

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana

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

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Silicon
Number (fig. 1)	Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BOULDER RIVER									
1S	97-BMS-137	3,900	3,700	5,400	980	1,800	140	570	1,200
	98-BMS-114	3,900	3,400	4,500	1,100	1,600	290	620	1,400
2S	96-BM-135	4,900	4,600	7,500	1,600	2,800	420	920	1,100
3S	97-BMS-115	4,600	4,400	7,100	1,600	2,400	210	1,100	1,400
	98-BMS-113	3,800	3,900	5,800	1,200	1,900	230	1,000	1,200
4S	96-BM-121	4,600	4,200	7,600	1,600	2,600	220	900	950
5S	96-BM-125A	4,600	4,500	11,000	1,600	2,600	240	960	1,100
	96-BM-125B	4,400	4,400	7,900	1,600	2,500	240	950	930
6S	96-BM-124A	4,600	4,400	7,700	1,500	2,500	220	920	1,000
	96-BM-124B	4,200	4,100	8,400	1,300	2,300	150	1,000	1,000
7S	97-BMS-114	3,800	3,600	6,600	1,200	2,000	160	980	1,200
8S	96-BM-127A	4,700	4,500	10,000	1,500	2,600	210	910	1,100
	96-BM-127B	3,500	4,100	8,600	1,100	2,000	160	1,200	1,100
9S	96-BM-128A	3,900	4,100	24,000	1,200	2,200	160	1,100	1,400
	96-BM-128B	4,000	4,200	9,300	1,200	2,300	160	1,000	1,100
10S	97-BMS-112	4,700	4,100	10,000	1,600	2,600	200	1,000	1,300
	98-BMS-116	5,500	4,200	11,000	1,800	3,000	280	1,100	1,500
11S	96-BM-130A	4,900	4,400	11,000	1,700	3,000	220	860	1,000
	96-BM-130B	3,600	4,100	8,300	1,100	2,000	140	1,200	1,000
12S	96-BM-129A	4,500	4,500	13,000	1,300	2,500	150	1,100	1,000
	96-BM-129B	3,500	5,000	13,000	1,100	2,600	100	1,200	1,000
13S	96-BM-137A	3,600	4,500	10,000	1,200	2,400	140	1,200	980
	96-BM-137B	2,800	5,400	20,000	1,000	2,700	110	1,200	1,100

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Silicon
Number (fig. 1)	Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
14S	97-BMS-119	2,600	3,200	19,000	1,200	1,600	76	1,400	1,200
	97-BMS-111	3,100	3,100	7,800	980	1,700	120	800	1,100
	98-BMS-106	3,500	2,700	7,500	1,000	1,800	190	680	1,000
15S	96-BM-138	3,400	4,500	9,900	1,200	2,300	140	1,200	980
16S	96-BM-132	4,000	3,700	12,000	1,300	2,400	150	1,000	1,000
17S	96-BM-134	3,300	4,100	7,300	990	2,200	130	1,200	990
18S	96-BM-133	4,000	12,000	7,200	960	3,900	140	1,000	1,100
<u>BASIN CREEK</u>									
20S	98-BMS-104	4,500	4,300	16,000	1,000	2,900	90	1,500	1,100
21aS	97-BMS-101-19	6,600	7,500	22,000	1,100	3,600	43	2,900	1,500
21bS	97-BMS-101-A7	6,200	6,200	21,000	1,100	3,400	36	2,100	1,400
21cS	97-BMS-101-B7	5,100	5,500	20,000	960	2,900	37	2,100	1,200
21dS	97-BMS-101-C7	4,700	5,000	28,000	730	2,200	48	2,000	1,200
21eS	96-BM-136	7,300	6,000	33,000	1,600	4,800	51	1,600	1,400
22S	96-BM-107	2,200	3,100	8,100	580	900	64	530	810
23S	96-BM-109	4,300	2,900	15,000	760	1,800	45	610	950
24S	98-BMS-103	4,300	3,200	12,000	750	1,500	76	1,100	1,000
25S	98-BMS-101	6,000	4,700	10,000	1,100	2,300	140	1,400	1,800
26S	98-BMS-102	6,700	5,000	20,000	1,600	3,200	180	1,800	1,900
27S	96-BM-110	5,000	4,000	16,000	1,000	2,600	88	1,100	1,100
28S	96-BM-123	4,000	3,900	13,000	900	2,200	56	1,200	1,200
29S	96-BM-122	4,400	4,100	14,000	970	2,300	53	1,100	1,100
30S	97-BMS-117	3,800	3,800	11,000	860	1,900	57	1,300	1,300
	98-BMS-110	4,700	3,600	12,000	1,200	2,300	140	1,000	1,300
31S	96-BM-126	4,100	4,400	11,000	880	2,300	55	1,200	1,200

