-BM-126	17	64	160	27	1,100	<2	44	12	28

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Gallium ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm	Neodymium ppm	Nickel ppm	Niobium ppm
JACK CREEK										
32S	97-BMS-102s1	19	82	59	38	1,600	3	69	21	30
33S	97-BMS-102s2	14	57	870	29	1,000	4	48	14	16
34S	96-BM-115	11	36	1,400	34	890	5	30	10	17
35S	97-BMS-104G	4	10	12,000	39	85	9	8	<2	6
36S	97-BMS-105G	4	8	5,900	42	67	13	6	<2	5
	97-BMS-105S	21	72	120	58	750	4	61	19	30
37S	97-BMS-106G	5	11	2,600	33	59	11	9	<2	7
38S	97-BMS-140	20	120	200	29	1,700	3	98	20	26
	99-BMS-107	20	100	150	24	1,400	<2	65	24	24
39S	97-BMS-122	18	68	840	31	2,700	7	59	18	12
	98-BMS-112	19	87	150	27	1,600	5	63	24	19
40S	96-BM-111	17	64	370	36	1,800	<2	48	19	28
	97-BMS-107GA	21	68	220	55	730	8	61	24	33
	98-BMS-111	17	66	210	29	1,300	3	50	20	22
	97-BMS-107GB	11	29	1,300	35	260	6	25	6	16
	97-BMS-116	17	91	330	28	1,900	3	73	18	24
43S	96-BM-113	16	50	70	32	1,300	2	40	20	21
43S	96-BM-114	9	16	1,300	25	5,000	10	12	9	7
41S	96-BM-112	17	120	260	26	2,100	<2	71	20	48
42S	96-BM-108	18	61	270	29	1,900	<2	45	17	24
CATARACT CREEK										
44S	97-BMS-120	17	84	36	39	1,800	4	62	16	21
45S	97-BMS-124	16	100	210	35	1,600	5	80	21	26

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Gallium ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm	Neodymium ppm	Nickel ppm	Niobium ppm
46S	96-BM-120	18	86	47	27	1,200	<2	56	13	32
	97-BMS-121	22	150	86	19	2,000	<2	110	24	24
	98-BMS-109	21	140	47	17	1,600	<2	91	29	17
47S	97-BMS-126	20	63	61	29	4,600	5	50	20	20
48S	96-BM-119	17	96	250	22	1,500	<2	59	12	36
49S	97-BMS-127	16	76	240	26	1,400	<2	57	12	23
50S	96-BM-117	18	51	480	29	4,200	2	34	9	19
	97-BMS-136	14	96	640	27	1,800	3	66	9	34
	98-BMS-118	14	67	400	28	2,100	4	46	14	28
51S	96-BM-131	18	75	500	29	2,000	<2	47	15	25
52S	97-BMS-128	14	64	47	20	820	2	46	10	23
53S	96-BM-106	18	73	310	31	1,700	<2	47	17	26
	97-BMS-113	15	96	440	26	1,800	3	66	11	26
	98-BMS-117	16	62	220	28	1,500	3	46	19	25
UNCLE SAM GULCH										
54S	97-BMS-108s1	14	96	34	32	620	3	57	10	36
55S	96-BM-116	17	80	1,900	56	1,200	16	49	6	27
56S	97-BMS-134	11	41	1,600	26	460	10	34	9	9
57S	96-BM-118	18	69	920	34	2,200	<2	45	11	28
HIGH ORE CREEK										
58S	98-BMS-115	20	28	31	43	540	<2	21	20	16
59S	96-BM-101	18	27	5,700	23	21,000	23	16	18	7
60S	96-BM-102	7	20	2,000	24	9,100	14	10	6	6
	98-BMS-107	<4	28	2,200	22	14,000	16	15	18	<4
61S	96-BM-103	16	49	930	24	5,800	4	31	13	16
62S	96-BM-104	15	45	1,500	28	8,400	9	27	13	14

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Gallium ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm	Neodymium ppm	Nickel ppm	Niobium ppm
63S	96-BM-105A	15	50	1,600	26	9,100	5	32	14	17
	96-BM-105B	12	41	1,600	30	8,100	11	27	13	11
	97-BMS-118	27	40	1,600	24	9,600	7	30	17	<4
	98-BMS-108	<4	63	1,000	23	6,700	9	43	22	5
<u>LITTLE BOULDER RIVER</u>										
19S	96-BM-140	17	82	30	20	1,500	<2	60	16	28
	97-BMS-110	21	94	38	19	1,500	2	85	16	23
	98-BMS-105	29	95	44	16	1,900	<2	81	32	17

