UNITED STATES DEPARTMENT OF THE INTERIOR

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SPECTROGRAPHIC AND CHEMICAL ANALYSES OF STREAM-SEDIMENT AND GLACIAL-DEBRIS SAMPLES FROM MT. HAYES QUADRANGLE, ALASKA

by

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INTRODUCTION

A reconnaissance geochemical study was made in the Mt. Hayes, Alaska, 1:250,000-scale quadrangle (plate 1) during the summers of 1978 and 1979. This study included the collection, preparation, and analysis of stream-sediment samples, and glacial-debris samples.

DESCRIPTION OF SAMPLE MEDIA

At most sites, stream sediments were collected in the active channels of streams that drain areas ranging from about 5 to 10^{2} km^2. The material in stream-sediment samples ranges in size from fine sand and silt in areas of low relief to coarse sand and cobbles in areas of high relief. In addition to the stream sediments, glacial-debris samples were collected from lateral and medial moraines of valley glaciers. The stream sediments and glacial debris are composed mainly of detrital material that has been mechanically introduced into a stream or moraine from the bedrock and colluvium within a particular drainage basin. The composition of the stream sediment and glacial debris approximates that of the weathering rock and soil material within the basin. Further, all the sample types can reflect the presence of mineralized rock in the drainage basin upstream.

SAMPLE PREPARATION AND METHODS OF ANALYSES

The stream-sediment and glacial-debris samples were air-dried and sieved through an 80-mesh (0.177 mm) sieve. The minus-80-mesh fraction was pulverized and saved for analysis.

The stream-sediment and glacial-debris samples were analyzed by a 6-step, DC-arc semiquantitative emission-spectrographic method described by Grimes and Marranzino (1968) for the analysis of geologic material. Thirty-one elements were determined per sample. Results were reported as the approximate midpoints of geometric brackets whose boundaries are 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, etc. These midpoints are 1, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc.

Disallowing results obtained near the detection levels, the repeatability of the method, in general, is shown to be within one adjoining reporting interval on each side of the mean 83 percent of the time, and within two adjoining reporting intervals on each side of the mean 96 percent of the time (Motooka and Grimes, 1976).

The approximate visual lower limits of determination analyzed by the spectrographic method for those given in percentage are: iron, 0.05; magnesium, 0.02; calcium, 0.05; and titanium, 0.002. For those reported in ppm the lower limits are: manganese, 10; silver, 0.5; arsenic, 200; gold, 10; boron, 10; barium, 20; beryllium, 1; bismuth, 10; cadmium, 20; cobalt, 5; chromium, 10; copper, 5; lanthanum, 20; molybdenum, 5; niobium, 20, nickel, 5; lead, 10; antimony, 100; scandium, 5; tin, 10; strontium, 100; tungsten, 50; vanadium, 10; yttrium, 10; zinc, 200; zirconium, 10; and thorium, 100.

Stream-sediment and glacial-debris samples were also analyzed for zinc by an atomic absorption method (Ward and others, 1969).

The lower limit of determination for zinc is 5 ppm.

The spectrographic and chemical analyses incorporated in this report were determined by E. F. Cooley, D. A. Risoli, R. M. O'Leary, A. L. Gruzensky, and J. Hurrell.

EXPLANATION OF DATA

All analytical data were keypunched or entered on magnetic tape and stored in the U.S. Geological Survey RASS (Rock Analysis Storage System) file (VanTrump and Miesch, 1977). A computer print-out program was used in compiling table 1. The data on table 1 include the analytical results for both stream-sediment and glacial debris samples.

The columns have heading titles of sample, latitude, longitude, and each of the elements. Columns in which the element heading is preceded by an S contain the emission-spectrographic data. The prefix AA in the column heading indicates that the results were determined by atomic absorption, and the suffix P indicates a partial digestion.

The results for all elements are reported in parts per million (ppm) except for iron, magnesium, calcium, and titanium, which are given in percent.

Definitions of the qualifier codes used on table 1 are as follows: --, no data available, or sample not analyzed for this element; N, not detected at the level of detection; <, detected, but below the limit of determination or below values shown; and >, greater than the value shown.

The sample numbers appearing on plate 1 have been simplified from the sample numbers on table 1 by eleminating the prefix MH.

REFERENCES CITED

Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic material: U.S. Geological Survey Circular 591, 6 p.

Motooka, J. M., and Grimes, D. J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analysis: U.S. Geological Survey Circular 738, 25 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.

Ward, F. N., Nakagáwa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods of analysis useful in geochemical exploration: U.S. Geological Survey Bulletin 1289, 45 p.

Table 1.--Spectrographic and atomic absorption analyses for stream-sediment and glacial-debris samples from the Mt. Hayes quadrangle, Alaska.

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH001S	63 0 19	145 29 15	5.0	2.0	2.00	.50	2,000	N	N	N	20	700	<1.0	N
MH002S	63 1 40	145 30 27	7.0	2.0	2.00	.50	2,000	N	N	N	50	700	<1.0	N
MH003S	63 6 5	145 29 5	5.0	2.0	3.00	.70	2,000	N	N	N	30	700	<1.0	N
MH004S	63 10 10	145 31 50	7.0	2.0	2.00	.50	2,000	N	N	N	50	1,000	<1.0	N
MH005S	63 13 36	145 29 5	5.0	2.0	5.00	.50	2,000	N	N	N	70	700	<1.0	N
MH006S	63 13 49	145 37 35	5.0	1.5	5.00	.50	2,000	N	N	N	50	1,000	<1.0	N
MH007S	63 16 20	145 39 21	7.0	2.0	5.00	.50	2,000	N	N	N	50	1,500	<1.0	N
MH008S	63 16 32	145 40 4	10.0	1.5	5.00	.50	2,000	N	N	N	20	1,000	<1.0	N
MH009S	63 16 42	145 39 6	5.0	2.0	5.00	.50	2,000	N	N	N	100	2,000	<1.0	N
MH010S	63 18 36	145 42 2	7.0	2.0	2.00	.50	2,000	N	N	N	30	1,000	<1.0	N
MH011S	63 20 26	145 43 59	7.0	3.0	5.00	.50	3,000	N	N	N	50	700	<1.0	N
MH012S	63 22 29	145 43 47	5.0	2.0	5.00	.50	2,000	N	N	N	100	500	<1.0	N
MH013S	63 24 12	145 43 56	5.0	.7	1.00	.70	2,000	200.0	200	N	100	300	<1.0	N
MH014S	63 25 32	145 45 5	3.0	.7	.70	.50	1,000	N	N	N	100	700	1.0	N
MH015S	63 26 51	145 47 42	3.0	1.0	.50	.70	1,000	N	N	N	150	1,000	1.5	N
MH016S	63 28 18	145 50 17	3.0	1.0	.50	.70	1,000	N	N	N	100	1,000	1.5	N
MH017S	63 31 31	145 50 55	5.0	1.5	.70	.50	1,000	N	N	N	150	1,500	2.0	N
MH018S	63 34 52	145 51 47	3.0	1.0	1.00	.50	1,000	N	N	N	100	700	2.0	N
MH019S	63 36 46	145 51 37	3.0	1.0	1.00	.50	700	N	N	N	100	700	1.0	N
MH020S	63 1 54	145 42 43	5.0	3.0	2.00	1.00	1,000	N	N	N	50	500	<1.0	N
MH021S	63 2 34	145 42 34	10.0	3.0	3.00	>1.00	1,500	N	N	N	30	300	<1.0	N
MH022S	63 2 43	145 32 53	7.0	3.0	2.00	.70	1,000	N	N	N	50	500	<1.0	N
MH023D	63 16 26	144 34 25	5.0	3.0	1.00	.70	500	.5	N	N	50	2,000	2.0	N
MH024S	63 16 41	144 32 34	3.0	1.0	.20	.50	700	<.5	500	N	100	1,000	2.0	N
MH025S	63 16 27	144 31 30	3.0	1.0	.15	.70	700	.5	N	N	200	1,500	2.0	N
MH026D	63 14 43	144 30 50	15.0	5.0	3.00	1.00	1,000	1.0	N	N	20	5,000	<1.0	N
MH027D	63 13 19	144 25 11	3.0	2.0	1.50	.50	700	<.5	N	N	50	1,500	1.5	N
MH028D	63 12 59	144 24 57	5.0	2.0	1.00	.70	500	.5	N	N	70	1,500	1.5	N
MH029D	63 13 43	144 26 59	3.0	2.0	5.00	.70	700	.5	N	N	50	700	1.0	N
MH030S	63 10 5	145 42 58	10.0	3.0	3.00	>1.00	1,500	N	N	N	20	300	1.0	N
MH031S	63 9 43	145 43 54	10.0	3.0	3.00	1.00	1,000	N	N	N	20	300	<1.0	N
MH032S	63 9 13	145 43 55	10.0	3.0	3.00	>1.00	1,000	N	N	N	15	200	1.0	N
MH033S	63 8 58	145 46 56	10.0	5.0	3.00	1.00	1,500	N	N	N	20	300	<1.0	N
MH034S	63 9 57	145 48 16	10.0	3.0	2.00	1.00	1,000	N	N	N	10	300	<1.0	N
MH035S	63 10 30	145 45 46	10.0	5.0	2.00	1.00	1,000	N	N	N	30	200	<1.0	N
MH036S	63 12 23	145 47 34	10.0	3.0	1.50	1.00	1,000	N	N	N	20	300	<1.0	N
MH037S	63 11 36	145 49 27	10.0	2.0	1.50	1.00	700	N	N	N	50	300	1.0	N
MH038S	63 11 17	145 50 49	10.0	3.0	2.00	>1.00	700	N	N	N	20	300	<1.0	N
MH039S	63 9 44	145 52 50	15.0	3.0	3.00	>1.00	1,000	N	N	N	10	300	1.0	N
MH040S	63 10 54	145 54 40	10.0	3.0	2.00	>1.00	1,000	N	N	N	30	300	1.0	N
MH041S	63 11 34	145 56 49	15.0	5.0	3.00	>1.00	1,500	N	N	N	15	300	<1.0	N
MH042S	63 14 1	146 0 59	15.0	10.0	2.00	.70	1,500	N	N	N	15	70	N	N
MH043S	63 14 11	146 5 47	15.0	2.0	1.50	1.00	5,000	N	N	N	10	300	<1.0	N
MH044S	63 13 30	146 7 16	15.0	3.0	3.00	>1.00	2,000	N	N	N	15	500	<1.0	N
MH045S	63 13 40	146 12 5	15.0	3.0	3.00	>1.00	2,000	N	N	N	<10	200	<1.0	N

Stream sediments and glacial debris

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	S-W	S-Y
MH001S	N	20	300	50	30	N	<20	50	20	N	20	N	500	300	N	20
MH002S	N	30	1,000	70	30	N	<20	100	20	N	30	N	500	300	N	30
MH003S	N	30	1,000	50	30	N	<20	70	20	N	30	N	700	300	N	30
MH004S	N	30	1,500	50	30	N	<20	100	20	N	20	N	300	300	N	20
MH005S	N	30	200	150	30	N	<20	70	20	N	30	N	500	300	N	30
MH006S	N	30	1,500	200	30	N	<20	70	10	N	30	N	500	300	N	30
MH007S	N	50	100	200	30	N	<20	50	20	N	30	N	300	300	N	30
MH008S	N	30	1,500	100	30	N	<20	70	<10	N	20	N	300	700	N	20
MH009S	N	20	150	150	30	N	<20	50	30	N	30	N	200	200	N	20
MH010S	N	20	1,000	200	30	N	<20	70	10	N	20	N	300	300	N	20
MH011S	N	20	300	150	30	N	<20	70	10	N	30	N	500	300	N	20
MH012S	N	30	700	150	30	N	<20	150	20	N	30	N	300	200	N	30
MH013S	N	50	50	100	50	N	<20	150	500	N	15	N	150	50	N	30
MH014S	N	20	70	100	50	N	<20	70	30	N	15	N	100	70	N	30
MH015S	N	30	100	70	50	N	<20	50	50	N	15	N	100	100	N	30
MH016S	N	30	100	50	50	N	<20	50	20	N	15	N	100	100	N	20
MH017S	N	20	100	100	50	N	<20	50	30	N	20	N	200	100	N	30
MH018S	N	20	70	70	50	N	<20	50	50	N	15	N	150	100	N	30
MH019S	N	20	70	50	50	N	<20	30	30	N	15	N	100	70	N	20
MH020S	N	20	1,000	70	30	N	<20	150	10	N	20	N	500	300	N	20
MH021S	N	30	700	150	20	N	<20	100	10	N	30	N	300	500	N	30
MH022S	N	20	300	30	30	N	N	70	10	N	20	N	500	300	N	20
MH023D	N	30	500	100	50	20	20	150	50	N	15	N	100	300	N	50
MH024S	N	15	70	50	50	N	20	50	70	N	10	N	<100	100	N	30
MH025S	N	20	100	70	70	N	20	50	100	N	15	15	<100	150	N	150
MH026D	N	70	700	150	30	N	<20	500	20	N	20	N	500	500	N	30
MH027D	N	15	150	30	50	N	<20	50	30	N	15	N	500	200	N	30
MH028D	N	20	200	70	30	7	20	70	30	N	15	N	200	300	N	20
MH029D	N	20	300	70	30	N	<20	100	10	N	20	N	300	150	N	30
MH030S	N	50	5,000	100	20	N	N	300	15	N	30	N	500	300	N	30
MH031S	N	30	1,500	30	N	N	N	200	10	N	20	N	300	200	N	15
MH032S	N	30	2,000	20	N	N	N	200	10	N	20	N	500	300	N	15
MH033S	N	50	1,500	30	N	N	N	300	10	N	20	N	300	300	N	20
MH034S	N	20	1,000	30	N	N	N	200	10	N	20	N	300	200	N	20
MH035S	N	20	1,500	20	N	N	N	200	10	N	15	N	300	200	N	15
MH036S	N	30	1,500	50	N	N	N	300	15	N	20	N	200	200	N	20
MH037S	N	20	1,500	20	N	N	N	150	10	N	15	N	300	150	N	20
MH038S	N	20	1,500	20	N	N	N	150	<10	N	15	N	300	200	N	20
MH039S	N	50	1,500	70	N	N	N	150	10	N	30	N	200	500	N	20
MH040S	N	20	1,500	30	N	N	N	200	10	N	20	N	300	300	N	20
MH041S	N	70	1,500	100	N	N	N	300	10	N	30	N	200	300	N	30
MH042S	N	100	3,000	100	N	N	N	500	N	N	20	N	150	300	N	10
MH043S	N	50	700	50	N	N	N	300	<10	N	15	N	150	150	N	15
MH044S	N	30	300	100	N	N	N	150	<10	N	30	N	300	300	N	20
MH045S	N	70	500	20	N	N	N	200	<10	N	50	N	200	1,000	N	30

Stream sediments and glacial debris

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH001S	N	70	N	100
MH002S	N	150	N	40
MH003S	N	100	N	75
MH004S	N	300	N	55
MH005S	N	150	N	40
MH006S	N	100	N	50
MH007S	N	70	N	75
MH008S	N	300	N	40
MH009S	N	100	N	80
MH010S	N	100	N	35
MH011S	N	100	N	45
MH012S	N	500	N	100
MH013S	300	500	N	100
MH014S	N	300	N	65
MH015S	N	500	N	80
MH016S	N	200	N	70
MH017S	N	200	N	95
MH018S	N	200	N	75
MH019S	N	200	N	65
MH020S	<200	150	N	55
MH021S	<200	100	N	70
MH022S	<200	150	N	50
MH023D	300	150	N	280
MH024S	<200	200	N	110
MH025S	<200	300	N	140
MH026D	500	70	N	300
MH027D	N	150	N	70
MH028D	200	100	N	190
MH029D	N	150	N	65
MH030S	<200	70	N	85
MH031S	N	50	N	80
MH032S	N	70	N	45
MH033S	N	50	N	60
MH034S	N	70	N	70
MH035S	N	70	N	65
MH036S	N	50	N	75
MH037S	N	50	N	60
MH038S	N	70	N	50
MH039S	N	50	N	65
MH040S	<200	50	N	80
MH041S	N	70	N	55
MH042S	<200	30	N	65
MH043S	<200	50	N	120
MH044S	N	70	N	60
MH045S	N	100	N	50