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Silicon
Number (fig. 1)	Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JACK CREEK									
32S	97-BMS-102s1	7,700	6,600	17,000	1,200	3,100	67	1,200	1,400
33S	97-BMS-102s2	4,800	1,500	23,000	1,100	2,000	48	750	1,200
34S	96-BM-115	5,600	1,200	76,000	1,600	2,400	110	750	1,200
35S	97-BMS-104G	570	130	14,000	400	63	<30	120	270
36S	97-BMS-105G	360	63	17,000	320	43	<30	120	190
	97-BMS-105S	10,000	4,900	16,000	1200	3,300	57	470	1,200
37S	97-BMS-106G	440	190	6,900	220	40	<30	180	190
38S	97-BMS-140	4,400	6,300	14,000	1,400	2,800	44	2,500	1,200
	99-BMS-107	6,300	5,400	19,000	2,600	4,500	68	1,600	1,400
39S	97-BMS-122	8,100	2,600	30,000	2,400	4,800	37	1,400	1,700
	98-BMS-112	3,700	2,900	11,000	1,400	2,400	85	960	870
40S	96-BM-111	8,400	5,100	26,000	2,100	4,400	69	1,200	1,500
	97-BMS-107GA	13,000	3,000	23,000	2,000	4,500	73	730	1,400
	98-BMS-111	6,400	4,200	1,000	2,100	3,700	150	1,300	1,400
	97-BMS-107GB	3,400	1,200	14,000	1,200	1,700	31	750	1,100
	97-BMS-116	5,000	4,000	15,000	1,300	2,700	45	1,400	1,300
43S	96-BM-113	6,500	5,700	16,000	1,500	3,400	58	820	1,200
43S	96-BM-114	16,000	61,000	170,000	4,800	3,000	300	450	25,000
41S	96-BM-112	6,000	4,600	22,000	1,400	3,000	52	1,600	1,200
42S	96-BM-108	6,000	4,100	20,000	1,200	2,800	59	1,000	1,400
CATARACT CREEK									
44S	97-BMS-120	8,600	5,400	37,000	1,200	5,600	62	1,800	2,000
45S	97-BMS-124	4,900	4,900	24,000	1,100	2,500	45	1,300	1,300

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Silicon
Number (fig. 1)	Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
46S	96-BM-120	6,200	4,600	20,000	1,100	3,600	55	1,400	1,300
	97-BMS-121	3,200	4,000	9,800	620	1,800	54	1,600	1,100
	98-BMS-109	3,600	3,400	13,000	780	2,000	170	1,300	1,100
47S	97-BMS-126	7,300	7,000	27,000	690	2,200	66	960	1,600
48S	96-BM-119	4,400	4,600	14,000	700	2,300	56	1,500	1,100
49S	97-BMS-127	5,000	4,000	14,000	980	2,800	62	1,200	1,200
50S	96-BM-117	3,400	6,000	13,000	670	2,400	47	800	1,100
	97-BMS-136	3,300	3,400	14,000	580	1,500	41	1,100	1,200
	98-BMS-118	3,500	2,900	11,000	690	1,700	94	690	910
51S	96-BM-131	4,700	4,500	16,000	1,300	3,000	67	1,100	1,100
52S	97-BMS-128	3,300	4,100	6,800	840	2,100	76	1,000	1,400
53S	96-BM-106	4,800	5,000	16,000	1,200	3,000	67	1,100	1,200
	97-BMS-113	3,600	4,000	13,000	740	2,000	52	1,300	1,100
	98-BMS-117	11,000	7,500	32,000	3,600	6,500	290	2,200	2,600
<u>UNCLE SAM GULCH</u>									
54S	97-BMS-108s1	5,100	4,200	9,500	840	2,100	69	480	1,300
55S	96-BM-116	4,400	2,000	32,000	730	1,300	32	730	1,000
56S	97-BMS-134	1,600	1,400	31,000	900	750	100	730	980
57S	96-BM-118	5,000	3,000	17,000	840	1,900	44	890	1,100
<u>HIGH ORE CREEK</u>									
58S	98-BMS-115	5,800	3,200	7,600	1,900	4,000	140	400	1,400
59S	96-BM-101	2,500	12,000	55,500	360	4,600	37	380	3,600
60S	96-BM-102	890	16,000	26,000	260	6,500	31	440	980
	98-BMS-107	1,400	9,600	24,000	460	4,000	55	450	1,100

