

UNITED STATES DEPARTMENT OF THE INTERIOR  
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GEOCHEMICAL DATA FOR THE AJO TWO-DEGREE  
QUADRANGLE, ARIZONA

By

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## INTRODUCTION

A regional geochemical reconnaissance study was made of the Ajo 1° x 2° quadrangle, Arizona, as part of the Conterminous United States Mineral Resource Assessment Program (CUSMAP). This is a program of systematic regional studies of the mineral resource potential of the conterminous United States.

Presented herein is a description of the techniques used for collecting and analyzing the geochemical samples; and the chemical analysis data.

The Ajo quadrangle is between 32° and 33° N. lat and 112° and 114° W. long, an area of approximately 21,000 square kilometers. As shown in figure 1, two deletions and one addition were made for this study: (1) Deleted was that portion not within the U.S. but within Mexico, (2) Deleted was the Papago Indian Reservation, currently being studied as a separate project, and (3) Added was the remainder of Organ Pipe Cactus National Monument outside the quadrangle boundary. With the above modifications, the study area was 17,000 square kilometers.

### Access Restrictions

Access to the great majority of the study area is restricted and requires approval several months in advance plus day-to-day coordination. The Air Force controls the largest area, the Luke Air Force Range. Operational control of the western portion of that range is with the Marine Corps based at Yuma. The Army restricts access to the Yuma Proving Ground in the northwest portion of the quadrangle. Access to the Kofa and Cabeza Prieta Game Ranges was coordinated through offices of the Fish and Wildlife Service in Yuma and Ajo. Since both these areas are within the above military reservations, joint coordination was required. Coordination with the Border Patrol offices in Yuma and Gila Bend was maintained for work near the international border.

All sampling exclusive of Organ Pipe Cactus National Monument was done during February and March 1979. Coordination with the Air Force was facilitated by making all site access by helicopter which was operated from the Gila Bend Auxiliary Air Force Field. Close personal coordination and a flexible schedule allowed entry into the bombing and gunnery ranges during short-time intervals when they became free.

Permission to sample within the Organ Pipe Cactus National Monument was obtained for the March and April 1980 field season. Most site access was by helicopter based at Ajo. Sites closer than 2 kilometers to roads were accessed by foot to reduce the visual impact of the sampling program to monument visitors.

### Sample Media Selection

Time and money constraints limited the number of sites which could be visited to approximately one thousand. Equal distribution of these throughout the area gives a sampling density of 1 site/17km<sup>2</sup>. The topography is typical Basin and Range province having about ten narrow (3-km wide) northwest-trending ranges separated by alluvium-filled valleys approximately 15-km wide. Approximately 80 percent of the quadrangle is alluvium-filled basin with bedrock inaccessible to surface sampling. Sampling density for the 20 percent remaining accessible mountainous terrain is a more favorable 1 site/3.1 km<sup>2</sup>. The drainage developed from the narrow linear ranges is extremely short, high-gradient first-order streams with few lateral

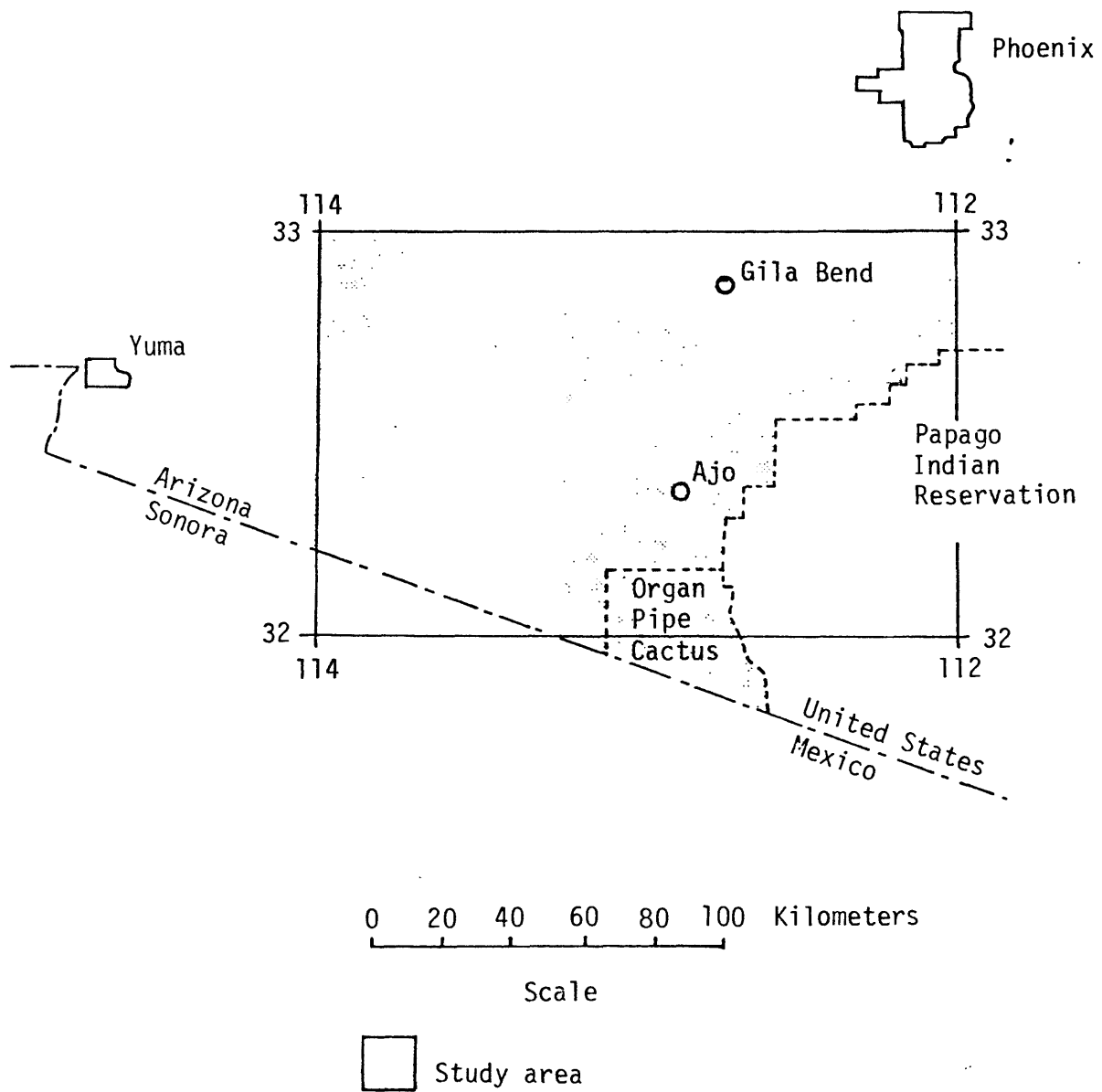


FIG. 1. Ajo study area.

tributaries, terminating in the alluvium-filled basins. Drainage basin areas are correspondingly small, generally less than one square kilometer. The coverage obtained for the mountainous areas was as uniformly spaced as feasible, but some areas between sampled drainages are not represented by any stream sample.

Stream-transported sediments were chosen as the sampling media to provide as much compositing as possible. Two types were taken, the minus-30-mesh stream sediment and the nonmagnetic fraction of the heavy-mineral concentrate of the stream sediment. The minus-30-mesh stream sediment provides a geochemical cross section of the mechanically transported components of the drainage basin. Its composition is controlled mainly by the major geologic units. Minor components, such as an economic-mineral deposit, can be seen in this media but their influence is subject to significant dilution by the large amount of material from the major units. A minus-30-mesh rather than the more usual minus-80-mesh stream-sediment sample was taken to reduce the influence of eolian dilution and to speed sampling.

The nonmagnetic fraction of the heavy-mineral concentrate is used to obviate excessive dilution of ore-elements by ordinary rock minerals. Many of the minerals of an ore deposit are transported as detrital material that are mechanically resistant and of high-specific gravity. They are concentrated in the field camp by panning and later in the laboratory by heavy liquid and magnetic separation.

### Sample Collection

A total of 971 sites were sampled, 137 within Organ Pipe Cactus National Monument with a density of 1 site/9.4 km<sup>2</sup> and 834 in the remainder of the quadrangle with a density of 1 site/18.8 km<sup>2</sup>. For the more linear ranges (Mohawk, Sierra Pinta, Bryan, Granite, Growler, and Ajo), 259 sites on both sides of 207-km cumulative range length gave one site for 1.6 km of range front.

Sample sites were all dry arroyos, some within the broader ranges, but more commonly where the arroyo emerged from the range. Stream-sediment samples were taken across the arroyo to give a representative sample and sieved at the site to minus 30 mesh. Heavy-mineral samples were taken where it appeared the greatest concentration could be obtained as indicated by black sands or on the downstream side of boulders. Two 1-liter cloth sample bags (5 1/2 in. x 10 1/2 in.) were filled with stream sediment passed through a 2-mm screen for panning at field camp. The panning was terminated when the heavy-minerals began to be lost, usually indicated by an abundance of magnetite, epidote, or hornblende (Theobald, 1957) or to approximately 200 grams.

Sample sites were plotted on 15-minute topographic quadrangle maps (1:62,500 scale) and transferred to the 1° x 2° quadrangle base map (1:250,000) daily. Sample sites were assigned two-letter prefixes indicating the 15-minute quadrangle location using the abbreviations shown in table 1; four-digit consecutive site numbers; and one- or two-letter suffixes indicating sample types (S-stream sediment, HN-heavy-mineral nonmagnetic fraction). Sites 1 to 834 were samples in 1979 and 1,001 to 1,137 in 1980.

Table 1.--Fifteen-minute quadrangle abbreviations for sample-site designation

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AD	Agua Dulce Mountains	LK	Lukeville
AM	Aguila Mountains	MA	Mount Ajo
AN	Antelope Peak	MI	Midway
AJ	Ajo	MM	Mohawk Mountains
AZ	Aztec	MO	Mohawk
CP	Cabeza Prieta	OH	O'Neil Hills
CV	Childs Valley	QB	Quitobaquito
DP	Diaz Peak	RO	Roll
ES	Estrella	SA	Sierra Arida
GI	Gila Bend	SE	Sentinel
GM	Granite Mountains	SI	Sikort Chuapo Mountains
GP	Growler Peak	ST	Stoval
HM	Hat Mountain	TH	Theba
IP	Isla Pinta	TM	Tule Mountains
KA	Kaka	VM	Vekol Mountains
KP	Kino Peak		

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### Sample Preparation and Analysis

The minus-30-mesh stream-sediment samples were mechanically pulverized to approximately minus 150 mesh to provide a 10-mg sample for analysis for 31 elements by emission spectroscopy (Grimes and Marranzino, 1968).

The panned concentrates were sieved to minus 30 mesh. A density separation using bromoform (specific gravity 2.80 to 2.89), separated the heavy minerals from quartz, feldspar, clay, and other low-density minerals. The heavy-mineral concentrates were split on the basis of magnetic susceptibility using a Frantz Isodynamic Magnetic Separator. Using a forward slope of 25° and a side slope of 15°, a separation at 0.6 amperes gave two fractions: (1), HM, magnetic, containing magnetite, ilmenite, chromite, amphiboles, pyroxenes, epidote, and olivine; and (2), HN, nonmagnetic, containing most of the sulfide minerals and secondary minerals of the base metals along with barite, apatite, zircon, and rutile.

The nonmagnetic fraction was split, one part for microscopic mineral identification and the other hand ground to provide a 5-mg sample for emission spectrographic analysis similar to that used for stream sediments. Sufficient sample for analysis was not obtained for 19 of the 971 samples.

### Data Storage and Processing

The emission spectrographic analytical results for the minus-30-mesh stream sediment and the nonmagnetic fraction of the heavy-mineral concentrates along with the latitude and longitude of the sample site are presented on the following pages. An entry of "N" indicates the element was not detected. The detection limits of the analytical method for stream-sediment samples are given in table 2. The detection limits for the nonmagnetic fraction of the heavy-mineral concentrates are twice those of stream sediments since the sample size is one-half as large.

Table 2.--Detection limits in parts per million for stream sediments determined by emission spectrographic method

Element	Detection limit	Element	Detection limit	Element	Detection limit
Ag	0.5	Cr	10	Sc	5
As	200	Cu	5	Sn	10
Au	10	La	20	Sr	100
B	10	Mn	10	Th	100
Ba	20	Mo	5	V	10
Be	1	Nb	20	W	50
Bi	10	Ni	5	Y	10
Cd	20	Pb	10	Zn	200
Co	5	Sb	100	Zr	10

The analyses, along with the latitude and longitude, were entered in the U.S. Geological Survey computerized Rock Analysis Storage System (RASS), VanTrump and Miesch (1977).

In addition to the 30 elements listed in the stream sediment analysis table, thorium was sought but detected in only three samples; MM0172S 300 ppm, CP0672S 700 ppm, and OH0689S 200 ppm.

Listed in the stream sediment analysis table but not detected in any samples were arsenic, gold, bismuth, cadmium, antimony, tin, and tungsten. Silver was detected in two samples, CP0675S and KP1100S. Zinc was detected only in sample TM0780S.

Gold and cadmium were the only elements sought but not detected in any of the nonmagnetic heavy-mineral concentrates.

#### REFERENCES

- Grimes D. J., and Marranzino, A. P., 1968, Direct-current and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.
- Theobald, P. K., 1957, The gold pan a quantitative geologic tool: U.S. Geological Survey Bulletin 1971-A, 54 p.
- VanTrump, George, Jr., and Miesch, A. T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.

## Spectrographic analysis of stream sediments

Sample	LATITUDE	LONGITUDE	S-FEX	S-MG%	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
MI0001S	32 39 46	112 59 56	7.0	3.0	5.0	1.00	1,500	N	N	N	N	1,500	2	N	N
CV0002S	32 39 40	113 0 15	7.0	3.0	3.0	.70	700	N	N	N	N	1,000	2	N	N
CV0003S	32 38 15	113 1 7	7.0	3.0	3.0	.70	700	N	N	N	N	1,000	2	N	N
CV0004S	32 38 12	113 0 15	10.0	5.0	7.0	>1.00	1,500	N	N	N	N	1,500	2	N	N
CV0005S	32 38 14	113 1 43	7.0	3.0	3.0	1.00	1,000	N	N	N	N	1,000	2	N	N
CV0006S	32 38 23	113 2 23	10.0	3.0	7.0	1.00	1,500	N	N	N	N	1,000	2	N	N
CV0007S	32 38 34	113 3 26	7.0	3.0	3.0	.70	700	N	N	N	15	1,000	2	N	N
CV0008S	32 40 4	113 4 14	7.0	3.0	5.0	.70	700	N	N	N	15	1,500	<1	N	N
CV0009S	32 37 28	113 4 4	7.0	3.0	7.0	.70	1,000	N	N	N	N	1,500	5	N	N
CV0010S	32 37 59	113 4 46	7.0	3.0	7.0	.70	700	N	N	N	N	1,500	5	N	N
CV0011S	32 38 25	113 5 52	7.0	2.0	5.0	1.00	700	N	N	N	10	1,500	5	N	N
CV0012S	32 38 40	113 6 20	5.0	2.0	5.0	.30	700	N	N	N	N	1,500	3	N	N
SF0013S	32 45 19	113 13 32	7.0	3.0	3.0	.70	1,000	N	N	N	N	1,500	<1	N	N
AM0014S	32 44 30	113 21 57	3.0	1.0	2.0	.30	700	N	N	N	15	1,000	<1	N	N
AM0015S	32 40 57	113 22 29	5.0	3.0	5.0	.30	700	N	N	N	N	1,000	2	N	N
AM0016S	32 41 1	113 21 26	5.0	2.0	5.0	.30	700	N	N	N	10	1,000	<1	N	N
AM0017S	32 40 31	113 20 37	5.0	3.0	5.0	.30	700	N	N	N	20	1,000	<1	N	N
AM0018S	32 38 10	113 19 55	5.0	2.0	5.0	.30	700	N	N	N	N	1,500	3	N	N
AM0019S	32 37 55	113 19 32	5.0	2.0	5.0	.30	700	N	N	N	N	1,500	2	N	N
AM0020S	32 36 49	113 18 48	7.0	2.0	3.0	.30	700	N	N	N	N	1,000	2	N	N
AM0021S	32 35 44	113 18 3	7.0	2.0	5.0	.30	700	N	N	N	15	1,500	<1	N	N
AM0022S	32 34 33	113 18 4	7.0	2.0	3.0	.30	700	N	N	N	10	1,000	<1	N	N
AM0023S	32 34 42	113 15 45	7.0	2.0	3.0	.50	1,000	N	N	N	10	1,000	<1	N	N
AM0024S	32 34 44	113 16 48	3.0	2.0	3.0	.30	700	N	N	N	N	1,500	N	N	N
AM0025S	32 32 6	113 17 39	3.0	2.0	2.0	.50	1,000	N	N	N	N	1,500	N	N	N
AM0026S	32 33 22	113 18 52	3.0	1.5	2.0	.30	700	N	N	N	20	1,500	2	N	N
AM0027S	32 32 39	113 20 42	3.0	1.5	3.0	.50	700	N	N	N	N	1,500	N	N	N
AM0028S	32 33 23	113 20 42	7.0	1.0	2.0	1.00	700	N	N	N	N	1,500	1	N	N
AM0029S	32 34 54	113 19 9	3.0	1.5	2.0	.30	700	N	N	N	N	1,000	1	N	N
AM0030S	32 34 57	113 20 18	3.0	1.0	3.0	.30	700	N	N	N	20	1,000	1	N	N
AM0031S	32 34 24	113 22 8	5.0	1.0	3.0	.30	700	N	N	N	N	1,500	N	N	N
AM0032S	32 35 33	113 22 6	5.0	1.0	5.0	.30	700	N	N	N	N	1,500	N	N	N
AM0033S	32 35 58	113 20 19	5.0	1.0	5.0	.50	1,000	N	N	N	10	1,500	N	N	N
AM0034S	32 37 48	113 20 47	7.0	1.0	5.0	1.00	1,500	N	N	N	N	1,500	5	N	N
AM0035S	32 38 37	113 21 21	5.0	1.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
AM0036S	32 38 49	113 22 21	7.0	1.0	5.0	1.00	1,000	N	N	N	N	1,500	3	N	N
AM0037S	32 39 6	113 23 15	7.0	1.5	5.0	1.00	1,000	N	N	N	N	1,000	N	N	N
AM0038S	32 42 47	113 20 15	3.0	1.0	3.0	.50	700	N	N	N	N	1,500	N	N	N
AM0039S	32 42 46	113 18 50	3.0	1.0	3.0	.70	700	N	N	N	10	1,000	N	N	N
MM0040S	32 31 58	113 31 59	3.0	1.5	5.0	.30	700	N	N	N	N	1,000	N	N	N
MM0041S	32 31 7	113 33 24	3.0	1.5	3.0	.30	1,000	N	N	N	N	1,000	2	N	N
MM0042S	32 30 28	113 32 48	5.0	1.5	3.0	.50	1,500	N	N	N	N	700	N	N	N
IP0043S	32 29 39	113 32 53	3.0	1.5	3.0	.30	700	N	N	N	N	700	1	N	N
IP0044S	32 28 48	113 32 14	5.0	1.5	3.0	.30	1,000	N	N	N	N	700	N	N	N
IP0045S	32 28 33	113 30 41	5.0	1.0	1.5	.30	700	N	N	N	N	700	1	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
MI0001S	20	70	30	70	<5	N	15	15	N	15	N	1,500	150	N	30	N	150
CV0002S	15	70	10	50	<5	N	10	10	N	7	N	1,000	100	N	15	N	150
CV0003S	15	70	30	50	<5	N	10	15	N	7	N	1,500	70	N	20	N	150
CV0004S	30	100	30	<20	<5	N	30	10	N	30	N	1,500	150	N	30	N	150
CV0005S	20	100	15	20	N	N	20	10	N	15	N	1,000	150	N	30	N	150
CV0006S	15	50	30	50	<5	N	15	10	N	15	N	1,000	150	N	30	N	100
CV0007S	10	50	15	50	<5	N	10	30	N	5	N	1,000	70	N	15	N	150
CV0008S	10	50	10	<20	<5	N	10	20	N	5	N	1,000	70	N	15	N	200
CV0009S	15	70	30	50	<5	N	10	20	N	15	N	1,000	70	N	20	N	150
CV0010S	20	70	30	50	<5	N	10	20	N	15	N	1,000	70	N	30	N	150
CV0011S	20	50	30	70	<5	N	10	10	N	15	N	1,000	70	N	30	N	150
CV0012S	10	20	20	50	<5	N	5	10	N	10	N	1,000	70	N	10	N	150
SE0013S	20	100	10	<20	7	N	70	10	N	10	N	1,000	150	N	10	N	150
AM0014S	5	30	<5	70	<5	N	<5	20	N	5	N	1,000	70	N	20	N	300
AM0015S	10	70	<5	150	5	N	50	30	N	7	N	1,000	70	N	20	N	150
AM0016S	10	70	20	70	5	N	30	20	N	7	N	1,000	70	N	30	N	300
AM0017S	10	70	30	50	5	N	30	20	N	10	N	1,000	70	N	30	N	300
AM0018S	5	50	10	50	5	N	<5	50	N	7	N	1,500	50	N	20	N	200
AM0019S	7	50	20	50	<5	N	<5	50	N	10	N	1,500	50	N	30	N	200
AM0020S	7	50	20	50	5	N	7	30	N	10	N	1,000	70	N	20	N	150
AM0021S	5	70	<5	50	5	N	7	20	N	7	N	1,000	70	N	20	N	150
AM0022S	5	50	<5	50	N	N	7	10	N	5	N	1,000	70	N	20	N	300
AM0023S	7	70	<5	<20	5	N	7	20	N	7	N	1,000	70	N	20	N	150
AM0024S	<5	30	5	N	5	N	7	15	N	7	N	700	50	N	10	N	150
AM0025S	15	70	5	N	5	N	15	15	N	7	N	700	70	N	10	N	300
AM0026S	<5	30	5	50	5	N	10	15	N	5	N	700	70	N	10	N	150
AM0027S	<5	30	5	70	5	N	7	<10	N	10	N	1,000	70	N	30	N	200
AM0028S	7	50	5	150	<5	N	10	10	N	10	N	700	150	N	150	N	300
AM0029S	7	20	5	N	5	N	10	50	N	5	N	700	100	N	N	N	150
AM0030S	5	15	5	70	5	N	5	20	N	5	N	1,000	70	N	20	N	150
AM0031S	5	30	10	70	5	N	15	20	N	10	N	700	70	N	10	N	100
AM0032S	5	50	15	50	5	N	15	15	N	10	N	700	70	N	15	N	150
AM0033S	5	50	7	N	N	N	15	15	N	10	N	700	70	N	20	N	150
AM0034S	10	30	20	50	<5	N	<5	100	N	15	N	1,000	300	N	30	N	200
AM0035S	5	20	10	30	N	N	5	70	N	5	N	700	70	N	10	N	150
AM0036S	5	30	10	50	5	N	<5	20	N	5	N	700	200	N	10	N	150
AM0037S	5	50	<5	20	5	N	20	10	N	10	N	700	200	N	30	N	200
AM0038S	<5	20	15	30	5	N	<5	10	N	5	N	700	70	N	N	N	150
AM0039S	5	70	10	N	<5	N	10	10	N	15	N	700	150	N	15	N	500
MM0040S	5	70	10	N	5	N	10	<10	N	10	N	700	100	N	15	N	70
MM0041S	5	70	10	20	N	N	20	10	N	15	N	700	100	N	20	N	100
MM0042S	15	70	15	N	<5	N	20	10	N	20	N	700	200	N	30	N	150
IP0043S	<5	30	15	50	5	N	15	20	N	10	N	700	70	N	30	N	150
IP0044S	10	50	10	100	N	N	20	20	N	15	N	700	70	N	70	N	150
IP0045S	<5	20	10	100	<5	N	<5	20	N	7	N	700	100	N	30	N	300



Sample	LATITUDE	LONGITUDE	S-FEX	S-MGZ	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
GM0046S	32 27 27	113 28 37	5.0	.7	2.0	.20	700	N	N	N	N	700	N	N	N
GM0047S	32 27 13	113 29 13	7.0	1.5	1.5	.70	700	N	N	N	N	1,000	N	N	N
AN0048S	32 50 20	112 7 32	7.0	1.5	1.0	.70	1,500	N	N	N	N	300	7	N	N
AN0049S	32 51 20	112 6 29	7.0	1.5	1.0	.30	1,000	N	N	N	N	500	5	N	N
AN0050S	32 52 19	112 4 23	10.0	1.5	1.5	1.00	1,500	N	N	N	N	500	2	N	N
AN0051S	32 52 55	112 4 11	5.0	1.5	.7	.50	1,000	N	N	N	N	700	2	N	N
AN0052S	32 52 32	112 5 44	7.0	1.5	.7	.70	1,500	N	N	N	N	300	5	N	N
AN0053S	32 55 50	112 6 52	5.0	1.5	1.0	.50	700	N	N	N	N	500	N	N	N
AN0054S	32 59 22	112 8 10	7.0	1.5	2.0	.70	1,000	N	N	N	N	300	N	N	N
AN0055S	32 59 35	112 9 0	3.0	1.0	1.5	.20	700	N	N	N	N	500	N	N	N
AN0056S	32 57 42	112 9 10	5.0	1.0	1.5	.30	1,000	N	N	N	N	500	1	N	N
AN0057S	32 58 25	112 10 12	7.0	1.0	1.5	.30	1,000	N	N	N	50	500	1	N	N
AN0058S	32 58 41	112 11 43	3.0	.7	1.5	.20	700	N	N	N	N	1,000	2	N	N
AN0059S	32 58 33	112 12 15	5.0	.5	.7	.30	700	N	N	N	10	700	N	N	N
AN0060S	32 51 14	112 8 54	7.0	1.0	1.0	1.00	2,000	N	N	N	N	200	7	N	N
AN0061S	32 51 55	112 9 10	5.0	.7	1.5	.50	1,000	N	N	N	N	300	7	N	N
AN0062S	32 52 55	112 9 36	10.0	.5	1.5	1.00	3,000	N	N	N	150	500	1	N	N
AN0063S	32 53 56	112 9 34	10.0	.7	1.5	.50	500	N	N	N	10	500	N	N	N
AN0064S	32 54 45	112 9 52	3.0	.7	2.0	.30	700	N	N	N	N	500	1	N	N
AN0065S	32 56 31	112 11 24	3.0	.7	1.5	.50	700	N	N	N	70	500	1	N	N
AN0066S	32 56 17	112 11 39	5.0	1.0	3.0	.50	700	N	N	N	N	500	N	N	N
AN0067S	32 57 22	112 9 57	3.0	.7	2.0	.30	700	N	N	N	N	500	N	N	N
AN0068S	32 50 30	112 8 42	5.0	.7	1.0	.30	1,500	N	N	N	N	500	5	N	N
AN0069S	32 52 34	112 11 23	5.0	.7	1.5	.50	700	N	N	N	N	700	N	N	N
AN0070S	32 51 48	112 10 26	.5	.7	.7	>1.00	5,000	N	N	N	50	300	2	N	N
TH0071S	32 48 56	112 57 5	7.0	2.0	3.0	1.00	1,000	N	N	N	N	700	N	N	N
TH0072S	32 47 31	112 56 19	7.0	2.0	3.0	.70	700	N	N	N	N	700	N	N	N
TH0073S	32 47 3	112 54 38	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	2	N	N
SE0074S	32 47 15	113 0 53	5.0	2.0	3.0	.70	700	N	N	N	30	1,000	N	N	N
SE0075S	32 47 45	113 1 16	5.0	2.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
SE0076S	32 47 31	113 6 32	7.0	2.0	3.0	1.00	1,000	N	N	N	N	1,000	N	N	N
SE0077S	32 46 34	113 8 12	7.0	1.5	1.5	.50	700	N	N	N	30	1,000	N	N	N
MI0078S	32 36 59	112 55 54	7.0	1.5	3.0	1.00	1,000	N	N	N	20	1,000	2	N	N
MI0079S	32 35 50	112 55 32	5.0	2.0	2.0	.50	700	N	N	N	N	1,000	N	N	N
MI0080S	32 34 32	112 53 51	7.0	2.0	3.0	.50	700	N	N	N	20	1,000	1	N	N
MI0081S	32 34 2	112 55 0	7.0	2.0	5.0	.50	700	N	N	N	N	1,000	2	N	N
MI0082S	32 34 11	112 56 42	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	2	N	N
MI0083S	32 34 47	112 57 14	7.0	2.0	5.0	.70	1,000	N	N	N	N	1,000	3	N	N
MI0084S	32 35 10	112 59 22	5.0	2.0	5.0	.50	1,000	N	N	N	N	1,000	2	N	N
MI0085S	32 36 18	112 58 31	7.0	2.0	5.0	1.00	1,500	N	N	N	N	1,000	2	N	N
CV0086S	32 30 53	113 0 33	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	2	N	N
GP0087S	32 29 33	113 0 19	5.0	1.5	3.0	.50	1,000	N	N	N	20	1,000	2	N	N
AJ0088S	32 29 35	112 59 24	5.0	2.0	3.0	.50	1,000	N	N	N	N	1,000	2	N	N
AJ0089S	32 28 34	112 58 5	5.0	2.0	3.0	.70	1,000	N	N	N	N	700	2	N	N
AJ0090S	32 28 18	112 57 12	5.0	2.0	3.0	.70	1,000	N	N	N	20	700	1	N	N

## Spectrographic analysis of stream sediments--continued

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
GM0046S	<5	15	7	150	5	N	<5	15	N	5	N	700	70	N	30	N	200
GM0047S	5	30	15	200	<5	N	5	10	N	7	N	500	100	N	50	N	300
AN0048S	5	20	10	100	<5	<20	<5	30	N	7	N	200	70	N	70	N	200
AN0049S	5	50	20	100	5	N	5	50	N	7	N	500	70	N	70	N	300
AN0050S	10	70	30	100	<5	30	5	30	N	15	N	300	150	N	100	N	500
AN0051S	5	70	30	150	<5	<20	5	50	N	10	N	500	100	N	100	N	300
AN0052S	5	20	15	150	15	20	<5	30	N	15	N	300	70	N	70	N	300
AN0053S	5	50	10	N	<5	N	10	10	N	10	N	300	70	N	30	N	300
AN0054S	20	100	20	N	N	N	30	10	N	15	N	300	200	N	20	N	70
AN0055S	<5	30	15	N	N	N	15	10	N	N	N	500	70	N	30	N	70
AN0056S	5	30	20	200	5	N	10	20	N	7	N	300	70	N	50	N	150
AN0057S	5	70	10	30	<5	N	10	15	N	10	N	500	100	N	30	N	200
AN0058S	<5	30	7	30	<5	N	5	10	N	5	N	500	70	N	20	N	200
AN0059S	<5	30	<5	N	<5	N	5	10	N	5	N	500	70	N	20	N	150
AN0060S	5	15	7	70	<5	30	5	20	N	15	N	N	70	N	70	N	150
AN0061S	5	10	10	50	<5	<20	<5	30	N	15	N	300	70	N	70	N	300
AN0062S	20	70	30	150	N	N	5	15	N	15	N	500	200	N	50	N	150
AN0063S	15	70	20	N	N	N	30	10	N	7	N	500	200	N	30	N	200
AN0064S	5	30	20	N	<5	N	20	10	N	10	N	300	70	N	30	N	100
AN0065S	5	50	20	N	5	N	20	20	N	10	N	300	70	N	30	N	200
AN0066S	7	70	20	N	N	N	50	10	N	15	N	300	100	N	30	N	100
AN0067S	<5	30	10	N	<5	N	10	20	N	5	N	300	70	N	30	N	150
AN0068S	<5	20	10	150	<5	20	10	50	N	15	N	300	70	N	150	N	300
AN0069S	5	30	20	20	<5	N	15	15	N	7	N	500	70	N	20	N	150
AN0070S	30	50	30	100	N	20	10	70	N	30	N	300	300	N	150	N	700
TH0071S	15	150	30	70	<5	N	70	30	N	15	N	700	200	N	10	N	150
TH0072S	7	70	30	50	5	N	20	50	N	10	N	700	150	N	50	N	300
TH0073S	7	70	15	N	5	N	70	30	N	5	N	1,000	150	N	10	N	200
SE0074S	7	70	15	30	7	N	50	30	N	7	N	700	150	N	15	N	300
SE0075S	15	100	10	30	7	N	100	20	N	10	N	700	150	N	10	N	150
SE0076S	10	100	10	N	7	N	30	50	N	10	N	700	150	N	15	N	300
SE0077S	<5	30	15	50	<5	N	<5	30	N	7	N	500	100	N	20	N	1,000
MI0078S	10	70	30	50	<5	N	<5	20	N	10	N	700	200	N	30	N	500
MI0079S	10	50	20	20	7	N	7	10	N	7	N	700	150	N	10	N	300
MI0080S	10	70	30	N	N	N	15	50	N	7	N	700	150	N	20	N	300
MI0081S	10	50	30	N	N	N	7	30	N	15	N	700	150	N	20	N	200
MI0082S	10	50	20	20	5	N	7	30	N	15	N	700	150	N	30	N	300
MI0083S	10	10	15	20	5	N	7	20	N	10	N	1,000	100	N	30	N	300
MI0084S	7	20	10	20	5	N	7	10	N	10	N	1,000	150	N	20	N	200
MI0085S	20	70	30	30	5	N	20	20	N	20	N	1,000	300	N	20	N	500
CV0086S	20	70	15	N	<5	N	50	30	N	10	N	1,000	150	N	30	N	300
GP0087S	5	30	20	30	<5	N	10	30	N	10	N	1,000	150	N	20	N	300
AJ0088S	5	50	20	50	5	N	7	20	N	10	N	1,000	150	N	20	N	300
AJ0089S	5	70	20	50	<5	N	30	30	N	10	N	1,000	150	N	20	N	300
AJ0090S	5	70	20	70	<5	N	20	30	N	10	N	700	150	N	20	N	500

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CA%	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
AJ0091S	32 27 42	112 56 17	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	N	N	N
AJ0092S	32 29 14	112 55 14	7.0	2.0	5.0	.70	1,000	N	N	N	N	1,000	1	N	N
AJ0093S	32 27 55	112 53 27	7.0	3.0	1.5	1.00	1,000	N	N	N	N	1,500	2	N	N
AJ0094S	32 29 3	112 50 54	5.0	2.0	.7	.50	700	N	N	N	N	1,000	1	N	N
AJ0095S	32 28 3	112 48 0	5.0	2.0	.7	.50	700	N	N	N	N	1,000	3	N	N
AJ0096S	32 28 45	112 48 46	5.0	2.0	.7	.50	700	N	N	N	N	1,000	1	N	N
AJ0097S	32 29 12	112 49 43	3.0	1.5	.7	.30	700	N	N	N	N	1,000	N	N	N
AN0098S	32 50 56	112 11 47	3.0	1.5	.7	.50	1,000	N	N	N	N	700	5	N	N
AN0099S	32 46 17	112 10 42	15.0	1.5	1.0	.50	1,500	N	N	N	30	700	2	N	N
AN0100S	32 47 58	112 11 25	5.0	1.5	.7	.70	1,000	N	N	N	20	700	3	N	N
AN0101S	32 47 51	112 7 52	10.0	1.5	1.0	1.00	1,000	N	N	N	20	700	2	N	N
AN0102S	32 46 47	112 6 40	7.0	2.0	.7	.50	1,000	N	N	N	30	700	1	N	N
AN0103S	32 46 57	112 4 47	7.0	1.5	.7	.30	2,000	N	N	N	50	700	7	N	N
AN0104S	32 45 47	112 4 43	5.0	1.5	.3	.30	1,500	N	N	N	20	300	7	N	N
VM0105S	32 43 29	112 7 4	5.0	1.5	.7	.50	1,000	N	N	N	30	700	7	N	N
VM0106S	32 43 39	112 9 50	7.0	1.5	.7	.50	1,500	N	N	N	50	700	2	N	N
VM0107S	32 43 12	112 9 1	5.0	1.5	.7	.50	1,000	N	N	N	300	700	2	N	N
KA0108S	32 41 29	112 18 26	10.0	3.0	1.5	1.00	1,500	N	N	N	N	700	N	N	N
KA0109S	32 42 0	112 22 20	5.0	1.0	.7	.50	1,000	N	N	N	N	1,500	2	N	N
KA0110S	32 43 20	112 22 40	5.0	2.0	.7	.50	1,000	N	N	N	N	1,000	1	N	N
KA0111S	32 44 11	112 21 26	5.0	2.0	.7	.30	1,000	N	N	N	N	700	1	N	N
KA0112S	32 44 47	112 23 8	5.0	2.0	.5	.50	1,000	N	N	N	N	1,000	1	N	N
KA0113S	32 44 38	112 24 44	7.0	1.5	.7	.50	1,000	N	N	N	N	1,000	N	N	N
ES0114S	32 46 27	112 28 5	7.0	2.0	.7	.50	1,000	N	N	N	N	1,000	N	N	N
ES0115S	32 46 48	112 26 53	15.0	1.5	1.5	1.00	1,500	N	N	N	30	700	N	N	N
ES0116S	32 46 50	112 25 47	10.0	2.0	1.5	.70	1,000	N	N	N	N	700	1	N	N
ES0117S	32 46 58	112 24 39	10.0	2.0	1.5	.70	700	N	N	N	N	700	1	N	N
ES0118S	32 46 51	112 22 52	15.0	2.0	2.0	.70	1,000	N	N	N	N	700	N	N	N
ES0119S	32 46 17	112 22 20	7.0	1.5	.7	.50	700	N	N	N	30	700	N	N	N
ES0120S	32 45 39	112 20 22	7.0	5.0	1.5	.70	1,000	N	N	N	20	700	N	N	N
ES0121S	32 47 53	112 23 43	7.0	3.0	1.5	.50	1,000	N	N	N	20	500	N	N	N
ES0122S	32 48 2	112 25 32	10.0	2.0	1.5	.70	1,000	N	N	N	N	500	N	N	N
AZ0123S	32 48 3	113 28 53	3.0	1.5	1.5	.30	500	N	N	N	N	700	N	N	N
MM0124S	32 31 33	113 31 37	10.0	2.0	2.0	.70	2,000	N	N	N	N	700	1	N	N
MM0125S	32 31 18	113 31 21	7.0	2.0	2.0	.70	700	N	N	N	N	700	N	N	N
GM0126S	32 29 10	113 29 43	5.0	1.0	1.5	.20	300	N	N	N	N	700	N	N	N
MM0127S	32 30 48	113 31 0	7.0	1.0	2.0	.50	1,500	N	N	N	N	500	N	N	N
GM0128S	32 27 6	113 27 46	5.0	1.5	2.0	.70	700	N	N	N	N	700	N	N	N
GM0129S	32 26 0	113 27 30	15.0	1.0	1.5	.50	700	N	N	N	20	700	N	N	N
GM0130S	32 25 9	113 26 55	5.0	1.0	2.0	.70	700	N	N	N	N	700	N	N	N
GM0131S	32 25 12	113 28 42	7.0	2.0	1.5	.50	700	N	N	N	20	700	N	N	N
GM0132S	32 25 2	113 28 31	10.0	1.0	1.5	.70	1,000	N	N	N	N	1,000	N	N	N
GM0133S	32 26 7	113 28 56	7.0	1.0	1.5	.50	700	N	N	N	N	700	N	N	N
GM0134S	32 25 55	113 29 40	10.0	1.0	1.5	.50	700	N	N	N	N	700	N	N	N
GM0135S	32 27 53	113 29 25	5.0	.7	1.5	.50	700	N	N	N	N	1,000	2	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
AJ0091S	15	70	20	70	<5	N	70	30	N	15	N	1,000	150	N	30	N	500
AJ0092S	15	70	20	50	<5	N	30	30	N	10	N	1,000	150	N	30	N	500
AJ0093S	20	100	30	70	<5	N	20	20	N	15	N	1,000	100	N	30	N	300
AJ0094S	10	50	30	50	<5	N	15	30	N	7	N	1,000	70	N	30	N	300
AJ0095S	5	30	50	50	<5	N	10	20	N	7	N	700	70	N	20	N	300
AJ0096S	10	30	30	50	<5	N	10	20	N	7	N	700	70	N	20	N	300
AJ0097S	5	30	30	50	5	N	10	20	N	<5	N	700	70	N	15	N	200
AN0098S	5	70	20	N	<5	N	10	20	N	7	N	500	70	N	50	N	150
AN0099S	10	70	15	N	N	N	30	10	N	7	N	700	150	N	10	N	150
AN0100S	N	70	15	50	<5	N	10	20	N	15	N	700	100	N	70	N	200
AN0101S	5	50	10	N	N	N	20	15	N	7	N	500	150	N	20	N	200
AN0102S	5	70	10	N	N	N	20	10	N	15	N	500	100	N	20	N	150
AN0103S	10	70	10	N	<5	N	30	70	N	10	N	700	70	N	50	N	150
AN0104S	5	15	10	30	7	N	7	30	N	15	N	300	50	N	50	N	150
VM0105S	7	30	15	50	7	N	10	30	N	15	N	700	70	N	50	N	500
VM0106S	7	50	20	N	<5	N	10	30	N	10	N	700	100	N	20	N	300
VM0107S	10	70	5	30	<5	N	30	30	N	15	N	700	100	N	30	N	300
KA0108S	30	150	30	N	<5	N	70	15	N	20	N	700	300	N	15	N	150
KA0109S	N	15	20	70	5	N	<5	70	N	<5	N	2,000	70	N	30	N	300
KA0110S	20	150	20	30	<5	N	70	20	N	15	N	1,000	150	N	30	N	150
KA0111S	20	150	15	30	5	N	70	10	N	15	N	700	100	N	30	N	300
KA0112S	N	70	15	50	N	N	30	20	N	15	N	700	100	N	30	N	200
KA0113S	10	70	10	50	<5	N	30	20	N	15	N	700	100	N	50	N	200
ES0114S	10	50	20	70	<5	N	30	30	N	20	N	700	100	N	50	N	500
ES0115S	15	100	20	100	N	N	30	15	N	20	N	300	300	N	50	N	500
ES0116S	15	70	20	70	N	N	30	20	N	20	N	500	150	N	50	N	150
ES0117S	10	70	15	20	N	N	20	20	N	15	N	500	150	N	50	N	300
ES0118S	10	100	20	20	N	N	20	15	N	15	N	500	150	N	50	N	150
ES0119S	N	30	<5	20	<5	N	7	15	N	10	N	500	100	N	50	N	150
ES0120S	15	100	20	30	<5	N	30	15	N	15	N	500	150	N	50	N	150
ES0121S	15	70	10	30	<5	N	20	15	N	10	N	500	70	N	50	N	150
ES0122S	15	70	10	30	<5	N	20	10	N	15	N	700	100	N	50	N	300
AZ0123S	5	20	10	50	5	N	10	15	N	N	N	700	70	N	10	N	150
MM0124S	10	50	15	N	<5	N	15	15	N	15	N	500	100	N	50	N	150
MM0125S	7	70	10	30	N	N	30	10	N	15	N	500	70	N	10	N	150
GM0126S	N	20	<5	N	5	N	10	10	N	5	N	500	70	N	N	N	150
MM0127S	10	50	<5	20	5	N	15	10	N	15	N	300	100	N	30	N	150
GM0128S	5	30	30	70	5	N	7	15	N	7	N	700	70	N	30	N	200
GM0129S	N	10	<5	150	<5	N	5	15	N	5	N	700	150	N	50	N	200
GM0130S	N	30	<5	100	<5	N	5	15	N	7	N	700	100	N	30	N	200
GM0131S	7	30	<5	150	<5	N	5	15	N	10	N	500	100	N	30	N	200
GM0132S	N	20	<5	50	<5	N	N	20	N	N	N	700	100	N	10	N	200
GM0133S	N	15	<5	150	<5	N	N	20	N	N	N	700	70	N	30	N	300
GM0134S	N	20	<5	20	<5	N	N	15	N	N	N	700	100	N	10	N	300
GM0135S	N	15	<5	70	5	N	N	20	N	5	N	700	70	N	20	N	200

Sample	LATITUDE		LONGITUDE		S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-RE	S-BI	S-CD
IP0136S	32 25 47	113 30 9	5.0	1.0	1.5	.50	700	N	N	N	N	N	N	1,000	N	N	N
IP0137S	32 24 49	113 30 17	3.0	1.0	2.0	.50	700	N	N	N	N	N	N	1,000	N	N	N
IP0138S	32 24 48	113 31 1	3.0	.7	1.0	.20	300	N	N	N	N	10	N	700	N	N	N
IP0139S	32 29 46	113 30 45	3.0	1.0	3.0	.20	1,000	N	N	N	N	N	N	1,000	2	N	N
MM0140S	32 32 35	113 35 40	5.0	1.0	3.0	.30	500	N	N	N	N	N	N	1,000	2	N	N
MM0141S	32 33 7	113 37 6	7.0	2.0	3.0	.30	1,000	N	N	N	N	N	N	700	2	N	N
MM0142S	32 33 22	113 34 31	10.0	2.0	2.0	.30	700	N	N	N	N	N	N	1,000	5	N	N
MM0143S	32 33 56	113 35 21	3.0	1.0	2.0	.20	700	N	N	N	N	N	N	700	3	N	N
MM0144S	32 34 0	113 36 1	5.0	1.5	2.0	.20	700	N	N	N	N	N	N	500	3	N	N
MM0145S	32 34 39	113 36 14	5.0	3.0	5.0	.30	1,000	N	N	N	N	30	N	700	1	N	N
MM0146S	32 35 3	113 37 15	7.0	3.0	5.0	.50	1,500	N	N	N	N	50	N	500	1	N	N
MM0147S	32 44 32	113 44 44	7.0	2.0	3.0	.30	1,000	N	N	N	N	30	N	700	1	N	N
RO0148S	32 45 15	113 45 6	7.0	2.0	5.0	.50	1,000	N	N	N	N	30	N	700	1	N	N
RO0149S	32 45 57	113 45 45	20.0	.7	1.5	.50	1,000	N	N	N	N	30	N	500	N	N	N
RO0150S	32 45 59	113 47 14	15.0	.7	1.5	.50	1,000	N	N	N	N	30	N	1,500	N	N	N
RO0151S	32 45 7	113 46 40	7.0	1.0	3.0	.30	700	N	N	N	N	30	N	700	N	N	N
MM0152S	32 44 18	113 45 54	10.0	1.0	3.0	.50	1,000	N	N	N	N	30	N	700	N	N	N
MM0153S	32 42 52	113 43 51	5.0	1.0	2.0	.30	700	N	N	N	N	20	N	700	N	N	N
MM0154S	32 41 54	113 42 51	3.0	1.0	2.0	.30	700	N	N	N	N	30	N	700	N	N	N
MM0155S	32 40 34	113 41 28	5.0	1.5	5.0	.50	700	N	N	N	N	30	N	700	N	N	N
MM0156S	32 39 13	113 39 39	5.0	1.5	3.0	.30	1,000	N	N	N	N	30	N	700	1	N	N
MM0157S	32 39 11	113 40 19	5.0	1.5	5.0	.30	1,000	N	N	N	N	20	N	700	N	N	N
MM0158S	32 37 49	113 39 46	5.0	1.5	5.0	.30	700	N	N	N	N	20	N	700	N	N	N
MM0159S	32 37 46	113 38 36	5.0	1.5	3.0	.30	1,000	N	N	N	N	20	N	500	N	N	N
MM0160S	32 37 19	113 39 26	5.0	1.5	5.0	.30	1,000	N	N	N	N	N	N	700	N	N	N
MM0161S	32 36 5	113 38 26	5.0	1.5	5.0	.30	700	N	N	N	N	N	N	700	N	N	N
MM0162S	32 36 20	113 36 56	3.0	2.0	3.0	.30	1,000	N	N	N	N	20	N	700	N	N	N
MM0163S	32 35 42	113 36 49	7.0	2.0	2.0	.30	700	N	N	N	N	N	N	700	N	N	N
MM0164S	32 35 10	113 35 46	10.0	3.0	3.0	.50	1,000	N	N	N	N	20	N	700	N	N	N
MM0165S	32 33 47	113 38 9	7.0	3.0	3.0	.70	1,000	N	N	N	N	30	N	700	N	N	N
MM0166S	32 34 39	113 39 9	5.0	2.0	2.0	.30	500	N	N	N	N	N	N	700	N	N	N
MM0167S	32 35 47	113 40 3	7.0	3.0	3.0	.30	1,000	N	N	N	N	N	N	700	N	N	N
MM0168S	32 36 30	113 40 30	5.0	2.0	1.5	.30	700	N	N	N	N	N	N	700	N	N	N
MM0169S	32 38 20	113 41 43	5.0	1.5	2.0	.30	700	N	N	N	N	N	N	700	1	N	N
MM0170S	32 39 38	113 42 34	5.0	2.0	5.0	.50	1,000	N	N	N	N	N	N	1,000	1	N	N
MM0171S	32 40 36	113 43 17	5.0	1.5	3.0	.70	700	N	N	N	N	N	N	1,000	N	N	N
MM0172S	32 41 35	113 44 50	15.0	1.0	5.0	.50	1,000	N	N	N	N	N	N	700	N	N	N
MM0173S	32 42 25	113 44 36	5.0	1.5	5.0	.70	700	N	N	N	N	N	N	1,000	N	N	N
MM0174S	32 44 49	112 47 46	7.0	2.0	5.0	.70	1,500	N	N	N	N	N	N	1,000	N	N	N
TH0175S	32 45 35	112 46 29	5.0	2.0	3.0	.70	1,000	N	N	N	N	N	N	1,000	N	N	N
MM0176S	32 44 55	112 45 26	5.0	2.0	5.0	.50	700	N	N	N	N	N	N	1,000	N	N	N
MM0177S	32 42 41	112 43 33	5.0	2.0	5.0	.70	1,500	N	N	N	N	N	N	1,000	1	N	N
MM0178S	32 41 7	112 43 41	3.0	1.0	1.0	.30	700	N	N	N	N	N	N	1,000	1	N	N
MM0179S	32 41 45	112 44 29	3.0	1.0	1.0	.30	500	N	N	N	N	N	N	1,000	1	N	N
MM0180S	32 42 57	112 44 54	5.0	1.5	3.0	.50	700	N	N	N	N	N	N	700	N	N	N

## Spectrographic analysis of stream sediments--continued

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
IP0136S	N	20	<5	100	5	N	N	15	N	5	N	700	70	N	20	N	150
IP0137S	N	15	<5	70	<5	N	N	15	N	5	N	700	70	N	20	N	150
IP0138S	N	15	<5	70	<5	N	7	15	N	N	N	500	50	N	N	N	150
IP0139S	N	<10	10	20	<5	N	N	50	N	5	N	1,000	70	N	10	N	200
MM0140S	N	20	5	N	<5	N	5	30	N	7	N	1,000	70	N	10	N	150
MM0141S	15	70	30	N	10	N	30	30	N	15	N	700	150	N	15	N	150
MM0142S	10	50	15	30	<5	N	15	30	N	15	N	700	100	N	70	N	150
MM0143S	N	15	5	20	<5	N	5	30	N	5	N	700	50	N	20	N	150
MM0144S	5	100	10	50	7	N	50	30	N	10	N	300	70	N	30	N	200
MM0145S	15	300	30	N	5	N	200	30	N	15	N	500	150	N	20	N	150
MM0146S	15	200	30	20	7	N	100	20	N	20	N	300	150	N	30	N	150
MM0147S	10	30	<5	50	5	N	20	<10	N	10	N	500	150	N	20	N	100
RO0148S	10	30	50	50	5	N	20	<10	N	10	N	500	150	N	15	N	100
RO0149S	30	50	<5	150	<5	70	70	<10	N	N	N	300	700	N	20	N	700
RO0150S	30	50	5	N	<5	20	20	10	N	5	N	1,500	300	N	20	N	300
RO0151S	20	50	<5	50	N	N	20	<10	N	5	N	500	200	N	20	N	300
MM0152S	20	70	<5	30	<5	N	20	10	N	10	N	700	300	N	20	N	300
MM0153S	10	30	<5	20	5	N	15	10	N	10	N	700	100	N	20	N	200
MM0154S	5	30	15	50	N	N	15	10	N	5	N	700	70	N	20	N	300
MM0155S	30	70	100	150	5	N	50	10	N	15	N	700	70	N	20	N	200
MM0156S	7	30	20	N	N	N	5	15	N	7	N	700	150	N	15	N	200
MM0157S	7	30	15	100	N	N	5	10	N	10	N	700	100	N	30	N	300
MM0158S	5	50	20	50	N	N	15	10	N	10	N	700	150	N	30	N	300
MM0159S	5	50	15	30	5	N	10	<10	N	7	N	700	100	N	20	N	300
MM0160S	10	50	30	30	<5	N	30	10	N	15	N	700	150	N	15	N	300
MM0161S	10	50	20	30	<5	N	30	10	N	15	N	700	150	N	15	N	200
MM0162S	N	15	7	150	7	N	10	20	N	5	N	700	70	N	30	N	200
MM0163S	20	15	30	100	5	N	10	20	N	7	N	500	100	N	20	N	300
MM0164S	15	70	20	N	<5	N	30	10	N	20	N	700	100	N	30	N	300
MM0165S	20	150	20	20	<5	N	70	10	N	20	N	700	150	N	30	N	300
MM0166S	10	50	10	100	5	N	30	15	N	10	N	700	100	N	20	N	300
MM0167S	5	50	10	N	5	N	20	10	N	10	N	700	100	N	10	N	100
MM0168S	7	30	15	20	<5	N	15	10	N	7	N	700	100	N	50	N	200
MM0169S	5	20	10	N	<5	N	10	15	N	15	N	700	100	N	30	N	300
MM0170S	7	30	30	200	<5	N	15	15	N	15	N	700	100	N	30	N	300
MM0171S	5	30	20	70	<5	N	10	15	N	10	N	700	100	N	20	N	300
MM0172S	7	20	30	150	<5	N	<5	10	N	15	N	700	300	N	10	N	150
MM0173S	N	30	5	N	5	N	15	15	N	10	N	700	100	N	30	N	100
MI0174S	7	50	15	50	5	N	30	15	N	15	N	700	150	N	50	N	200
TH0175S	5	70	20	N	<5	N	30	15	N	10	N	700	100	N	20	N	300
MI0176S	10	70	30	N	N	N	50	15	N	10	N	700	100	N	15	N	150
HM0177S	10	100	30	20	N	N	N	50	N	15	N	700	150	N	30	N	150
HM0178S	N	<10	10	50	N	N	N	20	N	N	N	1,000	50	N	30	N	200
HM0179S	N	15	10	50	<5	N	N	20	N	N	N	1,000	50	N	30	N	150
HM0180S	15	30	30	N	<5	N	20	10	N	10	N	700	150	N	30	N	150

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
MI0181S	32 43 54	112 46 35	5.0	1.5	3.0	.70	1,000	N	N	N	N	700	N	N	N
MI0182S	32 44 29	112 48 23	3.0	1.0	1.5	.50	500	N	N	N	N	700	N	N	N
MI0183S	32 41 50	112 46 26	3.0	1.0	1.0	.30	500	N	N	N	N	700	1	N	N
MI0184S	32 41 59	112 45 16	5.0	1.0	1.0	.50	700	N	N	N	20	1,000	1	N	N
MI0185S	32 42 30	112 47 50	5.0	3.0	3.0	.70	700	N	N	N	30	1,000	1	N	N
MI0186S	32 41 23	112 48 9	5.0	1.5	3.0	.70	700	N	N	N	N	1,000	2	N	N
MI0187S	32 41 9	112 47 20	3.0	1.5	2.0	.50	500	N	N	N	N	1,000	2	N	N
MI0188S	32 42 22	112 42 10	7.0	1.5	1.5	1.00	1,000	N	N	N	30	700	2	N	N
HM0189S	32 41 28	112 41 41	3.0	1.5	7.0	.30	500	N	N	N	20	1,000	2	N	N
HM0190S	32 40 36	112 42 32	3.0	1.5	3.0	.30	500	N	N	N	N	1,000	2	N	N
HM0191S	32 39 18	112 41 56	3.0	1.5	2.0	.30	500	N	N	N	N	1,000	2	N	N
HM0192S	32 38 30	112 40 57	5.0	1.5	3.0	.50	1,000	N	N	N	N	700	2	N	N
HM0193S	32 38 58	112 39 20	3.0	1.5	3.0	.30	700	N	N	N	N	700	2	N	N
HM0194S	32 40 11	112 39 19	15.0	1.5	1.5	>1.00	3,000	N	N	N	N	500	1	N	N
HM0195S	32 42 34	112 40 33	10.0	1.5	7.0	.30	1,000	N	N	N	N	500	N	N	N
HM0196S	32 41 26	112 40 25	5.0	1.0	5.0	.30	300	N	N	N	N	700	1	N	N
HM0197S	32 40 33	112 40 26	5.0	1.0	1.5	.30	700	N	N	N	N	500	1	N	N
HM0198S	32 37 43	112 39 10	5.0	1.0	3.0	.50	1,500	N	N	N	N	700	2	N	N
HM0199S	32 37 21	112 40 45	3.0	1.5	3.0	.30	700	N	N	N	N	700	1	N	N
HM0200S	32 37 44	112 42 36	3.0	1.0	1.5	.20	300	N	N	N	20	700	1	N	N
HM0201S	32 37 9	112 43 14	2.0	.7	1.5	.15	300	N	N	N	N	700	1	N	N
HM0202S	32 36 37	112 42 8	7.0	1.0	1.0	.70	500	N	N	N	15	700	N	N	N
HM0203S	32 35 49	112 40 24	5.0	1.5	2.0	.50	500	N	N	N	N	700	N	N	N
HM0204S	32 36 9	112 39 4	3.0	1.5	1.5	.30	300	N	N	N	N	700	N	N	N
HM0205S	32 36 23	112 37 59	7.0	1.5	1.0	.50	1,000	N	N	N	N	700	1	N	N
HM0206S	32 35 16	112 39 21	5.0	2.0	3.0	.50	1,000	N	N	N	N	700	1	N	N
HM0207S	32 35 43	112 42 29	3.0	1.5	1.0	.30	300	N	N	N	N	700	N	N	N
HM0208S	32 35 58	112 43 35	3.0	1.5	3.0	.30	700	N	N	N	15	1,500	2	N	N
MI0209S	32 37 52	112 45 17	5.0	1.0	1.5	.30	700	N	N	N	15	1,500	2	N	N
HM0210S	32 38 36	112 44 14	3.0	1.0	1.5	.30	700	N	N	N	20	1,500	2	N	N
HM0211S	32 39 22	112 44 59	5.0	1.5	1.5	.50	1,000	N	N	N	20	1,500	2	N	N
MI0212S	32 38 30	112 45 36	3.0	1.0	1.5	.30	700	N	N	N	10	1,500	2	N	N
MI0213S	32 38 56	112 47 22	3.0	1.0	1.5	.30	700	N	N	N	15	1,500	1	N	N
MI0214S	32 39 28	112 48 1	3.0	1.0	1.5	.30	1,000	N	N	N	10	1,500	2	N	N
MI0215S	32 39 57	112 48 30	5.0	1.5	1.5	.50	700	N	N	N	15	700	2	N	N
MI0216S	32 40 40	112 49 31	3.0	1.0	1.5	.30	500	N	N	N	N	1,000	2	N	N
MI0217S	32 41 30	112 49 45	5.0	1.0	1.5	.30	700	N	N	N	N	1,500	2	N	N
GI0218S	32 51 14	112 36 53	7.0	3.0	5.0	.50	1,000	N	N	N	N	1,000	N	N	N
GI0219S	32 49 59	112 37 18	7.0	3.0	5.0	.70	1,000	N	N	N	10	1,000	1	N	N
GI0220S	32 49 42	112 35 47	5.0	2.0	7.0	.50	1,000	N	N	N	N	1,000	N	N	N
GI0221S	32 50 40	112 35 7	7.0	3.0	3.0	.70	1,000	N	N	N	10	1,000	1	N	N
GI0222S	32 49 34	112 34 36	5.0	1.5	2.0	.30	700	N	N	N	10	1,000	1	N	N
GI0223S	32 48 58	112 33 18	5.0	1.5	5.0	.50	1,000	N	N	N	10	1,000	2	N	N
GI0224S	32 50 19	112 32 30	7.0	2.0	3.0	.50	1,500	N	N	N	10	1,000	2	N	N
GI0225S	32 48 38	112 31 11	5.0	2.0	3.0	.50	1,000	N	N	N	20	1,000	2	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PA	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
MI0181S	20	30	30	N	<5	N	20	10	N	10	N	700	150	N	30	N	200
MI0182S	5	30	10	N	N	N	5	10	N	N	N	500	150	N	20	N	200
MI0183S	N	10	20	20	N	N	N	30	N	N	N	700	70	N	20	N	200
MI0184S	N	10	20	70	5	N	N	30	N	5	N	1,000	150	N	50	N	300
MI0185S	N	20	5	70	5	N	5	50	N	7	N	1,000	70	N	20	N	300
MI0186S	N	10	10	70	<5	N	N	50	N	5	10	1,000	50	N	20	N	150
MI0187S	N	10	20	70	<5	N	5	50	N	5	N	1,000	30	N	20	N	150
MI0188S	N	15	20	50	7	30	5	30	N	5	N	700	70	N	30	N	500
MI0189S	N	<10	10	70	<5	N	5	30	N	N	N	700	30	N	30	N	150
MI0190S	N	<10	5	50	<5	N	<5	50	N	N	N	1,000	30	N	30	N	150
MI0191S	N	<10	<5	50	<5	N	<5	50	N	N	N	1,000	30	N	20	N	150
MI0192S	N	<10	5	70	<5	<20	<5	30	N	N	N	1,000	50	N	30	N	300
MI0193S	N	10	5	70	<5	<20	7	70	N	N	N	1,000	50	N	30	N	150
MI0194S	30	30	5	200	<5	20	5	50	N	5	20	500	150	N	100	N	700
MI0195S	15	70	30	N	<5	N	10	10	N	15	N	700	150	N	10	N	100
MI0196S	N	10	5	50	5	N	<5	30	N	5	N	1,000	70	N	30	N	300
MI0197S	N	<10	10	70	<5	N	<5	70	N	N	N	500	70	N	50	N	300
MI0198S	5	<10	7	70	5	N	5	50	N	N	N	1,000	70	N	30	N	300
MI0199S	N	<10	<5	50	<5	N	<5	50	N	N	N	700	30	N	20	N	200
MI0200S	N	<10	<5	50	<5	N	<5	50	N	N	N	700	20	N	20	N	150
MI0201S	N	<10	<5	20	<5	N	<5	30	N	N	N	1,000	15	N	10	N	100
MI0202S	N	<10	10	30	10	<20	<5	30	N	N	N	700	50	N	20	N	300
MI0203S	5	<10	10	30	<5	N	5	30	N	5	N	700	70	N	20	N	100
MI0204S	N	<10	5	50	<5	N	<5	30	N	N	N	700	30	N	20	N	200
MI0205S	N	<10	<5	50	<5	N	5	50	N	5	N	700	70	N	30	N	300
MI0206S	N	<10	15	50	<5	N	15	50	N	7	N	700	50	N	30	N	200
MI0207S	N	<10	10	30	<5	N	5	30	N	N	N	500	30	N	10	N	150
MI0208S	N	<10	<5	70	<5	N	N	70	N	N	N	1,000	30	N	50	N	300
MI0209S	N	10	<5	50	<5	N	N	50	N	5	N	1,000	30	N	30	N	200
MI0210S	N	15	15	70	<5	N	5	50	N	N	N	700	30	N	30	N	300
MI0211S	5	30	15	70	<5	N	7	50	N	7	N	1,000	50	N	30	N	300
MI0212S	N	15	10	70	<5	N	5	50	N	5	N	1,000	30	N	30	N	200
MI0213S	5	15	10	70	<5	N	5	20	N	7	N	1,000	30	N	30	N	500
MI0214S	N	15	20	50	<5	N	5	30	N	5	N	1,000	30	N	30	N	300
MI0215S	5	30	30	50	7	N	10	70	N	7	N	700	50	N	30	N	300
MI0216S	N	10	10	50	<5	N	5	50	N	<5	N	700	30	N	30	N	300
MI0217S	N	15	10	20	<5	N	5	50	N	N	N	1,000	70	N	20	N	150
GI0218S	15	70	10	N	<5	N	15	20	N	15	N	700	70	N	30	N	150
GI0219S	15	70	15	120	<5	N	15	50	N	15	N	700	100	N	30	N	300
GI0220S	15	50	15	N	<5	N	10	10	N	15	N	500	70	N	20	N	150
GI0221S	20	100	30	N	<5	N	70	30	N	20	N	700	150	N	30	N	300
GI0222S	10	70	30	N	<5	N	30	50	N	10	N	500	70	N	20	N	300
GI0223S	15	70	20	20	<5	N	30	50	N	15	N	1,000	100	N	20	N	200
GI0224S	20	70	30	30	5	N	50	50	N	15	N	700	100	N	30	N	300
GI0225S	20	70	30	N	<5	N	70	50	N	15	N	700	150	N	20	N	300



Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-RE	S-BI	S-CD
G10226S	32 47 29	112 30 24	5.0	2.0	5.0	.50	1,500	N	N	N	N	1,000	1	N	N
G10227S	32 48 0	112 34 8	7.0	2.0	3.0	.50	1,500	N	N	N	10	1,000	1	N	N
G10228S	32 46 53	112 33 0	7.0	2.0	5.0	.50	1,500	N	N	N	N	1,000	1	N	N
G10229S	32 48 28	112 28 46	7.0	2.0	5.0	.70	1,500	N	N	N	N	1,000	2	N	N
E50230S	32 50 22	112 28 46	7.0	5.0	7.0	.50	1,500	N	N	N	N	1,000	2	N	N
E50231S	32 50 16	112 27 24	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,500	2	N	N
E50232S	32 49 35	112 25 56	7.0	3.0	5.0	.70	1,000	N	N	N	N	1,500	1	N	N
E50233S	32 47 10	112 19 11	7.0	3.0	1.0	.50	2,000	N	N	N	30	1,000	3	N	N
E50234S	32 47 1	112 18 5	7.0	1.5	.7	.70	1,500	N	N	N	30	1,000	1	N	N
E50235S	32 47 0	112 16 36	7.0	2.0	3.0	.70	1,000	N	N	N	30	700	1	N	N
E50236S	32 45 53	112 16 11	10.0	2.0	2.0	.70	1,500	N	N	N	70	700	N	N	N
E50237S	32 45 44	112 18 7	10.0	2.0	1.5	.70	1,000	N	N	N	30	700	1	N	N
E50238S	32 52 4	112 18 52	15.0	1.0	1.5	.70	1,000	N	N	N	30	700	2	N	N
E50239S	32 52 38	112 20 54	10.0	2.0	1.5	.70	1,000	N	N	N	10	700	3	N	N
E50240S	32 53 8	112 23 2	7.0	1.5	1.5	.50	1,000	N	N	N	N	1,000	1	N	N
E50241S	32 53 12	112 24 41	5.0	1.5	1.5	.30	700	N	N	N	N	700	3	N	N
E50242S	32 54 13	112 26 4	7.0	1.5	1.5	.50	1,000	N	N	N	N	700	1	N	N
AN0243S	32 58 37	112 14 13	5.0	1.5	1.5	.30	700	N	N	N	N	700	N	N	N
AN0244S	32 59 25	112 14 48	10.0	1.5	1.5	.70	700	N	N	N	10	700	N	N	N
E50245S	32 58 53	112 15 24	7.0	2.0	5.0	.50	700	N	N	N	N	1,000	N	N	N
E50246S	32 57 57	112 15 50	10.0	2.0	1.5	.30	700	N	N	N	N	1,000	N	N	N
E50247S	32 57 21	112 15 9	5.0	3.0	5.0	.50	700	N	N	N	N	1,000	2	N	N
E50248S	32 57 8	112 18 6	10.0	1.0	1.5	1.00	2,000	N	N	N	N	700	3	N	N
E50249S	32 57 58	112 18 41	7.0	1.0	1.5	.50	1,500	N	N	N	N	700	3	N	N
E50250S	32 56 52	112 21 3	3.0	1.0	1.5	.30	1,000	N	N	N	N	500	3	N	N
E50251S	32 56 26	112 19 30	7.0	1.5	1.5	.50	1,500	N	N	N	N	500	5	N	N
E50252S	32 55 16	112 19 37	5.0	1.5	1.5	.30	1,000	N	N	N	N	700	5	N	N
E50253S	32 53 46	112 19 1	7.0	1.5	3.0	.50	1,000	N	N	N	N	700	5	N	N
E50254S	32 54 41	112 21 48	5.0	2.0	1.5	.70	1,500	N	N	N	N	700	2	N	N
E50255S	32 55 14	112 22 19	7.0	2.0	1.5	.50	1,000	N	N	N	N	700	1	N	N
E50256S	32 51 33	112 20 30	5.0	1.5	2.0	.50	700	N	N	N	N	1,000	2	N	N
E50257S	32 54 33	112 27 9	10.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	2	N	N
E50258S	32 55 7	112 25 6	10.0	1.5	1.5	.70	1,000	N	N	N	N	700	1	N	N
E50259S	32 56 9	112 24 14	5.0	1.5	1.5	.50	1,000	N	N	N	N	700	1	N	N
E50260S	32 56 32	112 22 39	5.0	2.0	1.5	.70	1,500	N	N	N	N	700	1	N	N
E50261S	32 58 5	112 24 51	5.0	1.5	2.0	.70	1,500	N	N	N	N	700	2	N	N
E50262S	32 58 17	112 26 27	10.0	1.5	1.5	1.00	2,000	N	N	N	10	1,000	1	N	N
E50263S	32 58 43	112 28 4	10.0	2.0	1.5	1.00	2,000	N	N	N	N	700	2	N	N
E50264S	32 59 0	112 29 49	10.0	1.5	1.5	1.00	3,000	N	N	N	N	700	1	N	N
G10265S	32 59 41	112 30 16	7.0	1.5	1.5	.70	1,500	N	N	N	N	700	1	N	N
G10266S	32 59 36	112 31 58	10.0	1.5	1.0	1.00	5,000	N	N	N	N	500	1	N	N
G10267S	32 58 54	112 30 46	5.0	1.5	2.0	.70	1,500	N	N	N	N	700	2	N	N
G10268S	32 58 18	112 30 20	5.0	1.5	1.5	.50	1,000	N	N	N	N	700	2	N	N
E50269S	32 58 5	112 29 12	15.0	1.0	1.0	1.00	2,000	N	N	N	N	700	N	N	N
E50270S	32 57 6	112 27 42	7.0	1.5	1.5	.70	1,500	N	N	N	N	500	1	N	N

## Spectrographic analysis of stream sediments--continued

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
G10226S	20	150	30	20	<5	N	70	30	N	20	N	700	150	N	30	N	300
G10227S	20	100	30	70	<5	N	50	50	N	15	N	700	100	N	30	N	300
G10228S	20	100	20	70	<5	N	50	30	N	20	N	700	100	N	30	N	300
ES0229S	20	200	20	70	<5	N	150	50	N	20	N	700	100	N	50	N	300
ES0230S	30	300	30	50	<5	N	150	50	N	20	N	700	100	N	30	N	200
ES0231S	20	200	30	150	N	N	100	20	N	30	N	700	200	N	70	N	500
ES0232S	30	150	30	100	N	N	70	20	N	20	N	700	150	N	30	N	300
ES0233S	20	70	10	50	<5	N	70	10	N	15	N	500	100	N	50	N	200
ES0234S	15	70	20	70	<5	N	30	15	N	10	N	500	70	N	30	N	300
ES0235S	15	70	20	30	<5	N	30	15	N	20	N	700	100	N	30	N	200
ES0236S	20	70	20	N	<5	N	30	20	N	15	N	700	100	N	30	N	300
ES0237S	15	70	20	20	<5	N	50	20	N	15	N	700	100	N	30	N	300
ES0238S	5	70	10	N	N	N	5	15	N	N	N	500	200	N	30	N	200
ES0239S	5	70	20	20	<5	N	15	20	N	15	N	500	150	N	70	N	300
ES0240S	5	50	10	N	<5	N	30	20	N	10	N	700	100	N	70	N	200
ES0241S	5	30	10	50	<5	N	15	30	N	10	N	500	70	N	30	N	200
ES0242S	5	15	10	100	<5	N	5	20	N	20	N	500	70	N	70	N	100
AN0243S	5	20	7	20	<5	N	30	30	N	10	N	500	70	N	10	N	100
AN0244S	15	70	15	N	<5	N	30	20	N	15	N	500	150	N	N	N	150
ES0245S	10	100	30	100	<5	N	70	30	N	15	N	700	100	N	30	N	300
ES0246S	10	150	7	30	N	N	50	20	N	7	N	700	100	N	N	N	200
ES0247S	20	200	30	150	<5	N	100	30	N	15	N	700	100	N	30	N	150
ES0248S	5	30	20	30	N	N	5	20	N	7	N	500	150	N	50	N	150
ES0249S	10	30	20	50	<5	N	5	20	N	10	N	300	100	N	50	N	200
ES0250S	N	20	5	N	<5	N	5	20	N	5	N	300	70	N	10	N	150
ES0251S	10	30	15	30	<5	N	5	30	N	15	N	500	100	N	100	N	500
ES0252S	5	<10	15	20	<5	N	5	30	N	10	N	500	70	N	30	N	150
ES0253S	10	15	20	30	<5	N	5	30	N	15	N	500	70	N	70	N	300
ES0254S	N	10	5	50	<5	N	5	50	N	7	N	700	70	N	30	N	150
ES0255S	N	30	5	30	<5	N	7	50	N	5	N	700	100	N	15	N	150
ES0256S	N	20	5	30	<5	N	5	30	N	N	N	700	70	N	20	N	150
ES0257S	10	30	30	50	<5	N	5	50	N	15	N	700	100	N	50	N	300
ES0258S	10	70	20	50	<5	N	10	50	N	10	N	700	100	N	30	N	300
ES0259S	7	30	10	50	<5	N	10	30	N	10	N	700	70	N	30	N	150
ES0260S	10	50	10	20	<5	N	15	20	N	15	N	700	100	N	50	N	150
ES0261S	10	30	10	100	<5	N	10	30	N	20	N	700	100	N	50	N	150
ES0262S	20	100	20	70	<5	N	15	50	N	20	N	700	200	N	70	N	500
ES0263S	20	70	10	30	N	N	10	50	N	20	N	700	150	N	50	N	150
ES0264S	20	70	7	N	N	N	10	30	N	15	N	700	150	N	70	N	150
G10265S	7	50	10	70	<5	N	15	30	N	15	N	700	100	N	50	N	150
G10266S	30	70	30	50	<5	N	15	30	N	15	N	500	150	N	70	N	300
G10267S	5	30	10	50	N	N	10	30	N	10	N	700	70	N	20	N	150
G10268S	10	20	15	70	<5	N	15	30	N	15	N	700	100	N	50	N	150
ES0269S	10	100	15	50	N	N	15	30	N	15	N	700	300	N	70	N	500
ES0270S	10	50	15	30	<5	N	15	30	N	15	N	500	150	N	30	N	300

## Spectrographic analysis of stream sediments--continued

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Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
ES0271S	32 56 59	112 26 33	7.0	1.5	2.0	.70	1,500	N	N	N	N	700	2	N	N
ES0272S	32 56 23	112 25 15	5.0	1.5	2.0	.50	1,500	N	N	N	N	700	2	N	N
GI0273S	32 55 38	112 34 10	5.0	1.5	1.5	.50	3,000	N	N	N	N	700	1	N	N
GI0274S	32 54 46	112 34 35	15.0	1.5	1.5	1.00	2,000	N	N	N	N	700	1	N	N
GI0275S	32 52 5	112 31 6	3.0	1.5	3.0	.50	1,000	N	N	N	30	1,000	2	N	N
GI0276S	32 53 5	112 32 11	10.0	1.5	1.5	1.00	5,000	N	N	N	10	1,500	1	N	N
GI0277S	32 53 0	112 33 10	7.0	5.0	7.0	.70	1,000	N	N	N	N	1,500	N	N	N
MO0278S	32 39 16	113 59 26	5.0	1.5	5.0	.30	700	N	N	N	70	1,000	1	N	N
MO0279S	32 38 25	113 59 13	10.0	1.0	2.0	.30	1,500	N	N	N	10	1,000	N	N	N
MO0280S	32 37 17	113 59 27	3.0	1.5	5.0	.30	700	N	N	N	50	1,000	1	N	N
MO0281S	32 35 20	113 58 17	7.0	3.0	3.0	.70	1,000	N	N	N	20	1,000	N	N	N
MO0282S	32 35 21	113 59 16	20.0	1.5	2.0	1.00	1,000	N	N	N	N	700	N	N	N
MO0283S	32 35 32	113 59 53	10.0	1.5	3.0	.50	700	N	N	N	10	700	N	N	N
MO0284S	32 33 44	113 58 31	10.0	1.5	3.0	1.00	1,000	N	N	N	N	700	1	N	N
MO0285S	32 33 0	113 57 51	15.0	2.0	3.0	1.00	1,500	N	N	N	N	700	N	N	N
MO0286S	32 32 26	113 59 14	15.0	2.0	3.0	1.00	1,000	N	N	N	N	1,000	N	N	N
MO0287S	32 32 15	113 59 50	15.0	2.0	5.0	.50	1,500	N	N	N	N	700	1	N	N
MO0288S	32 31 44	113 59 1	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	1	N	N
MO0289S	32 31 33	113 57 44	7.0	.7	3.0	.30	500	N	N	N	N	700	1	N	N
MO0290S	32 30 20	113 57 22	10.0	1.0	2.0	.20	1,000	N	N	N	N	700	N	N	N
ST0291S	32 47 39	113 30 14	3.0	.7	2.0	.30	300	N	N	N	N	1,500	N	N	N
AZ0292S	32 45 56	113 28 45	10.0	.7	2.0	1.00	1,500	N	N	N	N	1,000	1	N	N
AZ0293S	32 46 55	113 26 54	7.0	1.5	5.0	.50	1,500	N	N	N	N	700	10	N	N
AZ0294S	32 46 25	113 25 55	10.0	1.5	3.0	.50	1,500	N	N	N	N	1,500	N	N	N
AZ0295S	32 45 54	113 26 38	7.0	1.5	3.0	.50	700	N	N	N	N	1,000	N	N	N
AZ0296S	32 44 19	113 25 38	7.0	1.5	2.0	.70	1,000	N	N	N	N	1,000	N	N	N
AZ0297S	32 45 5	113 23 29	7.0	1.0	1.5	.70	1,000	N	N	N	N	1,000	N	N	N
MO0298S	32 52 39	113 57 41	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	2	N	N
MO0299S	32 53 2	113 56 53	15.0	1.5	5.0	1.00	1,500	N	N	N	20	1,000	1	N	N
RO0300S	32 54 48	113 56 51	7.0	3.0	3.0	.50	700	N	N	N	10	1,000	N	N	N
RO0301S	32 56 48	113 56 58	7.0	3.0	5.0	.70	1,500	N	N	N	20	1,000	N	N	N
RO0302S	32 57 14	113 56 44	7.0	3.0	5.0	.70	1,000	N	N	N	20	1,000	N	N	N
RO0303S	32 58 19	113 57 0	7.0	3.0	7.0	.50	1,000	N	N	N	10	1,000	N	N	N
RO0304S	32 55 57	113 59 12	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,000	1	N	N
RO0305S	32 55 5	113 59 32	7.0	3.0	5.0	.70	2,000	N	N	N	N	1,000	1	N	N
RO0306S	32 54 59	113 58 20	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
RO0307S	32 53 58	113 59 34	10.0	3.0	5.0	.70	2,000	N	N	N	N	1,000	1	N	N
RO0308S	32 53 6	113 59 23	10.0	3.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
RO0309S	32 58 36	113 59 55	5.0	2.0	5.0	.50	1,500	N	N	N	N	1,000	1	N	N
RO0310S	32 59 31	113 59 50	10.0	3.0	3.0	.50	2,000	N	N	N	N	1,000	1	N	N
RO0311S	32 59 49	113 59 45	10.0	3.0	5.0	.70	2,000	N	N	N	N	1,000	1	N	N
RO0312S	32 59 50	113 57 50	7.0	3.0	5.0	.70	1,500	N	N	N	30	700	N	N	N
RO0313S	32 59 7	113 58 17	7.0	2.0	5.0	.70	2,000	N	N	N	N	1,000	N	N	N
ST0314S	32 59 24	113 39 25	7.0	2.0	2.0	.70	2,000	N	N	N	N	1,000	N	N	N
ST0315S	32 58 53	113 38 27	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
ES0271S	5	50	15	100	<5	N	15	30	N	20	N	500	150	N	50	N	500
ES0272S	5	20	10	20	<5	N	15	30	N	15	N	500	100	N	30	N	500
GI0273S	5	30	10	30	<5	N	10	30	N	15	N	700	100	N	50	N	200
GI0274S	10	70	15	30	N	N	15	30	N	20	N	700	150	N	50	N	500
GI0275S	5	15	10	70	<5	N	7	20	N	10	N	700	70	N	30	N	150
GI0276S	20	70	30	70	N	N	15	50	N	15	N	1,000	150	N	50	N	500
GI0277S	20	200	30	70	N	N	100	10	N	15	N	1,500	100	N	10	N	100
MO0278S	N	10	<5	70	<5	N	7	50	N	N	N	1,500	70	N	10	N	100
MO0279S	N	30	<5	N	<5	N	5	20	N	N	N	1,500	200	N	N	N	150
MO0280S	N	15	<5	30	<5	N	5	30	N	N	N	1,500	70	N	N	N	100
MO0281S	15	30	50	150	<5	N	10	20	N	15	N	700	150	N	20	N	300
MO0282S	30	100	20	N	N	N	20	10	N	10	N	700	500	N	30	N	150
MO0283S	15	70	30	N	N	N	10	15	N	7	N	700	150	N	30	N	150
MO0284S	15	30	30	50	<5	N	10	15	N	15	N	700	150	N	30	N	200
MO0285S	20	30	30	300	N	N	15	10	N	20	N	700	200	N	20	N	200
MO0286S	20	100	30	150	<5	N	30	10	N	20	N	700	150	N	30	N	200
MO0287S	20	70	30	N	N	N	20	10	N	20	N	700	150	N	30	N	150
MO0288S	20	30	20	150	<5	N	15	20	N	20	N	1,000	100	N	30	N	150
MO0289S	N	10	15	30	<5	N	N	10	N	N	N	1,000	70	N	50	N	200
MO0290S	N	<10	10	50	<5	N	N	50	N	N	N	1,000	70	N	N	N	150
ST0291S	N	50	<5	50	<5	N	10	20	N	N	N	2,000	70	N	N	N	150
AZ0292S	10	100	<5	300	<5	N	10	30	N	5	N	1,500	150	N	50	N	700
AZ0293S	10	15	20	50	<5	N	10	30	N	20	N	1,000	150	N	20	N	150
AZ0294S	70	20	30	N	10	N	10	10	N	15	N	1,500	150	N	20	N	100
AZ0295S	5	15	20	N	7	N	5	10	N	15	N	700	150	N	N	N	100
AZ0296S	5	30	10	N	<5	N	7	30	N	10	N	700	150	N	10	N	200
AZ0297S	N	20	<5	N	<5	N	5	10	N	5	N	700	150	N	30	N	100
MO0298S	10	20	7	100	<5	N	10	30	N	15	N	700	100	N	30	N	200
MO0299S	10	30	10	150	N	N	10	50	N	15	N	700	150	N	50	N	500
RO0300S	10	70	10	20	<5	N	20	10	N	10	N	700	100	N	10	N	200
RO0301S	15	70	20	50	<5	N	15	50	N	15	N	700	150	N	30	N	500
RO0302S	10	70	30	50	<5	N	30	30	N	15	N	700	150	N	30	N	500
RO0303S	10	70	15	30	<5	N	20	30	N	15	N	700	150	N	20	N	500
RO0304S	10	70	<5	50	<5	N	20	30	N	15	N	1,000	150	N	20	N	300
RO0305S	10	20	<5	50	<5	N	15	20	N	20	N	700	100	N	30	N	300
RO0306S	20	50	20	70	<5	N	30	30	N	20	N	1,000	150	N	50	N	700
RO0307S	10	30	30	150	<5	N	20	30	N	15	N	700	150	N	50	N	300
RO0308S	5	30	20	100	10	N	20	30	N	20	N	1,000	150	N	30	N	300
RO0309S	N	15	<5	30	N	N	10	30	N	N	N	1,000	70	N	15	N	300
RO0310S	5	70	15	30	<5	N	20	50	N	N	N	1,000	150	N	10	N	300
RO0311S	7	100	10	30	<5	N	20	30	N	7	N	1,000	200	N	10	N	300
RO0312S	5	70	30	30	N	N	15	30	N	7	N	700	150	N	10	N	700
RO0313S	N	30	10	30	<5	N	15	30	N	5	N	700	100	N	10	N	200
ST0314S	5	30	10	N	N	N	15	30	N	5	N	700	150	N	N	N	200
ST0315S	N	20	10	30	<5	N	10	20	N	5	N	700	100	N	10	N	500

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
ST0316S	32 59 11	113 36 42	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
ST0317S	32 58 2	113 35 35	7.0	3.0	5.0	.70	2,000	N	N	N	20	2,000	N	N	N
ST0318S	32 59 44	113 36 14	5.0	1.5	3.0	.70	1,500	N	N	N	N	1,000	N	N	N
ST0319S	32 59 27	113 34 23	7.0	5.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
ST0320S	32 59 43	113 33 34	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
AZ0321S	32 59 12	113 19 18	7.0	3.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
A70322S	32 59 57	113 19 34	5.0	3.0	5.0	.70	1,000	N	N	N	10	1,000	N	N	N
AZ0323S	32 59 39	113 21 4	10.0	3.0	7.0	1.00	1,500	N	N	N	10	1,000	N	N	N
SE0324S	32 52 58	113 9 7	7.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	N	N	N
SE0325S	32 59 51	113 4 33	5.0	3.0	5.0	.70	700	N	N	N	10	1,000	N	N	N
SE0326S	32 58 57	113 4 47	5.0	3.0	7.0	.70	1,000	N	N	N	N	1,000	N	N	N
SE0327S	32 59 52	113 1 36	5.0	2.0	7.0	1.00	1,500	N	N	N	N	1,500	1	N	N
SE0328S	32 59 18	113 2 27	5.0	2.0	7.0	1.00	1,500	N	N	N	N	1,000	N	N	N
SE0329S	32 58 32	113 3 25	5.0	2.0	7.0	1.00	2,000	N	N	N	N	1,500	N	N	N
SE0330S	32 57 27	113 2 45	5.0	2.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
MI0331S	32 39 23	112 56 13	7.0	3.0	5.0	.70	3,000	N	N	N	N	1,000	N	N	N
MI0332S	32 37 21	112 57 13	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
MI0333S	32 37 28	112 58 47	7.0	2.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
MI0334S	32 38 42	112 57 50	5.0	2.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
MI0335S	32 38 45	112 59 34	7.0	3.0	5.0	1.00	2,000	N	N	N	N	1,000	2	N	N
MI0336S	32 40 32	112 58 19	5.0	1.0	5.0	.70	700	N	N	N	N	1,000	1	N	N
MI0337S	32 40 54	112 56 28	3.0	1.0	2.0	.70	500	N	N	N	30	700	1	N	N
CV0338S	32 42 32	113 4 58	10.0	3.0	2.0	1.00	1,000	N	N	N	N	700	N	N	N
CV0339S	32 39 47	113 7 1	5.0	1.5	5.0	.70	700	N	N	N	N	1,000	N	N	N
CV0340S	32 39 6	113 7 31	5.0	2.0	5.0	.70	700	N	N	N	N	1,000	2	N	N
CV0341S	32 40 10	113 9 12	7.0	1.5	3.0	1.00	1,000	N	N	N	N	1,000	N	N	N
CV0342S	32 40 6	113 9 47	7.0	1.5	3.0	.70	700	N	N	N	N	1,000	N	N	N
CV0343S	32 39 34	113 11 51	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
CV0344S	32 38 33	113 11 11	7.0	2.0	3.0	.70	2,000	N	N	N	N	2,000	N	N	N
CV0345S	32 37 48	113 8 3	5.0	1.5	5.0	.70	700	N	N	N	N	1,000	N	N	N
CV0346S	32 36 50	113 5 10	7.0	1.5	7.0	.70	1,000	N	N	N	10	1,500	N	N	N
CV0347S	32 35 50	113 1 12	10.0	1.5	7.0	.70	2,000	N	N	N	10	1,500	N	N	N
CV0348S	32 36 8	113 3 32	10.0	2.0	7.0	.70	1,500	N	N	N	N	1,500	1	N	N
HM0349S	32 35 0	112 44 3	10.0	1.5	2.0	1.00	1,500	N	N	N	10	1,500	N	N	N
HM0350S	32 33 59	112 42 28	7.0	1.5	2.0	.70	1,500	N	N	N	N	1,500	1	N	N
HM0351S	32 33 11	112 43 53	5.0	1.5	2.0	.50	1,000	N	N	N	20	1,500	N	N	N
HM0352S	32 32 57	112 41 30	7.0	1.5	2.0	.50	1,500	N	N	N	10	700	2	N	N
HM0353S	32 31 55	112 41 1	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
HM0354S	32 31 19	112 41 4	7.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
HM0355S	32 30 28	112 40 18	15.0	2.0	5.0	1.00	2,000	N	N	N	10	1,500	N	N	N
HM0356S	32 31 2	112 39 15	10.0	2.0	2.0	.70	1,500	N	N	N	N	1,500	2	N	N
HM0357S	32 38 4	112 38 3	10.0	2.0	3.0	.70	2,000	N	N	N	N	2,000	1	N	N
HM0358S	32 38 58	112 37 2	10.0	2.0	3.0	.70	1,500	N	N	N	N	1,500	1	N	N
HM0359S	32 37 59	112 35 59	10.0	2.0	3.0	.70	1,500	N	N	N	N	2,000	1	N	N
HM0360S	32 37 14	112 35 12	10.0	2.0	5.0	.70	1,500	N	N	N	N	2,000	1	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
ST0316S	5	50	20	100	<5	N	10	30	N	5	N	700	100	N	20	N	500
ST0317S	15	50	30	50	<5	N	15	70	N	5	N	2,000	100	N	10	N	200
ST0318S	N	30	15	30	<5	N	7	10	N	N	N	700	100	N	10	N	500
ST0319S	15	100	30	50	<5	N	50	10	N	15	N	700	150	N	20	N	300
ST0320S	20	70	20	100	<5	N	50	20	N	15	N	700	150	N	30	N	300
AZ0321S	20	70	20	N	<5	N	50	20	N	15	N	700	150	N	30	N	300
AZ0322S	10	50	15	20	<5	N	20	30	N	10	N	700	150	N	30	N	300
AZ0323S	20	200	30	50	<5	N	70	20	N	20	N	1,000	150	N	20	N	500
SF0324S	15	70	20	70	<5	N	30	20	N	15	N	1,000	150	N	20	N	300
SE0325S	10	70	20	50	<5	N	50	20	N	10	N	1,000	150	N	30	N	500
SE0326S	10	70	20	30	10	N	70	10	N	10	N	1,000	150	N	50	N	500
SE0327S	15	50	10	50	<5	N	15	100	N	15	N	1,500	200	N	30	N	300
SE0328S	15	50	10	50	<5	N	15	10	N	15	N	1,000	200	N	30	N	300
SE0329S	15	50	10	50	<5	N	15	70	N	15	N	1,500	150	N	30	N	300
SE0330S	15	200	10	30	<5	N	30	30	N	15	N	1,000	100	N	50	N	200
MI0331S	30	100	50	N	N	N	70	100	N	30	N	1,000	200	N	30	N	150
MI0332S	30	200	20	N	<5	N	30	10	N	15	N	1,000	300	N	30	N	300
MI0333S	30	100	30	50	<5	N	30	10	N	15	N	1,000	200	N	30	N	300
MI0334S	20	70	30	N	<5	N	30	10	N	15	N	1,000	150	N	20	N	200
MI0335S	30	100	30	N	N	N	30	10	N	10	N	1,000	150	N	20	N	200
MI0336S	10	20	20	50	<5	N	10	10	N	N	N	1,000	150	N	20	N	300
MI0337S	N	30	20	50	<5	N	10	10	N	N	N	700	100	N	30	N	700
CV0338S	30	150	15	N	<5	N	100	10	N	15	N	1,000	300	N	30	N	300
CV0339S	10	70	15	20	<5	N	7	10	N	10	N	1,000	150	N	30	N	300
CV0340S	10	50	20	30	<5	N	7	10	N	10	N	1,000	100	N	10	N	200
CV0341S	20	50	5	N	<5	N	10	N	N	15	N	1,000	300	N	30	N	300
CV0342S	10	50	10	20	<5	N	10	10	N	10	N	1,000	200	N	30	N	300
CV0343S	15	150	20	N	<5	N	30	15	N	15	N	1,000	200	N	30	N	500
CV0344S	20	70	20	N	<5	N	50	30	N	15	N	2,000	150	N	30	N	200
CV0345S	N	10	10	150	<5	N	5	10	N	5	N	1,000	150	N	10	N	150
CV0346S	7	70	15	N	<5	N	7	15	N	10	N	700	150	N	15	N	300
CV0347S	10	70	20	50	<5	N	15	30	N	15	N	700	150	N	20	N	300
CV0348S	7	15	30	70	<5	N	N	20	N	10	N	700	100	N	30	N	300
HM0349S	7	15	20	70	<5	N	5	30	N	7	N	700	200	N	30	N	500
HM0350S	N	<10	<5	100	<5	N	N	30	N	N	N	700	150	N	30	N	200
HM0351S	N	15	30	100	<5	N	5	20	N	5	N	700	100	N	50	N	500
HM0352S	N	<10	5	100	<5	N	5	50	N	5	N	500	100	N	50	N	700
HM0353S	10	10	30	100	<5	N	10	20	N	15	N	700	150	N	50	N	700
HM0354S	7	15	20	100	<5	N	10	20	N	15	N	1,000	150	N	30	N	700
HM0355S	30	70	20	50	N	N	20	30	N	15	N	1,000	500	N	30	N	300
HM0356S	10	20	20	70	<5	N	7	20	N	15	N	1,000	100	N	30	N	300
HM0357S	15	30	20	100	<5	N	15	10	N	15	N	1,000	100	N	30	N	300
HM0358S	7	30	20	100	N	N	15	30	N	10	N	700	150	N	20	N	300
HM0359S	10	20	20	100	N	N	20	30	N	15	N	1,000	200	N	30	N	500
HM0360S	10	30	20	100	<5	N	15	30	N	15	N	1,000	150	N	30	N	300

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CA% S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
HM0361S	32 36 39	112 36 23	10.0	2.0	5.0	.70	1,500	N	N	N	2,000	1	N	N
HM0362S	32 36 22	112 37 17	10.0	2.0	5.0	.70	1,500	N	N	N	2,000	N	N	N
HM0363S	32 36 48	112 34 2	10.0	1.5	1.5	.70	1,500	N	N	N	700	1	N	N
HM0364S	32 36 16	112 32 33	7.0	1.5	1.5	.70	1,500	N	N	20	700	1	N	N
HM0365S	32 36 1	112 31 21	10.0	1.5	1.5	1.00	3,000	N	N	N	700	1	N	N
HM0366S	32 37 25	112 30 13	5.0	1.5	2.0	.70	1,500	N	N	10	500	2	N	N
HM0367S	32 37 53	112 32 44	7.0	1.5	1.5	.70	1,500	N	N	N	1,000	N	N	N
HM0368S	32 38 38	112 32 28	5.0	1.5	2.0	.50	1,500	N	N	N	1,000	1	N	N
HM0369S	32 38 44	112 33 24	15.0	2.0	3.0	1.00	3,000	N	N	N	1,500	N	N	N
HM0370S	32 39 40	112 32 36	7.0	1.5	1.5	.70	2,000	N	N	N	700	2	N	N
HM0371S	32 42 23	112 32 24	10.0	3.0	5.0	.70	1,500	N	N	N	1,000	1	N	N
HM0372S	32 43 8	112 30 52	10.0	3.0	5.0	1.00	3,000	N	N	N	1,000	N	N	N
HM0373S	32 44 29	112 32 22	15.0	3.0	5.0	1.00	3,000	N	N	50	700	N	N	N
HM0374S	32 43 24	112 33 28	15.0	2.0	3.0	.70	2,000	N	N	N	700	N	N	N
MI0375S	32 34 8	112 45 59	10.0	3.0	5.0	.70	1,500	N	N	50	1,000	N	N	N
HM0376S	32 33 54	112 39 53	3.0	1.5	1.5	.50	1,000	N	N	10	1,000	2	N	N
HM0377S	32 32 43	112 38 47	5.0	1.5	1.5	.70	1,000	N	N	N	1,000	2	N	N
HM0378S	32 32 7	112 37 50	3.0	1.0	1.0	.50	700	N	N	N	1,000	1	N	N
HM0379S	32 33 8	112 37 8	5.0	1.5	2.0	.70	1,500	N	N	N	1,000	1	N	N
HM0380S	32 32 10	112 36 9	10.0	3.0	5.0	1.00	3,000	N	N	N	1,000	1	N	N
HM0381S	32 31 5	112 36 56	7.0	1.5	2.0	1.00	1,500	N	N	N	1,000	1	N	N
HM0382S	32 31 10	112 35 15	7.0	1.5	1.5	.50	1,500	N	N	10	1,000	2	N	N
HM0383S	32 31 5	112 33 34	7.0	1.5	2.0	.50	1,500	N	N	N	1,000	1	N	N
HM0384S	32 32 39	112 34 46	7.0	1.0	1.5	.70	3,000	N	N	N	1,000	2	N	N
HM0385S	32 33 6	112 35 37	7.0	1.5	3.0	.70	2,000	N	N	N	1,000	1	N	N
HM0386S	32 33 41	112 35 59	7.0	2.0	3.0	.70	2,000	N	N	N	1,500	1	N	N
HM0387S	32 34 54	112 34 20	7.0	3.0	5.0	1.00	2,000	N	N	10	1,000	N	N	N
HM0388S	32 34 41	112 36 35	10.0	3.0	3.0	1.00	3,000	N	N	10	1,000	N	N	N
HM0389S	32 34 33	112 37 11	7.0	2.0	3.0	.70	1,500	N	N	N	1,500	1	N	N
AJ0390S	32 29 19	112 51 58	7.0	2.0	5.0	.70	1,500	N	N	10	1,000	N	N	N
MI0391S	32 33 48	112 53 18	10.0	2.0	5.0	1.00	2,000	N	N	N	1,000	1	N	N
MI0392S	32 33 31	112 52 38	10.0	3.0	5.0	1.00	2,000	N	N	N	1,500	2	N	N
MI0393S	32 32 7	112 51 12	7.0	2.0	5.0	1.00	1,500	N	N	N	1,500	2	N	N
MI0394S	32 30 19	112 51 23	5.0	2.0	3.0	.70	700	N	N	30	1,500	N	N	N
AJ0395S	32 29 47	112 50 13	5.0	2.0	5.0	.70	1,500	N	N	30	1,500	N	N	N
AJ0396S	32 27 49	112 49 8	7.0	2.0	5.0	.70	1,500	N	N	10	1,500	1	N	N
AJ0397S	32 26 24	112 47 28	5.0	2.0	5.0	.70	1,000	N	N	10	1,000	N	N	N
AJ0398S	32 26 58	112 46 6	5.0	3.0	3.0	.50	1,000	N	N	30	1,500	1	N	N
SI0399S	32 26 45	112 43 37	7.0	5.0	5.0	.70	1,500	N	N	10	1,500	N	N	N
SI0400S	32 25 14	112 42 51	7.0	3.0	3.0	.70	1,500	N	N	20	1,500	1	N	N
SI0401S	32 25 41	112 44 28	7.0	3.0	10.0	.70	1,500	N	N	10	1,500	N	N	N
SI0402S	32 27 18	112 44 47	10.0	5.0	10.0	1.00	2,000	N	N	10	1,000	1	N	N
AJ0403S	32 28 5	112 47 10	5.0	2.0	7.0	.70	1,500	N	N	30	1,500	1	N	N
AJ0404S	32 28 23	112 46 18	7.0	3.0	5.0	.70	1,500	N	N	N	1,000	N	N	N
AJ0405S	32 29 3	112 47 6	5.0	2.0	3.0	.70	1,000	N	N	50	1,000	1	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NR	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
HMO361S	10	30	30	100	<5	N	10	30	N	15	N	1,000	150	N	30	N	500
HMO362S	10	30	20	50	<5	N	15	30	N	15	N	1,000	200	N	300	N	500
HMO363S	N	30	20	100	<5	N	10	30	N	N	N	500	150	N	70	N	700
HMO364S	N	20	15	100	<5	N	5	30	N	N	N	500	100	N	50	N	700
HMO365S	N	20	<5	150	<5	N	N	50	N	7	N	500	200	N	70	N	700
HMO366S	N	<10	<5	100	<5	N	5	70	N	N	N	500	50	N	50	N	300
HMO367S	N	10	<5	N	<5	N	5	15	N	N	N	700	150	N	15	N	200
HMO368S	N	<10	<5	50	<5	N	N	50	N	N	N	700	100	N	30	N	150
HMO369S	10	30	7	150	N	N	5	30	N	5	N	1,500	300	N	30	N	700
HMO370S	N	15	20	100	<5	N	5	30	N	5	N	700	100	N	30	N	300
HMO371S	15	70	20	100	<5	N	30	20	N	15	N	700	200	N	30	N	300
HMO372S	10	70	10	100	<5	N	30	30	N	15	N	1,000	300	N	70	N	300
HMO373S	20	150	20	50	<5	N	70	20	N	20	N	700	200	N	50	N	300
HMO374S	15	70	20	70	5	N	20	30	N	10	N	700	200	N	30	N	200
MI0375S	10	30	20	70	<5	N	15	30	N	5	N	700	200	N	30	N	300
HMO376S	N	15	<5	70	<5	N	5	30	N	N	N	700	30	N	30	N	300
HMO377S	N	15	5	100	<5	N	5	50	N	N	N	1,000	70	N	30	N	200
HMO378S	N	<10	<5	70	<5	N	5	50	N	N	N	1,000	30	N	30	N	200
HMO379S	N	20	10	100	<5	N	10	10	N	5	N	1,000	70	N	30	N	500
HMO380S	15	30	30	150	<5	N	15	30	N	10	N	700	150	N	50	N	300
HMO381S	5	20	5	150	<5	N	10	20	N	N	N	700	150	N	30	N	300
HMO382S	N	10	10	100	<5	N	5	50	N	N	N	1,000	100	N	30	N	300
HMO383S	N	15	<5	150	<5	N	5	30	N	N	N	1,000	100	N	30	N	500
HMO384S	N	<10	<5	150	5	N	N	50	N	5	N	700	150	N	30	N	300
HMO385S	7	15	10	150	<5	N	10	30	N	10	N	700	150	N	30	N	300
HMO386S	5	15	5	100	<5	N	5	30	N	10	N	1,000	100	N	30	N	500
HMO387S	20	70	20	100	<5	N	70	20	N	10	N	700	200	N	30	N	500
HMO388S	30	100	30	100	<5	N	30	20	N	20	N	700	300	N	30	N	300
HMO389S	10	30	10	150	<5	N	5	30	N	10	N	1,000	150	N	30	N	300
AJ0390S	7	30	150	50	<5	N	5	30	N	10	N	700	150	N	20	N	500
MI0391S	15	50	50	70	<5	N	15	10	N	10	N	1,000	300	N	30	N	300
MI0392S	20	70	30	100	<5	N	10	20	N	15	N	1,000	300	N	30	N	500
MI0393S	15	50	20	100	<5	N	5	20	N	10	N	1,500	200	N	20	N	300
MI0394S	10	50	200	30	<5	N	10	50	N	7	N	1,000	150	N	20	N	500
AJ0395S	5	30	150	30	<5	N	10	30	N	7	N	1,000	150	N	20	N	700
AJ0396S	10	50	150	50	<5	N	10	30	N	7	N	1,000	150	N	30	N	500
AJ0397S	10	50	150	50	5	N	10	50	N	7	N	1,000	150	N	30	N	500
AJ0398S	5	70	150	30	<5	N	15	50	N	7	N	1,000	150	N	30	N	500
SI0399S	20	100	100	50	<5	N	70	15	N	10	N	1,000	150	N	30	N	700
SI0400S	10	70	70	50	<5	N	30	20	N	7	N	1,000	150	N	30	N	300
SI0401S	15	50	70	70	N	N	30	20	N	15	N	2,000	150	N	30	N	300
SI0402S	30	200	50	N	<5	N	150	10	N	30	N	1,000	300	N	30	N	300
AJ0403S	5	70	150	50	<5	N	10	50	N	7	N	1,000	150	N	30	N	300
AJ0404S	15	100	100	30	N	N	70	20	N	15	N	1,000	200	N	30	N	300
AJ0405S	N	50	200	30	<5	N	10	30	N	5	N	1,000	150	N	20	N	500



Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
SE0406S	32 53 51	113 4 17	7.0	2.0	5.0	.70	1,500	N	N	N	50	1,000	N	N	N
SE0407S	32 55 33	113 2 52	7.0	3.0	5.0	.70	5,000	N	N	N	10	5,000	N	N	N
SE0408S	32 56 49	113 2 49	7.0	2.0	5.0	1.00	5,000	N	N	N	10	3,000	2	N	N
SE0409S	32 55 18	113 1 14	7.0	2.0	5.0	.70	3,000	N	N	N	N	2,000	N	N	N
SE0410S	32 56 9	113 1 15	7.0	3.0	3.0	.70	3,000	N	N	N	N	1,500	N	N	N
SE0411S	32 57 35	113 1 4	7.0	3.0	5.0	.70	2,000	N	N	N	N	1,500	N	N	N
TH0412S	32 58 10	112 59 27	5.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	1	N	N
TH0413S	32 59 41	112 59 19	5.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
TH0414S	32 49 17	112 51 30	7.0	2.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
TH0415S	32 46 33	112 50 37	10.0	2.0	5.0	1.00	1,500	N	N	N	10	1,500	N	N	N
TH0416S	32 48 4	112 49 37	7.0	2.0	3.0	1.00	1,500	N	N	N	10	1,500	N	N	N
TH0417S	32 49 59	112 48 51	10.0	5.0	7.0	1.00	1,500	N	N	N	N	1,000	N	N	N
SI0418S	32 16 20	112 44 1	7.0	2.0	3.0	1.00	1,500	N	N	N	20	1,500	1	N	N
SI0419S	32 17 51	112 42 58	10.0	2.0	5.0	1.00	1,500	N	N	N	15	1,500	2	N	N
SI0420S	32 19 53	112 42 34	10.0	2.0	3.0	1.00	1,500	N	N	N	N	1,500	2	N	N
SI0421S	32 20 12	112 40 35	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,500	2	N	N
SI0422S	32 20 58	112 40 38	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
SI0423S	32 21 52	112 41 27	7.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
SI0424S	32 21 23	112 42 29	5.0	2.0	3.0	.70	1,500	N	N	N	N	1,500	N	N	N
SI0425S	32 19 38	112 41 57	10.0	2.0	3.0	1.00	1,500	N	N	N	N	1,500	1	N	N
SI0426S	32 22 53	112 41 30	10.0	3.0	7.0	1.00	1,500	N	N	N	15	1,500	N	N	N
SI0427S	32 24 19	112 42 2	10.0	3.0	7.0	.70	1,500	N	N	N	N	1,500	N	N	N
SI0428S	32 25 13	112 41 6	7.0	3.0	7.0	.70	1,500	N	N	N	20	1,500	N	N	N
SI0429S	32 24 42	112 37 57	10.0	1.5	1.5	1.00	1,500	N	N	N	20	1,500	3	N	N
SI0430S	32 25 52	112 38 0	10.0	2.0	3.0	.70	1,500	N	N	N	N	1,500	3	N	N
SI0431S	32 26 0	112 36 22	10.0	2.0	3.0	.70	1,500	N	N	N	20	1,500	N	N	N
SI0432S	32 25 23	112 34 10	7.0	3.0	5.0	.50	1,500	N	N	N	N	1,500	N	N	N
SI0433S	32 27 35	112 33 52	10.0	5.0	5.0	1.00	1,500	N	N	N	N	1,500	1	N	N
SI0434S	32 28 7	112 34 16	10.0	3.0	5.0	.50	1,500	N	N	N	N	1,500	N	N	N
SI0435S	32 28 22	112 36 17	7.0	3.0	3.0	.70	1,500	N	N	N	20	1,500	N	N	N
SI0436S	32 27 19	112 36 1	7.0	3.0	3.0	.70	1,500	N	N	N	N	1,500	N	N	N
SI0437S	32 27 0	112 37 8	7.0	3.0	5.0	.70	2,000	N	N	N	N	1,500	2	N	N
SI0438S	32 27 59	112 39 52	15.0	3.0	5.0	1.00	3,000	N	N	N	N	1,500	2	N	N
SI0439S	32 29 40	112 38 25	7.0	1.0	3.0	.70	1,500	N	N	N	10	1,500	2	N	N
SI0440S	32 29 27	112 36 49	7.0	1.5	3.0	.50	1,500	N	N	N	N	1,000	2	N	N
HMO441S	32 30 6	112 34 20	7.0	3.0	10.0	.30	1,000	N	N	N	30	1,000	2	N	N
KA0442S	32 35 12	112 27 43	10.0	3.0	7.0	1.00	2,000	N	N	N	N	1,500	3	N	N
KA0443S	32 37 18	112 28 53	10.0	3.0	5.0	1.00	2,000	N	N	N	10	1,500	3	N	N
KA0444S	32 36 30	112 27 3	10.0	3.0	7.0	1.00	2,000	N	N	N	N	1,500	N	N	N
KA0445S	32 36 20	112 24 35	10.0	2.0	7.0	>1.00	2,000	N	N	N	N	1,000	N	N	N
KA0446S	32 35 32	112 23 27	10.0	2.0	7.0	>1.00	2,000	N	N	N	N	1,500	1	N	N
KA0447S	32 36 8	112 22 41	10.0	3.0	5.0	>1.00	2,000	N	N	N	10	1,500	N	N	N
KA0448S	32 35 6	112 21 19	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,500	N	N	N
KA0449S	32 36 11	112 20 14	10.0	3.0	7.0	1.00	1,500	N	N	N	N	1,500	N	N	N
KA0450S	32 35 48	112 18 6	10.0	3.0	7.0	>1.00	2,000	N	N	N	10	1,500	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
SE0406S	5	70	20	30	<5	N	30	30	N	10	N	1,000	200	N	10	N	300
SE0407S	10	70	100	N	15	N	30	500	N	10	N	3,000	300	N	20	N	300
SE0408S	10	150	30	N	<5	N	50	70	N	15	N	2,000	300	N	20	N	200
SE0409S	20	70	20	N	<5	N	30	100	N	15	N	1,000	200	N	10	N	300
SE0410S	20	100	20	50	N	N	30	100	N	15	N	1,000	200	N	20	N	300
SE0411S	30	150	20	50	N	N	70	10	N	20	N	1,000	300	N	20	N	150
TH0412S	10	50	20	30	<5	N	10	20	N	10	N	1,000	200	N	20	N	200
TH0413S	10	100	20	N	<5	N	20	20	N	15	N	1,000	200	N	20	N	200
TH0414S	20	50	30	150	<5	N	20	20	N	20	N	1,000	150	N	50	N	150
TH0415S	5	20	20	100	<5	N	5	20	N	10	N	1,000	150	N	30	N	200
TH0416S	10	20	15	100	<5	N	10	20	N	15	N	1,000	100	N	30	N	200
TH0417S	15	150	30	N	<5	N	20	20	N	20	N	1,000	200	N	20	N	300
SI0418S	10	100	50	N	<5	N	15	30	N	15	N	1,000	200	N	20	N	300
SI0419S	20	70	50	50	<5	N	20	20	N	15	N	1,500	300	N	30	N	300
SI0420S	15	70	30	30	<5	N	10	20	N	10	N	1,000	300	N	20	N	300
SI0421S	15	70	30	N	N	N	15	30	N	10	N	1,000	200	N	20	N	200
SI0422S	15	50	15	50	<5	N	20	30	N	10	N	1,000	150	N	30	N	300
SI0423S	10	30	15	50	<5	N	15	30	N	7	N	1,000	150	N	20	N	300
SI0424S	10	30	30	50	<5	N	15	50	N	10	N	1,000	150	N	30	N	300
SI0425S	20	70	30	50	5	N	10	30	N	15	N	1,000	300	N	30	N	300
SI0426S	20	70	30	50	<5	N	30	50	N	15	N	1,000	150	N	50	N	200
SI0427S	20	100	30	70	N	N	50	50	N	15	N	1,000	150	N	50	N	300
SI0428S	15	70	50	30	<5	N	15	30	N	15	N	1,000	150	N	50	N	300
SI0429S	5	50	15	100	5	N	10	50	N	5	N	1,000	150	N	70	N	300
SI0430S	15	70	15	100	<5	N	50	30	N	10	N	1,000	150	N	30	N	300
SI0431S	20	70	50	100	<5	N	50	30	N	15	N	1,000	150	N	50	N	300
SI0432S	20	150	30	100	<5	N	70	20	N	15	N	1,000	150	N	50	N	300
SI0433S	30	100	30	100	N	N	70	30	N	15	N	1,500	150	N	50	N	300
SI0434S	20	70	20	100	<5	N	70	30	N	15	N	1,000	150	N	30	N	300
SI0435S	20	70	30	100	<5	N	50	30	N	15	N	1,000	150	N	30	N	300
SI0436S	20	100	30	100	<5	N	70	20	N	15	N	1,000	150	N	30	N	300
SI0437S	20	50	20	150	<5	N	30	30	N	10	N	1,500	150	N	50	N	300
SI0438S	10	70	15	150	<5	N	15	70	N	15	N	1,500	200	N	50	N	700
SI0439S	5	50	20	100	<5	N	10	50	N	5	N	1,000	150	N	50	N	700
SI0440S	N	50	10	100	<5	N	10	50	N	5	N	1,000	150	N	50	N	500
HM0441S	N	100	50	70	<5	N	20	50	N	7	N	1,000	100	N	30	N	300
KA0442S	15	70	70	30	N	N	20	30	N	15	N	1,000	300	N	30	N	500
KA0443S	15	70	50	30	<5	N	10	30	N	15	N	1,000	300	N	30	N	500
KA0444S	30	100	50	30	N	N	30	10	N	20	N	1,000	500	N	30	N	200
KA0445S	30	70	50	N	N	N	20	30	N	15	N	1,000	700	N	30	N	300
KA0446S	30	50	50	N	<5	N	20	30	N	20	N	1,000	300	N	30	N	300
KA0447S	30	70	50	N	N	N	30	20	N	20	N	1,000	300	N	30	N	200
KA0448S	30	70	30	N	N	N	30	20	N	20	N	1,000	200	N	30	N	200
KA0449S	20	70	30	50	<5	N	30	30	N	20	N	1,000	300	N	30	N	300
KA0450S	20	70	30	N	<5	N	30	20	N	15	N	1,000	300	N	30	N	300

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
KA0451S	32 41 13	112 21 8	5.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
KA0452S	32 38 43	112 18 36	3.0	1.5	2.0	.30	1,500	N	N	N	N	1,500	3	N	N
KA0453S	32 36 35	112 17 22	7.0	3.0	3.0	1.00	1,500	N	N	N	20	1,000	1	N	N
KA0454S	32 37 7	112 20 58	10.0	3.0	3.0	.70	1,500	N	N	N	10	1,500	1	N	N
KA0455S	32 38 45	112 22 20	10.0	3.0	3.0	.70	2,000	N	N	N	N	1,500	1	N	N
KA0456S	32 39 46	112 21 52	7.0	3.0	3.0	.70	1,500	N	N	N	N	1,500	3	N	N
KA0457S	32 40 34	112 24 36	10.0	2.0	3.0	.70	2,000	N	N	N	N	1,500	1	N	N
KA0458S	32 39 40	112 25 5	15.0	2.0	2.0	1.00	3,000	N	N	N	N	1,500	1	N	N
KA0459S	32 38 6	112 24 13	20.0	3.0	3.0	1.00	3,000	N	N	N	N	1,500	1	N	N
KA0460S	32 38 35	112 26 33	15.0	3.0	5.0	1.00	2,000	N	N	N	N	1,500	1	N	N
KA0461S	32 39 40	112 27 25	3.0	2.0	1.5	.70	1,500	N	N	N	15	1,000	2	N	N
KA0462S	32 41 19	112 28 23	3.0	2.0	2.0	.70	1,500	N	N	N	10	1,500	2	N	N
KA0463S	32 41 43	112 24 40	7.0	3.0	3.0	1.00	1,500	N	N	N	N	1,500	1	N	N
KA0464S	32 43 4	112 25 22	15.0	3.0	2.0	1.00	3,000	N	N	N	10	1,000	N	N	N
KA0465S	32 43 48	112 27 45	10.0	3.0	2.0	1.00	2,000	N	N	N	N	1,000	N	N	N
KA0466S	32 43 19	112 29 26	10.0	3.0	5.0	1.00	2,000	N	N	N	N	1,500	N	N	N
KA0467S	32 44 20	112 28 42	7.0	3.0	3.0	.70	1,500	N	N	N	10	1,500	N	N	N
GI0468S	32 45 38	112 32 9	10.0	5.0	5.0	1.00	2,000	N	N	N	10	1,500	N	N	N
GI0469S	32 46 28	112 34 4	10.0	3.0	7.0	1.00	2,000	N	N	N	N	1,500	N	N	N
GI0470S	32 46 58	112 36 10	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,500	1	N	N
GM0471S	32 21 0	113 24 2	7.0	2.0	3.0	.70	700	N	N	N	N	1,500	N	N	N
GM0472S	32 21 11	113 25 7	7.0	1.5	2.0	.50	700	N	N	N	N	1,500	N	N	N
GM0473S	32 22 1	113 24 36	3.0	1.5	5.0	.30	300	N	N	N	N	1,500	N	N	N
GM0474S	32 22 43	113 25 40	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	N	N	N
GM0475S	32 23 50	113 25 34	7.0	1.5	3.0	.50	700	N	N	N	N	1,000	N	N	N
GM0476S	32 24 47	113 26 17	7.0	.7	2.0	.30	700	N	N	N	N	1,000	N	N	N
GM0477S	32 23 58	113 29 10	5.0	1.0	3.0	.50	700	N	N	N	N	1,000	N	N	N
GM0478S	32 23 22	113 27 53	7.0	1.0	3.0	.30	1,000	N	N	N	N	1,500	N	N	N
GM0479S	32 23 18	113 26 57	7.0	1.5	3.0	.70	1,000	N	N	N	N	1,500	N	N	N
GM0480S	32 20 19	113 23 42	10.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	N	N	N
GM0481S	32 19 16	113 22 38	10.0	2.0	5.0	.70	1,500	N	N	N	15	1,500	N	N	N
GM0482S	32 18 10	113 22 6	5.0	1.5	2.0	.50	1,500	N	N	N	N	1,500	N	N	N
GM0483S	32 16 59	113 20 53	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
GM0484S	32 19 31	113 24 8	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,500	N	N	N
GM0485S	32 18 45	113 23 42	3.0	1.5	3.0	.50	1,000	N	N	N	10	1,500	1	N	N
GM0486S	32 18 6	113 23 31	3.0	1.0	3.0	.30	700	N	N	N	N	1,500	N	N	N
GM0487S	32 17 37	113 22 18	5.0	1.5	3.0	.30	700	N	N	N	N	1,500	N	N	N
GM0488S	32 16 56	113 22 22	10.0	1.0	2.0	.50	1,500	N	N	N	N	1,500	N	N	N
GM0489S	32 15 51	113 21 46	7.0	1.5	10.0	.70	1,500	N	N	N	N	1,000	N	N	N
GM0490S	32 16 28	113 20 38	5.0	1.5	3.0	.30	1,000	N	N	N	N	700	N	N	N
GM0491S	32 15 23	113 21 2	7.0	2.0	5.0	.30	1,500	N	N	N	N	1,000	1	N	N
OH0492S	32 13 16	113 21 2	15.0	1.5	2.0	1.00	3,000	N	N	N	10	1,000	1	N	N
OH0493S	32 14 25	113 20 56	5.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
OH0494S	32 13 28	113 18 22	10.0	2.0	1.5	1.00	2,000	N	N	N	N	1,000	N	N	N
OH0495S	32 12 57	113 17 5	20.0	1.5	1.5	>1.00	3,000	N	N	N	N	1,000	1	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
KA0451S	10	15	10	70	<5	N	10	30	N	7	N	1,000	100	N	30	N	300
KA0452S	N	<10	<5	100	<5	N	<5	30	N	N	N	1,000	30	N	50	N	300
KA0453S	20	70	50	50	<5	N	20	30	N	15	N	1,000	200	N	50	N	500
KA0454S	20	100	30	50	<5	N	70	30	N	15	N	1,500	200	N	30	N	300
KA0455S	20	70	30	70	<5	N	50	50	N	10	N	1,500	300	N	30	N	500
KA0456S	5	10	10	50	<5	N	10	50	N	N	N	1,000	70	N	20	N	200
KA0457S	N	30	15	100	<5	N	N	50	N	10	N	1,000	100	N	20	N	300
KA0458S	10	50	15	70	<5	N	7	50	N	15	N	1,000	300	N	30	N	300
KA0459S	20	100	30	70	N	N	30	50	N	20	N	1,500	300	N	30	N	300
KA0460S	15	50	20	50	<5	N	20	50	N	15	N	1,500	300	N	30	N	300
KA0461S	N	20	10	70	<5	N	N	30	N	5	N	1,000	70	N	30	N	300
KA0462S	N	20	10	70	<5	N	5	50	N	5	N	1,000	70	N	30	N	300
KA0463S	10	30	30	70	<5	N	15	30	N	10	N	1,500	200	N	30	N	300
KA0464S	30	70	30	N	N	N	30	10	N	10	N	700	500	N	30	N	300
KA0465S	20	70	30	N	<5	N	10	30	N	15	N	1,000	200	N	50	N	1,000
KA0466S	20	70	30	70	<5	N	10	30	N	20	N	1,000	200	N	50	N	700
KA0467S	15	50	30	100	<5	N	10	50	N	20	N	1,000	150	N	70	N	300
GI0468S	20	300	50	30	<5	N	150	50	N	20	N	1,000	200	N	50	N	300
GI0469S	30	100	50	30	<5	N	30	10	N	20	N	1,000	200	N	30	N	300
GI0470S	10	30	30	50	<5	N	5	10	N	10	N	1,000	150	N	30	N	300
GM0471S	N	20	5	70	N	N	N	30	N	N	N	1,500	100	N	15	N	300
GM0472S	N	<10	<5	30	<5	N	N	20	N	N	N	1,500	70	N	N	N	200
GM0473S	N	<10	<5	N	N	N	N	20	N	N	N	1,500	30	N	N	N	150
GM0474S	N	50	20	100	<5	N	5	20	N	5	N	1,000	100	N	20	N	500
GM0475S	N	<10	7	70	<5	N	N	10	N	N	N	1,000	70	N	N	N	300
GM0476S	N	<10	7	70	<5	N	N	20	N	N	N	1,000	70	N	10	N	300
GM0477S	N	20	5	50	<5	N	5	15	N	N	N	1,000	50	N	10	N	200
GM0478S	N	<10	<5	50	<5	N	N	20	N	N	N	1,000	50	N	15	N	150
GM0479S	N	<10	5	100	<5	N	N	20	N	5	N	1,000	50	N	15	N	300
GM0480S	N	30	<5	30	<5	N	<5	50	N	5	N	1,000	100	N	50	N	200
GM0481S	N	30	20	100	<5	N	<5	30	N	7	N	1,000	100	N	50	N	300
GM0482S	N	15	5	200	<5	N	<5	50	N	N	N	1,000	50	N	50	N	300
GM0483S	10	70	15	150	<5	N	30	30	N	10	N	500	100	N	50	N	200
GM0484S	N	50	20	150	<5	N	5	30	N	7	N	1,000	70	N	20	N	300
GM0485S	N	20	7	50	<5	N	<5	50	N	N	N	1,000	50	N	15	N	300
GM0486S	N	<10	<5	50	<5	N	<5	30	N	N	N	1,000	30	N	10	N	300
GM0487S	N	15	7	20	<5	N	<5	30	N	N	N	1,000	50	N	15	N	200
GM0488S	N	20	10	300	<5	N	<5	50	N	N	N	1,000	100	N	300	N	300
GM0489S	N	30	7	70	<5	N	10	20	N	15	N	1,000	150	N	30	N	300
GM0490S	N	30	5	70	<5	N	15	20	N	10	N	700	100	N	20	N	150
GM0491S	5	30	7	50	<5	N	15	10	N	10	N	700	100	N	20	N	200
OH0492S	10	70	15	150	N	N	10	50	N	10	N	700	300	N	70	N	300
OH0493S	10	30	15	50	<5	N	20	30	N	10	N	700	100	N	30	N	200
OH0494S	5	70	10	200	<5	N	5	50	N	15	N	700	300	N	70	N	700
OH0495S	30	100	50	50	<5	30	30	70	N	15	N	700	300	N	70	N	300