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH046S	63 15 14	146 14 4	15.0	3.0	1.50	>1.00	1,500	N	N	N	15	500	<1.0	N
MH047S	63 14 49	146 14 44	10.0	3.0	3.00	>1.00	3,000	N	N	N	20	1,500	<1.0	N
MH048S	63 14 53	146 15 51	15.0	3.0	3.00	>1.00	2,000	N	N	N	10	700	<1.0	N
MH049S	63 14 44	146 19 17	15.0	3.0	5.00	>1.00	2,000	N	N	N	20	150	<1.0	N
MH050S	63 14 46	146 23 19	15.0	3.0	5.00	>1.00	1,500	N	N	N	10	100	<1.0	N
MH051S	63 39 17	145 46 56	7.0	1.5	.70	>1.00	1,000	N	N	N	50	1,000	1.0	N
MH052S	63 40 34	145 39 44	10.0	.7	.30	1.00	300	N	N	N	70	300	1.0	N
MH053S	63 38 29	145 31 15	7.0	.7	.70	1.00	700	N	N	N	50	300	1.0	N
MH054S	63 40 15	145 33 51	10.0	.7	.20	1.00	700	N	N	N	100	500	1.5	N
MH055S	63 41 51	145 33 18	10.0	1.5	.50	1.00	700	N	N	N	30	700	1.0	N
MH056S	63 41 50	145 32 58	10.0	1.5	.70	.70	1,000	N	N	N	50	500	1.0	N
MH057S	63 42 15	145 32 19	10.0	1.0	.30	1.00	700	N	N	N	30	700	1.5	N
MH058S	63 40 50	145 30 13	10.0	2.0	.50	1.00	1,000	N	N	N	50	700	1.0	N
MH059S	63 41 5	145 29 40	7.0	1.5	.70	>1.00	1,000	N	N	N	N	700	1.0	N
MH060S	63 39 27	145 29 46	10.0	1.5	.50	1.00	700	N	N	N	50	700	1.5	N
MH061S	63 40 22	145 29 3	7.0	1.5	.50	.70	1,000	N	N	N	30	700	1.5	N
MH062S	63 40 20	145 26 34	10.0	1.5	.70	.70	700	N	N	N	N	500	1.0	N
MH063S	63 40 1	145 25 43	10.0	1.5	.50	.70	700	N	N	N	N	1,000	1.0	N
MH064S	63 39 53	145 24 35	10.0	2.0	.30	1.00	1,000	N	N	N	20	1,000	1.5	N
MH065S	63 39 59	145 24 27	7.0	1.5	.50	1.00	1,000	N	N	N	30	700	1.5	N
MH066S	63 43 51	145 27 26	7.0	2.0	1.00	.70	700	N	N	N	N	700	1.0	N
MH067S	63 44 3	145 27 22	3.0	1.5	1.00	.50	700	N	N	N	N	700	1.0	N
MH068S	63 44 31	145 32 22	5.0	2.0	.70	.70	700	N	N	N	N	700	1.0	N
MH069S	63 45 29	145 29 46	5.0	2.0	1.00	.50	700	N	N	N	N	500	1.0	N
MH070S	63 49 10	145 27 43	3.0	1.5	1.00	.30	700	N	N	N	N	500	1.0	N
MH071S	63 49 13	145 30 37	5.0	2.0	1.50	.70	700	N	N	N	N	700	<1.0	N
MH072S	63 48 35	145 31 3	5.0	1.5	1.00	.50	700	N	N	N	N	500	1.0	N
MH073S	63 48 9	145 32 55	3.0	1.5	.70	.50	700	N	N	N	N	500	1.5	N
MH074S	63 46 28	145 35 25	10.0	2.0	1.00	.70	700	N	N	N	N	700	1.0	N
MH075S	63 46 58	145 40 54	5.0	1.5	.70	1.00	700	N	N	N	30	700	1.0	N
MH076S	63 46 2	145 42 55	5.0	1.0	.50	.30	500	N	N	N	20	500	1.0	N
MH077S	63 27 57	145 20 29	5.0	1.0	.70	>1.00	500	N	N	N	50	200	1.0	N
MH078D	63 28 41	145 17 30	7.0	2.0	.50	.50	500	N	N	N	50	700	1.5	N
MH079S	63 29 29	145 20 29	5.0	1.5	.15	1.00	500	N	N	N	100	500	1.5	N
MH080D	63 26 38	145 19 53	10.0	2.0	.20	1.00	1,000	N	N	N	70	700	1.5	N
MH081D	63 31 21	145 21 9	7.0	1.5	.20	.70	700	N	N	N	100	700	2.0	N
MH082D	63 31 50	145 21 8	2.0	.7	.10	.30	200	N	N	N	70	300	1.0	N
MH083S	63 31 36	145 19 0	5.0	1.5	1.00	1.00	500	N	N	N	70	700	1.0	N
MH084S	63 33 0	145 19 3	3.0	.5	.70	1.00	500	N	N	N	30	300	1.0	N
MH085S	63 33 38	145 20 46	5.0	1.0	.20	>1.00	1,500	N	N	N	100	300	1.5	<10
MH086S	63 33 51	145 18 57	5.0	1.5	.50	1.00	500	N	N	N	50	500	1.5	<10
MH087S	63 34 56	145 18 26	3.0	1.0	1.00	.70	700	N	N	N	70	500	1.0	N
MH088S	63 37 42	145 16 29	7.0	1.5	.70	1.00	1,000	N	N	N	70	700	1.0	N
MH089S	63 34 47	145 20 54	5.0	1.5	.15	.70	500	N	N	N	50	500	1.5	<10
MH090D	63 32 1	145 30 42	15.0	3.0	.50	>1.00	2,000	N	N	N	150	700	1.5	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	S-W	S-Y
MH046S	N	50	500	150	N	N	N	300	10	N	20	N	100	300	N	20
MH047S	N	20	100	150	N	N	N	100	10	N	20	N	150	300	N	20
MH048S	N	70	300	200	N	N	N	150	10	N	30	N	150	1,000	N	30
MH049S	N	70	700	200	N	N	N	200	10	N	50	N	300	700	N	30
MH050S	N	50	150	200	N	N	N	150	<10	N	30	N	200	300	N	15
MH051S	N	20	100	30	N	N	N	100	10	N	15	N	100	150	N	20
MH052S	N	7	50	7	N	N	N	30	15	N	10	N	100	70	N	15
MH053S	N	15	150	30	20	N	<20	50	20	N	15	N	100	70	N	20
MH054S	N	15	50	20	30	N	<20	50	30	N	15	N	100	100	N	20
MH055S	N	10	30	15	30	N	N	30	30	N	15	N	100	150	N	30
MH056S	N	10	50	10	20	N	<20	30	30	N	15	N	100	100	N	30
MH057S	N	10	70	20	30	N	N	50	30	N	15	N	<100	150	N	20
MH058S	N	15	100	15	30	N	N	70	50	N	15	N	<100	150	N	30
MH059S	N	7	30	7	20	N	N	20	30	N	15	N	<100	100	N	20
MH060S	N	15	50	30	30	N	<20	50	30	N	20	N	<100	150	N	30
MH061S	N	10	50	10	50	N	N	30	20	N	15	N	100	100	N	30
MH062S	N	10	50	15	50	N	<20	30	30	N	20	N	100	100	N	30
MH063S	N	15	70	10	50	N	N	50	20	N	15	N	<100	100	N	20
MH064S	N	15	70	50	30	N	<20	50	20	N	15	N	<100	150	N	20
MH065S	N	15	50	20	50	N	N	50	30	N	15	N	<100	100	N	20
MH066S	N	10	50	7	20	N	N	20	20	N	15	N	150	100	N	15
MH067S	N	7	15	5	N	N	N	10	15	N	7	N	200	70	N	10
MH068S	N	10	70	10	30	N	N	20	20	N	15	N	150	100	N	20
MH069S	N	10	100	5	30	N	N	70	20	N	10	N	150	100	N	20
MH070S	N	7	20	<5	50	N	N	10	15	N	10	N	200	70	N	20
MH071S	N	10	50	7	30	N	N	20	20	N	15	N	200	100	N	20
MH072S	N	7	30	5	20	N	N	15	30	N	15	N	200	100	N	20
MH073S	N	7	30	5	30	N	N	10	20	N	10	N	100	70	N	30
MH074S	N	20	100	20	30	N	N	100	10	N	15	N	<100	150	N	15
MH075S	N	10	70	7	50	N	<20	30	15	N	15	N	100	150	N	100
MH076S	N	10	150	10	20	N	N	20	30	N	10	N	100	100	N	30
MH077S	N	10	30	7	<20	N	N	30	10	N	10	N	100	50	N	15
MH078D	N	15	100	20	30	N	N	50	30	N	15	N	<100	150	N	15
MH079S	N	10	70	10	50	N	<20	50	20	N	15	N	<100	100	N	30
MH080D	N	20	150	30	50	N	<20	100	50	N	15	N	100	200	N	30
MH081D	N	15	100	20	30	N	N	70	30	N	15	N	100	150	N	30
MH082D	N	7	50	10	20	N	N	20	50	N	5	N	N	100	N	30
MH083S	N	7	50	15	30	N	<20	30	20	N	15	N	100	100	N	15
MH084S	N	5	20	5	<20	N	<20	20	10	N	10	N	<100	50	N	30
MH085S	N	15	70	50	30	N	<20	50	30	N	15	N	100	100	N	20
MH086S	N	10	50	10	30	N	<20	30	20	N	15	N	100	100	N	50
MH087S	N	7	30	[illegible]	20	N	N	20	30	N	15	N	100	50	N	30
MH088S	N	10	50	15	20	N	<20	50	20	N	15	N	100	100	N	20
MH089S	N	10	70	20	30	N	N	50	30	N	10	N	<100	150	N	30
MH090D	N	20	150	100	50	N	<20	150	70	N	20	N	100	200	N	30

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH046S	<200	100	N	100
MH047S	<200	100	N	95
MH048S	<200	100	N	75
MH049S	<200	100	N	75
MH050S	N	70	N	70
MH051S	N	100	N	120
MH052S	N	700	N	60
MH053S	<200	300	N	80
MH054S	<200	500	N	85
MH055S	<200	300	N	65
MH056S	N	150	N	65
MH057S	<200	150	N	80
MH058S	<200	100	N	130
MH059S	N	300	N	70
MH060S	<200	500	N	75
MH061S	<200	200	N	65
MH062S	N	300	N	60
MH063S	<200	150	N	60
MH064S	<200	300	N	65
MH065S	<200	200	N	100
MH066S	N	150	N	65
MH067S	N	100	N	50
MH068S	N	300	N	65
MH069S	N	200	N	60
MH070S	N	300	N	15
MH071S	N	70	N	70
MH072S	N	50	N	70
MH073S	N	300	N	50
MH074S	<200	150	N	65
MH075S	N	500	N	65
MH076S	N	150	N	90
MH077S	N	150	N	55
MH078D	<200	100	N	90
MH079S	<200	200	N	65
MH080D	N	100	N	85
MH081D	<200	100	N	90
MH082D	<200	50	N	200
MH083S	<200	300	N	80
MH084S	<200	100	N	65
MH085S	<200	500	N	75
MH086S	<200	150	N	55
MH087S	<200	200	N	50
MH088S	N	300	N	70
MH089S	<200	150	N	120
MH090D	200	100	N	220

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH091D	63 32 4	145 29 47	5.0	1.5	.20	.70	1,000	N	N	N	70	500	1.5	N
MH092S	63 33 30	145 27 44	3.0	1.0	.50	1.00	1,500	N	N	N	150	300	1.0	<10
MH093S	63 34 35	145 28 56	10.0	1.5	.70	>1.00	1,500	N	N	N	70	500	1.0	N
MH094S	63 34 45	145 28 55	15.0	2.0	.30	1.00	1,000	N	N	N	100	500	1.0	<10
MH095S	63 35 20	145 25 46	3.0	1.5	.10	1.00	700	N	N	N	70	300	1.5	N
MH096S	63 35 39	145 25 47	10.0	1.5	.70	>1.00	1,000	N	N	N	70	1,000	1.5	N
MH097S	63 36 38	145 23 7	10.0	2.0	1.00	.70	1,000	N	N	N	30	500	1.0	N
MH098S	63 37 57	145 20 53	10.0	2.0	.50	1.00	3,000	N	N	N	20	1,000	1.5	N
MH099S	63 41 14	145 19 6	10.0	2.0	.70	.70	2,000	N	N	N	20	700	1.0	N
MH100S	63 41 34	145 16 50	10.0	1.5	.50	1.00	700	.5	N	N	70	500	1.5	N
MH101S	63 5 58	145 13 14	15.0	3.0	2.00	1.00	1,000	N	N	N	10	300	1.0	N
MH102S	63 5 2	145 8 1	15.0	3.0	3.00	1.00	1,000	N	N	N	10	200	<1.0	N
MH103S	63 4 25	145 9 38	7.0	2.0	1.50	.70	1,000	N	N	N	20	300	1.0	N
MH104S	63 4 18	145 10 9	15.0	3.0	3.00	>1.00	1,000	N	N	N	15	200	<1.0	N
MH105S	63 3 17	145 9 11	15.0	3.0	2.00	1.00	1,000	N	N	N	20	200	<1.0	N
MH106S	63 2 55	145 9 8	10.0	2.0	1.50	.70	1,000	N	N	N	15	300	1.0	N
MH107S	63 1 45	145 14 20	15.0	3.0	3.00	1.00	1,500	N	N	N	10	300	<1.0	N
MH108S	63 4 1	145 14 36	3.0	1.5	1.00	.50	1,000	N	N	N	15	300	1.0	N
MH109S	63 9 28	145 7 44	15.0	3.0	2.00	1.00	1,000	N	N	N	10	150	<1.0	N
MH110S	63 11 22	145 7 57	20.0	5.0	5.00	.70	1,000	N	N	N	<10	50	<1.0	N
MH111S	63 12 50	145 8 53	10.0	3.0	3.00	.70	1,500	N	N	N	100	150	<1.0	N
MH112S	63 12 4	145 13 46	15.0	3.0	3.00	.70	1,500	N	N	N	10	300	<1.0	N
MH113S	63 9 30	145 15 18	15.0	3.0	2.00	1.00	1,500	N	N	N	10	300	<1.0	N
MH114S	63 8 53	145 15 32	15.0	2.0	2.00	1.00	1,000	N	N	N	10	300	<1.0	N
MH115S	63 8 7	145 20 31	15.0	3.0	2.00	.70	1,000	N	N	N	<10	300	<1.0	N
MH116S	63 12 3	145 22 2	10.0	2.0	2.00	1.00	700	N	N	N	20	700	<1.0	N
MH117S	63 9 51	145 22 50	15.0	2.0	2.00	1.00	1,000	N	N	N	10	300	<1.0	N
MH118S	63 10 1	145 23 3	10.0	2.0	3.00	1.00	700	N	N	N	50	700	1.0	N
MH119S	63 7 45	145 23 16	20.0	3.0	3.00	1.00	1,000	N	N	N	10	300	<1.0	N
MH120S	63 3 22	145 23 49	15.0	3.0	1.50	1.00	700	N	N	N	15	300	1.0	N
MH121S	63 2 24	144 20 19	10.0	2.0	2.00	.50	700	N	N	N	50	700	1.5	N
MH122S	63 2 48	144 18 20	15.0	5.0	3.00	1.00	700	N	N	N	10	100	<1.0	N
MH123S	63 4 8	144 19 28	15.0	3.0	5.00	.30	1,000	.5	N	N	50	200	<1.0	N
MH124S	63 4 52	144 17 25	15.0	5.0	1.50	1.00	1,500	<.5	N	N	20	700	<1.0	N
MH125S	63 5 12	144 16 37	10.0	2.0	1.50	1.00	700	<.5	N	N	70	700	1.5	N
MH126S	63 6 49	144 13 23	10.0	3.0	1.50	1.00	700	<.5	N	N	70	1,000	1.0	N
MH127S	63 5 26	144 4 34	15.0	2.0	1.50	1.00	1,000	<.5	N	N	70	700	1.0	N
MH128S	63 4 57	144 2 7	10.0	2.0	1.00	.70	700	<.5	N	N	70	1,000	1.0	N
MH129S	63 5 36	144 1 38	10.0	1.5	.50	.70	700	N	N	N	100	500	1.5	N
MH130S	63 6 14	143 59 46	10.0	2.0	1.00	1.00	700	<.5	N	N	50	700	1.0	N
MH131S	63 7 15	143 58 13	5.0	1.5	.70	.70	500	<.5	N	N	70	300	1.0	N
MH132S	63 5 27	143 59 45	10.0	2.0	1.00	1.00	700	N	N	N	100	700	1.5	N
MH133S	63 4 43	144 4 53	10.0	2.0	1.00	.70	1,000	<.5	N	N	70	1,000	1.5	N
MH134S	63 2 50	144 10 19	15.0	5.0	3.00	1.00	1,000	<.5	N	N	50	700	<1.0	N
MH135S	63 2 46	144 9 47	15.0	2.0	1.50	.70	700	<.5	N	N	70	700	1.0	N

Stream sediments and glacial debris--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	S-W	S-Y
MH091D	N	15	100	30	30	N	N	70	20	N	15	N	<100	150	N	30
MH092S	N	7	50	10	20	N	N	30	20	N	10	N	100	70	N	30
MH093S	N	20	70	50	30	N	N	100	15	N	15	N	100	100	N	20
MH094S	N	20	100	100	50	N	<20	100	50	N	20	N	100	200	N	50
MH095S	N	15	50	30	20	N	<20	30	30	N	10	N	100	100	N	20
MH096S	N	20	70	50	50	N	<20	50	20	N	15	N	150	150	N	30
MH097S	N	15	70	20	20	N	N	30	300	N	20	N	100	150	N	30
MH098S	N	10	50	20	30	N	N	50	20	N	15	N	100	100	N	30
MH099S	N	15	50	70	20	N	N	70	30	N	15	N	100	100	N	30
MH100S	N	10	70	20	30	N	N	50	20	N	15	N	100	100	N	30
MH101S	N	30	1,000	20	N	N	N	100	10	N	30	N	500	500	N	10
MH102S	N	30	150	30	N	N	N	70	10	N	30	N	300	300	N	15
MH103S	N	15	200	30	N	N	N	70	10	N	20	N	300	200	N	20
MH104S	N	30	300	15	N	N	N	100	10	N	30	N	500	700	N	20
MH105S	N	20	200	100	N	N	N	100	10	N	30	N	200	300	N	20
MH106S	N	15	100	100	N	N	N	70	10	N	15	N	200	200	N	20
MH107S	N	20	200	10	N	N	N	70	10	N	30	N	300	300	N	20
MH108S	N	10	50	15	N	N	N	30	10	N	10	N	300	100	N	20
MH109S	N	50	2,000	50	N	N	N	150	10	N	30	N	200	700	N	20
MH110S	N	70	700	10	N	N	N	150	<10	N	70	N	200	1,000	N	<10
MH111S	N	20	100	50	N	N	N	70	20	N	30	N	200	300	N	15
MH112S	N	20	200	100	N	N	N	70	<10	N	20	N	1,000	500	N	20
MH113S	N	50	1,500	150	N	N	N	200	10	N	20	N	300	700	N	20
MH114S	N	20	500	50	N	N	N	70	10	N	15	N	500	700	N	10
MH115S	N	30	500	70	<20	N	N	70	10	N	20	N	700	1,000	N	15
MH116S	N	15	500	20	20	N	N	70	10	N	20	N	300	300	N	30
MH117S	N	15	150	30	<20	N	N	50	10	N	15	N	500	700	N	20
MH118S	N	15	500	20	N	N	N	50	10	N	15	N	300	300	N	15
MH119S	N	30	300	50	N	N	N	100	10	N	15	N	700	1,500	N	10
MH120S	N	20	150	100	20	N	N	70	10	N	15	N	500	300	N	15
MH121S	N	15	100	50	<20	N	N	70	30	N	15	N	300	200	N	15
MH122S	N	50	300	200	N	N	N	150	<10	N	30	N	150	700	N	15
MH123S	N	20	100	500	N	N	N	70	10	N	15	N	700	300	N	<10
MH124S	N	70	500	300	<20	7	N	300	10	N	15	N	500	300	N	15
MH125S	N	20	100	100	20	N	<20	100	50	N	15	N	150	200	N	20
MH126S	N	20	150	150	20	5	<20	150	30	N	20	N	100	300	N	30
MH127S	N	20	100	150	20	N	<20	100	30	N	15	N	100	200	N	20
MH128S	N	15	150	150	20	N	N	150	10	N	15	N	100	300	N	20
MH129S	N	20	70	100	30	N	<20	70	20	N	15	N	<100	150	N	30
MH130S	N	15	70	70	20	N	N	100	70	N	15	N	100	300	N	30
MH131S	N	15	70	100	30	N	N	50	50	N	10	N	<100	150	N	20
MH132S	N	15	100	70	20	N	N	100	30	N	15	N	100	200	N	30
MH133S	N	15	150	100	30	<5	<20	100	30	N	20	N	100	300	N	30
MH134S	N	30	300	200	N	N	N	150	15	N	30	N	500	700	N	15
MH135S	N	30	100	200	N	<5	N	100	20	N	20	N	200	500	N	20

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH091D	<200	150	N	110
MH092S	<200	150	N	90
MH093S	N	200	N	90
MH094S	<200	200	N	85
MH095S	N	200	N	75
MH096S	<200	300	N	75
MH097S	N	100	N	110
MH098S	N	200	N	80
MH099S	<200	150	N	120
MH100S	<200	150	N	70
MH101S	<200	50	N	45
MH102S	N	70	N	40
MH103S	<200	100	N	80
MH104S	<200	50	N	50
MH105S	<200	70	N	55
MH106S	<200	50	N	100
MH107S	<200	70	N	45
MH108S	<200	50	N	85
MH109S	N	20	N	45
MH110S	<200	<10	N	15
MH111S	<200	20	N	40
MH112S	<200	70	N	20
MH113S	<200	100	N	35
MH114S	<200	150	N	50
MH115S	<200	100	N	40
MH116S	N	200	N	65
MH117S	<200	150	N	35
MH118S	N	200	N	55
MH119S	<200	50	N	45
MH120S	N	100	N	55
MH121S	N	150	N	45
MH122S	<200	30	N	50
MH123S	N	20	N	50
MH124S	<200	70	N	95
MH125S	<200	300	N	120
MH126S	<200	200	N	120
MH127S	<200	300	N	120
MH128S	<200	150	N	140
MH129S	<200	300	N	90
MH130S	<200	200	N	120
MH131S	<200	700	N	130
MH132S	<200	500	N	120
MH133S	<200	300	N	150
MH134S	<200	70	N	100
MH135S	<200	100	N	160