61S	96-BM-103	3,000	11,000	18,000	1,100	5,100	47	1,100	1,200
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Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site	Sample	Aluminum	Calcium	Iron	Potassium	Magnesium	Sodium	Phosphorous	Silicon
Number (fig. 1)	Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
62S	96-BM-104	2,500	12,000	24,000	920	5,100	44	1,100	1,400
63S	96-BM-105A	2,100	10,000	22,000	760	4,200	50	1,200	1,300
	96-BM-105B	2,700	16,000	30,000	1,300	7,000	390	940	1,200
	97-BMS-118	2,200	11,000	24,000	850	4,400	50	1,100	1,600
	98-BMS-108	2,000	6,100	16,000	770	2,500	100	1,200	1,100
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	3,800	5,000	12,000	1,500	3,100	62	1,600	1,200
	97-BMS-110	3,900	4,200	11,000	1,400	2,700	60	1,400	1,400
	98-BMS-105	3,200	4,200	12,000	980	1,800	150	1,600	1,200

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Titanium ppm	Antimony ppm	Arsenic ppm	Barium ppm	Beryllium ppm	Bismuth ppm	Cadmium ppm	Cerium ppm
BOULDER RIVER									
1S	97-BMS-137	400	<3	8.9	160	0.7	<6	<1	22
	98-BMS-114	340	<3	13	160	<0.6	<6	<1	19
2S	96-BM-135	340	<3	10	180	<0.6	<6	<1	25
3S	97-BMS-115	440	<3	8.1	150	<0.6	<6	<1	32
	98-BMS-113	340	<3	<6	150	<0.6	<6	<1	26
4S	96-BM-121	320	<3	8.3	190	<0.6	<6	<1	25
5S	96-BM-125A	320	<3	85	180	<0.6	<6	2.4	26
	96-BM-125B	300	<3	32	180	<0.6	<6	1.6	25
6S	96-BM-124A	280	<3	33	180	<0.6	<6	4.2	24
	96-BM-124B	270	<3	36	200	<0.6	<6	2.1	28
7S	97-BMS-114	360	<3	20	120	<0.6	<6	<1	27
8S	96-BM-127A	300	<3	35	180	<0.6	<6	4	26
	96-BM-127B	280	<3	55	150	<0.6	<6	1.3	27
9S	96-BM-128A	240	<3	120	150	<0.6	9	4.8	26
	96-BM-128B	270	<3	91	150	<0.6	<6	8.5	28
10S	97-BMS-112	420	<3	67	150	<0.6	<6	2.0	31
	98-BMS-116	420	<3	55	200	<0.6	<6	3.2	33
11S	96-BM-130A	350	<3	67	190	0.6	<6	12	29
	96-BM-130B	260	<3	46	140	<0.6	<6	6.2	30
12S	96-BM-129A	260	<3	100	170	<0.6	<6	10	32
	96-BM-129B	280	<3	270	130	<0.6	<6	9.5	30
13S	96-BM-137A	270	<3	170	140	<0.6	<6	14	32
	96-BM-137B	240	< 3	530	110	< 0.6	7	15	32

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Titanium ppm	Antimony ppm	Arsenic ppm	Barium ppm	Beryllium ppm	Bismuth ppm	Cadmium ppm	Cerium ppm
14S	97-BMS-119	280	<3	730	82	<0.6	<6	3.2	42
	97-BMS-111	260	<3	140	100	<0.6	<6	1.8	26
	98-BMS-106	200	<3	99	120	<0.6	<6	2.8	21
15S	96-BM-138	270	<3	140	130	<0.6	<6	11	33
16S	96-BM-132	310	<3	230	130	<0.6	<6	2.2	29
17S	96-BM-134	250	<3	57	100	<0.6	<6	1.4	30
18S	96-BM-133	160	<3	15	130	<0.6	<6	4.7	27
<u>BASIN CREEK</u>									
20S	98-BMS-104	360	<3	34	58	<.6	<6	<1	43
21aS	97-BMS-101-19	530	<3	170	55	0.8	19	2.8	87
21bS	97-BMS-101-A7	500	<3	600	56	0.6	15	1.7	66
21cS	97-BMS-101-B7	560	33	3,000	56	0.6	<6	2.1	60
21dS	97-BMS-101-C7	450	40	3,000	64	0.8	8	3.2	63
21eS	96-BM-136	700	34	4,000	86	1.1	8	5.0	56
22S	96-BM-107	51	<3	18	41	2.2	<6	<1	38
23S	96-BM-109	160	6	440	120	2.2	<6	4.8	41
24S	98-BMS-103	100	<3	98	110	1.2	<6	2.0	40
25S	98-BMS-101	230	<3	62	140	1.7	<6	1.3	61
26S	98-BMS-102	510	<3	430	160	0.8	<6	6.4	62
27S	96-BM-110	290	<3	280	100	1.0	11	7.8	41
28S	96-BM-123	280	<3	170	88	0.9	6	7.0	37
29S	96-BM-122	250	<3	170	110	1.0	6	7.5	40
30S	97-BMS-117	310	<3	140	79	0.8	<6	3.8	44
	98-BMS-110	290	<3	140	110	0.8	<6	3.9	38
31S	96-BM-126	260	<3	97	95	0.9	<6	5.3	41