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
OH0496S	32 14 11	113 16 56	7.0	1.5	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
GM0497S	32 15 7	113 16 58	5.0	2.0	7.0	.50	1,000	N	N	N	N	1,000	N	N	N
GM0498S	32 16 22	113 16 9	7.0	3.0	7.0	.70	1,500	N	N	N	10	1,000	N	N	N
GM0499S	32 17 6	113 15 46	5.0	2.0	3.0	.50	1,500	N	N	N	10	1,000	N	N	N
GP0500S	32 15 29	113 14 23	7.0	2.0	5.0	.50	1,500	N	N	N	10	1,000	1	N	N
GP0501S	32 17 43	113 14 19	10.0	3.0	5.0	.50	1,500	N	N	N	N	1,000	N	N	N
GP0502S	32 16 34	113 14 55	7.0	3.0	5.0	.70	1,500	N	N	N	N	700	N	N	N
GM0503S	32 18 10	113 15 16	7.0	5.0	3.0	.70	1,500	N	N	N	N	1,500	1	N	N
GM0504S	32 17 47	113 17 0	10.0	3.0	5.0	.70	2,000	N	N	N	N	1,000	N	N	N
GM0505S	32 18 21	113 17 26	7.0	2.0	3.0	1.00	1,500	N	N	N	20	1,000	N	N	N
GM0506S	32 19 7	113 16 29	7.0	1.5	2.0	.70	1,000	N	N	N	10	1,000	N	N	N
GM0507S	32 19 55	113 17 20	7.0	1.5	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
GM0508S	32 21 7	113 18 11	7.0	1.5	3.0	1.00	1,500	N	N	N	N	1,000	N	N	N
GM0509S	32 22 36	113 18 33	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,500	N	N	N
GM0510S	32 23 24	113 18 46	5.0	2.0	2.0	.50	1,000	N	N	N	N	1,000	N	N	N
GM0511S	32 23 47	113 18 45	10.0	2.0	3.0	1.00	1,500	N	N	N	N	1,500	N	N	N
GM0512S	32 24 4	113 19 40	10.0	2.0	3.0	1.00	1,500	N	N	N	10	1,500	N	N	N
GM0513S	32 24 43	113 19 16	10.0	2.0	3.0	1.00	1,500	N	N	N	10	1,500	N	N	N
GM0514S	32 25 22	113 19 25	10.0	1.5	3.0	1.00	1,500	N	N	N	N	1,500	N	N	N
GM0515S	32 26 3	113 19 19	10.0	1.5	3.0	.70	1,500	N	N	N	N	1,500	N	N	N
GM0516S	32 26 49	113 19 32	7.0	1.5	2.0	.70	1,000	N	N	N	20	1,500	N	N	N
AJ0517S	32 27 15	112 55 7	7.0	2.0	15.0	.70	1,500	N	N	N	15	1,500	1	N	N
AJ0518S	32 27 0	112 55 38	7.0	2.0	15.0	.70	1,500	N	N	N	15	1,500	1	N	N
AJ0519S	32 25 50	112 55 33	10.0	3.0	10.0	.70	2,000	N	N	N	20	1,500	1	N	N
AJ0520S	32 25 6	112 55 12	10.0	3.0	10.0	1.00	3,000	N	N	N	15	1,500	1	N	N
AJ0521S	32 24 18	112 56 21	10.0	3.0	5.0	1.00	2,000	N	N	N	N	1,500	N	N	N
AJ0522S	32 25 20	112 57 1	7.0	2.0	5.0	1.00	1,500	N	N	N	N	1,500	N	N	N
AJ0523S	32 26 19	112 57 43	7.0	2.0	5.0	.70	1,500	N	N	N	N	1,500	1	N	N
AJ0524S	32 28 17	112 58 55	7.0	2.0	5.0	.70	1,500	N	N	N	15	1,000	1	N	N
AJ0525S	32 22 23	112 54 20	5.0	2.0	3.0	.50	1,000	N	N	N	N	1,000	2	N	N
AJ0526S	32 23 1	112 55 2	10.0	5.0	3.0	1.00	1,500	N	N	N	20	1,000	2	N	N
AJ0527S	32 23 9	112 56 24	10.0	5.0	7.0	1.00	1,500	N	N	N	30	1,000	1	N	N
AJ0528S	32 21 12	112 55 37	7.0	2.0	5.0	.70	1,500	N	N	N	15	1,000	1	N	N
AJ0529S	32 21 44	112 55 20	10.0	3.0	7.0	.70	1,500	N	N	N	30	1,000	1	N	N
AJ0530S	32 21 41	112 56 59	10.0	3.0	5.0	.70	2,000	N	N	N	50	1,000	1	N	N
AJ0531S	32 21 40	112 58 15	10.0	2.0	3.0	1.00	2,000	N	N	N	20	5,000	2	N	N
AJ0532S	32 22 23	112 59 3	10.0	2.0	1.5	1.00	1,500	N	N	N	20	1,000	2	N	N
AJ0533S	32 20 32	112 56 48	7.0	2.0	1.5	1.00	1,500	N	N	N	N	700	N	N	N
AJ0534S	32 20 13	112 56 11	10.0	2.0	3.0	1.00	1,500	N	N	N	N	700	N	N	N
AJ0535S	32 20 7	112 55 30	10.0	2.0	2.0	1.00	1,000	N	N	N	N	1,500	N	N	N
AJ0536S	32 19 51	112 54 46	15.0	1.0	1.5	1.00	1,500	N	N	N	50	1,000	N	N	N
GP0537S	32 23 50	113 5 55	7.0	1.5	2.0	.70	700	N	N	N	20	1,000	1	N	N
GP0538S	32 25 21	113 4 54	10.0	2.0	5.0	.70	1,500	N	N	N	N	1,000	1	N	N
GP0539S	32 25 16	113 7 26	15.0	1.5	3.0	1.00	1,500	N	N	N	N	1,000	N	N	N
GP0540S	32 23 34	113 7 30	7.0	2.0	5.0	.70	700	N	N	N	30	1,000	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
OH0496S	10	50	15	30	N	N	10	30	N	10	N	1,000	200	N	50	N	300
GM0497S	5	20	5	30	<5	N	5	30	N	10	N	1,000	70	N	15	N	150
GM0498S	10	50	15	50	<5	N	70	20	N	15	N	1,000	150	N	20	N	200
GM0499S	5	20	15	50	<5	N	20	50	N	15	N	700	100	N	20	N	200
GP0500S	5	20	15	50	<5	N	10	50	N	10	N	1,000	100	N	20	N	150
GP0501S	10	70	20	30	<5	N	30	20	N	20	N	700	150	N	30	N	300
GP0502S	10	50	20	15	<5	N	30	15	N	10	N	700	150	N	20	N	200
GM0503S	5	50	15	150	<5	N	15	30	N	15	N	1,000	100	N	50	N	300
GM0504S	20	100	20	30	<5	N	200	30	N	15	N	700	150	N	30	N	200
GM0505S	5	70	20	30	<5	N	15	30	N	10	N	700	150	N	30	N	500
GM0506S	N	20	10	50	<5	N	N	30	N	7	N	1,000	70	N	30	N	500
GM0507S	5	30	15	70	<5	N	30	30	N	7	N	1,000	100	N	30	N	200
GM0508S	5	20	10	150	<5	N	5	30	N	5	N	1,000	70	N	50	N	700
GM0509S	5	15	20	70	<5	N	10	30	N	7	N	1,500	100	N	15	N	200
GM0510S	5	10	20	30	<5	N	10	20	N	5	N	1,000	70	N	10	N	150
GM0511S	5	30	30	150	<5	N	10	30	N	15	N	1,000	100	N	30	N	500
GM0512S	5	20	30	100	<5	N	5	30	N	7	N	1,000	100	N	20	N	300
GM0513S	10	30	20	100	<5	N	10	50	N	7	N	1,000	100	N	30	N	300
GM0514S	5	10	20	100	<5	N	5	30	N	5	N	1,000	100	N	30	N	300
GM0515S	5	20	15	100	<5	N	5	30	N	7	N	1,000	100	N	30	N	500
GM0516S	5	20	15	50	<5	N	5	30	N	5	N	1,000	100	N	30	N	300
AJ0517S	10	70	50	70	<5	N	15	50	N	10	N	1,000	100	N	50	N	300
AJ0518S	15	100	50	50	<5	N	30	50	N	15	N	1,000	150	N	50	N	300
AJ0519S	15	100	50	50	<5	N	30	30	N	15	N	1,000	150	N	50	N	500
AJ0520S	15	100	50	50	<5	N	30	50	N	15	N	1,500	150	N	30	N	300
AJ0521S	20	100	50	30	<5	N	30	50	N	15	N	1,500	200	N	30	N	300
AJ0522S	15	100	30	20	<5	N	30	30	N	10	N	1,000	150	N	30	N	500
AJ0523S	15	70	30	50	<5	N	20	30	N	10	N	1,000	150	N	30	N	300
AJ0524S	15	50	30	50	<5	N	15	30	N	10	N	1,000	150	N	30	N	500
AJ0525S	7	15	50	100	<5	N	7	30	N	5	N	1,000	100	N	20	N	300
AJ0526S	10	150	30	70	<5	N	70	30	N	15	N	1,000	300	N	20	N	300
AJ0527S	15	150	20	70	<5	N	70	30	N	15	N	1,000	300	N	20	N	200
AJ0528S	15	70	30	50	<5	N	30	70	N	10	N	700	150	N	20	N	300
AJ0529S	20	100	50	70	<5	N	70	50	N	10	N	1,000	150	N	20	N	150
AJ0530S	20	100	30	50	<5	N	100	30	N	15	N	1,000	200	N	20	N	200
AJ0531S	15	30	30	150	<5	N	10	150	N	15	N	3,000	150	N	70	N	500
AJ0532S	15	30	20	70	<5	N	10	70	N	10	N	700	150	N	50	N	500
AJ0533S	15	30	15	50	<5	N	10	10	N	10	N	700	100	N	30	N	300
AJ0534S	15	70	20	30	<5	N	15	50	N	10	N	700	300	N	20	N	300
AJ0535S	7	70	15	N	<5	N	15	50	N	7	N	1,000	300	N	10	N	150
AJ0536S	7	150	30	70	<5	N	15	70	N	7	N	1,000	300	N	50	N	300
GP0537S	5	50	10	20	<5	N	20	20	N	5	N	1,000	150	N	20	N	200
GP0538S	15	70	30	20	<5	N	70	20	N	10	N	700	150	N	20	N	150
GP0539S	7	70	10	70	<5	N	15	30	N	5	N	1,000	200	N	50	N	100
GP0540S	7	70	10	20	<5	N	15	50	N	5	N	1,000	150	N	10	N	200

## Spectrographic analysis of stream sediments--continued

Sample	LATITUDE		LONGITUDE		S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
GP0541S	32 21 44	113 6 21			5.0	2.0	5.0	.70	700	N	N	N	N	1,000	N	N	N
GP0542S	32 20 34	113 5 38			7.0	3.0	7.0	1.00	1,500	N	N	N	N	1,000	N	N	N
GP0543S	32 19 42	113 5 38			7.0	3.0	7.0	1.00	2,000	N	N	N	N	1,000	1	N	N
GP0544S	32 18 41	113 5 15			5.0	2.0	3.0	.50	1,000	N	N	N	N	1,000	N	N	N
GP0545S	32 17 30	113 5 46			5.0	2.0	2.0	.50	700	N	N	N	20	1,000	N	N	N
GP0546S	32 16 36	113 3 26			7.0	2.0	3.0	.50	700	N	N	N	N	1,000	1	N	N
GP0547S	32 15 11	113 2 46			7.0	3.0	3.0	.70	700	N	N	N	N	1,000	N	N	N
AD0548S	32 14 40	113 3 48			15.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	1	N	N
AD0549S	32 13 39	113 2 26			7.0	5.0	5.0	.70	1,000	N	N	N	10	2,000	N	N	N
GP0550S	32 12 17	113 1 37			15.0	3.0	1.5	1.00	2,000	N	N	N	10	1,000	N	N	N
GP0551S	32 18 51	113 2 45			5.0	3.0	3.0	.70	1,000	N	N	N	20	700	N	N	N
GP0552S	32 20 6	113 3 1			5.0	3.0	7.0	.70	700	N	N	N	20	1,000	N	N	N
GP0553S	32 20 25	113 2 54			7.0	3.0	10.0	.70	1,000	N	N	N	10	700	N	N	N
GP0554S	32 22 42	113 4 47			7.0	3.0	7.0	.70	700	N	N	N	10	700	N	N	N
GP0555S	32 22 16	113 3 28			7.0	5.0	5.0	.70	700	N	N	N	N	1,000	N	N	N
AJ0556S	32 18 37	112 58 2			20.0	1.5	1.5	>1.00	2,000	N	N	N	N	1,000	1	N	N
AJ0557S	32 17 41	112 57 49			15.0	3.0	3.0	1.00	1,500	N	N	N	N	1,000	1	N	N
AJ0558S	32 16 44	112 57 40			7.0	3.0	7.0	.70	700	N	N	N	N	1,000	N	N	N
AJ0559S	32 16 45	112 57 6			5.0	2.0	5.0	.50	500	N	N	N	N	1,000	2	N	N
AJ0560S	32 17 53	112 56 15			10.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	2	N	N
AJ0561S	32 19 16	112 53 38			5.0	3.0	1.5	.70	1,000	N	N	N	N	1,000	1	N	N
AJ0562S	32 16 48	112 53 59			7.0	3.0	5.0	.50	1,500	N	N	N	20	1,000	1	N	N
AJ0563S	32 15 57	112 54 31			7.0	5.0	7.0	.70	1,500	N	N	N	15	1,000	N	N	N
AJ0564S	32 16 36	112 51 21			15.0	3.0	3.0	>1.00	2,000	N	N	N	N	1,000	2	N	N
AJ0565S	32 17 35	112 50 38			10.0	5.0	5.0	1.00	1,500	N	N	N	N	1,500	2	N	N
AJ0566S	32 18 27	112 49 31			7.0	3.0	1.5	.50	500	N	N	N	N	500	N	N	N
AJ0567S	32 19 12	112 49 43			7.0	3.0	3.0	.70	1,500	N	N	N	N	1,000	N	N	N
AJ0568S	32 20 10	112 50 22			7.0	3.0	5.0	.70	2,000	N	N	N	N	1,500	N	N	N
AJ0569S	32 20 46	112 53 17			7.0	3.0	7.0	.70	2,000	N	N	N	10	1,000	1	N	N
GP0570S	32 21 46	113 1 1			5.0	3.0	3.0	.70	1,000	N	N	N	10	1,000	N	N	N
GP0571S	32 19 43	113 0 22			7.0	3.0	7.0	.70	1,000	N	N	N	N	1,000	N	N	N
GP0572S	32 18 46	113 0 42			7.0	5.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
GP0573S	32 18 14	113 1 50			7.0	5.0	3.0	.70	700	N	N	N	10	1,000	N	N	N
AD0574S	32 2 42	113 9 30			10.0	5.0	2.0	.70	1,000	N	N	N	N	1,000	2	N	N
AD0575S	32 2 19	113 8 42			15.0	3.0	3.0	1.00	1,500	N	N	N	N	700	1	N	N
AD0576S	32 1 47	113 7 24			10.0	3.0	2.0	.70	1,500	N	N	N	N	700	2	N	N
AD0577S	32 0 25	113 5 55			7.0	3.0	2.0	.70	1,500	N	N	N	N	1,000	2	N	N
AD0578S	32 0 53	113 7 37			7.0	5.0	2.0	1.00	1,000	N	N	N	N	1,000	1	N	N
AD0579S	32 0 49	113 9 16			10.0	3.0	2.0	.70	1,000	N	N	N	N	700	1	N	N
AD0580S	32 0 43	113 10 32			7.0	3.0	3.0	.50	700	N	N	N	N	1,000	1	N	N
AD0581S	32 1 18	113 11 44			7.0	3.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
AD0582S	32 1 31	113 13 21			7.0	2.0	2.0	.70	1,500	N	N	N	20	1,000	1	N	N
AD0583S	32 2 32	113 12 16			15.0	2.0	2.0	>1.00	3,000	N	N	N	N	700	1	N	N
AD0584S	32 2 2	113 11 16			7.0	3.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
AD0585S	32 3 18	113 10 21			10.0	3.0	3.0	.70	1,500	N	N	N	N	1,000	2	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
GP0541S	7	70	5	50	<5	N	50	20	N	5	N	700	70	N	30	N	150
GP0542S	20	200	15	70	<5	N	100	20	N	15	N	1,000	200	N	50	N	200
GP0543S	15	150	15	50	<5	N	70	50	N	10	N	1,000	200	N	20	N	200
GP0544S	N	70	<5	20	<5	N	50	30	N	5	N	1,000	100	N	15	N	150
GP0545S	N	20	<5	100	<5	N	5	30	N	5	N	700	100	N	30	N	300
GP0546S	N	70	<5	30	<5	N	20	30	N	7	N	700	100	N	30	N	200
GP0547S	5	70	15	30	<5	N	30	30	N	7	N	700	100	N	30	N	300
AD0548S	5	50	10	150	<5	N	10	50	N	10	N	700	150	N	70	N	700
AD0549S	10	100	10	50	<5	N	30	30	N	20	N	1,000	100	N	30	N	200
GP0550S	7	100	10	N	<5	<20	20	50	N	10	N	700	150	N	30	N	300
GP0551S	7	70	20	N	<5	N	30	30	N	7	N	700	100	N	15	N	200
GP0552S	7	100	15	30	<5	N	50	30	N	10	N	700	100	N	20	N	150
GP0553S	10	100	20	50	<5	N	50	30	N	10	N	1,000	70	N	30	N	300
GP0554S	10	100	15	50	<5	N	30	30	N	10	N	1,000	100	N	20	N	200
GP0555S	10	100	15	100	<5	N	70	30	N	10	N	1,000	70	N	20	N	200
AJ0556S	15	150	30	150	<5	20	10	50	N	20	N	700	300	N	70	N	700
AJ0557S	10	150	20	70	<5	20	30	50	N	20	N	700	150	N	50	N	700
AJ0558S	10	100	15	70	<5	N	30	30	N	10	N	1,000	150	N	20	N	300
AJ0559S	5	70	5	50	<5	N	15	30	N	10	N	1,000	70	N	20	N	150
AJ0560S	5	50	20	70	<5	20	10	50	N	15	N	1,000	100	N	70	N	700
AJ0561S	10	30	150	30	<5	N	10	50	N	7	N	1,000	70	N	15	N	300
AJ0562S	10	50	100	30	<5	N	10	50	N	7	N	1,000	70	N	30	N	300
AJ0563S	15	150	70	N	<5	N	50	20	N	15	N	700	150	N	20	N	300
AJ0564S	30	100	100	N	<5	N	20	30	N	15	N	700	500	N	10	N	500
AJ0565S	20	70	100	30	<5	N	30	50	N	15	N	1,000	200	N	30	N	300
AJ0566S	10	70	300	N	<5	N	50	30	N	N	N	500	50	N	N	N	300
AJ0567S	10	50	500	30	<5	N	50	50	N	7	N	1,000	150	N	15	N	700
AJ0568S	10	50	700	50	<5	N	20	70	N	10	N	1,500	150	N	30	N	500
AJ0569S	15	70	150	N	<5	N	50	100	N	10	N	1,000	150	N	30	N	300
GP0570S	5	100	30	50	<5	N	50	10	N	15	N	1,000	100	N	30	N	300
GP0571S	10	150	20	30	<5	N	70	20	N	15	N	1,000	100	N	30	N	300
GP0572S	20	150	20	50	<5	N	70	20	N	15	N	700	100	N	15	N	300
GP0573S	10	150	15	50	<5	N	30	20	N	10	N	700	100	N	30	N	300
AD0574S	15	100	20	50	<5	N	30	30	N	10	N	1,000	150	N	20	N	200
AD0575S	20	70	20	70	<5	N	30	30	N	15	N	1,000	200	N	70	N	500
AD0576S	10	50	10	50	<5	N	20	70	N	15	N	1,000	150	N	50	N	300
AD0577S	5	50	5	70	<5	N	5	30	N	10	N	1,000	100	N	50	N	200
AD0578S	10	70	10	30	<5	N	10	20	N	10	N	1,000	150	N	50	N	300
AD0579S	10	70	20	N	<5	N	20	20	N	15	N	1,000	150	N	30	N	150
AD0580S	10	100	15	N	<5	N	30	20	N	15	N	1,000	150	N	20	N	150
AD0581S	15	20	15	50	<5	N	10	20	N	20	N	1,000	100	N	50	N	300
AD0582S	5	20	10	50	<5	N	10	30	N	20	N	1,000	70	N	50	N	300
AD0583S	5	20	10	N	<5	20	10	50	N	20	N	700	100	N	70	N	700
AD0584S	10	30	15	30	<5	N	10	30	N	15	N	700	100	N	30	N	300
AD0585S	10	30	15	70	<5	N	10	50	N	20	N	1,000	100	N	70	N	300



Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
AJ0586S	32 18 4	112 59 33	10.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
GP0587S	32 17 27	113 1 11	7.0	7.0	7.0	.50	1,000	N	N	N	N	1,000	N	N	N
GP0588S	32 16 7	113 0 26	7.0	5.0	3.0	.50	1,000	N	N	N	20	700	1	N	N
GP0589S	32 15 14	113 0 4	7.0	5.0	5.0	1.00	1,000	N	N	N	10	700	N	N	N
KP0590S	32 14 36	112 59 52	10.0	5.0	5.0	.70	1,500	N	N	N	N	700	N	N	N
KP0591S	32 13 38	112 59 45	10.0	5.0	7.0	.70	1,500	N	N	N	N	700	N	N	N
KP0592S	32 12 58	112 59 2	10.0	3.0	3.0	.70	1,500	N	N	N	N	700	N	N	N
KP0593S	32 12 17	112 58 32	2.0	1.5	2.0	.30	700	N	N	N	20	500	5	N	N
KP0594S	32 12 20	112 57 2	3.0	2.0	3.0	.30	700	N	N	N	N	700	N	N	N
KP0595S	32 12 12	112 53 53	7.0	3.0	7.0	.70	1,500	N	N	N	30	1,000	1	N	N
KP0596S	32 12 38	112 54 54	7.0	2.0	5.0	.70	1,000	N	N	N	N	1,000	1	N	N
KP0597S	32 13 8	112 55 44	7.0	2.0	5.0	.70	700	N	N	N	N	1,000	1	N	N
KP0598S	32 13 30	112 57 6	5.0	3.0	3.0	.50	700	N	N	N	20	1,000	3	N	N
KP0599S	32 13 55	112 58 14	7.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
KP0600S	32 14 24	112 56 46	5.0	3.0	3.0	.70	1,500	N	N	N	15	1,000	2	N	N
KP0601S	32 14 50	112 55 34	5.0	3.0	7.0	.50	1,000	N	N	N	15	1,000	1	N	N
KP0602S	32 14 42	112 54 42	7.0	5.0	5.0	.70	1,000	N	N	N	15	1,000	N	N	N
SI0603S	32 29 2	112 40 56	3.0	.7	2.0	.30	1,000	N	N	N	20	500	3	N	N
SI0604S	32 29 6	112 39 51	5.0	1.0	3.0	.70	1,500	N	N	N	N	1,500	2	N	N
AD0605S	32 4 38	113 10 53	7.0	1.0	1.0	.50	500	N	N	N	N	700	2	N	N
AD0606S	32 3 56	113 11 33	7.0	1.0	2.0	1.00	2,000	N	N	N	N	1,000	1	N	N
AD0607S	32 3 27	113 12 53	7.0	1.0	1.5	1.00	2,000	N	N	N	N	1,000	1	N	N
AD0608S	32 2 25	113 14 30	5.0	1.0	2.0	.70	1,000	N	N	N	10	1,000	2	N	N
OH0609S	32 2 35	113 15 41	7.0	1.0	2.0	1.00	1,000	N	N	N	N	1,000	2	N	N
OH0610S	32 3 18	113 16 38	3.0	1.0	2.0	.70	700	N	N	N	N	1,000	2	N	N
OH0611S	32 4 26	113 15 45	3.0	1.0	2.0	.70	700	N	N	N	N	1,000	2	N	N
OH0612S	32 5 10	113 15 39	10.0	1.0	3.0	1.00	1,500	N	N	N	10	700	1	N	N
AD0613S	32 4 26	113 14 45	3.0	1.0	2.0	.30	300	N	N	N	N	1,000	N	N	N
AD0614S	32 4 53	113 13 23	7.0	1.5	2.0	.50	1,500	N	N	N	N	1,000	N	N	N
AD0615S	32 5 2	113 12 41	7.0	1.5	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
AD0616S	32 4 58	113 11 24	7.0	1.0	2.0	.50	1,000	N	N	N	N	1,000	1	N	N
SI0617S	32 26 58	112 41 14	7.0	1.5	10.0	.50	1,500	N	N	N	N	1,000	1	N	N
SI0618S	32 28 14	112 41 59	7.0	7.0	7.0	.70	1,500	N	N	N	50	1,000	N	N	N
SI0619S	32 29 33	112 43 24	7.0	7.0	10.0	.70	1,500	N	N	N	20	700	N	N	N
SI0620S	32 29 49	112 44 59	7.0	5.0	3.0	.70	1,500	N	N	N	20	700	N	N	N
SI0621S	32 29 44	112 46 14	5.0	2.0	2.0	.70	700	N	N	N	30	700	1	N	N
AJ0622S	32 33 44	113 3 7	7.0	3.0	3.0	.50	700	N	N	N	20	700	1	N	N
CV0623S	32 35 0	113 9 6	5.0	2.0	5.0	.50	700	N	N	N	10	1,000	N	N	N
CV0624S	32 34 24	113 8 51	3.0	2.0	5.0	.50	500	N	N	N	N	1,000	N	N	N
CV0625S	32 31 56	113 9 35	10.0	2.0	5.0	1.00	1,500	N	N	N	N	1,000	2	N	N
CV0626S	32 30 56	113 10 37	5.0	2.0	5.0	.50	1,000	N	N	N	N	1,500	3	N	N
CV0627S	32 31 29	113 13 49	5.0	2.0	2.0	.70	500	N	N	N	N	1,000	N	N	N
CV0628S	32 31 35	113 7 54	3.0	1.5	2.0	.50	500	N	N	N	N	1,000	N	N	N
CV0629S	32 30 14	113 8 44	3.0	2.0	3.0	.50	500	N	N	N	N	1,000	N	N	N
CV0630S	32 30 40	113 6 28	5.0	3.0	7.0	.70	1,500	N	N	N	10	1,000	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
AJ0586S	7	50	15	70	<5	N	10	30	N	15	N	700	100	N	100	N	300
GP0587S	20	300	30	N	<5	N	100	10	N	30	N	700	100	N	15	N	100
GP0588S	10	150	30	30	<5	N	50	30	N	10	N	700	100	N	15	N	200
GP0589S	20	200	20	30	<5	N	100	10	N	15	N	700	150	N	20	N	200
KP0590S	30	200	15	N	<5	N	100	10	N	20	N	700	150	N	20	N	200
KP0591S	30	200	15	N	<5	N	100	10	N	20	N	700	150	N	20	N	150
KP0592S	5	150	10	N	<5	N	15	20	N	15	N	700	150	N	50	N	300
KP0593S	N	20	<5	50	<5	20	N	30	N	N	N	300	50	N	30	N	150
KP0594S	N	20	15	50	<5	N	N	30	N	5	N	700	70	N	N	N	70
KP0595S	5	50	50	30	<5	N	7	100	N	7	N	700	100	N	30	N	300
KP0596S	5	50	10	30	<5	N	10	20	N	5	N	700	150	N	20	N	200
KP0597S	7	50	7	50	<5	N	10	20	N	5	N	1,000	200	N	30	N	300
KP0598S	5	70	10	70	<5	N	10	30	N	7	N	1,000	100	N	30	N	150
KP0599S	15	150	20	N	<5	N	20	20	N	15	N	1,000	150	N	30	N	150
KP0600S	10	100	20	70	<5	N	15	30	N	10	N	1,000	100	N	20	N	150
KP0601S	10	100	30	N	<5	N	15	30	N	10	N	1,000	100	N	20	N	150
KP0602S	20	150	30	N	<5	N	70	30	N	15	N	1,000	150	N	20	N	200
SI0603S	N	<10	<5	50	<5	30	N	50	N	N	N	200	20	N	30	N	150
SI0604S	5	10	<5	50	<5	<20	5	50	N	5	N	1,000	70	N	20	N	200
AD0605S	N	50	10	N	<5	N	10	50	N	5	N	700	70	N	30	N	200
AD0606S	N	30	15	N	<5	N	7	30	N	15	N	1,000	70	N	50	N	500
AD0607S	N	20	7	150	<5	20	5	50	N	20	N	1,000	70	N	150	N	500
AD0608S	N	30	7	30	<5	<20	5	50	N	10	N	1,000	30	N	50	N	300
OH0609S	5	30	7	150	<5	<20	7	50	N	15	N	1,000	150	N	100	N	300
OH0610S	N	20	10	70	<5	<20	5	50	N	10	N	1,500	70	N	30	N	300
OH0611S	N	30	7	100	<5	<20	7	50	N	7	N	1,500	70	N	50	N	500
OH0612S	20	50	20	150	<5	<20	10	50	N	20	N	700	150	N	150	N	300
AD0613S	N	15	7	N	<5	N	7	50	N	5	N	700	30	N	10	N	150
AD0614S	10	50	15	N	<5	N	20	30	N	10	N	1,000	70	N	30	N	150
AD0615S	10	30	20	50	<5	N	20	30	N	15	N	1,000	150	N	50	N	300
AD0616S	5	50	15	N	<5	N	15	30	N	15	N	1,000	100	N	30	N	200
SI0617S	10	50	20	50	<5	N	20	30	N	7	N	1,500	70	N	30	N	200
SI0618S	20	150	20	50	<5	N	100	30	N	10	N	1,000	100	N	30	N	200
SI0619S	30	150	50	30	<5	N	100	30	N	15	N	1,000	150	N	30	N	300
SI0620S	15	150	70	N	<5	N	70	20	N	15	N	1,000	150	N	20	N	300
SI0621S	5	50	100	30	<5	N	15	30	N	7	N	1,000	100	N	20	N	300
AJ0622S	10	100	15	N	<5	N	30	20	N	10	N	1,000	70	N	20	N	200
CV0623S	5	30	10	N	<5	N	5	20	N	5	N	1,000	70	N	20	N	150
CV0624S	N	15	<5	30	<5	N	5	20	N	N	N	1,000	70	N	15	N	150
CV0625S	7	70	20	100	<5	N	10	30	N	10	N	1,500	150	N	30	N	300
CV0626S	5	30	10	50	<5	N	5	50	N	5	N	1,500	70	N	30	N	300
CV0627S	5	30	7	50	<5	N	10	30	N	5	N	1,000	100	N	20	N	300
CV0628S	N	15	5	30	<5	N	5	20	N	N	N	1,500	70	N	15	N	200
CV0629S	N	15	10	N	<5	N	5	20	N	N	N	1,000	70	N	10	N	150
CV0630S	7	50	15	30	<5	N	10	30	N	5	N	1,000	100	N	20	N	300

## Spectrographic analysis of stream sediments--continued

Sample	LATITUDE	LONGITUDE	S-FEZ	S-MGZ	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
GP0631S	32 29 15	113 5 43	7.0	3.0	5.0	.70	1,500	N	N	N	10	1,000	1	N	N
GP0632S	32 28 11	113 6 53	7.0	3.0	7.0	.70	1,500	N	N	N	N	1,500	1	N	N
GP0633S	32 28 59	113 7 58	7.0	2.0	3.0	1.00	1,500	N	N	N	10	1,000	N	N	N
GP0634S	32 26 0	113 6 33	7.0	3.0	7.0	1.00	1,500	N	N	N	N	1,500	N	N	N
GP0635S	32 25 46	113 3 51	10.0	5.0	7.0	.70	1,500	N	N	N	10	1,000	N	N	N
GP0636S	32 26 51	113 3 1	7.0	3.0	3.0	.70	700	N	N	N	30	1,000	N	N	N
GP0637S	32 27 34	113 3 28	7.0	3.0	3.0	.50	700	N	N	N	20	1,000	N	N	N
GP0638S	32 28 25	113 5 3	7.0	3.0	3.0	.50	700	N	N	N	20	1,000	N	N	N
GP0639S	32 27 43	113 5 21	5.0	2.0	3.0	.50	700	N	N	N	20	1,000	N	N	N
GM0640S	32 27 22	113 20 27	7.0	1.5	3.0	.30	700	N	N	N	N	1,500	N	N	N
GM0641S	32 27 18	113 21 28	7.0	3.0	5.0	.70	1,000	N	N	N	N	1,500	N	N	N
GM0642S	32 28 20	113 21 51	7.0	2.0	2.0	.70	700	N	N	N	N	1,000	N	N	N
GM0643S	32 28 17	113 19 40	5.0	2.0	3.0	.70	1,000	N	N	N	N	1,500	N	N	N
GM0644S	32 29 33	113 19 55	7.0	3.0	3.0	.70	700	N	N	N	N	1,500	N	N	N
AM0645S	32 30 44	113 19 36	3.0	2.0	2.0	.50	500	N	N	N	20	1,000	N	N	N
GM0646S	32 29 16	113 18 32	5.0	3.0	3.0	.70	700	N	N	N	N	1,000	N	N	N
GM0647S	32 28 12	113 18 13	5.0	2.0	3.0	.30	500	N	N	N	N	1,000	N	N	N
GM0648S	32 27 10	113 17 44	5.0	2.0	3.0	.30	500	N	N	N	N	1,000	N	N	N
GM0649S	32 26 21	113 17 30	7.0	2.0	3.0	.70	700	N	N	N	N	1,000	N	N	N
GM0650S	32 25 30	113 17 8	15.0	1.5	2.0	1.00	1,500	N	N	N	30	1,000	N	N	N
GM0651S	32 24 30	113 17 33	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	N	N	N
GM0652S	32 23 21	113 16 56	5.0	2.0	2.0	.30	700	N	N	N	N	1,000	N	N	N
GM0653S	32 21 52	113 16 34	5.0	2.0	2.0	.50	700	N	N	N	N	1,000	N	N	N
GM0654S	32 20 46	113 15 57	5.0	2.0	2.0	.20	500	N	N	N	N	1,000	1	N	N
GM0655S	32 20 7	113 15 47	7.0	2.0	3.0	.50	1,000	N	N	N	N	1,000	N	N	N
MP0656S	32 42 22	113 46 5	5.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	1	N	N
CP0657S	32 27 31	113 54 2	20.0	2.0	2.0	.70	1,500	N	N	N	20	700	N	N	N
CP0658S	32 27 20	113 53 39	7.0	2.0	3.0	.50	1,000	N	N	N	N	700	N	N	N
CP0659S	32 26 32	113 53 11	5.0	3.0	3.0	.30	700	N	N	N	N	700	1	N	N
CP0660S	32 24 56	113 55 26	10.0	1.5	3.0	.30	1,000	N	N	N	N	700	1	N	N
CP0661S	32 23 39	113 54 35	10.0	2.0	3.0	.70	1,500	N	N	N	N	700	2	N	N
CP0662S	32 24 24	113 53 40	10.0	2.0	3.0	.70	1,000	N	N	N	N	700	1	N	N
CP0663S	32 23 35	113 52 24	5.0	2.0	3.0	.50	1,000	N	N	N	N	1,000	1	N	N
CP0664S	32 23 2	113 51 20	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
CP0665S	32 22 10	113 52 2	7.0	3.0	5.0	.70	700	N	N	N	N	1,000	N	N	N
CP0666S	32 22 17	113 53 23	10.0	3.0	7.0	1.00	1,500	N	N	N	10	700	1	N	N
CP0667S	32 21 20	113 54 16	10.0	2.0	3.0	.70	1,500	N	N	N	N	700	N	N	N
CP0668S	32 23 37	113 56 3	7.0	3.0	3.0	.50	1,000	N	N	N	N	1,000	2	N	N
CP0669S	32 22 51	113 55 49	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	2	N	N
CP0670S	32 20 32	113 54 5	15.0	2.0	3.0	.70	1,500	N	N	N	N	700	1	N	N
CP0671S	32 20 49	113 52 24	10.0	3.0	3.0	.50	1,000	N	N	N	N	700	1	N	N
CP0672S	32 19 31	113 52 55	10.0	1.5	3.0	.50	1,000	N	N	N	N	700	1	N	N
CP0673S	32 19 32	113 52 4	3.0	1.0	3.0	.30	700	N	N	N	N	700	1	N	N
CP0674S	32 17 43	113 51 50	3.0	1.5	2.0	.50	1,000	N	N	N	10	700	1	N	N
CP0675S	32 16 35	113 52 7	5.0	1.0	3.0	.20	1,500	1.5	N	N	N	700	2	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
GP0631S	7	50	10	30	<5	N	10	30	N	7	N	1,000	150	N	50	N	300
GP0632S	7	50	30	70	<5	N	10	30	N	7	N	1,000	150	N	15	N	150
GP0633S	10	70	15	N	<5	N	30	20	N	10	N	1,000	150	N	20	N	300
GP0634S	10	50	20	N	<5	N	10	20	N	15	N	1,000	150	N	30	N	200
GP0635S	30	300	30	20	<5	N	150	20	N	15	N	700	150	N	30	N	200
GP0636S	10	100	20	30	<5	N	70	20	N	10	N	700	100	N	20	N	300
GP0637S	10	150	10	N	<5	N	150	30	N	5	N	1,000	100	N	15	N	300
GP0638S	10	150	10	N	<5	N	70	30	N	10	N	700	100	N	20	N	300
GP0639S	5	70	10	N	<5	N	30	30	N	7	N	1,000	70	N	20	N	300
GM0640S	N	<10	30	150	<5	N	N	20	N	5	N	1,000	100	N	15	N	300
GM0641S	N	15	5	300	<5	N	N	30	N	7	N	1,000	70	N	30	N	300
GM0642S	N	15	5	100	<5	N	N	30	N	5	N	1,000	70	N	15	N	300
GM0643S	N	15	10	100	<5	N	N	50	N	5	N	1,000	50	N	30	N	300
GM0644S	10	20	10	150	<5	N	5	30	N	10	N	1,000	100	N	50	N	500
AM0645S	N	20	7	70	<5	N	5	30	N	5	N	1,000	70	N	20	N	200
GM0646S	5	30	7	100	<5	N	5	30	N	10	N	1,000	70	N	30	N	300
GM0647S	N	<10	7	50	<5	N	N	30	N	N	N	1,500	30	N	10	N	150
GM0648S	N	N	<5	30	<5	N	N	30	N	N	N	1,000	30	N	10	N	150
GM0649S	5	30	10	150	<5	N	N	30	N	7	N	1,000	70	N	30	N	300
GM0650S	10	50	20	500	<5	N	N	50	N	15	N	1,000	200	N	50	N	300
GM0651S	5	20	30	100	<5	N	5	50	N	10	N	1,500	100	N	30	N	150
GM0652S	N	20	10	50	<5	N	5	50	N	5	N	1,500	70	N	15	N	150
GM0653S	N	15	7	100	<5	N	N	30	N	5	N	1,000	70	N	20	N	200
GM0654S	N	10	7	70	<5	N	N	50	N	N	N	1,000	50	N	15	N	150
GM0655S	N	30	7	150	<5	N	5	50	N	7	N	1,000	50	N	30	N	200
MO0656S	10	30	5	70	<5	N	5	50	N	7	N	1,000	70	N	20	N	200
CP0657S	15	70	20	30	<5	N	10	50	N	5	N	700	300	N	50	N	500
CP0658S	15	70	15	100	<5	N	10	50	N	7	N	1,000	150	N	50	N	500
CP0659S	N	50	10	150	<5	N	10	50	N	5	N	1,000	100	N	30	N	300
CP0660S	5	30	20	200	<5	N	N	20	N	N	N	1,000	150	N	30	N	300
CP0661S	10	70	20	100	<5	N	15	20	N	10	N	1,000	150	N	30	N	300
CP0662S	10	70	20	50	<5	N	20	20	N	10	N	1,000	150	N	30	N	500
CP0663S	7	50	15	70	<5	N	20	30	N	15	N	1,000	100	N	30	N	300
CP0664S	20	70	20	150	<5	<20	20	20	N	15	N	1,000	150	N	50	N	500
CP0665S	10	30	15	150	<5	N	10	20	N	10	N	1,000	100	N	30	N	200
CP0666S	20	50	10	100	<5	N	10	20	N	10	N	700	150	N	30	N	300
CP0667S	5	30	10	100	<5	N	N	20	N	N	N	700	100	N	30	N	300
CP0668S	5	10	20	150	<5	N	N	20	N	N	N	700	100	N	30	N	200
CP0669S	5	10	15	70	<5	N	N	20	N	N	N	700	100	N	30	N	200
CP0670S	5	15	10	50	<5	N	N	20	N	N	N	700	150	N	30	N	500
CP0671S	10	30	15	30	<5	N	10	20	N	10	N	700	150	N	30	N	200
CP0672S	N	<10	10	50	<5	N	N	20	N	N	N	700	150	N	30	N	150
CP0673S	N	15	<5	70	<5	N	N	20	N	N	N	1,000	50	N	20	N	150
CP0674S	N	15	<5	30	<5	N	N	20	N	N	N	700	50	N	30	N	300
CP0675S	N	20	<5	30	<5	N	10	30	N	N	N	700	30	N	20	N	150

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAV	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CP0676S	32 16 18	113 51 1	5.0	1.0	2.0	.30	700	N	N	N	30	700	2	N	N
CP0677S	32 15 14	113 51 23	10.0	1.0	2.0	.70	1,500	N	N	N	N	700	2	N	N
CP0678S	32 15 28	113 49 54	3.0	1.0	2.0	.20	500	N	N	N	N	700	2	N	N
CP0679S	32 15 30	113 48 31	5.0	1.0	2.0	.50	700	N	N	N	N	700	2	N	N
CP0680S	32 16 27	113 48 8	5.0	3.0	5.0	.50	1,500	N	N	N	N	1,000	1	N	N
CP0681S	32 23 36	113 49 51	10.0	3.0	5.0	1.00	1,500	N	N	N	N	1,000	1	N	N
CP0682S	32 23 43	113 48 7	10.0	3.0	5.0	1.00	1,500	N	N	N	10	1,000	N	N	N
CP0683S	32 23 32	113 47 1	7.0	2.0	3.0	.70	700	N	N	N	N	1,500	1	N	N
CP0684S	32 22 11	113 47 55	7.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N
CP0685S	32 20 45	113 46 40	5.0	1.5	3.0	.50	700	N	N	N	N	1,000	1	N	N
CP0686S	32 20 59	113 48 1	3.0	1.5	3.0	.30	700	N	N	N	N	1,000	2	N	N
CP0687S	32 21 45	113 49 3	10.0	3.0	5.0	.70	2,000	N	N	N	10	1,000	2	N	N
AD0688S	32 11 38	113 14 0	7.0	2.0	2.0	.70	1,000	N	N	N	10	700	2	N	N
AD0689S	32 12 25	113 16 29	10.0	2.0	3.0	1.00	1,000	N	N	N	N	700	2	N	N
OH0690S	32 11 26	113 16 12	5.0	1.5	2.0	.70	700	N	N	N	N	700	2	N	N
OH0691S	32 9 45	113 16 48	7.0	2.0	3.0	.70	1,000	N	N	N	N	700	1	N	N
OH0692S	32 8 28	113 16 42	15.0	2.0	3.0	1.00	1,000	N	N	N	N	700	2	N	N
AD0693S	32 7 27	113 14 50	10.0	3.0	3.0	1.00	1,000	N	N	N	N	1,000	1	N	N
AD0694S	32 7 10	113 12 33	10.0	3.0	3.0	1.00	1,000	N	N	N	10	1,000	2	N	N
AD0695S	32 7 5	113 10 38	7.0	2.0	2.0	1.00	1,500	N	N	N	10	1,000	2	N	N
AD0696S	32 6 6	113 13 22	3.0	1.0	1.5	.30	700	N	N	N	N	1,000	2	N	N
AD0697S	32 5 32	113 14 28	10.0	1.5	3.0	1.00	1,000	N	N	N	N	1,000	2	N	N
OH0698S	32 6 15	113 15 22	15.0	2.0	3.0	1.00	1,000	N	N	N	10	1,000	1	N	N
OH0699S	32 6 25	113 16 22	3.0	2.0	2.0	.50	700	N	N	N	N	1,000	1	N	N
OH0700S	32 5 21	113 17 28	7.0	2.0	3.0	1.00	1,500	N	N	N	N	1,000	2	N	N
OH0701S	32 5 58	113 18 36	7.0	2.0	2.0	.70	1,000	N	N	N	N	1,000	2	N	N
OH0702S	32 4 40	113 19 3	7.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	1	N	N
OH0703S	32 4 13	113 18 23	10.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	1	N	N
OH0704S	32 4 24	113 20 57	5.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
OH0705S	32 3 56	113 22 59	20.0	2.0	2.0	1.00	1,000	N	N	N	15	1,000	N	N	N
OH0706S	32 4 53	113 21 42	7.0	2.0	2.0	.50	500	N	N	N	10	1,000	5	N	N
OH0707S	32 6 13	113 21 12	5.0	2.0	3.0	.50	500	N	N	N	10	1,000	1	N	N
OH0708S	32 7 28	113 23 13	7.0	2.0	2.0	.70	700	N	N	N	N	1,000	N	N	N
OH0709S	32 7 50	113 23 36	10.0	5.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
OH0710S	32 7 46	113 24 42	7.0	5.0	7.0	1.00	1,500	N	N	N	N	700	2	N	N
MA0711S	32 13 42	112 44 58	10.0	3.0	5.0	1.00	2,000	N	N	N	N	1,000	2	N	N
KP0712S	32 13 0	112 45 11	10.0	3.0	7.0	1.00	2,000	N	N	N	N	1,000	1	N	N
MA0713S	32 12 56	112 44 13	10.0	3.0	7.0	1.00	1,500	N	N	N	N	1,000	2	N	N
SI0714S	32 12 29	112 43 43	10.0	2.0	3.0	1.00	1,500	N	N	N	N	1,000	2	N	N
OH0715S	32 20 19	112 43 40	5.0	2.0	5.0	.50	1,000	N	N	N	N	1,000	1	N	N
OH0716S	32 12 47	113 22 42	7.0	2.0	5.0	.50	1,000	N	N	N	N	1,000	N	N	N
OH0717S	32 13 47	113 24 21	7.0	2.0	5.0	.70	1,500	N	N	N	10	1,000	1	N	N
OH0718S	32 11 52	113 27 9	15.0	2.0	2.0	1.00	2,000	N	N	N	N	1,000	2	N	N
OH0719S	32 11 39	113 26 34	7.0	2.0	2.0	.70	1,500	N	N	N	N	1,000	3	N	N
OH0720S	32 11 22	113 25 22	10.0	2.0	2.0	.70	1,000	N	N	N	N	1,000	2	N	N

## Spectrographic analysis of stream sediments--continued

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CP0676S	N	20	<5	50	<5	N	5	30	N	N	N	1,000	50	N	30	N	300
CP0677S	N	<10	10	150	<5	30	N	20	N	N	N	700	100	N	70	N	200
CP0678S	N	<10	<5	N	<5	N	N	30	N	N	N	700	30	N	20	N	150
CP0679S	N	30	5	30	<5	<20	5	20	N	N	N	700	70	N	50	N	300
CP0680S	5	20	<5	20	<5	N	5	20	N	N	N	1,000	100	N	20	N	100
CP0681S	20	50	30	150	<5	N	20	20	N	15	N	1,000	200	N	30	N	300
CP0682S	15	70	20	150	<5	N	20	20	N	15	N	1,000	150	N	30	N	500
CP0683S	5	30	15	200	<5	N	15	30	N	10	N	1,000	100	N	50	N	200
CP0684S	10	30	20	100	<5	N	20	20	N	15	N	1,500	100	N	30	N	200
CP0685S	N	10	10	50	<5	N	5	20	N	5	N	700	70	N	50	N	200
CP0686S	N	10	10	30	<5	N	5	30	N	5	N	700	30	N	30	N	100
CP0687S	5	70	20	150	<5	<20	20	20	N	20	N	700	100	N	50	N	200
AD0688S	5	30	10	150	<5	<20	N	20	N	10	N	700	70	N	70	N	300
OH0689S	5	20	10	200	<5	<20	N	30	N	10	N	700	100	N	70	N	300
OH0690S	5	20	<5	100	<5	N	N	20	N	10	N	700	70	N	50	N	300
OH0691S	5	30	10	100	<5	N	10	50	N	15	N	700	70	N	70	N	300
OH0692S	5	20	10	300	<5	N	7	50	N	15	N	700	150	N	70	N	700
AD0693S	20	20	20	150	<5	<20	10	50	N	15	N	1,000	100	N	70	N	500
AD0694S	20	30	15	150	<5	<20	10	50	N	20	N	1,000	100	N	70	N	700
AD0695S	5	15	10	100	<5	30	7	30	N	15	N	700	70	N	70	N	700
AD0696S	N	<10	5	70	<5	N	N	50	N	10	N	700	30	N	30	N	150
AD0697S	15	30	20	150	<5	N	5	30	N	15	N	700	150	N	70	N	300
OH0698S	30	70	20	200	<5	20	10	50	N	20	N	700	200	N	300	N	500
OH0699S	5	30	20	30	<5	N	10	50	N	5	N	1,000	70	N	20	N	200
OH0700S	10	50	15	150	<5	<20	10	50	N	15	N	1,000	100	N	70	N	150
OH0701S	10	15	10	70	<5	N	5	30	N	10	N	1,000	100	N	30	N	200
OH0702S	10	5	10	150	<5	N	5	30	N	15	N	1,000	100	N	70	N	150
OH0703S	15	70	20	100	<5	N	10	50	N	15	N	1,000	150	N	50	N	300
OH0704S	5	20	15	50	<5	N	10	30	N	10	N	1,000	100	N	20	N	300
OH0705S	20	50	20	50	<5	N	15	20	N	10	N	700	200	N	30	N	500
OH0706S	N	20	10	70	<5	N	5	70	N	10	N	1,000	100	N	30	N	300
OH0707S	N	15	10	100	<5	N	5	50	N	5	N	1,000	70	N	30	N	300
OH0708S	5	30	15	100	<5	N	10	20	N	15	N	1,000	100	N	50	N	500
OH0709S	30	150	50	50	<5	N	50	30	N	30	N	700	150	N	30	N	300
OH0710S	20	100	20	50	<5	N	50	30	N	20	N	1,000	100	N	50	N	300
MA0711S	20	70	15	50	<5	N	50	50	N	10	N	1,000	150	N	20	N	500
KP0712S	20	70	15	N	<5	N	30	50	N	10	N	1,000	200	N	20	N	300
MA0713S	20	50	10	30	<5	N	20	30	N	10	N	1,000	200	N	30	N	500
SI0714S	20	30	20	N	<5	N	10	30	N	7	N	1,000	150	N	20	N	300
OH0715S	10	30	15	N	<5	N	10	50	N	5	N	1,000	100	N	15	N	200
OH0716S	10	20	50	50	<5	N	20	30	N	7	N	1,000	100	N	20	N	300
OH0717S	10	20	15	150	<5	N	10	50	N	7	N	1,000	100	N	70	N	200
OH0718S	20	70	15	200	<5	N	N	70	N	10	N	1,000	150	N	150	N	700
OH0719S	N	10	5	100	<5	30	N	50	N	5	N	1,000	100	N	70	N	300
OH0720S	N	20	10	70	<5	<20	N	50	N	7	N	1,000	150	N	70	N	300

## Spectrographic analysis of stream sediments--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
OH0721S	32 10 9	113 23 55	10.0	1.5	1.5	1.00	1,500	N	N	N	N	700	2	N	N
OH0722S	32 9 41	113 23 38	10.0	2.0	3.0	1.00	1,000	N	N	N	N	1,000	2	N	N
OH0723S	32 9 2	113 23 40	5.0	2.0	3.0	.70	700	N	N	N	N	1,000	1	N	N
OH0724S	32 8 57	113 25 1	7.0	2.0	1.5	.50	1,500	N	N	N	N	1,000	2	N	N
OH0725S	32 10 1	113 25 34	7.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	3	N	N
OH0726S	32 9 46	113 26 41	10.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	2	N	N
OH0727S	32 10 24	113 26 57	10.0	1.0	2.0	1.00	1,000	N	N	N	N	1,000	2	N	N
OH0728S	32 11 28	113 28 39	10.0	2.0	2.0	1.00	1,500	N	N	N	N	1,000	2	N	N
OH0729S	32 12 37	113 29 44	7.0	1.5	1.5	1.00	1,000	N	N	N	N	1,000	1	N	N
IP0730S	32 17 54	113 34 32	10.0	1.5	1.5	.50	1,500	N	N	N	N	1,000	N	N	N
IP0731S	32 17 11	113 34 19	10.0	.7	1.5	.30	2,000	N	N	N	N	1,000	1	N	N
IP0732S	32 16 16	113 33 45	3.0	1.0	1.5	.30	500	N	N	N	N	1,000	1	N	N
IP0733S	32 15 4	113 33 5	5.0	2.0	1.5	.70	500	N	N	N	20	1,500	1	N	N
SA0734S	32 14 14	113 31 50	5.0	1.5	1.5	.50	700	N	N	N	10	1,500	1	N	N
SA0735S	32 13 41	113 30 35	7.0	1.5	1.5	1.00	1,000	N	N	N	10	1,500	1	N	N
OH0736S	32 12 51	113 28 14	10.0	1.5	1.5	1.00	1,500	N	N	N	10	1,000	2	N	N
OH0737S	32 14 45	113 29 38	10.0	1.0	1.5	.50	1,000	N	N	N	N	1,000	1	N	N
OH0738S	32 13 37	113 29 7	10.0	2.0	2.0	1.00	700	N	N	N	N	1,000	N	N	N
GM0739S	32 15 6	113 29 59	5.0	1.0	1.5	.70	700	N	N	N	N	1,000	1	N	N
IP0740S	32 15 42	113 30 48	3.0	1.5	1.5	.30	1,000	N	N	N	N	1,000	1	N	N
IP0741S	32 16 19	113 31 34	5.0	2.0	1.5	.20	>5,000	N	N	N	N	1,000	2	N	N
IP0742S	32 17 3	113 32 10	3.0	1.5	1.5	.30	1,000	N	N	N	N	1,000	2	N	N
IP0743S	32 18 24	113 33 2	3.0	1.0	1.5	.30	700	N	N	N	15	1,000	2	N	N
IP0744S	32 23 55	113 37 13	3.0	1.0	5.0	.30	700	N	N	N	N	1,000	1	N	N
IP0745S	32 22 44	113 37 17	3.0	1.5	3.0	.30	500	N	N	N	15	1,000	1	N	N
IP0746S	32 22 0	113 35 43	3.0	1.0	1.5	.30	700	N	N	N	10	1,000	1	N	N
IP0747S	32 21 11	113 35 30	3.0	1.5	2.0	.30	700	N	N	N	10	1,000	2	N	N
IP0748S	32 20 12	113 34 43	3.0	1.0	3.0	.50	700	N	N	N	N	1,000	2	N	N
IP0749S	32 19 9	113 33 43	5.0	1.0	2.0	.30	700	N	N	N	N	1,000	N	N	N
IP0750S	32 18 45	113 34 36	5.0	1.5	3.0	.70	1,000	N	N	N	10	1,000	N	N	N
IP0751S	32 18 43	113 36 2	10.0	1.0	2.0	.70	1,500	N	N	N	N	1,000	N	N	N
IP0752S	32 18 57	113 36 47	7.0	1.5	2.0	.50	1,000	N	N	N	N	1,000	1	N	N
IP0753S	32 19 45	113 37 21	7.0	1.0	2.0	.30	700	N	N	N	N	1,000	1	N	N
IP0754S	32 20 32	113 36 29	5.0	1.0	2.0	.30	500	N	N	N	N	1,000	N	N	N
IP0755S	32 21 11	113 37 34	5.0	1.0	3.0	.50	700	N	N	N	N	1,000	2	N	N
IP0756S	32 25 18	113 38 57	10.0	3.0	3.0	1.00	1,500	N	N	N	30	700	N	N	N
IP0757S	32 24 5	113 38 34	5.0	1.5	5.0	.50	700	N	N	N	N	700	1	N	N
IP0758S	32 23 35	113 38 38	10.0	1.0	2.0	.70	1,500	N	N	N	N	700	1	N	N
IP0759S	32 22 53	113 38 47	7.0	1.0	3.0	.50	700	N	N	N	10	1,000	1	N	N
IP0760S	32 22 19	113 38 32	7.0	1.0	2.0	.50	500	N	N	N	N	1,000	1	N	N
IP0761S	32 23 33	113 43 41	7.0	1.0	3.0	.70	700	N	N	N	N	1,000	1	N	N
CP0762S	32 23 18	113 45 17	7.0	3.0	5.0	.50	1,500	N	N	N	N	1,000	N	N	N
IP0763S	32 20 20	113 44 49	5.0	3.0	5.0	.50	1,500	N	N	N	N	1,000	N	N	N
CP0764S	32 19 36	113 45 32	7.0	3.0	5.0	.70	700	N	N	N	N	1,000	1	N	N
CP0765S	32 19 24	113 47 32	7.0	3.0	3.0	.70	1,500	N	N	N	N	1,000	1	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
OH0721S	5	30	7	150	<5	<20	N	50	N	10	N	700	150	N	100	N	300
OH0722S	5	20	10	150	<5	N	5	50	N	10	N	1,000	100	N	70	N	300
OH0723S	5	20	10	70	<5	N	10	30	N	15	N	1,000	100	N	70	N	700
OH0724S	N	20	15	100	<5	N	5	50	N	10	N	1,000	100	N	50	N	300
OH0725S	15	10	7	150	<5	20	N	30	N	15	N	1,000	100	N	70	N	500
OH0726S	10	20	10	200	<5	20	5	50	N	10	N	1,000	150	N	100	N	700
OH0727S	5	20	10	200	<5	N	N	50	N	5	N	700	150	N	100	N	700
OH0728S	15	70	15	70	<5	N	20	50	N	15	N	700	200	N	70	N	700
OH0729S	5	20	10	70	<5	20	5	50	N	10	N	700	150	N	100	N	700
IP0730S	N	<10	10	100	<5	N	N	30	N	N	N	1,000	70	N	150	N	300
IP0731S	N	<10	10	300	<5	N	N	30	N	N	N	1,000	70	N	70	N	100
IP0732S	N	<10	5	50	<5	N	N	30	N	N	N	1,000	30	N	10	N	150
IP0733S	N	20	5	70	<5	N	N	30	N	N	N	1,000	70	N	30	N	500
SA0734S	N	20	10	150	<5	N	N	30	N	N	N	700	50	N	30	N	300
SA0735S	N	15	10	150	<5	N	5	30	N	5	N	1,000	70	N	50	N	200
OH0736S	N	30	10	50	<5	N	10	30	N	7	N	700	100	N	30	N	300
OH0737S	N	10	7	300	<5	N	N	20	N	N	N	1,000	70	N	500	N	200
OH0738S	5	30	15	50	<5	N	7	20	N	7	N	700	100	N	50	N	300
GM0739S	N	<10	10	100	<5	N	N	20	N	N	N	700	50	N	30	N	150
IP0740S	N	10	5	N	<5	N	N	30	N	N	N	1,000	30	N	20	N	100
IP0741S	N	20	5	70	<5	N	N	30	N	N	N	700	50	N	70	N	100
IP0742S	N	15	<5	20	<5	N	N	20	N	N	N	1,000	50	N	70	N	150
IP0743S	N	15	5	50	<5	N	5	20	N	N	N	1,000	70	N	20	N	300
IP0744S	N	10	5	30	<5	N	N	30	N	N	N	1,000	50	N	10	N	200
IP0745S	N	10	5	100	<5	N	N	30	N	N	N	1,000	50	N	700	N	200
IP0746S	N	10	<5	50	<5	N	N	30	N	N	N	1,000	70	N	30	N	300
IP0747S	N	70	5	50	<5	N	5	30	N	N	N	1,000	50	N	20	N	200
IP0748S	N	15	5	100	<5	N	N	30	N	N	N	1,000	50	N	30	N	200
IP0749S	N	50	<5	20	<5	N	N	30	N	N	N	1,000	50	N	50	N	500
IP0750S	N	15	15	100	<5	N	N	30	N	N	N	1,000	70	N	10	N	300
IP0751S	N	20	10	300	<5	N	N	30	N	N	N	1,000	70	N	70	N	500
IP0752S	N	10	15	100	<5	N	N	30	N	N	N	1,000	70	N	70	N	200
IP0753S	N	<10	<5	150	<5	N	N	30	N	N	N	1,000	70	N	20	N	200
IP0754S	N	<10	<5	70	<5	N	N	30	N	N	N	1,000	50	N	20	N	200
IP0755S	N	<10	10	150	<5	N	N	30	N	N	N	1,000	50	N	30	N	200
IP0756S	N	30	10	100	<5	N	5	20	N	10	N	700	100	N	30	N	500
IP0757S	N	10	<5	50	<5	N	5	20	N	N	N	700	30	N	15	N	200
IP0758S	N	<10	5	20	<5	N	N	30	N	5	N	700	70	N	150	N	200
IP0759S	N	15	5	N	<5	N	N	20	N	N	N	1,000	50	N	10	N	300
IP0760S	N	<10	<5	100	<5	N	N	30	N	N	N	1,000	50	N	20	N	200
IP0761S	N	15	<5	N	<5	N	N	20	N	N	N	1,000	70	N	20	N	500
CP0762S	5	100	10	N	<5	N	30	20	N	5	N	1,000	70	N	20	N	300
IP0763S	5	70	10	N	<5	N	15	20	N	10	N	1,000	70	N	20	N	200
CP0764S	10	100	15	N	<5	N	50	20	N	10	N	700	150	N	15	N	300
CP0765S	5	30	7	N	<5	N	15	20	N	N	N	700	70	N	20	N	300



Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CP0766S	32 19 26	113 48 5	7.0	2.0	1.5	.70	1,500	N	N	N	N	700	1	N	N
CP0767S	32 19 46	113 48 46	5.0	1.5	2.0	.50	1,500	N	N	N	N	1,000	2	N	N
CP0768S	32 21 27	113 50 49	7.0	3.0	5.0	.50	3,000	N	N	N	N	1,000	2	N	N
CP0769S	32 15 31	113 59 14	7.0	1.5	2.0	.70	2,000	N	N	N	10	1,000	1	N	N
TM0770S	32 14 58	113 58 7	7.0	.7	2.0	.70	1,500	N	N	N	15	1,000	2	N	N
TM0771S	32 12 2	113 50 57	7.0	3.0	5.0	.50	700	N	N	N	20	1,000	N	N	N
TM0772S	32 12 38	113 51 0	5.0	3.0	5.0	.70	700	N	N	N	15	700	N	N	N
TM0773S	32 14 5	113 51 8	7.0	5.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N
TM0774S	32 14 27	113 47 38	5.0	1.5	3.0	.50	1,000	N	N	N	N	1,000	2	N	N
TM0775S	32 14 25	113 46 8	5.0	3.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
TM0776S	32 13 11	113 45 56	7.0	3.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
TM0777S	32 13 25	113 47 23	3.0	1.0	3.0	.30	1,000	N	N	N	N	700	3	N	N
TM0778S	32 13 17	113 48 6	5.0	1.0	1.5	.50	1,000	N	N	N	10	700	2	N	N
TM0779S	32 11 25	113 47 54	7.0	3.0	3.0	.70	1,000	N	N	N	10	1,000	1	N	N
TM0780S	32 11 33	113 46 54	10.0	2.0	3.0	.50	1,000	N	N	N	N	700	N	N	N
TM0781S	32 10 59	113 45 31	10.0	3.0	3.0	1.00	1,000	N	N	N	N	700	N	N	N
TM0782S	32 11 29	113 45 6	7.0	3.0	5.0	.70	1,500	N	N	N	10	700	N	N	N
SA0783S	32 12 7	113 44 36	7.0	3.0	3.0	.70	1,000	N	N	N	N	700	N	N	N
SA0784S	32 12 55	113 44 41	7.0	3.0	2.0	.70	1,000	N	N	N	N	1,000	N	N	N
SA0785S	32 12 57	113 43 5	5.0	3.0	5.0	.50	1,000	N	N	N	N	1,000	N	N	N
SA0786S	32 12 13	113 42 3	7.0	3.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
SA0787S	32 11 37	113 41 51	7.0	3.0	5.0	.50	1,500	N	N	N	10	1,000	N	N	N
MO0788S	32 30 54	113 59 19	5.0	1.0	2.0	.50	700	N	N	N	N	1,000	1	N	N
MO0789S	32 30 51	113 58 59	15.0	1.0	1.5	1.00	1,000	N	N	N	N	700	N	N	N
MO0790S	32 30 18	113 58 39	7.0	1.0	2.0	.50	1,000	N	N	N	N	1,000	1	N	N
CP0791S	32 29 42	113 58 57	7.0	.7	3.0	.50	1,000	N	N	N	N	1,000	1	N	N
CP0792S	32 28 36	113 59 32	7.0	1.0	2.0	.30	700	N	N	N	N	1,000	1	N	N
CP0793S	32 27 54	113 59 52	7.0	1.0	2.0	.70	1,000	N	N	N	N	1,000	1	N	N
CP0794S	32 27 23	113 59 36	3.0	1.0	2.0	.30	700	N	N	N	N	1,000	1	N	N
CP0795S	32 25 36	113 57 17	10.0	1.0	2.0	.70	1,000	N	N	N	30	1,000	N	N	N
IP0796S	32 15 39	113 40 23	10.0	2.0	2.0	.70	1,500	N	N	N	N	1,000	5	N	N
SA0797S	32 14 12	113 40 5	10.0	2.0	3.0	.70	1,500	N	N	N	N	1,000	2	N	N
SA0798S	32 13 27	113 39 7	7.0	1.0	3.0	.50	700	N	N	N	N	1,000	1	N	N
SA0799S	32 12 32	113 39 56	5.0	1.0	3.0	.50	700	N	N	N	20	1,000	1	N	N
SA0800S	32 8 59	113 39 12	10.0	1.0	2.0	1.00	1,500	N	N	N	10	1,000	1	N	N
SA0801S	32 9 25	113 41 48	7.0	2.0	3.0	.70	1,000	N	N	N	N	1,000	2	N	N
SA0802S	32 10 7	113 43 20	10.0	3.0	3.0	1.00	1,000	N	N	N	N	700	1	N	N
SA0803S	32 10 59	113 42 57	10.0	2.0	3.0	1.00	1,500	N	N	N	N	700	N	N	N
SA0804S	32 10 30	113 40 56	7.0	2.0	2.0	.70	700	N	N	N	N	700	1	N	N
SA0805S	32 12 18	113 40 49	5.0	2.0	7.0	.50	1,000	N	N	N	N	1,000	N	N	N
SA0806S	32 13 1	113 40 52	7.0	2.0	5.0	.70	700	N	N	N	N	1,000	3	N	N
SA0807S	32 14 16	113 42 28	5.0	2.0	5.0	.50	700	N	N	N	N	1,000	1	N	N
IP0808S	32 15 2	113 44 39	5.0	3.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N
IP0809S	32 15 44	113 42 46	5.0	2.0	3.0	.30	700	N	N	N	N	1,000	N	N	N
IP0810S	32 16 39	113 42 10	7.0	2.0	3.0	.50	1,000	N	N	N	20	1,000	N	N	N

## Spectrographic analysis of stream sediments--continued

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Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CP0766S	N	20	7	150	<5	N	10	30	N	5	N	700	70	N	30	N	200
CP0767S	N	50	20	50	<5	N	20	70	N	5	N	700	50	N	15	N	150
CP0768S	10	70	30	500	<5	N	50	30	N	20	N	1,000	70	N	50	N	100
CP0769S	N	15	15	200	<5	N	N	30	N	5	N	1,000	70	N	30	N	200
TM0770S	N	50	5	150	<5	N	N	30	N	N	N	1,000	70	N	20	N	500
TM0771S	5	30	10	50	<5	N	20	30	N	10	N	1,000	70	N	15	N	300
TM0772S	5	30	7	N	<5	N	20	20	N	10	N	1,000	70	N	10	N	300
TM0773S	10	70	10	50	<5	N	30	20	N	15	N	1,000	100	N	10	N	300
TM0774S	N	<10	<5	30	<5	N	N	30	N	N	N	1,000	50	N	10	N	200
TM0775S	5	10	<5	N	<5	N	N	10	N	5	N	1,000	70	N	10	N	150
TM0776S	5	30	10	N	<5	N	10	30	N	10	N	1,000	100	N	20	N	300
TM0777S	N	<10	<5	N	<5	N	N	30	N	N	N	1,000	30	N	10	N	100
TM0778S	N	10	<5	50	<5	N	N	30	N	N	N	700	50	N	50	N	200
TM0779S	N	50	50	200	<5	N	10	30	N	7	N	1,000	70	N	30	N	300
TM0780S	20	70	70	N	<5	N	20	100	N	10	N	700	150	N	20	300	200
TM0781S	30	70	20	100	<5	N	20	20	N	15	N	700	200	N	30	N	200
TM0782S	20	70	10	70	<5	N	30	10	N	10	N	700	150	N	30	N	200
SA0783S	15	50	10	100	<5	N	20	10	N	15	N	1,000	100	N	30	N	300
SA0784S	5	30	5	30	<5	N	10	20	N	7	N	1,000	100	N	10	N	300
SA0785S	10	20	<5	N	<5	N	5	10	N	10	N	1,000	70	N	10	N	100
SA0786S	20	50	7	20	<5	N	20	10	N	10	N	1,000	100	N	20	N	100
SA0787S	20	70	10	50	<5	N	30	10	N	10	N	1,000	100	N	15	N	150
MO0788S	N	50	20	150	<5	N	N	20	N	5	N	1,000	70	N	30	N	300
MO0789S	5	<10	200	N	<5	N	N	10	N	N	N	700	200	N	50	N	1,000
MO0790S	N	<10	20	70	<5	N	N	10	N	N	N	1,000	100	N	30	N	200
CP0791S	N	<10	10	150	<5	N	N	15	N	N	N	1,000	70	N	50	N	300
CP0792S	N	<10	<5	150	<5	N	N	15	N	N	N	1,000	70	N	20	N	200
CP0793S	N	15	10	70	<5	N	N	20	N	N	N	700	70	N	30	N	300
CP0794S	N	10	<5	100	<5	N	N	20	N	N	N	700	50	N	30	N	200
CP0795S	N	30	10	70	<5	N	N	20	N	N	N	700	200	N	30	N	500
IP0796S	5	150	30	150	<5	N	30	20	N	7	N	1,000	150	N	50	N	200
SA0797S	10	70	30	70	<5	N	20	20	N	15	N	1,000	150	N	50	N	200
SA0798S	N	50	<5	50	<5	N	10	30	N	7	N	1,500	100	N	70	N	200
SA0799S	N	20	10	50	<5	N	10	20	N	7	N	1,000	70	N	15	N	200
SA0800S	10	20	15	150	<5	N	N	20	N	7	N	1,000	150	N	100	N	500
SA0801S	20	20	30	50	<5	N	10	10	N	15	N	1,000	150	N	30	N	200
SA0802S	15	70	10	100	<5	N	20	20	N	15	N	700	150	N	30	N	500
SA0803S	20	100	20	200	<5	N	20	20	N	N	N	700	300	N	30	N	300
SA0804S	N	50	15	100	<5	N	5	20	N	10	N	700	100	N	30	N	500
SA0805S	7	30	<5	30	<5	N	15	20	N	10	N	1,000	70	N	10	N	150
SA0806S	10	30	20	100	<5	N	15	20	N	15	N	1,000	100	N	50	N	150
SA0807S	5	30	10	N	<5	N	10	20	N	N	N	1,000	70	N	10	N	200
IP0808S	10	50	<5	N	<5	N	10	10	N	10	N	1,000	100	N	10	N	150
IP0809S	5	20	<5	N	<5	N	5	10	N	N	N	1,000	50	N	N	N	100
IP0810S	10	70	10	N	<5	N	50	20	N	7	N	1,000	70	N	10	N	150

Sample	LATITUDE		LONGITUDE		S-FE%	S-MG%	S-CA%	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
IP0811S	32 17 18	113 41 51	7.0	3.0	3.0	.50	1,000	N	N	N	20	1,000	N	N	N	N	N
IP0812S	32 17 17	113 41 2	5.0	2.0	2.0	.30	500	N	N	N	30	1,000	N	N	N	N	N
IP0813S	32 18 8	113 41 10	5.0	2.0	3.0	.50	1,000	N	N	N	50	1,000	N	N	N	N	N
IP0814S	32 18 49	113 42 23	7.0	3.0	3.0	.70	1,000	N	N	N	20	1,000	N	N	N	N	N
IP0815S	32 18 27	113 42 52	5.0	2.0	3.0	.50	700	N	N	N	20	1,000	1	N	N	N	N
IP0816S	32 18 14	113 43 59	7.0	3.0	5.0	.70	1,500	N	N	N	N	1,000	N	N	N	N	N
IP0817S	32 17 22	113 42 52	5.0	2.0	5.0	.50	1,000	N	N	N	N	1,000	1	N	N	N	N
IP0818S	32 16 24	113 44 5	5.0	2.0	3.0	.50	700	N	N	N	10	1,000	N	N	N	N	N
IP0819S	32 16 43	113 44 51	7.0	2.0	5.0	.50	700	N	N	N	N	1,000	N	N	N	N	N
IP0820S	32 18 16	113 45 28	7.0	3.0	5.0	.50	700	N	N	N	N	1,000	N	N	N	N	N
CP0821S	32 17 8	113 45 47	7.0	2.0	5.0	.50	1,000	N	N	N	N	1,000	N	N	N	N	N
CP0822S	32 18 16	113 47 19	5.0	2.0	5.0	.50	700	N	N	N	N	1,000	1	N	N	N	N
CP0823S	32 17 10	113 47 19	5.0	2.0	5.0	.50	700	N	N	N	N	1,000	1	N	N	N	N
CP0824S	32 16 33	113 47 17	10.0	3.0	5.0	.70	1,000	N	N	N	N	1,000	N	N	N	N	N
CP0825S	32 16 21	113 46 29	7.0	5.0	3.0	.50	1,500	N	N	N	N	1,000	N	N	N	N	N
CP0826S	32 17 3	113 50 31	5.0	2.0	2.0	.70	700	N	N	N	N	1,000	2	N	N	N	N
CP0827S	32 17 58	113 49 20	3.0	1.5	2.0	.50	700	N	N	N	N	1,000	2	N	N	N	N
CP0828S	32 19 28	113 50 2	3.0	.3	1.5	.20	5,000	N	N	N	N	700	2	N	N	N	N
CP0829S	32 20 12	113 50 38	7.0	1.5	2.0	.70	700	N	N	N	N	1,000	2	N	N	N	N
CP0830S	32 27 2	113 57 44	10.0	1.0	2.0	.70	700	N	N	N	N	1,000	1	N	N	N	N
CP0831S	32 27 31	113 58 6	7.0	1.5	1.5	.50	500	N	N	N	N	1,000	1	N	N	N	N
CP0832S	32 28 2	113 58 13	7.0	2.0	2.0	.50	700	N	N	N	N	1,000	1	N	N	N	N
CP0833S	32 28 22	113 58 17	5.0	1.5	1.5	.30	500	N	N	N	N	1,000	1	N	N	N	N
CP0834S	32 29 22	113 57 24	10.0	2.0	3.0	1.00	1,000	N	N	N	N	1,000	1	N	N	N	N
MA1001S	32 7 50	112 42 4	10.0	2.0	2.0	1.00	2,000	N	N	N	30	1,500	N	N	N	N	N
MA1002S	32 7 7	112 42 45	2.0	1.5	2.0	.50	1,000	N	N	N	20	1,500	N	N	N	N	N
MA1003S	32 6 43	112 41 24	3.0	3.0	3.0	.30	1,000	N	N	N	10	1,000	N	N	N	N	N
MA1004S	32 7 4	112 40 46	5.0	1.5	2.0	.70	1,500	N	N	N	30	1,000	N	N	N	N	N
MA1005S	32 5 57	112 43 3	2.0	.7	1.5	.30	700	N	N	N	20	1,500	N	N	N	N	N
MA1006S	32 5 52	112 43 32	3.0	1.5	3.0	.50	1,500	N	N	N	20	1,000	N	N	N	N	N
KP1007S	32 5 56	112 45 6	3.0	.7	1.5	.70	2,000	N	N	N	N	1,000	N	N	N	N	N
MA1008S	32 2 59	112 43 32	5.0	1.0	1.0	1.00	2,000	N	N	N	30	1,000	N	N	N	N	N
MA1009S	32 2 59	112 44 46	1.5	.5	.7	.15	1,000	N	N	N	10	700	N	N	N	N	N
KP1010S	32 3 48	112 45 15	1.0	.3	.5	.10	700	N	N	N	20	700	N	N	N	N	N
KP1011S	32 4 2	112 46 4	2.0	.7	1.5	.15	1,000	N	N	N	20	700	N	N	N	N	N
KP1012S	32 2 34	112 46 1	1.0	.5	.3	.10	700	N	N	N	30	300	N	N	N	N	N
KP1013S	32 1 29	112 45 48	2.0	1.0	.5	.15	700	N	N	N	70	300	N	N	N	N	N
KP1014S	32 0 39	112 45 3	5.0	1.0	.7	.70	1,500	N	N	N	20	500	N	N	N	N	N
LK1015S	31 59 19	112 47 12	3.0	2.0	2.0	.70	1,000	N	N	N	N	700	N	N	N	N	N
LK1016S	31 58 40	112 46 43	5.0	1.5	3.0	.70	1,000	N	N	N	N	1,500	N	N	N	N	N
DP1017S	31 59 33	112 42 57	1.5	.5	.7	.15	700	N	N	N	20	700	N	N	N	N	N
MA1018S	32 1 12	112 42 8	2.0	1.5	1.5	.20	700	N	N	N	20	1,000	N	N	N	N	N
MA1019S	32 0 3	112 41 27	7.0	1.5	1.0	.70	1,000	N	N	N	15	700	N	N	N	N	N
DP1020S	31 59 39	112 40 17	5.0	.5	.7	.70	700	N	N	N	N	700	N	N	N	N	N
DP1021S	31 58 57	112 40 30	1.5	.7	.5	.30	700	N	N	N	70	1,000	N	N	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
IP0811S	20	150	20	N	<5	N	70	20	N	7	N	700	70	N	10	N	150
IP0812S	5	50	7	N	<5	N	20	20	N	N	N	700	50	N	10	N	500
IP0813S	5	50	5	50	<5	N	15	10	N	7	N	1,000	70	N	10	N	150
IP0814S	10	50	10	30	<5	N	15	15	N	10	N	1,000	70	N	15	N	300
IP0815S	5	30	10	N	<5	N	10	20	N	7	N	1,000	50	N	10	N	300
IP0816S	20	100	10	N	<5	N	30	20	N	15	N	1,000	70	N	10	N	200
IP0817S	5	50	<5	N	<5	N	5	20	N	7	N	1,000	70	N	N	N	150
IP0818S	5	50	5	N	<5	N	5	20	N	7	N	1,000	70	N	10	N	300
IP0819S	5	50	5	30	<5	N	10	20	N	7	N	1,000	70	N	10	N	150
IP0820S	5	70	5	N	<5	N	20	20	N	7	N	1,000	70	N	10	N	200
CP0821S	5	30	<5	N	<5	N	15	10	N	7	N	1,000	70	N	10	N	150
CP0822S	5	20	<5	N	<5	N	5	20	N	5	N	1,000	50	N	10	N	150
CP0823S	5	20	<5	N	<5	N	5	20	N	5	N	1,000	70	N	N	N	150
CP0824S	10	50	10	N	<5	N	20	15	N	15	N	1,000	100	N	10	N	150
CP0825S	15	70	<5	N	<5	N	15	10	N	15	N	700	100	N	10	N	100
CP0826S	N	15	5	70	<5	N	N	20	N	N	N	700	70	N	30	N	300
CP0827S	N	15	<5	20	<5	N	N	20	N	N	N	700	70	N	20	N	300
CP0828S	N	<10	<5	N	<5	N	N	20	N	N	N	500	20	N	50	N	150
CP0829S	10	70	20	100	<5	N	20	20	N	10	N	700	100	N	50	N	200
CP0830S	5	30	20	30	<5	N	N	15	N	N	N	700	150	N	30	N	200
CP0831S	N	10	15	70	<5	N	N	20	N	N	N	500	70	N	30	N	300
CP0832S	5	15	30	70	<5	N	N	20	N	5	N	700	70	N	20	N	200
CP0833S	N	<10	15	30	<5	N	N	20	N	N	N	700	50	N	10	N	150
CP0834S	5	20	30	100	<5	N	N	20	N	7	N	700	150	N	50	N	300
MA1001S	30	300	50	30	5	N	30	30	N	15	N	700	300	N	30	N	100
MA1002S	10	70	15	50	10	N	15	20	N	7	N	1,000	150	N	20	N	70
MA1003S	15	500	20	20	7	N	30	15	N	15	N	700	100	N	20	N	50
MA1004S	15	150	20	30	5	N	20	20	N	7	N	1,000	150	N	20	N	70
MA1005S	7	30	7	30	<5	N	5	15	N	N	N	700	30	N	30	N	70
MA1006S	10	30	10	30	<5	N	10	15	N	10	N	500	100	N	30	N	70
KP1007S	10	70	15	20	5	N	10	70	N	5	N	300	150	N	20	N	70
MA1008S	15	70	10	30	5	N	15	50	N	5	N	300	150	N	30	N	100
MA1009S	N	<10	<5	70	5	N	N	30	N	N	N	20	20	N	30	N	100
KP1010S	N	<10	<5	20	<5	N	N	15	N	N	N	100	15	N	10	N	70
KP1011S	7	15	7	20	<5	N	10	20	N	N	N	300	50	N	10	N	70
KP1012S	N	<10	<5	70	5	N	N	30	N	N	N	N	15	N	30	N	70
KP1013S	7	30	15	50	<5	N	15	30	N	N	N	100	30	N	20	N	100
KP1014S	15	50	20	70	5	N	15	50	N	5	N	200	150	N	30	N	150
LK1015S	15	30	10	N	10	N	10	15	N	N	N	700	150	N	10	N	50
LK1016S	15	30	15	20	<5	N	15	30	N	5	N	700	150	N	20	N	70
DP1017S	N	15	7	30	<5	N	N	20	N	N	N	N	30	N	15	N	150
MA1018S	10	30	10	20	7	N	15	30	N	5	N	700	70	N	20	N	100
MA1019S	20	50	15	50	<5	<20	20	50	N	N	N	300	150	N	30	N	200
DP1020S	10	20	7	30	N	<20	10	15	N	N	N	150	150	N	30	N	100
DP1021S	5	20	10	50	7	<20	5	30	N	N	N	300	50	N	30	N	100

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
DP1022S	31 58 12	112 41 2	5.0	1.0	.7	.70	1,000	N	N	N	30	700	N	N	N
DP1023S	31 57 38	112 39 59	1.5	.7	.7	.15	700	N	N	N	20	700	N	N	N
DP1024S	31 56 2	112 39 4	5.0	1.0	2.0	.50	1,000	N	N	N	N	1,500	N	N	N
DP1025S	31 55 11	112 39 39	7.0	1.0	1.5	1.00	1,500	N	N	N	10	1,000	N	N	N
DP1026S	31 55 10	112 38 3	3.0	.7	3.0	.70	500	N	N	N	N	1,500	N	N	N
DP1027S	31 54 5	112 38 10	5.0	1.0	2.0	1.00	500	N	N	N	10	1,000	N	N	N
DP1028S	31 53 58	112 37 21	5.0	.7	2.0	1.00	500	N	N	N	10	1,000	N	N	N
KP1029S	32 10 20	112 55 1	5.0	3.0	7.0	.30	700	N	N	N	10	700	N	N	N
KP1030S	32 9 58	112 55 58	5.0	5.0	5.0	.20	700	N	N	N	20	700	N	N	N
KP1031S	32 9 39	112 55 57	5.0	2.0	3.0	.30	700	N	N	N	15	700	N	N	N
KP1032S	32 9 7	112 55 31	5.0	1.5	5.0	.30	500	N	N	N	30	700	N	N	N
KP1033S	32 8 29	112 55 51	7.0	2.0	5.0	.70	700	N	N	N	20	1,000	N	N	N
KP1034S	32 7 43	112 54 46	3.0	1.5	3.0	.30	700	N	N	N	50	700	N	N	N
KP1035S	32 7 38	112 56 0	5.0	3.0	2.0	.30	500	N	N	N	50	700	N	N	N
KP1036S	32 7 20	112 56 47	5.0	1.5	3.0	.50	700	N	N	N	30	1,000	N	N	N
KP1037S	32 7 52	112 57 36	2.0	.7	1.5	.15	700	N	N	N	30	700	N	N	N
KP1038S	32 7 34	112 58 0	2.0	.7	1.0	.20	700	N	N	N	50	300	N	N	N
KP1039S	32 6 38	112 58 0	3.0	2.0	3.0	.50	700	N	N	N	N	1,000	N	N	N
KP1040S	32 11 50	112 57 29	1.0	.5	.7	.15	700	N	N	N	70	500	N	N	N
KP1041S	32 10 52	112 57 46	1.5	.3	.5	.15	500	N	N	N	70	300	N	N	N
KP1042S	32 11 35	112 58 41	1.0	.5	.5	.15	500	N	N	N	100	300	N	N	N
KP1043S	32 11 45	112 59 38	7.0	1.5	1.5	.50	700	N	N	N	50	500	N	N	N
AD1044S	32 11 46	113 0 17	5.0	.7	.7	.50	700	N	N	N	20	700	N	N	N
AD1045S	32 11 20	113 2 2	7.0	1.0	1.0	.50	700	N	N	N	20	700	N	N	N
AD1046S	32 6 21	113 0 8	3.0	1.5	1.5	.30	500	N	N	N	70	700	N	N	N
AD1047S	32 4 46	113 1 8	5.0	1.0	2.0	.30	700	N	N	N	30	700	N	N	N
KP1048S	32 5 2	112 59 49	5.0	1.0	1.5	.30	700	N	N	N	50	500	N	N	N
KP1049S	32 5 14	112 58 52	5.0	2.0	2.0	.30	700	N	N	N	50	700	N	N	N
KP1050S	32 6 43	112 59 14	7.0	2.0	2.0	.30	700	N	N	N	30	700	N	N	N
KP1051S	32 6 59	112 59 2	5.0	3.0	3.0	.20	700	N	N	N	20	700	N	N	N
QB1052S	31 59 30	113 0 21	5.0	2.0	7.0	.20	700	N	N	N	10	1,000	N	N	N
QB1053S	31 57 4	113 1 26	7.0	1.0	1.5	.30	700	N	N	N	30	700	N	N	N
QB1054S	31 58 48	113 2 34	1.5	.7	1.5	.20	300	N	N	N	N	500	N	N	N
QB1055S	31 59 12	113 2 53	2.0	1.5	3.0	.20	700	N	N	N	10	500	N	N	N
QB1056S	31 59 17	113 4 10	3.0	1.0	3.0	.15	700	N	N	N	30	700	N	N	N
QB1057S	31 59 45	113 1 48	5.0	2.0	3.0	.20	700	N	N	N	15	700	N	N	N
AD1058S	32 1 46	113 2 35	3.0	2.0	2.0	.20	700	N	N	N	10	700	N	N	N
AD1059S	32 3 22	113 3 51	7.0	3.0	3.0	.50	700	N	N	N	10	1,000	N	N	N
AD1060S	32 3 54	113 2 34	5.0	1.5	2.0	.30	700	N	N	N	30	1,000	N	N	N
AD1061S	32 2 46	113 0 29	5.0	2.0	3.0	.15	1,000	N	N	N	30	700	N	N	N
AD1062S	32 2 24	113 0 32	3.0	3.0	5.0	.20	700	N	N	N	30	700	N	N	N
AD1063S	32 1 57	113 0 52	2.0	1.5	3.0	.15	700	N	N	N	10	1,500	N	N	N
AD1064S	32 1 5	113 0 38	2.0	1.5	5.0	.15	700	N	N	N	10	1,500	N	N	N
LK1065S	31 54 20	112 50 59	5.0	1.5	.7	.20	1,500	N	N	N	10	700	N	N	N
LK1066S	31 54 58	112 51 47	5.0	1.5	.5	.15	700	N	N	N	15	700	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
DP1022S	15	30	15	20	<5	<20	15	20	N	N	N	300	150	N	30	N	150
DP1023S	5	20	5	50	5	N	7	20	N	N	N	300	50	N	20	N	100
DP1024S	15	30	50	70	N	N	15	20	N	N	N	700	100	N	20	N	100
DP1025S	20	70	30	50	5	N	20	20	N	<5	N	500	200	N	15	N	150
DP1026S	10	20	10	70	5	N	10	20	N	N	N	700	150	N	15	N	100
DP1027S	15	50	30	30	<5	N	15	15	N	5	N	1,000	200	N	20	N	150
DP1028S	15	30	20	30	5	N	15	15	N	N	N	700	150	N	10	N	100
KP1029S	20	300	20	N	N	N	70	15	N	15	N	300	100	N	20	N	100
KP1030S	20	300	30	20	N	N	70	15	N	15	N	300	100	N	15	N	100
KP1031S	20	70	20	20	N	N	70	15	N	15	N	300	100	N	20	N	100
KP1032S	15	50	20	30	N	N	30	20	N	10	N	500	70	N	20	N	70
KP1033S	15	70	30	50	5	N	30	30	N	10	N	700	150	N	30	N	150
KP1034S	15	50	20	20	5	N	30	20	N	5	N	300	100	N	20	N	150
KP1035S	15	70	30	20	<5	N	30	15	N	10	N	500	100	N	20	N	100
KP1036S	15	50	10	70	15	N	30	30	N	10	N	700	150	N	30	N	150
KP1037S	7	30	7	50	5	<20	7	30	N	N	N	300	70	N	20	N	100
KP1038S	7	30	5	70	7	<20	7	30	N	N	N	200	70	N	30	N	100
KP1039S	15	70	10	70	7	N	20	20	N	5	N	700	150	N	20	N	150
KP1040S	5	30	10	50	5	<20	5	30	N	N	N	200	50	N	20	N	100
KP1041S	7	15	15	50	<5	20	5	30	N	N	N	150	50	N	20	N	100
KP1042S	7	30	5	70	10	<20	15	30	N	N	N	100	30	N	30	N	100
KP1043S	15	70	20	50	N	N	30	20	N	10	N	300	150	N	30	N	150
AD1044S	10	50	10	70	<5	<20	20	20	N	7	N	200	150	N	30	N	100
AD1045S	10	70	10	70	<5	N	20	30	N	10	N	200	150	N	50	N	150
AD1046S	10	50	15	20	<5	N	30	15	N	N	N	300	70	N	15	N	100
AD1047S	10	30	10	50	N	N	30	15	N	5	N	300	100	N	15	N	100
KP1048S	10	30	10	30	5	N	30	15	N	5	N	300	100	N	10	N	150
KP1049S	15	70	15	30	5	N	50	30	N	7	N	500	150	N	20	N	150
KP1050S	15	70	15	50	<5	N	50	30	N	7	N	500	70	N	15	N	100
KP1051S	15	100	10	20	<5	N	30	15	N	7	N	500	70	N	10	N	70
QB1052S	10	70	5	70	N	N	30	20	N	5	N	1,000	100	N	10	N	70
QB1053S	15	50	10	100	N	N	30	30	N	<5	N	300	150	N	30	N	100
QB1054S	5	30	<5	70	<5	N	7	30	N	N	N	300	70	N	10	N	30
QB1055S	10	50	5	70	10	N	20	20	N	5	N	300	70	N	15	N	50
QB1056S	7	30	10	50	<5	N	15	20	N	5	N	300	70	N	20	N	30
QB1057S	15	70	15	70	<5	N	30	30	N	10	N	500	100	N	30	N	30
AD1058S	10	50	5	50	5	N	20	20	N	5	N	500	100	N	10	N	50
AD1059S	20	70	7	30	<5	N	30	30	N	10	N	1,000	150	N	15	N	70
AD1060S	15	70	10	20	N	N	30	30	N	5	N	300	100	N	15	N	100
AD1061S	15	100	7	20	N	N	20	10	N	7	N	500	70	N	15	N	70
AD1062S	15	150	7	20	10	N	30	15	N	10	N	500	100	N	20	N	70
AD1063S	10	70	10	70	5	N	20	30	N	<5	N	1,000	70	N	15	N	50
AD1064S	15	70	7	70	5	N	20	30	N	5	N	1,000	70	N	20	N	50
LK1065S	7	30	15	100	7	N	15	20	N	5	N	100	70	N	30	N	70
LK1066S	5	30	10	30	N	N	15	15	N	5	N	100	70	N	20	N	70

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
LK1067S	31 55 29	112 50 1	1.5	1.0	.5	.15	700	N	N	N	20	700	N	N	N
LK1068S	31 55 53	112 51 0	.5	.7	.3	.10	700	N	N	N	20	700	N	N	N
LK1069S	31 56 29	112 51 25	5.0	.7	.3	.15	1,500	N	N	N	N	700	N	N	N
LK1070S	31 57 11	112 50 53	1.0	.5	1.0	.10	700	N	N	N	100	1,000	N	N	N
LK1071S	31 57 46	112 51 2	3.0	1.5	1.0	.15	1,000	N	N	N	70	1,000	N	N	N
LK1072S	31 58 21	112 52 26	3.0	1.0	.7	.15	700	N	N	N	70	1,000	N	N	N
LK1073S	31 58 46	112 53 40	2.0	1.5	.7	.15	700	N	N	N	300	700	N	N	N
LK1074S	31 59 36	112 52 27	1.5	1.0	2.0	.15	700	N	N	N	70	1,000	N	N	N
LK1075S	31 59 57	112 51 50	1.0	.5	.5	.10	500	N	N	N	70	300	N	N	N
KP1076S	32 0 29	112 53 1	3.0	3.0	2.0	.20	700	N	N	N	70	500	N	N	N
KP1077S	32 0 44	112 53 44	2.0	3.0	3.0	.15	700	N	N	N	20	700	N	N	N
KP1078S	32 0 55	112 55 0	3.0	1.5	1.0	.15	700	N	N	N	30	700	N	N	N
KP1079S	32 6 55	112 55 2	3.0	1.5	2.0	.20	700	N	N	N	70	500	N	N	N
KP1080S	32 6 10	112 55 48	5.0	1.5	3.0	.30	700	N	N	N	N	1,000	N	N	N
KP1081S	32 5 19	112 55 39	7.0	3.0	3.0	.70	1,000	N	N	N	N	700	N	N	N
KP1082S	32 4 34	112 55 2	5.0	1.5	3.0	.70	700	N	N	N	70	700	N	N	N
KP1083S	32 3 33	112 54 36	5.0	2.0	3.0	.30	700	N	N	N	N	1,000	N	N	N
KP1084S	32 2 56	112 54 37	7.0	1.0	3.0	.70	1,000	N	N	N	20	1,000	N	N	N
KP1085S	32 2 48	112 53 50	7.0	1.0	3.0	.70	1,000	N	N	N	N	1,000	N	N	N
KP1086S	32 1 45	112 52 35	1.5	.5	.7	.15	700	N	N	N	30	300	N	N	N
KP1087S	32 0 57	112 51 53	1.0	.5	.3	.07	700	N	N	N	70	200	N	N	N
KP1088S	32 1 18	112 50 29	5.0	1.0	1.5	.30	700	N	N	N	N	1,000	N	N	N
LK1089S	31 59 48	112 50 50	1.5	.5	.7	.15	500	N	N	N	50	200	N	N	N
LK1090S	31 58 0	112 49 10	3.0	.7	1.5	.20	500	N	N	N	50	700	N	N	N
KP1091S	32 5 38	112 57 6	3.0	1.5	3.0	.20	700	N	N	N	N	1,000	N	N	N
KP1092S	32 5 32	112 57 42	5.0	2.0	3.0	.70	700	N	N	N	N	1,000	N	N	N
KP1093S	32 3 40	112 57 47	3.0	1.0	.7	.30	500	N	N	N	150	2,000	N	N	N
KP1094S	32 3 50	112 58 32	3.0	2.0	2.0	.15	1,000	N	N	N	70	700	N	N	N
KP1095S	32 3 22	112 59 5	3.0	1.5	1.5	.15	1,000	N	N	N	N	500	N	N	N
KP1096S	32 3 7	112 59 27	5.0	5.0	5.0	.20	1,000	N	N	N	N	700	N	N	N
KP1097S	32 1 35	112 59 12	3.0	3.0	3.0	.15	1,000	N	N	N	20	1,000	N	N	N
KP1098S	32 1 9	112 59 30	5.0	2.0	3.0	.15	1,000	N	N	N	20	1,000	N	N	N
KP1099S	32 1 53	112 57 54	5.0	3.0	5.0	.20	1,000	N	N	N	20	1,000	N	N	N
KP1100S	32 0 59	112 56 11	5.0	1.5	1.0	.20	1,500	1.0	N	N	50	1,000	N	N	N
LK1101S	31 59 50	112 57 21	7.0	1.5	2.0	.30	1,500	N	N	N	10	1,000	N	N	N
AD1102S	32 5 58	113 0 44	3.0	2.0	3.0	.15	1,000	N	N	N	30	1,000	N	N	N
KP1103S	32 9 12	112 59 30	3.0	2.0	3.0	.15	1,500	N	N	N	50	1,000	N	N	N
KP1104S	32 9 48	112 58 52	2.0	1.0	.7	.15	700	N	N	N	50	1,000	N	N	N
DP1105S	31 49 38	112 37 57	3.0	1.5	3.0	.30	1,000	N	N	N	N	1,500	N	N	N
DP1106S	31 50 48	112 37 39	5.0	2.0	3.0	.50	1,500	N	N	N	N	1,000	N	N	N
DP1107S	31 50 12	112 36 32	5.0	1.5	5.0	.50	1,500	N	N	N	N	1,000	N	N	N
DP1108S	31 51 45	112 36 52	7.0	2.0	3.0	.50	1,500	N	N	N	N	1,000	N	N	N
DP1109S	31 52 29	112 36 10	5.0	1.5	2.0	.50	1,000	N	N	N	50	1,500	N	N	N
DP1110S	31 54 0	112 36 13	7.0	1.0	2.0	.50	700	N	N	N	10	1,500	N	N	N
DP1111S	31 55 25	112 36 51	5.0	.7	1.0	.30	700	N	N	N	20	1,000	N	N	N

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
LK1067S	10	10	15	30	15	N	5	50	N	N	N	200	70	N	20	N	50
LK1068S	N	N	<5	20	N	N	N	30	N	N	N	200	20	N	15	N	50
LK1069S	5	15	7	100	<5	<20	<5	50	N	N	N	150	100	N	30	N	70
LK1070S	N	<10	10	N	30	N	N	150	N	N	N	200	30	N	10	N	70
LK1071S	7	15	7	20	<5	N	7	30	N	5	N	300	70	N	15	N	70
LK1072S	7	10	15	50	5	N	7	20	N	N	N	200	70	N	15	N	70
LK1073S	7	10	15	30	10	N	7	15	N	N	N	200	70	N	15	N	70
LK1074S	5	15	7	50	5	N	7	20	N	5	N	200	50	N	15	N	50
LK1075S	N	10	5	50	5	20	5	30	N	N	N	100	20	N	30	N	100
KP1076S	15	150	15	70	5	<20	70	30	N	10	N	500	70	N	30	N	100
KP1077S	10	70	50	30	<5	N	30	20	N	5	N	700	70	N	10	N	70
KP1078S	10	30	15	20	<5	N	20	20	N	7	N	150	70	N	20	N	70
KP1079S	15	70	30	20	5	N	30	20	N	10	N	300	70	N	20	N	300
KP1080S	15	100	15	30	5	N	30	10	N	15	N	700	70	N	30	N	150
KP1081S	20	150	20	20	5	N	30	10	N	15	N	500	300	N	15	N	100
KP1082S	15	70	20	30	5	N	30	30	N	5	N	500	150	N	20	N	150
KP1083S	15	100	20	30	7	N	30	15	N	15	N	1,000	70	N	20	N	100
KP1084S	15	70	30	70	7	<20	15	50	N	5	N	1,000	100	N	30	N	150
KP1085S	15	30	30	70	5	<20	10	20	N	5	N	1,000	100	N	30	N	150
KP1086S	N	10	5	70	<5	20	N	50	N	N	N	200	50	N	30	N	100
KP1087S	N	20	15	30	<5	<20	5	30	N	N	N	N	20	N	20	N	70
KP1088S	15	10	10	50	N	N	7	10	N	N	N	300	100	N	20	N	150
LK1089S	N	15	5	50	7	20	5	30	N	N	N	200	30	N	30	N	100
LK1090S	10	15	15	70	5	N	7	15	N	7	N	500	70	N	30	N	100
KP1091S	10	70	15	70	5	N	10	10	N	7	N	700	70	N	20	N	100
KP1092S	15	70	20	70	7	N	30	20	N	10	N	1,000	100	N	30	N	150
KP1093S	10	50	15	70	5	N	20	30	N	7	N	700	100	N	20	N	70
KP1094S	10	150	7	50	<5	N	15	20	N	7	N	500	70	N	20	N	70
KP1095S	10	70	<5	20	N	N	15	<10	N	10	N	100	70	N	10	N	70
KP1096S	15	700	5	N	N	N	20	10	N	20	N	500	100	N	20	N	50
KP1097S	15	300	10	30	5	N	15	15	N	10	N	700	70	N	30	N	70
KP1098S	15	200	10	30	N	N	20	15	N	10	N	700	70	N	20	N	70
KP1099S	15	300	10	20	N	N	15	20	N	15	N	1,000	70	N	20	N	70
KP1100S	15	70	10	50	10	N	15	50	N	10	N	150	70	N	30	N	70
LK1101S	15	70	15	20	N	N	20	10	N	10	N	200	70	N	15	N	70
AD1102S	10	70	<5	N	N	N	15	<10	N	7	N	300	50	N	15	N	70
KP1103S	15	30	5	30	10	N	15	50	N	7	N	1,000	70	N	30	N	50
KP1104S	7	30	50	30	10	N	10	20	N	N	N	200	50	N	15	N	50
DP1105S	10	10	10	70	7	N	7	15	N	5	N	1,000	50	N	20	N	70
DP1106S	15	70	15	20	10	N	15	20	N	7	N	1,000	150	N	20	N	70
DP1107S	15	20	15	N	N	N	15	10	N	7	N	1,000	100	N	15	N	50
DP1108S	15	300	15	100	N	N	20	10	N	10	N	700	100	N	20	N	70
DP1109S	15	100	20	50	<5	N	15	20	N	5	N	1,000	70	N	20	N	100
DP1110S	15	50	10	70	5	N	15	20	N	5	N	1,000	100	N	20	N	150
DP1111S	10	30	<5	70	N	N	10	15	N	5	N	200	70	N	15	N	100



Sample	LATITUDE	LONGITUDE	S-FEZ	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
DP1112S	31 56 40	112 38 3	5.0	1.0	2.0	.30	1,000	N	N	N	10	1,000	N	N	N
DP1113S	31 57 16	112 39 0	7.0	2.0	3.0	.50	1,000	N	N	N	20	700	N	N	N
DP1114S	31 59 6	112 38 53	3.0	1.0	1.0	.30	700	N	N	N	150	1,500	N	N	N
MA1115S	32 2 59	112 38 56	7.0	1.5	1.0	1.00	1,000	N	N	N	20	1,500	N	N	N
MA1116S	32 1 18	112 40 14	5.0	1.0	1.0	1.00	1,500	N	N	N	20	700	N	N	N
MA1117S	32 2 10	112 40 46	3.0	.7	1.0	.30	700	N	N	N	10	700	N	N	N
MA1118S	32 2 58	112 40 40	5.0	.7	1.0	.50	700	N	N	N	20	700	N	N	N
MA1119S	32 4 3	112 41 18	5.0	.5	1.0	.50	700	N	N	N	20	700	N	N	N
MA1120S	32 5 35	112 39 37	5.0	.7	2.0	.50	700	N	N	N	10	700	N	N	N
MA1121S	32 5 33	112 40 50	3.0	.7	3.0	.30	700	N	N	N	15	700	N	N	N
MA1122S	32 6 29	112 39 20	5.0	1.0	3.0	.50	700	N	N	N	N	700	N	N	N
MA1123S	32 11 30	112 43 3	5.0	1.0	1.5	.50	700	N	N	N	20	700	N	N	N
MA1124S	32 11 22	112 43 47	5.0	1.5	3.0	.70	700	N	N	N	30	700	N	N	N
MA1125S	32 3 59	112 43 0	5.0	.7	1.5	.70	700	N	N	N	10	700	N	N	N
MA1126S	32 0 12	112 43 53	3.0	.7	1.0	.30	700	N	N	N	20	700	N	N	N
MA1127S	32 0 49	112 43 49	3.0	.5	1.0	.30	700	N	N	N	20	700	N	N	N
MA1128S	32 2 21	112 43 5	3.0	.3	.7	.20	700	N	N	N	N	700	N	N	N
MA1129S	32 1 58	112 42 46	3.0	.3	.7	.30	700	N	N	N	N	700	N	N	N
LK1130S	31 57 50	112 45 14	5.0	.7	1.5	.30	700	N	N	N	10	700	N	N	N
LK1131S	31 56 37	112 48 29	5.0	2.0	2.0	.30	700	N	N	N	150	700	N	N	N
LK1132S	31 57 25	112 48 15	5.0	1.0	2.0	.30	700	N	N	N	50	700	N	N	N
LK1133S	31 59 0	112 49 9	2.0	.7	1.0	.15	500	N	N	N	70	500	N	N	N
KP1134S	32 2 3	112 54 20	5.0	3.0	2.0	.30	700	N	N	N	30	700	N	N	N
KP1135S	32 0 57	112 57 23	3.0	.7	.7	.30	700	N	N	N	20	700	N	N	N
QB1136S	31 59 11	113 1 8	3.0	1.0	1.5	.20	500	N	N	N	20	700	N	N	N
KP1137S	32 11 11	112 55 58	5.0	1.0	1.5	.20	500	N	N	N	20	500	N	N	N

## Spectrographic analysis of stream sediments--continued

Sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
DP1112S	15	50	7	50	N	N	15	10	N	7	N	200	70	N	20	N	100
DP1113S	15	150	15	20	N	N	30	15	N	7	N	300	70	N	20	N	100
DP1114S	5	20	<5	50	<5	N	10	30	N	N	N	300	50	N	30	N	100
MA1115S	15	70	15	50	<5	30	15	30	N	7	N	500	100	N	30	N	200
MA1116S	15	30	30	70	7	N	20	30	N	5	N	500	200	N	20	N	150
MA1117S	10	30	10	70	7	N	15	30	N	5	N	300	70	N	15	N	100
MA1118S	10	20	15	100	<5	N	10	20	N	5	N	500	70	N	20	N	150
MA1119S	15	20	20	70	N	N	15	20	N	N	N	300	70	N	20	N	150
MA1120S	15	30	20	70	<5	N	15	20	N	7	N	700	100	N	20	N	100
MA1121S	10	20	20	70	<5	N	5	20	N	N	N	1,000	70	N	15	N	100
MA1122S	15	30	15	70	<5	N	15	20	N	5	N	1,000	100	N	20	N	100
MA1123S	15	30	20	50	N	N	20	15	N	5	N	300	100	N	20	N	150
MA1124S	20	70	20	50	5	N	30	30	N	10	N	700	150	N	30	N	150
MA1125S	15	30	10	70	7	N	15	30	N	5	N	700	100	N	30	N	150
MA1126S	10	30	15	50	7	N	15	30	N	5	N	300	70	N	15	N	150
MA1127S	15	30	7	50	5	N	20	20	N	5	N	200	70	N	20	N	100
MA1128S	7	20	<5	30	N	N	10	10	N	5	N	200	70	N	15	N	100
MA1129S	10	20	5	30	N	N	15	20	N	5	N	150	70	N	15	N	150
LK1130S	15	30	15	70	<5	N	15	30	N	7	N	700	70	N	20	N	150
LK1131S	20	150	20	50	5	N	100	30	N	10	N	700	70	N	30	N	150
LX1132S	15	30	15	50	7	N	10	20	N	7	N	700	100	N	15	N	100
LK1133S	5	15	5	20	7	N	5	20	N	5	N	200	70	N	10	N	30
KP1134S	15	50	20	30	<5	N	30	30	N	10	N	500	100	N	20	N	70
KP1135S	10	20	15	50	10	N	15	70	N	N	N	N	70	N	30	N	100
QB1136S	10	30	10	70	N	N	20	30	N	5	N	300	70	N	20	N	100
KP1137S	10	50	15	50	<5	N	20	20	N	5	N	500	100	N	20	N	100

## Spectrographic analysis of heavy mineral concentrates

Sample	LATITUDE	LONGITUDE	S-FEX	S-MG%	S-CAX	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
M10001HN	32 39 46	112 59 56	50.0	7.00	15.0	>2.00	3,000	N	N	N	700	300	N	N
CV0002HN	32 39 40	113 0 15	7.0	5.00	50.0	>2.00	2,000	N	N	N	700	700	N	N
CV0003HN	32 38 15	113 1 7	15.0	5.00	50.0	>2.00	3,000	N	N	N	150	700	N	N
CV0004HN	32 38 12	113 0 15	15.0	5.00	50.0	>2.00	3,000	N	N	N	700	>10,000	N	N
CV0005HN	32 38 14	113 1 43	7.0	7.00	50.0	>2.00	5,000	N	N	N	700	500	N	N
CV0006HN	32 38 23	113 2 23	7.0	5.00	50.0	>2.00	3,000	N	N	N	1,000	1,500	N	N
CV0007HN	32 38 34	113 3 26	15.0	7.00	15.0	>2.00	3,000	N	N	N	2,000	1,000	N	N
CV0008HN	32 40 4	113 4 14	15.0	5.00	7.0	>2.00	3,000	N	N	N	2,000	1,500	N	N
CV0009HN	32 37 28	113 4 4	5.0	5.00	50.0	>2.00	3,000	N	N	N	200	700	N	N
CV0010HN	32 37 59	113 4 46	7.0	5.00	50.0	>2.00	5,000	N	N	N	100	700	N	N
CV0011HN	32 38 25	113 5 52	5.0	3.00	50.0	>2.00	2,000	N	N	N	300	700	N	N
CV0012HN	32 38 40	113 6 20	7.0	7.00	50.0	>2.00	3,000	N	N	N	1,000	700	N	N
SE0013HN	32 45 19	113 13 32	15.0	7.00	15.0	>2.00	3,000	N	N	N	700	3,000	N	N
AM0014HN	32 44 30	113 21 57	15.0	5.00	10.0	>2.00	3,000	N	N	N	700	5,000	N	N
AM0015HN	32 40 57	113 22 29	10.0	5.00	15.0	>2.00	3,000	N	N	N	700	500	N	N
AM0016HN	32 41 1	113 21 26	10.0	5.00	10.0	>2.00	3,000	N	N	N	1,000	1,500	N	N
AM0017HN	32 40 31	113 20 37	7.0	7.00	10.0	>2.00	3,000	N	N	N	700	1,000	N	N
AM0018HN	32 38 10	113 19 55	7.0	10.00	30.0	>2.00	5,000	N	N	N	700	>10,000	N	N
AM0019HN	32 37 55	113 19 32	15.0	7.00	30.0	>2.00	7,000	N	N	N	700	>10,000	N	N
AM0020HN	32 36 49	113 18 48	15.0	7.00	15.0	>2.00	5,000	N	N	N	700	>10,000	N	N
AM0021HN	32 35 44	113 18 3	7.0	7.00	15.0	>2.00	5,000	N	N	N	700	3,000	N	N
AM0022HN	32 34 33	113 18 4	10.0	10.00	15.0	>2.00	3,000	N	N	N	1,000	10,000	N	N
AM0023HN	32 34 42	113 15 45	10.0	7.00	15.0	>2.00	3,000	N	N	N	1,500	300	N	N
AM0024HN	32 34 44	113 16 48	7.0	3.00	7.0	>2.00	3,000	N	N	N	300	150	N	N
AM0025HN	32 32 6	113 17 39	7.0	3.00	5.0	>2.00	3,000	N	N	N	200	700	N	N
AM0026HN	32 33 22	113 18 52	10.0	5.00	10.0	>2.00	3,000	N	N	N	150	300	N	N
AM0027HN	32 32 30	113 20 42	2.0	1.50	7.0	>2.00	1,500	N	N	N	150	>10,000	N	N
AM0028HN	32 33 23	113 20 42	3.0	1.50	10.0	>2.00	3,000	N	N	N	150	1,500	N	N
AM0029HN	32 34 54	113 19 9	20.0	7.00	7.0	2.00	10,000	N	N	N	70	10,000	N	N
AM0030HN	32 34 57	113 20 18	3.0	3.00	7.0	>2.00	1,500	N	N	N	300	>10,000	N	N
AM0031HN	32 34 24	113 22 8	7.0	2.00	10.0	>2.00	2,000	N	N	N	N	3,000	N	N
AM0033HN	32 35 58	113 20 19	7.0	3.00	5.0	>2.00	3,000	N	N	N	150	>10,000	N	N
AM0034HN	32 37 48	113 20 47	3.0	1.50	10.0	>2.00	1,500	N	N	N	200	>10,000	N	N
AM0035HN	32 38 37	113 21 21	7.0	7.00	10.0	>2.00	5,000	N	N	N	150	>10,000	N	N
AM0036HN	32 38 49	113 22 21	7.0	3.00	10.0	>2.00	3,000	N	N	N	200	10,000	N	N
AM0037HN	32 39 6	113 23 15	7.0	5.00	10.0	>2.00	1,500	N	N	N	200	1,000	N	N
AM0038HN	32 42 47	113 20 15	7.0	3.00	7.0	>2.00	1,500	N	N	N	300	1,500	N	N
AM0039HN	32 42 46	113 18 50	7.0	7.00	7.0	>2.00	2,000	N	N	N	200	70	N	N
MM0040HN	32 31 58	113 31 59	7.0	2.00	7.0	2.00	1,500	N	N	N	N	700	N	N
MM0041HN	32 31 7	113 33 24	10.0	3.00	10.0	>2.00	3,000	N	N	N	50	300	N	N
MM0042HN	32 30 28	113 32 48	7.0	1.50	15.0	>2.00	2,000	N	N	N	150	200	N	N
IP0043HN	32 29 39	113 32 53	2.0	1.00	15.0	>2.00	2,000	N	N	N	150	70	N	N
IP0044HN	32 28 48	113 32 14	3.0	.70	15.0	>2.00	2,000	N	N	N	100	300	N	N
IP0045HN	32 28 33	113 30 41	2.0	1.00	15.0	>2.00	2,000	N	N	N	100	70	N	N
GM0046HN	32 27 27	113 28 37	2.0	1.50	15.0	>2.00	2,000	N	N	N	300	300	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
MIO001HN	N	50	1,500	300	1,500	10	150	70	20	N	30	>2,000	700	300
CV0002HN	N	10	1,500	50	2,000	15	70	30	150	N	30	20	5,000	200
CV0003HN	N	20	1,500	70	2,000	10	70	30	20	N	20	500	2,000	200
CV0004HN	N	30	1,500	70	2,000	10	50	30	50	N	15	150	5,000	300
CV0005HN	N	20	1,500	70	5,000	10	N	30	20	N	30	500	10,000	150
CV0006HN	N	20	1,500	30	3,000	10	50	50	20	N	30	30	1,500	200
CV0007HN	N	20	1,500	200	3,000	15	150	70	100	N	30	150	1,000	300
CV0008HN	N	20	1,500	50	5,000	15	150	70	70	N	50	70	500	300
CV0009HN	N	10	1,500	150	5,000	15	N	30	20	N	30	70	10,000	100
CV0010HN	N	15	1,000	1,500	5,000	15	<50	50	70	N	15	1,500	7,000	150
CV0011HN	N	10	1,000	50	5,000	15	<50	30	70	N	15	30	>10,000	150
CV0012HN	N	10	1,500	50	5,000	20	70	50	20	N	50	30	3,000	300
SE0013HN	N	20	2,000	50	5,000	10	70	50	150	N	50	70	700	300
AM0014HN	N	30	2,000	20	5,000	15	100	70	150	N	50	70	700	300
AM0015HN	N	20	1,500	20	5,000	15	150	100	100	N	50	50	300	300
AM0016HN	N	20	1,500	15	5,000	10	100	70	150	N	50	70	700	300
AM0017HN	N	20	2,000	15	1,500	10	150	70	100	N	50	70	700	300
AM0018HN	N	30	2,000	50	3,000	10	50	70	100	N	50	20	7,000	300
AM0019HN	N	20	1,000	30	2,000	10	50	30	150	N	50	20	1,500	150
AM0020HN	N	50	2,000	70	2,000	10	50	70	150	N	50	20	7,000	300
AM0021HN	N	20	2,000	15	1,000	10	100	70	30	N	50	70	500	200
AM0022HN	N	30	2,000	20	2,000	10	200	70	100	N	70	70	700	300
AM0023HN	N	20	1,500	20	5,000	10	150	70	70	N	70	70	300	300
AM0024HN	N	30	1,500	20	700	<10	N	150	50	N	200	30	N	150
AM0025HN	N	30	1,500	15	700	<10	N	150	70	N	200	20	N	150
AM0026HN	N	30	1,500	15	500	<10	<50	100	50	N	100	30	N	150
AM0027HN	N	<10	300	10	700	N	70	20	50	N	70	30	1,000	150
AM0028HN	N	<10	300	10	500	<10	300	20	50	N	70	70	500	150
AM0029HN	N	50	1,500	70	700	<10	N	100	1,500	N	70	N	500	500
AM0030HN	N	<10	1,000	100	700	N	<50	30	50	N	50	30	7,000	150
AM0031HN	N	10	700	15	700	<10	N	30	70	N	50	<20	1,500	150
AM0033HN	N	20	1,500	15	300	<10	N	70	70	N	50	<20	1,000	150
AM0034HN	N	10	1,000	30	1,000	<10	N	30	70	N	50	20	700	100
AM0035HN	N	20	1,500	15	500	<10	<50	50	70	N	70	30	10,000	150
AM0036HN	N	15	1,500	15	700	N	N	50	70	N	50	30	700	150
AM0037HN	N	20	1,500	20	700	70	<50	70	2,000	N	100	30	500	200
AM0038HN	N	20	1,500	20	1,000	30	70	70	700	N	150	30	500	150
AM0039HN	N	20	1,500	10	1,000	<10	N	70	200	N	150	70	N	150
MM0040HN	N	10	150	15	500	15	N	20	150	N	50	N	700	150
MM0041HN	N	15	700	15	500	20	70	50	300	N	50	20	700	200
MM0042HN	N	10	500	15	700	<10	50	30	150	N	50	20	500	200
IP0043HN	N	<10	300	30	700	<10	N	20	200	N	50	20	N	150
IP0044HN	N	<10	300	20	700	15	70	20	70	N	50	20	300	200
IP0045HN	N	<10	300	15	700	<10	70	<10	100	N	100	30	200	200
GM0046HN	N	<10	500	30	700	<10	200	<10	150	N	100	50	300	150

## Spectrographic analysis of heavy mineral concentrates

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Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
MI0001HN	N	>500	N	>2,000	N
CV0002HN	N	>500	N	>2,000	N
CV0003HN	N	>500	N	>2,000	N
CV0004HN	N	>500	N	>2,000	N
CV0005HN	N	>500	N	>2,000	N
CV0006HN	N	>500	N	>2,000	N
CV0007HN	N	>500	N	>2,000	N
CV0008HN	N	>500	N	>2,000	N
CV0009HN	N	>500	N	>2,000	N
CV0010HN	N	>500	N	>2,000	N
CV0011HN	N	>500	N	>2,000	N
CV0012HN	N	>500	N	>2,000	N
SE0013HN	N	>500	N	>2,000	N
AM0014HN	N	>500	N	>2,000	N
AM0015HN	N	>500	N	>2,000	N
AM0016HN	N	>500	N	>2,000	N
AM0017HN	N	>500	N	>2,000	N
AM0018HN	N	>500	N	>2,000	N
AM0019HN	N	>500	N	>2,000	N
AM0020HN	N	>500	N	>2,000	N
AM0021HN	N	>500	N	>2,000	N
AM0022HN	N	>500	N	>2,000	N
AM0023HN	N	>500	N	>2,000	N
AM0024HN	N	>500	N	>2,000	N
AM0025HN	N	>500	N	>2,000	N
AM0026HN	N	>500	N	>2,000	N
AM0027HN	N	>500	N	>2,000	N
AM0028HN	N	>500	N	>2,000	N
AM0029HN	N	100	N	1,000	N
AM0030HN	N	>500	N	>2,000	N
AM0031HN	N	500	N	>2,000	N
AM0033HN	N	300	N	>2,000	N
AM0034HN	N	500	N	>2,000	N
AM0035HN	N	500	N	>2,000	N
AM0036HN	N	>500	N	>2,000	N
AM0037HN	N	>500	N	>2,000	N
AM0038HN	N	>500	N	>2,000	N
AM0039HN	N	500	N	>2,000	N
MM0040HN	N	150	N	1,500	N
MM0041HN	N	300	N	>2,000	N
MM0042HN	N	>500	N	>2,000	N
IP0043HN	N	500	N	>2,000	N
IP0044HN	500	>500	N	>2,000	N
IP0045HN	N	>500	N	>2,000	N
GM0046HN	N	>500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
GM0047HN	32 27 13	113 29 13	2.0	2.00	15.0	>2.00	2,000	N	N	N	150	70	N	N
AN0048HN	32 50 20	112 7 32	5.0	1.00	3.0	>2.00	5,000	N	N	N	50	150	7	500
AN0049HN	32 51 20	112 6 29	7.0	1.50	15.0	>2.00	7,000	N	N	N	100	700	7	N
AN0050HN	32 52 10	112 4 23	7.0	1.50	10.0	>2.00	3,000	N	N	N	100	300	N	300
AN0051HN	32 52 55	112 4 11	7.0	1.50	2.0	>2.00	3,000	N	N	N	150	300	7	30
AN0052HN	32 52 32	112 5 44	5.0	1.00	3.0	>2.00	3,000	N	N	N	150	150	N	30
AN0053HN	32 55 50	112 6 52	7.0	1.50	7.0	>2.00	3,000	N	N	N	200	500	N	N
AN0054HN	32 59 22	112 8 10	3.0	1.50	15.0	>2.00	3,000	N	N	N	150	150	N	N
AN0055HN	32 59 35	112 9 0	7.0	2.00	10.0	>2.00	3,000	N	N	N	100	300	N	N
AN0056HN	32 57 42	112 9 10	10.0	1.50	10.0	>2.00	3,000	N	N	N	200	700	N	N
AN0057HN	32 58 25	112 10 12	10.0	1.50	10.0	>2.00	5,000	N	N	N	1,500	1,000	N	N
AN0058HN	32 58 41	112 11 43	10.0	1.50	7.0	>2.00	7,000	N	N	N	200	700	N	N
AN0059HN	32 58 33	112 12 15	7.0	1.00	3.0	>2.00	3,000	N	N	N	1,000	700	N	N
AN0060HN	32 51 14	112 8 54	7.0	1.50	3.0	>2.00	5,000	N	N	N	150	300	5	N
AN0061HN	32 51 55	112 9 10	5.0	1.00	3.0	>2.00	7,000	N	N	N	70	200	7	N
AN0062HN	32 52 55	112 9 36	7.0	1.00	5.0	>2.00	5,000	N	N	N	200	>10,000	N	N
AN0063HN	32 53 56	112 9 34	7.0	1.00	10.0	>2.00	5,000	N	N	N	100	700	N	N
AN0064HN	32 54 45	112 9 52	5.0	.30	15.0	>2.00	700	N	N	N	N	2,000	N	N
AN0065HN	32 56 31	112 11 24	7.0	1.00	7.0	>2.00	1,000	N	N	N	2,000	1,500	N	N
AN0066HN	32 56 17	112 11 39	7.0	1.50	10.0	>2.00	1,500	N	N	N	70	3,000	N	N
AN0067HN	32 57 22	112 9 57	7.0	1.00	5.0	>2.00	1,500	N	N	N	700	1,500	N	N
AN0068HN	32 50 30	112 8 42	5.0	.50	7.0	>2.00	3,000	N	N	N	70	300	15	700
AN0069HN	32 52 34	112 11 23	7.0	1.50	5.0	>2.00	1,500	N	N	N	150	3,000	N	N
AN0070HN	32 51 48	112 10 26	3.0	.30	7.0	>2.00	2,000	N	N	N	N	150	7	100
TH0071HN	32 48 56	112 57 5	30.0	15.00	20.0	>2.00	5,000	N	N	N	2,000	300	N	N
TH0072HN	32 47 31	112 56 19	20.0	15.00	20.0	>2.00	5,000	N	N	N	700	150	N	N
TH0073HN	32 47 3	112 54 38	20.0	10.00	20.0	>2.00	5,000	N	N	N	2,000	300	N	N
SE0074HN	32 47 15	113 0 53	20.0	15.00	20.0	>2.00	5,000	N	N	N	2,000	3,000	N	N
SE0075HN	32 47 45	113 1 16	10.0	10.00	15.0	>2.00	5,000	N	N	N	1,500	5,000	N	N
SE0076HN	32 47 31	113 6 32	10.0	10.00	15.0	>2.00	5,000	N	N	N	1,500	300	N	N
SE0077HN	32 46 34	113 8 12	15.0	10.00	15.0	>2.00	5,000	N	N	N	2,000	1,000	N	N
MI0078HN	32 36 59	112 55 54	10.0	10.00	20.0	>2.00	3,000	N	N	N	5,000	2,000	N	N
MI0079HN	32 35 50	112 55 32	10.0	10.00	20.0	>2.00	5,000	N	N	N	1,500	300	N	N
MI0080HN	32 34 32	112 53 51	10.0	10.00	30.0	>2.00	5,000	N	N	N	2,000	200	N	N
MI0081HN	32 34 2	112 55 0	10.0	7.00	50.0	>2.00	5,000	N	N	N	1,500	300	N	N
MI0082HN	32 34 11	112 56 42	30.0	7.00	30.0	>2.00	5,000	N	N	N	1,500	1,500	N	N
MI0083HN	32 34 47	112 57 14	15.0	7.00	30.0	>2.00	5,000	N	N	N	1,000	500	N	N
MI0084HN	32 35 10	112 59 22	30.0	10.00	30.0	>2.00	5,000	N	N	N	1,000	300	N	N
MI0085HN	32 36 18	112 58 31	10.0	7.00	30.0	>2.00	3,000	N	N	N	2,000	200	N	N
CV0086HN	32 30 53	113 0 33	20.0	10.00	20.0	>2.00	5,000	N	N	N	2,000	500	N	N
GP0087HN	32 29 33	113 0 19	5.0	7.00	15.0	>2.00	2,000	N	N	N	1,000	3,000	N	N
AJ0088HN	32 29 35	112 59 24	7.0	7.00	20.0	>2.00	5,000	N	N	N	1,500	300	N	N
AJ0089HN	32 28 34	112 58 5	7.0	10.00	15.0	>2.00	5,000	N	N	N	1,000	200	N	N
AJ0090HN	32 28 18	112 57 12	7.0	7.00	15.0	>2.00	5,000	N	N	N	2,000	500	N	N
AJ0091HN	32 27 42	112 56 17	3.0	10.00	10.0	>2.00	3,000	N	N	N	1,000	300	N	N

Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
GM0047HN	N	10	1,000	15	700	<10	200	10	70	N	100	50	200	200
AN0048HN	N	30	50	10	>2,000	N	200	20	1,000	N	20	N	N	200
AN0049HN	N	15	150	70	1,000	<10	N	20	700	N	100	30	200	200
AN0050HN	N	15	70	30	>2,000	<10	100	20	300	N	100	30	200	150
AN0051HN	N	15	150	30	>2,000	<10	50	20	700	N	100	<20	200	150
AN0052HN	N	15	150	30	>2,000	<10	N	20	1,000	N	100	20	N	150
AN0053HN	N	10	150	50	1,000	<10	100	30	200	N	70	50	300	300
AN0054HN	N	10	150	30	1,000	N	N	20	300	N	100	N	300	150
AN0055HN	N	10	150	30	500	<10	N	20	200	N	50	N	300	150
AN0056HN	N	10	150	30	500	<10	150	30	300	N	50	N	700	200
AN0057HN	N	15	150	30	300	<10	N	50	100	N	30	N	500	200
AN0058HN	N	15	150	30	500	<10	N	50	100	N	50	200	700	150
AN0059HN	N	10	150	30	1,500	<10	50	30	70	N	50	N	200	150
AN0060HN	N	20	100	30	>2,000	N	70	30	500	N	50	30	N	150
AN0061HN	N	30	50	20	>2,000	N	N	<10	1,500	N	100	50	N	300
AN0062HN	N	15	100	20	>2,000	<10	100	15	500	N	30	200	500	150
AN0063HN	N	10	70	20	1,000	<10	70	20	70	N	20	30	700	300
AN0064HN	N	10	70	20	700	N	100	10	100	N	20	70	700	300
AN0065HN	N	15	200	30	1,000	70	N	30	70	N	20	N	1,000	200
AN0066HN	N	20	100	30	300	10	N	50	70	N	20	N	1,500	200
AN0067HN	N	10	200	20	>2,000	N	50	20	300	N	50	N	700	200
AN0068HN	N	30	70	20	>2,000	N	150	20	1,500	N	100	50	N	150
AN0069HN	N	15	150	15	700	N	N	50	100	N	30	N	300	150
AN0070HN	N	15	30	20	>2,000	N	70	10	700	N	200	N	N	200
TH0071HN	N	30	7,000	50	>2,000	<10	100	2,000	70	N	>200	20	500	500
TH0072HN	N	30	7,000	20	>2,000	<10	70	1,500	70	N	>200	20	N	500
TH0073HN	N	20	5,000	70	>2,000	<10	150	2,000	50	N	>200	70	500	300
SE0074HN	N	20	5,000	50	1,500	30	200	2,000	200	N	>200	70	700	300
SE0075HN	N	15	5,000	70	>2,000	<10	200	2,000	50	N	>200	50	200	300
SE0076HN	N	15	3,000	50	>2,000	<10	150	1,500	20	N	>200	50	N	300
SE0077HN	N	20	>2,000	20	>2,000	<10	150	2,000	50	N	>200	50	500	300
MI0078HN	N	20	1,000	50	>2,000	<10	150	1,000	20	N	>200	300	700	200
MI0079HN	N	15	1,000	70	>2,000	<10	100	1,000	30	N	>200	30	1,000	200
MI0080HN	N	15	700	150	>2,000	<10	150	1,500	<20	N	>200	20	700	200
MI0081HN	N	15	700	150	>2,000	10	150	1,500	20	N	200	20	1,000	200
MI0082HN	N	30	500	200	1,000	<10	100	1,500	20	N	>200	700	700	300
MI0083HN	N	20	700	150	1,500	<10	100	1,500	20	N	200	20	1,000	200
MI0084HN	N	30	700	150	1,500	<10	100	1,000	20	N	>200	300	700	300
MI0085HN	N	10	500	100	1,500	<10	100	1,500	20	N	>200	100	700	300
CV0086HN	N	30	700	150	>2,000	<10	150	1,500	20	N	>200	200	500	300
GP0087HN	N	<10	100	50	700	<10	70	500	<20	N	>200	<20	700	150
AJ0088HN	N	<10	700	50	1,500	<10	200	1,500	300	N	>200	50	500	300
AJ0089HN	N	10	1,000	20	1,500	<10	150	1,500	150	N	>200	<20	N	200
AJ0090HN	N	20	1,000	70	1,500	<10	150	2,000	50	N	>200	50	200	300
AJ0091HN	N	<10	500	30	700	10	100	700	<20	N	150	<20	N	150

Sample	S-W	S-Y	S-ZN	S-ZP	S-TH
GM0047HN	N	>500	N	>2,000	N
AN0048HN	N	>500	N	1,000	1,000
AN0049HN	N	>500	N	>2,000	N
AN0050HN	N	>500	N	>2,000	300
AN0051HN	N	>500	N	>2,000	700
AN0052HN	N	>500	N	>2,000	700
AN0053HN	N	>500	N	>2,000	N
AN0054HN	N	>500	N	>2,000	N
AN0055HN	N	>500	N	>2,000	N
AN0056HN	N	>500	N	>2,000	N
AN0057HN	N	>500	N	>2,000	N
AN0058HN	N	500	N	>2,000	N
AN0059HN	N	500	N	>2,000	700
AN0060HN	N	>500	N	>2,000	700
AN0061HN	<100	>500	N	>2,000	700
AN0062HN	N	>500	N	2,000	N
AN0063HN	N	>500	N	2,000	N
AN0064HN	N	500	N	>2,000	N
AN0065HN	N	500	N	>2,000	N
AN0066HN	N	200	N	>2,000	N
AN0067HN	N	300	N	>2,000	N
AN0068HN	N	>500	N	>2,000	2,000
AN0069HN	N	300	N	>2,000	N
AN0070HN	300	>500	N	>2,000	2,000
TH0071HN	N	>500	N	>2,000	N
TH0072HN	N	500	N	>2,000	N
TH0073HN	N	>500	N	>2,000	N
SE0074HN	N	>500	N	>2,000	N
SE0075HN	N	>500	N	>2,000	N
SE0076HN	N	>500	N	>2,000	N
SE0077HN	N	>500	N	>2,000	N
MI0078HN	N	>500	N	>2,000	N
MI0079HN	N	>500	N	>2,000	N
MI0080HN	N	>500	N	>2,000	N
MI0081HN	N	>500	N	>2,000	N
MI0082HN	N	>500	N	>2,000	N
MI0083HN	N	>500	N	>2,000	N
MI0084HN	N	>500	N	>2,000	N
MI0085HN	N	>500	N	>2,000	N
CV0086HN	N	>500	N	>2,000	N
GP0087HN	N	500	N	>2,000	N
AJ0088HN	N	>500	N	>2,000	N
AJ0089HN	N	>500	N	>2,000	N
AJ0090HN	N	>500	N	>2,000	N
AJ0091HN	N	500	N	>2,000	N



## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEZ	S-MGZ	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
AJ0092HN	32 29 14	112 55 14	10.0	15.00	20.0	>2.00	5,000	N	N	N	1,000	3,000	N	N
AJ0093HN	32 27 55	112 53 27	20.0	10.00	15.0	>2.00	5,000	N	N	N	1,500	10,000	N	N
AJ0094HN	32 29 3	112 50 54	10.0	5.00	7.0	>2.00	2,000	N	N	N	1,500	1,000	N	N
AJ0095HN	32 28 3	112 48 0	7.0	3.00	10.0	>2.00	1,000	N	N	N	700	500	N	N
AJ0096HN	32 28 45	112 48 46	10.0	7.00	10.0	>2.00	1,500	N	N	N	700	300	N	N
AJ0097HN	32 29 12	112 49 43	10.0	3.00	7.0	>2.00	1,500	N	N	N	500	1,000	N	N
AP0098HN	32 50 56	112 11 47	5.0	1.50	5.0	1.50	1,000	N	N	N	N	1,000	5	N
AP0099HN	32 46 17	112 10 42	15.0	1.50	3.0	2.00	1,500	N	N	N	700	7,000	N	N
AP0100HN	32 47 58	112 11 25	10.0	2.00	5.0	>2.00	3,000	N	N	N	700	1,500	10	N
AP0101HN	32 47 51	112 7 52	15.0	3.00	10.0	2.00	3,000	N	N	N	500	>10,000	N	N
AP0102HN	32 46 47	112 6 40	10.0	3.00	5.0	2.00	3,000	N	N	N	500	7,000	N	N
AP0103HN	32 46 57	112 4 47	20.0	3.00	2.0	>2.00	3,000	N	N	N	700	7,000	N	N
AP0104HN	32 45 47	112 4 43	7.0	1.50	7.0	>2.00	10,000	N	N	N	300	1,500	10	N
VM0105HN	32 43 29	112 7 4	7.0	2.00	15.0	>2.00	10,000	N	N	N	300	>10,000	15	20
VM0106HN	32 43 39	112 9 50	10.0	3.00	3.0	>2.00	7,000	N	N	N	1,000	7,000	N	N
VM0107VN	32 43 12	112 9 1	15.0	3.00	1.0	1.50	7,000	N	N	N	1,000	3,000	N	N
KA0108HN	32 41 29	112 18 26	15.0	20.00	15.0	>2.00	10,000	N	N	N	N	500	N	N
KA0109HN	32 42 0	112 22 20	15.0	7.00	5.0	>2.00	>10,000	N	N	N	150	7,000	N	N
KA0110HN	32 43 20	112 22 40	10.0	7.00	7.0	>2.00	10,000	N	N	N	1,500	5,000	N	N
KA0111HN	32 44 11	112 21 26	15.0	3.00	15.0	>2.00	3,000	N	N	N	500	>10,000	N	N
KA0112HN	32 44 47	112 23 8	10.0	2.00	10.0	>2.00	3,000	N	N	N	300	3,000	10	N
KA0113HN	32 44 38	112 24 44	15.0	3.00	7.0	>2.00	3,000	N	N	N	150	3,000	N	N
ES0114HN	32 46 27	112 28 5	10.0	1.50	15.0	>2.00	3,000	N	N	N	150	3,000	N	N
ES0115HN	32 46 48	112 26 53	10.0	2.00	10.0	>2.00	3,000	N	N	N	500	5,000	N	N
ES0116HN	32 46 50	112 25 47	15.0	2.00	7.0	>2.00	3,000	N	N	N	500	3,000	20	50
ES0117HN	32 46 58	112 24 39	7.0	2.00	7.0	>2.00	1,000	N	N	N	70	1,000	N	N
ES0118HN	32 46 51	112 22 52	7.0	2.00	7.0	>2.00	700	N	N	N	200	2,000	N	N
ES0119HN	32 46 17	112 22 20	7.0	2.00	10.0	>2.00	700	N	N	N	70	700	N	N
ES0120HN	32 45 39	112 20 22	10.0	3.00	7.0	>2.00	700	N	N	N	150	3,000	N	N
ES0121HN	32 47 53	112 23 43	10.0	2.00	3.0	1.50	700	N	N	N	200	2,000	N	N
ES0122HN	32 48 2	112 25 32	10.0	2.00	5.0	2.00	1,000	N	N	N	300	2,000	N	N
AZ0123HN	32 48 3	113 28 53	7.0	5.00	15.0	>2.00	1,000	N	N	N	200	7,000	N	500
MM0124HN	32 31 33	113 31 37	7.0	1.50	15.0	>2.00	1,500	N	N	N	100	200	N	N
MM0125HN	32 31 18	113 31 21	5.0	2.00	20.0	>2.00	700	N	N	N	100	300	N	N
GM0126HN	32 29 10	113 29 43	5.0	1.50	30.0	>2.00	700	N	N	N	150	700	N	N
MM0127HN	32 30 48	113 31 0	7.0	1.50	30.0	>2.00	700	N	N	N	100	700	N	N
GM0128HN	32 27 6	113 27 46	3.0	.70	30.0	>2.00	700	N	N	N	100	150	N	N
GM0129HN	32 26 0	113 27 30	5.0	.70	20.0	>2.00	700	N	N	N	100	100	N	N
GM0130HN	32 25 9	113 26 55	5.0	1.00	30.0	>2.00	700	N	N	N	200	100	N	N
GM0131HN	32 25 12	113 28 42	5.0	2.00	30.0	>2.00	1,000	N	N	N	N	200	N	N
GM0132HN	32 25 2	113 28 31	5.0	3.00	20.0	>2.00	1,000	N	N	N	30	300	N	N
GM0133HN	32 26 7	113 28 56	3.0	.50	30.0	>2.00	700	N	N	N	70	200	N	N
GM0134HN	32 25 55	113 29 40	5.0	.30	30.0	>2.00	700	N	N	N	70	100	N	N
GM0135HN	32 27 53	113 29 25	7.0	5.00	30.0	>2.00	1,000	N	N	N	70	70	N	N
IP0136HN	32 25 47	113 30 9	5.0	5.00	30.0	>2.00	700	N	N	N	50	300	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NR	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
AJ0092HN	N	30	1,500	100	1,500	<10	150	1,000	<20	N	>200	50	500	300
AJ0093HN	N	30	1,000	200	1,500	10	150	700	<20	N	>200	20	700	300
AJ0094HN	N	20	1,500	1,000	>2,000	<10	150	150	150	N	200	50	700	500
AJ0095HN	N	20	1,500	700	2,000	<10	150	150	150	N	200	70	700	500
AJ0096HN	N	30	1,500	500	2,000	10	150	150	100	N	200	70	700	300
AJ0097HN	N	30	1,500	1,000	2,000	10	100	100	100	N	200	50	700	300
AP0098HN	N	10	500	70	>2,000	<10	50	70	150	N	50	N	300	100
AP0099HN	N	20	300	30	700	30	<50	70	30	N	100	N	<200	300
AP0100HN	N	30	500	100	700	10	100	70	150	N	150	20	300	300
AP0101HN	N	30	700	50	1,000	15	100	70	100	N	100	20	700	200
AP0102HN	N	20	700	20	300	15	70	70	50	N	70	N	200	200
AP0103HN	N	30	700	20	300	10	50	50	70	N	70	N	N	300
AP0104HN	N	<10	150	30	2,000	<10	70	50	70	N	100	N	200	150
VM0105HN	N	10	300	30	2,000	<10	<50	50	150	N	200	N	1,000	150
VM0106HN	N	30	700	20	700	15	50	50	70	N	70	N	N	200
VM0107HM	N	30	700	10	100	20	<50	30	30	N	50	N	N	200
KA0108HN	N	50	7,000	70	100	10	N	70	<20	N	200	N	500	300
KA0109HN	N	30	1,500	50	500	20	200	70	150	N	150	100	700	200
KA0110HN	N	30	1,000	200	500	20	70	100	150	N	200	150	700	200
KA0111HN	N	20	700	30	500	20	70	70	150	N	100	70	10,000	200
KA0112HN	N	20	200	50	1,000	10	70	50	150	N	50	50	3,000	200
KA0113HN	N	30	300	50	700	15	50	30	150	N	70	N	1,500	200
ES0114HN	N	20	150	50	1,000	10	50	70	150	N	100	N	1,000	200
ES0115HN	N	30	700	50	1,000	10	50	70	150	N	150	N	1,500	300
ES0116HN	N	30	700	50	700	<10	N	50	150	N	70	N	1,500	300
ES0117HN	N	15	150	50	500	<10	N	30	70	N	50	N	700	300
ES0118HN	N	15	100	15	300	20	N	20	100	N	50	N	700	200
ES0119HN	N	15	70	30	500	<10	70	20	70	N	30	30	700	200
ES0120HN	N	20	300	30	300	<10	100	30	70	N	70	20	700	300
ES0121HN	N	20	500	15	300	<10	N	30	70	N	50	N	500	300
ES0122HN	N	20	300	20	300	N	N	30	100	N	50	N	500	300
AZ0123HN	N	20	1,500	20	1,000	<10	100	50	100	N	50	30	1,000	300
MM0124HN	N	10	150	15	2,000	<10	100	20	70	N	50	20	500	200
MM0125HN	N	10	300	15	2,000	N	70	20	100	N	70	20	700	300
GM0126HN	N	10	300	30	1,500	N	70	20	70	N	50	30	700	300
MM0127HN	N	<10	200	15	2,000	N	70	20	70	N	70	20	500	200
GM0128HN	N	<10	100	100	700	15	300	100	70	N	50	70	500	300
GM0129HN	N	<10	150	15	700	15	300	100	50	N	50	100	700	200
GM0130HN	N	<10	300	20	700	N	N	200	70	N	70	50	700	200
GM0131HN	N	15	500	15	700	<10	70	200	50	N	70	50	500	200
GM0132HN	N	20	700	15	700	<10	70	150	50	N	70	50	700	200
GM0133HN	N	<10	150	10	700	<10	70	150	50	N	50	50	700	150
GM0134HN	N	<10	100	300	1,000	<10	100	200	70	N	70	50	1,000	150
GM0135HN	N	10	1,000	20	1,000	15	150	150	70	N	70	100	700	300
IP0136HN	N	10	1,000	15	700	10	100	70	70	N	70	70	700	200

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
AJ0092HN	N	>500	N	>2,000	N
AJ0093HN	N	>500	N	>2,000	N
AJ0094HN	N	>500	N	>2,000	N
AJ0095HN	N	>500	N	>2,000	N
AJ0096HN	N	>500	N	>2,000	N
AJ0097HN	N	>500	N	>2,000	N
AP0098HN	N	>500	N	>2,000	N
AP0099HN	3,000	300	N	>2,000	N
AP0100HN	N	>500	N	>2,000	N
AP0101HN	N	>500	N	>2,000	N
AP0102HN	N	300	N	>2,000	N
AP0103HN	N	200	N	>2,000	N
AP0104HN	N	>500	N	>2,000	N
VM0105HN	100	>500	N	>2,000	N
VM0106HN	1,500	300	N	>2,000	N
VM0107VM	N	100	N	1,500	N
KA0108HN	N	150	N	>2,000	N
KA0109HN	N	>500	N	>2,000	N
KA0110HN	N	>500	N	>2,000	N
KA0111HN	N	>500	N	>2,000	N
KA0112HN	N	>500	N	>2,000	N
KA0113HN	N	>500	N	1,500	N
ES0114HN	N	>500	N	>2,000	N
ES0115HN	N	>500	N	>2,000	N
ES0116HN	N	500	N	2,000	N
ES0117HN	150	500	N	>2,000	N
ES0118HN	700	500	N	>2,000	N
ES0119HN	N	>500	N	>2,000	N
ES0120HN	N	300	N	>2,000	N
ES0121HN	N	150	N	1,000	N
ES0122HN	N	150	N	2,000	N
AZ0123HN	N	500	N	>2,000	N
MM0124HN	N	>500	N	>2,000	N
MM0125HN	N	>500	N	>2,000	N
GM0126HN	N	>500	N	>2,000	N
MM0127HN	N	>500	N	>2,000	N
GM0128HN	N	>500	N	>2,000	N
GM0129HN	N	>500	N	>2,000	N
GM0130HN	N	>500	N	>2,000	N
GM0131HN	N	>500	N	>2,000	N
GM0132HN	N	>500	N	>2,000	N
GM0133HN	N	>500	N	>2,000	N
GM0134HN	N	>500	N	>2,000	N
GM0135HN	N	>500	N	>2,000	N
IP0136HN	N	>500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
IP0137HN	32 24 49	113 30 17	7.0	.70	30.0	>2.00	1,000	N	N	N	70	200	N	N
IP0138HN	32 24 48	113 31 1	5.0	2.00	30.0	>2.00	1,000	N	N	N	200	2,000	N	N
IP0139HN	32 29 46	113 30 45	3.0	1.50	30.0	>2.00	1,000	N	N	N	70	150	N	N
MM0140HN	32 32 35	113 35 40	7.0	2.00	15.0	>2.00	1,500	N	N	N	1,000	3,000	N	N
MM0141HN	32 33 7	113 37 6	15.0	2.00	15.0	>2.00	1,500	N	N	N	700	>10,000	N	N
MM0142HN	32 33 22	113 34 31	10.0	1.50	30.0	>2.00	3,000	N	N	N	200	3,000	N	<20
MM0143HN	32 33 56	113 35 21	7.0	1.50	30.0	>2.00	1,500	N	N	N	700	700	N	50
MM0144HN	32 34 0	113 36 1	7.0	1.50	20.0	>2.00	1,000	N	N	N	2,000	1,500	N	N
MM0145HN	32 34 39	113 36 14	15.0	15.00	30.0	>2.00	3,000	N	N	N	1,000	1,000	N	N
MM0146HN	32 35 3	113 37 15	10.0	3.00	15.0	>2.00	1,500	N	N	N	1,000	700	N	N
MM0147HN	32 44 32	113 44 44	7.0	1.50	30.0	>2.00	1,500	N	N	N	700	1,500	N	N
RO0148HN	32 45 15	113 45 6	10.0	1.50	30.0	>2.00	1,000	N	N	N	700	>10,000	N	N
MM0149HN	32 45 57	113 45 45	7.0	1.50	15.0	>2.00	1,500	N	N	N	200	>10,000	N	<20
MM0150HN	32 45 59	113 47 14	5.0	.70	10.0	>2.00	1,000	N	N	N	200	>10,000	N	<20
MM0151HN	32 45 7	113 46 40	7.0	3.00	30.0	>2.00	1,000	N	N	N	150	3,000	N	N
MM0152HN	32 44 18	113 45 54	7.0	1.00	20.0	>2.00	1,500	N	N	N	150	>10,000	N	N
MM0153HN	32 42 52	113 43 51	7.0	1.50	15.0	>2.00	1,500	N	N	N	700	3,000	N	N
MM0154HN	32 41 54	113 42 51	7.0	1.00	15.0	>2.00	1,000	N	N	N	700	>10,000	N	N
MM0155HN	32 40 34	113 41 28	10.0	1.50	30.0	>2.00	1,500	N	N	N	1,500	>10,000	N	N
MM0156HN	32 39 13	113 39 39	10.0	1.00	20.0	>2.00	1,500	N	N	N	150	2,000	N	N
MM0157HN	32 39 11	113 40 19	7.0	1.50	50.0	>2.00	1,500	N	N	N	300	>10,000	N	N
MM0158HN	32 37 49	113 39 46	7.0	1.00	30.0	>2.00	1,500	N	N	N	200	10,000	N	N
MM0159HN	32 37 46	113 38 36	10.0	3.00	30.0	>2.00	1,500	N	N	N	2,000	7,000	N	70
MM0160HN	32 37 19	113 39 26	7.0	1.50	50.0	>2.00	1,500	N	N	N	500	3,000	N	N
MM0161HN	32 36 5	113 38 26	7.0	2.00	50.0	>2.00	1,500	N	N	N	300	5,000	N	N
MM0162HN	32 36 20	113 36 56	7.0	2.00	20.0	>2.00	1,500	N	N	N	700	2,000	N	N
MM0163HN	32 35 42	113 36 49	5.0	2.00	10.0	>2.00	1,000	N	N	N	500	1,500	N	100
MM0164HN	32 35 10	113 35 46	10.0	3.00	10.0	>2.00	1,500	N	N	N	700	700	N	N
MM0165HN	32 33 47	113 38 9	7.0	2.00	7.0	>2.00	1,500	N	N	N	700	1,500	N	N
MM0166HN	32 34 39	113 39 9	7.0	1.50	10.0	>2.00	1,000	N	N	N	100	5,000	N	N
MM0167HN	32 35 47	113 40 3	7.0	1.00	10.0	>2.00	1,500	N	N	N	70	3,000	N	N
MM0168HN	32 36 30	113 40 30	7.0	3.00	15.0	>2.00	1,500	N	N	N	100	1,000	N	N
MM0169HN	32 38 20	113 41 43	5.0	2.00	15.0	>2.00	1,500	N	N	N	100	500	N	N
MM0170HN	32 39 38	113 42 34	5.0	3.00	15.0	>2.00	1,500	N	N	N	150	3,000	N	N
MM0171HN	32 40 36	113 43 17	7.0	1.50	15.0	>2.00	1,500	N	N	N	50	3,000	N	N
MM0172HN	32 41 35	113 44 50	7.0	1.00	10.0	>2.00	1,500	N	N	N	70	3,000	N	N
MM0173HN	32 42 25	113 44 36	5.0	1.50	15.0	>2.00	1,500	N	N	N	70	7,000	N	N
MI0174HN	32 44 49	112 47 46	7.0	7.00	7.0	>2.00	2,000	N	N	N	200	1,500	N	N
TH0175HN	32 45 35	112 46 29	2.0	1.50	3.0	1.50	1,000	N	N	N	70	10,000	N	N
MI0176HN	32 44 55	112 45 26	7.0	7.00	7.0	>2.00	1,500	N	N	N	200	5,000	N	N
HW0177HN	32 42 41	112 43 33	10.0	15.00	10.0	>2.00	10,000	N	N	N	100	300	N	N
HW0178HN	32 41 7	112 43 41	10.0	7.00	7.0	>2.00	7,000	N	N	N	150	1,500	N	N
HW0179HN	32 41 45	112 44 29	15.0	7.00	5.0	>2.00	7,000	N	N	N	150	1,000	N	N
HW0180HN	32 42 57	112 44 54	7.0	7.00	10.0	>2.00	3,000	N	N	N	500	700	N	N
MI0181HN	32 43 54	112 46 35	10.0	15.00	10.0	>2.00	3,000	N	N	N	150	300	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-Cl	S-Cr	S-Cu	S-LA	S-Mo	S-NB	S-Ni	S-PB	S-SB	S-SC	S-Sn	S-Sr	S-V
IP0137HN	N	150	20	1,000	15	100	100	70	N	70	70	700	300
IP0138HN	N	500	15	1,000	15	300	150	100	N	100	70	700	200
IP0139HN	N	200	20	1,000	15	150	150	200	N	100	50	700	300
MM0140HN	N	700	20	>2,000	15	150	100	150	N	>200	50	1,500	500
MM0141HN	N	700	50	>2,000	<10	100	100	100	N	>200	20	2,000	300
MM0142HN	N	200	50	>2,000	15	150	70	150	N	150	300	2,000	300
MM0143HN	N	1,000	50	>2,000	10	200	70	200	N	>200	100	700	300
MM0144HN	N	700	300	>2,000	50	100	100	3,000	N	200	70	500	300
MM0145HN	N	3,000	70	700	20	N	1,000	150	N	150	N	1,500	300
MM0146HN	N	700	70	>2,000	700	50	200	2,000	N	150	20	700	300
MM0147HN	N	300	100	>2,000	30	150	70	70	N	70	50	700	500
RO0148HN	N	700	15,000	>2,000	20	200	70	200	N	70	50	1,000	500
MO0149HN	N	500	70	>2,000	10	100	200	70	N	>200	N	700	300
MO0150HN	N	300	500	2,000	10	150	50	100	N	200	20	10,000	300
MO0151HN	N	700	15	>2,000	30	150	100	50	N	200	50	700	500
MO0152HN	N	300	70	>2,000	30	150	50	70	N	20	50	3,000	500
MM0153HN	N	700	30	2,000	<10	150	70	100	N	>200	50	1,500	300
MM0154HN	N	300	20	>2,000	10	300	100	70	N	>200	50	7,000	300
MM0155HN	N	700	700	700	<10	150	70	700	N	200	50	10,000	200
MM0156HN	N	300	30	500	10	150	70	100	N	50	50	7,000	300
MM0157HN	N	500	150	2,000	<10	200	70	200	N	70	50	1,500	300
MM0158HN	N	300	70	1,500	<10	300	100	100	N	150	20	1,500	200
MM0159HN	N	1,000	70	>2,000	10	100	100	100	N	100	100	7,000	200
MM0160HN	N	500	70	>2,000	10	70	100	150	N	200	50	2,000	300
MM0161HN	N	500	70	2,000	<10	150	100	150	N	200	30	7,000	300
MM0162HN	N	700	15	>2,000	20	70	150	500	N	>200	50	1,500	300
MM0163HN	N	300	30	2,000	50	150	50	1,500	N	150	70	<200	300
MM0164HN	N	700	30	2,000	10	100	50	150	N	100	20	700	300
MM0165HN	N	300	20	700	<10	100	50	50	N	15	N	700	300
MM0166HN	N	150	15	700	<10	100	20	50	N	30	<20	1,000	300
MM0167HN	N	150	20	700	10	100	20	70	N	70	20	1,500	300
MM0168HN	N	300	30	500	15	100	20	70	N	50	50	1,500	500
MM0169HN	N	300	10	700	15	100	15	70	N	50	30	700	300
MM0170HN	N	700	30	700	15	100	15	70	N	50	30	700	300
MM0171HN	N	300	15	150	20	100	15	20	N	20	30	700	300
MM0172HN	N	150	15	300	15	200	10	50	N	20	20	700	300
MM0173HN	N	300	20	300	10	100	15	50	N	20	20	1,500	300
MI0174HN	N	1,500	70	700	<10	100	30	100	N	30	50	7,000	200
TH0175HN	N	150	100	200	<10	100	<10	<20	N	15	N	>10,000	100
MI0176HN	N	1,500	70	500	<10	100	30	70	N	30	30	>10,000	300
HM0177HN	N	2,000	30	500	<10	100	70	70	N	50	300	700	300
HM0178HN	N	1,000	50	500	<10	100	50	70	N	70	>2,000	1,500	200
HM0179HN	N	1,500	50	700	<10	200	50	70	N	100	100	2,000	300
HM0180HN	N	1,500	70	700	<10	100	70	70	N	100	70	7,000	300
MI0181HN	N	2,000	30	500	<10	<50	70	30	N	70	200	1,500	300

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
IP0137HN	N	>500	N	>2,000	N
IP0138HN	N	>500	N	>2,000	N
IP0139HN	N	>500	N	>2,000	N
MM0140HN	N	>500	N	>2,000	N
MM0141HN	300	>500	N	>2,000	N
MM0142HN	700	>500	N	>2,000	N
MM0143HN	700	>500	N	>2,000	700
MM0144HN	700	>500	N	>2,000	500
MM0145HN	500	>500	N	>2,000	N
MM0146HN	2,000	>500	N	>2,000	N
MM0147HN	N	>500	N	>2,000	N
RO0148HN	300	>500	N	>2,000	N
MM0149HN	N	>500	N	>2,000	700
MM0150HN	N	>500	N	>2,000	700
MM0151HN	300	>500	N	>2,000	700
MM0152HN	N	>500	N	>2,000	700
MM0153HN	N	>500	N	>2,000	N
MM0154HN	N	>500	N	>2,000	N
MM0155HN	N	>500	N	>2,000	N
MM0156HN	N	>500	N	>2,000	N
MM0157HN	N	>500	N	>2,000	N
MM0158HN	N	>500	N	>2,000	N
MM0159HN	200	>500	N	>2,000	N
MM0160HN	N	>500	N	>2,000	N
MM0161HN	N	>500	N	>2,000	N
MM0162HN	1,500	>500	N	>2,000	1,000
MM0163HN	3,000	>500	N	>2,000	700
MM0164HN	N	>500	N	>2,000	N
MM0165HN	N	500	N	>2,000	N
MM0166HN	N	>500	N	>2,000	N
MM0167HN	N	>500	N	>2,000	N
MM0168HN	N	>500	N	>2,000	N
MM0169HN	N	>500	N	>2,000	N
MM0170HN	N	>500	N	>2,000	N
MM0171HN	N	>500	N	>2,000	N
MM0172HN	N	>500	N	>2,000	N
MM0173HN	N	>500	N	>2,000	N
MI0174HN	200	>500	N	>2,000	N
TH0175HN	N	200	N	>2,000	N
MI0176HN	N	>500	N	>2,000	N
HM0177HN	N	500	N	>2,000	N
HM0178HN	N	>500	N	>2,000	N
HM0179HN	N	>500	N	>2,000	N
HM0180HN	N	>500	N	>2,000	N
MI0181HN	N	500	N	>2,000	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
MI0182HN	N	20	1,500	50	1,000	<10	100	70	70	N	100	20	N	300
MI0183HN	N	10	700	700	1,000	N	100	20	70	N	100	30	1,500	200
MI0184HN	N	10	300	50	500	<10	70	20	20	N	30	700	N	200
MI0185HN	N	15	1,500	70	700	<10	100	50	50	N	100	30	700	300
MI0187HN	N	20	1,500	200	1,500	10	150	70	70	N	>200	700	700	300
HM0188HN	N	30	1,500	150	2,000	10	200	70	150	N	>200	1,500	700	300
HM0189HN	N	30	1,500	50	1,000	10	150	70	70	N	>200	1,500	>10,000	300
HM0190HN	N	20	1,500	150	2,000	10	150	70	150	N	>200	1,000	300	300
HM0191HN	N	30	1,500	70	2,000	10	150	70	150	N	>200	300	700	300
HM0192HN	N	30	1,500	50	2,000	15	200	70	200	N	>200	150	200	300
HM0193HN	N	30	1,500	50	2,000	<10	150	70	70	150	>200	70	10,000	300
HM0194HN	N	50	1,500	70	2,000	10	700	70	300	N	>200	>2,000	700	300
HM0195HN	N	70	3,000	70	700	10	100	70	70	N	>200	50	1,000	300
HM0196HN	N	30	1,500	50	500	10	150	70	100	N	>200	1,000	700	300
HM0197HN	N	20	1,500	150	>2,000	<10	150	70	200	700	>200	>2,000	1,000	300
HM0198HM	N	70	2,000	30	1,000	10	150	70	300	N	>200	1,000	500	300
HM0199HM	N	20	1,500	70	1,500	10	150	70	150	N	>200	100	500	300
HM0200HN	N	50	1,000	70	150	30	700	70	150	N	>200	50	500	200
HM0201HN	N	50	1,500	70	500	20	500	70	150	N	>200	1,500	500	300
HM0202HN	N	50	1,000	100	500	15	700	70	100	N	>200	50	300	300
HM0203HN	N	30	1,500	100	1,000	15	300	70	70	N	>200	30	700	300
HM0204HN	N	10	1,500	30	2,000	10	150	70	100	N	>200	30	500	300
HM0205HN	N	20	1,500	70	1,000	15	150	70	150	N	>200	50	7,000	300
HM0206HN	N	15	1,500	15	700	15	300	70	100	N	>200	30	200	200
HM0207HN	N	30	1,000	150	1,000	15	300	70	100	N	>200	30	300	200
HM0208HN	N	20	1,500	70	1,000	<10	100	70	100	N	>200	300	700	300
HM0209HN	N	10	700	70	>2,000	<10	50	1,500	150	N	>200	700	500	300
HM0210HN	N	10	700	150	>2,000	<10	70	1,500	150	N	>200	20	300	300
HM0211HN	N	15	700	150	>2,000	<10	100	1,500	70	N	>200	2,000	N	300
MI0212HN	N	15	500	100	>2,000	<10	100	1,500	70	N	>200	1,500	200	300
MI0213HN	N	20	700	50	1,500	10	100	1,500	70	N	>200	50	200	300
MI0214HN	N	20	500	150	700	10	150	1,500	70	N	>200	70	200	200
MI0215HN	N	15	700	300	2,000	<10	50	1,500	70	N	>200	50	200	200
MI0216HN	N	15	700	70	2,000	<10	70	1,500	70	N	>200	30	300	300
MI0217HN	N	15	700	100	2,000	<10	50	1,500	50	N	>200	30	500	300
GI0218HN	N	30	700	50	300	10	70	500	70	N	70	50	700	300
GI0219HN	N	30	1,500	70	1,000	<10	50	1,500	150	N	>200	1,000	700	300
GI0220HN	N	50	1,500	15	500	<10	50	1,500	20	N	>200	20	200	300
GI0221HN	N	70	2,000	50	150	<10	N	1,500	70	N	>200	<20	N	300
GI0222HN	N	30	1,500	50	1,000	<10	70	1,500	150	N	>200	70	200	300
GI0223HN	N	30	1,500	50	700	<10	70	1,500	70	N	>200	50	300	300
GI0224HN	N	30	700	50	1,000	<10	50	1,500	70	N	>200	30	700	300
GI0225HN	N	70	1,500	50	500	<10	N	1,500	20	N	>200	<20	N	300
GI0226HN	N	70	2,000	20	100	<10	N	700	<20	N	>200	N	N	500
GI0227HN	N	20	700	70	700	10	100	1,500	70	N	>200	70	200	300

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MI0182HN	32 44 29	112 48 23	7.0	7.00	10.0	>2.00	3,000	N	N	N	500	200	N	N
MI0183HN	32 41 50	112 46 26	5.0	5.00	7.0	>2.00	3,000	N	N	N	1,000	200	N	N
MI0184HN	32 41 59	112 45 16	7.0	5.00	5.0	>2.00	7,000	N	N	N	700	1,500	N	N
MI0185HN	32 42 30	112 47 50	10.0	7.00	7.0	>2.00	5,000	N	N	N	700	1,500	N	N
MI0187HN	32 41 9	112 47 20	7.0	5.00	7.0	>2.00	7,000	N	N	N	2,000	2,000	2	N
HM0188HN	32 42 22	112 42 10	15.0	7.00	7.0	>2.00	10,000	N	N	N	1,500	1,000	15	N
HM0189HN	32 41 28	112 41 41	15.0	7.00	7.0	>2.00	10,000	N	N	N	700	700	10	N
HM0190HN	32 40 36	112 42 32	10.0	7.00	7.0	>2.00	10,000	N	N	N	700	1,500	10	N
HM0191HN	32 39 18	112 41 56	15.0	7.00	10.0	>2.00	10,000	N	N	N	1,000	3,000	10	N
HM0192HN	32 38 30	112 40 57	15.0	7.00	7.0	>2.00	10,000	N	N	N	500	1,000	7	N
HM0193HN	32 38 58	112 39 20	15.0	7.00	5.0	>2.00	10,000	N	N	N	700	300	5	N
HM0194HN	32 40 11	112 39 19	20.0	7.00	3.0	>2.00	>10,000	N	N	N	1,500	5,000	15	N
HM0195HN	32 42 34	112 40 33	15.0	10.00	15.0	>2.00	7,000	N	N	N	1,000	700	N	N
HM0196HN	32 41 26	112 40 25	15.0	7.00	5.0	>2.00	7,000	N	N	N	500	5,000	2	N
HM0197HN	32 40 33	112 40 26	10.0	5.00	3.0	>2.00	7,000	N	N	N	700	500	.5	N
HN0198HM	32 37 43	112 39 10	15.0	15.00	15.0	>2.00	10,000	N	N	N	500	7,000	N	N
HM0199HM	32 37 21	112 40 45	15.0	7.00	7.0	>2.00	7,000	N	N	N	500	1,500	N	N
HM0200HN	32 37 44	112 42 36	20.0	7.00	1.5	>2.00	>10,000	N	N	N	150	1,000	15	N
HM0201HN	32 37 9	112 43 14	20.0	10.00	3.0	>2.00	>10,000	N	N	N	300	1,500	5	N
HM0202HN	32 36 37	112 42 8	20.0	5.00	2.0	>2.00	10,000	N	N	N	200	1,000	N	N
HM0203HN	32 35 49	112 40 24	20.0	7.00	5.0	>2.00	10,000	N	N	N	700	700	N	N
HM0204HN	32 36 9	112 39 4	7.0	3.00	5.0	>2.00	3,000	N	N	N	1,000	500	7	N
HM0205HN	32 36 23	112 37 59	10.0	7.00	7.0	>2.00	5,000	N	N	N	700	1,500	7	N
HM0206HN	32 35 16	112 39 21	7.0	5.00	3.0	>2.00	7,000	N	N	N	300	1,000	N	N
HM0207HN	32 35 43	112 42 29	15.0	7.00	3.0	>2.00	10,000	N	N	N	150	1,500	5	N
HM0208HN	32 35 58	112 43 35	15.0	7.00	10.0	>2.00	10,000	N	N	N	700	3,000	2	N
HM0209HN	32 37 52	112 45 17	7.0	2.00	7.0	>2.00	1,000	N	N	N	700	500	N	N
HM0210HN	32 38 36	112 44 14	7.0	3.00	7.0	>2.00	1,500	N	N	N	1,500	500	N	N
HM0211HN	32 39 22	112 44 59	10.0	3.00	7.0	>2.00	2,000	N	N	N	1,000	300	N	N
MI0212HN	32 38 30	112 45 36	7.0	3.00	7.0	>2.00	2,000	N	N	N	700	300	N	N
MI0213HN	32 38 56	112 47 22	7.0	3.00	7.0	>2.00	2,000	N	N	N	300	700	N	N
MI0214HN	32 39 28	112 48 1	7.0	3.00	7.0	>2.00	2,000	N	N	N	300	1,500	N	N
MI0215HN	32 39 57	112 48 30	7.0	2.00	7.0	>2.00	1,000	N	N	N	700	150	N	N
MI0216HN	32 40 40	112 49 31	7.0	3.00	7.0	>2.00	1,500	N	N	N	700	700	N	N
MI0217HN	32 41 30	112 49 45	7.0	3.00	10.0	>2.00	700	N	N	N	700	300	N	N
GI0218HN	32 51 14	112 36 53	7.0	3.00	7.0	>2.00	700	N	N	N	500	1,000	N	N
GI0219HN	32 49 59	112 37 18	7.0	5.00	7.0	>2.00	700	N	N	N	200	700	N	N
GI0220HN	32 49 42	112 35 47	7.0	7.00	7.0	>2.00	700	N	N	N	150	200	N	N
GI0221HN	32 50 40	112 35 7	7.0	15.00	15.0	1.50	700	N	N	N	70	150	N	N
GI0222HN	32 49 34	112 34 36	7.0	5.00	7.0	>2.00	1,000	N	N	N	500	300	N	N
GI0223HN	32 48 58	112 33 18	7.0	7.00	7.0	>2.00	700	N	N	N	700	200	N	N
GI0224HN	32 50 19	112 32 30	7.0	5.00	7.0	>2.00	700	N	N	N	700	700	N	N
GI0225HN	32 48 38	112 31 11	7.0	10.00	7.0	2.00	1,000	N	N	N	100	200	N	N
GI0226HN	32 47 29	112 30 24	7.0	20.00	15.0	1.50	1,500	N	N	N	N	300	N	N
GI0227HN	32 48 0	112 34 8	7.0	3.00	7.0	>2.00	1,000	N	N	N	300	200	N	N



## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
MI0182HN	N	>500	N	>2,000	N
MI0183HN	N	>500	N	>2,000	N
MI0184HN	N	300	N	>2,000	N
MI0185HN	N	>500	N	>2,000	N
MI0187HN	N	>500	N	>2,000	N
HM0188HN	N	>500	N	>2,000	N
HM0189HN	N	>500	N	>2,000	N
HM0190HN	N	>500	N	>2,000	N
HM0191HN	N	>500	N	>2,000	N
HM0192HN	N	>500	N	>2,000	N
HM0193HN	N	>500	N	>2,000	N
HM0194HN	N	>500	N	>2,000	N
HM0195HN	N	>500	N	>2,000	N
HM0196HN	N	>500	N	>2,000	N
HM0197HN	N	>500	N	>2,000	N
HN0198HM	N	>500	N	>2,000	N
HM0199HM	N	>500	N	>2,000	N
HM0200HN	N	>500	N	>2,000	N
HM0201HN	N	>500	N	>2,000	N
HM0202HN	N	>500	N	>2,000	N
HM0203HN	N	>500	N	>2,000	N
HM0204HN	N	>500	N	>2,000	N
HM0205HN	N	>500	N	>2,000	N
HM0206HN	N	>500	N	>2,000	N
HM0207HN	N	>500	N	>2,000	N
HM0208HN	N	>500	N	>2,000	N
HM0209HN	N	>500	N	>2,000	N
HM0210HN	N	>500	N	>2,000	N
HM0211HN	N	>500	N	>2,000	N
MI0212HN	N	>500	N	>2,000	N
MI0213HN	N	>500	N	>2,000	N
MI0214HN	N	>500	N	>2,000	N
MI0215HN	N	>500	N	>2,000	N
MI0216HN	N	>500	N	>2,000	N
MI0217HN	N	>500	N	>2,000	N
GI0218HN	N	>500	N	>2,000	N
GI0219HN	N	>500	N	>2,000	N
GI0220HN	N	>500	N	>2,000	N
GI0221HN	N	300	N	>2,000	N
GI0222HN	N	>500	N	>2,000	N
GI0223HN	N	>500	N	>2,000	N
GI0224HN	N	>500	N	>2,000	N
GI0225HN	N	300	N	>2,000	N
GI0226HN	N	100	N	>2,000	N
GI0227HN	N	>500	N	>2,000	N

Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
GI0228HN	32 46 53	112 33 0	7.0	10.00	10.0	1.50	1,500	N	N	N	N	150	N	N
ES0229HN	32 48 28	112 28 46	7.0	15.00	15.0	>2.00	1,000	N	N	N	150	150	N	N
ES0230HN	32 50 22	112 28 46	7.0	15.00	15.0	1.50	1,000	N	N	N	N	100	N	N
ES0231HN	32 50 16	112 27 24	7.0	10.00	15.0	1.00	1,000	N	N	N	N	150	N	N
ES0232HN	32 49 35	112 25 56	7.0	10.00	30.0	>2.00	1,500	N	N	N	50	200	N	N
ES0233HN	32 47 10	112 19 11	10.0	1.50	3.0	>2.00	1,500	N	N	N	1,500	3,000	7	N
ES0234HN	32 47 1	112 18 5	15.0	2.00	3.0	>2.00	1,500	N	N	N	1,500	2,000	N	N
ES0235HN	32 47 0	112 16 36	15.0	2.00	7.0	>2.00	1,500	N	N	N	1,000	2,000	N	N
ES0236HN	32 45 53	112 16 11	10.0	3.00	5.0	>2.00	1,500	N	N	N	1,500	3,000	2	N
ES0237HN	32 45 44	112 18 7	15.0	3.00	5.0	>2.00	1,500	N	N	N	700	5,000	5	N
ES0238HN	32 52 4	112 18 52	7.0	5.00	30.0	>2.00	1,500	N	N	N	500	700	5	150
ES0239HN	32 52 38	112 20 54	10.0	3.00	20.0	>2.00	2,000	N	N	N	300	500	5	150
ES0240HN	32 53 8	112 23 2	7.0	3.00	30.0	>2.00	1,500	N	N	N	>5,000	700	N	20
ES0241HN	32 53 12	112 24 41	10.0	1.50	10.0	>2.00	1,500	N	N	N	<20	1,000	N	N
ES0242HN	32 54 13	112 26 4	10.0	2.00	20.0	>2.00	2,000	N	N	N	<20	1,500	2	N
AN0243HN	32 58 37	112 14 13	7.0	2.00	20.0	>2.00	1,500	N	N	N	300	700	N	N
AN0244HN	32 59 25	112 14 48	10.0	2.00	20.0	>2.00	2,000	N	N	N	700	1,000	N	50
ES0245HN	32 58 53	112 15 24	10.0	5.00	15.0	>2.00	2,000	N	N	N	500	1,500	N	20
ES0246HN	32 57 57	112 15 50	7.0	3.00	15.0	>2.00	2,000	N	N	N	150	500	N	<20
ES0247HN	32 57 21	112 15 9	10.0	10.00	15.0	>2.00	3,000	N	N	N	30	700	N	N
ES0248HN	32 57 8	112 18 6	10.0	1.50	10.0	>2.00	7,000	N	N	N	700	1,500	10	20
ES0249HN	32 57 58	112 18 41	10.0	2.00	10.0	>2.00	7,000	N	N	N	700	1,000	10	N
ES0250HN	32 56 52	112 21 3	10.0	3.00	30.0	>2.00	7,000	N	N	N	>5,000	3,000	10	<20
ES0251HN	32 56 26	112 19 30	7.0	1.50	30.0	>2.00	7,000	N	N	N	700	5,000	7	<20
ES0252HN	32 55 16	112 19 37	7.0	1.50	30.0	>2.00	10,000	N	N	N	150	500	2	N
ES0253HN	32 53 46	112 12 1	3.0	1.50	30.0	>2.00	>10,000	N	N	N	70	500	N	<20
ES0254HN	32 54 41	112 21 48	5.0	2.00	15.0	>2.00	7,000	N	N	N	>5,000	300	N	N
ES0255HN	32 55 14	112 22 19	7.0	1.00	15.0	>2.00	5,000	N	N	N	3,000	1,500	N	N
ES0256HN	32 51 33	112 20 30	15.0	10.00	15.0	>2.00	7,000	N	N	N	1,000	1,000	N	N
ES0257HN	32 54 33	112 27 9	15.0	3.00	20.0	>2.00	7,000	N	N	N	500	1,500	N	20
ES0258HN	32 55 7	112 25 6	10.0	1.50	5.0	>2.00	3,000	N	N	N	500	2,000	N	<20
ES0259HN	32 56 9	112 24 14	10.0	1.50	15.0	>2.00	5,000	N	N	N	700	1,500	N	N
ES0260HN	32 56 32	112 22 39	15.0	2.00	7.0	>2.00	3,000	N	N	N	50	3,000	N	N
ES0261HN	32 58 5	112 24 51	3.0	.50	3.0	>2.00	3,000	N	N	N	30	300	N	N
ES0262HN	32 58 17	112 26 27	7.0	.70	3.0	>2.00	5,000	N	N	N	100	300	N	N
ES0263HN	32 58 43	112 28 4	7.0	.70	5.0	>2.00	2,000	N	N	N	70	700	N	N
ES0264HN	32 59 0	112 29 49	7.0	3.00	7.0	>2.00	5,000	N	N	N	150	2,000	N	N
GI0265HN	32 59 41	112 30 16	15.0	3.00	10.0	>2.00	7,000	N	N	N	300	2,000	N	N
GI0266HN	32 59 36	112 31 58	10.0	2.00	15.0	>2.00	7,000	N	N	N	150	1,500	N	N
GI0267HN	32 58 54	112 30 46	15.0	3.00	20.0	>2.00	7,000	N	N	N	500	3,000	N	N
GI0268HN	32 58 18	112 30 20	7.0	1.50	20.0	>2.00	5,000	N	N	N	700	700	N	N
ES0269HN	32 58 5	112 29 12	10.0	2.00	7.0	>2.00	7,000	N	N	N	150	1,500	N	N
ES0270HN	32 57 6	112 27 42	10.0	2.00	7.0	>2.00	5,000	N	N	N	300	1,000	N	N
ES0271HN	32 56 59	112 26 33	20.0	7.00	15.0	>2.00	7,000	N	N	N	3,000	2,000	N	<20
ES0272HN	32 56 23	112 25 15	10.0	3.00	15.0	>2.00	7,000	N	N	N	N	1,000	N	N

## Spectrographic analysis of heavy mineral concentrates---continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
GI0228HN	N	50	1,500	15	150	<10	N	500	20	N	100	N	200	200
ES0229HN	N	50	5,000	20	200	<10	N	1,500	<20	N	>200	N	200	300
ES0230HN	N	30	5,000	15	100	10	N	700	<20	N	150	N	N	300
ES0231HN	N	30	3,000	15	150	<10	N	700	<20	N	150	N	N	300
ES0232HN	N	50	10,000	15	200	10	N	500	<20	N	200	N	300	700
ES0233HN	N	15	700	50	300	<5	N	50	70	N	70	N	300	500
ES0234HN	N	20	700	70	100	20	N	70	100	N	70	N	200	500
ES0235HN	N	30	700	70	300	<10	N	70	100	N	70	N	300	500
ES0236HN	N	30	700	70	100	<10	N	70	100	N	70	N	300	500
ES0237HN	N	30	500	70	500	<10	N	70	100	N	70	N	500	500
ES0238HN	N	15	1,500	150	>2,000	N	150	5,000	300	N	>200	N	700	300
ES0239HN	N	20	700	150	>2,000	N	200	700	300	N	>200	N	700	300
ES0240HN	N	30	700	50	>2,000	<10	700	200	300	N	150	20	700	200
ES0241HN	N	15	150	50	500	15	N	30	30	N	100	N	700	300
ES0242HN	N	15	150	50	1,000	10	N	70	100	N	70	<20	2,000	300
AN0243HN	N	15	500	50	2,000	15	100	70	200	N	70	70	1,500	500
AN0244HN	N	20	700	50	>2,000	70	700	100	1,000	N	200	70	1,000	500
ES0245HN	N	30	1,000	50	>2,000	50	300	100	300	N	100	70	7,000	500
ES0246HN	N	20	1,500	50	2,000	10	500	100	200	N	100	150	1,000	500
ES0247HN	N	70	1,500	50	2,000	10	150	100	70	N	30	N	3,000	300
ES0248HN	N	20	150	50	>2,000	<10	700	500	1,500	N	100	N	700	300
ES0249HN	N	20	500	50	2,000	<10	150	70	300	N	70	N	500	200
ES0250HN	N	30	500	50	2,000	10	100	70	300	N	70	N	700	300
ES0251HN	N	15	300	50	2,000	10	50	50	150	N	70	N	700	200
ES0252HN	N	15	300	50	700	<10	50	50	150	N	70	<20	500	200
ES0253HN	N	10	150	20	1,500	10	50	100	150	N	70	<20	200	100
ES0254HN	N	10	150	15	700	<10	50	30	50	N	30	N	<200	70
ES0255HN	N	15	300	30	>2,000	<10	N	50	200	N	>200	20	500	200
ES0256HN	N	30	3,000	15	2,000	<10	150	100	100	N	>200	500	700	300
ES0257HN	N	15	200	30	2,000	15	<50	50	200	N	>200	20	1,500	200
ES0258HN	N	10	700	30	>50	<10	<50	50	200	N	>200	<20	500	200
ES0259HN	N	10	150	30	2,000	<10	<50	50	300	N	>200	30	700	200
ES0260HN	N	20	200	20	500	10	70	30	70	N	70	30	7,000	200
ES0261HN	N	<10	100	10	>2,000	N	N	1,000	300	N	>200	N	N	100
ES0262HN	N	<10	200	20	>2,000	<10	N	1,000	300	N	>200	N	500	150
ES0263HN	N	<10	70	15	2,000	10	N	300	150	N	>200	N	N	150
ES0264HN	N	15	70	30	1,000	10	<50	50	150	N	200	20	500	150
GI0265HN	N	15	300	50	700	20	<50	70	300	N	>200	50	700	200
GI0266HN	N	15	150	50	500	10	70	20	150	N	150	70	500	200
GI0267HN	N	20	700	50	1,500	10	50	30	70	N	>200	30	700	200
GI0268HN	N	<10	300	15	2,000	<10	N	1,000	700	N	>200	30	1,000	150
ES0269HN	N	20	300	30	2,000	<10	N	1,500	700	N	>200	<20	200	200
ES0270HN	N	20	150	20	>2,000	<10	N	1,500	1,000	N	>200	N	300	100
ES0271HN	N	30	1,000	30	700	<10	70	70	700	N	200	100	700	200
ES0272HN	N	10	70	15	>2,000	15	N	700	500	N	>200	30	700	200