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH136S	63 0 31	144 0 30	7.0	1.5	.70	.70	700	.5	N	N	100	1,000	1.0	N
MH137S	63 0 31	144 6 23	10.0	3.0	1.50	.70	1,000	N	N	N	30	500	1.0	N
MH138S	63 0 34	144 7 7	15.0	3.0	2.00	1.00	700	N	N	N	50	500	<1.0	N
MH139S	63 2 15	144 11 0	15.0	5.0	3.00	.70	1,000	N	N	N	30	300	<1.0	N
MH140S	63 0 23	144 14 40	15.0	3.0	2.00	1.00	1,500	<.5	N	N	15	500	<1.0	N
MH141S	63 5 46	144 18 24	10.0	1.5	1.50	1.00	700	N	N	N	70	700	1.5	N
MH142S	63 6 30	144 21 13	10.0	1.0	1.00	1.00	700	<.5	N	N	70	700	1.5	N
MH143S	63 5 56	144 23 22	15.0	5.0	3.00	.70	1,000	N	N	N	100	300	<1.0	N
MH144S	63 7 4	144 24 3	15.0	2.0	2.00	1.00	700	.7	N	N	30	1,000	1.0	N
MH145D	63 8 47	144 23 8	15.0	3.0	2.00	>1.00	700	<.5	N	N	15	1,000	1.0	N
MH146S	63 7 1	144 25 41	10.0	2.0	2.00	.70	1,000	N	N	N	100	700	1.0	N
MH147S	63 8 2	144 30 20	10.0	1.5	1.00	.70	500	.5	N	N	70	1,000	1.0	N
MH148D	63 9 14	144 28 23	10.0	1.5	.50	.70	700	2.0	N	N	100	3,000	1.5	N
MH149D	63 9 10	144 31 39	15.0	3.0	3.00	>1.00	1,000	.7	N	N	20	2,000	1.0	N
MH150D	63 11 2	144 31 9	20.0	5.0	5.00	>1.00	1,500	N	N	N	<10	500	<1.0	N
MH151S	63 8 2	144 31 59	15.0	3.0	3.00	.70	1,000	N	N	N	50	300	<1.0	N
MH152S	63 5 56	144 36 7	10.0	2.0	1.50	.70	1,000	N	N	N	N	700	1.0	N
MH153S	63 4 25	144 47 51	7.0	3.0	5.00	.70	700	N	N	N	30	500	<1.0	N
MH154S	63 4 47	144 45 45	10.0	3.0	1.50	1.00	1,000	N	N	N	10	500	<1.0	N
MH155S	63 5 34	144 46 50	10.0	5.0	2.00	1.00	1,500	N	N	N	15	300	<1.0	N
MH156S	63 6 19	144 48 10	10.0	3.0	1.50	1.00	1,000	N	N	N	20	700	<1.0	N
MH157S	63 6 58	144 46 59	10.0	3.0	1.00	.70	1,500	.5	N	N	20	700	<1.0	N
MH158S	63 7 38	144 48 29	10.0	2.0	1.00	.50	2,000	N	N	N	30	300	<1.0	N
MH159S	63 7 50	144 47 29	7.0	2.0	.50	.70	1,500	.5	N	N	15	1,000	1.0	N
MH160S	63 8 8	144 47 25	15.0	3.0	2.00	.70	1,000	N	N	N	30	500	<1.0	N
MH161S	63 9 1	144 44 56	15.0	3.0	2.00	1.00	1,000	N	N	N	15	500	<1.0	N
MH162S	63 9 8	144 45 9	15.0	5.0	5.00	.70	1,000	<.5	N	N	30	300	1.0	N
MH163S	63 9 24	144 46 23	15.0	3.0	3.00	.70	1,500	N	N	N	50	300	1.0	N
MH164S	63 10 4	144 47 58	15.0	3.0	1.00	1.00	1,000	<.5	N	N	70	700	1.0	N
MH165D	63 11 0	144 41 29	10.0	1.5	.30	1.00	700	.7	N	N	100	1,000	2.0	N
MH166D	63 12 14	144 42 35	10.0	2.0	1.00	>1.00	1,000	<.5	N	N	100	1,000	1.5	N
MH167D	63 12 12	144 43 49	15.0	1.5	.07	>1.00	300	N	N	N	150	700	1.5	N
MH168S	63 12 16	144 46 21	10.0	1.5	.70	1.00	700	N	N	N	100	700	1.5	N
MH169S	63 12 25	144 49 6	15.0	2.0	1.00	1.00	1,000	1.0	N	N	100	1,500	1.5	N
MH170S	63 12 41	144 50 22	10.0	1.5	1.00	.70	700	2.0	N	N	150	1,000	1.5	N
MH171S	63 12 2	144 51 17	15.0	5.0	7.00	>1.00	1,500	N	N	N	10	150	N	N
MH172S	63 11 23	144 52 23	15.0	5.0	5.00	>1.00	1,000	.5	N	N	20	300	<1.0	N
MH173S	63 10 14	144 51 26	15.0	3.0	2.00	1.00	1,000	N	N	N	50	500	<1.0	N
MH174S	63 10 16	144 53 46	15.0	5.0	3.00	1.00	1,000	N	N	N	50	300	<1.0	N
MH175S	63 9 32	144 55 30	10.0	3.0	2.00	.70	2,000	N	N	N	30	700	<1.0	N
MH176S	63 8 20	144 55 46	10.0	3.0	3.00	1.00	1,000	N	N	N	50	500	1.0	N
MH177S	63 10 35	144 4 49	10.0	3.0	1.50	>1.00	1,000	N	N	N	20	500	1.0	N
MH178S	63 20 16	144 3 7	15.0	5.0	2.00	.70	1,500	N	N	N	70	300	<1.0	N
MH179S	63 20 27	144 0 25	20.0	>10.0	5.00	.70	1,500	N	N	N	<10	<20	N	N
MH180S	63 21 7	145 59 54	5.0	1.5	1.50	>1.00	700	N	N	N	150	300	1.0	N

Stream sediments and glacial debris--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	S-W	S-Y
MH136S	N	20	150	150	<20	5	N	150	20	N	10	N	150	300	N	20
MH137S	N	20	150	200	<20	N	N	70	10	N	15	N	300	300	N	20
MH138S	N	30	300	150	N	N	N	100	10	N	20	N	300	300	N	20
MH139S	N	50	700	150	N	N	N	150	<10	N	30	N	500	700	N	20
MH140S	N	50	150	300	N	N	N	100	20	N	30	N	200	300	N	20
MH141S	N	15	50	150	30	N	<20	100	20	N	15	N	150	150	N	20
MH142S	N	15	70	100	30	N	<20	100	20	N	15	N	100	200	N	30
MH143S	N	70	200	150	N	N	N	150	10	N	30	N	200	700	N	20
MH144S	N	100	70	300	20	N	N	300	50	N	15	N	200	200	N	20
MH145D	N	70	50	50	20	N	<20	50	10	N	30	N	300	700	N	30
MH146S	N	30	100	200	20	5	N	100	10	N	20	N	100	300	N	30
MH147S	N	20	50	200	30	N	N	150	50	N	15	N	150	200	N	30
MH148D	N	15	70	300	20	20	N	150	50	<100	15	N	200	1,000	N	30
MH149D	N	50	150	200	20	5	<20	150	20	N	30	N	200	700	N	30
MH150D	N	100	30	300	N	N	N	150	<10	N	50	N	150	1,500	N	50
MH151S	N	20	150	100	N	N	N	70	<10	N	20	N	700	500	N	20
MH152S	N	20	50	150	N	<5	N	50	50	N	15	N	500	200	N	30
MH153S	N	10	100	70	N	N	N	70	15	N	20	N	300	200	N	10
MH154S	N	20	700	100	N	N	N	70	15	N	20	N	300	300	N	15
MH155S	N	30	1,000	200	N	N	N	200	15	N	30	N	150	500	N	20
MH156S	N	20	300	200	N	N	N	70	15	N	20	N	150	300	N	20
MH157S	N	50	100	300	N	N	N	50	100	N	30	N	100	300	N	15
MH158S	N	30	30	200	N	N	N	20	20	N	20	N	100	300	N	20
MH159S	N	10	70	500	N	N	N	15	70	N	15	N	<100	150	N	10
MH160S	N	30	200	200	N	N	N	150	15	N	30	N	300	300	N	20
MH161S	N	30	500	150	N	N	N	150	10	N	50	N	200	500	N	20
MH162S	N	50	200	150	N	N	N	150	20	N	50	N	300	700	N	20
MH163S	N	30	200	150	<20	N	N	150	15	N	20	N	300	300	N	30
MH164S	N	50	150	300	N	N	N	150	20	N	20	N	200	500	N	30
MH165D	N	15	100	150	20	30	N	100	20	N	15	N	100	500	N	30
MH166D	N	30	100	200	50	5	<20	150	30	N	20	N	150	500	N	30
MH167D	N	10	150	150	50	7	<20	150	50	N	20	N	<100	300	N	30
MH168S	N	15	70	100	30	N	<20	100	20	N	15	N	100	200	N	30
MH169S	N	30	150	200	30	10	<20	200	30	N	20	N	700	500	N	30
MH170S	N	20	70	200	100	7	N	200	20	N	15	N	150	300	N	50
MH171S	N	100	200	200	N	N	N	150	<10	N	70	N	100	700	N	30
MH172S	N	70	500	200	<20	N	N	150	10	N	50	N	500	1,500	N	30
MH173S	N	50	300	150	<20	N	N	200	15	N	30	N	300	500	N	20
MH174S	N	50	1,000	150	N	N	N	200	20	N	30	N	300	500	N	20
MH175S	N	30	100	150	<20	N	N	100	50	N	15	N	200	300	N	30
MH176S	N	30	1,000	100	N	N	N	150	20	N	20	N	300	300	N	30
MH177S	N	100	1,500	50	20	N	N	1,000	15	N	15	N	300	200	N	20
MH178S	N	70	1,500	200	N	N	N	500	15	N	30	N	200	500	N	20
MH179S	N	150	>5,000	70	N	N	N	1,500	<10	N	30	N	100	1,000	N	<10
MH180S	N	10	100	30	N	N	N	100	10	N	15	N	300	200	N	30

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH136S	200	70	N	300
MH137S	<200	100	N	100
MH138S	N	70	N	95
MH139S	<200	50	N	70
MH140S	<200	30	N	110
MH141S	<200	200	N	140
MH142S	<200	300	N	110
MH143S	<200	70	N	75
MH144S	200	150	N	240
MH145D	<200	150	N	160
MH146S	<200	300	N	90
MH147S	200	150	N	220
MH148D	500	150	N	450
MH149D	200	150	N	240
MH150D	<200	100	N	55
MH151S	<200	150	N	70
MH152S	<200	70	N	85
MH153S	<200	50	N	100
MH154S	<200	70	N	60
MH155S	<200	70	N	110
MH156S	<200	70	N	120
MH157S	200	50	N	240
MH158S	<200	70	N	160
MH159S	300	50	N	380
MH160S	<200	70	N	120
MH161S	<200	70	N	160
MH162S	<200	70	N	100
MH163S	<200	100	N	100
MH164S	<200	100	N	140
MH165D	200	200	N	130
MH166D	<200	200	N	150
MH167D	<200	300	N	120
MH168S	<200	300	N	120
MH169S	200	300	N	320
MH170S	300	300	N	550
MH171S	<200	30	N	90
MH172S	N	50	N	60
MH173S	N	70	N	90
MH174S	N	50	N	95
MH175S	<200	70	N	140
MH176S	<200	200	N	160
MH177S	<200	300	N	75
MH178S	N	50	N	95
MH179S	<200	20	N	45
MH180S	<200	100	N	75

Stream sediments and glacial debris--continued

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH181S	63 21 14	146 0 30	10.0	1.5	1.00	>1.00	1,000	N	N	N	100	300	1.0	N
MH182S	63 21 24	146 4 53	10.0	1.5	1.50	>1.00	2,000	N	N	N	150	300	1.0	N
MH183S	63 20 53	146 7 44	10.0	1.5	1.00	>1.00	3,000	N	N	N	100	300	1.0	N
MH184D	63 21 37	146 11 11	15.0	3.0	.70	1.00	1,500	N	N	N	100	700	<1.0	N
MH185D	63 21 49	146 12 48	10.0	1.5	1.00	1.00	2,000	N	N	N	500	300	1.5	N
MH186D	63 21 9	146 12 31	10.0	1.5	.70	.50	1,000	N	N	N	50	700	1.0	N
MH187S	63 18 50	146 10 7	10.0	2.0	.70	.70	1,000	.5	N	N	50	700	<1.0	N
MH188S	63 13 12	146 10 1	15.0	5.0	1.50	.70	2,000	N	N	N	10	300	<1.0	N
MH189S	63 17 29	146 9 36	10.0	3.0	1.50	1.00	1,000	<.5	N	N	20	500	<1.0	N
MH190S	63 18 32	146 15 5	15.0	5.0	1.50	1.00	1,000	<.5	N	N	30	700	<1.0	N
MH191S	63 18 49	146 15 54	10.0	5.0	2.00	1.00	1,500	N	N	N	70	500	<1.0	N
MH192S	63 17 20	146 14 44	15.0	3.0	3.00	1.00	1,500	N	N	N	10	500	1.0	N
MH193S	63 18 43	146 20 2	7.0	2.0	2.00	.50	1,000	N	N	N	N	300	<1.0	N
MH194D	63 19 32	146 21 26	7.0	1.5	1.00	1.00	1,000	N	N	N	150	300	1.0	N
MH195D	63 19 5	146 22 14	7.0	2.0	1.50	.70	1,000	N	N	N	70	300	<1.0	N
MH196S	63 17 27	146 25 28	10.0	2.0	2.00	1.00	1,000	N	N	N	30	300	1.0	N
MH197S	63 15 15	146 18 22	15.0	3.0	5.00	>1.00	2,000	N	N	N	30	150	<1.0	N
MH198S	63 15 55	146 14 7	15.0	3.0	5.00	>1.00	3,000	N	N	N	20	500	<1.0	N
MH199S	63 16 5	146 10 34	10.0	3.0	2.00	>1.00	1,500	<.5	N	N	50	200	1.0	N
MH200S	63 15 54	146 3 42	15.0	3.0	3.00	>1.00	2,000	<.5	N	N	15	500	<1.0	N
MH201S	63 15 39	146 2 35	15.0	5.0	3.00	>1.00	1,500	N	N	N	20	300	1.0	N
MH202S	63 17 45	146 2 33	15.0	10.0	3.00	>1.00	1,000	N	N	N	15	150	<1.0	N
MH203S	63 17 16	146 0 46	15.0	5.0	2.00	1.00	1,500	N	N	N	20	500	<1.0	N
MH204S	63 17 24	146 26 7	7.0	1.5	1.00	.30	700	N	N	N	15	500	<1.0	N
MH205S	63 15 22	146 32 37	15.0	2.0	2.00	>1.00	1,000	N	N	N	50	150	<1.0	N
MH206S	63 16 51	146 32 52	20.0	3.0	5.00	>1.00	1,000	N	N	N	<10	20	<1.0	N
MH207S	63 17 25	146 33 20	15.0	3.0	3.00	>1.00	1,500	N	N	N	10	100	<1.0	N
MH208S	63 17 58	146 33 15	15.0	5.0	7.00	>1.00	1,000	.7	N	N	10	150	<1.0	N
MH209S	63 19 3	146 34 0	10.0	2.0	2.00	.70	1,000	N	N	N	50	700	1.0	N
MH210S	63 18 22	146 29 43	10.0	1.5	1.50	.70	700	.5	N	N	50	1,000	1.0	N
MH211S	63 19 54	146 29 40	15.0	3.0	3.00	1.00	1,500	N	N	N	50	300	<1.0	N
MH212S	63 21 41	146 32 10	5.0	1.0	.70	.70	700	N	N	N	100	300	1.0	N
MH213D	63 21 26	146 32 35	3.0	1.0	.70	>1.00	1,000	N	N	N	200	200	1.0	N
MH214D	63 20 26	146 33 3	3.0	3.0	3.00	>1.00	1,500	<.5	N	N	30	500	1.0	N
MH215S	63 22 30	146 40 35	2.0	.7	1.50	>1.00	1,500	N	N	N	150	150	1.0	N
MH216S	63 22 13	146 40 37	5.0	.7	1.00	.15	300	N	N	N	N	700	1.5	N
MH217S	63 22 33	146 41 23	10.0	2.0	2.00	1.00	1,000	N	N	N	10	300	1.0	N
MH218S	63 20 23	146 43 3	5.0	1.5	1.00	.70	700	.5	N	N	100	1,000	<1.0	N
MH219S	63 19 46	146 41 55	15.0	1.5	1.50	.50	500	<.5	N	N	N	500	1.0	N
MH220S	63 19 38	146 42 34	10.0	5.0	.70	.70	1,000	<.5	N	N	20	700	1.0	N
MH221S	63 18 57	146 42 38	15.0	3.0	3.00	1.00	1,500	N	N	N	50	500	1.0	N
MH222S	63 17 25	146 44 34	10.0	5.0	3.00	1.00	1,500	N	N	N	15	300	<1.0	N
MH223S	63 16 57	146 48 8	15.0	3.0	2.00	.70	1,000	N	N	N	30	300	<1.0	N
MH224S	63 15 56	146 45 29	15.0	3.0	3.00	>1.00	1,500	N	N	N	15	70	<1.0	N
MH225S	63 15 36	146 45 14	15.0	3.0	3.00	>1.00	1,500	N	N	N	<10	300	<1.0	N