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Titanium ppm	Antimony ppm	Arsenic ppm	Barium ppm	Beryllium ppm	Bismuth ppm	Cadmium ppm	Cerium ppm
JACK CREEK									
32S	97-BMS-102s1	590	<3	30	180	0.7	<6	1.3	57
33S	97-BMS-102s2	490	3	1,800	42	<0.6	<6	1.8	37
34S	96-BM-115	450	16	4,400	49	<0.6	48	1.6	36
35S	97-BMS-104G	47	150	3,700	16	<0.6	<6	<1	3.5
36S	97-BMS-105G	44	92	5,200	25	<0.6	<6	<1	2
	97-BMS-105S	510	<3	150	180	1.0	<6	4.7	60
37S	97-BMS-106G	<30	53	3,000	12	<0.6	<6	<1	3.3
38S	97-BMS-140	610	<3	110	52	<0.6	<6	3.0	75
	99-BMS-107	940	<3	130	89	<0.6	<6	2.0	64
39S	97-BMS-122	870	<3	1,200	79	<0.6	<6	3.2	64
	98-BMS-112	430	<3	130	51	<0.6	<6	2.0	35
40S	96-BM-111	650	<3	830	110	0.9	18	16	54
	97-BMS-107GA	910	<3	120	240	1.3	<6	4.7	74
	98-BMS-111	650	<3	330	93	<0.6	<6	4.2	50
	97-BMS-107GB	610	10	2,400	56	<0.6	<6	<1	22
	97-BMS-116	630	<3	510	64	<0.6	<6	6.8	53
43S	96-BM-113	430	<3	49	83	0.9	<6	2.2	38
43S	96-BM-114	83	18	120	79	1.1	21	2.6	18
41S	96-BM-112	580	4	680	77	0.7	20	13	51
42S	96-BM-108	450	3	590	110	0.8	11	21	41
CATARACT CREEK									
44S	97-BMS-120	670	<3	21	110	<0.6	<6	2.3	58
45S	97-BMS-124	500	<3	160	84	0.8	<6	3.0	66

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Titanium ppm	Antimony ppm	Arsenic ppm	Barium ppm	Beryllium ppm	Bismuth ppm	Cadmium ppm	Cerium ppm
46S	96-BM-120	570	<3	41	92	<0.6	<6	1.5	46
	97-BMS-121	360	<3	19	47	<0.6	<6	<1	47
	98-BMS-109	400	<3	20	62	<0.6	<6	<1	36
47S	97-BMS-126	230	<3	57	370	1.0	<6	3.0	53
48S	96-BM-119	330	6	120	90	<0.6	10	2.7	42
49S	97-BMS-127	520	<3	96	87	<0.6	<6	3.0	40
50S	96-BM-117	230	7	400	75	<0.6	9	21	28
	97-BMS-136	310	7	680	71	<0.6	<6	11	39
	98-BMS-118	44	<3	250	81	<0.6	<6	9.3	26
51S	96-BM-131	410	4	410	91	<0.6	10	22	39
52S	97-BMS-128	200	<3	7.3	100	<0.6	<6	<1	93
53S	96-BM-106	370	3	240	130	0.6	6	26	43
	97-BMS-113	350	3	360	83	<0.6	<6	10	43
	98-BMS-117	1,000	<3	580	180	0.9	<6	11	87
UNCLE SAM GULCH									
54S	97-BMS-108s1	360	<3	39	70	0.6	<6	2.1	36
55S	96-BM-116	160	16	2,200	64	<0.6	30	5.5	40
56S	97-BMS-134	270	12	3,900	96	<0.6	<6	<1	14
57S	96-BM-118	280	9	900	80	0.7	13	41	35
HIGH ORE CREEK									
58S	98-BMS-115	420	<3	10	140	<0.6	<6	<1	11
59S	96-BM-101	61	25	5,300	83	0.7	7	140	30
60S	96-BM-102	63	12	1,700	78	<0.6	<6	13	14
	98-BMS-107	<30	<3	1,200	150	<0.6	13	22	18
61S	96-BM-103	300	<3	770	110	<0.6	<6	11	29