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
GI0228HN	N	200	N	1,500	N
ES0229HN	N	300	N	>2,000	N
ES0230HN	N	150	N	1,500	N
ES0231HN	N	150	N	>2,000	N
ES0232HN	N	300	N	>2,000	N
ES0233HN	N	500	N	2,000	N
ES0234HN	N	300	N	>2,000	N
ES0235HN	N	500	N	>2,000	N
ES0236HN	N	500	N	>2,000	N
ES0237HN	N	500	N	2,000	N
ES0238HN	N	>500	N	>2,000	300
ES0239HN	N	>500	N	>2,000	300
ES0240HN	300	300	N	>2,000	300
ES0241HN	300	>500	N	2,000	N
ES0242HN	N	>500	N	>2,000	N
AN0243HN	N	>500	N	>2,000	N
AN0244HN	2,000	>500	N	>2,000	500
ES0245HN	2,000	>500	N	>2,000	N
ES0246HN	N	500	N	>2,000	300
ES0247HN	150	>500	N	2,000	N
ES0248HN	N	>500	N	>2,000	300
ES0249HN	N	>500	N	>2,000	N
ES0250HN	N	>500	N	>2,000	300
ES0251HN	N	>500	N	>2,000	N
ES0252HN	N	>500	N	>2,000	N
ES0253HN	N	>500	N	>2,000	N
ES0254HN	N	500	N	2,000	N
ES0255HN	N	>500	N	>2,000	N
ES0256HN	N	>500	N	>2,000	N
ES0257HN	150	>500	N	>2,000	N
ES0258HN	100	>500	N	>2,000	N
ES0259HN	N	>500	N	>2,000	N
ES0260HN	N	>500	N	>2,000	N
ES0261HN	N	>500	N	>2,000	N
ES0262HN	N	>500	N	>2,000	N
ES0263HN	N	>500	N	>2,000	N
ES0264HN	N	>500	N	>2,000	N
GI0265HN	3,000	>500	N	>2,000	N
GI0266HN	N	>500	N	>2,000	N
GI0267HN	N	>500	N	>2,000	N
GI0268HN	N	>500	N	>2,000	N
ES0269HN	300	>500	N	>2,000	N
ES0270HN	N	>500	N	>2,000	N
ES0271HN	N	>500	N	>2,000	N
ES0272HN	150	>500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEZ	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
GI0273HN	32 55 38	112 34 10	10.0	3.00	15.0	>2.00	7,000	N	N	N	200	1,000	N	N
GI0274HN	32 54 46	112 34 35	10.0	7.00	15.0	>2.00	7,000	N	N	N	3,000	1,500	N	N
GI0275HN	32 52 5	112 31 6	10.0	7.00	15.0	>2.00	7,000	N	N	N	1,000	2,000	N	N
GI0276HN	32 53 5	112 32 11	7.0	5.00	10.0	>2.00	10,000	N	N	N	700	3,000	N	2,000
GI0277HN	32 53 0	112 33 10	10.0	15.00	20.0	>2.00	3,000	N	N	N	100	2,000	N	N
MA0278HN	32 39 16	113 59 26	3.0	3.00	5.0	>2.00	1,000	N	N	N	150	1,500	N	N
GI0279HN	32 38 25	113 59 13	3.0	1.50	5.0	>2.00	2,000	N	N	N	50	500	N	N
MO0280HN	32 37 17	113 59 27	7.0	3.00	5.0	>2.00	3,000	N	N	N	150	1,500	N	N
MO0281HN	32 35 20	113 58 17	7.0	2.00	7.0	>2.00	1,500	N	N	N	70	700	N	N
MO0282HN	32 35 21	113 59 16	7.0	2.00	7.0	>2.00	1,500	N	N	N	30	300	N	N
MO0283HN	32 35 32	113 59 53	5.0	2.00	7.0	>2.00	1,500	N	N	N	N	200	N	N
MO0284HN	32 33 44	113 58 31	7.0	3.00	7.0	>2.00	3,000	N	N	N	20	1,000	N	N
MO0285HN	32 33 0	113 57 51	7.0	3.00	10.0	>2.00	2,000	N	N	N	50	5,000	N	N
MO0286HN	32 32 26	113 59 14	7.0	3.00	10.0	>2.00	1,500	N	N	N	N	1,500	N	N
MO0287HN	32 32 15	113 59 50	7.0	3.00	10.0	>2.00	2,000	N	N	N	N	300	N	N
MO0288HN	32 31 44	113 59 1	7.0	3.00	10.0	>2.00	2,000	N	N	N	N	700	N	N
MO0289HN	32 31 33	113 57 44	3.0	1.00	10.0	>2.00	3,000	N	N	N	N	100	N	N
MO0290HN	32 30 20	113 57 22	3.0	.30	10.0	>2.00	3,000	N	N	N	N	700	N	N
ST0291HN	32 47 39	113 30 14	7.0	7.00	7.0	>2.00	2,000	N	N	N	70	>10,000	N	700
AZ0292HN	32 45 56	113 28 45	7.0	7.00	5.0	>2.00	2,000	N	N	N	200	>10,000	N	N
AZ0293HN	32 46 55	113 26 54	7.0	7.00	7.0	>2.00	3,000	N	N	N	700	>10,000	N	N
AZ0294HN	32 46 25	113 25 55	10.0	7.00	7.0	>2.00	3,000	N	N	N	500	10,000	N	N
AZ0295HN	32 45 54	113 26 38	10.0	7.00	10.0	>2.00	5,000	N	N	N	500	7,000	N	N
AM0296HN	32 44 19	113 25 38	10.0	7.00	10.0	>2.00	5,000	N	N	N	500	2,000	N	N
AZ0297HN	32 45 5	113 23 29	7.0	5.00	3.0	>2.00	3,000	N	N	N	100	1,500	N	N
MO0298HN	32 52 39	113 57 41	20.0	7.00	3.0	2.00	>10,000	N	N	N	70	5,000	N	N
MO0299HN	32 53 2	113 56 53	7.0	5.00	2.0	>2.00	5,000	N	N	N	50	5,000	N	N
RO0300HN	32 54 48	113 56 51	10.0	10.00	7.0	2.00	3,000	N	N	N	150	>10,000	N	N
RO0301HN	32 57 14	113 56 44	15.0	7.00	10.0	>2.00	3,000	N	N	N	70	7,000	N	N
RO0302HN	32 58 10	113 57 0	10.0	15.00	30.0	>2.00	3,000	N	N	N	70	1,500	N	N
RO0303HN	32 55 57	113 59 12	15.0	15.00	30.0	>2.00	3,000	N	N	N	N	1,000	N	N
RO0304HN	32 55 5	113 59 32	7.0	1.50	7.0	>2.00	2,000	N	N	N	N	7,000	N	N
RO0305HN	32 54 59	113 58 20	30.0	7.00	7.0	>2.00	10,000	N	N	N	N	3,000	N	N
RO0306HN	32 53 58	113 59 34	15.0	1.50	15.0	>2.00	3,000	N	N	N	70	>10,000	N	N
RO0307HN	32 53 6	113 59 23	15.0	1.50	15.0	>2.00	3,000	N	N	N	N	1,500	N	N
RO0308HN	32 58 36	113 59 55	2.0	1.00	7.0	>2.00	700	N	N	N	150	1,500	N	N
RO0309HN	32 59 31	113 59 50	7.0	10.00	20.0	>2.00	1,500	N	N	N	50	>10,000	N	N
RO0310HN	32 59 49	113 59 45	7.0	15.00	15.0	1.50	1,000	N	N	N	N	>10,000	N	N
RO0311HN	32 59 50	113 57 50	2.0	3.00	7.0	>2.00	700	N	N	N	50	7,000	N	N
RO0312HN	32 59 24	113 39 25	3.0	1.50	7.0	>2.00	1,000	N	N	N	N	>10,000	N	N
ST0313HN	32 58 53	113 38 27	20.0	7.00	10.0	>2.00	10,000	N	N	N	150	3,000	N	N
ST0314HN	32 59 11	113 36 42	7.0	7.00	20.0	>2.00	1,500	N	N	N	300	7,000	N	N
ST0315HN	32 58 2	113 35 35	3.0	3.00	10.0	>2.00	7,000	N	N	N	100	>10,000	N	N
ST0316HN	32 59 44	113 36 14	15.0	10.00	7.0	>2.00	7,000	N	N	N	100	7,000	N	N
ST0317HN	32 59 27	113 34 23	20.0	15.00	15.0	>2.00	>10,000	N	N	N	70	10,000	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
GI0273HN	N	10	200	15	>2,000	<10	N	700	700	N	>200	N	500	150
GI0274HN	N	15	1,500	15	2,000	<10	<50	700	200	N	>200	30	500	150
GI0275HN	N	20	700	30	>2,000	<10	<50	1,000	700	N	>200	50	300	150
GI0276HN	N	<10	700	150	>2,000	<10	70	700	300	N	>200	70	200	150
GI0277HN	N	30	7,000	20	1,000	10	N	150	70	N	200	<20	500	200
MA0278HN	N	15	N	<10	>2,000	N	<50	30	50	N	150	20	700	200
GI0279HN	N	10	N	20	>2,000	<10	150	50	50	N	150	30	700	200
MO0280HN	N	15	N	10	>2,000	<10	70	50	50	N	70	30	700	200
MO0281HN	N	10	N	30	500	15	100	30	30	N	30	30	1,500	200
MO0282HN	N	<10	N	10	500	50	200	20	30	N	20	30	700	300
MO0283HN	N	10	N	<10	700	50	300	<10	<20	N	50	30	700	300
MO0284HN	N	15	N	150	300	<10	70	20	<20	N	<10	20	5,000	200
MO0285HN	N	15	N	20	300	15	150	20	300	N	70	20	5,000	200
MO0286HN	N	15	N	30	300	15	100	20	<20	N	50	20	2,000	200
MO0287HN	N	15	N	50	500	10	100	15	<20	N	<10	30	3,000	200
MO0288HN	N	15	N	20	300	10	150	15	<20	N	<10	50	3,000	200
MO0289HN	N	<10	N	70	500	<10	150	15	<20	N	<10	70	700	200
MO0290HN	N	<10	N	50	300	<10	500	<10	<20	N	<10	70	500	200
ST0291HN	N	30	700	10	500	<10	50	70	70	N	70	20	7,000	150
AZ0292HN	N	15	700	20	1,000	N	150	70	50	N	150	20	1,500	150
AZ0293HN	N	10	700	15	500	<10	70	70	50	N	100	50	1,500	150
AZ0294HN	N	15	700	15	700	<10	70	70	50	N	100	30	2,000	150
AZ0295HN	N	15	1,000	20	700	N	70	70	50	N	70	50	3,000	150
AM0296HN	N	15	700	20	1,000	N	70	70	50	N	70	50	1,500	150
AZ0297HN	N	10	700	10	1,500	N	70	50	50	N	100	30	>10,000	150
MO0298HN	N	100	N	150	700	15	N	50	300	N	50	N	1,000	200
MO0299HN	N	20	N	30	2,000	N	50	50	1,000	N	200	50	700	200
RO0300HN	N	30	500	20	300	<10	N	70	50	N	70	<20	7,000	200
RO0302HN	N	30	1,500	70	500	<10	N	70	200	N	70	N	1,500	200
RO0303HN	N	30	5,000	20	300	<10	N	70	20	N	200	N	700	500
RO0304HN	N	30	7,000	10	300	<10	N	70	20	N	70	N	500	300
RO0305HN	N	N	70	50	200	<10	N	20	150	N	15	N	700	100
RO0306HN	N	100	700	200	>2,000	<10	N	70	300	N	15	N	1,000	200
RO0307HN	N	30	150	100	2,000	70	N	10	150	N	20	50	3,000	150
RO0308HN	N	30	500	100	700	<10	N	50	150	N	20	50	1,500	150
RO0309HN	N	N	700	<10	200	N	N	70	20	N	70	N	1,000	100
RO0310HN	N	20	7,000	20	200	N	N	100	200	N	150	>2,000	1,500	150
RO0311HN	N	20	7,000	<10	N	N	N	100	N	N	50	N	700	70
RO0312HN	N	N	1,500	<10	300	N	N	100	20	N	150	N	700	70
ST0314HN	N	N	700	<10	200	N	N	50	20	N	50	N	1,500	70
ST0315HN	N	200	1,500	200	>2,000	N	N	100	500	N	70	20	1,500	200
ST0316HN	N	30	2,000	20	>2,000	N	150	100	300	N	150	30	700	200
ST0317HN	N	70	1,000	150	700	N	N	20	3,000	N	20	20	>10,000	200
ST0318HN	N	150	1,500	200	>2,000	N	N	100	300	N	70	20	700	200
ST0319HN	N	200	1,500	150	>2,000	N	N	200	300	N	100	N	1,000	500

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
GI0273HN	N	>500	N	>2,000	N
GI0274HN	N	>500	N	>2,000	N
GI0275HN	N	>500	N	>2,000	N
GI0276HN	700	>500	N	>2,000	N
GI0277HN	N	>500	N	>2,000	N
MA0278HN	N	>500	N	>2,000	N
GI0279HN	N	>500	N	>2,000	N
MO0280HN	N	>500	N	>2,000	N
MO0281HN	N	500	N	>2,000	N
MO0282HN	N	500	N	2,000	N
MO0283HN	N	>500	N	>2,000	N
MO0284HN	N	500	N	1,500	N
MO0285HN	N	500	N	>2,000	N
MO0286HN	N	500	N	>2,000	N
MO0287HN	N	500	N	700	N
MO0288HN	N	500	N	>2,000	N
MO0289HN	N	>500	N	700	N
MO0290HN	N	>500	N	700	N
ST0291HN	N	500	N	2,000	N
AZ0292HN	N	>500	N	>2,000	N
AZ0293HN	N	>500	N	>2,000	N
AZ0294HN	N	>500	N	>2,000	N
AZ0295HN	N	>500	N	>2,000	N
AM0296HN	N	>500	N	>2,000	N
AZ0297HN	N	>500	N	>2,000	N
MO0298HN	N	200	N	2,000	N
MO0299HN	150	>500	N	>2,000	N
RO0300HN	N	500	N	>2,000	N
RO0302HN	N	500	N	>2,000	N
RO0303HN	N	500	N	>2,000	N
RO0304HN	N	150	N	>2,000	N
RO0305HN	3,000	>500	N	>2,000	N
RO0306HN	N	>500	N	>2,000	N
RO0307HN	2,000	>500	N	>2,000	N
RO0308HN	N	>500	N	>2,000	N
RO0309HN	N	500	N	>2,000	N
RO0310HN	N	>500	N	>2,000	N
RO0311HN	N	70	N	>2,000	N
RO0312HN	N	>500	N	>2,000	N
ST0314HN	N	150	N	>2,000	N
ST0315HN	N	200	N	>2,000	N
ST0316HN	N	>500	N	>2,000	N
ST0317HN	N	>500	N	>2,000	N
ST0318HN	N	300	N	>2,000	N
ST0319HN	N	200	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MG%	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
ST0320HN	32 59 43	113 33 34	20.0	15.00	10.0	>2.00	>10,000	N	N	N	150	>10,000	N	N
AZ0321HN	32 59 12	113 19 18	5.0	7.00	15.0	>2.00	1,500	N	N	N	150	3,000	N	70
AZ0322HN	32 59 57	113 19 34	7.0	7.00	15.0	>2.00	1,500	N	N	N	200	3,000	N	N
AZ0323HN	32 59 39	113 21 4	15.0	10.00	10.0	>2.00	7,000	N	N	N	100	300	N	N
SE0324HN	32 52 58	113 9 7	15.0	15.00	15.0	>2.00	7,000	N	N	N	70	500	N	N
SE0325HN	32 59 51	113 4 33	7.0	7.00	15.0	>2.00	1,500	N	N	N	500	500	N	N
SE0326HN	32 58 57	113 4 47	10.0	15.00	20.0	>2.00	1,500	N	N	N	500	500	N	N
SE0327HN	32 59 52	113 1 36	15.0	5.00	15.0	>2.00	7,000	N	N	N	200	>10,000	N	N
SE0328HN	32 59 18	113 2 27	20.0	15.00	20.0	>2.00	7,000	N	N	N	70	1,000	N	N
SE0329HN	32 58 32	113 3 25	7.0	10.00	15.0	>2.00	7,000	N	N	N	150	>10,000	N	N
SE0330HN	32 57 27	113 2 45	10.0	20.00	15.0	>2.00	10,000	N	N	N	100	>10,000	N	N
MI0331HN	32 39 23	112 56 13	7.0	7.00	15.0	>2.00	7,000	N	N	N	300	>10,000	N	N
AI0332HN	32 37 21	112 57 13	5.0	5.00	30.0	>2.00	3,000	N	N	N	150	300	N	N
MI0333HN	32 37 28	112 58 47	7.0	5.00	50.0	>2.00	5,000	N	N	N	N	10,000	N	N
MI0334HN	32 38 42	112 57 50	10.0	7.00	30.0	>2.00	5,000	N	N	N	N	2,000	N	N
MI0335HN	32 38 45	112 59 34	5.0	3.00	30.0	>2.00	5,000	N	N	N	150	500	N	N
MI0336HN	32 40 32	112 58 19	5.0	3.00	30.0	>2.00	5,000	N	N	N	200	300	N	N
MI0337HN	32 40 54	112 56 28	10.0	5.00	15.0	>2.00	3,000	N	N	N	700	300	N	N
CV0338HN	32 42 32	113 4 58	10.0	7.00	15.0	>2.00	5,000	N	N	N	500	>10,000	N	N
CV0339HN	32 39 47	113 7 1	7.0	7.00	15.0	>2.00	5,000	N	N	N	700	700	N	N
CV0340HN	32 39 6	113 7 31	5.0	5.00	20.0	>2.00	3,000	N	N	N	150	300	N	N
CV0341HN	32 40 10	113 9 12	5.0	5.00	20.0	>2.00	3,000	N	N	N	300	700	N	N
CV0342HN	32 40 6	113 9 47	7.0	7.00	30.0	>2.00	5,000	N	N	N	150	300	N	N
CV0343HN	32 39 34	113 11 51	7.0	10.00	15.0	>2.00	5,000	N	N	N	300	700	N	N
CV0344HN	32 38 33	113 11 11	5.0	3.00	3.0	1.50	700	N	N	N	70	>10,000	N	N
CV0345HN	32 37 48	113 8 3	7.0	5.00	15.0	>2.00	1,000	N	N	N	300	7,000	N	N
CV0346HN	32 36 50	113 5 10	5.0	7.00	20.0	>2.00	2,000	N	N	N	200	2,000	N	N
CV0347HN	32 35 50	113 1 12	7.0	7.00	20.0	>2.00	5,000	N	N	N	700	>10,000	N	N
CV0348HN	32 36 8	113 3 32	5.0	3.00	30.0	>2.00	3,000	N	N	N	300	1,500	N	N
HM0349HN	32 35 0	112 44 3	10.0	3.00	3.0	>2.00	7,000	N	N	N	300	200	N	N
HM0350HN	32 33 59	112 42 28	10.0	5.00	5.0	>2.00	10,000	N	N	N	100	>10,000	N	N
HM0351HN	32 33 11	112 43 53	10.0	7.00	7.0	>2.00	7,000	N	N	N	70	1,000	2	N
HM0352HN	32 33 57	112 41 30	10.0	7.00	7.0	>2.00	3,000	N	N	N	70	1,000	5	N
HM0353HN	32 31 55	112 41 1	7.0	1.00	3.0	1.50	1,500	N	N	N	N	1,500	N	N
HM0354HN	32 31 19	112 41 4	10.0	10.00	15.0	>2.00	7,000	N	N	N	N	700	N	N
HM0355HN	32 30 28	112 40 18	10.0	7.00	10.0	>2.00	3,000	N	N	N	N	700	N	N
HM0356HN	32 31 2	112 39 15	10.0	2.00	10.0	2.00	10,000	N	N	N	70	1,500	N	N
HM0357HN	32 17 41	112 57 49	5.0	1.50	3.0	2.00	1,500	N	N	N	70	100	N	N
HM0358HN	32 38 58	112 37 2	7.0	5.00	7.0	>2.00	2,000	N	N	N	500	500	N	N
HM0359HN	32 37 59	112 35 59	7.0	3.00	5.0	2.00	2,000	N	N	N	N	200	N	N
HM0360HN	32 37 14	112 35 12	5.0	2.00	3.0	1.50	1,500	N	N	N	70	200	N	N
HM0361HN	32 36 39	112 36 23	7.0	2.00	2.0	>2.00	1,500	N	N	N	150	700	N	N
HM0362HN	32 36 22	112 37 17	10.0	10.00	15.0	1.50	7,000	N	N	N	N	300	N	N
HM0363HN	32 36 48	112 34 2	10.0	5.00	3.0	>2.00	10,000	N	N	N	50	500	2	N
HM0364HN	32 36 16	112 32 33	15.0	3.00	2.0	>2.00	>10,000	N	N	N	N	150	2	N



## Spectrographic analysis of heavy mineral concentrates---continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
ST0320HN	N	200	1,500	150	>2,000	N	N	200	200	N	100	200	1,500	500
AZ0321HN	N	20	3,000	20	700	N	N	150	300	N	70	200	>10,000	200
AZ0322HN	N	30	3,000	50	700	<10	N	150	50	N	100	N	1,500	150
AZ0323HN	N	50	3,000	150	500	<10	N	100	100	N	100	N	700	500
SE0324HN	N	70	1,500	100	300	<10	N	100	20	N	150	N	2,000	300
SE0325HN	N	30	2,000	70	500	<10	100	100	30	N	150	20	700	200
SE0326HN	N	50	>10,000	30	200	<10	N	700	N	N	200	N	1,000	300
SE0327HN	N	30	700	70	200	20	N	70	3,000	N	30	N	10,000	200
SE0328HN	N	70	3,000	100	150	<10	<50	300	100	N	70	N	1,500	300
SF0329HN	N	30	7,000	20	200	10	70	100	50	N	50	N	2,000	200
SE0330HN	N	50	>10,000	50	200	<10	<50	100	700	N	50	N	1,500	200
MI0331HN	N	30	7,000	30	300	<10	100	100	50	N	50	30	2,000	200
AI0332HN	N	10	1,500	20	700	N	70	50	50	N	20	500	2,000	150
MI0333HN	N	10	1,500	20	700	<10	70	30	20	N	N	N	7,000	100
MI0334HN	N	20	2,000	50	700	10	100	70	N	N	70	20	5,000	200
MI0335HN	N	10	700	50	700	<10	50	20	N	N	20	1,000	7,000	70
MI0336HN	N	10	1,500	20	700	<10	70	30	N	N	30	30	7,000	70
MI0337HN	N	15	1,500	30	700	<10	70	50	100	N	50	70	5,000	150
CV0338HN	N	20	2,000	30	500	<10	70	70	N	N	50	100	1,500	200
CV0339HN	N	10	2,000	50	700	<10	150	70	100	N	100	100	2,000	150
CV0340HN	N	10	1,500	50	700	<10	70	50	20	N	30	20	5,000	100
CV0341HN	N	10	1,500	30	700	<10	70	70	20	N	30	50	3,000	150
CV0342HN	N	15	1,500	20	700	<10	70	70	20	N	50	50	3,000	200
CV0343HN	N	20	5,000	20	500	<10	100	70	20	N	150	50	500	200
CV0344HN	N	N	3,000	10	150	N	<50	30	<20	N	15	N	>10,000	100
CV0345HN	N	10	2,000	30	700	<10	70	50	20	N	100	70	3,000	150
CV0346HN	N	10	3,000	100	700	10	70	50	150	N	50	100	10,000	150
CV0347HN	N	15	3,000	50	500	<10	70	50	100	N	70	30	5,000	150
CV0348HN	N	10	1,500	30	700	<10	50	30	20	N	50	20	7,000	100
HM0349HN	N	20	1,000	150	1,500	<10	100	70	50	N	200	700	300	100
HM0350HN	N	20	1,000	15	700	N	100	70	20	N	100	20	1,000	100
HM0351HN	N	20	1,500	10	700	<10	100	100	N	N	150	20	700	100
HM0352HN	N	20	1,500	20	1,500	<10	700	100	50	N	200	70	500	100
HM0353HN	N	N	200	<10	700	N	<50	20	20	N	20	N	200	70
HM0354HN	N	50	1,500	15	300	N	N	70	N	N	150	N	500	200
HM0355HN	N	30	1,500	100	200	<10	N	70	N	N	100	1,500	200	150
HM0356HN	N	20	700	50	1,000	<10	N	30	150	N	20	150	700	150
HM0357HN	N	N	500	15	300	N	200	30	N	N	20	N	N	100
HM0358HN	N	20	1,500	20	1,000	N	100	50	50	N	>200	N	700	100
HM0359HN	N	30	1,000	50	500	N	70	50	N	N	200	N	500	70
HM0360HN	N	15	700	10	200	<10	70	50	N	N	150	N	200	100
HM0361HN	N	15	700	200	1,500	N	70	70	150	N	>200	30	500	150
HM0362HN	N	30	1,500	15	500	N	N	150	100	N	100	N	500	200
HM0363HN	N	20	200	10	2,000	<10	700	30	100	N	50	200	N	150
HM0364HN	N	15	150	15	2,000	<10	300	30	70	N	20	300	N	100

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEZ	S-MGZ	S-CAZ	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
AP0365HN	32 36 1	112 31 21	15.0	2.00	3.0	>2.00	7,000	N	N	N	N	200	N	N
HM0366HN	32 37 25	112 30 13	10.0	5.00	5.0	>2.00	7,000	N	N	N	100	500	N	N
HM0367HN	32 37 53	112 32 44	15.0	1.50	1.5	>2.00	10,000	N	N	N	N	70	7	N
HM0368HN	32 38 38	112 32 28	15.0	1.50	1.5	>2.00	>10,000	N	N	N	N	1,500	7	N
HM0369HN	32 38 44	112 33 24	15.0	5.00	1.5	>2.00	7,000	N	N	N	150	1,000	7	N
HM0370HN	32 39 40	112 32 36	10.0	3.00	2.0	>2.00	10,000	N	N	N	N	1,500	7	N
HM0371HN	32 42 23	112 32 24	7.0	3.00	2.0	>2.00	1,500	N	N	N	300	200	N	N
HM0372HN	32 43 8	112 30 52	3.0	5.00	7.0	>2.00	1,000	N	N	N	70	150	N	N
HM0373HN	32 44 20	112 32 22	7.0	1.50	5.0	>2.00	700	N	N	N	700	200	N	N
HM0374HN	32 43 24	112 33 28	5.0	2.00	7.0	>2.00	700	N	N	N	500	150	N	N
MI 0375HN	32 34 8	112 45 59	5.0	5.00	10.0	>2.00	700	N	N	N	200	3,000	N	N
HM 0376HN	32 33 54	112 39 1	7.0	3.00	5.0	>2.00	1,500	N	N	N	300	300	N	N
HM0377HN	32 32 1	112 38 47	5.0	3.00	7.0	>2.00	2,000	N	N	N	300	700	N	N
HM0378HN	32 32 7	112 37 50	5.0	3.00	5.0	>2.00	5,000	N	N	N	500	1,500	N	N
HM0379HN	32 33 8	112 37 1	7.0	1.50	5.0	>2.00	2,000	N	N	N	100	300	N	N
HM0381HN	32 31 5	112 36 56	10.0	3.00	7.0	>2.00	2,000	N	N	N	50	300	N	N
HM0382HN	32 31 10	112 35 15	7.0	1.00	7.0	>2.00	1,500	N	N	N	300	200	N	N
HM0383HN	32 31 5	112 33 34	7.0	3.00	5.0	>2.00	1,000	N	N	N	150	700	N	N
HM0384HN	32 32 39	112 34 46	10.0	5.00	7.0	>2.00	1,500	N	N	N	50	300	N	N
HM0385HN	32 33 6	112 35 37	7.0	1.00	7.0	>2.00	700	N	N	N	200	1,500	N	N
HM0386HN	32 33 41	112 35 59	10.0	1.50	10.0	>2.00	1,500	N	N	N	70	5,000	N	N
HM0387HN	32 34 54	112 34 20	7.0	7.00	10.0	>2.00	700	N	N	N	70	150	N	N
HM0388HN	32 34 41	112 36 35	7.0	5.00	7.0	>2.00	700	N	N	N	N	150	N	N
HM0389HN	32 34 33	112 37 11	7.0	3.00	7.0	>2.00	700	N	N	N	100	300	N	N
HM0390HN	32 29 19	112 51 59	5.0	2.00	7.0	>2.00	500	N	N	N	200	1,500	N	N
HM0391HN	32 33 48	112 53 12	7.0	.50	20.0	>2.00	700	N	N	N	50	70	N	N
HM0392HN	32 33 31	112 52 38	2.0	.50	20.0	>2.00	500	N	N	N	30	100	N	N
HM0393HN	32 32 7	112 51 12	3.0	.50	20.0	>2.00	500	N	N	N	30	70	N	N
HM0394HN	32 30 19	112 51 23	7.0	3.00	10.0	>2.00	700	N	N	N	200	2,000	N	N
HM0395HN	32 29 47	112 50 14	5.0	2.00	7.0	>2.00	700	N	N	N	150	150	N	N
HM0396HN	32 27 49	112 49 8	7.0	10.00	50.0	>2.00	2,000	N	N	N	1,500	700	N	N
HM0397HN	32 26 24	112 47 28	7.0	7.00	30.0	>2.00	1,500	N	N	N	700	5,000	N	N
HM0398HN	32 26 58	112 46 6	10.0	20.00	50.0	>2.00	2,000	N	N	N	150	150	N	N
SI0399HN	32 26 45	112 43 37	7.0	10.00	50.0	>2.00	1,500	N	N	N	300	200	N	N
SI0400HN	32 25 14	112 42 51	15.0	7.00	50.0	>2.00	3,000	N	N	N	2,000	1,500	N	N
SI0401HN	32 25 41	112 44 28	10.0	10.00	30.0	>2.00	1,500	N	N	N	700	1,000	N	N
SI0402HN	32 27 18	112 44 47	15.0	10.00	30.0	>2.00	1,500	N	N	N	70	1,500	N	N
AJ0404HN	32 28 23	112 46 18	10.0	7.00	30.0	>2.00	1,500	N	N	N	200	1,000	N	N
AJ0405HN	32 29 3	112 47 6	7.0	5.00	30.0	>2.00	1,500	N	N	N	700	2,000	N	N
SE0406HN	32 53 51	113 4 17	10.0	15.00	30.0	2.00	1,500	N	N	N	100	700	N	N
SE0407HN	32 55 33	113 2 52	2.0	1.50	7.0	>2.00	500	N	N	N	N	>10,000	N	N
SE0408HN	32 56 49	113 2 49	10.0	7.00	30.0	>2.00	1,500	N	N	N	700	>10,000	N	N
SE0409HN	32 55 18	113 1 14	15.0	15.00	30.0	>2.00	1,500	N	N	N	500	1,500	N	N
SE0410HN	32 56 9	113 1 15	15.0	15.00	30.0	>2.00	2,000	N	N	N	500	7,000	N	N
SE0411HN	32 57 35	113 1 4	15.0	15.00	50.0	>2.00	1,500	N	N	N	N	>10,000	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
AM0365HN	N	15	150	<10	2,000	<10	300	20	50	N	20	150	N	150
HM0366HN	N	15	700	20	2,000	<10	200	50	300	N	50	70	200	150
HM0367HN	N	20	300	10	2,000	<10	300	20	20	N	50	70	N	100
HM0368HN	N	15	150	10	2,000	<10	500	20	20	N	70	150	N	150
HM0369HN	N	20	700	10	>2,000	N	150	70	20	N	150	20	300	150
HM0370HN	N	15	200	10	>2,000	15	700	30	20	N	70	100	N	150
HM0371HN	N	15	1,500	200	1,000	N	70	70	100	N	100	50	200	150
HM0372HN	N	20	700	30	1,000	N	<50	100	70	N	50	20	N	200
HM0373HN	N	20	200	100	300	15	<50	100	70	N	20	<20	500	200
HM0374HN	N	20	300	1,500	300	N	100	50	150	N	20	30	300	200
MI0375HN	N	20	700	300	700	N	N	70	50	N	50	20	200	200
HM0376HN	N	20	500	200	700	<10	100	70	70	N	50	150	N	200
HM0377HN	N	30	700	70	700	N	50	100	70	N	50	<20	N	200
HM0378HN	N	30	500	100	1,000	N	50	100	150	N	50	<20	200	300
HM0379HN	N	20	300	20	500	N	50	70	300	N	50	1,500	700	200
HM0381HN	N	30	500	15	700	N	50	70	50	N	50	<20	N	500
HM0382HN	N	10	300	150	700	N	50	50	150	N	50	20	N	200
HM0383HN	N	15	700	50	500	N	<50	70	100	N	70	500	N	200
HM0384HN	N	20	300	15	500	<10	50	70	20	N	50	N	N	150
HM0385HN	N	10	200	150	1,000	N	<50	50	300	N	70	<20	200	150
HM0386HN	N	15	300	30	500	<10	50	50	150	N	30	20	700	150
HM0387HN	N	30	1,000	30	300	N	N	50	N	N	50	N	N	200
HM0388HN	N	30	1,000	150	200	<10	<50	70	50	N	50	N	N	150
HM0389HN	N	15	500	20	500	<10	70	70	50	N	30	<20	200	150
HM0390HN	N	15	700	300	1,000	N	70	70	50	N	50	50	N	200
HM0391HN	N	15	150	50	700	N	N	15	N	N	10	20	500	150
HM0392HN	N	10	150	70	1,000	N	50	15	50	N	10	150	700	100
HM0393HN	N	10	100	30	1,000	N	<50	15	N	N	10	150	700	150
HM0394HN	N	20	1,000	300	1,000	<10	150	70	50	N	70	50	300	300
HM0395HN	N	15	700	500	1,000	<10	150	70	70	N	50	50	N	200
HM0396HN	N	20	1,500	1,500	>2,000	N	<50	70	700	N	150	70	700	1,000
HM0397HN	N	20	1,000	1,500	>2,000	<10	150	50	100	N	150	70	700	700
HM0398HN	N	30	2,000	150	200	<10	N	70	N	N	200	N	N	1,000
SI0399HN	N	20	1,500	300	500	<10	<50	70	30	N	150	N	N	500
SI0400HN	N	30	700	150	1,000	<10	<50	70	200	N	150	20	1,000	700
SI0401HN	N	30	1,500	150	1,500	<10	<50	70	20	N	150	20	500	700
SI0402HN	N	30	1,500	150	200	<10	<50	70	20	N	150	20	700	700
AJ0403HN	N	20	2,000	200	500	<10	<50	70	20	N	200	20	200	700
AJ0405HN	N	15	700	700	>2,000	N	<50	50	150	N	200	150	500	500
SE0406HN	N	30	1,500	30	2,000	N	N	70	70	N	200	20	300	700
SE0407HN	N	N	500	<10	N	<10	N	20	20	N	N	N	>10,000	70
SE0408HN	N	30	1,000	20	500	<10	100	70	70	N	150	70	700	700
SE0409HN	N	30	1,500	10	700	<10	<50	70	70	N	200	20	700	700
SE0410HN	N	30	1,500	20	500	10	150	70	70	N	150	20	500	700
SE0411HN	N	30	1,500	15	700	<10	N	70	20	N	200	20	700	700

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
ST0320HN	N	200	N	>2,000	N
AZ0321HN	N	>500	N	>2,000	N
AZ0322HN	N	>500	N	>2,000	N
AZ0323HN	N	500	N	>2,000	N
SE0324HN	N	70	N	>2,000	N
SE0325HN	N	>500	N	>2,000	N
SE0326HN	N	>500	N	>2,000	N
SE0327HN	N	70	N	700	N
SE0328HN	N	150	N	>2,000	N
SE0329HN	N	200	N	>2,000	N
SE0330HN	N	200	N	>2,000	N
MI0331HN	N	200	N	>2,000	N
AI0332HN	N	300	N	>2,000	N
MI0333HN	N	500	N	2,000	N
MI0334HN	N	300	N	>2,000	N
MI0335HN	N	300	N	>2,000	N
MI0336HN	N	300	N	>2,000	N
MI0337HN	N	500	N	>2,000	N
CV0338HN	N	500	N	>2,000	N
CV0339HN	N	500	N	>2,000	N
CV0340HN	N	500	N	>2,000	N
CV0341HN	N	500	N	>2,000	N
CV0342HN	N	500	N	>2,000	N
CV0343HN	N	500	N	>2,000	N
CV0344HN	N	200	N	2,000	N
CV0345HN	N	500	N	>2,000	N
CV0346HN	N	500	N	>2,000	N
CV0347HN	N	500	N	>2,000	N
CV0348HN	N	500	N	>2,000	N
HM0349HN	N	>500	N	>2,000	N
HM0350HN	N	500	N	>2,000	N
HM0351HN	N	>500	N	>2,000	N
HM0352HN	N	>500	N	>2,000	N
HM0353HN	N	300	N	>2,000	N
HM0354HN	N	200	N	>2,000	N
HM0355HN	N	300	N	>2,000	N
HM0356HN	N	150	N	>2,000	N
HM0357HN	N	>500	N	>2,000	N
HM0358HN	N	>500	N	>2,000	N
HM0359HN	N	500	N	>2,000	N
HM0360HN	N	300	N	>2,000	N
HM0361HN	N	>500	N	>2,000	N
HM0362HN	N	200	N	>2,000	N
HM0363HN	N	>500	N	>2,000	N
HM0364HN	N	>500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
AM0365HN	N	>500	N	>2,000	N
HM0366HN	N	>500	N	>2,000	N
HM0367HN	N	>500	N	>2,000	N
HM0368HN	N	>500	N	>2,000	N
HM0369HN	N	>500	N	>2,000	N
HM0370HN	N	>500	N	>2,000	N
HM0371HN	N	>500	N	>2,000	N
HM0372HN	N	>500	N	>2,000	N
HM0373HN	300	300	N	>2,000	N
HM0374HN	N	>500	N	1,500	N
MI0375HN	N	>500	N	>2,000	N
HM0376HN	N	>500	N	>2,000	N
HM0377HN	N	>500	N	>2,000	N
HM0378HN	N	>500	N	>2,000	N
HM0379HN	N	500	N	>2,000	N
HM0381HN	N	500	N	>2,000	N
HM0382HN	N	>500	N	>2,000	N
HM0383HN	N	>500	N	>2,000	N
HM0384HN	N	500	N	>2,000	N
HM0385HN	N	>500	N	>2,000	N
HM0386HN	N	200	N	>2,000	N
HM0387HN	N	300	N	>2,000	N
HM0388HN	N	300	N	>2,000	N
HM0389HN	N	500	N	>2,000	N
HM0390HN	N	>500	N	>2,000	N
HM0391HN	N	500	N	2,000	N
HM0392HN	N	500	N	>2,000	N
HM0393HN	N	>500	N	>2,000	N
HM0394HN	N	>500	N	>2,000	N
HM0395HN	N	>500	N	>2,000	N
HM0396HN	N	>500	N	>2,000	N
HM0397HN	N	>500	N	>2,000	N
HM0398HN	N	500	N	>2,000	N
SI0399HN	N	>500	N	>2,000	N
SI0400HN	N	>500	N	>2,000	700
SI0401HN	N	>500	N	>2,000	N
SI0402HN	N	500	N	>2,000	N
AJ0404HN	N	>500	N	>2,000	N
AJ0405HN	N	>500	N	>2,000	N
SE0406HN	N	>500	N	>2,000	N
SE0407HN	N	300	N	>2,000	N
SF0408HN	N	>500	N	>2,000	N
SE0409HN	N	>500	N	>2,000	N
SF0410HN	N	>500	N	>2,000	N
SE0411HN	N	>500	N	>2,000	N

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
AM0365HN	N	>500	N	>2,000	N
HM0366HN	N	>500	N	>2,000	N
HM0367HN	N	>500	N	>2,000	N
HM0368HN	N	>500	N	>2,000	N
HM0369HN	N	>500	N	>2,000	N
HM0370HN	N	>500	N	>2,000	N
HM0371HN	N	>500	N	>2,000	N
HM0372HN	N	>500	N	>2,000	N
HM0373HN	300	300	N	>2,000	N
HM0374HN	N	>500	N	1,500	N
MI0375HN	N	>500	N	>2,000	N
HM0376HN	N	>500	N	>2,000	N
HM0377HN	N	>500	N	>2,000	N
HM0378HN	N	>500	N	>2,000	N
HM0379HN	N	500	N	>2,000	N
HM0381HN	N	500	N	>2,000	N
HM0382HN	N	>500	N	>2,000	N
HM0383HN	N	>500	N	>2,000	N
HM0384HN	N	500	N	>2,000	N
HM0385HN	N	>500	N	>2,000	N
HM0386HN	N	200	N	>2,000	N
HM0387HN	N	300	N	>2,000	N
HM0388HN	N	300	N	>2,000	N
HM0389HN	N	500	N	>2,000	N
HM0390HN	N	>500	N	>2,000	N
HM0391HN	N	500	N	2,000	N
HM0392HN	N	500	N	>2,000	N
HM0393HN	N	>500	N	>2,000	N
HM0394HN	N	>500	N	>2,000	N
HM0395HN	N	>500	N	>2,000	N
HM0396HN	N	>500	N	>2,000	N
HM0397HN	N	>500	N	>2,000	N
HM0398HN	N	500	N	>2,000	N
SI0399HN	N	>500	N	>2,000	N
SI0400HN	N	>500	N	>2,000	700
SI0401HN	N	>500	N	>2,000	N
SI0402HN	N	500	N	>2,000	N
AJ0404HN	N	>500	N	>2,000	N
AJ0405HN	N	>500	N	>2,000	N
SE0406HN	N	>500	N	>2,000	N
SE0407HN	N	300	N	>2,000	N
SE0408HN	N	>500	N	>2,000	N
SE0409HN	N	>500	N	>2,000	N
SE0410HN	N	>500	N	>2,000	N
SE0411HN	N	>500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAX	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
TH0412HN	32 58 10	112 59 27	10.0	7.00	50.0	>2.00	1,500	N	N	N	300	2,000	N	N
TH0413HN	32 59 41	112 59 19	10.0	7.00	50.0	>2.00	1,500	N	N	N	50	>10,000	N	N
TH0414HN	32 49 17	112 51 30	7.0	1.00	30.0	>2.00	1,000	N	N	N	70	700	N	N
TH0415HN	32 46 33	112 50 37	10.0	2.00	50.0	>2.00	1,500	N	N	N	150	700	N	N
TH0416HN	32 48 4	112 49 37	7.0	1.00	50.0	>2.00	1,500	N	N	N	N	700	N	N
TH0417HN	32 49 59	112 48 51	7.0	2.00	7.0	>2.00	1,000	N	N	N	700	1,000	N	N
SI0418HN	32 16 20	112 44 1	10.0	7.00	20.0	>2.00	1,500	N	N	N	300	500	N	N
SI0419HN	32 17 51	112 42 58	7.0	3.00	50.0	>2.00	1,000	N	N	N	100	300	N	N
SI0420HN	32 19 53	112 42 34	5.0	7.00	20.0	>2.00	2,000	N	N	N	100	150	N	N
SI0421HN	32 20 12	112 40 35	7.0	7.00	20.0	>2.00	3,000	N	N	N	300	300	N	N
SI0422HN	32 20 58	112 40 38	15.0	15.00	15.0	>2.00	5,000	N	N	N	50	500	N	N
SI0423HN	32 21 52	112 41 27	15.0	15.00	20.0	>2.00	3,000	N	N	N	200	7,000	N	N
SI0424HN	32 21 52	112 41 27	15.0	15.00	15.0	>2.00	5,000	N	N	N	150	700	N	N
SI0425HN	32 21 23	112 42 29	7.0	5.00	50.0	>2.00	3,000	N	N	N	70	300	N	N
SI0426HN	32 19 38	112 41 57	7.0	7.00	15.0	>2.00	2,000	N	N	N	1,000	1,500	N	N
SI0427HN	32 22 53	112 41 30	15.0	15.00	15.0	>2.00	5,000	N	N	N	1,000	1,000	N	N
SI0428HN	32 25 13	112 41 6	7.0	7.00	20.0	>2.00	2,000	N	N	N	700	1,000	N	N
SI0429HN	32 24 42	112 37 57	20.0	15.00	15.0	>2.00	>10,000	N	N	N	300	3,000	N	N
SI0430HN	32 25 52	112 38 0	15.0	10.00	15.0	>2.00	7,000	N	N	N	500	1,500	N	N
SI0431HN	32 26 0	112 36 22	15.0	10.00	15.0	>2.00	7,000	N	N	N	200	500	N	N
SI0432HN	32 21 52	112 41 27	20.0	15.00	20.0	1.50	5,000	N	N	N	N	10,000	N	N
SI0433HN	32 27 35	112 33 52	20.0	15.00	20.0	1.50	5,000	N	N	N	N	1,000	N	N
SI0434HN	32 28 7	112 34 16	20.0	20.00	20.0	1.50	5,000	N	N	N	70	3,000	N	N
SI0435HN	32 28 22	112 36 17	5.0	7.00	5.0	>2.00	2,000	N	N	N	200	300	N	N
SI0436HN	32 27 19	112 36 1	20.0	15.00	15.0	1.50	3,000	N	N	N	N	300	N	N
SI0437HN	32 27 0	112 37 8	20.0	15.00	15.0	1.50	3,000	N	N	N	N	1,500	N	N
SI0438HN	32 27 59	112 39 52	15.0	15.00	15.0	1.50	2,000	N	N	N	N	150	N	N
SI0439HN	32 29 40	112 38 25	20.0	7.00	5.0	>2.00	3,000	N	N	N	500	1,500	N	N
KA0443HN	32 37 18	112 28 53	10.0	3.00	3.0	>2.00	3,000	N	N	N	700	300	N	N
KA0446HN	32 35 32	112 23 27	7.0	5.00	20.0	>2.00	3,000	N	N	N	500	2,000	N	N
KA0447HN	32 36 8	112 22 41	15.0	15.00	20.0	2.00	2,000	N	N	N	N	150	N	N
KA0449HN	32 36 11	112 20 14	15.0	20.00	30.0	2.00	2,000	N	N	N	N	150	N	N
KA0450HN	32 35 48	112 18 6	15.0	15.00	30.0	>2.00	3,000	N	N	N	50	150	N	N
KA0451HN	32 41 13	112 21 8	15.0	15.00	50.0	>2.00	3,000	N	N	N	100	700	N	N
KA0453HN	32 36 35	112 17 22	10.0	10.00	20.0	>2.00	1,500	N	N	N	200	150	N	N
KA0454HN	32 37 7	112 20 58	15.0	20.00	50.0	1.50	1,500	N	N	N	N	100	N	N
KA0455HN	32 38 45	112 22 20	15.0	20.00	50.0	2.00	2,000	N	N	N	N	150	N	N
KA0456HN	32 39 46	112 21 52	15.0	20.00	50.0	>2.00	2,000	N	N	N	70	10,000	N	N
KA0459HN	32 38 6	112 24 13	10.0	15.00	30.0	1.50	1,500	N	N	N	N	200	N	N
KA0460HN	32 38 35	112 26 33	15.0	10.00	10.0	>2.00	3,000	N	N	N	N	7,000	N	N
KA0461HN	32 39 40	112 27 25	15.0	7.00	10.0	>2.00	5,000	N	N	N	70	700	N	N
KA0462HN	32 41 19	112 28 23	15.0	15.00	20.0	>2.00	3,000	N	N	N	200	300	N	N
KA0463HN	32 41 43	112 24 40	15.0	10.00	20.0	>2.00	3,000	N	N	N	70	>10,000	N	N
KA0464HN	32 43 4	112 25 22	15.0	7.00	10.0	>2.00	5,000	N	N	N	200	>10,000	15	N
KA0465HN	32 43 48	112 27 45	10.0	2.00	5.0	>2.00	1,500	N	N	N	500	500	15	N

Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
TH0412HN	N	20	1,500	50	>2,000	10	100	70	70	N	200	50	500	500
TH0413HN	N	30	1,500	20	200	10	100	70	20	N	200	20	10,000	700
TH0414HN	N	N	200	20	700	10	100	30	20	N	70	70	2,000	300
TH0415HN	N	N	300	100	500	10	300	20	70	N	50	100	5,000	300
TH0416HN	N	N	150	30	700	20	300	20	70	N	N	100	3,000	200
TH0417HN	N	N	300	50	2,000	<10	100	50	100	N	200	100	700	300
SI0418HN	N	20	1,000	100	2,000	10	70	70	70	N	200	30	1,500	300
SI0419HN	N	N	500	70	>2,000	10	<50	30	50	N	200	2,000	3,000	200
SI0420HN	N	15	700	150	1,500	<10	150	70	N	N	50	20	700	200
SI0421HN	N	15	1,000	50	1,500	<10	150	70	20	N	70	30	700	300
SI0422HN	N	30	1,500	70	700	<10	70	300	N	N	70	N	200	300
SI0423HN	N	30	1,500	15	700	<10	50	300	N	N	70	N	500	300
SI0424HN	N	10	300	<10	2,000	<10	70	50	N	N	20	30	10,000	150
SI0425HN	N	15	1,000	200	1,500	<10	70	150	50	N	50	30	500	300
SI0426HN	N	30	1,000	100	1,000	<10	100	150	50	N	70	30	700	300
SI0428HN	N	15	1,000	50	1,000	<10	100	100	N	N	70	20	700	200
SI0429HN	N	30	1,500	15	1,000	<10	200	200	150	N	70	30	200	200
SI0430HN	N	20	1,500	150	1,000	15	100	300	70	N	70	300	300	300
SI0431HN	N	30	1,500	150	500	<10	50	300	N	N	100	N	300	300
SI0423HN	N	50	1,500	15	<50	<10	N	500	N	N	100	N	200	300
SI0433HN	N	50	1,500	15	150	<10	N	500	N	N	70	N	<200	300
SI0434HN	N	50	1,000	10	<50	N	N	500	N	N	100	N	<200	300
SI0435HN	N	10	1,000	100	700	<10	200	70	70	N	70	50	<200	300
SI0436HN	N	30	1,000	15	100	<10	N	500	N	N	150	N	<200	300
SI0437HN	N	30	700	15	100	<10	N	500	N	N	100	N	<200	300
SI0438HN	N	30	1,000	15	<50	<10	N	500	N	N	150	300	<200	300
SI0439SN	N	20	1,000	70	1,000	<10	200	100	700	N	100	300	200	300
KA0443HN	N	<10	200	30	1,500	<10	300	50	70	N	100	30	<200	200
KA0446HN	N	15	300	30	1,000	<10	100	50	70	N	50	150	1,500	200
KA0447HN	N	30	1,000	30	200	<10	N	300	N	N	100	N	300	300
KA0449HN	N	70	7,000	20	100	15	N	500	N	N	200	N	N	700
KA0450HN	N	70	7,000	50	700	10	N	300	N	N	200	N	200	700
KA0451HN	N	50	1,500	70	700	<10	N	200	50	N	200	20	300	300
KA0453HN	N	50	2,000	70	700	<10	150	200	150	N	100	30	N	300
KA0454HN	N	100	7,000	20	N	10	N	700	N	N	150	N	N	500
KA0455HN	N	100	7,000	10	N	15	N	500	N	N	150	70	N	500
KA0456HN	N	70	7,000	70	500	15	50	500	20	N	150	1,500	500	500
KA0459HN	N	50	5,000	20	300	15	N	500	N	N	200	N	N	300
KA0460KN	N	50	1,500	20	100	15	300	150	20	N	200	20	N	200
KA0461HN	N	30	1,500	20	1,000	15	500	150	50	N	100	150	N	150
KA0462HN	N	70	1,500	700	700	<10	50	300	70	N	>200	70	300	500
KA0463HN	N	30	2,000	50	700	10	50	500	100	N	200	50	700	500
KA0464HN	N	30	1,000	100	700	<10	50	100	150	N	>200	>2,000	500	200
KA0465HN	N	10	200	70	1,500	<10	150	100	150	N	>200	150	700	200



## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
TH0412HN	N	>500	N	>2,000	N
TH0413HN	N	>500	N	>2,000	N
TH0414HN	N	>500	N	>2,000	N
TH0415HN	N	>500	N	>2,000	N
TH0416HN	N	>500	N	>2,000	N
TH0417HN	N	>500	N	>2,000	N
SI0418HN	N	>500	N	>2,000	N
SI0419HN	N	>500	N	>2,000	N
SI0420HN	N	>500	N	>2,000	N
SI0421HN	N	>500	N	>2,000	N
SI0422HN	N	500	N	>2,000	N
SI0423HN	N	300	N	>2,000	N
SI0424HN	N	500	N	>2,000	N
SI0425HN	N	>500	N	>2,000	N
SI0426HN	N	>500	N	>2,000	N
SI0428HN	N	>500	N	>2,000	N
SI0429HN	N	500	N	>2,000	N
SI0430HN	N	>500	N	>2,000	N
SI0431HN	N	500	N	>2,000	N
SI0423HN	N	150	N	>2,000	N
SI0433HN	N	150	N	>2,000	N
SI0434HN	N	150	N	>2,000	N
SI0435HN	N	>500	N	>2,000	N
SI0436HN	N	150	N	>2,000	N
SI0437HN	N	200	N	>2,000	N
SI0438HN	N	100	N	>2,000	N
SI0439SN	N	>500	N	>2,000	N
KA0443HN	N	>500	N	>2,000	N
KA0446HN	N	>500	N	>2,000	N
KA0447HN	N	300	N	>2,000	N
KA0449HN	N	300	N	>2,000	N
KA0450HN	N	500	N	>2,000	N
KA0451HN	N	>500	N	>2,000	N
KA0453HN	N	>500	N	>2,000	N
KA0454HN	N	150	N	>2,000	N
KA0455HN	N	150	N	>2,000	N
KA0456HN	N	>500	N	>2,000	N
KA0459HN	N	>500	N	>2,000	N
KA0460KN	N	500	N	>2,000	N
KA0461HN	N	>500	N	>2,000	N
KA0462HN	N	>500	N	>2,000	N
KA0463HN	N	>500	N	>2,000	N
KA0464HN	N	>500	N	>2,000	N
KA0465HN	N	>500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MG%	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
KAD466HN	32 43 19	112 29 26	10.0	10.00	20.0	>2.00	1,500	N	N	N	150	5,000	N	N
KAD467HN	32 44 20	112 28 42	10.0	7.00	10.0	>2.00	1,500	N	N	N	150	3,000	2	N
G10468HN	32 45 38	112 32 9	15.0	10.00	20.0	>2.00	2,000	N	N	N	1,000	1,000	N	N
G10469HN	32 46 28	112 34 4	15.0	7.00	20.0	>2.00	2,000	N	N	N	700	3,000	2	N
G10470HN	32 46 58	112 36 10	10.0	7.00	20.0	>2.00	3,000	N	N	N	1,000	5,000	20	N
GMD471HN	32 21 0	113 24 2	7.0	3.00	30.0	>2.00	1,500	N	N	N	1,000	300	N	N
GMD472HN	32 21 11	113 25 7	7.0	1.50	50.0	>2.00	1,500	N	N	N	150	1,500	N	N
GMD473HN	32 22 1	113 24 36	7.0	2.00	30.0	>2.00	1,500	N	N	N	700	300	N	N
GMD474HN	32 22 43	113 25 40	5.0	1.00	30.0	>2.00	1,500	N	N	N	100	150	N	N
GMD475HN	32 23 50	113 25 34	7.0	.70	50.0	>2.00	1,500	N	N	N	100	300	N	N
GMD476HN	32 24 47	113 26 17	5.0	.70	50.0	>2.00	1,500	N	N	N	70	1,500	N	N
GMD477HN	32 23 58	113 29 10	10.0	7.00	50.0	>2.00	1,500	N	N	N	N	300	N	N
GMD478HN	32 23 22	113 27 53	3.0	1.00	50.0	>2.00	1,500	N	N	N	70	300	N	N
GMD479HN	32 23 18	113 26 57	5.0	1.00	50.0	>2.00	1,500	N	N	N	100	200	N	N
GMD480HN	32 20 19	113 23 42	7.0	1.50	50.0	>2.00	1,500	N	N	N	700	300	N	N
GMD481HN	32 19 16	113 22 38	5.0	.70	30.0	>2.00	1,000	N	N	N	150	200	N	N
GMD482HN	32 18 10	113 22 6	5.0	.70	20.0	>2.00	1,500	N	N	N	150	1,000	N	N
GMD483HN	32 16 59	113 20 53	7.0	1.00	30.0	>2.00	1,500	N	N	N	700	300	N	N
GMD484HN	32 19 31	113 24 8	5.0	.50	20.0	>2.00	1,500	N	N	N	500	500	N	N
GMD485HN	32 18 45	113 23 42	7.0	1.00	30.0	>2.00	1,500	N	N	N	700	500	N	N
GMD486HN	32 18 6	113 23 31	5.0	1.00	30.0	>2.00	1,500	N	N	N	700	300	N	N
GMD487HN	32 17 37	113 22 18	7.0	.50	30.0	>2.00	1,500	N	N	N	700	300	N	N
GMD488HN	32 16 56	113 22 22	7.0	.30	30.0	>2.00	1,500	N	N	N	300	700	N	N
GMD489HN	32 15 51	113 21 46	10.0	1.50	15.0	>2.00	2,000	N	N	N	700	700	7	N
GMD490HN	32 16 28	113 20 38	7.0	1.00	15.0	>2.00	3,000	N	N	N	200	1,500	N	N
GMD491HN	32 15 23	113 21 2	15.0	2.00	30.0	>2.00	3,000	N	N	N	100	2,000	N	N
OH0492HN	32 13 16	113 21 2	10.0	1.50	15.0	>2.00	1,500	N	N	N	700	500	N	N
OH0493HN	32 14 25	113 20 56	15.0	1.50	20.0	>2.00	2,000	N	N	N	700	700	N	N
OH0494HN	32 13 28	113 18 22	10.0	1.50	15.0	>2.00	1,500	N	N	N	300	500	N	N
OH0495HN	32 12 57	113 17 5	10.0	2.00	15.0	>2.00	1,500	N	N	N	700	500	N	N
OH0496HN	32 14 11	113 16 56	10.0	1.00	20.0	>2.00	1,500	N	N	N	700	500	N	N
GH0497HN	32 15 7	113 16 58	10.0	2.00	15.0	>2.00	1,500	N	N	N	300	500	N	N
GM0498HN	32 16 22	113 16 9	10.0	1.50	10.0	>2.00	1,500	N	N	N	700	10,000	N	N
GM0499HN	32 17 6	113 15 46	10.0	2.00	20.0	>2.00	1,500	N	N	N	700	3,000	N	N
GP0500HN	32 15 29	113 14 23	15.0	2.00	20.0	>2.00	1,500	N	N	N	500	1,000	N	N
GP0501HN	32 17 43	113 14 19	10.0	2.00	30.0	>2.00	2,000	N	N	N	300	300	N	N
GP0502HN	32 16 34	113 14 55	10.0	3.00	20.0	>2.00	3,000	N	N	N	500	2,000	N	N
GM0503HN	32 18 10	113 15 16	10.0	2.00	20.0	>2.00	1,500	N	N	N	200	500	N	N
GM0504HN	32 17 47	113 17 0	10.0	3.00	10.0	>2.00	1,500	N	N	N	700	500	N	N
GM0505HN	32 18 21	113 17 26	10.0	3.00	10.0	>2.00	1,500	N	N	N	700	700	N	N
GM0506HN	32 19 7	113 16 29	7.0	.70	20.0	>2.00	1,500	N	N	N	700	500	N	N
GM0507HN	32 19 55	113 17 20	10.0	7.00	20.0	>2.00	2,000	N	N	N	100	300	N	N
GM0508HN	32 21 7	113 18 11	7.0	1.00	30.0	>2.00	2,000	N	N	N	200	300	N	N
GM0509HN	32 22 36	113 18 33	10.0	1.50	30.0	>2.00	2,000	N	N	N	700	1,500	N	N
GM0510HN	32 23 24	113 18 46	7.0	1.00	30.0	>2.00	2,000	N	N	N	700	>10,000	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PR	S-SB	S-SC	S-SN	S-SR	S-V
KA0466HN	N	30	5,000	50	500	<10	100	200	100	N	200	30	500	300
KA0467HN	N	20	1,500	20	1,000	<10	200	20	100	N	>200	50	500	150
GI0468HN	N	70	2,000	50	1,000	<10	100	200	70	N	150	20	2,000	300
GI0469HN	N	30	1,000	70	1,000	N	100	100	70	N	150	20	1,000	200
GI0470HN	N	20	1,500	150	700	<10	150	100	150	N	150	70	1,000	200
GM0471HN	N	<10	1,000	30	1,000	N	150	<10	70	N	150	50	500	200
GM0472HN	N	<10	700	10	1,500	N	150	<10	70	N	200	50	1,500	150
GM0473HN	N	<10	700	<10	1,500	N	150	<10	70	N	>200	50	500	200
GM0474HN	N	<10	500	10	1,500	N	150	<10	70	N	150	50	700	300
GM0475HN	N	<10	500	300	1,000	<10	100	<10	70	N	200	50	3,000	200
GM0476HN	N	<10	500	10	1,000	<10	100	<10	70	N	200	50	1,500	150
GM0477HN	N	<10	5,000	10	1,000	<10	150	100	20	N	200	70	1,000	200
GM0478HN	N	<10	200	<10	1,500	<10	100	<10	20	N	70	50	1,500	200
GM0479HN	N	<10	700	10	1,000	<10	70	<10	50	N	70	50	2,000	200
GM0480HN	N	<10	700	10	1,000	<10	100	<10	100	N	150	70	700	300
GM0481HN	N	<10	500	10	1,500	<10	100	<10	70	N	200	50	500	300
GM0482HN	N	<10	500	<10	>2,000	N	200	100	100	N	200	50	500	150
GH0483HN	N	<10	500	10	2,000	<10	150	<10	150	N	150	70	700	200
GM0484HN	N	<10	300	10	1,500	N	100	<10	150	N	>200	30	500	200
GM0485HN	N	<10	300	20	1,500	<10	150	<10	100	N	100	70	700	300
GM0486HN	N	<10	500	150	>2,000	N	100	<10	100	N	>200	50	700	200
GM0487HN	N	<10	500	70	>2,000	N	100	100	150	N	>200	50	500	200
GM0488HN	N	<10	500	20	>2,000	N	100	200	150	N	>200	50	700	200
GM0489HN	N	<10	200	70	>2,000	<10	200	20	100	N	70	70	2,000	200
GM0490HN	N	<10	150	50	2,000	20	150	20	70	N	70	70	1,000	150
GM0491HN	N	15	150	50	>2,000	15	100	20	100	N	20	20	1,500	200
OH0492HN	N	<10	300	20	2,000	20	300	50	150	N	70	100	700	200
OH0493HN	N	15	200	30	700	20	200	30	70	N	70	100	1,000	200
OH0494HN	N	<10	300	<10	>2,000	20	300	20	200	N	100	100	700	200
OH0495HN	N	<10	300	10	2,000	<10	300	100	150	N	200	150	700	200
OH0496HN	N	<10	300	<10	1,000	20	500	20	200	N	100	100	700	200
GH0497HN	N	<10	300	<10	2,000	10	500	20	100	N	100	100	700	200
GM0498HN	N	<10	300	10	2,000	<10	150	20	150	N	200	100	700	200
GM0499HN	N	10	300	20	>2,000	<10	150	20	150	N	200	100	1,000	200
GP0500HN	N	15	300	15	2,000	<10	200	20	100	N	100	100	1,500	300
GP0501HN	N	10	150	50	>2,000	<10	100	20	100	N	100	50	700	200
GP0502HN	N	20	200	150	>2,000	20	100	100	150	N	150	70	2,000	200
GM0503HN	N	10	150	70	2,000	15	150	100	70	N	200	70	1,000	200
GM0504HN	N	15	300	10	>2,000	<10	150	200	150	N	200	70	1,000	300
GM0505HN	N	<10	300	10	>2,000	<10	200	20	300	N	>200	100	700	300
GM0506HN	N	10	200	30	>2,000	<10	150	20	100	N	>200	70	1,000	200
GM0507HN	N	20	150	30	1,000	20	300	500	70	N	70	100	1,500	200
GM0508HN	N	N	200	30	1,000	15	150	20	100	N	70	100	1,500	200
GM0509HN	N	10	200	50	1,000	20	200	20	70	N	100	70	2,000	200
GM0510HN	N	N	150	50	1,000	15	200	20	70	N	70	100	2,000	200