Stream sediments and glacial debris--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	S-W	S-Y
MH181S	N	15	100	50	50	N	N	100	10	N	15	N	300	200	N	20
MH182S	N	20	70	70	70	N	<20	150	10	N	15	N	500	200	N	50
MH183S	N	20	70	200	50	N	<20	100	15	N	15	N	300	200	N	70
MH184D	N	70	200	150	<20	N	N	300	20	N	20	N	200	700	N	30
MH185D	N	15	100	150	<20	N	<20	100	15	N	15	N	300	200	N	50
MH186D	N	20	50	150	N	7	N	70	10	N	20	N	200	300	N	30
MH187S	N	20	1,500	150	N	N	N	300	10	N	15	N	200	300	N	20
MH188S	N	70	3,000	200	N	N	N	700	30	N	20	N	200	500	N	15
MH189S	N	20	300	150	N	N	N	150	20	N	20	N	300	300	N	20
MH190S	N	70	5,000	200	N	<5	N	500	15	N	15	N	150	300	N	30
MH191S	N	30	2,000	100	N	N	N	300	10	N	15	N	300	200	N	15
MH192S	N	20	1,500	200	N	N	N	150	15	N	20	N	700	500	N	20
MH193S	N	15	300	150	20	<5	N	150	10	N	20	N	500	200	N	20
MH194D	N	10	70	100	30	<5	N	70	20	N	15	N	300	300	N	30
MH195D	N	10	150	50	N	N	N	100	10	N	15	N	300	200	N	20
MH196S	N	15	150	100	N	N	N	100	<10	N	15	N	300	300	N	15
MH197S	N	70	1,500	200	N	N	<20	150	10	N	50	N	500	1,000	N	30
MH198S	N	50	1,500	150	N	N	<20	200	10	N	50	N	300	1,000	N	30
MH199S	N	30	1,500	70	N	N	N	300	10	N	20	N	300	300	N	20
MH200S	N	30	200	200	N	N	N	150	10	N	30	N	300	500	N	20
MH201S	N	70	5,000	150	N	N	N	300	10	N	30	N	300	700	N	20
MH202S	N	100	2,000	200	N	N	N	1,000	<10	N	30	N	300	700	N	20
MH203S	N	50	1,500	50	N	N	N	300	10	N	20	N	300	300	N	20
MH204S	N	10	50	30	N	N	N	30	10	N	15	N	200	200	N	10
MH205S	N	20	150	150	N	N	N	100	<10	N	30	N	200	500	N	20
MH206S	N	70	200	200	N	N	N	150	<10	N	70	N	300	1,000	N	30
MH207S	N	50	200	300	N	N	N	150	10	N	50	N	300	700	N	30
MH208S	N	50	200	200	N	N	N	150	10	N	50	N	300	700	N	30
MH209S	N	30	150	150	N	N	N	100	20	N	20	N	300	200	N	20
MH210S	N	15	70	100	N	15	N	70	15	N	20	N	200	300	N	30
MH211S	N	30	200	70	N	N	N	100	10	N	20	N	300	200	N	20
MH212S	N	20	50	30	<20	N	N	70	10	N	10	N	200	100	N	20
MH213D	N	7	50	20	N	N	N	30	<10	N	10	N	100	100	N	15
MH214D	N	20	150	50	N	N	N	150	10	N	20	N	700	200	N	20
MH215S	N	7	50	30	50	N	N	50	10	N	15	N	300	100	N	20
MH216S	N	5	20	<5	30	N	N	15	30	N	<5	N	500	70	N	10
MH217S	N	10	70	15	N	N	N	30	15	N	15	N	700	150	N	20
MH218S	N	20	50	150	20	10	N	100	15	N	20	N	300	200	N	50
MH219S	N	10	70	20	50	N	N	30	20	N	15	N	700	150	N	20
MH220S	N	50	300	100	N	5	N	300	10	N	15	N	150	200	N	20
MH221S	N	20	200	200	N	N	N	70	10	N	20	N	500	300	N	20
MH222S	N	50	200	200	N	N	N	150	<10	N	30	N	300	500	N	20
MH223S	N	20	150	100	N	N	N	70	10	N	20	N	500	300	N	20
MH224S	N	30	150	300	N	N	N	100	10	N	30	N	200	500	N	20
MH225S	N	50	100	300	N	N	N	70	10	N	30	N	500	500	N	20

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH181S	<200	100	N	75
MH182S	<200	500	N	65
MH183S	<200	300	N	50
MH184D	<200	100	N	140
MH185D	<200	100	N	60
MH186D	<200	100	N	210
MH187S	200	100	N	280
MH188S	<200	150	N	120
MH189S	<200	150	N	120
MH190S	<200	150	N	260
MH191S	<200	50	N	75
MH192S	N	70	N	60
MH193S	N	150	N	45
MH194D	<200	100	N	95
MH195D	<200	100	N	60
MH196S	<200	50	N	65
MH197S	<200	100	N	75
MH198S	<200	70	N	60
MH199S	<200	150	N	70
MH200S	<200	100	N	75
MH201S	<200	70	N	55
MH202S	<200	50	N	80
MH203S	<200	70	N	60
MH204S	N	70	N	65
MH205S	N	70	N	55
MH206S	<200	100	N	60
MH207S	N	70	N	55
MH208S	<200	70	N	55
MH209S	<200	70	N	120
MH210S	200	70	N	240
MH211S	N	70	N	75
MH212S	N	200	N	55
MH213D	N	70	N	45
MH214D	<200	150	N	95
MH215S	N	100	N	45
MH216S	N	70	N	40
MH217S	<200	70	N	35
MH218S	200	100	N	100
MH219S	N	500	N	75
MH220S	<200	70	N	240
MH221S	N	100	N	85
MH222S	<200	50	N	65
MH223S	<200	300	N	70
MH224S	N	50	N	80
MH225S	N	70	N	40

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH226S	63 15 1	146 47 24	15.0	3.0	2.00	>1.00	1,500	.5	N	N	20	100	1.0	N
MH227S	63 14 14	146 47 33	15.0	2.0	1.00	.70	1,000	N	N	N	50	500	1.0	N
MH228S	63 14 34	146 44 28	15.0	5.0	3.00	>1.00	1,500	N	N	N	15	100	<1.0	N
MH229S	63 13 43	146 46 52	15.0	3.0	3.00	>1.00	1,500	N	N	N	20	50	<1.0	N
MH230S	63 13 8	146 44 10	10.0	3.0	2.00	1.00	1,500	N	N	N	20	300	<1.0	N
MH231S	63 35 33	145 4 59	10.0	2.0	.50	1.00	700	N	N	N	50	1,500	1.5	N
MH232S	63 34 34	145 9 2	3.0	1.0	1.00	.70	700	N	N	N	100	300	1.0	N
MH233S	63 35 5	145 7 1	5.0	1.5	.70	.70	500	N	N	N	70	700	2.0	N
MH234S	63 34 49	145 6 21	10.0	5.0	5.00	1.00	1,500	<.5	N	N	20	500	1.0	N
MH235S	63 35 23	145 4 57	10.0	2.0	1.50	.70	1,000	N	N	N	100	700	2.0	N
MH236S	63 36 14	145 2 48	10.0	1.0	.70	.50	700	N	N	N	100	700	2.0	N
MH237S	63 37 3	145 1 11	10.0	1.5	.70	1.00	1,000	N	N	N	70	2,000	2.0	N
MH238S	63 39 30	145 0 18	10.0	1.5	.70	1.00	1,500	N	N	N	30	1,000	1.5	N
MH239S	63 38 14	145 5 37	10.0	1.5	.50	1.00	1,000	N	N	N	70	1,000	1.5	N
MH240S	63 39 55	145 3 26	7.0	1.5	.70	.70	1,500	N	N	N	70	700	1.0	N
MH241S	63 37 11	145 11 44	3.0	.7	.50	.70	700	.5	N	N	100	500	1.0	N
MH242S	63 39 1	145 8 46	3.0	.7	.70	.70	700	<.5	N	N	70	500	1.5	N
MH243S	63 39 37	145 12 27	10.0	1.5	.70	1.00	1,000	N	N	N	30	700	1.0	N
MH244S	63 40 42	145 7 20	10.0	.7	.50	.70	2,000	N	N	N	70	500	1.0	N
MH245S	63 41 27	145 5 18	7.0	.7	.10	1.00	1,500	N	N	N	30	300	1.0	N
MH246S	63 41 42	145 3 48	5.0	1.5	.70	1.00	1,000	N	N	N	30	500	1.0	N
MH247S	63 43 59	145 8 16	10.0	1.0	1.00	.70	5,000	N	N	N	50	500	1.5	N
MH248S	63 43 46	145 9 52	10.0	1.5	.70	.70	700	N	N	N	30	700	1.0	N
MH249S	63 44 18	145 10 31	10.0	1.5	1.50	1.00	1,500	N	N	N	20	300	1.0	N
MH250S	63 44 11	145 16 29	10.0	2.0	1.00	.70	1,500	N	N	N	50	700	1.5	N
MH251S	63 47 17	145 12 56	5.0	2.0	1.50	.50	1,000	N	N	N	20	500	1.5	N
MH252D	63 30 48	145 9 32	10.0	2.0	.50	1.00	1,000	N	N	N	70	1,000	1.5	N
MH253S	63 31 0	145 9 11	10.0	1.0	1.00	.70	1,000	N	N	N	70	700	1.5	N
MH254S	63 31 30	145 7 31	15.0	3.0	2.00	>1.00	1,500	N	N	N	70	1,000	1.0	N
MH255S	63 30 52	145 7 29	10.0	1.5	1.00	1.00	700	N	N	N	70	1,000	1.0	N
MH256S	63 30 51	145 3 43	15.0	2.0	.30	1.00	1,000	N	N	N	70	1,500	1.5	N
MH257D	63 32 5	145 2 23	15.0	2.0	.30	1.00	1,500	N	N	N	70	1,000	2.0	N
MH258S	63 31 59	144 58 48	10.0	2.0	1.00	1.00	1,000	N	N	N	100	700	2.0	N
MH259S	63 32 18	144 57 49	10.0	1.5	1.50	>1.00	1,000	N	N	N	20	300	1.5	N
MH260S	63 32 37	144 57 19	15.0	3.0	1.50	>1.00	1,500	N	N	N	100	700	1.5	N
MH261S	63 33 20	144 55 41	10.0	2.0	1.50	>1.00	1,000	N	N	N	30	700	1.5	N
MH262D	63 33 11	144 55 15	10.0	2.0	1.50	1.00	1,500	N	N	N	30	700	1.5	N
MH263S	63 35 0	144 56 9	10.0	3.0	3.00	.70	1,000	<.5	N	N	150	700	1.0	N
MH264S	63 36 6	144 56 41	10.0	1.5	1.50	1.00	1,000	N	N	N	100	700	2.0	N
MH265D	63 37 6	144 56 35	10.0	2.0	.50	1.00	1,500	N	N	N	50	700	1.5	N
MH266S	63 38 18	144 55 40	7.0	1.5	.70	.70	1,000	N	N	N	30	500	1.5	N
MH267D	63 39 17	144 56 27	15.0	1.5	.70	1.00	1,500	N	N	N	70	500	1.0	N
MH268D	63 47 53	145 16 47	7.0	1.5	1.50	.70	700	N	N	N	20	500	1.5	N
MH269D	63 48 34	145 17 36	10.0	2.0	2.00	.70	1,000	N	N	N	15	700	1.5	N
MH270D	63 48 31	145 21 14	10.0	2.0	1.50	.70	1,000	N	N	N	20	500	1.0	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	S-W	S-Y
MH226S	N	100	150	700	N	10	N	150	10	N	30	N	300	700	N	30
MH227S	N	30	100	150	N	N	N	100	15	N	20	N	200	300	N	20
MH228S	N	50	200	300	N	N	N	150	<10	N	50	N	300	500	N	30
MH229S	N	70	150	200	N	N	N	150	<10	N	50	N	300	700	N	20
MH230S	N	50	100	300	N	N	N	100	10	N	30	N	500	300	N	20
MH231S	N	20	100	30	50	N	<20	70	70	N	20	N	100	300	N	30
MH232S	N	200	30	10	30	N	N	50	20	N	10	N	100	70	N	20
MH233S	N	10	50	15	30	N	<20	30	70	N	15	N	100	150	N	20
MH234S	N	20	300	200	20	N	N	100	70	N	20	N	700	300	N	15
MH235S	N	15	200	70	20	N	<20	100	30	N	15	N	200	200	N	20
MH236S	N	20	50	50	50	N	N	70	30	N	15	N	100	150	N	30
MH237S	N	15	100	30	50	N	<20	50	30	N	15	N	150	150	N	30
MH238S	N	15	30	15	30	N	<20	30	30	N	15	N	100	150	N	30
MH239S	N	10	50	20	50	N	N	30	50	N	15	N	100	150	N	30
MH240S	N	10	70	10	30	N	<20	30	30	N	15	N	150	150	N	30
MH241S	N	7	30	15	20	N	<20	30	30	N	10	N	100	100	N	20
MH242S	N	7	30	10	50	N	N	30	20	N	10	N	100	70	N	20
MH243S	N	10	70	15	30	N	<20	30	30	N	15	N	100	150	N	30
MH244S	N	30	50	20	50	N	N	70	30	N	15	N	100	100	N	20
MH245S	N	7	50	5	30	N	<20	15	20	N	15	N	150	100	N	30
MH246S	N	15	70	7	<20	N	<20	30	20	N	15	N	150	150	N	20
MH247S	N	20	50	15	30	N	N	50	20	N	15	N	200	100	N	30
MH248S	N	10	50	20	30	N	<20	30	20	N	15	N	150	100	N	30
MH249S	N	10	70	15	20	N	<20	20	30	N	20	N	150	150	N	30
MH250S	N	10	50	20	30	N	<20	30	30	N	20	N	150	150	N	30
MH251S	N	10	50	10	20	N	N	20	20	N	15	N	150	100	N	20
MH252D	N	20	70	70	30	N	<20	50	30	N	20	N	100	200	N	30
MH253S	N	20	50	30	30	N	<20	70	30	N	15	N	100	150	N	20
MH254S	N	30	200	100	30	N	<20	100	30	N	20	N	500	300	N	30
MH255S	N	20	70	150	20	N	<20	50	300	N	20	N	100	200	N	30
MH256S	N	30	100	30	30	N	<20	70	20	N	20	N	100	200	N	30
MH257D	N	20	100	100	70	N	<20	70	50	N	20	15	100	200	N	30
MH258S	N	30	100	100	50	<5	<20	70	70	N	20	N	300	200	N	30
MH259S	N	15	30	20	50	N	<20	30	20	N	20	N	150	100	N	30
MH260S	N	30	100	70	30	N	<20	70	50	N	20	N	300	200	N	20
MH261S	N	15	70	15	50	N	<20	20	100	N	10	N	700	150	N	20
MH262D	N	10	50	15	20	N	<20	20	50	N	15	N	200	150	N	20
MH263S	N	30	150	70	50	N	N	70	50	N	20	N	700	300	N	20
MH264S	N	20	100	70	30	N	<20	50	20	N	20	N	150	150	N	30
MH265D	N	15	100	30	20	N	<20	30	20	N	20	N	100	200	N	20
MH266S	N	10	70	10	20	N	<20	20	30	N	20	10	150	100	N	20
MH267D	N	20	100	50	30	N	<20	50	30	N	30	N	100	200	N	50
MH268D	N	10	30	5	20	N	N	10	20	N	15	N	200	150	N	20
MH269D	N	15	50	7	50	N	N	10	20	N	30	N	300	200	N	30
MH270D	N	10	50	30	30	N	<20	15	20	N	15	N	150	150	N	20

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH226S	N	100	N	85
MH227S	<200	70	N	90
MH228S	<200	100	N	75
MH229S	<200	70	N	80
MH230S	<200	50	N	70
MH231S	N	200	N	95
MH232S	N	300	N	55
MH233S	N	300	N	80
MH234S	N	200	N	100
MH235S	N	500	N	70
MH236S	<200	150	N	110
MH237S	N	300	N	85
MH238S	<200	500	N	70
MH239S	N	200	N	65
MH240S	N	300	N	95
MH241S	<200	500	N	65
MH242S	N	300	N	75
MH243S	N	300	N	55
MH244S	N	300	N	85
MH245S	N	500	N	55
MH246S	<200	200	N	75
MH247S	N	300	N	70
MH248S	N	500	N	65
MH249S	N	300	N	55
MH250S	<200	200	N	95
MH251S	<200	500	N	70
MH252D	<200	500	N	90
MH253S	<200	300	N	110
MH254S	<200	150	N	70
MH255S	<200	200	N	85
MH256S	<200	200	N	70
MH257D	<200	300	N	110
MH258S	<200	300	N	120
MH259S	<200	200	N	75
MH260S	<200	300	N	70
MH261S	N	300	N	100
MH262D	N	200	N	60
MH263S	<200	300	N	50
MH264S	<200	500	N	95
MH265D	<200	200	N	75
MH266S	N	500	N	60
MH267D	<200	200	N	75
MH268D	<200	200	N	40
MH269D	N	300	N	15
MH270D	N	500	N	60