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Titanium ppm	Antimony ppm	Arsenic ppm	Barium ppm	Beryllium ppm	Bismuth ppm	Cadmium ppm	Cerium ppm
62S	96-BM-104	240	5	1,200	130	<0.6	<6	25	29
63S	96-BM-105A	200	6	1,200	100	<0.6	<6	24	32
	96-BM-105B	220	9	2,300	5.5	<0.6	<6	68	32
	97-BMS-118	280	5	1,300	120	<0.6	<6	26	33
	98-BMS-108	91	<3	740	130	<0.6	<6	14	32
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	650	<3	13	58	<0.6	<6	<1	46
	97-BMS-110	660	<3	8.5	54	<0.6	<6	<1	44
	98-BMS-105	450	<3	20	54	<0.6	<6	<1	43

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Chromium ppm	Cobalt ppm	Copper ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm
BOULDER RIVER									
1S	97-BMS-137	5.9	4.0	8.8	12	11	2.8	460	<1
	98-BMS-114	5.2	2.2	7.8	9.5	10	2.6	320	<1
2S	96-BM-135	11	5.2	19	14	13	4.8	670	<1
3S	97-BMS-115	8.2	5.0	12	16	12	3.8	470	<1
	98-BMS-113	6.0	2.4	8	14	6.6	3.0	310	<1
4S	96-BM-121	9.0	4.8	16	14	13	4.3	590	<1
5S	96-BM-125A	9.2	5.7	300	14	89	4.1	620	<1
	96-BM-125B	8.0	7.3	140	13	29	4.3	1,000	<1
6S	96-BM-124A	8.0	8.1	290	13	38	4.1	1,200	<1
	96-BM-124B	7.1	7.6	91	15	59	4.3	660	<1
7S	97-BMS-114	6.1	3.9	38	14	27	3.4	340	<1
8S	96-BM-127A	9.2	8.3	130	14	54	4.6	1,300	<1
	96-BM-127B	6.6	5.4	130	14	100	3.6	570	<1
9S	96-BM-128A	7.9	6.7	350	15	150	4.1	710	1
	96-BM-128B	6.8	9.4	190	15	120	4.5	1,000	1
10S	97-BMS-112	8.1	7.7	84	16	74	4.9	550	<1
	98-BMS-116	7.0	5.7	110	16	80	5.6	590	<1
11S	96-BM-130A	11	10	220	15	92	5.7	1,500	<1
	96-BM-130B	10	7.8	120	17	88	3.9	700	<1
12S	96-BM-129A	11	11	420	17	170	4.9	1,200	<1
	96-BM-129B	6.7	9.1	170	16	390	4.6	2,300	1.7
13S	96-BM-137A	7.7	11	220	17	260	4.7	2,000	1.1
	96-BM-137B	7.2	9.5	350	16	660	3.9	3,600	2

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Chromium ppm	Cobalt ppm	Copper ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm
14S	97-BMS-119	5.1	7.5	260	21	500	3.4	940	3.4
	97-BMS-111	5.0	5.1	66	13	120	3.1	680	<1
	98-BMS-106	4.0	4.2	84	11	99	3.4	690	<1
15S	96-BM-138	6.6	9.4	170	17	190	4.4	1,700	1.4
16S	96-BM-132	8.0	5.6	380	16	220	4.7	640	1
17S	96-BM-134	6.4	3.9	86	18	83	3.9	440	<1
18S	96-BM-133	9.9	6.4	92	16	50	5.2	1,900	<1
<u>BASIN CREEK</u>									
20S	98-BMS-104	6.0	5.8	16	20	64	9.4	620	<1
21aS	97-BMS-101-19	11	17	61	46	160	13	1,700	2.2
21bS	97-BMS-101-A7	8.4	16	50	37	410	13	1,200	1.4
21cS	97-BMS-101-B7	8.4	12	79	33	1,200	9.9	1,000	1.4
21dS	97-BMS-101-C7	8.0	10	99	36	1,600	7.7	1,200	1.3
21eS	96-BM-136	11	14	120	32	1,600	17	1,700	<1
22S	96-BM-107	4.7	6.0	9.7	18	46	2.6	540	<1
23S	96-BM-109	8.8	20	45	20	350	5.7	2,200	<1
24S	98-BMS-103	2.4	6.8	24	19	170	4.9	890	<1
25S	98-BMS-101	3.7	6.9	35	29	140	6.0	810	<1
26S	98-BMS-102	6.3	14	210	31	320	10	1,100	<1
27S	96-BM-110	12	16	160	21	180	7.8	1,100	1
28S	96-BM-123	11	10	110	20	140	6.7	1,200	<1
29S	96-BM-122	6.2	12	120	21	170	6.7	1,300	<1
30S	97-BMS-117	4.8	12	69	22	160	5.6	790	1.1
	98-BMS-110	4.3	7.4	98	18	150	6.7	790	<1
31S	96-BM-126	5.1	9.8	100	20	170	6.0	880	<1