## Spectrographic analysis of heavy mineral concentrates--continued

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Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
KA0466HN	N	>500	N	>2,000	N
KA0467HN	N	>500	N	>2,000	N
GI0468HN	N	>500	N	>2,000	N
GI0469HN	N	>500	N	>2,000	N
GI0470HN	N	>500	N	>2,000	N
GM0471HN	N	>500	N	>2,000	N
GM0472HN	N	>500	N	>2,000	N
GM0473HN	N	>500	N	>2,000	N
GM0474HN	N	>500	N	>2,000	N
GM0475HN	N	>500	N	>2,000	N
GM0476HN	N	>500	N	>2,000	N
GM0477HN	N	>500	N	>2,000	N
GM0478HN	N	>500	N	>2,000	N
GM0479HN	N	>500	N	>2,000	N
GM0480HN	N	>500	N	>2,000	N
GM0481HN	N	>500	N	>2,000	N
GM0482HN	N	>500	N	>2,000	N
GH0483HN	N	>500	N	>2,000	N
GM0484HN	N	>500	N	>2,000	N
GM0485HN	N	>500	N	>2,000	N
GM0486HN	N	>500	N	>2,000	N
GM0487HN	N	>500	N	>2,000	1,500
GM0488HN	N	>500	N	>2,000	1,500
GM0489HN	N	>500	N	>2,000	N
GM0490HN	N	>500	N	>2,000	N
GM0491HN	N	>500	N	>2,000	700
OH0492HN	N	>500	N	>2,000	700
OH0493HN	N	>500	N	>2,000	N
OH0494HN	N	>500	N	>2,000	700
OH0495HN	N	>500	N	>2,000	N
OH0496HN	N	>500	N	>2,000	N
GH0497HN	N	>500	N	>2,000	N
GM0498HN	N	>500	N	>2,000	N
GM0499HN	N	>500	N	>2,000	N
GP0500HN	N	>500	N	>2,000	N
GP0501HN	N	>500	N	>2,000	N
GP0502HN	700	>500	N	>2,000	N
GM0503HN	N	>500	N	>2,000	N
GM0504HN	N	>500	N	>2,000	N
GM0505HN	N	>500	N	>2,000	N
GM0506HN	300	>500	N	>2,000	N
GM0507HN	N	>500	N	>2,000	N
GM0508HN	N	>500	N	>2,000	N
GM0509HN	N	>500	N	>2,000	N
GM0510HN	N	>500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FeX	S-MG%	S-CAZ	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
GM0511HN	32 23 47	113 18 45	7.0	.70	20.0	>2.00	2,000	N	N	N	200	700	N	N
GM0512HN	32 24 4	113 19 40	7.0	.50	30.0	>2.00	700	N	N	N	300	>10,000	N	N
GM0513HN	32 24 43	113 19 16	7.0	.50	30.0	>2.00	1,500	N	N	N	500	700	N	N
GM0514HN	32 25 22	113 19 25	3.0	.30	20.0	>2.00	700	N	N	N	N	10,000	N	N
GM0515HN	32 26 3	113 19 19	7.0	1.50	50.0	>2.00	1,500	N	N	N	700	700	N	N
GM0516HN	32 26 49	113 19 32	7.0	.70	30.0	>2.00	1,500	N	N	N	700	3,000	N	N
AJ0517HN	32 27 15	112 55 7	10.0	5.00	15.0	>2.00	1,000	N	N	N	1,000	1,500	5	N
AJ0518HN	32 27 9	112 55 38	10.0	7.00	15.0	>2.00	1,000	N	N	N	700	>10,000	N	N
AJ0519HN	32 25 50	112 55 33	10.0	7.00	20.0	>2.00	700	N	N	N	700	700	N	N
AJ0520HN	32 25 6	112 55 12	7.0	7.00	20.0	>2.00	700	N	N	N	300	700	N	N
AJ0521HN	32 24 18	112 56 21	15.0	10.00	30.0	>2.00	2,000	N	N	N	700	>10,000	N	N
AJ0522HN	32 25 20	112 57 1	7.0	5.00	15.0	>2.00	1,000	N	N	N	700	1,500	N	N
AJ0523HN	32 26 19	112 57 43	10.0	7.00	50.0	>2.00	1,500	N	N	N	500	300	N	N
AJ0524HN	32 28 17	112 58 55	7.0	3.00	30.0	>2.00	1,000	N	N	N	700	300	N	N
AJ0525HN	32 22 23	112 54 20	7.0	1.50	20.0	>2.00	1,500	N	N	N	700	500	N	N
AJ0526HN	32 23 1	112 55 2	7.0	7.00	20.0	>2.00	700	N	N	N	150	3,000	N	N
AJ0527HN	32 23 9	112 56 24	10.0	7.00	30.0	>2.00	700	N	N	N	700	>10,000	N	N
AJ0528HN	32 21 12	112 55 37	15.0	5.00	15.0	>2.00	1,500	N	N	N	300	3,000	2	N
AJ0529HN	32 21 44	112 55 20	7.0	2.00	30.0	>2.00	1,000	N	N	N	700	3,000	N	N
AJ0530HN	32 21 41	112 56 59	10.0	7.00	30.0	>2.00	1,500	N	N	N	700	700	N	N
AJ0531HN	32 21 40	112 58 15	7.0	.30	20.0	>2.00	1,000	N	N	N	100	>10,000	N	200
AJ0532HN	32 22 23	112 59 3	10.0	1.50	30.0	>2.00	1,500	N	N	N	700	>10,000	2	100
AJ0533HN	32 20 32	112 56 48	15.0	3.00	20.0	>2.00	1,500	N	N	N	1,000	2,000	N	N
AJ0534HN	32 20 13	112 56 11	10.0	2.00	15.0	>2.00	1,500	N	N	N	150	3,000	N	N
AJ0535HN	32 20 7	112 55 30	10.0	5.00	20.0	>2.00	1,500	N	N	N	300	700	2	N
AJ0536HN	32 19 51	112 54 46	10.0	1.00	20.0	>2.00	1,500	N	N	N	500	1,000	15	N
GP0537HN	32 23 50	113 5 55	7.0	3.00	15.0	>2.00	1,000	N	N	N	300	10,000	N	N
GP0538HN	32 25 21	113 4 54	10.0	7.00	20.0	>2.00	1,000	N	N	N	150	3,000	N	N
GP0539HN	32 25 16	113 7 26	7.0	1.00	20.0	>2.00	1,500	N	N	N	150	500	N	N
GP0540HN	32 23 34	113 7 30	10.0	7.00	20.0	>2.00	1,000	N	N	N	300	3,000	N	N
GP0541HN	32 21 44	113 6 21	7.0	5.00	20.0	>2.00	1,500	N	N	N	N	1,000	N	N
GP0542HN	32 20 34	113 5 38	10.0	15.00	20.0	>2.00	1,500	N	N	N	70	7,000	N	N
GP0543HN	32 19 42	113 5 38	10.0	15.00	20.0	>2.00	1,500	N	N	N	50	7,000	N	N
GP0544HN	32 18 41	113 5 15	7.0	7.00	20.0	>2.00	1,500	N	N	N	100	>10,000	N	N
GP0545HN	32 17 30	113 5 46	7.0	1.00	7.0	>2.00	700	N	N	N	300	7,000	N	N
GP0546HN	32 16 36	113 3 26	10.0	15.00	20.0	>2.00	1,500	N	N	N	N	700	N	N
GP0547HN	32 15 11	113 2 46	10.0	10.00	20.0	>2.00	1,000	N	N	N	70	1,000	N	N
AD0548HN	32 14 40	113 3 48	5.0	2.00	20.0	>2.00	1,500	N	N	N	70	700	N	N
AD0549HN	32 13 39	113 2 26	7.0	3.00	10.0	>2.00	1,500	N	N	N	200	300	N	N
GP0550HN	32 12 17	113 1 37	10.0	7.00	10.0	>2.00	1,500	N	N	N	150	>10,000	N	N
GP0551HN	32 18 51	113 2 45	10.0	15.00	10.0	>2.00	1,500	N	N	N	200	500	N	N
GP0552HN	32 20 6	113 3 1	15.0	15.00	20.0	>2.00	1,500	N	N	N	300	300	N	N
GP0553HN	32 20 25	113 2 54	7.0	7.00	20.0	>2.00	1,500	N	N	N	300	700	N	N
GP0554HN	32 22 42	113 4 47	7.0	5.00	20.0	>2.00	700	N	N	N	150	1,000	N	N
GP0555HN	32 22 16	113 3 28	10.0	10.00	20.0	>2.00	1,500	N	N	N	150	1,000	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
GM0511HN	N	N	70	30	300	15	500	20	70	N	150	100	1,000	200
GM0512HN	N	<10	70	100	500	10	200	<10	100	N	20	70	5,000	300
GM0513HN	N	<10	100	70	500	10	150	10	70	N	20	100	1,500	200
GM0514HN	N	N	N	20	200	15	500	<10	50	N	N	70	1,000	150
GM0515HN	N	N	500	<10	300	10	500	30	70	N	30	100	2,000	200
GM0516HN	N	N	100	<10	1,000	10	200	<10	100	N	20	100	2,000	200
AJ0517HN	N	N	1,000	150	>2,000	<10	300	100	150	N	70	70	700	500
AJ0518HN	N	20	700	200	>2,000	<10	150	150	100	N	70	70	7,000	200
AJ0519HN	N	20	1,000	200	1,500	<10	100	150	70	N	100	70	1,000	300
AJ0520HN	N	20	700	30	700	<10	70	100	70	N	70	50	700	200
AJ0521HN	N	70	1,000	70	700	<10	70	500	100	N	100	2,000	1,500	300
AJ0522HN	N	20	700	50	700	10	50	100	70	N	70	20	1,000	200
AJ0523HN	N	20	700	20	1,000	15	100	100	100	N	50	500	2,000	200
AJ0524HN	N	15	1,000	15	1,000	15	150	100	50	N	30	1,500	1,500	200
AJ0525HN	N	N	300	300	>2,000	<10	150	50	70	N	50	300	2,000	500
AJ0526HN	N	<10	200	70	700	<10	100	150	20	N	50	20	700	300
AJ0527HN	N	10	300	50	500	<10	50	150	2,000	N	30	20	2,000	300
AJ0528HN	N	30	500	1,500	1,000	70	50	100	15,000	N	50	20	1,000	700
AJ0529HN	N	10	200	300	1,500	<10	50	70	300	N	50	20	1,000	200
AJ0530HN	N	30	500	100	1,000	15	50	150	200	N	50	20	1,500	150
AJ0531HN	N	10	100	50	700	<10	70	<10	2,000	N	50	N	10,000	150
AJ0532HN	N	20	300	150	>2,000	<10	150	30	300	N	70	70	1,000	300
AJ0533HN	N	30	300	300	1,000	15	100	30	200	N	70	20	1,500	200
AJ0534HN	N	20	200	150	>2,000	200	50	30	500	N	70	30	700	200
AJ0535HN	N	20	700	1,500	2,000	30	100	150	10,000	N	100	20	700	700
AJ0536HN	N	10	200	200	2,000	10	100	30	700	N	150	20	700	200
GP0537HN	N	15	700	20	2,000	<10	200	50	100	N	70	30	500	300
GP0538HN	N	20	1,000	20	2,000	15	150	150	70	N	50	50	300	200
GP0539HN	N	<10	700	20	2,000	30	200	20	100	N	N	70	500	300
GP0540HN	N	20	1,000	20	2,000	10	150	150	100	N	50	70	700	200
GP0541HN	N	15	700	70	2,000	30	150	70	70	N	50	70	700	200
GP0542HN	N	30	1,000	50	700	10	150	200	50	N	70	50	500	300
GP0543HN	N	30	1,000	30	300	15	100	200	70	N	100	20	300	300
GP0544HN	N	20	1,000	50	2,000	10	150	70	100	N	50	50	7,000	200
GP0545HN	N	<10	300	<10	2,000	<10	100	50	150	N	70	50	200	200
GP0546HN	N	30	1,500	20	700	10	100	200	100	N	70	30	500	200
GP0547HN	N	20	1,000	30	500	10	50	100	<20	N	70	N	700	200
AD0548HN	N	<10	500	15	700	20	100	50	300	N	50	50	200	150
AD0549HN	N	20	700	<10	2,000	<10	100	70	100	N	50	50	300	200
GP0550HN	N	30	1,000	10	1,000	<10	100	70	7,000	N	50	20	200	1,000
GP0551HN	N	30	1,000	20	700	<10	70	100	150	N	70	20	300	200
GP0552HN	N	30	1,000	10	1,000	<10	50	300	50	N	70	30	300	300
GP0553HN	N	20	1,000	<10	1,000	<10	150	70	100	N	70	50	300	150
GP0554HN	N	15	700	<10	700	10	150	30	20	N	20	20	500	200
GP0555HN	N	20	1,000	50	1,000	<10	100	100	150	N	70	50	1,000	200

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
GM0511HN	N	>500	N	>2,000	N
GM0512HN	N	>500	N	>2,000	N
GM0513HN	N	>500	N	>2,000	N
GM0514HN	N	>500	N	>2,000	N
GM0515HN	N	>500	N	>2,000	N
GM0516HN	N	>500	N	>2,000	N
AJ0517HN	N	>500	N	>2,000	500
AJ0518HN	N	>500	N	>2,000	N
AJ0519HN	N	>500	N	>2,000	N
AJ0520HN	N	>500	N	>2,000	<200
AJ0521HN	N	>500	N	>2,000	N
AJ0522HN	N	>500	N	>2,000	N
AJ0523HN	N	>500	N	>2,000	N
AJ0524HN	N	>500	N	>2,000	N
AJ0525HN	N	>500	N	>2,000	<200
AJ0526HN	N	>500	N	>2,000	N
AJ0527HN	N	>500	N	>2,000	N
AJ0528HN	N	>500	N	>2,000	N
AJ0529HN	N	>500	N	>2,000	N
AJ0530HN	N	>500	N	>2,000	N
AJ0531HN	N	>500	N	>2,000	>5,000
AJ0532HN	N	>500	N	>2,000	1,500
AJ0533HN	<100	>500	N	>2,000	<200
AJ0534HN	700	>500	N	>2,000	<200
AJ0535HN	N	>500	N	>2,000	N
AJ0536HN	N	>500	N	>2,000	N
GP0537HN	N	>500	N	>2,000	N
GP0538HN	N	>500	N	>2,000	N
GP0539HN	N	>500	N	>2,000	N
GP0540HN	N	>500	N	>2,000	N
GP0541HN	N	>500	N	>2,000	N
GP0542HN	N	500	N	>2,000	N
GP0543HN	N	300	N	>2,000	N
GP0544HN	N	>500	N	>2,000	500
GP0545HN	N	>500	N	>2,000	700
GP0546HN	N	500	N	>2,000	N
GP0547HN	N	500	N	>2,000	N
AD0548HN	N	>500	N	>2,000	N
AD0549HN	N	>500	N	>2,000	N
GP0550HN	N	>500	N	>2,000	N
GP0551HN	N	500	N	>2,000	N
GP0552HN	N	>500	N	>2,000	N
GP0553HN	N	>500	N	>2,000	N
GP0554HN	N	500	N	>2,000	N
GP0555HN	N	500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
AJ0556HN	32 18 37	112 58 2	7.0	2.00	20.0	>2.00	1,500	N	N	N	300	1,000	N	N
AJ0557HN	32 17 41	112 57 49	10.0	1.50	10.0	>2.00	700	N	N	N	150	3,000	N	N
AJ0558HN	32 16 44	112 57 40	10.0	20.00	30.0	>2.00	2,000	N	N	N	70	150	N	N
AJ0559HN	32 16 45	112 57 6	10.0	10.00	20.0	>2.00	1,500	N	N	N	150	300	N	N
AJ0560HN	32 17 53	112 56 15	10.0	2.00	10.0	>2.00	1,500	N	N	N	300	5,000	10	N
AJ0561HN	32 19 16	112 53 38	15.0	7.00	50.0	>2.00	1,500	N	N	N	500	700	2	N
AJ0562HN	32 16 48	112 53 59	15.0	10.00	30.0	>2.00	1,500	N	N	N	500	300	N	N
AJ0563HN	32 15 57	112 54 31	15.0	20.00	50.0	>2.00	1,500	N	N	N	50	150	N	N
AJ0564HN	32 16 36	112 51 21	5.0	5.00	50.0	>2.00	1,500	N	N	N	50	700	N	N
AJ0565HN	32 17 35	112 50 38	7.0	10.00	50.0	1.50	1,500	N	N	N	N	700	N	N
AJ0566HN	32 18 27	112 49 31	10.0	15.00	15.0	>2.00	1,500	N	N	N	500	300	N	N
AJ0567HN	32 19 12	112 49 43	10.0	5.00	10.0	>2.00	1,000	N	N	N	150	1,500	N	N
AJ0568HN	32 20 10	112 50 22	10.0	7.00	15.0	>2.00	1,500	N	N	N	700	1,500	N	N
AJ0569HN	32 20 46	112 53 17	15.0	3.00	15.0	>2.00	2,000	N	N	N	500	7,000	N	N
GP0570HN	32 21 46	113 1 1	15.0	20.00	30.0	2.00	1,500	N	N	N	20	100	N	N
GP0571HN	32 19 43	113 0 22	15.0	20.00	50.0	>2.00	1,500	N	N	N	70	300	N	N
GP0572HN	32 18 46	113 0 42	7.0	20.00	50.0	1.50	1,000	N	N	N	N	70	N	N
GP0573HN	32 18 14	113 1 50	10.0	20.00	50.0	2.00	1,500	N	N	N	N	100	N	N
AD0574HN	32 2 42	113 9 30	10.0	2.00	20.0	>2.00	1,500	N	N	N	500	700	N	N
AD0575HN	32 2 19	113 8 42	15.0	5.00	15.0	>2.00	2,000	N	N	N	200	300	N	N
AD0576HN	32 1 47	113 7 24	15.0	7.00	10.0	>2.00	5,000	N	N	N	150	1,500	5	N
AD0577HN	32 0 25	113 5 55	15.0	3.00	3.0	>2.00	1,500	N	N	N	150	>10,000	7	N
AD0578HN	32 0 53	113 7 37	7.0	1.00	15.0	>2.00	1,000	N	N	N	200	1,500	N	N
AD0579HN	32 0 49	113 9 16	15.0	7.00	15.0	>2.00	2,000	N	N	N	200	1,500	N	N
AD0580HN	32 0 43	113 10 32	30.0	7.00	7.0	>2.00	1,500	N	N	N	150	700	N	N
AD0581HN	32 1 18	113 11 44	20.0	5.00	7.0	>2.00	3,000	N	N	N	150	1,000	2	N
AD0582HN	32 1 31	113 13 21	20.0	3.00	3.0	>2.00	7,000	N	N	N	700	3,000	10	N
AD0584HN	32 2 2	113 11 16	10.0	1.00	10.0	>2.00	2,000	N	N	N	500	700	N	N
AD0585HN	32 3 18	113 10 21	7.0	1.00	15.0	>2.00	2,000	N	N	N	100	500	N	N
AD0586HN	32 18 4	112 59 33	10.0	2.00	3.0	2.00	700	N	N	N	100	2,000	N	N
GP0587HN	32 17 27	113 1 11	10.0	10.00	50.0	2.00	1,000	N	N	N	100	100	N	N
GP0588HN	32 16 7	113 0 26	10.0	20.00	50.0	2.00	1,000	N	N	N	20	150	N	N
GP0589HN	32 15 14	113 0 4	10.0	15.00	50.0	1.50	1,000	N	N	N	30	300	N	N
KP0590HN	32 14 36	112 59 52	15.0	15.00	50.0	2.00	1,000	N	N	N	70	70	N	N
KP0591HN	32 13 38	112 59 45	15.0	20.00	50.0	2.00	1,000	N	N	N	70	150	N	N
KP0592HN	32 12 58	112 59 2	10.0	20.00	50.0	2.00	1,500	N	N	N	N	70	N	N
KP0593HN	32 12 17	112 58 32	15.0	10.00	50.0	2.00	1,500	N	N	N	70	70	N	N
KP0594HN	32 12 20	112 57 2	7.0	2.00	30.0	>2.00	1,000	N	N	N	70	1,500	N	N
KP0595HN	32 12 12	112 53 53	10.0	7.00	50.0	1.50	1,500	N	N	N	N	100	2	N
KP0596HN	32 12 38	112 54 54	7.0	5.00	20.0	2.00	1,500	N	N	N	50	500	N	N
KP0597HN	32 13 8	112 55 44	7.0	5.00	30.0	>2.00	1,500	N	N	N	N	70	N	N
KP0598HN	32 13 30	112 57 46	15.0	15.00	30.0	>2.00	1,500	N	N	N	N	200	N	N
KP0599HN	32 13 55	112 58 14	15.0	15.00	50.0	2.00	1,500	N	N	N	N	150	N	N
KP0600HN	32 14 24	112 56 46	15.0	20.00	50.0	2.00	1,500	N	N	N	N	50	N	N
KP0601HN	32 14 50	112 55 34	15.0	20.00	50.0	>2.00	1,500	N	N	N	100	70	N	N



## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
AJ0556HN	N	10	500	100	1,500	<10	70	50	150	N	50	50	700	200
AJ0557HN	N	15	150	150	1,000	10	150	50	100	N	50	30	700	150
AJ0558HN	N	30	>10,000	10	200	<10	N	300	N	N	70	N	200	300
AJ0559HN	N	20	5,000	10	2,000	<10	<50	100	50	N	50	50	500	200
AJ0560HN	N	<10	200	20	>50	<10	100	N	100	N	50	50	700	200
AJ0561HN	N	10	1,500	300	2,000	<10	100	N	100	N	50	20	700	300
AJ0562HN	N	20	2,000	200	>2,000	<10	<50	100	200	N	70	20	500	300
AJ0563HN	N	20	10,000	10	100	<10	N	100	N	N	100	N	200	300
AJ0564HN	N	N	300	30	>2,000	<10	N	20	20	N	N	N	7,000	150
AJ0565HN	N	10	1,500	20	>2,000	<10	N	20	N	N	20	30	7,000	150
AJ0566HN	N	20	3,000	1,000	300	<10	<50	300	50	N	50	20	500	200
AJ0567HN	N	10	1,500	700	300	<10	150	70	50	N	30	N	700	200
AJ0568HN	N	30	2,000	5,000	2,000	<10	150	70	100	N	50	30	700	200
AJ0569HN	N	30	500	3,000	1,000	700	<50	70	3,000	N	30	30	1,500	200
GP0570HN	N	50	7,000	100	300	10	<50	300	20	N	150	N	200	300
GP0571HN	N	50	7,000	50	200	<10	<50	300	N	N	150	N	200	300
GP0572HN	N	20	10,000	10	150	<10	N	150	N	N	150	N	<200	200
GP0573HN	N	30	>10,000	150	150	10	N	150	N	N	200	N	N	200
AD0574HN	N	15	300	70	1,000	150	<50	50	700	N	50	20	2,000	300
AD0575HN	N	70	300	100	1,500	70	<50	50	100	N	70	30	2,000	300
AD0576HN	N	100	300	300	1,500	10	150	100	1,500	N	30	70	1,000	200
AD0577HN	N	20	500	10	>2,000	10	500	20	500	N	30	70	1,500	200
AD0578HN	N	10	200	10	1,500	<10	100	20	100	N	20	50	700	200
AD0579HN	N	30	200	150	1,000	10	100	150	300	N	50	30	3,000	300
AD0580HN	N	30	1,000	100	700	30	100	150	150	N	50	20	1,500	700
AD0581HN	N	50	300	150	700	<10	<50	30	100	N	150	20	500	200
AD0582HN	N	30	200	70	1,000	<10	200	30	200	N	100	20	500	150
AD0584HN	N	10	200	50	>2,000	15	100	70	150	N	100	50	500	200
AD0585HN	N	10	200	20	2,000	10	200	30	150	N	100	70	700	150
AD0586HN	N	20	1,000	30	700	10	<50	50	30	N	150	70	700	100
GP0587AN	N	30	>10,000	20	500	10	<50	300	N	N	>200	N	<200	200
GP0588HN	N	20	>10,000	15	300	10	70	200	N	N	200	N	200	200
GP0589HN	N	30	>10,000	30	N	10	N	200	N	N	200	N	500	200
KP0590HN	N	30	>10,000	15	500	10	N	150	N	N	200	N	<200	200
KP0591HN	N	30	>10,000	20	500	15	N	150	N	N	200	N	200	200
KP0592HN	N	30	>10,000	30	500	15	<50	100	N	N	200	N	200	200
KP0593HN	N	30	10,000	30	1,000	10	70	150	N	N	200	N	200	200
KP0594HN	N	10	1,500	50	>2,000	70	100	50	1,500	N	20	50	700	300
KP0595HN	N	20	150	150	500	2,000	N	30	1,500	N	20	700	<200	200
KP0596HN	N	10	150	15	700	70	N	30	30	N	N	N	700	200
KP0597HN	N	15	1,500	30	1,500	30	100	100	N	N	30	50	<200	300
KP0598HN	N	30	5,000	30	500	15	100	200	N	N	150	20	500	200
KP0599HN	N	30	>10,000	20	200	10	<50	200	N	N	150	N	300	200
KP0600HN	N	30	10,000	150	300	10	<50	300	N	700	150	>2,000	N	300
KP0601HN	N	30	>10,000	20	700	10	<50	300	N	N	150	70	200	300

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
AJ0556HN	N	>500	N	>2,000	N
AJ0557HN	N	>500	N	>2,000	N
AJ0558HN	N	500	N	>2,000	N
AJ0559HN	N	>500	N	>2,000	N
AJ0560HN	N	>500	N	>2,000	N
AJ0561HN	N	>500	N	>2,000	N
AJ0562HN	N	>500	N	>2,000	N
AJ0563HN	N	200	N	>2,000	N
AJ0564HN	N	>500	N	>2,000	N
AJ0565HN	N	>500	N	>2,000	N
AJ0566HN	N	>500	N	>2,000	N
AJ0567HN	N	500	N	>2,000	N
AJ0568HN	N	>500	N	>2,000	N
AJ0569HN	N	>500	N	>2,000	N
GP0570HN	N	>500	N	>2,000	N
GP0571HN	N	500	N	>2,000	N
GP0572HN	N	100	N	>2,000	N
GP0573HN	N	150	N	>2,000	N
AD0574HN	1,500	>500	N	>2,000	N
AD0575HN	1,500	>500	N	>2,000	N
AD0576HN	N	>500	N	>2,000	N
AD0577HN	N	>500	N	>2,000	N
AD0578HN	N	>500	N	>2,000	N
AD0579HN	N	>500	N	>2,000	N
AD0580HN	300	200	N	>2,000	N
AD0581HN	N	500	N	>2,000	N
AD0582HN	N	>500	N	>2,000	N
AD0584HN	N	>500	N	>2,000	N
AD0585HN	N	>500	N	>2,000	N
AD0586HN	N	500	N	>2,000	N
GP0587AN	N	300	N	>2,000	N
GP0588HN	N	500	N	>2,000	N
GP0589HN	N	150	N	>2,000	N
KP0590HN	N	300	N	>2,000	N
KP0591HN	N	300	N	>2,000	N
KP0592HN	N	300	N	>2,000	N
KP0593HN	N	500	N	>2,000	N
KP0594HN	N	>500	N	>2,000	N
KP0595HN	10,000	200	N	>2,000	1,500
KP0596HN	200	200	N	1,500	N
KP0597HN	700	500	N	>2,000	N
KP0598HN	N	500	N	>2,000	N
KP0599HN	N	200	N	>2,000	N
KP0600HN	N	200	N	>2,000	N
KP0601HN	N	500	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
KP0602HN	32 14 42	112 54 42	10.0	10.00	30.0	2.00	1,000	N	N	N	100	150	N	N
SI0603HN	32 29 2	112 40 56	30.0	3.00	5.0	>2.00	>10,000	N	N	N	100	300	15	N
SI0604HN	32 29 6	112 30 51	20.0	5.00	7.0	>2.00	7,000	N	N	N	700	1,500	10	N
AD0605HN	32 4 38	113 10 53	10.0	1.50	10.0	>2.00	5,000	N	N	N	500	300	N	700
AD0606HN	32 3 56	113 11 33	7.0	.70	7.0	>2.00	3,000	N	N	N	150	1,500	N	300
AD0607HN	32 3 27	113 12 53	20.0	2.00	7.0	>2.00	>10,000	N	N	N	100	1,000	10	N
AD0608HN	32 2 25	113 14 30	10.0	1.00	7.0	>2.00	5,000	N	N	N	300	700	N	N
OH0609HN	32 2 35	113 15 41	7.0	.70	15.0	>2.00	3,000	N	N	N	100	300	N	N
OH0610HN	32 3 18	113 16 38	7.0	.70	15.0	>2.00	2,000	N	N	N	150	100	N	N
OH0611HN	32 4 26	113 15 45	10.0	2.00	15.0	>2.00	2,000	N	N	N	500	7,000	10	70
OH0612HN	32 5 10	113 15 39	5.0	.50	20.0	>2.00	2,000	N	N	N	N	150	N	N
AD0613HN	32 4 26	113 14 45	10.0	2.00	20.0	>2.00	2,000	N	N	N	500	300	5	N
AD0614HN	32 4 53	113 13 23	7.0	.70	20.0	>2.00	3,000	N	N	N	500	200	N	1,000
AD0615HN	32 5 2	113 12 41	10.0	.70	20.0	>2.00	2,000	N	N	N	500	1,500	N	<20
AD0616HN	32 4 58	113 11 24	5.0	.50	5.0	2.00	500	N	N	N	N	1,500	N	150
SI0617HN	32 26 58	112 41 14	7.0	5.00	10.0	>2.00	700	N	N	N	300	500	N	N
SI0618HN	32 28 14	112 41 59	10.0	15.00	30.0	>2.00	1,000	N	N	N	300	200	N	N
SI0619HN	32 29 33	112 43 24	10.0	7.00	20.0	>2.00	1,000	N	N	N	N	500	N	N
SI0620HN	32 29 49	112 44 59	10.0	10.00	20.0	>2.00	1,000	N	N	N	150	500	N	N
AJ0621HN	32 29 44	112 46 14	10.0	2.00	15.0	>2.00	700	N	N	N	300	1,000	7	N
CV0622HN	32 33 44	113 3 7	10.0	5.00	15.0	>2.00	700	N	N	N	150	300	5	N
CV0623HN	32 35 0	113 9 6	10.0	3.00	10.0	>2.00	700	N	N	N	500	700	N	N
CV0624HN	32 34 24	113 8 51	7.0	5.00	10.0	>2.00	700	N	N	N	200	300	N	N
CV0625HN	32 31 56	113 9 35	7.0	2.00	30.0	>2.00	700	N	N	N	150	10,000	N	N
CV0626HN	32 30 56	113 10 37	10.0	2.00	15.0	>2.00	1,000	N	N	N	700	>10,000	2	N
CV0627HN	32 31 29	113 13 49	10.0	7.00	20.0	>2.00	1,000	N	N	N	300	200	N	N
CV0628HN	32 31 35	113 7 54	7.0	5.00	15.0	>2.00	2,000	N	N	N	N	3,000	N	N
CV0629HN	32 30 14	113 8 44	7.0	5.00	15.0	>2.00	3,000	N	N	N	N	>10,000	N	N
CV0630HN	32 30 40	113 6 28	10.0	5.00	15.0	>2.00	1,500	N	N	N	300	700	N	N
GP0631HN	32 29 15	113 5 43	10.0	5.00	15.0	>2.00	3,000	N	N	N	50	700	N	N
GP0632HN	32 28 11	113 6 53	10.0	5.00	15.0	>2.00	2,000	N	N	N	150	5,000	N	N
GP0633HN	32 28 59	113 7 58	15.0	7.00	20.0	>2.00	2,000	N	N	N	300	700	N	N
GP0634HN	32 26 0	113 6 33	10.0	5.00	20.0	>2.00	3,000	N	N	N	N	700	N	N
GP0635HN	32 25 46	113 3 51	15.0	20.00	20.0	>2.00	3,000	N	N	N	150	150	N	N
GP0636HN	32 26 51	113 3 1	15.0	20.00	20.0	>2.00	2,000	N	N	N	70	150	N	N
GP0637HN	32 27 34	113 3 28	15.0	15.00	20.0	>2.00	2,000	N	N	N	300	150	N	N
GP0638HN	32 28 25	113 5 3	15.0	15.00	20.0	>2.00	2,000	N	N	N	300	70	N	N
GP0639HN	32 27 43	113 5 21	7.0	7.00	20.0	>2.00	2,000	N	N	N	300	150	N	N
GM0640HN	32 27 22	113 20 27	7.0	1.50	20.0	>2.00	2,000	N	N	N	300	1,000	N	N
GM0641HN	32 27 18	113 21 28	5.0	.50	20.0	>2.00	3,000	N	N	N	100	2,000	N	N
GM0642HN	32 28 20	113 21 51	7.0	.50	30.0	>2.00	3,000	N	N	N	300	1,500	N	N
GM0643HN	32 28 17	113 19 40	5.0	.50	30.0	>2.00	3,000	N	N	N	N	>10,000	N	N
GM0644HN	32 29 33	113 19 55	7.0	.50	30.0	>2.00	2,000	N	N	N	N	>10,000	N	N
GM0645HN	32 30 44	113 19 36	7.0	.70	20.0	>2.00	2,000	N	N	N	150	1,000	N	N
GM0646HN	32 29 16	113 18 32	10.0	.70	30.0	>2.00	2,000	N	N	N	70	7,000	N	N

## Spectrographic analysis of heavy mineral concentrates---continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
KP0602HN	N	20	10,000	20	700	10	<50	200	N	N	100	20	500	300
SI0603HN	N	10	1,500	70	2,000	70	500	50	300	N	70	>2,000	500	150
SI0604HN	N	20	1,500	70	700	15	150	100	100	N	70	70	500	200
AD0605HN	N	20	300	20	>2,000	<10	200	30	500	N	50	100	700	150
AD0606HN	N	10	100	15	300	<10	100	20	100	N	30	30	700	100
AD0607HN	N	20	300	70	700	<10	150	30	100	N	70	50	500	100
AD0608HN	N	15	300	20	700	<10	100	20	150	N	70	70	700	100
OH0609HN	N	<10	150	<10	>2,000	10	150	<10	100	N	20	70	200	150
OH0610HN	N	<10	150	20	2,000	15	150	<10	100	N	20	50	200	150
OH0611HN	N	10	700	100	>2,000	<10	200	30	500	N	50	70	700	150
OH0612HN	N	<10	50	20	>2,000	15	150	<10	150	N	20	70	300	150
AD0613HN	N	<10	700	20	>2,000	<10	200	30	100	N	20	50	700	150
AD0614HN	N	10	200	30	2,000	<10	150	30	300	N	20	70	500	150
AD0615HN	N	10	200	20	2,000	<10	150	20	150	N	20	70	700	150
AD0616HN	N	<10	50	15	2,000	10	100	<10	70	N	N	<20	700	100
SI0617HN	N	15	1,500	100	1,500	<10	100	100	50	N	N	30	500	150
SI0618HN	N	30	3,000	150	200	<10	<50	150	<20	N	30	<20	200	200
SI0619HN	N	20	2,000	150	300	<10	<50	100	70	N	20	50	200	200
SI0620HN	N	30	2,000	700	300	<10	<50	150	50	N	20	30	500	200
AJ0621HN	N	<10	1,500	1,000	1,500	<10	100	50	100	N	50	30	700	200
CV0622HN	N	10	1,500	20	2,000	<10	<50	100	70	N	30	1,500	200	200
CV0623HN	N	10	1,000	20	700	10	100	50	50	N	20	30	700	200
CV0624HN	N	<10	1,000	10	700	<10	70	30	150	N	20	50	500	150
CV0625HN	N	10	1,000	15	1,000	10	100	30	200	N	20	70	1,000	200
CV0626HN	N	10	1,000	30	1,000	<10	100	30	150	N	30	300	700	200
CV0627HN	N	15	1,500	<10	1,000	<10	100	100	100	N	70	50	500	200
CV0628HN	N	N	1,000	<10	2,000	20	300	30	70	N	N	70	7,000	300
CV0629HN	N	20	1,500	<10	1,500	15	150	100	100	N	N	70	700	200
CV0630HN	N	20	1,000	15	1,000	10	100	100	70	N	30	50	500	200
GP0631HN	N	20	1,000	15	1,500	10	100	100	70	N	30	70	2,000	200
GP0632HN	N	20	1,500	50	1,000	10	150	100	70	N	30	70	700	200
GP0633HN	N	30	3,000	20	1,000	15	200	200	70	N	30	70	700	200
GP0634HN	N	10	2,000	<10	1,000	10	150	70	70	N	20	100	200	300
GP0635HN	N	30	7,000	15	500	10	100	1,000	N	N	100	20	200	200
GP0636HN	N	20	7,000	15	200	15	<50	700	N	N	100	20	200	200
GP0637HN	N	20	7,000	100	500	10	<50	300	30	N	70	30	200	200
GP0638HN	N	20	7,000	10	300	10	<50	200	N	N	100	30	200	300
GP0639HN	N	10	2,000	<10	1,500	15	150	100	70	N	20	70	500	300
GM0640HN	N	<10	300	<10	700	10	100	<10	100	N	20	70	1,000	200
GM0641HN	N	<10	150	<10	700	10	200	<10	70	N	20	70	1,000	150
GM0642HN	N	<10	150	<10	700	10	200	<10	70	N	10	70	700	200
GM0643HN	N	<10	30	30	700	10	300	<10	50	N	<10	70	1,500	200
GM0644HN	N	<10	50	<10	700	10	200	<10	50	N	<10	70	1,500	200
GM0645HN	N	<10	150	<10	1,000	10	200	<10	150	N	20	70	700	200
GM0646HN	N	<10	70	<10	700	10	300	<10	70	N	<10	150	1,500	200

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
KP0602HN	N	300	N	>2,000	N
SI0603HN	N	>500	N	>2,000	N
SI0604HN	N	>500	N	>2,000	N
AD0605HN	200	>500	N	>2,000	500
AD0606HN	3,000	>500	N	>2,000	500
AD0607HN	N	>500	N	>2,000	N
AD0608HN	N	>500	N	>2,000	N
OH0609HN	N	>500	N	>2,000	700
OH0610HN	N	>500	N	>2,000	N
OH0611HN	100	>500	N	>2,000	700
OH0612HN	300	>500	N	>2,000	N
AD0613HN	N	>500	N	>2,000	700
AD0614HN	100	>500	N	>2,000	N
AD0615HN	500	>500	N	>2,000	N
AD0616HN	N	>500	N	>2,000	500
SI0617HN	N	>500	N	>2,000	N
SI0618HN	N	>500	N	>2,000	N
SI0619HN	N	>500	N	>2,000	N
SI0620HN	N	>500	N	>2,000	N
AJ0621HN	N	>500	N	>2,000	N
CV0622HN	N	>500	N	>2,000	N
CV0623HN	N	>500	N	>2,000	N
CV0624HN	N	>500	N	>2,000	N
CV0625HN	N	>500	N	>2,000	N
CV0626HN	N	>500	N	>2,000	N
CV0627HN	N	>500	N	>2,000	N
CV0628HN	N	>500	N	>2,000	N
CV0629HN	N	>500	N	>2,000	N
CV0630HN	N	500	N	>2,000	N
GP0631HN	N	500	N	>2,000	N
GP0632HN	N	>500	N	>2,000	N
GP0633HN	N	>500	N	>2,000	N
GP0634HN	N	>500	N	>2,000	N
GP0635HN	N	500	N	>2,000	N
GP0636HN	N	500	N	>2,000	N
GP0637HN	N	>500	N	>2,000	N
GP0638HN	N	500	N	>2,000	N
GP0639HN	N	>500	N	>2,000	N
GM0640HN	N	>500	N	>2,000	N
GM0641HN	N	>500	N	>2,000	N
GM0642HN	N	>500	N	>2,000	N
GM0643HN	N	>500	N	>2,000	N
GM0644HN	N	>500	N	>2,000	N
GM0645HN	N	>500	N	>2,000	N
GM0646HN	N	>500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGZ	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
GM0647HN	32 28 12	113 18 13	10.0	1.00	30.0	>2.00	2,000	N	N	N	70	3,000	N	N
GM0648HN	32 27 10	113 17 44	10.0	.70	30.0	>2.00	2,000	N	N	N	150	700	N	N
GM0649HN	32 26 21	113 17 30	7.0	.70	30.0	>2.00	3,000	N	N	N	100	300	N	N
GM0650HN	32 25 30	113 17 8	5.0	.70	30.0	>2.00	2,000	N	N	N	100	200	N	N
GM0651HN	32 24 30	113 17 33	7.0	1.50	20.0	>2.00	2,000	N	N	N	500	500	N	N
GM0652HN	32 23 21	113 16 56	5.0	1.00	30.0	>2.00	1,500	N	N	N	200	>10,000	N	N
GM0653HN	32 21 52	113 16 34	7.0	1.50	30.0	>2.00	2,000	N	N	N	200	700	N	N
GM0654HN	32 20 46	113 15 57	10.0	1.00	30.0	>2.00	3,000	N	N	N	50	700	N	N
GM0655HN	32 20 7	113 15 47	10.0	1.00	30.0	>2.00	3,000	N	N	N	100	300	N	N
GM0656HN	32 42 22	113 46 5	10.0	1.50	30.0	>2.00	3,000	N	N	N	N	10,000	N	N
CP0657HN	32 27 31	113 54 2	10.0	1.00	15.0	>2.00	2,000	N	N	N	150	1,500	N	N
CP0658HN	32 27 20	113 53 39	3.0	.70	15.0	>2.00	1,500	N	N	N	150	5,000	N	N
CP0659HN	32 26 32	113 53 11	7.0	1.00	30.0	>2.00	2,000	N	N	N	200	7,000	N	N
CP0660HN	32 24 56	113 55 26	7.0	1.00	20.0	>2.00	2,000	N	N	N	300	300	N	N
CP0661HN	32 23 39	113 54 35	5.0	.20	30.0	>2.00	1,500	N	N	N	N	70	N	N
CP0662HN	32 24 24	113 53 40	7.0	5.00	20.0	>2.00	1,000	N	N	N	70	200	N	N
CP0664HN	32 23 2	113 51 20	7.0	1.50	30.0	>2.00	1,000	N	N	N	70	300	N	N
CP0665HN	32 22 10	113 52 2	7.0	1.00	30.0	>2.00	1,500	N	N	N	N	500	N	N
CP0666HN	32 22 17	113 53 23	7.0	.30	30.0	>2.00	1,000	N	N	N	N	150	N	N
CP0667HN	32 21 20	113 54 16	5.0	.30	30.0	>2.00	1,000	N	N	N	200	200	N	N
CP0668HN	32 23 37	113 56 3	3.0	.30	30.0	>2.00	1,000	N	N	N	N	100	N	N
CP0669HN	32 22 51	113 55 49	7.0	.70	20.0	>2.00	700	N	N	N	300	700	N	N
CP0670HN	32 20 32	113 54 5	5.0	.20	30.0	>2.00	1,500	N	N	N	N	1,000	N	N
CP0671HN	32 20 49	113 52 24	5.0	.30	30.0	>2.00	1,500	N	N	N	N	70	N	N
CP0672HN	32 19 31	113 52 55	7.0	.30	30.0	>2.00	1,500	N	N	N	50	50	N	N
CP0673HN	32 19 32	113 52 4	3.0	.50	15.0	>2.00	1,000	N	N	N	70	500	N	N
CP0674HN	32 17 43	113 51 50	7.0	.50	5.0	>2.00	1,000	N	N	N	150	1,000	N	N
CP0675HN	32 16 35	113 52 7	10.0	10.00	30.0	>2.00	3,000	N	N	N	150	1,500	N	N
CP0676HN	32 16 18	113 51 1	7.0	1.50	7.0	>2.00	1,500	N	N	N	500	1,000	N	N
CP0677HN	32 15 14	113 51 23	5.0	1.00	30.0	>2.00	3,000	N	N	N	150	300	N	N
CP0678HN	32 15 28	113 49 54	7.0	3.00	50.0	>2.00	3,000	N	N	N	500	500	N	N
CP0679HN	32 15 30	113 48 31	7.0	1.50	50.0	>2.00	2,000	N	N	N	500	1,500	N	N
CP0680HN	32 16 27	113 48 8	15.0	15.00	50.0	>2.00	3,000	N	N	N	20	10,000	N	N
CP0681HN	32 23 36	113 49 51	5.0	.30	30.0	>2.00	1,000	N	N	N	N	300	N	N
CP0682HN	32 23 43	113 48 7	7.0	.30	50.0	>2.00	1,000	N	N	N	N	1,000	N	N
CP0683HN	32 23 32	113 47 1	7.0	.50	30.0	>2.00	2,000	N	N	N	N	300	N	N
CP0684HN	32 22 11	113 47 55	7.0	1.50	30.0	>2.00	1,000	N	N	N	300	1,500	N	N
CP0685HN	32 20 45	113 46 40	5.0	.30	30.0	>2.00	1,000	N	N	N	100	150	N	N
CP0686HN	32 20 59	113 48 1	7.0	.20	30.0	>2.00	1,000	N	N	N	100	150	N	N
CP0687HN	32 21 45	113 49 3	7.0	.30	30.0	>2.00	1,000	N	N	N	300	200	N	N
AD0688HN	32 11 38	113 14 0	7.0	.70	30.0	>2.00	1,500	N	N	N	N	150	N	N
OH0689HN	32 12 25	113 16 29	7.0	.70	30.0	>2.00	1,500	N	N	N	70	100	N	N
OH0690HN	32 11 26	113 16 12	7.0	5.00	30.0	>2.00	1,500	N	N	N	N	100	N	N
OH0691HN	32 9 45	113 16 48	10.0	1.00	20.0	>2.00	1,500	N	N	N	150	1,000	N	N
OH0692HN	32 8 28	113 16 42	7.0	.30	20.0	>2.00	1,500	N	N	N	N	150	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
GM0647HN	N	<10	70	70	700	10	200	<10	300	N	<10	100	2,000	200
GM0648HN	N	<10	100	10	700	<10	300	<10	200	N	<10	150	2,000	200
GM0649HN	N	<10	100	<10	700	10	300	<10	100	N	<10	150	1,000	200
GM0650HN	N	<10	50	20	700	10	200	<10	70	N	<10	100	1,000	200
GM0651HN	N	N	300	20	300	15	200	20	300	N	20	70	700	300
GM0652HN	N	N	200	20	300	10	150	20	50	N	20	50	700	300
GM0653HN	N	N	200	20	300	10	150	20	50	N	20	50	700	300
GM0654HN	N	N	200	20	500	<10	150	N	70	N	20	70	500	200
GM0655HN	N	N	150	30	700	10	200	20	70	N	20	100	700	200
MO0656HN	N	N	500	<10	300	10	200	10	50	N	N	70	1,000	300
CP0657HN	N	N	100	10	500	10	300	N	20	N	N	70	500	300
CP0658HN	N	N	150	<10	500	30	300	N	20	N	N	50	500	300
CP0659HN	N	N	200	10	500	20	100	20	100	N	N	70	700	300
CP0660HN	N	N	200	15	700	10	100	N	70	N	20	70	500	200
CP0661HN	N	N	70	15	700	30	150	N	20	N	N	70	300	300
CP0662HN	N	10	100	10	500	20	150	30	20	N	N	20	500	150
CP0664HN	N	10	200	15	500	15	200	50	70	N	N	70	700	200
CP0665HN	N	N	150	20	1,000	15	200	30	70	N	20	100	1,000	150
CP0666HN	N	N	100	<10	500	30	200	N	20	N	N	70	500	300
CP0667HN	N	N	70	15	1,000	10	150	N	30	N	20	70	500	200
CP0668HN	N	N	30	20	700	10	150	N	20	N	N	70	500	150
CP0669HN	N	N	150	20	1,000	10	150	20	50	N	N	50	700	150
CP0670HN	N	N	20	20	1,000	10	200	N	20	N	N	100	700	150
CP0671HN	N	N	50	15	1,500	<10	150	N	50	N	N	100	200	200
CP0672HN	N	N	50	<10	1,500	10	300	N	20	N	N	100	300	200
CP0673HN	N	N	70	<10	2,000	10	200	N	20	N	N	70	300	150
CP0674HN	N	10	100	<10	>2,000	<10	100	N	100	N	20	20	300	100
CP0675HN	N	<10	5,000	<10	1,000	<10	<50	30	50	N	30	50	500	200
CP0676HN	N	N	100	<10	>2,000	<10	<50	N	20	N	N	N	700	70
CP0677HN	N	N	100	<10	2,000	<10	<50	N	70	N	20	N	1,000	70
CP0678HN	N	N	200	<10	>2,000	<10	100	N	70	N	N	30	700	100
CP0679HN	N	N	200	<10	>2,000	<10	<50	N	70	N	N	20	700	100
CP0680HN	N	N	5,000	15	300	<10	<50	50	30	N	50	50	700	200
CP0681HN	N	N	100	10	700	20	150	N	20	N	N	50	700	150
CP0682HN	N	N	100	10	700	20	150	N	20	N	N	50	1,500	200
CP0683HN	N	N	50	<10	1,000	20	500	N	150	N	N	300	200	200
CP0684HN	N	N	100	20	500	10	200	30	70	N	N	50	700	150
CP0685HN	N	N	100	50	1,000	<10	100	N	200	N	N	100	200	200
CP0686HN	N	N	100	<10	1,000	10	200	N	100	N	N	150	200	200
CP0687HN	N	N	100	<10	700	20	200	N	200	N	N	100	200	200
AD0688HN	N	N	100	<10	700	10	200	N	200	N	30	150	<200	150
OH0689HN	N	N	100	<10	1,500	10	100	N	200	N	N	150	<200	150
OH0690HN	N	N	500	<10	1,000	10	100	20	100	N	20	150	<200	150
OH0691HN	N	N	150	10	2,000	<10	50	20	700	N	20	150	700	150
OH0692HN	N	N	70	15	700	10	300	N	150	N	20	200	200	150

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
GM0647HN	N	>500	N	>2,000	N
GM0648HN	N	>500	N	>2,000	N
GM0649HN	N	>500	N	>2,000	N
GM0650HN	N	>500	N	>2,000	N
GM0651HN	N	>500	N	>2,000	N
GM0652HN	N	>500	N	>2,000	N
GM0653HN	N	>500	N	>2,000	N
GM0654HN	N	>500	N	>2,000	N
GM0655HN	N	>500	N	>2,000	N
GM0656HN	N	500	N	>2,000	N
CP0657HN	N	500	N	>2,000	N
CP0658HN	N	500	N	>2,000	N
CP0659HN	N	>500	N	>2,000	N
CP0660HN	N	>500	N	>2,000	N
CP0661HN	N	>500	N	>2,000	N
CP0662HN	N	500	N	>2,000	N
CP0664HN	N	>500	N	>2,000	N
CP0665HN	N	>500	N	1,500	N
CP0666HN	N	>500	N	300	N
CP0667HN	N	>500	N	>2,000	N
CP0668HN	N	>500	N	>2,000	N
CP0669HN	N	>500	N	>2,000	N
CP0670HN	N	>500	N	>2,000	N
CP0671HN	N	>500	N	>2,000	N
CP0672HN	N	>500	N	>2,000	700
CP0673HN	N	>500	N	>2,000	500
CP0674HN	N	>500	N	>2,000	1,000
CP0675HN	N	>500	N	>2,000	N
CP0676HN	N	>500	N	>2,000	1,500
CP0677HN	N	>500	N	>2,000	N
CP0678HN	N	>500	N	>2,000	1,000
CP0679HN	N	>500	N	>2,000	700
CP0680HN	N	500	N	>2,000	N
CP0681HN	N	>500	N	>2,000	500
CP0682HN	N	500	N	>2,000	N
CP0683HN	N	>500	N	>2,000	N
CP0684HN	N	500	N	>2,000	N
CP0685HN	N	>500	N	>2,000	N
CP0686HN	N	>500	N	>2,000	500
CP0687HN	300	>500	N	>2,000	700
AD0688HN	N	>500	N	>2,000	200
OH0689HN	N	>500	N	>2,000	200
OH0690HN	N	>500	N	>2,000	N
OH0691HN	N	>500	N	>2,000	200
OH0692HN	N	>500	N	>2,000	N



Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-Ti%	S-IN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
AD0693HN	32 7 27	113 14 50	10.0	.20	30.0	>2.00	1,500	N	N	N	50	200	N	N
AD0694HN	32 7 10	113 12 33	7.0	.20	30.0	>2.00	1,500	N	N	N	N	100	N	N
AD0695HN	32 7 5	113 10 38	7.0	.30	20.0	>2.00	1,500	N	N	N	100	200	2	50
AD0696HN	32 6 6	113 13 22	30.0	5.00	10.0	>2.00	>10,000	N	N	N	500	300	15	N
AD0697HN	32 5 32	113 14 28	5.0	.20	7.0	>2.00	700	N	N	N	N	300	N	N
OH0698HN	32 6 15	113 15 22	5.0	.20	10.0	>2.00	2,000	N	N	N	N	300	N	N
OH0699HN	32 6 25	113 16 22	7.0	1.50	15.0	>2.00	3,000	N	N	N	N	300	N	N
OH0700HN	32 5 21	113 17 28	7.0	.50	15.0	>2.00	2,000	N	N	N	N	150	N	N
OH0701HN	32 5 58	113 18 36	7.0	.50	15.0	>2.00	2,000	N	N	N	N	150	N	N
OH0702HN	32 4 40	113 19 3	7.0	.50	15.0	>2.00	3,000	N	N	N	70	1,500	N	N
OH0703HN	32 4 13	113 18 23	5.0	.50	15.0	>2.00	3,000	N	N	N	50	300	N	N
OH0704HN	32 4 24	113 20 57	7.0	1.00	15.0	>2.00	3,000	N	N	N	100	700	N	N
OH0705HN	32 3 56	113 22 59	7.0	.70	15.0	>2.00	3,000	N	N	N	N	300	N	N
OH0706HN	32 4 53	113 21 42	7.0	1.00	15.0	>2.00	5,000	N	N	N	100	500	15	100
OH0707HN	32 6 13	113 21 12	7.0	1.50	15.0	>2.00	5,000	N	N	N	70	700	N	N
OH0708HN	32 7 28	113 23 13	7.0	3.00	10.0	>2.00	2,000	N	N	N	70	700	2	N
OH0709HN	32 7 50	113 23 36	10.0	3.00	15.0	>2.00	2,000	N	N	N	100	200	N	N
OH0710HN	32 7 46	113 24 42	10.0	3.00	15.0	>2.00	3,000	N	N	N	200	150	N	N
MA0711HN	32 13 42	112 44 58	7.0	7.00	15.0	>2.00	2,000	N	N	N	300	1,000	N	N
KP0712HN	32 13 0	112 45 11	10.0	7.00	15.0	>2.00	3,000	N	N	N	150	150	N	N
MA0713HN	32 12 56	112 44 13	10.0	15.00	50.0	>2.00	2,000	N	N	N	N	300	N	N
MA0714HN	32 12 29	112 43 43	2.0	7.00	50.0	>2.00	2,000	N	N	N	50	150	N	N
SI0715HN	32 20 19	112 43 40	10.0	15.00	20.0	>2.00	7,000	N	N	N	70	1,000	N	N
OH0716HN	32 12 47	113 22 42	7.0	5.00	15.0	>2.00	5,000	N	N	N	200	2,000	N	N
OH0717HN	32 13 47	113 24 21	7.0	5.00	20.0	>2.00	5,000	N	N	N	150	>10,000	N	N
OH0718HN	32 11 52	113 27 9	5.0	1.50	20.0	>2.00	7,000	N	N	N	N	300	N	N
OH0719HN	32 11 39	113 26 34	5.0	1.00	20.0	>2.00	7,000	N	N	N	N	1,000	N	N
OH0720HN	32 11 22	113 25 22	7.0	1.50	20.0	>2.00	7,000	N	N	N	70	200	N	N
OH0721HN	32 10 9	113 23 55	7.0	1.50	10.0	>2.00	2,000	N	N	N	150	200	N	N
OH0722HN	32 9 41	113 23 38	7.0	1.50	15.0	>2.00	3,000	N	N	N	100	300	N	N
OH0723HN	32 9 2	113 23 40	7.0	1.50	15.0	>2.00	2,000	N	N	N	70	300	N	N
OH0724HN	32 8 57	113 25 1	7.0	2.00	15.0	>2.00	2,000	N	N	N	150	300	N	N
OH0725HN	32 10 1	113 25 34	7.0	1.00	15.0	>2.00	2,000	N	N	N	50	150	N	N
OH0726HN	32 9 46	113 26 41	3.0	1.00	10.0	>2.00	1,500	N	N	N	70	300	N	N
OH0727HN	32 10 24	113 26 57	7.0	1.00	10.0	>2.00	2,000	N	N	N	N	200	N	N
OH0728HN	32 11 28	113 28 39	7.0	1.50	15.0	>2.00	2,000	N	N	N	100	200	N	N
OH0729HN	32 12 37	113 29 44	3.0	1.00	15.0	>2.00	2,000	N	N	N	N	70	N	N
IP0730HN	32 17 54	113 34 32	5.0	2.00	5.0	>2.00	2,000	N	N	N	N	10,000	N	70
IP0731HN	32 17 11	113 34 19	7.0	5.00	15.0	>2.00	1,500	N	N	N	70	>10,000	N	N
IP0732HN	32 16 16	113 33 45	10.0	7.00	15.0	>2.00	1,500	N	N	N	50	10,000	N	N
IP0733HN	32 15 4	113 33 5	7.0	1.50	15.0	>2.00	1,000	N	N	N	300	1,500	N	N
SA0734HN	32 14 14	113 31 50	20.0	5.00	3.0	>2.00	2,000	N	N	N	N	1,500	N	N
SA0735HN	32 13 41	113 30 35	7.0	.70	15.0	>2.00	2,000	N	N	N	70	10,000	N	N
OH0736HN	32 12 51	113 28 14	7.0	.70	20.0	>2.00	2,000	N	N	N	N	300	N	N
OH0737HN	32 14 45	113 29 38	7.0	.30	20.0	>2.00	1,500	N	N	N	N	10,000	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
AD0693HN	N	N	50	20	1,000	15	100	N	150	N	N	200	200	150
AD0694HN	N	N	50	20	1,500	20	100	N	150	N	N	100	200	200
AD0695HN	N	N	100	20	700	<10	100	N	150	N	50	200	200	150
AD0696HN	N	50	300	100	>2,000	<10	100	30	300	N	100	50	700	200
AD0697HN	N	N	20	<10	2,000	15	100	N	70	N	N	30	200	200
OH0698HN	N	N	30	15	2,000	20	300	N	150	N	20	70	N	200
OH0699HN	N	N	500	15	1,500	50	700	15	150	N	N	70	N	200
OH0700HN	N	N	150	15	1,500	20	300	N	100	N	20	70	N	200
OH0701HN	N	N	70	15	1,000	20	300	N	70	N	N	70	N	200
OH0702HN	N	N	100	15	1,500	20	200	N	70	N	N	100	200	200
OH0703HN	N	N	70	10	1,000	15	150	N	100	N	20	100	200	150
OH0704HN	N	N	70	15	1,000	15	200	N	150	N	20	70	500	150
OH0705HN	N	N	70	10	1,000	10	200	N	100	N	N	70	300	200
OH0706HN	N	N	100	15	>2,000	10	150	N	3,000	N	20	50	200	200
OH0707HN	N	N	100	15	500	10	200	N	100	N	20	70	500	150
OH0708HN	N	N	100	<10	500	<10	150	10	70	N	20	50	300	200
OH0709HN	N	N	300	30	500	<10	100	10	200	N	50	50	200	200
OH0710HN	N	N	150	20	500	20	200	15	200	N	20	70	200	150
MA0711HN	N	N	1,000	30	700	<10	100	50	N	N	50	50	700	300
KP0712HN	N	N	1,000	70	700	<10	150	50	50	N	50	50	700	200
MA0713HN	N	20	2,000	<10	700	10	150	50	N	N	50	N	2,000	150
MA0714HN	N	N	700	15	1,500	10	50	10	N	N	20	<20	1,000	100
SI0715HN	N	15	2,000	50	700	10	150	20	N	N	50	30	500	150
OH0716HN	N	N	100	70	700	10	300	N	70	N	20	70	500	200
OH0717HN	N	N	70	<10	700	10	300	N	70	N	20	70	700	200
OH0718HN	N	N	20	<10	700	10	200	N	200	N	50	150	200	150
OH0719HN	N	N	50	<10	700	10	200	N	500	N	30	150	N	150
OH0720HN	N	N	70	<10	500	20	200	N	70	N	30	100	N	150
OH0721HN	N	N	50	<10	500	N	200	N	150	N	50	100	200	150
OH0722HN	N	N	20	<10	700	10	200	N	100	N	20	150	200	150
OH0723HN	N	N	20	<10	500	10	150	N	100	N	20	150	N	150
OH0724HN	N	N	50	<10	500	10	150	N	100	N	30	100	200	150
OH0725HN	N	N	20	<10	500	10	150	N	100	N	20	100	N	150
OH0726HN	N	N	20	<10	500	10	150	N	50	N	20	70	N	150
OH0727HN	N	N	<20	<10	500	10	150	N	70	N	20	100	N	150
OH0728HN	N	N	50	10	500	10	150	N	70	N	20	100	200	150
OH0729HN	N	N	<20	<10	500	15	200	N	50	N	<10	100	N	150
IP0730HN	N	30	200	<10	>2,000	10	150	30	70	N	20	N	700	100
IP0731HN	N	20	500	10	>2,000	<10	150	20	70	N	20	20	1,500	150
IP0732HN	N	10	700	10	2,000	<10	100	50	N	N	70	30	700	200
IP0733HN	N	N	200	<10	2,000	300	100	20	2,000	N	20	30	500	200
SA0734HN	N	30	300	70	>2,000	<10	70	50	70	N	20	N	500	100
SA0735HN	N	N	50	15	700	10	100	N	70	N	20	70	500	150
OH0736HN	N	N	<20	<10	500	10	150	N	200	N	20	150	500	150
OH0737HN	N	N	<20	10	700	10	150	N	70	N	20	70	500	150