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH271D	63 48 22	145 21 6	5.0	2.0	1.50	.30	700	N	N	N	N	300	1.0	N
MH272D	63 50 31	145 21 43	10.0	2.0	1.50	.70	1,000	N	N	N	30	500	1.0	N
MH273D	63 50 13	145 24 37	7.0	1.5	3.00	.70	1,000	N	N	N	300	700	1.0	N
MH274D	63 26 24	145 15 58	5.0	1.5	.70	>1.00	700	N	N	N	70	500	1.0	N
MH275S	63 26 56	145 13 5	7.0	1.5	.50	>1.00	700	<.5	N	N	70	500	1.0	N
MH276D	63 26 40	145 12 11	10.0	2.0	.30	1.00	700	N	N	N	100	700	1.5	N
MH277S	63 27 30	145 11 23	10.0	1.5	1.00	>1.00	700	N	N	N	100	700	1.5	N
MH278S	63 25 56	145 9 40	10.0	2.0	1.00	>1.00	1,000	N	N	N	50	700	1.0	N
MH279S	63 25 59	145 8 32	15.0	2.0	.50	>1.00	1,000	N	N	N	70	700	1.5	N
MH280S	63 27 45	145 7 27	10.0	2.0	.70	1.00	1,000	N	N	N	20	1,500	1.0	N
MH281S	63 28 4	145 7 56	15.0	3.0	1.50	>1.00	1,000	N	N	N	100	2,000	2.0	N
MH282S	63 28 15	145 3 47	10.0	1.5	1.00	>1.00	1,000	N	N	N	30	700	1.5	N
MH283S	63 28 58	145 4 50	15.0	3.0	1.50	.70	1,000	N	N	N	70	1,000	1.0	N
MH284S	63 29 49	145 2 30	15.0	2.0	1.50	.70	1,000	N	N	N	100	700	1.5	N
MH285S	63 30 25	144 58 9	7.0	2.0	1.50	1.00	700	N	N	N	70	500	1.0	N
MH286S	63 30 45	144 56 48	10.0	3.0	1.00	.70	1,500	N	N	N	200	700	1.5	N
MH287S	63 31 16	144 55 12	10.0	2.0	1.00	>1.00	1,000	<.5	N	N	150	500	1.0	N
MH288S	63 31 58	144 53 48	10.0	2.0	.70	1.00	1,500	N	N	N	200	700	1.5	N
MH289S	63 21 57	145 10 41	10.0	1.5	.15	>1.00	1,000	<.5	N	N	100	700	1.5	N
MH290S	63 21 56	145 13 13	10.0	2.0	1.00	>1.00	1,500	N	N	N	70	700	1.0	N
MH291D	63 20 48	145 13 59	10.0	2.0	.30	1.00	700	N	N	N	100	700	1.0	N
MH292D	63 20 45	145 10 11	10.0	3.0	.70	>1.00	1,000	<.5	N	N	70	1,000	1.0	N
MH293D	63 19 45	145 4 43	10.0	2.0	1.00	>1.00	1,000	N	N	N	70	500	1.0	N
MH294D	63 21 11	145 5 48	5.0	1.5	.20	1.00	700	N	N	N	50	500	1.5	N
MH295S	63 31 7	144 50 7	10.0	2.0	1.50	1.00	700	N	N	N	70	500	1.5	N
MH296S	63 30 0	144 50 9	10.0	2.0	1.50	1.00	1,000	N	N	N	50	700	1.0	N
MH297S	63 26 23	144 57 45	10.0	3.0	1.50	>1.00	1,000	N	N	N	150	700	1.5	N
MH298S	63 25 13	145 0 7	10.0	2.0	.50	>1.00	1,000	N	N	N	100	500	1.0	N
MH299S	63 14 7	145 29 21	15.0	2.0	3.00	1.00	1,500	N	N	N	10	300	<1.0	N
MH300D	63 15 14	145 26 19	15.0	3.0	3.00	1.00	1,500	N	N	N	150	300	<1.0	N
MH301D	63 15 21	145 26 53	15.0	3.0	5.00	>1.00	2,000	N	N	N	20	300	<1.0	N
MH302D	63 15 12	145 24 56	10.0	2.0	5.00	1.00	2,000	N	N	N	70	500	<1.0	N
MH303D	63 16 48	145 24 8	15.0	5.0	5.00	>1.00	2,000	N	N	N	15	300	N	N
MH304S	63 14 23	145 28 16	15.0	5.0	5.00	>1.00	2,000	N	N	N	50	300	N	N
MH305S	63 14 11	145 26 45	20.0	3.0	5.00	1.00	2,000	N	N	N	30	300	<1.0	N
MH306S	63 15 33	145 29 26	10.0	3.0	5.00	1.00	1,500	N	N	N	20	300	<1.0	N
MH307S	63 16 20	145 34 20	15.0	3.0	3.00	1.00	3,000	1.0	N	N	15	1,500	<1.0	N
MH308S	63 15 18	145 33 43	10.0	2.0	2.00	1.00	2,000	N	N	N	10	1,000	<1.0	N
MH309S	63 11 26	145 29 46	7.0	3.0	3.00	.70	1,500	N	N	N	20	500	<1.0	N
MH310S	63 12 29	145 28 53	15.0	7.0	5.00	>1.00	2,000	N	N	N	10	300	<1.0	N
MH311S	63 13 0	145 28 19	10.0	3.0	3.00	1.00	2,000	N	N	N	20	700	1.0	N
MH312S	63 18 2	145 58 27	15.0	5.0	5.00	1.00	2,000	N	N	N	30	300	<1.0	N
MH313S	63 17 31	145 53 58	10.0	5.0	5.00	1.00	1,500	N	N	N	30	200	<1.0	N
MH314S	63 21 11	145 55 55	15.0	3.0	2.00	>1.00	2,000	N	N	N	100	300	1.0	N
MH315S	63 20 3	145 57 32	15.0	>10.0	10.00	.70	2,000	N	N	N	15	20	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	S-W	S-Y
MH271D	N	10	100	5	20	N	N	30	20	N	15	N	150	100	N	15
MH272D	N	15	70	10	<20	N	N	20	20	N	20	N	200	200	N	15
MH273D	N	10	20	20	50	7	N	10	30	N	15	N	300	150	N	20
MH274D	N	10	50	20	30	N	<20	50	20	N	15	N	100	150	N	10
MH275S	N	20	70	50	50	N	<20	70	70	N	15	N	100	100	N	20
MH276D	N	20	100	100	50	N	<20	100	50	N	20	N	100	150	N	20
MH277S	N	20	70	30	50	N	<20	50	30	N	20	N	150	150	N	20
MH278S	N	20	100	30	50	N	<20	50	20	N	20	N	100	200	N	30
MH279S	N	30	100	100	50	N	<20	100	30	N	20	N	100	200	N	20
MH280S	N	20	70	70	50	N	N	30	50	N	20	N	<100	300	N	30
MH281S	N	20	100	30	50	N	<20	50	20	N	30	N	100	300	N	30
MH282S	N	50	30	70	30	N	<20	50	100	N	15	N	100	100	N	20
MH283S	N	50	500	50	30	N	N	300	30	N	20	N	150	200	N	20
MH234S	N	20	100	50	50	N	N	50	50	N	20	N	150	200	N	20
MH285S	N	15	70	30	50	N	<20	30	30	N	20	N	100	150	N	30
MH286S	N	30	200	70	50	N	<20	200	15	N	20	N	100	150	N	20
MH287S	N	15	70	50	30	N	<20	70	30	N	20	N	100	100	N	20
MH288S	N	20	70	20	30	N	<20	70	30	N	20	N	100	150	N	20
MH289S	N	15	70	300	50	5	<20	70	50	N	20	N	<100	200	N	30
MH290S	N	15	50	150	20	N	<20	50	20	N	15	N	<100	100	N	15
MH291D	N	20	150	70	70	N	N	100	50	N	20	N	100	200	N	20
MH292D	N	20	150	300	50	N	<20	150	30	N	20	N	100	500	N	30
MH293D	N	30	150	150	50	N	<20	70	30	N	20	N	<100	200	N	30
MH294D	N	15	50	50	30	N	N	30	20	N	15	N	<100	100	N	20
MH295S	N	20	100	30	50	N	<20	70	30	N	20	N	150	150	N	30
MH296S	N	15	100	30	50	N	<20	30	30	N	20	N	150	200	N	20
MH297S	N	15	150	50	30	N	<20	100	30	N	20	N	200	200	N	20
MH298S	N	20	70	50	30	N	<20	70	30	N	15	N	100	150	N	20
MH299S	N	20	100	150	<20	N	N	30	10	N	30	N	300	1,000	N	20
MH300D	N	100	700	300	N	N	N	200	15	N	30	N	200	500	N	20
MH301D	N	30	300	300	N	N	N	150	10	N	30	N	300	500	N	20
MH302D	N	20	20	100	N	N	N	20	10	N	20	N	200	300	N	20
MH303D	N	50	150	500	N	N	N	150	10	N	50	N	200	1,000	N	20
MH304S	N	30	700	300	N	N	N	200	<10	N	30	N	200	1,000	N	15
MH305S	N	50	200	200	N	N	N	150	10	N	30	N	300	2,000	N	20
MH306S	N	20	50	300	N	N	N	20	10	N	30	N	500	500	N	20
MH307S	N	20	150	300	N	N	N	30	100	N	30	N	300	500	N	20
MH308S	N	10	70	70	N	N	N	20	<10	N	15	N	200	200	N	20
MH309S	N	50	1,000	100	N	N	N	300	<10	N	20	N	300	300	N	10
MH310S	N	70	1,500	200	N	N	N	500	10	N	20	N	200	700	N	20
MH311S	N	30	2,000	70	N	N	N	300	15	N	20	N	200	300	N	10
MH312S	N	70	1,000	150	<20	N	N	300	10	N	30	N	500	500	N	30
MH313S	N	50	1,500	100	<20	N	N	300	10	N	20	N	200	300	N	15
MH314S	N	10	150	70	50	N	N	70	15	N	20	N	500	500	N	30
MH315S	N	150	>5,000	200	N	N	N	2,000	<10	N	10	N	100	200	N	<10

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH271D	N	100	N	10
MH272D	<200	150	N	70
MH273D	<200	>1,000	N	50
MH274D	<200	300	N	70
MH275S	<200	>1,000	N	65
MH276D	<200	500	N	90
MH277S	<200	300	N	70
MH278S	N	>1,000	N	60
MH279S	<200	500	N	95
MH280S	<200	300	N	110
MH281S	<200	500	N	85
MH282S	<200	500	N	85
MH283S	<200	300	N	75
MH284S	<200	200	N	85
MH285S	<200	>1,000	N	60
MH286S	<200	300	N	85
MH287S	<200	150	N	85
MH288S	<200	500	N	100
MH289S	<200	1,000	N	140
MH290S	<200	700	N	75
MH291D	<200	200	N	80
MH292D	<200	300	N	180
MH293D	<200	300	N	70
MH294D	N	200	N	55
MH295S	<200	200	N	65
MH296S	<200	300	N	65
MH297S	<200	200	N	65
MH298S	<200	500	N	60
MH299S	<200	50	N	45
MH300D	<200	70	N	65
MH301D	N	150	N	50
MH302D	<200	150	N	40
MH303D	N	30	N	35
MH304S	N	50	N	45
MH305S	<200	200	N	45
MH306S	<200	50	N	45
MH307S	<200	70	N	160
MH308S	N	100	N	75
MH309S	N	50	N	40
MH310S	N	100	N	45
MH311S	<200	150	N	50
MH312S	<200	1,000	N	110
MH313S	N	300	N	60
MH314S	<200	200	N	55
MH315S	<200	<10	N	35

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH316S	63 19 36	145 56 21	20.0	10.0	1.50	.30	1,000	N	N	N	10	<20	N	N
MH317S	63 18 48	145 56 24	15.0	10.0	5.00	>1.00	1,000	N	N	N	<10	50	<1.0	N
MH318S	63 19 5	145 49 19	15.0	10.0	3.00	.70	1,000	N	N	N	15	150	<1.0	N
MH319S	63 19 51	145 49 55	15.0	10.0	7.00	>1.00	2,000	N	N	N	70	200	<1.0	N
MH320S	63 20 10	145 45 49	15.0	7.0	3.00	1.00	1,500	N	N	N	15	700	<1.0	N
MH321S	63 21 13	145 45 14	15.0	5.0	5.00	1.00	2,000	N	N	N	70	150	<1.0	N
MH322S	63 23 4	145 46 4	15.0	7.0	3.00	>1.00	1,000	N	N	N	20	700	<1.0	N
MH323S	63 23 12	145 50 29	10.0	3.0	3.00	>1.00	700	N	N	N	100	200	<1.0	N
MH324S	63 23 14	145 50 55	15.0	1.5	1.50	>1.00	>5,000	N	N	N	100	200	1.0	N
MH325S	63 25 24	145 57 11	15.0	1.5	1.50	>1.00	3,000	N	N	N	150	300	1.0	N
MH326S	63 25 27	145 55 42	10.0	2.0	2.00	>1.00	3,000	N	N	N	100	300	1.0	N
MH327S	63 25 13	145 52 35	10.0	2.0	1.50	1.00	2,000	1.0	N	N	100	300	1.0	N
MH328S	63 11 4	146 9 40	15.0	5.0	5.00	>1.00	2,000	N	N	N	10	200	<1.0	N
MH329S	63 10 41	146 9 47	15.0	5.0	5.00	>1.00	3,000	N	N	N	10	200	<1.0	N
MH330S	63 10 42	146 11 45	15.0	5.0	7.00	>1.00	3,000	N	N	N	<10	70	N	N
MH331S	63 11 8	146 13 34	15.0	5.0	7.00	>1.00	2,000	N	N	N	10	300	<1.0	N
MH332S	63 9 54	146 15 51	10.0	5.0	3.00	>1.00	1,500	N	N	N	<10	300	<1.0	N
MH333S	63 10 41	146 19 11	15.0	3.0	3.00	>1.00	1,500	N	N	N	10	200	<1.0	N
MH334S	63 11 30	146 18 40	15.0	3.0	5.00	>1.00	2,000	N	N	N	10	200	<1.0	N
MH335S	63 11 43	146 23 23	10.0	3.0	3.00	>1.00	1,500	N	N	N	30	200	<1.0	N
MH336S	63 11 32	146 23 56	10.0	5.0	5.00	1.00	2,000	N	N	N	70	700	<1.0	N
MH337S	63 12 54	146 24 21	10.0	2.0	5.00	>1.00	1,000	N	N	N	50	300	1.0	N
MH338S	63 13 0	146 29 23	10.0	2.0	2.00	1.00	1,000	N	N	N	70	300	1.0	N
MH339S	63 10 53	146 26 57	10.0	2.0	3.00	>1.00	2,000	N	N	N	30	300	1.0	N
MH340S	63 7 54	146 24 28	7.0	1.5	1.50	1.00	700	N	N	N	50	500	1.0	N
MH341S	63 7 47	146 23 49	10.0	2.0	2.00	1.00	1,500	N	N	N	20	500	1.0	N
MH343S	63 7 58	146 15 16	10.0	3.0	3.00	>1.00	1,000	N	N	N	10	200	<1.0	N
MH344S	63 9 6	146 14 49	15.0	3.0	5.00	>1.00	1,000	N	N	N	<10	200	<1.0	N
MH345S	63 7 32	146 11 10	10.0	2.0	2.00	1.00	1,000	.5	N	N	20	500	1.0	N
MH346D	63 5 22	146 9 59	2.0	.3	.70	.20	500	N	N	N	20	300	1.0	N
MH347S	63 5 49	146 4 53	7.0	3.0	1.50	.50	1,000	.5	N	N	30	1,000	1.0	N
MH348S	63 6 53	146 3 59	10.0	2.0	1.50	.70	1,000	1.0	N	N	20	700	1.0	N
MH349S	63 9 20	146 4 48	10.0	3.0	3.00	1.00	1,500	N	N	N	20	500	1.0	N
MH350S	63 9 34	146 6 56	10.0	3.0	5.00	>1.00	1,500	<.5	N	N	10	300	1.0	N
MH351D	63 10 45	146 4 31	10.0	3.0	5.00	1.00	1,500	N	N	N	20	700	1.0	N
MH351S	63 10 45	146 4 31	10.0	3.0	3.00	1.00	1,000	N	N	N	50	700	<1.0	N
MH352S	63 5 52	144 55 9	10.0	2.0	1.50	.70	1,500	N	N	N	30	700	1.0	N
MH353S	63 4 42	144 49 35	7.0	2.0	2.00	.50	1,500	N	N	N	50	1,500	1.0	N
MH354S	63 8 20	144 50 22	2.0	1.0	1.00	.15	700	N	N	N	50	1,500	1.5	N
MH355S	63 8 25	144 49 46	5.0	2.0	2.00	.50	1,000	N	N	N	50	1,000	1.0	N
MH356S	63 10 7	144 49 35	10.0	3.0	3.00	.50	1,000	<.5	N	N	150	700	1.0	N
MH357S	63 9 47	144 48 52	7.0	2.0	1.00	.30	1,500	.7	N	N	30	1,500	1.5	N
MH358S	63 9 51	144 41 0	10.0	5.0	5.00	.50	1,500	N	N	N	50	700	<1.0	N
MH359S	63 9 59	144 37 45	5.0	2.0	1.00	.50	700	.5	N	N	100	2,000	2.0	N
MH360S	63 9 53	144 36 29	5.0	2.0	3.00	.70	1,000	N	N	N	70	1,500	2.0	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	S-W	S-Y
MH316S	N	150	5,000	500	N	N	N	2,000	30	N	10	N	100	100	N	N
MH317S	N	150	3,000	500	N	N	N	1,000	<10	N	20	N	150	300	N	10
MH318S	N	150	>5,000	300	N	N	N	1,000	10	N	20	N	150	300	N	10
MH319S	N	150	5,000	500	N	N	N	1,500	10	N	30	N	200	700	N	20
MH320S	N	50	5,000	200	N	N	N	700	10	N	20	N	200	500	N	10
MH321S	N	50	200	300	N	N	N	150	<10	N	20	N	200	500	N	15
MH322S	N	50	1,000	150	30	N	<20	300	20	N	20	N	300	300	N	20
MH323S	N	15	150	100	30	N	<20	70	20	N	20	N	300	300	N	30
MH324S	N	10	70	20	70	N	N	30	10	N	20	N	200	150	N	70
MH325S	N	15	70	70	20	N	N	50	10	N	15	N	200	200	N	30
MH326S	N	10	100	30	20	N	N	30	10	N	15	N	300	150	N	30
MH327S	N	10	70	20	N	N	N	30	10	N	10	N	300	150	N	10
MH328S	N	50	200	300	N	N	N	150	10	N	30	N	300	700	N	20
MH329S	N	70	300	500	N	N	<20	200	10	N	30	N	200	700	N	20
MH330S	N	50	300	300	N	N	N	150	<10	N	30	N	200	2,000	N	20
MH331S	N	50	300	500	N	N	N	150	<10	N	30	N	300	1,000	N	20
MH332S	N	20	200	300	N	N	N	100	15	N	20	N	200	500	N	10
MH333S	N	20	150	200	N	N	N	70	10	N	20	N	200	700	N	15
MH334S	N	30	150	300	N	N	N	70	10	N	20	N	200	1,000	N	15
MH335S	N	20	500	150	N	N	N	100	10	N	20	N	300	700	N	20
MH336S	N	50	1,000	100	50	N	N	100	15	N	30	N	500	1,000	N	50
MH337S	N	50	200	150	50	N	N	70	10	N	70	N	300	700	N	30
MH338S	N	30	300	100	20	N	N	70	10	N	50	N	300	300	N	30
MH339S	N	30	1,000	100	20	N	<20	70	10	N	70	N	500	700	N	50
MH340S	N	30	300	70	50	N	N	70	10	N	30	N	300	300	N	30
MH341S	N	50	500	70	20	N	N	70	10	N	50	N	500	500	N	30
MH343S	N	50	300	200	<20	N	N	100	10	N	70	N	500	700	N	30
MH344S	N	50	300	300	N	N	<20	100	10	N	70	N	500	700	N	50
MH345S	N	50	300	300	20	N	<20	100	15	N	50	N	500	700	N	30
MH346D	N	15	50	30	N	N	30	20	<10	N	15	N	150	150	N	20
MH347S	N	50	200	70	20	N	N	70	15	N	50	N	300	300	N	30
MH348S	N	50	300	200	20	N	N	100	15	N	50	N	300	300	N	50
MH349S	N	50	1,500	150	N	N	<20	150	10	N	50	N	500	500	N	50
MH350S	N	50	300	150	N	N	N	100	<10	N	70	N	300	700	N	30
MH351D	N	50	700	150	30	N	N	100	10	N	70	N	300	700	N	30
MH351S	N	50	700	100	N	N	<20	100	10	N	50	N	300	700	N	30
MH352S	N	30	700	70	N	N	<20	100	10	N	50	N	300	500	N	30
MH353S	N	50	500	100	50	N	N	100	30	N	30	N	300	300	N	50
MH354S	N	10	150	20	30	N	N	50	20	N	15	N	100	100	N	30
MH355S	N	30	200	70	30	N	N	70	15	N	20	N	200	300	N	30
MH356S	N	50	700	150	50	N	N	150	20	N	30	N	500	500	N	30
MH357S	N	50	100	2,000	30	5	N	50	30	N	20	N	150	200	N	70
MH358S	N	70	1,000	100	30	N	N	150	10	N	30	N	500	500	N	30
MH359S	N	20	70	50	70	7	N	50	50	N	20	N	150	200	N	<10
MH360S	N	15	150	50	100	N	<20	50	15	N	20	N	700	300	N	30

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH316S	<200	N	N	70
MH317S	N	50	N	50
MH318S	<200	20	N	65
MH319S	<200	20	N	85
MH320S	N	30	N	65
MH321S	N	50	N	80
MH322S	N	300	N	80
MH323S	<200	70	N	55
MH324S	<200	150	N	25
MH325S	<200	200	N	20
MH326S	<200	150	N	30
MH327S	<200	100	N	60
MH328S	N	150	N	60
MH329S	N	70	N	80
MH330S	<200	70	N	50
MH331S	N	100	N	70
MH332S	<200	70	N	65
MH333S	<200	70	N	60
MH334S	N	70	N	65
MH335S	<200	100	N	50
MH336S	N	70	N	45
MH337S	<200	100	N	55
MH338S	N	150	N	65
MH339S	<200	500	N	45
MH340S	<200	200	N	55
MH341S	<200	200	N	75
MH343S	<200	150	N	70
MH344S	<200	150	N	65
MH345S	<200	200	N	65
MH346D	N	70	N	65
MH347S	<200	150	N	65
MH348S	<200	150	N	100
MH349S	<200	150	N	75
MH350S	<200	100	N	65
MH351D	<200	300	N	60
MH351S	<200	150	N	55
MH352S	<200	200	N	95
MH353S	200	100	N	150
MH354S	<200	100	N	60
MH355S	<200	200	N	130
MH356S	N	150	N	100
MH357S	200	70	N	210
MH358S	<200	50	N	95
MH359S	<200	200	N	140
MH360S	N	300	N	40