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Chromium ppm	Cobalt ppm	Copper ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm
JACK CREEK									
32S	97-BMS-102s1	13	13	30	33	48	14	760	1.3
33S	97-BMS-102s2	5.5	9.9	220	19	710	7.2	540	2.2
34S	96-BM-115	6.7	9.8	340	19	1,400	9.5	750	2.9
35S	97-BMS-104G	1.5	0.6	280	2	6,500	<1	31	8.2
36S	97-BMS-105G	1.2	<0.6	72	1	5,500	<1	8.6	13
	97-BMS-105S	12	10.0	96	52	140	14	310	<1
37S	97-BMS-106G	1.6	<0.6	55	2	2,000	<1	5.8	9.8
38S	97-BMS-140	6.5	12	110	41	130	8.9	760	1.2
	99-BMS-107	7.0	8.8	74	28	160	14	840	1.0
39S	97-BMS-122	11	57	480	28	630	9.8	2,200	3.2
	98-BMS-112	4.0	6.0	75	17	94	7.0	530	<1
40S	96-BM-111	10	22	610	30	410	13	1,600	1.3
	97-BMS-107GA	18	19	88	46	210	13	330	2.6
	98-BMS-111	6.0	9.4	180	24	190	11	760	<1
	97-BMS-107GB	7.7	2.2	110	11	1,200	5.1	59	5.9
	97-BMS-116	7.5	16	210	27	260	8.4	800	1.3
43S	96-BM-113	8.5	15	49	20	72	11	1,000	1.3
43S	96-BM-114	9.8	57	2,700	11	1,100	18	4,500	<1
41S	96-BM-112	12	23	410	27	310	10	1,400	2.0
42S	96-BM-108	10	28	490	22	280	9.2	1,600	1.4
CATARACT CREEK									
44S	97-BMS-120	13	16	40	28	30	20	1,500	2.0
45S	97-BMS-124	9.7	31	890	37	170	7.3	940	1.7

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Chromium ppm	Cobalt ppm	Copper ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm
46S	96-BM-120	8.4	9.0	44	24	49	11	650	<1
	97-BMS-121	6.5	5.3	20	23	42	5.4	400	<1
	98-BMS-109	7.8	3.6	17	18	30	5.5	340	<1
47S	97-BMS-126	9.8	18	50	26	54	5.8	4,900	2.3
48S	96-BM-119	6.0	6.6	110	21	280	6.7	940	1.4
49S	97-BMS-127	6.2	9.1	110	20	220	7.6	880	1.3
50S	96-BM-117	6.0	18	630	15	480	5.2	4,400	2.6
	97-BMS-136	3.2	30	720	21	570	5.0	1,400	2.3
	98-BMS-118	2.0	9.7	450	13	280	4.9	1,200	<1
51S	96-BM-131	9.2	21	650	20	440	8.4	1,600	1.8
52S	97-BMS-128	3.5	7.0	13	40	34	7.8	850	<1
53S	96-BM-106	8.8	18	600	22	320	8.2	1,500	1.2
	97-BMS-113	5.0	20	350	20	350	5.7	1,200	1.5
	98-BMS-117	11	19	440	42	390	19	1,600	<1
UNCLE SAM GULCH									
54S	97-BMS-108s1	7.4	6.7	32	22	29	13	420	1.5
55S	96-BM-116	3.1	11	510	19	1,500	7.6	1,000	7.0
56S	97-BMS-134	3.7	1.2	100	8.4	1,600	<2	82	7.3
57S	96-BM-118	4.4	36	2,400	20	790	7.2	2,000	2.7
HIGH ORE CREEK									
58S	98-BMS-115	19	3.6	5.0	5.2	15	3.8	340	<1
59S	96-BM-101	3.4	49	1,600	18	5,900	<2	20,000	14
60S	96-BM-102	1.8	12	210	6.9	2,000	<2	9,000	11
	98-BMS-107	<0.6	16	210	7.4	1,800	2	10,000	<1
61S	96-BM-103	4.2	12	120	15	1,100	6.0	6,100	4.2

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Chromium ppm	Cobalt ppm	Copper ppm	Lanthanum ppm	Lead ppm	Lithium ppm	Manganese ppm	Molybdenum ppm
62S	96-BM-104	4.0	16	220	15	1,700	4.3	9,000	5.8
63S	96-BM-105A	3.8	15	200	16	1,800	3.6	8,800	6.7
	96-BM-105B	3.3	18	600	17	1,900	5.4	8,500	8.9
	97-BMS-118	3.5	25	200	16	1,800	3.7	10,000	5.7
	98-BMS-108	1.2	8.2	140	14	1,100	3.1	5,700	<1
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	7.2	6.4	24	25	22	7.3	490	<1
	97-BMS-110	7.0	7.4	15	23	17	6.4	500	<1
	98-BMS-105	7.0	3.6	13	23	26	4.4	380	<1