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Scandium ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Ytterbium ppm	Yttrium ppm	Zinc ppm
BOULDER RIVER										
1S	97-BMS-137	6	<2	710	16	<5	40	2	17	61
	98-BMS-114	4	<2	930	9	<5	29	1	11	40
2S	96-BM-135	14	<2	660	20	<5	98	3	29	130
3S	97-BMS-115	16	<2	670	31	<5	130	4	32	110
	98-BMS-113	16	<2	710	72	5	190	2	32	84
4S	96-BM-121	14	<2	640	22	<5	100	3	31	120
5S	96-BM-125A	13	4	600	30	5	140	3	30	1,100
	96-BM-125B	14	<2	620	34	<5	110	3	28	540
6S	96-BM-124A	13	<2	620	20	<5	83	2	28	600
	96-BM-124B	14	<2	570	23	<5	120	3	31	460
7S	97-BMS-114	15	<2	670	28	<5	120	3	28	330
8S	96-BM-127A	12	<2	580	38	<5	93	2	28	750
	96-BM-127B	15	2	580	29	<5	150	3	33	520
9S	96-BM-128A	12	4	470	18	6	160	3	31	1,100
	96-BM-128B	13	<2	560	31	<5	110	3	30	930
10S	97-BMS-112	13	<2	650	36	<5	150	3	27	460
	98-BMS-116	13	<2	600	31	6	150	2	25	430
11S	96-BM-130A	12	<2	550	18	<5	90	2	27	1,000
	96-BM-130B	14	<2	540	38	<5	310	4	40	780
12S	96-BM-129A	13	5	490	22	<5	200	3	33	1,500
	96-BM-129B	12	5	450	22	<5	180	2	27	1,800
13S	96-BM-137A	13	<2	470	35	<5	280	3	32	2,000
	96-BM-137B	11	16	400	47	<5	240	2	28	3,200

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Scandium ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Ytterbium ppm	Yttrium ppm	Zinc ppm
14S	97-BMS-119	13	18	350	34	12	650	4	30	3,000
	97-BMS-111	12	4	620	26	<5	120	3	23	660
	98-BMS-106	12	<2	600	15	6	110	2	23	680
15S	96-BM-138	13	<2	500	49	6	230	3	30	1,700
16S	96-BM-132	11	4	490	29	<5	140	3	28	1,000
17S	96-BM-134	12	<2	580	38	<5	95	3	35	910
18S	96-BM-133	13	<2	460	24	<5	130	3	31	790
<u>BASIN CREEK</u>										
20S	98-BMS-104	20	<2	310	40	6	480	2	33	270
21aS	97-BMS-101-19	21	<2	340	72	7	820	6	50	670
21bS	97-BMS-101-A7	19	7	320	44	<5	480	4	38	510
21cS	97-BMS-101-B7	22	7	330	62	7	670	5	46	660
21dS	97-BMS-101-C7	20	17	280	50	8	1,300	5	50	860
21eS	96-BM-136	20	5	270	29	<5	220	4	41	820
22S	96-BM-107	5	<2	180	25	<5	75	7	70	210
23S	96-BM-109	8	<2	230	20	<5	72	6	61	690
24S	98-BMS-103	11	<2	260	13	<5	150	3	36	380
25S	98-BMS-101	8	<2	290	14	5	87	3	31	150
26S	98-BMS-102	18	2	310	37	<5	350	3	38	580
27S	96-BM-110	14	<2	310	22	<5	130	4	40	1,100
28S	96-BM-123	14	<2	320	23	<5	130	4	41	840
29S	96-BM-122	13	<2	310	17	<5	100	4	38	950
30S	97-BMS-117	12	<2	330	18	<5	130	4	31	470
	98-BMS-110	13	<2	320	20	8	160	3	32	650
31S	96-BM-126	12	<2	340	21	<5	120	3	37	600