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH361D	63 9 17	144 32 31	5.0	1.5	2.00	.50	1,000	1.5	N	N	100	>5,000	2.0	N
MH362S	63 8 22	144 37 43	3.0	1.0	1.50	.20	500	N	N	N	100	1,000	2.0	N
MH363S	63 8 5	144 40 10	10.0	5.0	3.00	.50	1,500	N	N	N	50	1,000	<1.0	N
MH364S	63 7 9	144 40 21	5.0	3.0	2.00	.50	1,500	.5	N	N	50	1,000	1.0	N
MH365S	63 6 25	144 39 46	5.0	3.0	2.00	.30	1,500	N	N	N	30	1,000	1.0	N
MH366S	63 5 14	144 40 56	7.0	5.0	2.00	.50	1,000	N	N	N	70	1,000	1.0	N
MH367S	63 4 24	144 39 57	3.0	2.0	2.00	.30	700	N	N	N	70	1,000	1.5	N
MH368S	63 4 15	144 41 9	3.0	2.0	1.50	.30	1,000	<.5	N	N	50	1,500	1.5	N
MH369S	63 3 39	144 38 58	3.0	1.5	1.50	.30	1,000	.5	N	N	30	1,000	1.5	N
MH370S	63 4 37	144 36 8	7.0	3.0	3.00	.30	700	<.5	N	N	150	1,000	1.5	N
MH371S	63 5 2	144 30 8	5.0	5.0	5.00	.50	1,000	N	N	N	300	500	1.0	N
MH372S	63 3 41	144 29 47	10.0	5.0	5.00	.20	1,500	N	N	N	70	1,000	<1.0	N
MH373S	63 3 40	144 28 25	7.0	3.0	3.00	.30	700	.5	N	N	150	1,000	1.0	N
MH374S	63 1 58	144 27 58	5.0	2.0	2.00	.30	700	N	N	N	70	1,000	1.0	N
MH375S	63 1 44	144 25 48	5.0	2.0	3.00	.50	1,000	N	N	N	100	2,000	1.0	N
MH376S	63 1 23	144 25 25	5.0	3.0	3.00	.50	1,000	N	N	N	70	1,000	1.5	N
MH377S	63 11 53	144 57 7	5.0	2.0	2.00	.50	1,500	N	N	N	70	700	1.0	N
MH378S	63 13 10	144 55 39	7.0	5.0	3.00	.30	1,500	<.5	N	N	100	1,000	<1.0	N
MH379S	63 12 54	144 57 22	5.0	3.0	3.00	.50	1,000	.7	N	N	100	2,000	1.0	N
MH380S	63 11 47	145 0 5	7.0	5.0	3.00	.50	1,000	1.5	2,000	N	500	700	1.0	30
MH381S	63 10 49	145 1 54	10.0	5.0	5.00	.30	1,000	N	N	N	100	500	<1.0	N
MH382S	63 9 52	145 2 29	10.0	2.0	5.00	.30	1,500	N	N	N	50	500	<1.0	N
MH383S	63 28 30	146 58 59	2.0	1.0	3.00	.30	1,500	<.5	N	N	70	1,000	2.0	N
MH384S	63 27 36	146 59 26	5.0	2.0	3.00	.50	1,000	N	N	N	70	1,500	1.5	N
MH385S	63 24 20	146 57 23	5.0	3.0	3.00	.70	1,500	N	N	N	20	1,500	1.0	N
MH386S	63 23 22	146 57 48	5.0	3.0	3.00	.70	2,000	N	N	N	30	1,500	1.0	N
MH387S	63 27 24	146 50 16	7.0	1.5	3.00	1.00	2,000	N	N	N	100	1,000	1.5	N
MH388S	63 27 30	146 50 29	2.0	.5	2.00	.20	1,500	N	N	N	100	700	1.5	N
MH389S	63 27 34	146 50 41	5.0	1.5	3.00	.30	1,500	N	N	N	100	1,500	2.0	N
MH390S	63 26 29	146 51 34	10.0	5.0	2.00	.50	1,000	N	N	N	20	1,000	1.0	N
MH391S	63 25 58	146 53 18	10.0	3.0	3.00	.70	1,500	<.5	N	N	20	2,000	1.5	N
MH392S	63 24 46	146 49 13	10.0	3.0	3.00	.30	1,000	N	N	N	20	2,000	1.0	N
MH393S	63 25 23	146 48 39	10.0	5.0	5.00	.50	1,500	N	N	N	10	1,500	1.0	N
MH394S	63 26 35	146 46 16	2.0	.7	1.00	.30	1,000	N	N	N	200	700	1.5	N
MH395D	63 26 2	146 45 36	10.0	7.0	5.00	>1.00	2,000	N	N	N	100	1,500	<1.0	N
MH395S	63 26 2	146 45 36	15.0	7.0	5.00	1.00	1,500	N	N	N	100	1,500	<1.0	N
MH396S	63 24 39	146 46 52	7.0	3.0	5.00	.50	1,500	N	N	N	20	700	1.0	N
MH397S	63 24 47	146 46 32	3.0	1.5	3.00	.70	1,500	N	N	N	15	700	1.5	N
MH398S	63 23 34	146 49 42	5.0	3.0	3.00	.30	1,000	N	N	N	30	1,000	1.0	N
MH399S	63 21 39	146 47 52	5.0	2.0	5.00	.70	1,500	N	N	N	70	700	2.0	N
MH400S	63 21 28	146 48 15	7.0	2.0	3.00	.50	1,500	N	N	N	30	700	1.5	N
MH401S	63 22 2	146 48 55	5.0	1.5	2.00	.30	1,000	N	N	N	50	700	1.5	N
MH402S	63 23 10	146 51 15	5.0	1.0	3.00	.50	1,000	N	N	N	30	500	1.5	N
MH403S	63 21 57	146 52 55	10.0	3.0	3.00	.50	1,500	N	N	N	20	700	1.0	N
MH404S	63 22 38	146 57 54	10.0	5.0	5.00	.50	1,500	N	N	N	30	1,000	1.5	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	S-W	S-Y
MH361D	N	30	300	200	70	10	<20	150	50	N	20	N	500	300	N	70
MH362S	N	30	200	70	30	N	N	100	10	N	20	N	200	300	N	30
MH363S	N	70	500	150	20	N	N	100	20	N	30	N	150	500	N	30
MH364S	N	30	200	50	20	N	N	70	50	N	20	N	200	300	N	30
MH365S	N	50	500	50	30	N	N	100	15	N	30	N	200	300	N	50
MH366S	N	50	500	50	30	N	N	100	20	N	30	N	200	300	N	50
MH367S	N	20	150	50	30	N	N	70	20	N	15	N	300	200	N	30
MH368S	N	20	150	50	30	N	N	70	20	N	20	N	200	200	N	50
MH369S	N	20	150	70	20	N	N	70	15	N	20	N	200	200	N	30
MH370S	N	30	500	70	30	N	N	100	40	N	30	N	300	500	N	30
MH371S	N	30	200	70	<20	<5	N	100	15	N	20	N	200	300	N	20
MH372S	N	50	500	70	30	N	N	100	10	N	30	N	500	500	N	30
MH373S	N	50	300	70	30	<5	N	100	20	N	20	N	200	500	N	30
MH374S	N	50	300	70	50	N	N	100	20	N	20	N	200	300	N	30
MH375S	N	50	300	50	30	N	N	100	20	N	20	N	300	500	N	30
MH376S	N	50	200	50	50	N	N	100	15	N	20	N	500	500	N	30
MH377S	N	30	1,500	70	30	N	N	100	10	N	30	N	200	500	N	50
MH378S	N	70	500	100	30	N	N	100	10	N	30	N	200	500	N	30
MH379S	N	50	300	100	50	N	<20	100	15	N	20	N	200	300	N	50
MH380S	N	50	200	500	30	N	N	50	30	N	30	N	500	300	N	30
MH381S	N	50	500	70	20	N	N	100	15	N	50	N	200	500	N	20
MH382S	N	50	700	30	20	N	N	70	10	N	30	N	300	500	N	50
MH383S	N	10	100	20	50	N	N	30	10	N	15	N	700	150	N	50
MH384S	N	30	200	50	50	N	<20	70	20	N	20	N	1,000	200	N	30
MH385S	N	30	200	30	100	N	<20	50	20	N	20	N	500	200	N	50
MH386S	N	30	150	20	70	N	20	20	20	N	20	N	700	200	N	50
MH387S	N	20	150	50	100	N	<20	50	30	N	20	N	500	150	N	70
MH388S	N	15	100	20	30	N	N	30	20	N	15	N	500	100	N	50
MH389S	N	20	150	30	70	N	N	50	20	N	20	N	1,000	200	N	200
MH390S	N	50	700	70	30	N	<20	100	15	N	20	N	500	300	N	20
MH391S	N	50	200	50	70	N	20	70	20	N	20	N	700	300	N	30
MH392S	N	30	500	30	70	N	N	50	20	N	15	N	1,000	300	N	30
MH393S	N	30	200	20	70	N	<20	20	10	N	20	N	1,500	300	N	30
MH394S	N	15	100	30	30	N	N	50	20	N	15	N	300	150	N	30
MH395D	N	70	300	15	20	N	<20	10	15	N	30	N	700	500	N	20
MH395S	N	70	200	30	30	N	<20	20	15	N	30	N	1,000	900	N	20
MH396S	N	30	200	50	30	N	N	50	20	N	20	N	1,000	300	N	30
MH397S	N	20	150	20	20	N	<20	50	10	N	15	N	500	200	N	20
MH398S	N	30	200	70	30	N	N	70	20	N	20	N	700	300	N	30
MH399S	N	30	150	150	30	N	N	50	20	N	20	N	1,000	500	N	30
MH400S	N	30	200	30	30	N	N	50	10	N	20	N	1,000	300	N	30
MH401S	N	20	150	100	30	N	N	20	20	N	15	N	700	300	N	50
MH402S	N	20	150	30	30	N	N	30	<10	N	15	N	500	200	N	50
MH403S	N	50	200	100	50	10	20	70	15	N	30	N	500	500	N	70
MH404S	N	50	500	30	30	5	<20	100	15	N	30	N	700	300	N	50

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH361D	200	200	N	280
MH362S	<200	70	N	130
MH363S	N	70	N	130
MH364S	500	100	N	240
MH365S	<200	100	N	140
MH366S	N	100	N	85
MH367S	N	100	N	60
MH368S	N	100	N	90
MH369S	200	100	N	90
MH370S	200	70	N	180
MH371S	<200	50	N	80
MH372S	N	100	N	55
MH373S	200	100	N	130
MH374S	N	100	N	100
MH375S	N	100	N	60
MH376S	N	100	N	75
MH377S	<200	100	N	100
MH378S	200	70	N	110
MH379S	200	200	N	130
MH380S	N	100	N	80
MH381S	N	50	N	45
MH382S	N	200	N	45
MH383S	N	500	N	35
MH384S	N	150	N	90
MH385S	N	300	N	120
MH386S	N	1,000	N	80
MH387S	N	700	N	40
MH388S	N	200	N	20
MH389S	N	300	N	25
MH390S	N	70	N	160
MH391S	N	200	N	100
MH392S	N	300	N	110
MH393S	N	1,000	N	60
MH394S	N	200	N	50
MH395D	N	20	N	70
MH395S	200	30	N	110
MH396S	N	100	N	40
MH397S	N	300	N	35
MH398S	N	50	N	80
MH399S	N	100	N	40
MH400S	N	100	N	25
MH401S	N	500	N	25
MH402S	N	1,000	N	20
MH403S	N	500	N	70
MH404S	N	200	N	90

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH405S	63 22 55	146 53 27	10.0	2.0	3.00	.70	1,500	N	N	N	20	700	1.0	N
MH406S	63 20 28	146 58 15	7.0	3.0	3.00	.50	1,500	N	N	N	100	1,000	1.0	N
MH407S	63 19 53	146 59 1	7.0	3.0	3.00	.70	1,500	N	N	N	30	1,000	1.0	N
MH408S	63 19 42	146 55 47	7.0	5.0	5.00	.50	1,500	N	N	N	20	1,000	1.0	N
MH409S	63 19 12	146 55 13	15.0	5.0	2.00	.50	1,000	N	N	N	30	700	<1.0	N
MH410S	63 19 5	146 49 7	10.0	1.0	1.00	.30	1,000	.7	N	N	200	1,500	1.0	N
MH411S	63 19 19	146 49 20	5.0	2.0	2.00	.30	1,000	N	N	N	50	500	<1.0	N
MH412S	63 18 45	146 49 16	5.0	2.0	3.00	.50	1,000	N	N	N	70	700	1.0	N
MH413S	63 19 45	146 49 51	5.0	2.0	3.00	.30	1,000	N	N	N	50	500	1.0	N
MH414S	63 19 42	146 50 4	5.0	2.0	5.00	.50	1,500	N	N	N	30	1,000	1.5	N
MH415S	63 17 59	146 48 32	5.0	1.0	.30	.50	1,500	2.0	N	N	300	2,000	1.0	N
MH416S	63 15 47	146 37 54	10.0	3.0	3.00	1.00	1,500	N	N	N	50	200	<1.0	N
MH417S	63 15 39	146 37 57	15.0	5.0	5.00	>1.00	1,500	N	N	N	30	150	<1.0	N
MH418S	63 28 3	144 52 59	5.0	1.5	1.50	1.00	1,000	N	N	N	200	1,000	2.0	N
MH419S	63 27 42	144 54 42	3.0	1.0	1.00	.50	700	N	N	N	70	1,000	2.0	N
MH420S	63 27 15	144 56 2	5.0	2.0	1.00	.50	1,000	N	N	N	150	1,000	3.0	N
MH421S	63 24 23	145 3 44	5.0	1.0	.70	1.00	1,000	N	N	N	200	700	1.5	N
MH422S	63 23 0	145 6 6	7.0	1.0	.50	>1.00	1,000	1.5	N	N	300	1,000	1.5	N
MH423S	63 22 26	145 3 14	7.0	1.0	1.50	.50	1,000	N	N	N	100	700	2.0	N
MH424S	63 23 2	145 2 1	5.0	1.0	.30	.50	700	<.5	N	N	150	1,000	1.5	N
MH425S	63 21 41	144 59 51	3.0	.7	2.00	.50	700	<.5	N	N	200	700	2.0	N
MH426D	63 21 6	144 59 49	7.0	1.5	.20	.50	500	.7	N	N	200	1,000	2.0	N
MH427D	63 20 38	144 59 31	7.0	1.0	.10	.50	500	N	N	N	150	1,000	2.0	N
MH428D	63 22 15	144 57 9	7.0	1.5	.10	.50	1,000	N	N	N	200	1,500	1.5	N
MH429S	63 23 31	144 57 20	5.0	1.5	.50	.70	1,000	N	N	N	150	1,000	1.5	N
MH430S	63 28 22	144 50 12	5.0	1.5	2.00	.50	1,000	N	N	N	150	700	2.0	N
MH431S	63 26 31	144 50 11	5.0	1.5	1.00	.50	1,000	N	N	N	150	1,000	2.0	N
MH432S	63 25 33	144 50 12	5.0	2.0	1.00	.30	700	N	N	N	150	700	1.0	N
MH433S	63 24 23	144 51 28	5.0	1.5	.30	.50	700	N	N	N	150	1,000	2.0	N
MH434S	63 25 1	144 50 55	7.0	1.0	.20	.50	1,000	N	N	N	150	1,000	2.0	N
MH435S	63 23 52	144 49 44	10.0	5.0	2.00	.70	1,500	N	N	N	200	1,500	1.5	N
MH436S	63 22 41	144 50 27	3.0	.3	.50	.50	500	N	N	N	100	500	1.5	N
MH437S	63 22 8	144 53 20	5.0	1.0	.20	.50	500	1.0	N	N	100	700	1.5	N
MH438D	63 20 58	144 53 22	7.0	2.0	.30	1.00	1,000	N	N	N	100	1,000	2.0	N
MH439D	63 21 21	144 51 59	5.0	1.0	.10	.50	700	N	N	N	200	1,000	2.0	N
MH440	63 18 2	144 54 14	3.0	1.5	.30	.70	1,000	N	N	N	150	700	1.5	N
MH441S	63 17 55	144 56 46	5.0	2.0	1.00	1.00	700	N	N	N	50	1,000	1.5	N
MH442D	63 18 14	144 58 35	10.0	2.0	.50	1.00	700	.5	N	N	100	3,000	2.0	N
MH443D	63 15 4	145 11 2	7.0	1.5	.30	1.00	500	.7	N	N	150	5,000	2.0	N
MH444D	63 15 4	145 12 10	15.0	5.0	5.00	.70	2,000	N	N	N	50	700	<1.0	N
MH445S	63 25 12	144 45 36	10.0	1.5	.70	1.00	1,000	N	N	N	200	2,000	2.0	N
MH446S	63 29 7	144 43 56	5.0	1.0	.50	.70	700	N	N	N	100	1,500	2.0	N
MH447S	63 28 35	144 41 15	2.0	.7	1.00	.15	700	.5	N	N	N	2,000	10.0	N
MH448S	63 27 52	144 40 29	5.0	2.0	1.00	.70	1,000	<.5	N	N	100	2,000	2.0	N
MH449S	63 27 38	144 38 46	5.0	1.5	.70	.70	1,500	N	N	N	100	1,500	2.0	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	S-W	S-Y
MH405S	N	30	150	70	50	N	20	50	10	N	20	N	700	500	N	50
MH406S	N	30	300	30	50	N	<20	70	15	N	20	N	700	300	N	50
MH407S	N	50	500	30	30	N	N	70	15	N	30	N	700	300	N	50
MH408S	N	30	500	30	50	N	<20	100	10	N	30	N	1,000	300	N	50
MH409S	N	70	700	100	30	N	<20	100	20	N	20	N	300	500	N	30
MH410S	N	15	100	100	30	15	N	100	10	N	20	N	300	300	N	70
MH411S	N	30	200	30	20	N	N	50	30	N	15	N	700	300	N	20
MH412S	N	30	200	50	30	N	N	70	15	N	20	N	700	300	N	20
MH413S	N	30	200	30	30	N	N	50	20	N	20	N	700	500	N	20
MH414S	N	30	150	30	30	N	N	30	15	N	20	N	1,000	300	N	30
MH415S	N	50	100	300	30	15	N	100	15	N	15	N	200	500	N	50
MH416S	N	70	200	300	<20	N	N	100	15	N	30	N	200	700	N	30
MH417S	N	100	700	700	<20	N	<20	150	10	N	30	N	200	1,000	N	30
MH418S	N	20	150	50	70	N	30	50	50	N	15	N	200	200	N	30
MH419S	N	15	150	20	70	N	<20	50	20	N	15	N	200	200	N	30
MH420S	N	70	200	50	100	N	<20	100	50	N	15	N	200	200	N	50
MH421S	N	20	100	70	50	N	20	50	30	N	10	N	100	150	N	50
MH422S	N	50	150	150	100	N	20	70	200	N	15	N	100	150	N	30
MH423S	N	50	150	150	70	N	20	50	20	N	20	N	150	200	N	50
MH424S	N	50	200	70	70	N	<20	70	30	N	15	N	100	150	N	50
MH425S	N	30	100	50	100	N	20	70	50	N	10	N	100	100	N	50
MH426D	N	50	200	50	70	N	20	70	70	N	20	N	100	200	N	50
MH427D	N	50	300	70	70	N	20	70	50	N	15	N	100	200	N	50
MH428D	N	50	300	100	100	N	<20	70	50	N	20	N	100	200	N	50
MH429S	N	50	200	50	70	N	<20	70	30	N	15	N	150	150	N	50
MH430S	N	30	500	30	70	N	20	100	50	N	20	N	300	150	N	50
MH431S	N	30	150	30	70	N	20	70	50	N	15	N	150	150	N	50
MH432S	N	50	700	70	70	N	<20	150	50	N	15	N	150	150	N	50
MH433S	N	30	300	50	50	N	<20	70	30	N	15	N	150	150	N	30
MH434S	N	30	200	50	70	N	<20	70	30	N	15	N	100	150	N	30
MH435S	N	70	2,000	100	70	N	30	200	50	N	20	N	200	200	N	50
MH436S	N	30	100	70	50	N	<20	70	30	N	10	N	100	70	N	30
MH437S	N	30	200	70	50	N	20	70	50	N	15	N	100	200	N	30
MH438D	N	30	200	70	70	N	<20	70	30	N	15	N	150	200	N	50
MH439D	N	30	150	50	70	N	<20	70	30	N	15	N	100	150	N	50
MH440	N	30	150	50	70	N	<20	70	30	N	15	N	100	150	N	30
MH441S	N	30	300	70	70	N	30	70	10	N	20	N	100	200	N	50
MH442D	N	30	100	70	150	N	30	70	100	N	30	N	100	300	N	70
MH443D	N	30	150	70	100	10	20	70	20	N	30	N	100	500	N	50
MH444D	N	70	500	200	50	N	N	15	10	N	50	N	700	1,000	N	30
MH445S	N	50	100	100	100	N	50	100	50	N	30	N	150	300	N	70
MH446S	N	30	70	50	70	N	20	70	15	N	20	N	150	150	N	50
MH447S	N	10	50	70	100	N	<20	10	70	N	15	50	200	100	N	70
MH448S	N	30	200	50	100	N	20	70	20	N	30	N	200	300	N	50
MH449S	N	20	100	20	150	N	30	30	30	N	30	N	200	200	N	70