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Nickel ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Yttrium ppm	Zinc ppm
BOULDER RIVER									
1S	97-BMS-137	3.9	<1	59	<2	<3	9.5	7.5	33
	98-BMS-114	4.3	<1	60	<2	<3	7.4	6.3	40
2S	96-BM-135	7.0	<1	92	2.2	<3	16	7.3	87
3S	97-BMS-115	5.0	<1	64	8.4	<3	17	7.4	63
	98-BMS-113	4.2	<1	57	14	<3	14	6.6	49
4S	96-BM-121	5.2	<1	74	<2	<3	17	7.6	74
5S	96-BM-125A	5.4	4.6	76	2.7	10	18	8.6	460
	96-BM-125B	4.7	<1	81	2.0	<3	16	7.5	370
6S	96-BM-124A	5.1	<1	74	<2	<3	16	8.0	500
	96-BM-124B	5.0	<1	63	3.6	<3	16	9.6	350
7S	97-BMS-114	3.8	<1	51	2.0	<3	14	7.0	180
8S	96-BM-127A	7.1	<1	73	<2	<3	17	9.0	590
	96-BM-127B	4.0	2.5	54	6	<3	14	8.9	230
9S	96-BM-128A	5.9	5.3	56	3.9	8	20	9.7	540
	96-BM-128B	5.5	1.6	56	2.0	<3	15	9.2	910
10S	97-BMS-112	5.2	<1	64	7.2	4	19	8.1	320
	98-BMS-116	6.5	<1	64	6.8	<3	21	9.3	430
11S	96-BM-130A	8.1	1.1	72	<2	<3	19	10	880
	96-BM-130B	6.0	1.8	46	7.9	<3	15	9.6	530
12S	96-BM-129A	7.1	5.0	56	2.2	<3	20	11	1100
	96-BM-129B	5.1	5.5	39	6.9	<3	18	10	1,300
13S	96-BM-137A	6.4	4.3	49	7	3	16	11	1,400
	96-BM-137B	5.6	15	40	6.5	3	16	10	1,600

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Nickel ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Yttrium ppm	Zinc ppm
14S	97-BMS-119	3.1	17	17	23	6	20	10	560
	97-BMS-111	3.3	3.3	35	2.6	<3	12	6.4	360
	98-BMS-106	4.0	1.1	38	<2	<3	13	6.2	490
15S	96-BM-138	5.5	3.0	45	3.6	<3	16	9.5	1,200
16S	96-BM-132	4.4	4.3	46	5.3	4	22	9.6	420
17S	96-BM-134	3.9	1.3	34	7.4	<3	15	8.3	490
18S	96-BM-133	10	<1	50	<2	<3	13	9.2	700
<u>BASIN CREEK</u>									
20S	98-BMS-104	6.4	<1	16	11	<3	34	12	160
21aS	97-BMS-101-19	8.7	1.4	24	15	4	42	24	500
21bS	97-BMS-101-A7	6.8	3.0	20	11	<3	39	19	390
21cS	97-BMS-101-B7	6.0	6.5	21	9.0	5	36	16	350
21dS	97-BMS-101-C7	5.0	8.6	20	5.8	4	35	18	460
21eS	96-BM-136	8.3	6.9	37	7.4	<3	51	20	680
22S	96-BM-107	3.2	<1	24	3.0	<3	8.8	19	100
23S	96-BM-109	9.4	1.5	24	2.0	<3	17	23	590
24S	98-BMS-103	5.3	<1	21	<2	<3	18	15	290
25S	98-BMS-101	4.8	<1	38	<2	<3	17	22	180
26S	98-BMS-102	8.5	2.4	27	16	<3	36	18	840
27S	96-BM-110	9.4	1.3	27	4.9	<3	23	15	960
28S	96-BM-123	8.4	<1	23	2.7	<3	17	13	840
29S	96-BM-122	6.9	1.2	28	2.1	<3	18	16	920
30S	97-BMS-117	4.8	2.4	18	2.0	<3	18	13	490
	98-BMS-110	6.4	<1	22	<2	<3	20	13	640
31S	96-BM-126	5.5	<1	28	2.0	<3	18	15	600