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Scandium ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Ytterbium ppm	Yttrium ppm	Zinc ppm
JACK CREEK										
32S	97-BMS-102s1	22	<2	370	38	<5	290	5	45	240
33S	97-BMS-102s2	15	10	240	32	<5	230	3	27	690
34S	96-BM-115	13	12	150	34	<5	83	2	25	630
35S	97-BMS-104G	3	72	17	5	<5	31	<1	3	740
36S	97-BMS-105G	3	41	11	4	<5	34	<1	2	440
	97-BMS-105S	18	<2	290	23	<5	110	5	49	1,100
37S	97-BMS-106G	4	12	18	11	<5	46	<1	3	110
38S	97-BMS-140	21	2	360	66	<5	580	6	52	460
	99-BMS-107	19	<2	320	73	<5	400	3	38	310
39S	97-BMS-122	17	6	240	28	<5	270	4	33	510
	98-BMS-112	20	<2	320	42	7	440	3	38	440
40S	96-BM-111	19	3	290	41	<5	170	4	42	1,700
	97-BMS-107GA	19	<2	250	32	<5	170	4	46	560
	98-BMS-111	18	<2	340	29	6	240	3	33	570
	97-BMS-107GB	9	10	120	23	<5	100	2	14	100
	97-BMS-116	21	<2	330	39	<5	460	5	42	890
43S	96-BM-113	15	<2	340	31	<5	120	3	33	180
43S	96-BM-114	8	62	140	9	<5	57	1	14	9,100
41S	96-BM-112	18	<2	270	49	<5	590	5	49	1,400
42S	96-BM-108	17	<2	320	26	<5	120	4	40	2,400
CATARACT CREEK										
44S	97-BMS-120	17	<2	440	33	6	180	4	33	600
45S	97-BMS-124	16	<2	330	67	6	420	5	39	490

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Scandium ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Ytterbium ppm	Yttrium ppm	Zinc ppm
46S	96-BM-120	16	<2	460	25	<5	230	4	40	280
	97-BMS-121	16	<2	500	47	8	940	6	40	230
	98-BMS-109	19	<2	430	51	5	750	1	32	180
47S	97-BMS-126	11	<2	320	23	<5	140	3	30	420
48S	96-BM-119	15	2	420	34	<5	280	4	42	450
49S	97-BMS-127	15	8	470	23	<5	170	4	31	610
50S	96-BM-117	10	8	360	16	<5	73	2	24	2,300
	97-BMS-136	12	6	410	42	<5	150	3	31	990
	98-BMS-118	13	6	440	28	7	140	2	27	1,300
51S	96-BM-131	13	4	390	24	<5	160	3	31	2,600
52S	97-BMS-128	6	<2	530	45	<5	140	3	24	110
53S	96-BM-106	13	12	350	38	<5	200	3	33	2,600
	97-BMS-113	13	6	430	27	<5	210	3	30	1,000
	98-BMS-117	17	2	360	29	6	220	3	31	740
UNCLE SAM GULCH										
54S	97-BMS-108s1	7	<2	540	31	<5	48	3	23	160
55S	96-BM-116	8	13	270	58	<5	75	3	31	920
56S	97-BMS-134	7	40	260	6	5	190	2	14	2,700
57S	96-BM-118	11	5	370	37	<5	86	3	35	3,800
HIGH ORE CREEK										
58S	98-BMS-115	9	<2	520	7	6	69	<1	11	68
59S	96-BM-101	4	52	120	7	<5	24	2	20	17,000
60S	96-BM-102	3	56	130	5	<5	37	1	11	4,300
	98-BMS-107	6	56	200	<4	5	62	1	12	8,000
61S	96-BM-103	9	14	290	22	<5	130	2	24	3,800
62S	96-BM-104	8	22	230	12	<5	96	2	20	7,500

Table 2. Major and trace-element data from total digestions of bed sediments from the Boulder River watershed, Montana—(continued)

Site Number (fig. 1)	Sample Number	Scandium ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Ytterbium ppm	Yttrium ppm	Zinc ppm
63S	96-BM-105A	9	25	240	40	<5	210	2	24	7,300
	96-BM-105B	8	34	170	36	<5	92	2	22	10,000
	97-BMS-118	8	27	260	<4	5	220	2	17	6,800
	98-BMS-108	13	26	280	18	6	350	2	22	4,300
<u>LITTLE BOULDER RIVER</u>										
19S	96-BM-140	21	<2	370	67	<5	490	5	48	170
	97-BMS-110	22	<2	460	75	<5	500	6	48	110
	98-BMS-105	27	<2	350	110	<5	980	3	52	170