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH405S	N	100	N	50
MH406S	N	500	N	90
MH407S	N	150	N	65
MH408S	N	500	N	75
MH409S	N	100	N	130
MH410S	500	100	N	340
MH411S	N	70	N	40
MH412S	N	70	N	65
MH413S	N	100	N	30
MH414S	N	150	N	50
MH415S	1,000	150	N	540
MH416S	N	50	N	40
MH417S	N	70	N	100
MH418S	N	300	N	70
MH419S	N	500	N	75
MH420S	N	300	N	75
MH421S	N	500	N	65
MH422S	N	1,000	N	120
MH423S	<200	200	N	85
MH424S	N	500	N	80
MH425S	N	300	N	120
MH426D	N	500	N	130
MH427D	N	300	N	80
MH428D	N	500	N	120
MH429S	N	700	N	80
MH430S	N	700	N	60
MH431S	N	300	N	80
MH432S	N	700	N	100
MH433S	N	200	N	85
MH434S	N	500	N	90
MH435S	N	1,000	N	110
MH436S	N	>1,000	N	60
MH437S	N	300	N	110
MH438D	N	300	N	90
MH439D	N	500	N	90
MH440	N	200	N	70
MH441S	N	700	N	70
MH442D	<200	500	N	130
MH443D	200	700	N	220
MH444D	<200	70	N	60
MH445S	<200	700	N	150
MH446S	<200	500	N	75
MH447S	300	1,000	N	220
MH448S	<200	500	N	55
MH449S	<200	500	N	50

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH450S	63 26 53	144 38 7	5.0	1.0	.70	.70	1,000	<.5	N	N	70	1,500	1.5	N
MH451S	63 26 57	144 37 48	5.0	1.5	1.50	.30	700	<.5	N	N	30	1,000	1.5	N
MH452S	63 31 6	144 43 34	5.0	1.0	.70	.30	1,000	N	N	N	50	1,500	3.0	N
MH453S	63 31 38	144 48 0	7.0	3.0	2.00	.50	1,500	.7	N	N	30	1,500	2.0	N
MH454S	63 32 32	144 45 42	5.0	2.0	1.00	.50	1,000	<.5	N	N	20	2,000	1.5	N
MH455S	63 32 29	144 46 3	3.0	1.0	.70	.30	700	N	N	N	20	1,500	2.0	N
MH456S	63 32 43	144 49 16	3.0	1.0	.70	.30	1,000	N	N	N	30	1,000	2.0	N
MH457S	63 21 19	144 38 17	7.0	1.5	1.00	.50	1,000	N	N	N	100	2,000	1.5	N
MH458S	63 21 2	144 39 56	7.0	1.0	.30	.50	700	<.5	N	N	150	1,500	1.5	N
MH459S	63 20 51	144 45 21	7.0	2.0	.30	.30	1,000	N	N	N	150	1,500	2.0	N
MH460S	63 18 59	144 48 32	7.0	1.5	.50	.50	700	N	N	N	100	1,000	2.0	N
MH461S	63 18 21	144 49 50	5.0	1.0	.70	1.00	1,000	N	N	N	200	700	1.5	N
MH462D	63 16 44	144 52 55	10.0	2.0	1.00	.70	1,500	N	N	N	30	>5,000	1.0	N
MH463D	63 15 50	144 53 15	10.0	3.0	.50	.70	3,000	N	N	N	50	>5,000	1.5	N
MH464D	63 15 24	144 50 25	5.0	2.0	1.00	.70	500	.5	N	N	30	3,000	1.0	N
MH465D	63 15 32	144 47 3	7.0	2.0	.70	.70	500	2.0	N	N	100	2,000	1.5	N
MH466D	63 17 19	144 47 26	10.0	2.0	.70	>1.00	700	.7	N	N	50	3,000	1.5	N
MH467S	63 17 2	144 41 36	10.0	2.0	.70	>1.00	700	1.5	N	N	30	5,000	1.5	N
MH468S	63 17 19	146 55 28	7.0	2.0	3.00	.70	1,000	N	N	N	70	1,000	1.0	N
MH469S	63 16 46	146 56 4	10.0	2.0	2.00	1.00	1,500	<.5	N	N	50	1,000	1.0	N
MH470S	63 17 40	146 58 22	10.0	3.0	3.00	>1.00	3,000	N	N	N	10	700	1.0	N
MH471S	63 16 22	146 59 20	10.0	3.0	3.00	.70	2,000	.5	N	N	50	1,000	1.0	N
MH472S	63 14 30	146 52 41	10.0	2.0	1.00	.50	700	<.5	N	N	30	700	1.0	N
MH473S	63 13 50	146 52 49	15.0	2.0	2.00	>1.00	1,500	1.0	N	N	30	500	<1.0	N
MH474S	63 13 28	146 54 12	10.0	2.0	.70	.70	1,000	.5	N	N	50	1,000	1.0	N
MH475S	63 13 21	146 53 32	10.0	1.0	.50	.50	700	1.0	N	N	100	3,000	1.0	N
MH476S	63 12 43	146 55 27	10.0	2.0	.70	.50	1,500	1.5	N	N	70	1,500	1.0	<10
MH477S	63 12 37	146 56 48	10.0	2.0	1.50	.70	1,500	N	N	N	70	1,000	1.0	N
MH478S	63 10 40	146 57 15	15.0	2.0	1.50	1.00	3,000	N	N	N	30	700	<1.0	N
MH479S	63 9 40	146 59 38	10.0	3.0	3.00	.70	1,000	N	N	N	20	1,500	<1.0	N
MH480S	63 9 17	146 56 25	15.0	3.0	2.00	1.00	2,000	N	N	N	30	500	<1.0	N
MH481S	63 7 22	146 57 4	10.0	3.0	2.00	1.00	1,000	N	N	N	20	700	<1.0	N
MH482S	63 1 54	145 33 9	10.0	3.0	2.00	1.00	1,500	N	N	N	15	500	<1.0	N
MH483S	63 0 4	145 36 12	10.0	2.0	1.50	.70	1,000	N	N	N	10	500	1.0	N
MH484S	63 0 10	145 38 44	10.0	2.0	1.50	.70	1,000	N	N	N	20	700	1.0	N
MH485D	63 25 22	146 14 27	5.0	1.0	2.00	.30	700	N	N	N	15	2,000	1.5	N
MH486D	63 26 29	146 12 41	2.0	.7	2.00	.30	500	N	N	N	10	1,000	1.0	N
MH487D	63 26 41	146 13 41	5.0	1.5	3.00	.50	700	.5	N	N	N	1,500	1.0	N
MH488D	63 25 4	146 20 11	2.0	.5	1.00	.15	500	<.5	N	N	N	1,500	2.0	N
MH489D	63 26 21	146 22 30	3.0	.5	1.50	.15	500	N	N	N	N	1,000	1.5	N
MH490D	63 26 25	146 19 47	3.0	.7	.70	.20	700	.5	N	N	30	1,500	1.5	N
MH491D	63 26 37	146 18 54	7.0	2.0	1.50	.70	1,000	N	N	N	<10	2,000	1.5	N
MH492D	63 27 21	146 20 41	3.0	.7	1.50	.20	700	<.5	N	N	15	2,000	1.0	N
MH493D	63 28 54	146 22 37	3.0	.7	1.50	.20	500	<.5	N	N	10	1,500	1.5	N
MH494D	63 28 31	146 25 55	10.0	2.0	.70	.50	1,000	<.5	N	N	20	1,500	2.0	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	S-W	S-Y
MH450S	N	30	70	70	100	N	20	70	20	N	30	N	200	150	N	50
MH451S	N	20	100	50	100	N	20	20	20	N	50	N	200	200	N	50
MH452S	N	20	50	20	100	N	<20	30	20	N	20	N	200	150	N	30
MH453S	N	30	700	70	100	15	<20	100	100	N	30	N	300	200	N	50
MH454S	N	20	200	30	150	N	<20	50	50	N	30	N	300	150	N	50
MH455S	N	15	15	10	150	N	N	15	30	N	20	N	200	100	N	30
MH456S	N	20	50	15	50	N	N	30	20	N	15	N	200	100	N	20
MH457S	N	30	100	70	150	N	N	70	30	N	30	N	200	150	N	70
MH458S	N	30	100	70	100	N	<20	70	20	N	20	N	150	100	N	50
MH459S	N	50	300	70	100	N	20	150	30	N	30	N	200	200	N	50
MH460S	N	30	300	50	100	N	20	70	20	N	20	N	100	150	N	50
MH461S	N	30	70	100	100	N	30	70	20	N	20	N	100	150	N	50
MH462D	N	50	50	200	20	N	<20	70	10	N	50	N	150	700	N	50
MH463D	N	70	100	300	70	5	20	150	15	N	50	N	100	700	N	50
MH464D	N	30	70	50	100	N	20	70	30	N	30	N	200	300	N	70
MH465D	N	50	200	200	50	15	<20	150	20	N	20	N	100	300	N	50
MH466D	N	50	150	70	70	7	30	150	10	N	30	N	200	700	N	50
MH467S	N	50	100	100	70	10	30	100	15	N	50	N	150	1,000	N	50
MH468S	N	20	100	150	20	N	N	70	10	N	30	N	500	500	N	30
MH469S	N	30	100	70	50	N	N	50	10	N	50	N	500	500	N	50
MH470S	N	30	200	10	150	N	20	30	10	N	70	N	700	500	N	70
MH471S	N	30	100	70	100	N	<20	50	30	N	70	N	700	500	N	50
MH472S	N	30	150	70	N	N	N	70	10	N	30	N	300	300	N	30
MH473S	N	70	300	300	N	30	<20	100	20	N	70	N	300	700	N	30
MH474S	N	50	150	150	70	N	N	70	15	N	50	N	200	500	N	30
MH475S	N	20	100	100	20	15	N	50	15	N	30	N	200	500	<50	50
MH476S	N	50	150	200	<20	15	N	70	200	N	30	N	200	300	N	50
MH477S	N	30	100	100	50	N	N	50	10	N	30	N	500	500	N	30
MH478S	N	50	1,000	200	150	N	N	70	10	N	50	N	300	500	N	70
MH479S	N	50	200	150	N	N	N	100	10	N	50	N	200	500	N	30
MH480S	N	70	200	300	N	N	N	100	10	N	70	N	300	700	N	20
MH481S	N	50	150	100	70	N	<20	70	15	N	50	N	500	700	N	50
MH482S	N	50	1,000	100	20	N	N	150	10	N	50	N	300	500	N	30
MH483S	N	50	200	150	<20	N	N	100	10	N	50	N	300	300	N	50
MH484S	N	50	700	70	20	N	<20	100	10	N	50	N	500	300	N	30
MH485D	N	15	20	15	50	<5	<20	15	15	N	20	N	700	200	N	30
MH486D	N	10	10	<5	N	N	N	5	15	N	15	N	700	150	N	20
MH487D	N	15	20	10	70	N	N	10	15	N	20	N	700	500	N	30
MH488D	N	10	10	10	70	N	N	10	15	N	10	N	300	100	N	30
MH489D	N	7	<10	7	50	N	N	5	15	N	10	N	500	100	N	20
MH490D	N	10	15	15	100	N	<20	15	15	N	15	N	500	150	N	50
MH491D	N	20	50	20	50	N	<20	30	20	N	30	N	700	300	N	20
MH492D	N	10	10	10	70	N	N	10	20	N	15	N	700	200	N	20
MH493D	N	15	10	7	50	50	<20	7	10	N	10	N	500	150	N	20
MH494D	N	30	100	50	70	N	<20	70	15	N	30	N	300	500	N	70

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH450S	<200	700	N	60
MH451S	N	300	N	40
MH452S	<200	700	N	65
MH453S	<200	700	N	70
MH454S	<200	500	N	45
MH455S	<200	500	N	30
MH456S	<200	300	N	50
MH457S	<200	700	N	80
MH458S	<200	700	N	85
MH459S	<200	700	N	65
MH460S	<200	500	N	55
MH461S	<200	700	N	65
MH462D	<200	200	N	70
MH463D	<200	300	N	130
MH464D	<200	200	N	190
MH465D	300	500	N	100
MH466D	500	300	N	110
MH467S	700	200	N	300
MH468S	<200	100	N	75
MH469S	<200	500	N	65
MH470S	<200	700	N	30
MH471S	<200	150	N	75
MH472S	<200	200	N	85
MH473S	<200	150	N	90
MH474S	<200	150	N	110
MH475S	200	200	N	160
MH476S	300	200	N	240
MH477S	<200	150	N	90
MH478S	<200	1,000	N	80
MH479S	<200	150	N	90
MH480S	<200	100	N	80
MH481S	<200	150	N	85
MH482S	<200	150	N	45
MH483S	<200	200	N	90
MH484S	<200	200	N	70
MH485D	<200	200	N	65
MH486D	N	150	N	30
MH487D	N	200	N	40
MH488D	N	300	N	50
MH489D	N	200	N	25
MH490D	<200	300	N	110
MH491D	<200	500	N	110
MH492D	<200	200	N	40
MH493D	<200	200	N	45
MH494D	<200	300	N	120

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH495D	63 30 43	146 28 32	10.0	5.0	5.00	.70	1,000	<.5	N	N	50	700	<1.0	N
MH496D	63 29 36	146 28 29	15.0	3.0	3.00	.70	2,000	<.5	N	N	20	>5,000	<1.0	N
MH497D	63 29 37	146 26 6	15.0	3.0	3.00	>1.00	1,500	.5	N	N	10	>5,000	<1.0	N
MH498D	63 26 15	146 21 39	10.0	5.0	3.00	>1.00	1,500	<.5	N	N	<10	1,000	<1.0	N
MH499D	63 30 45	146 18 55	5.0	1.0	.50	.30	700	.5	N	N	100	1,500	3.0	N
MH500D	63 29 38	146 19 49	5.0	1.0	.70	.70	700	1.0	N	N	100	>5,000	1.5	N
MH501S	63 29 21	146 16 46	7.0	2.0	2.00	.70	2,000	.5	N	N	300	1,500	1.5	N
MH502D	63 28 50	146 13 45	7.0	2.0	1.00	.70	1,500	.7	N	N	150	3,000	1.5	N
MH503S	63 28 39	146 11 0	7.0	2.0	5.00	.70	2,000	.5	N	N	100	700	1.0	N
MH504S	63 28 30	146 8 8	3.0	1.5	1.50	.50	1,000	<.5	N	N	70	300	1.0	N
MH505D	63 25 29	146 9 26	1.5	.3	1.50	.10	300	N	N	N	N	700	1.0	N
MH506D	63 26 28	146 8 30	1.5	.5	1.00	.10	300	<.5	N	N	N	2,000	1.5	N
MH507S	63 26 13	146 7 39	3.0	1.0	.70	.30	500	N	N	N	50	2,000	2.0	N
MH508D	63 28 12	146 5 4	5.0	3.0	5.00	.50	2,000	N	N	N	70	3,000	2.0	N
MH509D	63 24 9	146 3 52	10.0	2.0	.70	.70	1,000	<.5	N	N	200	1,500	1.5	N
MH510D	63 24 59	146 4 3	1.0	.2	.70	.10	500	N	N	N	100	300	2.0	N
MH511D	63 25 29	146 3 19	3.0	.7	.50	.30	500	N	N	N	70	500	1.5	N
MH512D	63 25 59	146 2 45	3.0	.5	1.00	.30	500	N	N	N	50	700	1.5	N
MH513D	63 27 21	145 59 57	5.0	1.0	.70	.50	700	N	N	N	150	1,000	2.0	N
MH514D	63 28 37	145 57 3	7.0	2.0	5.00	1.00	1,500	<.5	N	N	30	1,500	1.0	N
MH515S	63 25 23	145 38 45	10.0	1.0	.50	.70	700	<.5	N	N	150	700	2.0	N
MH516S	63 25 44	145 37 0	3.0	.3	1.00	.70	700	<.5	N	N	50	300	1.0	N
MH517D	63 26 40	145 32 24	5.0	.7	.20	1.00	700	N	N	N	70	500	1.5	N
MH518D	63 24 48	145 28 13	5.0	1.0	.10	.70	700	N	N	N	100	1,000	2.0	N
MH519D	63 25 41	145 33 22	5.0	1.5	.50	.50	700	N	N	N	100	500	2.0	N
MH520S	63 25 2	145 35 53	7.0	.7	.30	.70	700	<.5	N	N	50	300	1.5	N
MH521D	63 24 31	145 38 8	5.0	2.0	.20	.70	1,000	N	N	N	150	700	2.0	N
MH522S	63 23 4	145 36 34	5.0	1.5	.50	.70	700	N	N	N	100	500	3.0	N
MH523S	63 22 47	145 34 32	5.0	1.5	.20	.70	1,000	N	N	N	100	500	3.0	N
MH524D	63 21 53	145 28 50	5.0	1.0	.20	.30	700	N	N	N	70	500	5.0	N
MH525S	63 21 6	145 35 0	5.0	1.0	.10	.70	700	N	N	N	150	700	2.0	N
MH526S	63 20 19	145 32 1	5.0	1.5	.15	.70	1,000	N	N	N	150	700	2.0	N
MH527S	63 19 48	145 29 2	5.0	1.0	.30	.50	700	N	N	N	150	700	2.0	N
MH528D	63 19 29	145 26 14	7.0	1.5	.07	.50	500	N	N	N	150	1,000	2.0	N
MH529D	63 19 12	145 23 26	5.0	2.0	.30	.50	700	N	N	N	100	700	2.0	N
MH530D	63 18 48	145 27 59	7.0	3.0	2.00	.50	1,500	N	N	N	150	500	1.0	N
MH531D	63 19 31	145 34 6	10.0	3.0	2.00	.50	1,000	N	N	N	150	500	<1.0	N
MH532D	63 20 16	145 36 24	10.0	2.0	2.00	.50	2,000	.5	N	N	70	500	<1.0	N
MH533S	63 21 24	145 40 9	10.0	5.0	2.00	.70	1,000	.5	N	N	30	500	<1.0	N
MH534S	63 16 31	145 40 56	5.0	5.0	1.50	.70	1,000	N	N	N	50	1,000	<1.0	N
MH535S	63 16 36	144 28 33	5.0	1.5	.15	.70	1,000	.5	N	N	150	1,500	3.0	N
MH536S	63 16 21	144 23 57	5.0	1.0	.30	.50	700	N	N	N	100	700	2.0	N
MH537S	63 17 18	144 24 56	5.0	.7	.15	.70	700	N	N	N	150	700	2.0	N
MH538S	63 17 44	144 22 37	5.0	1.0	.70	.70	500	.5	N	N	150	2,000	2.0	N
MH539S	63 17 35	144 20 4	5.0	1.5	.70	.50	700	.5	N	N	100	2,000	2.0	N