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Nickel ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Yttrium ppm	Zinc ppm
JACK CREEK									
32S	97-BMS-102s1	8.4	<1	42	<2	4	44	20	180
33S	97-BMS-102s2	4.3	7.3	7.5	8.5	3	19	11	280
34S	96-BM-115	4.0	12	11	13	<3	25	14	350
35S	97-BMS-104G	<1	63	5.4	<2	<3	2.7	1.4	230
36S	97-BMS-105G	<1	35	<1	<2	<3	2.6	1.0	95
	97-BMS-105S	9.0	<1	36	<2	<3	56	38	1,100
37S	97-BMS-106G	<1	11	1.7	3.8	<3	1.7	1.2	26
38S	97-BMS-140	5.3	<1	18	29	<3	28	18	320
	99-BMS-107	9.0	1.6	24	18	<3	35	13	300
39S	97-BMS-122	6.3	5.2	9.1	6.9	<3	46	17	400
	98-BMS-112	5.0	<1	12	13	<3	22	9.0	250
40S	96-BM-111	10	2.6	37	7.0	<3	36	20	1,700
	97-BMS-107GA	13	1.8	24	6.1	<3	98	32	450
	98-BMS-111	8.0	<1	22	12	<3	36	13	490
	97-BMS-107GB	2.8	10	5.1	4.3	<3	21	6.7	55
	97-BMS-116	5.9	2.2	15	8.5	<3	31	14	710
43S	96-BM-113	10	<1	52	<2	<3	31	16	140
43S	96-BM-114	4.1	53	78	6.3	<3	43	10	7,500
41S	96-BM-112	9.6	1.5	20	14	<3	32	17	1,500
42S	96-BM-108	12	1.8	26	4.8	<3	28	16	2,500
CATARACT CREEK									
44S	97-BMS-120	8.4	<1	26	7.6	8	55	17	620
45S	97-BMS-124	8.8	2.5	25	15	6	38	23	370

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Nickel ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Yttrium ppm	Zinc ppm
46S	96-BM-120	6.2	<1	27	5.5	<3	34	16	250
	97-BMS-121	3.6	<1	14	7.9	7	21	12	130
	98-BMS-109	4.5	<1	14	11	<3	33	9.7	130
47S	97-BMS-126	12	<1	65	<2	6	37	23	390
48S	96-BM-119	4.4	6.1	23	4.8	<3	23	14	370
49S	97-BMS-127	5.4	5.0	21	<2	<3	27	13	440
50S	96-BM-117	5.2	9.3	23	4.4	<3	14	10	2,200
	97-BMS-136	3.1	5.9	15	11	3	16	12	980
	98-BMS-118	4.1	3.5	16	<2	<3	15	8.8	930
51S	96-BM-131	7.9	6.7	26	5.7	<3	20	14	2,400
52S	97-BMS-128	5.3	<1	30	18	6	9.8	20	71
53S	96-BM-106	9.7	4.1	28	5.7	<3	23	15	2,800
	97-BMS-113	4.5	5.5	19	7.0	3	18	13	890
	98-BMS-117	14	2.0	43	21	<3	62	24	1,300
UNCLE SAM GULCH									
54S	97-BMS-108s1	4.3	<1	53	<2	6	21	15	130
55S	96-BM-116	2.5	9.3	13	19	<3	13	15	610
56S	97-BMS-134	1.2	35	13	5.2	6	14	4.0	190
57S	96-BM-118	5.6	5.4	18	6.3	<3	16	16	3,700
HIGH ORE CREEK									
58S	98-BMS-115	9.0	<1	22	<2	<3	15	3.7	72
59S	96-BM-101	14	45	41	<2	<3	7.7	17	14,000
60S	96-BM-102	3.1	22	29	<2	<3	6.2	8.2	2,900
	98-BMS-107	7.8	27	24	<2	<3	6.4	7.5	4,700
61S	96-BM-103	6.7	13	30	5.8	<3	13	11	3,400

Table 7. Major and trace-element data from 1 percent H₂O₂-HCl leach digestions of bed sediments from the Boulder River watershed, Montana—
(continued)

Site Number (fig. 1)	Sample Number	Nickel ppm	Silver ppm	Strontium ppm	Thorium ppm	Tin ppm	Vanadium ppm	Yttrium ppm	Zinc ppm
62S	96-BM-104	8.4	22	34	4.5	<3	13	12	6,800
63S	96-BM-105A	7.4	22	30	8.3	<3	12	12	5,900
	96-BM-105B	8.9	27	34	8.0	<3	12	14	9,800
	97-BMS-118	8.3	29	27	<2	6	16	10	6,100
	98-BMS-108	6.0	16	19	<2	<3	14	9.0	3,400
<u>LITTLE BOULDER RIVER</u>									
19S	96-BM-140	4.4	<1	25	30	<3	32	10	99
	97-BMS-110	4.5	<1	21	32	4	32	8.0	55
	98-BMS-105	3.9	<1	17	72	<3	37	8.6	100