Sample	S-W	S-Y	S-ZN	S-Zr	S-TH
AD0693HN	N	>500	N	>2,000	N
AD0694HN	N	>500	N	>2,000	N
AD0695HN	N	>500	N	>2,000	N
AD0696HN	N	>500	N	>2,000	N
AD0697HN	N	>500	N	>2,000	N
OH0698HN	N	>500	N	>2,000	N
OH0699HN	N	>500	N	>2,000	N
OH0700HN	N	>500	N	>2,000	N
OH0701HN	N	>500	N	>2,000	N
OH0702HN	N	>500	N	>2,000	N
OH0703HN	N	>500	N	>2,000	N
OH0704HN	N	>500	N	>2,000	N
OH0705HN	N	>500	N	>2,000	N
OH0706HN	N	>500	N	>2,000	>5,000
OH0707HN	N	>500	N	>2,000	N
OH0708HN	N	>500	N	>2,000	N
OH0709HN	N	>500	N	>2,000	N
OH0710HN	N	>500	N	>2,000	N
MA0711HN	N	>500	N	>2,000	500
KP0712HN	N	>500	N	>2,000	1,000
MA0713HN	N	>500	N	>2,000	N
MA0714HN	N	500	N	>2,000	N
SI0715HN	N	500	N	>2,000	N
OH0716HN	N	>500	N	>2,000	N
OH0717HN	N	>500	N	>2,000	N
OH0718HN	N	>500	N	>2,000	N
OH0719HN	N	>500	N	>2,000	N
OH0720HN	N	>500	N	>2,000	N
OH0721HN	N	>500	N	>1,000	N
OH0722HN	N	>500	N	>1,000	N
OH0723HN	N	>500	N	>1,000	N
OH0724HN	N	>500	N	>1,000	N
OH0725HN	N	>500	N	>1,000	N
OH0726HN	N	>500	N	>1,000	N
OH0727HN	N	>500	N	>1,000	N
OH0728HN	N	>500	N	>1,000	N
OH0729HN	N	>500	N	>1,000	N
IP0730HN	N	>500	N	>1,000	>5,000
IP0731HN	N	>500	N	>1,000	500
IP0732HN	N	>500	N	>1,000	N
IP0733HN	N	>500	N	>1,000	N
SA0734HN	N	>500	N	>1,000	300
SA0735HN	N	>500	N	>1,000	N
OH0736HN	N	>500	N	>1,000	N
OH0737HN	N	>500	N	>1,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGZ	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
OH0738HN	32 13 37	113 29 7	7.0	.50	20.0	>2.00	1,500	N	N	N	N	300	N	N
GM0739HN	32 15 6	113 29 59	7.0	.50	20.0	>2.00	1,500	N	N	N	70	1,500	N	N
IP0740HN	32 15 42	113 30 48	10.0	7.00	20.0	>2.00	1,500	N	N	N	70	300	N	N
IP0741HN	32 16 10	113 31 34	10.0	7.00	20.0	>2.00	1,500	N	N	N	50	200	N	N
IP0742HN	32 17 3	113 32 10	7.0	7.00	20.0	>2.00	2,000	N	N	N	50	>10,000	N	N
IP0743HN	32 18 24	113 33 2	7.0	3.00	20.0	>2.00	1,500	N	N	N	200	1,500	N	N
IP0744HN	32 23 55	113 37 13	5.0	1.00	30.0	>2.00	2,000	N	N	N	200	7,000	N	N
IP0745HN	32 22 44	113 37 17	7.0	1.00	20.0	>2.00	1,000	N	N	N	200	700	N	N
IP0746HN	32 22 0	113 35 43	7.0	1.00	20.0	>2.00	1,500	N	N	N	200	3,000	N	N
IP0747HN	32 21 11	113 35 30	7.0	1.00	15.0	>2.00	1,500	N	N	N	200	5,000	N	N
IP0748HN	32 20 12	113 34 43	7.0	1.00	30.0	>2.00	1,500	N	N	N	100	1,500	N	N
IP0749HN	32 19 9	113 33 43	5.0	1.00	15.0	>2.00	1,000	N	N	N	300	7,000	N	N
IP0750HN	32 18 45	113 34 36	5.0	1.00	20.0	>2.00	1,500	N	N	N	200	3,000	N	N
IP0751HN	32 18 43	113 36 2	15.0	1.00	10.0	>2.00	7,000	N	N	N	200	5,000	10	N
IP0752HN	32 18 57	113 36 47	7.0	1.00	20.0	>2.00	5,000	N	N	N	100	1,500	N	N
IP0753HN	32 19 45	113 37 21	7.0	1.50	20.0	>2.00	3,000	N	N	N	70	1,500	N	N
IP0754HN	32 20 32	113 36 29	7.0	1.50	20.0	>2.00	3,000	N	N	N	70	3,000	N	N
IP0755HN	32 21 11	113 37 34	7.0	1.50	20.0	>2.00	3,000	N	N	N	200	3,000	N	N
IP0756HN	32 25 18	113 38 57	3.0	1.00	30.0	>2.00	5,000	N	N	N	N	10,000	N	N
IP0757HN	32 24 5	113 38 34	2.0	1.00	30.0	>2.00	7,000	N	N	N	N	5,000	N	N
IP0758HN	32 23 35	113 38 38	3.0	1.50	30.0	>2.00	7,000	N	N	N	50	>10,000	N	N
IP0759HN	32 22 53	113 38 47	3.0	1.50	30.0	>2.00	7,000	N	N	N	50	>10,000	N	N
IP0760HN	32 22 19	113 38 32	5.0	2.00	30.0	>2.00	7,000	N	N	N	300	>10,000	N	N
IP0761HN	32 23 33	113 43 41	5.0	2.00	30.0	>2.00	5,000	N	N	N	150	1,500	N	N
CP0762HN	32 23 18	113 45 17	10.0	15.00	20.0	>2.00	5,000	N	N	N	150	5,000	N	N
IP0763HN	32 20 20	113 44 49	7.0	7.00	10.0	>2.00	3,000	N	N	N	700	10,000	N	N
CP0764HN	32 19 36	113 45 32	7.0	7.00	7.0	>2.00	2,000	N	N	N	700	1,500	N	N
CP0765HN	32 19 24	113 47 32	7.0	7.00	10.0	>2.00	3,000	N	N	N	70	700	N	N
CP0766HN	32 19 26	113 48 5	7.0	5.00	10.0	>2.00	3,000	N	N	N	700	1,000	N	N
CP0767HN	32 19 46	113 48 46	7.0	7.00	7.0	>2.00	5,000	N	N	N	150	3,000	N	N
CP0768HN	32 21 27	113 50 49	3.0	1.00	10.0	>2.00	2,000	N	N	N	N	300	N	N
CP0769HN	32 15 31	113 59 14	2.0	2.00	10.0	>2.00	2,000	N	N	N	200	>10,000	N	N
TM0770HN	32 14 58	113 58 7	2.0	1.00	10.0	>2.00	2,000	N	N	N	70	>10,000	N	N
TM0771HN	32 12 2	113 50 57	7.0	7.00	5.0	>2.00	1,500	N	N	N	700	>10,000	N	N
TM0772HN	32 12 38	113 51 0	7.0	7.00	10.0	>2.00	2,000	N	N	N	700	>10,000	N	N
TM0773HN	32 14 5	113 51 8	10.0	15.00	15.0	>2.00	3,000	N	N	N	200	7,000	N	N
TM0774HN	32 14 27	113 47 38	3.0	3.00	15.0	>2.00	3,000	N	N	N	500	1,500	N	N
TM0775HN	32 14 25	113 46 8	15.0	15.00	15.0	>2.00	5,000	N	N	N	200	>10,000	N	N
TM0776HN	32 13 11	113 45 56	3.0	5.00	3.0	>2.00	500	N	N	N	700	1,500	N	N
TM0777HN	32 13 25	113 47 23	5.0	7.00	20.0	>2.00	5,000	N	N	N	500	2,000	N	N
TM0778HN	32 13 17	113 48 6	2.0	3.00	15.0	>2.00	5,000	N	N	N	200	1,000	N	N
TM0779HN	32 11 25	113 47 54	3.0	1.50	20.0	>2.00	2,000	N	N	N	150	700	N	N
TM0780HN	32 11 33	113 46 54	7.0	15.00	15.0	>2.00	3,000	N	N	N	300	700	N	N
TM0781HN	32 10 59	113 45 31	3.0	1.50	15.0	>2.00	1,000	N	N	N	N	300	N	N
TM0782HN	32 11 29	113 45 6	3.0	5.00	15.0	>2.00	1,000	N	N	N	N	300	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PR	S-SB	S-SC	S-SN	S-SR	S-V
OH0738HN	N	N	50	10	700	10	100	N	100	N	<10	100	N	150
GR0739HN	N	N	100	15	700	10	100	N	70	N	<10	70	200	150
IP0740HN	N	20	700	10	2,000	<10	100	70	20	N	50	30	500	200
IP0741HN	N	30	1,000	<10	>2,000	<10	70	50	20	N	30	20	500	200
IP0742HN	N	15	700	<10	2,000	<10	100	70	N	N	50	20	1,500	200
IP0743HN	N	N	300	<10	2,000	<10	100	N	50	N	20	30	700	150
IP0744HN	N	N	150	10	700	10	200	<10	70	N	20	50	1,000	150
IP0745HN	N	N	150	<10	>2,000	<10	700	20	100	N	<10	30	700	200
IP0746HN	N	N	150	10	2,000	<10	150	20	50	N	20	30	700	150
IP0747HN	N	N	100	20	>2,000	<10	300	20	70	N	20	30	500	150
IP0748HN	N	N	100	<10	2,000	<10	150	20	50	N	20	30	1,000	200
IP0749HN	N	N	150	50	2,000	<10	150	20	70	N	30	30	500	200
IP0750HN	N	N	100	10	1,000	<10	100	<10	70	N	20	30	1,000	200
IP0751HN	N	N	70	70	>2,000	<10	300	20	100	N	20	20	700	200
IP0752HN	N	N	100	<10	1,000	10	200	<10	100	N	30	30	700	200
IP0753HN	N	N	100	<10	1,000	<10	150	<10	50	N	50	100	700	150
IP0754HN	N	N	100	10	1,000	<10	150	20	50	N	30	50	700	200
IP0755HN	N	N	100	10	700	10	70	<10	50	N	30	50	700	150
IP0756HN	N	N	70	15	300	10	500	<10	<20	N	N	150	1,500	200
IP0757HN	N	N	70	10	500	10	150	<10	20	N	N	50	1,500	150
IP0758HN	N	N	70	<10	700	10	100	<10	<20	N	20	20	10,000	150
IP0759HN	N	N	100	10	2,000	10	100	<10	30	N	10	30	1,500	150
IP0760HN	N	N	150	<10	>2,000	<10	100	10	30	N	N	30	1,500	200
IP0761HN	N	N	70	10	300	10	200	10	20	N	N	50	500	200
CP0762HN	N	30	700	10	300	15	200	50	<20	N	50	50	700	200
IP0763HN	N	20	500	<10	300	15	150	30	30	N	30	70	300	200
CP0764HN	N	10	700	<10	200	10	150	50	30	N	30	50	200	200
CP0765HN	N	20	700	100	>2,000	<10	100	20	500	N	<10	30	<200	200
CP0766HN	N	N	500	30	1,500	10	100	30	300	N	20	70	500	200
CP0767HN	N	N	500	10	1,500	10	200	30	150	N	70	70	500	200
CP0768HN	N	N	70	10	700	30	200	N	50	N	N	70	700	200
CP0769HN	N	N	70	<10	1,000	<10	150	N	30	N	20	30	3,000	150
TM0770HN	N	N	20	<10	500	<10	100	N	20	N	20	20	10,000	150
TM0771HN	N	15	500	10	500	<10	150	70	30	N	30	50	1,500	150
TM0772HN	N	10	300	<10	700	<10	100	50	30	N	30	50	500	150
TM0773HN	N	20	500	10	1,500	<10	70	50	20	N	70	30	200	150
TM0774HN	N	N	100	<10	>2,000	<10	70	N	30	N	20	30	500	150
TM0775HN	N	30	300	10	300	<10	50	70	70	N	70	30	500	200
TM0776HN	N	N	200	<10	700	<10	100	N	200	N	50	30	N	150
TM0777HN	N	N	300	10	1,500	<10	100	N	<20	N	30	30	700	150
TM0778HN	N	N	70	<10	>2,000	<10	70	N	20	N	20	20	500	150
TM0779HN	N	N	20	20	700	<10	70	N	70	N	20	70	N	200
TM0780HN	N	15	50	70	500	15	70	N	500	N	20	70	N	150
TM0781HN	N	N	20	<10	700	30	150	N	<20	N	N	50	N	300
TM0782HN	N	N	200	<10	1,000	30	100	20	<20	N	N	30	N	300

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
OH0738HN	N	>500	N	>1,000	N
GM0739HN	N	>500	N	>1,000	N
IP0740HN	N	>500	N	>1,000	N
IP0741HN	N	>500	N	>1,000	700
IP0742HN	N	>500	N	>1,000	200
IP0743HN	N	>500	N	>1,000	N
IP0744HN	N	>500	N	>2,000	N
IP0745HN	N	>500	N	>2,000	700
IP0746HN	N	>500	N	>2,000	N
IP0747HN	N	>500	N	>2,000	500
IP0748HN	N	>500	N	>2,000	N
IP0749HN	N	>500	N	>2,000	N
IP0750HN	N	>500	N	>2,000	N
IP0751HN	N	>500	N	>2,000	500
IP0752HN	N	>500	N	>2,000	N
IP0753HN	N	>500	N	>2,000	N
IP0754HN	N	>500	N	>2,000	N
IP0755HN	N	500	N	>2,000	N
IP0756HN	N	>500	N	>2,000	N
IP0757HN	N	>500	N	>2,000	N
IP0758HN	N	>500	N	>2,000	N
IP0759HN	N	>500	N	>2,000	N
IP0760HN	N	>500	N	>2,000	N
IP0761HN	N	>500	N	>2,000	N
CP0762HN	N	500	N	>2,000	N
IP0763HN	N	500	N	>2,000	N
CP0764HN	N	500	N	>2,000	N
CP0765HN	300	>500	N	>2,000	700
CP0766HN	N	>500	N	>2,000	N
CP0767HN	N	>500	N	>2,000	N
CP0768HN	N	>500	N	>2,000	N
CP0769HN	N	>500	N	>2,000	N
TM0770HN	N	>500	N	>2,000	N
TM0771HN	N	500	N	>2,000	N
TM0772HN	N	>500	N	>2,000	N
TM0773HN	N	500	N	>2,000	N
TM0774HN	N	>500	N	>2,000	N
TM0775HN	N	500	N	>2,000	N
TM0776HN	N	>500	N	>2,000	N
TM0777HN	N	>500	N	>2,000	N
TM0778HN	N	>500	1,500	>2,000	N
TM0779HN	N	>500	N	>2,000	N
TM0780HN	N	500	5,000	>2,000	N
TM0781HN	N	500	N	>2,000	N
TM0782HN	N	500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE		LONGITUDE		S-FEX	S-MGZ	S-CAZ	S-TIX	S-MU	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
SA0783HN	32 12	7	113 44	36	3.0	1.50	15.0	>2.00	1,000	N	N	N	N	200	N	N
SA0784HN	32 12	55	113 44	41	7.0	15.00	20.0	>2.00	2,000	N	N	N	50	10,000	N	N
SA0785HN	32 12	57	113 43	5	7.0	7.00	20.0	>2.00	1,000	N	N	N	150	1,500	N	N
SA0786HN	32 12	13	113 42	3	3.0	7.00	15.0	>2.00	1,500	N	N	N	N	500	N	N
SA0787HN	32 11	37	113 41	51	3.0	5.00	15.0	>2.00	1,500	N	N	N	150	300	N	N
MO0788HN	32 30	54	113 59	19	2.0	1.00	15.0	>2.00	2,000	N	N	N	N	100	N	N
MO0789HN	32 30	51	113 58	50	3.0	.70	15.0	>2.00	2,000	N	N	N	N	150	N	N
MO0790HN	32 30	18	113 58	39	7.0	.15	20.0	>2.00	1,500	N	N	N	N	700	N	N
CP0791HN	32 29	42	113 58	57	5.0	.15	20.0	>2.00	1,500	N	N	N	N	150	N	N
CP0792HN	32 28	36	113 59	32	7.0	.20	20.0	>2.00	1,000	N	N	N	N	500	N	N
CP0793HN	32 27	54	113 59	52	7.0	.15	20.0	>2.00	1,000	N	N	N	N	50	N	N
CP0794HN	32 27	23	113 59	36	5.0	.15	20.0	>2.00	1,000	N	N	N	20	300	N	N
CP0795HN	32 25	36	113 57	17	5.0	.20	15.0	>2.00	1,000	N	N	N	N	700	N	N
IP0796HN	32 15	39	113 40	23	7.0	.70	20.0	>2.00	1,500	N	N	N	50	200	N	N
SA0797HN	32 14	12	113 40	5	7.0	.70	20.0	>2.00	700	N	N	N	N	150	N	N
SA0798HN	32 13	27	113 39	7	7.0	1.50	20.0	>2.00	1,000	N	N	N	20	200	N	N
SA0799HN	32 12	32	113 39	56	7.0	.50	15.0	>2.00	1,000	N	N	N	150	200	N	N
SA0800HN	32 8	59	113 39	12	7.0	.20	15.0	>2.00	1,000	N	N	N	70	100	N	N
SA0801HN	32 9	25	113 41	48	7.0	.20	15.0	>2.00	1,000	N	N	N	N	100	N	N
SA0802HN	32 10	7	113 43	20	7.0	.15	20.0	>2.00	1,000	N	N	N	N	50	N	N
SA0803HN	32 10	59	113 42	57	7.0	.10	20.0	>2.00	1,000	N	N	N	N	70	N	N
SA0805HN	32 12	18	113 40	49	10.0	5.00	20.0	>2.00	1,000	N	N	N	200	2,000	N	N
SA0806HN	32 13	1	113 40	52	3.0	.15	20.0	>2.00	500	N	N	N	N	100	N	N
SA0807HN	32 14	16	113 42	28	5.0	1.00	15.0	>2.00	700	N	N	N	50	>10,000	N	N
IP0808HN	32 15	2	113 44	39	7.0	7.00	15.0	>2.00	1,000	N	N	N	50	>10,000	N	N
IP0810HN	32 16	39	113 42	10	10.0	7.00	15.0	>2.00	1,000	N	N	N	50	1,500	N	N
IP0811HN	32 17	18	113 41	51	7.0	5.00	10.0	>2.00	1,000	N	N	N	100	>10,000	N	N
IP0812HN	32 17	17	113 41	2	7.0	1.50	7.0	>2.00	700	N	N	N	100	1,500	N	N
IP0813HN	32 18	8	113 41	10	5.0	1.50	7.0	>2.00	700	N	N	N	100	1,500	N	N
IP0814HN	32 18	49	113 42	23	7.0	1.50	10.0	>2.00	700	N	N	N	200	700	N	N
IP0815HN	32 18	27	113 42	52	5.0	2.00	7.0	>2.00	700	N	N	N	150	3,000	N	N
IP0816HN	32 18	14	113 43	59	10.0	15.00	20.0	>2.00	1,500	N	N	N	20	1,000	N	N
IP0817HN	32 17	22	113 42	52	7.0	10.00	20.0	>2.00	1,500	N	N	N	70	3,000	N	N
IP0818HN	32 16	24	113 44	5	10.0	10.00	20.0	>2.00	2,000	N	N	N	70	1,500	N	N
IP0819HN	32 16	43	113 44	51	10.0	20.00	30.0	>2.00	2,000	N	N	N	N	1,000	N	N
IP0820HN	32 18	16	113 45	28	10.0	7.00	15.0	>2.00	2,000	N	N	N	150	>10,000	N	N
CP0821HN	32 17	8	113 45	47	10.0	10.00	15.0	>2.00	2,000	N	N	N	20	1,500	N	N
CP0822HN	32 18	16	113 47	19	10.0	7.00	20.0	>2.00	5,000	N	N	N	N	3,000	N	N
CP0823HN	32 17	10	113 47	19	10.0	7.00	20.0	>2.00	7,000	N	N	N	20	7,000	N	N
CP0824HN	32 16	33	113 47	17	7.0	7.00	15.0	>2.00	1,500	N	N	N	100	10,000	N	N
CP0825HN	32 16	21	113 46	29	10.0	20.00	20.0	>2.00	2,000	N	N	N	N	10,000	N	N
CP0826HN	32 17	3	113 50	31	5.0	1.00	20.0	>2.00	2,000	N	N	N	100	500	N	N
CP0827HN	32 17	58	113 49	20	7.0	2.00	20.0	>2.00	2,000	N	N	N	150	1,000	N	N
CP0828HN	32 19	28	113 50	2	5.0	1.00	15.0	>2.00	2,000	N	N	N	30	>10,000	N	N
CP0829HN	32 20	12	113 50	38	7.0	1.00	15.0	>2.00	3,000	N	N	N	20	>10,000	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
SA0783HN	N	N	50	<10	1,000	20	100	N	<20	N	N	50	N	300
SA0784HN	N	50	500	10	700	10	<50	70	<20	N	100	20	N	200
SA0785HN	N	15	300	<10	700	20	100	50	<20	N	20	30	N	200
SA0786HN	N	N	150	<10	700	30	200	10	<20	N	N	30	N	300
SA0787HN	N	N	150	<10	1,500	20	150	10	<20	N	N	30	N	300
MO0788HN	N	N	20	20	300	20	200	N	50	N	N	70	300	200
MO0789HN	N	15	<20	150	300	15	300	N	1,000	N	N	70	500	200
MO0790HN	N	N	20	20	1,000	15	500	N	<20	N	N	70	500	300
CP0791HN	N	N	<20	20	700	<10	150	N	<20	N	N	70	500	150
CP0792HN	N	N	<20	<10	700	<10	150	N	<20	N	N	50	700	150
CP0793HN	N	N	<20	<10	1,000	<10	150	N	<20	N	N	50	500	200
CP0794HN	N	N	<20	<10	700	10	200	N	<20	N	N	50	500	200
CP0795HN	N	N	20	<10	500	10	100	N	30	N	N	30	200	300
IP0796HN	N	N	50	20	1,000	<10	100	N	100	N	N	50	200	300
SA0797HN	N	N	70	20	1,000	10	70	N	<20	N	N	30	700	200
SA0798HN	N	N	200	10	2,000	10	100	N	50	N	50	50	200	200
SA0799HN	N	N	50	<10	2,000	15	70	N	30	N	N	30	500	200
SA0800HN	N	N	20	<10	1,500	10	70	N	70	N	N	50	N	200
SA0801HN	N	N	<20	<10	2,000	20	100	N	<20	N	N	50	200	300
SA0802HN	N	N	20	<10	2,000	20	100	N	N	N	N	30	200	300
SA0803HN	N	N	<20	<10	2,000	20	150	N	N	N	N	30	N	300
SA0805HN	N	15	500	10	1,500	<10	70	50	70	N	50	30	500	200
SA0806HN	N	N	<20	10	1,000	<10	50	N	<20	N	N	20	700	200
SA0807HN	N	N	200	15	1,500	50	100	30	500	N	20	30	500	200
IP0808HN	N	20	700	<10	500	<10	50	30	20	N	70	20	700	200
IP0810HN	N	20	700	<10	500	<10	70	50	50	N	70	20	200	200
IP0811HN	N	10	700	<10	700	<10	50	30	70	N	70	20	1,500	200
IP0812HN	N	N	300	<10	500	<10	50	N	30	N	30	20	500	200
IP0813HN	N	N	300	<10	500	<10	70	N	70	N	30	20	500	200
IP0814HN	N	N	300	<10	700	<10	70	N	50	N	20	20	500	200
IP0815HN	N	N	500	<10	500	<10	70	30	70	N	50	20	500	200
IP0816HN	N	30	700	15	200	<10	50	70	<20	N	70	20	500	300
IP0817HN	N	20	700	<10	500	<10	70	50	30	N	50	50	500	200
IP0818HN	N	30	700	<10	500	<10	50	50	20	N	50	20	200	200
IP0819HN	N	30	1,000	10	100	10	50	50	N	N	100	<20	200	300
IP0820HN	N	20	300	<10	200	<10	50	50	20	N	50	20	>10,000	150
CP0821HN	N	20	500	<10	300	<10	50	70	20	N	70	20	700	150
CP0822HN	N	10	500	10	2,000	<10	50	50	30	N	70	30	700	150
CP0823HN	N	10	500	70	700	10	70	50	300	N	70	30	500	150
CP0824HN	N	10	500	<10	700	<10	50	50	30	N	50	30	500	150
CP0825HN	N	30	2,000	<10	200	15	50	50	N	N	150	70	200	300
CP0826HN	N	N	100	<10	>2,000	<10	70	N	50	N	20	20	500	150
CP0827HN	N	N	150	<10	2,000	<10	70	N	30	N	30	20	500	200
CP0828HN	N	N	70	10	1,500	<10	100	N	150	N	20	50	500	200
CP0829HN	N	N	50	15	700	20	200	20	30	N	N	70	700	200



Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
SA0783HN	N	500	N	>2,000	N
SA0784HN	N	500	N	>2,000	N
SA0785HN	N	500	N	>2,000	N
SA0786HN	N	500	N	>2,000	N
SA0787HN	N	500	N	>2,000	N
M00788HN	N	>500	N	>2,000	N
M00789HN	N	>500	N	>2,000	N
M00790HN	N	>500	N	>2,000	N
CP0791HN	N	>500	N	>2,000	N
CP0792HN	N	>500	N	>2,000	N
CP0793HN	N	>500	N	>2,000	N
CP0794HN	N	>500	N	>2,000	N
CP0795HN	N	>500	N	>2,000	N
IP0796HN	N	>500	N	>2,000	300
SA0797HN	N	>500	N	>2,000	N
SA0798HN	N	>500	N	>2,000	N
SA0799HN	N	>500	N	>2,000	N
SA0800HN	N	>500	N	>2,000	N
SA0801HN	N	>500	N	>2,000	300
SA0802HN	N	>500	N	>2,000	N
SA0803HN	N	>500	N	700	N
SA0805HN	N	>500	N	>2,000	N
SA0806HN	N	>500	N	>2,000	N
SA0807HN	700	>500	N	>2,000	1,000
IP0808HN	N	>500	N	>2,000	N
IP0810HN	N	>500	N	>2,000	N
IP0811HN	N	>500	N	>2,000	N
IP0812HN	N	>500	N	>2,000	N
IP0813HN	N	>500	N	>2,000	N
IP0814HN	N	>500	N	>2,000	N
IP0815HN	N	>500	N	>2,000	N
IP0816HN	N	500	N	>2,000	N
IP0817HN	N	>500	N	>2,000	N
IP0818HN	N	>500	N	>2,000	N
IP0819HN	N	500	N	>2,000	N
IP0820HN	N	500	N	>2,000	N
CP0821HN	N	500	N	>2,000	N
CP0822HN	N	>500	N	>2,000	200
CP0823HN	N	>500	N	>2,000	N
CP0824HN	N	>500	N	>2,000	N
CP0825HN	N	300	N	>2,000	N
CP0826HN	N	>500	N	>2,000	300
CP0827HN	N	>500	N	>2,000	N
CP0828HN	N	>500	N	>2,000	200
CP0829HN	N	>500	N	>2,000	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CP0830HN	32 27 2	113 57 44	5.0	.50	15.0	>2.00	3,000	N	N	N	N	500	N	N
CP0831HN	32 27 31	113 58 6	5.0	.50	20.0	>2.00	3,000	N	N	N	N	700	N	N
CP0832HN	32 28 2	113 58 13	7.0	1.50	15.0	>2.00	3,000	N	N	N	N	200	N	N
CP0833HN	32 28 22	113 58 17	5.0	.30	15.0	>2.00	5,000	N	N	N	N	70	N	N
CP0834HN	32 29 22	113 57 24	3.0	.50	15.0	>2.00	3,000	N	N	N	N	200	N	N
MA1001HN	32 7 50	112 42 4	7.0	7.00	15.0	.50	1,500	N	N	N	N	150	N	N
MA1002HN	32 7 7	112 42 45	3.0	7.00	10.0	.30	700	N	N	N	N	150	N	N
MA1003HN	32 6 43	112 41 24	5.0	10.00	15.0	.30	1,500	N	N	N	N	70	N	N
MA1004HN	32 7 4	112 40 46	7.0	7.00	20.0	.50	1,500	N	N	N	N	70	N	N
MA1005HN	32 5 57	112 43 3	3.0	.70	30.0	1.00	1,500	N	N	N	70	700	N	N
MA1006HN	32 5 52	112 43 32	15.0	1.50	30.0	.50	1,500	N	N	N	30	1,500	N	N
KP1007HN	32 5 56	112 45 6	1.5	.70	30.0	.30	1,500	3	N	N	N	2,000	N	N
MA1008HN	32 2 59	112 43 32	10.0	1.50	3.0	.70	3,000	N	N	N	30	3,000	N	N
MA1009HN	32 2 59	112 44 46	7.0	.50	7.0	1.50	3,000	N	N	N	30	1,500	N	N
KP1010HN	32 3 48	112 45 15	3.0	.50	3.0	1.50	300	N	N	N	70	2,000	N	N
KP1011HN	32 4 2	112 46 4	5.0	1.00	5.0	2.00	500	N	N	N	50	3,000	N	N
KP1012HN	32 2 34	112 46 1	7.0	.50	20.0	1.50	3,000	N	N	N	N	150	N	N
KP1013HN	32 1 29	112 45 48	2.0	.50	3.0	>2.00	1,500	N	N	N	150	700	N	N
KP1014HN	32 0 39	112 45 3	1.5	.70	15.0	1.50	1,500	N	N	N	N	700	N	N
LK1015HN	31 59 19	112 47 12	10.0	3.00	20.0	.30	2,000	N	N	N	N	700	N	N
LK1016HN	31 58 40	112 46 43	.7	.20	3.0	.10	200	N	N	N	N	1,000	N	N
DP1017HN	31 59 33	112 42 57	7.0	1.50	7.0	>2.00	1,500	N	N	N	300	1,000	N	N
MA1018HN	32 1 12	112 42 8	10.0	5.00	30.0	.50	3,000	N	N	N	N	700	N	N
MA1019HN	32 0 3	112 41 27	1.0	.50	15.0	.70	700	N	N	N	N	1,000	N	N
DP1020HN	31 59 39	112 40 17	1.5	.20	10.0	1.50	1,000	N	N	N	50	>10,000	N	N
DP1021HN	31 58 57	112 40 30	2.0	.70	10.0	>2.00	1,500	N	N	N	50	>10,000	N	N
DP1022HN	31 58 12	112 41 2	1.0	.20	15.0	1.00	700	N	N	N	N	>10,000	N	N
DP1023HN	31 57 38	112 39 59	15.0	2.00	15.0	2.00	3,000	N	N	N	N	300	N	N
DP1024HN	31 56 2	112 39 4	.7	.20	20.0	.15	1,000	N	N	N	20	1,000	N	N
DP1025HN	31 55 11	112 39 39	1.5	2.00	50.0	.30	1,500	N	N	N	N	700	N	N
DP1026HN	31 55 10	112 38 3	2.0	1.50	30.0	.30	700	N	N	N	N	700	N	N
DP1027HN	31 54 5	112 38 10	1.5	1.00	50.0	.30	700	N	N	N	N	500	N	N
DP1028HN	31 53 58	112 37 21	.7	1.00	30.0	.15	500	N	N	N	N	700	N	N
KP1029HN	32 10 20	112 55 1	2.0	1.50	10.0	>2.00	500	N	N	N	20	500	N	N
KP1030HN	32 9 58	112 55 58	3.0	7.00	15.0	1.00	700	N	N	N	N	200	N	N
KP1031HN	32 9 39	112 55 57	1.5	1.50	3.0	2.00	300	N	N	N	300	500	N	N
KP1032HN	32 9 7	112 55 31	1.0	.70	1.5	1.50	200	N	N	N	150	5,000	N	N
KP1033HN	32 9 29	112 55 51	1.5	1.50	20.0	1.00	700	N	N	N	N	3,000	N	N
KP1034HN	32 7 43	112 54 46	1.0	.30	1.5	1.50	200	N	N	N	50	1,000	N	N
KP1035HN	32 7 38	112 56 0	7.0	7.00	7.0	1.50	1,500	N	N	N	20	200	N	N
KP1036HN	32 7 20	112 56 47	1.5	.70	20.0	.15	700	N	N	N	N	300	N	N
KP1037HN	32 7 52	112 57 36	2.0	1.50	15.0	2.00	700	N	N	N	50	1,500	N	70
KP1038HN	32 7 34	112 58 0	2.0	2.00	15.0	.70	700	N	N	N	30	700	N	N
KP1039HN	32 6 38	112 58 0	.7	.50	30.0	.15	700	N	N	N	N	150	N	N
KP1040HN	32 11 50	112 57 29	3.0	3.00	7.0	>2.00	700	N	N	N	30	300	N	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
CP0830HN	N	N	N	<10	700	20	150	N	N	N	N	70	<200	200
CP0831HN	N	N	N	15	500	15	150	N	<20	N	N	70	200	150
CP0832HN	N	N	N	15	500	10	150	N	20	N	N	70	200	200
CP0833HN	N	N	N	20	500	<10	150	N	30	N	N	70	200	200
CP0834HN	N	N	N	10	500	10	150	N	20	N	N	70	500	200
MA1001HN	N	30	3,000	20	150	30	N	150	N	N	70	N	200	300
MA1002HN	N	20	2,000	<10	100	15	N	100	70	N	50	N	200	200
MA1003HN	N	30	5,000	10	N	15	N	150	N	N	50	N	200	300
MA1004HN	N	30	5,000	<10	500	20	N	150	N	N	50	70	700	300
MA1005HN	N	N	100	<10	1,000	N	<50	70	30	N	30	20	1,000	150
MA1006HN	N	15	300	20	1,000	20	N	20	30	N	20	N	1,000	200
KP1007HN	N	N	150	300	1,500	30	N	30	3,000	N	N	N	1,500	100
MA1008HN	N	20	150	<10	100	20	<50	30	70	N	20	N	500	200
MA1009HN	N	N	50	<10	500	30	70	70	150	N	20	30	N	100
KP1010HN	N	N	70	<10	300	N	70	150	70	N	70	30	200	100
KP1011HN	N	N	300	<10	300	N	70	100	30	N	70	30	500	150
KP1012HN	N	N	20	<10	2,000	30	100	70	70	N	20	150	N	50
KP1013HN	N	N	150	10	300	15	70	150	300	N	50	70	N	150
KP1014HN	N	N	70	<10	700	15	N	100	150	N	50	150	700	100
LK1015HN	N	30	<20	<10	1,500	15	N	20	200	N	N	70	1,000	100
LK1016HN	N	N	N	<10	N	10	N	N	N	N	N	N	1,000	30
DP1017HN	N	N	300	15	700	10	70	100	700	N	70	30	N	200
MA1018HN	N	15	700	<10	1,000	15	N	20	500	N	30	N	700	150
MA1019HN	N	N	30	<10	1,000	10	<50	150	300	N	50	1,500	500	70
DP1020HN	N	N	70	<10	700	N	<50	70	N	N	20	150	700	300
DP1021HN	N	N	300	10	200	15	150	70	70	N	20	150	500	200
DP1022HN	N	N	<20	<10	500	15	<50	100	300	N	70	N	700	70
DP1023HN	N	30	200	30	1,000	10	<50	100	N	N	50	N	700	300
DP1024HN	N	N	<20	<10	1,500	20	N	30	50	N	N	N	700	20
DP1025HN	N	10	300	<10	2,000	30	N	10	20	N	15	300	1,500	70
DP1026HN	N	N	200	<10	1,500	20	N	10	20	N	N	N	1,000	100
DP1027HN	N	N	150	15	2,000	20	N	20	30	N	20	N	1,500	100
DP1028HN	N	N	300	<10	2,000	30	70	20	150	N	N	200	1,000	50
KP1029HN	N	15	700	10	300	10	50	50	700	N	20	20	700	150
KP1030HN	N	30	1,500	<10	150	20	N	100	30	N	70	N	700	300
KP1031HN	N	N	300	15	300	10	70	50	70	N	50	50	300	150
KP1032HN	N	N	100	<10	150	10	70	10	50	N	50	30	500	100
KP1033HN	N	N	150	<10	700	10	N	30	150	N	30	30	1,000	100
KP1034HN	N	N	70	<10	300	<10	50	50	30	N	50	20	N	100
KP1035HN	N	30	700	<10	500	10	50	70	700	N	50	N	200	200
KP1036HN	N	N	70	<10	1,000	30	70	30	200	N	N	N	700	70
KP1037HN	N	N	300	<10	700	20	50	50	70	N	70	50	500	150
KP1038HN	N	N	700	<10	1,000	30	N	50	70	N	30	700	700	150
KP1039HN	N	N	50	<10	2,000	20	100	N	20	N	10	70	1,000	50
KP1040HN	N	10	700	15	1,000	20	70	70	70	N	10	70	N	300

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
CP0830HN	N	>500	N	>2,000	N
CP0831HN	N	>500	N	>2,000	N
CP0832HN	N	>500	N	>2,000	N
CP0833HN	N	>500	N	2,000	N
CP0834HN	N	>500	N	>2,000	N
MA1001HN	N	70	N	200	N
MA1002HN	N	50	N	200	N
MA1003HN	N	20	N	50	N
MA1004HN	N	300	N	700	N
MA1005HN	N	500	N	>2,000	N
MA1006HN	N	300	N	300	N
KP1007HN	N	500	N	>2,000	N
MA1008HN	N	70	N	2,000	N
MA1009HN	N	150	N	>2,000	N
KP1010HN	N	150	N	>2,000	N
KP1011HN	N	300	N	>2,000	N
KP1012HN	N	500	N	>2,000	N
KP1013HN	N	300	N	>2,000	N
KP1014HN	N	300	N	>2,000	N
LK1015HN	N	500	N	700	N
LK1016HN	N	30	N	150	N
DP1017HN	N	200	N	>2,000	N
MA1018HN	N	300	N	700	N
MA1019HN	N	300	N	>2,000	N
DP1020HN	N	300	N	>2,000	N
DP1021HN	N	150	N	>2,000	N
DP1022HN	N	200	N	>2,000	N
DP1023HN	N	300	N	>2,000	N
DP1024HN	N	700	N	700	N
DP1025HN	N	700	N	500	N
DP1026HN	N	500	N	700	N
DP1027HN	N	700	N	2,000	N
DP1028HN	N	300	N	1,000	N
KP1029HN	N	300	N	>2,000	N
KP1030HN	N	100	N	1,500	N
KP1031HN	N	300	N	>2,000	N
KP1032HN	N	200	N	>2,000	N
KP1033HN	N	500	N	>2,000	N
KP1034HN	N	200	N	>2,000	N
KP1035HN	N	150	N	>2,000	N
KP1036HN	N	500	N	1,500	N
KP1037HN	N	200	N	>2,000	N
KP1038HN	N	300	N	>2,000	N
KP1039HN	N	700	N	700	N
KP1040HN	N	300	N	>2,000	N

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
KP1041HN	32 10 52	112 57 46	5.0	1.50	15.0	>2.00	1,500	N	N	N	50	10,000	N	N
KP1042HN	32 11 35	112 58 41	3.0	5.00	20.0	.70	1,500	N	N	N	N	1,500	N	N
KP1043HN	32 11 45	112 59 38	.7	.50	1.0	.70	200	N	N	N	30	500	N	N
AD1044HN	32 11 46	113 0 17	3.0	1.00	3.0	>2.00	700	N	N	N	N	500	N	N
AD1045HN	32 11 20	113 2 2	3.0	2.00	3.0	>2.00	700	N	N	N	N	500	N	N
AD1046HN	32 6 21	113 0 8	1.5	1.00	5.0	>2.00	500	N	N	N	100	1,000	N	N
AD1047HN	32 4 46	113 1 8	1.5	.20	5.0	>2.00	300	N	N	N	150	300	N	N
KP1048HN	32 5 2	112 59 49	2.0	.30	3.0	2.00	300	N	N	N	500	300	N	N
KP1049HN	32 5 14	112 58 52	1.5	.20	2.0	2.00	300	N	N	N	200	700	N	N
KP1050HN	32 6 43	112 59 14	1.5	.30	5.0	>2.00	300	N	N	N	70	500	N	<20
KP1051HN	32 6 59	112 59 2	1.5	.20	5.0	>2.00	300	N	N	N	20	700	N	N
QB1052HN	31 59 30	113 0 21	2.0	.30	5.0	>2.00	300	N	N	N	20	700	N	N
QB1053HN	31 57 4	113 1 26	1.5	.10	15.0	>2.00	700	N	N	N	N	70	N	N
QB1054HN	31 58 48	113 2 34	1.5	.10	7.0	>2.00	700	N	N	N	N	150	N	N
QB1055HN	31 59 12	113 2 53	3.0	.15	10.0	>2.00	1,000	N	N	N	20	100	N	N
QB1056HN	31 59 17	113 4 10	1.5	.20	10.0	2.00	700	N	N	N	300	1,000	N	N
QB1057HN	31 59 45	113 1 48	2.0	.20	10.0	1.50	700	N	N	N	N	500	N	N
AD1058HN	32 1 46	113 2 35	1.0	.15	3.0	>2.00	300	N	N	N	20	500	N	N
AD1059HN	32 3 22	113 3 51	1.5	.20	3.0	2.00	300	N	N	N	20	700	N	N
AD1060HN	32 3 54	113 2 34	1.5	.20	2.0	2.00	200	N	N	N	20	700	N	N
AD1061HN	32 2 46	113 0 29	2.0	2.00	7.0	2.00	500	N	N	N	N	1,000	N	N
AD1062HN	32 2 24	113 0 32	7.0	7.00	10.0	1.00	1,000	N	N	N	N	300	N	N
AD1063HN	32 1 57	113 0 52	3.0	3.00	10.0	1.00	700	N	N	N	N	>10,000	N	N
AD1064HN	32 1 5	113 0 38	3.0	1.50	7.0	2.00	700	10	N	N	30	7,000	N	N
LK1065HN	31 54 20	112 50 59	2.0	1.00	7.0	>2.00	1,000	30	N	N	N	10,000	N	N
LK1066HN	31 54 58	112 51 47	2.0	.50	7.0	>2.00	1,000	N	N	N	N	300	N	N
LK1067HN	31 55 29	112 50 1	.7	.15	3.0	1.50	700	20	N	N	20	5,000	N	N
LK1068HN	31 55 53	112 51 0	.7	.20	5.0	1.00	700	3	N	N	20	5,000	N	N
LK1069HN	31 56 29	112 51 25	.7	.15	7.0	.70	700	N	N	N	20	3,000	N	N
LK1070HN	31 57 11	112 50 53	5.0	.20	7.0	>2.00	700	500	N	N	100	>10,000	N	N
LK1071HN	31 57 46	112 51 2	7.0	.70	2.0	2.00	1,000	N	N	N	150	1,500	N	N
LK1072HN	31 58 21	112 52 26	2.0	.50	1.5	1.50	500	N	N	N	70	1,500	N	N
LK1073HN	31 58 46	112 53 40	5.0	.50	2.0	2.00	1,000	N	N	N	700	700	N	N
LK1074HN	31 59 36	112 52 27	7.0	.50	1.5	>2.00	1,000	N	N	N	150	700	N	N
LK1075HN	31 59 57	112 51 50	3.0	.70	7.0	>2.00	700	N	N	N	100	200	N	N
KP1076HN	32 0 29	112 53 1	2.0	7.00	7.0	.50	500	N	N	N	N	1,500	N	N
KP1077HN	32 0 44	112 53 44	3.0	7.00	7.0	.70	700	N	N	N	N	3,000	N	N
KP1078HN	32 0 55	112 55 0	5.0	1.50	2.0	2.00	500	N	N	N	150	2,000	N	N
KP1079HN	32 6 55	112 55 2	1.5	.50	1.5	2.00	200	N	N	N	100	300	N	N
KP1080HN	32 6 10	112 55 48	2.0	1.50	30.0	.70	500	N	N	N	N	200	N	N
KP1081HN	32 5 19	112 55 39	.3	.20	15.0	.50	300	N	N	N	N	70	N	N
KP1082HN	32 4 34	112 55 2	.7	.70	7.0	.70	300	N	N	N	50	500	N	N
KP1083HN	32 3 33	112 54 36	3.0	2.00	20.0	.30	700	N	N	N	N	500	N	N
KP1084HN	32 2 56	112 54 37	.7	.20	20.0	.30	500	N	N	N	N	300	N	N
KP1085HN	32 2 48	112 53 50	7.0	.50	20.0	1.00	1,500	N	N	N	N	700	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
KP1041HN	N	20	500	50	1,000	20	70	50	700	N	20	50	500	200
KP1042HN	N	10	1,500	<10	1,000	70	50	70	300	N	20	70	200	150
KP1043HN	N	N	50	<10	200	15	N	20	N	N	20	N	N	70
AD1044HN	N	N	150	<10	500	10	70	20	300	N	30	50	200	150
AD1045HN	N	10	300	<10	500	10	70	20	200	N	50	150	N	150
AD1046HN	N	N	150	<10	700	15	50	10	200	N	30	50	200	150
AD1047HN	N	N	100	<10	300	15	70	150	150	N	20	20	N	150
KP1048HN	N	N	100	15	200	15	70	200	50	N	30	20	200	150
KP1049HN	N	N	70	10	200	15	70	150	100	N	N	<20	200	150
KP1050HN	N	N	150	<10	300	15	70	200	150	N	N	30	300	150
KP1051HN	N	N	50	<10	300	15	50	150	100	N	N	<20	500	150
QB1052HN	N	N	700	<10	200	15	70	150	200	N	20	30	700	150
QB1053HN	N	10	50	<10	1,500	20	100	70	70	N	N	70	N	500
QB1054HN	N	20	30	<10	1,000	10	150	150	100	N	N	70	N	1,000
QB1055HN	N	15	70	<10	1,000	10	100	150	700	N	N	70	N	500
QB1056HN	N	N	50	<10	500	10	70	150	300	N	N	50	300	200
QB1057HN	N	N	50	10	700	20	N	200	500	N	30	<20	200	300
AD1058HN	N	N	50	<10	200	10	50	100	100	N	N	<20	200	150
AD1059HN	N	N	30	<10	200	10	50	70	30	N	N	<20	500	150
AD1060HN	N	N	30	<10	200	10	50	100	20	N	N	<20	200	100
AD1061HN	N	10	700	<10	500	10	50	100	700	N	30	20	700	150
AD1062HN	N	15	1,000	<10	50	10	N	100	50	N	70	N	200	200
AD1063HN	N	10	700	<10	1,000	10	N	100	3,000	N	20	<20	2,000	150
AD1064HN	N	10	300	<10	700	30	70	150	150	N	20	20	700	150
LK1065HN	N	30	300	15	1,500	200	70	70	700	N	30	70	700	1,000
LK1066HN	N	N	150	<10	500	70	70	200	50	N	20	30	N	200
LK1067HN	N	20	20	300	700	200	N	200	3,000	300	20	20	N	1,500
LK1068HN	N	10	N	70	500	300	50	70	3,000	N	N	N	N	300
LK1069HN	N	N	N	<10	500	200	50	100	1,000	N	N	N	N	200
LK1070HN	N	N	20	70	700	700	100	N	7,000	300	N	150	700	150
LK1071HN	N	N	70	20	500	20	50	N	700	N	20	20	300	150
LK1072HN	N	N	<20	<10	200	30	<50	N	150	N	N	N	200	150
LK1073HN	N	N	<20	20	100	20	70	N	200	N	N	N	700	150
LK1074HN	N	N	100	<10	200	10	70	N	300	N	20	20	N	150
LK1075HN	N	N	200	30	700	10	<50	N	70	N	15	70	500	150
KP1076HN	N	15	1,500	<10	N	15	N	70	20	N	30	150	500	150
KP1077HN	N	20	2,000	10	100	15	N	70	30	N	30	N	500	150
KP1078HN	N	10	150	<10	300	15	100	30	70	N	10	70	500	150
KP1079HN	N	N	70	10	200	N	<50	N	70	N	N	20	N	150
KP1080HN	N	N	300	10	2,000	15	70	10	50	N	N	30	1,000	100
KP1081HN	N	N	<20	N	700	15	N	N	70	N	N	N	500	50
KP1082HN	N	N	150	<10	200	10	N	N	50	N	N	N	300	70
KP1083HN	N	15	300	<10	700	15	N	30	150	N	30	N	700	150
KP1084HN	N	N	30	<10	1,000	15	N	N	70	N	N	100	700	50
KP1085HN	N	15	50	20	700	30	N	N	150	N	N	300	1,000	150

Sample	S-W	S-Y	S-ZN	S-7R	S-TH
KP1041HN	N	300	N	>2,000	N
KP1042HN	N	300	N	>2,000	N
KP1043HN	N	150	N	>2,000	N
AD1044HN	N	300	N	>2,000	N
AD1045HN	N	500	N	>2,000	N
AD1046HN	N	300	N	>2,000	N
AD1047HN	N	300	N	>2,000	N
KP1048HN	N	200	N	>2,000	N
KP1049HN	N	150	N	>2,000	N
KP1050HN	N	200	N	>2,000	N
KP1051HN	N	200	N	>2,000	N
QB1052HN	N	200	N	>2,000	N
QB1053HN	N	500	N	2,000	3,000
QB1054HN	N	500	N	>2,000	>5,000
QB1055HN	150	500	N	>2,000	3,000
QB1056HN	N	500	N	>2,000	200
QB1057HN	500	500	N	>2,000	300
AD1058HN	N	200	N	>2,000	N
AD1059HN	N	200	N	>2,000	N
AD1060HN	N	150	N	>2,000	N
AD1061HN	N	200	N	>2,000	N
AD1062HN	N	100	N	>2,000	N
AD1063HN	N	300	N	>2,000	N
AD1064HN	<100	200	N	>2,000	N
LK1065HN	1,500	1,000	N	>2,000	>5,000
LK1036HN	300	700	3,000	>2,000	N
LK1067HN	300	1,500	N	>2,000	>5,000
LK1068HN	200	700	N	>2,000	5,000
LK1069HN	150	700	N	>2,000	3,000
LK1070HN	100	500	N	2,000	3,000
LK1071HN	N	300	N	>2,000	N
LK1072HN	N	200	N	>2,000	700
LK1073HN	<100	150	N	>2,000	500
LK1074HN	N	300	N	>2,000	N
LK1075HN	N	300	N	>2,000	N
KP1076HN	N	50	N	1,500	N
KP1077HN	N	70	N	1,500	N
KP1078HN	N	200	N	2,000	N
KP1079HN	N	300	N	>2,000	N
KP1080HN	N	500	N	1,500	N
KP1081HN	N	300	N	1,500	N
KP1082HN	N	150	N	2,000	N
KP1083HN	N	300	N	1,000	N
KP1084HN	N	500	N	1,500	N
KP1085HN	N	300	N	700	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-Ti%	S-MN	S-AG	S-AS	S-AU	S-R	S-BA	S-BE	S-BI
KP1086HN	32 1 45	112 52 35	1.5	.50	30.0	1.50	1,500	N	N	N	50	500	N	N
KP1087HN	32 0 57	112 51 53	2.0	.20	3.0	1.50	500	N	N	N	150	500	N	N
KP1088HN	32 1 18	112 50 29	1.0	.20	15.0	.50	500	N	N	N	30	700	N	N
KP1089HN	31 59 48	112 50 50	2.0	1.00	7.0	.70	1,000	N	N	N	50	150	N	N
LK1090HN	31 58 0	112 49 10	7.0	.70	10.0	1.50	700	N	N	N	50	300	N	N
KP1091HN	32 5 38	112 57 6	.7	.50	20.0	.70	500	N	N	N	N	700	N	N
KP1092HN	32 5 32	112 57 42	.7	.50	30.0	.15	500	N	N	N	50	70	N	N
KP1093HN	32 3 40	112 57 47	3.0	.20	1.5	2.00	200	N	N	N	150	>10,000	N	N
KP1094HN	32 3 50	112 58 32	3.0	1.50	3.0	1.50	300	N	N	N	50	3,000	N	N
KP1095HN	32 3 22	112 59 5	3.0	1.50	5.0	1.50	300	N	N	N	50	700	N	N
KP1096HN	32 3 7	112 59 27	3.0	1.50	7.0	1.50	300	N	N	N	N	500	N	N
KP1097HN	32 1 35	112 59 12	5.0	10.00	15.0	.70	500	N	N	N	N	200	N	N
KP1098HN	32 1 9	112 59 30	5.0	15.00	30.0	1.50	700	N	N	N	N	300	N	N
KP1099HN	32 1 53	112 57 54	1.0	2.00	5.0	.70	300	N	N	N	N	10,000	N	N
KP1100HN	32 0 59	112 56 11	7.0	1.00	5.0	>2.00	1,500	N	N	N	50	700	N	N
LK1101HN	31 59 50	112 57 21	7.0	2.00	7.0	>2.00	1,500	N	N	N	20	700	N	N
AD1102HN	32 5 58	113 0 44	1.5	.50	5.0	>2.00	500	N	N	N	N	500	N	N
KP1103HN	32 9 12	112 59 30	7.0	1.50	5.0	1.50	1,500	N	N	N	150	1,500	N	N
KP1104HN	32 9 48	112 58 52	7.0	1.00	3.0	2.00	700	N	N	N	50	3,000	N	N
DP1105HN	31 49 38	112 37 57	1.0	.70	30.0	1.50	700	N	N	N	N	150	N	N
DP1106HN	31 50 48	112 37 39	5.0	7.00	20.0	.20	700	N	N	N	N	150	N	N
DP1107HN	31 50 12	112 36 32	.7	.70	30.0	.30	700	N	N	N	N	100	N	N
DP1108HN	31 51 45	112 36 52	3.0	10.00	15.0	.20	700	N	N	N	N	100	N	N
DP1109HN	31 52 29	112 36 10	1.5	3.00	15.0	.50	500	N	N	N	20	500	N	N
DP1110HN	31 54 0	112 36 13	2.0	1.50	30.0	.30	1,000	N	N	N	N	300	N	N
DP1111HN	31 55 25	112 36 51	2.0	1.50	30.0	.30	1,000	N	N	N	N	150	N	N
DP1112HN	31 56 40	112 38 3	1.5	.50	15.0	.70	500	N	N	N	N	500	N	N
DP1113HN	31 57 16	112 39 0	15.0	.50	30.0	2.00	700	N	N	N	N	500	N	N
DP1114HN	31 59 6	112 38 53	1.0	.20	50.0	1.50	700	N	N	N	70	>10,000	N	N
MA1115HN	32 2 59	112 38 56	1.5	.70	20.0	.30	500	N	N	N	N	3,000	N	N
MA1116HN	32 1 18	112 40 14	.7	.50	30.0	.30	700	N	N	N	N	1,000	N	N
MA1117HN	32 2 10	112 40 46	7.0	1.00	7.0	1.00	1,000	N	N	N	N	500	N	N
MA1118HN	32 2 58	112 40 40	2.0	.20	7.0	.30	300	N	N	N	20	1,000	N	N
MA1119HN	32 4 3	112 41 18	1.5	.30	20.0	.30	500	N	N	N	N	500	N	N
MA1120HN	32 5 35	112 39 37	.7	.20	30.0	.30	500	N	N	N	N	200	N	N
MA1121HN	32 5 33	112 40 50	.7	.30	30.0	.15	700	N	N	N	N	300	N	N
MA1122HN	32 6 29	112 39 20	.7	.30	20.0	.15	500	N	N	N	N	500	N	N
MA1123HN	32 11 30	112 43 3	1.5	.30	5.0	.70	300	N	N	N	150	700	N	N
MA1124HN	32 11 22	112 43 47	2.0	.70	10.0	2.00	700	N	N	N	N	700	N	N
MA1125HN	32 3 59	112 43 0	2.0	.30	30.0	.70	700	N	N	N	N	300	N	N
MA1126HN	32 0 12	112 43 53	1.5	.30	3.0	2.00	300	N	N	N	150	500	N	N
MA1127HN	32 0 49	112 43 49	3.0	.50	7.0	>2.00	1,500	N	N	N	150	500	N	N
MA1128HN	32 2 21	112 43 5	7.0	.70	5.0	2.00	3,000	N	N	N	N	1,000	N	N
MA1129HN	32 1 58	112 42 46	10.0	3.00	5.0	2.00	5,000	N	N	N	N	1,000	N	N
LK1130HN	31 57 50	112 45 14	1.5	1.50	30.0	.50	1,000	N	N	N	N	200	N	N



## Spectrographic analysis of heavy mineral concentrates---continued

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
KP1086HN	N	500	N	2,000	N
KP1087HN	N	200	N	>2,000	N
KP1088HN	N	300	N	1,000	N
LK1089HN	N	300	N	2,000	N
LK1090HN	N	300	N	1,500	N
KP1091HN	N	500	N	700	N
KP1092HN	N	500	N	300	N
KP1093HN	N	150	N	>2,000	N
KP1094HN	N	150	N	>2,000	N
KP1095HN	N	150	N	>2,000	N
KP1096HN	N	200	N	>2,000	N
KP1097HN	N	100	N	2,000	N
KP1098HN	N	200	N	>2,000	N
KP1099HN	N	70	N	>2,000	N
KP1100HN	N	700	N	>2,000	N
LK1101HN	N	70	N	1,500	N
AD1102HN	N	500	N	>2,000	N
KP1103HN	N	200	N	>2,000	N
KP1104HN	N	200	N	>2,000	N
DP1105HN	N	1,000	N	2,000	N
DP1106HN	N	300	N	700	N
DP1107HN	N	700	N	700	N
DP1108HN	N	100	N	1,000	N
DP1109HN	N	300	N	>2,000	N
DP1110HN	N	700	N	2,000	N
DP1111HN	N	700	N	>2,000	N
DP1112HN	N	300	N	>2,000	N
DP1113HN	N	500	N	>2,000	N
DP1114HN	N	500	N	>2,000	N
MA1115HN	N	300	N	>2,000	N
MA1116HN	N	700	N	500	N
MA1117HN	N	200	N	>2,000	N
MA1118HN	N	150	N	500	N
MA1119HN	N	300	N	>2,000	N
MA1120HN	N	500	N	>2,000	N
MA1121HN	N	700	N	1,500	N
MA1122HN	N	300	N	200	N
MA1123HN	N	150	N	2,000	N
MA1124HN	N	300	N	2,000	N
MA1125HN	N	500	N	>2,000	N
MA1126HN	N	200	N	>2,000	N
MA1127HN	N	300	N	>2,000	N
MA1128HN	N	150	N	>2,000	N
MA1129HN	N	200	N	>2,000	N
LK1130HN	N	700	N	1,500	N

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
KP1086HN	N	N	100	<10	1,000	15	<50	N	70	N	N	700	1,000	100
KP1087HN	N	N	50	15	300	10	N	N	150	N	N	150	N	100
KP1088HN	N	N	<20	<10	700	10	N	N	100	N	N	N	1,000	50
LK1089HN	N	N	70	<10	500	30	70	N	300	1,500	N	>2,000	200	70
LK1090HN	N	N	30	<10	700	20	70	N	70	N	N	70	500	150
KP1091HN	N	N	50	<10	2,000	15	70	N	20	N	N	1,000	700	70
KP1092HN	N	N	50	<10	2,000	15	N	N	50	N	N	N	1,000	20
KP1093HN	N	10	70	<10	100	N	N	N	20	N	N	<20	5,000	300
KP1094HN	N	10	300	<10	100	10	N	N	20	N	N	<20	500	150
KP1095HN	N	10	300	<10	100	10	N	N	100	N	N	N	300	150
KP1096HN	N	10	300	<10	100	10	N	N	150	N	N	20	700	150
KP1097HN	N	20	1,500	<10	50	15	N	100	300	N	N	300	300	150
KP1098HN	N	30	7,000	<10	150	10	N	100	70	N	50	30	500	200
KP1099HN	N	N	700	20	N	10	N	70	20	N	N	N	700	100
KP1100HN	N	15	100	50	500	15	150	N	300	N	N	70	500	150
LK1101HN	N	20	200	30	N	15	N	30	50	N	N	N	700	150
AD1102HN	N	N	150	<10	300	10	50	N	70	N	20	50	200	150
KP1103HN	N	15	100	20	300	10	N	N	500	N	10	20	1,000	150
KP1104HN	N	N	150	70	300	10	50	N	300	N	N	70	700	150
DP1105HN	N	N	150	<10	1,000	20	N	N	500	N	N	30	700	70
DP1106HN	N	30	3,000	<10	700	10	N	100	70	N	30	N	500	150
DP1107HN	N	N	150	<10	1,500	20	N	N	N	N	N	150	1,000	50
DP1108HN	N	30	7,000	10	200	10	N	100	N	N	50	N	<200	150
DP1109HN	N	10	1,000	<10	500	15	N	50	N	N	10	N	700	100
DP1110HN	N	10	150	<10	1,500	30	N	N	20	N	N	N	1,000	100
DP1111HN	N	10	700	<10	1,500	20	N	10	20	N	N	50	700	100
DP1112HN	N	N	70	<10	700	15	N	N	20	N	N	N	700	70
DP1113HN	N	20	70	50	1,000	20	N	N	5,000	N	N	20	700	300
DP1114HN	N	N	50	<10	2,000	20	<50	N	70	N	N	150	700	150
MA1115HN	N	N	150	<10	1,000	10	N	N	70	N	N	100	700	70
MA1116HN	N	N	20	<10	1,500	20	N	N	30	N	N	N	1,000	50
MA1117HN	N	15	150	<10	500	20	<50	30	1,500	N	10	50	700	150
MA1118HN	N	N	<20	<10	700	20	N	N	20	N	N	N	700	50
MA1119HN	N	N	30	<10	1,000	15	N	N	100	N	N	N	1,000	50
MA1120HN	N	N	30	<10	2,000	20	N	N	N	N	N	N	1,000	50
MA1121HN	N	N	70	<10	1,500	20	N	N	100	N	N	70	1,500	50
MA1122HN	N	N	<20	<10	1,000	20	N	N	N	N	N	N	1,000	20
MA1123HN	N	N	50	<10	50	15	N	N	70	N	N	N	700	100
MA1124HN	N	N	300	<10	700	20	<50	20	30	N	N	20	700	150
MA1125HN	N	N	70	150	1,500	20	N	N	300	N	N	N	1,000	70
MA1126HN	N	N	50	20	300	<10	50	N	300	N	N	70	200	100
MA1127HN	N	N	200	<10	500	10	70	20	300	N	10	100	200	150
MA1128HN	N	20	70	15	300	15	N	N	3,000	N	10	N	700	150
MA1129HN	N	30	700	15	200	10	N	30	3,000	N	20	>2,000	200	200
LK1130HN	N	N	700	<10	1,500	10	N	10	300	N	N	50	1,000	70

Sample	LATITUDE	LONGITUDE	S-FEX	S-MGX	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-A	S-BA	S-BE	S-BI
LK1131HN	31 56 37	112 48 29	3.0	7.00	10.0	.50	700	N	N	N	100	300	N	N
LK1132HN	31 57 25	112 48 15	2.0	.70	7.0	.70	300	N	N	N	100	1,500	N	N
LK1133HN	31 59 0	112 49 9	15.0	1.50	3.0	1.50	1,500	N	N	N	70	700	N	N
KP1134HN	32 2 3	112 54 20	3.0	2.00	3.0	1.00	1,000	N	N	N	N	>10,000	N	N
KP1135HN	32 0 57	112 57 23	7.0	.70	2.0	>2.00	1,000	N	N	N	200	2,000	N	N
QB1136HN	31 59 11	113 1 8	1.5	.30	7.0	>2.00	700	N	N	N	20	700	N	N
KP1137HN	32 11 11	112 55 58	3.0	.20	7.0	>2.00	700	N	N	N	20	150	N	N

## Spectrographic analysis of heavy mineral concentrates--continued

Sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V
LK1131HN	N	20	1,500	<10	500	10	N	50	20	N	30	N	500	150
LK1132HN	N	N	100	<10	500	10	N	N	300	N	N	70	700	70
LK1133HN	N	15	300	15	300	15	70	30	150	N	N	N	200	200
KP1134HN	N	20	700	10	150	20	<50	30	150	N	N	N	5,000	100
KP1135HN	N	10	150	20	200	10	70	10	300	N	N	N	500	150
QB1136HN	N	N	70	10	200	20	70	N	200	N	N	50	N	150
KP1137HN	N	N	50	<10	1,500	30	70	N	70	N	N	50	N	500

Sample	S-W	S-Y	S-ZN	S-ZR	S-TH
LK1131HN	N	150	N	2,000	N
LK1132HN	N	200	N	>2,000	N
LK1133HN	N	150	N	300	N
KP1134HN	N	70	N	2,000	N
KP1135HN	N	200	N	2,000	N
QB1136HN	N	500	N	>2,000	N
KP1137HN	N	500	N	>2,000	700