sample	S-CO	S-CU	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
MH495D	N	70	200	70	N	N	N	70	<10	N	30	N	500	500	N	20
MH496D	N	50	150	70	N	N	N	70	10	N	30	N	700	300	N	20
MH497D	N	50	100	100	N	N	N	50	10	N	30	N	500	500	N	20
MH498D	N	50	100	100	N	N	<20	70	10	N	50	N	500	500	N	20
MH499D	N	20	50	50	100	5	20	30	20	N	20	N	150	150	N	30
MH500D	N	20	70	70	50	15	<20	70	10	N	20	N	300	500	N	30
MH501S	N	30	200	70	70	N	20	70	20	N	30	N	300	300	N	50
MH502D	N	50	150	100	100	20	20	100	20	N	30	N	300	500	N	50
MH503S	N	30	200	70	70	N	<20	100	15	N	50	N	300	300	N	50
MH504S	N	20	70	50	20	N	N	50	10	N	20	N	150	150	N	30
MH505D	N	5	<10	<5	N	N	N	5	10	N	10	N	700	70	N	15
MH506D	N	7	10	7	30	N	N	7	20	N	10	N	500	70	N	20
MH507S	N	15	50	30	20	N	<20	30	20	N	15	N	500	150	N	20
MH508D	N	30	50	30	300	N	<20	30	20	N	20	N	700	200	N	50
MH509D	N	50	200	70	70	N	<20	100	20	N	30	N	300	300	N	30
MH510D	N	5	10	5	30	N	N	10	10	N	5	N	200	50	N	20
MH511D	N	10	100	20	<20	N	N	30	10	N	15	N	150	100	N	15
MH512D	N	10	20	10	70	N	N	15	15	N	10	N	300	150	N	20
MH513D	N	20	150	50	50	5	<20	50	20	N	20	N	300	300	N	20
MH514D	N	30	100	15	70	N	N	15	15	N	30	N	700	500	N	20
MH515S	N	30	150	70	100	N	30	70	30	N	20	N	150	200	N	30
MH516S	N	30	15	50	20	N	20	50	100	N	10	N	100	50	N	20
MH517D	N	20	50	50	70	N	30	50	15	N	15	N	100	100	N	20
MH518D	N	30	100	70	100	N	20	50	20	N	30	N	150	200	N	30
MH519D	N	30	70	70	70	N	20	50	20	N	20	N	100	150	N	50
MH520S	N	30	50	50	70	N	20	70	50	N	15	N	100	100	N	30
MH521D	N	30	200	70	100	N	30	70	100	N	20	N	100	150	N	30
MH522S	N	30	200	50	70	N	30	70	20	N	20	N	100	150	N	30
MH523S	N	20	100	30	100	N	30	70	20	N	20	N	100	150	N	20
MH524D	N	20	50	30	100	15	70	30	20	N	15	N	100	150	N	50
MH525S	N	30	100	70	70	N	20	50	50	N	20	N	<100	150	N	70
MH526S	N	20	70	50	70	N	<20	50	50	N	20	N	100	150	N	50
MH527S	N	20	70	50	100	N	<20	30	20	N	15	N	100	100	N	20
MH528D	N	30	100	70	150	N	<20	50	30	N	30	N	100	200	N	50
MH529D	N	30	100	50	70	N	<20	70	20	N	20	N	100	150	N	30
MH530D	N	50	700	70	20	N	N	200	10	N	50	N	300	300	N	20
MH531D	N	50	500	100	N	N	N	150	10	N	50	N	300	300	N	30
MH532D	N	70	20	500	N	N	N	15	15	N	50	N	300	500	N	20
MH533S	N	30	150	100	<20	N	N	30	30	N	20	N	500	300	N	30
MH534S	N	20	1,000	50	20	N	N	100	15	N	15	N	300	200	N	20
MH535S	N	30	150	70	100	N	20	70	150	N	15	N	100	150	N	30
MH536S	N	15	150	70	30	N	20	70	30	N	15	N	100	100	N	20
MH537S	N	20	100	50	70	N	20	70	30	N	10	N	100	100	N	70
MH538S	N	20	150	50	50	5	20	70	50	N	15	N	100	200	N	30
MH539S	N	20	150	100	70	<5	<20	70	50	N	15	N	100	200	N	50

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH495D	<200	50	N	40
MH496D	<200	70	N	55
MH497D	<200	50	N	40
MH498D	<200	70	N	30
MH499D	<200	300	N	150
MH500D	200	200	N	190
MH501S	<200	200	N	85
MH502D	<200	300	N	170
MH503S	<200	150	N	60
MH504S	N	150	N	60
MH505D	N	200	N	20
MH506D	N	150	N	40
MH507S	<200	200	N	65
MH508D	N	300	N	50
MH509D	<200	300	N	100
MH510D	N	300	N	30
MH511D	<200	70	N	50
MH512D	<200	200	N	55
MH513D	<200	200	N	140
MH514D	<200	200	N	45
MH515S	<200	300	N	95
MH516S	<200	300	N	150
MH517D	<200	300	N	70
MH518D	<200	300	N	100
MH519D	<200	500	N	100
MH520S	<200	500	N	100
MH521D	<200	300	N	110
MH522S	<200	300	N	95
MH523S	<200	300	N	100
MH524D	<200	700	N	75
MH525S	<200	500	N	85
MH526S	<200	500	N	70
MH527S	<200	300	N	70
MH528D	<200	300	N	85
MH529D	<200	300	N	70
MH530D	<200	200	N	55
MH531D	<200	70	N	50
MH532D	<200	50	N	120
MH533S	<200	50	N	95
MH534S	<200	50	N	65
MH535S	<200	300	N	160
MH536S	<200	300	N	100
MH537S	<200	500	N	70
MH538S	500	200	N	300
MH539S	300	200	N	240

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH540S	63 18 1x	144 18 51	5.0	1.0	.70	.70	700	.7	N	N	70	3,000	1.5	N
MH541S	63 18 23	144 18 4	5.0	1.5	.70	.70	700	N	N	N	70	2,000	3.0	N
MH542S	63 18 x	144 17 54	5.0	1.0	.20	.50	700	N	N	N	200	1,000	3.0	N
MH543S	63 18 5x	144 15 11	7.0	1.0	1.00	.70	700	N	N	N	100	1,500	3.0	N
MH544S	63 18 x	144 13 46	3.0	1.5	.50	.50	500	N	N	N	30	1,500	1.5	N
MH545S	63 18 21	144 9 3x	5.0	.7	.70	1.00	500	5.0	N	N	200	700	2.0	N
MH546S	63 17 2x	144 5 51	5.0	1.5	1.00	.50	1,000	<.5	N	N	70	1,500	1.0	N
MH547S	63 16 11	144 x 5x	5.0	2.0	1.00	.70	700	N	N	N	50	1,500	1.5	N
MH548S	63 15 4x	144 9 41	5.0	2.0	1.00	.70	500	<.5	N	N	70	2,000	2.0	N
MH549S	63 15 17	144 12 48	5.0	1.5	.50	.50	700	<.5	N	N	100	1,000	3.0	N
MH550S	63 15 21	144 10 23	5.0	1.5	.50	.50	500	<.5	N	N	100	1,500	2.0	N
MH551S	63 14 2x	144 10 19	5.0	2.0	.30	.50	500	.5	N	N	100	2,000	2.0	N
MH552S	63 14 3	144 12 49	7.0	5.0	2.00	.70	1,000	<.5	N	N	70	3,000	1.5	N
MH553S	63 12 24	144 11 15	5.0	3.0	.50	.70	700	.5	N	N	100	1,500	2.0	N
MH554S	63 11 41	144 12 23	5.0	3.0	1.50	1.00	1,000	<.5	N	N	70	1,500	1.5	N
MH555S	63 11 32	144 13 37	2.0	2.0	1.50	.30	700	<.5	N	N	50	1,500	1.0	N
MH556D	63 10 33	144 15 45	7.0	1.5	1.50	>1.00	1,000	.5	N	N	20	3,000	1.5	N
MH557D	63 10 4x	144 16 48	7.0	1.5	.50	.70	1,000	<.5	N	N	50	1,500	2.0	N
MH558S	63 8 15	144 7 5	10.0	1.5	1.50	1.00	1,000	1.0	N	N	70	1,500	1.5	N
MH559S	63 8 44	144 5 35	7.0	1.5	.50	1.00	700	N	N	N	70	1,500	2.0	N
MH560S	63 9 6	144 6 2	7.0	1.0	.50	.50	700	N	N	N	150	700	2.0	N
MH561S	63 10 6	144 2 53	7.0	2.0	.15	.50	700	.5	N	N	70	2,000	2.0	N
MH562S	63 10 18	144 4 19	5.0	1.5	.50	.70	1,000	N	N	N	50	1,500	1.5	N
MH563S	63 10 35	144 1 45	10.0	.7	.15	.70	1,000	N	N	N	150	2,000	3.0	N
MH564S	63 11 57	144 0 14	5.0	1.5	.20	.30	700	<.5	N	N	100	>5,000	2.0	N
MH565S	63 13 22	144 3 1	10.0	2.0	.70	.70	1,000	N	N	N	100	>5,000	1.5	N
MH566S	63 13 44	144 1 42	7.0	2.0	.30	.50	700	N	N	N	50	3,000	1.5	N
MH567S	63 18 9	144 5 48	10.0	1.5	.50	.50	700	1.0	N	N	50	2,000	1.5	N
MH568S	63 18 55	144 6 49	10.0	1.5	.50	.70	700	N	N	N	100	1,500	2.0	N
MH569D	63 15 31	144 27 43	10.0	2.0	1.50	.30	700	<.5	N	N	30	2,000	2.0	N
MH570S	63 18 55	144 3 22	10.0	1.5	1.00	.50	700	<.5	N	N	50	1,500	2.0	N
MH571S	63 19 5	144 2 2	10.0	1.5	.70	.50	700	.5	N	N	50	5,000	1.5	N
MH572S	63 19 3x	144 3 19	10.0	2.0	.30	.50	700	N	N	N	70	2,000	2.0	N
MH573S	63 21 54	144 3 36	10.0	1.5	.30	.70	700	N	N	N	30	2,000	2.0	N
MH574S	63 23 20	144 3 7	10.0	2.0	1.00	.50	500	N	N	N	50	1,000	1.5	N
MH575S	63 23 52	144 4 34	10.0	2.0	1.50	.70	700	N	N	N	50	700	2.0	N
MH576S	63 22 16	144 x 46	7.0	1.0	.50	.70	500	.5	N	N	100	1,000	2.0	N
MH578S	63 22 48	144 7 51	7.0	2.0	.30	.70	700	N	N	N	30	3,000	3.0	N
MH579S	63 24 52	144 7 3x	7.0	1.5	1.00	.50	700	N	N	N	30	1,000	1.5	N
MH580S	63 24 52	144 8 22	7.0	1.5	.70	.70	700	.5	N	N	100	1,000	2.0	N
MH581S	63 25 37	144 x 14	5.0	1.0	.50	.70	700	N	N	N	50	1,000	3.0	N
MH582S	63 25 5x	144 16 4x	10.0	2.0	.70	.70	1,000	.5	N	N	70	1,500	3.0	N
MH583S	63 25 1x	144 18 x5	5.0	1.5	.30	.70	700	<.5	N	N	100	1,000	2.0	N
MH584S	63 24 39	144 21 59	3.0	.7	.50	.50	1,000	<.5	N	N	100	700	3.0	N
MH585S	63 24 41	144 24 52	3.0	.5	.30	.30	500	1.0	N	N	50	700	2.0	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	S-W	S-Y
MH540S	N	20	150	100	100	<5	20	100	150	N	15	N	100	200	N	30
MH541S	N	30	300	70	50	N	20	100	30	N	15	N	100	200	N	30
MH542S	N	30	100	150	100	N	20	100	30	N	15	N	<100	100	N	30
MH543S	N	20	150	50	100	N	20	50	15	N	15	N	100	150	N	30
MH544S	N	10	50	30	50	N	<20	15	20	N	15	N	<100	100	N	30
MH545S	N	30	100	70	50	N	20	100	30	N	10	N	100	100	N	30
MH546S	N	20	200	70	100	N	<20	70	50	N	15	N	200	200	N	30
MH547S	N	15	150	70	50	N	<20	30	30	N	20	N	100	150	N	30
MH548S	N	<20	150	70	70	N	20	50	70	N	20	N	100	150	N	50
MH549S	N	30	100	50	70	N	<20	50	50	N	15	N	100	100	N	50
MH550S	N	20	150	100	50	N	<20	70	30	N	15	N	<100	100	N	30
MH551S	N	20	100	70	100	N	<20	70	100	N	15	N	<100	100	N	50
MH552S	N	20	150	50	70	N	<20	50	30	N	20	N	300	150	N	30
MH553S	N	20	150	100	70	N	<20	70	100	N	15	N	100	150	N	50
MH554S	N	20	150	70	70	N	20	70	50	N	15	N	300	200	N	30
MH555S	N	15	70	50	30	N	N	30	30	N	10	N	500	100	N	15
MH556D	N	50	100	70	70	10	30	70	20	N	50	N	300	500	N	50
MH557D	N	30	70	70	50	5	20	70	70	N	20	N	100	200	N	30
MH558S	N	50	100	100	70	N	20	100	20	N	30	N	150	300	N	30
MH559S	N	50	70	50	100	5	30	70	30	N	30	N	100	200	N	50
MH560S	N	50	70	70	100	5	20	70	20	N	20	N	100	150	N	70
MH561S	N	30	100	100	100	N	20	70	70	N	30	N	100	300	N	50
MH562S	N	30	100	100	100	N	30	70	70	N	20	N	<100	200	N	50
MH563S	N	30	100	70	100	N	30	70	30	N	30	N	100	200	N	50
MH564S	N	20	50	70	100	5	20	70	20	N	20	N	100	200	N	50
MH565S	N	30	50	70	100	<5	20	70	15	N	20	N	150	300	N	50
MH566S	N	20	70	70	70	<5	<20	50	15	N	30	N	100	200	N	50
MH567S	N	30	70	70	100	N	20	70	70	N	30	N	100	150	N	50
MH568S	N	50	100	50	150	N	20	50	30	N	30	N	100	200	N	50
MH569D	N	30	100	30	70	5	N	50	10	N	30	N	300	200	N	30
MH570S	N	50	150	70	100	N	20	70	20	N	30	N	100	200	N	30
MH571S	N	50	150	150	100	N	20	70	70	N	30	N	100	200	N	50
MH572S	N	50	70	70	100	N	30	70	15	N	20	N	100	200	N	70
MH573S	N	50	70	100	70	N	20	30	15	N	30	N	100	300	N	30
MH574S	N	30	70	50	100	N	<20	50	20	N	30	N	200	200	N	30
MH575S	N	30	100	50	100	<5	20	50	30	N	50	N	300	200	N	30
MH576S	N	70	70	70	150	N	20	70	30	N	20	N	100	150	N	50
MH575S	N	30	200	30	70	N	30	70	10	N	30	N	100	200	N	30
MH579S	N	30	100	20	100	N	<20	30	15	N	30	N	200	200	N	50
MH580S	N	30	70	50	70	N	30	70	20	N	20	N	150	200	N	30
MH581S	N	20	70	50	100	N	20	50	20	N	20	N	100	150	N	30
MH582S	N	30	200	70	100	N	30	70	50	N	20	<10	300	300	N	30
MH583S	N	30	150	70	70	5	20	70	20	N	30	N	150	200	N	70
MH584S	N	20	100	30	70	N	<20	50	15	N	20	N	150	100	N	50
MH585S	N	15	20	15	50	N	<20	20	10	N	15	N	100	70	N	30

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH540S	500	[illegible]	N	280
MH541S	<200	500	N	170
MH542S	<200	300	N	110
MH543S	<200	300	N	35
MH544S	N	150	N	85
MH545S	<200	1,000	N	30
MH546S	200	200	N	210
MH547S	<200	200	N	110
MH548S	200	200	N	260
MH549S	<200	200	N	120
MH550S	N	300	N	110
MH551S	<200	300	N	210
MH552S	<200	200	N	110
MH553S	<200	200	N	200
MH554S	<200	150	N	110
MH555S	N	100	N	40
MH556D	<200	200	N	160
MH557D	200	300	N	160
MH558S	<200	200	N	160
MH559S	<200	700	N	110
MH560S	<200	500	N	80
MH561S	200	300	N	170
MH562S	300	500	N	260
MH563S	<200	500	N	120
MH564S	<200	300	N	150
MH565S	200	500	N	130
MH566S	<200	200	N	110
MH567S	<200	300	N	150
MH568S	<200	300	N	80
MH569D	<200	300	N	90
MH570S	<200	300	N	110
MH571S	300	500	N	300
MH572S	<200	300	N	100
MH573S	<200	500	N	90
MH574S	N	300	N	50
MH575S	N	300	N	70
MH576S	<200	1,000	N	90
MH578S	<200	300	N	100
MH579S	<200	200	N	50
MH580S	<200	300	N	70
MH581S	<200	300	N	70
MH582S	<200	700	N	80
MH583S	<200	500	N	80
MH584S	<200	200	N	45
MH585S	<200	200	N	40

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH586S	63 23 11	144 26 12	10.0	1.5	1.50	.70	1,000	N	N	N	30	2,000	2.0	N
MH587S	63 23 36	144 30 4	10.0	1.5	1.00	>1.00	1,500	N	N	N	50	1,000	2.0	<10
MH588D	63 18 25	144 44 43	7.0	2.0	.30	.70	500	1.0	N	N	20	2,000	1.5	<10
MH589S	63 19 1	144 41 18	5.0	1.5	.50	.50	700	N	N	N	100	1,000	3.0	N
MH590S	63 20 6	144 38 33	7.0	1.5	.30	.50	700	.5	N	N	100	1,000	2.0	<10
MH591S	63 20 40	144 36 59	10.0	1.5	.30	.50	1,000	<.5	N	N	100	1,500	2.0	N
MH592S	63 21 14	144 33 46	10.0	2.0	.70	.70	1,000	.7	500	N	100	1,500	1.5	<10
MH593S	63 20 14	144 32 21	3.0	.7	.07	.30	700	1.0	300	N	100	700	2.0	<10
MH594S	63 19 44	144 31 38	7.0	1.5	.30	.50	700	1.5	N	N	150	1,000	1.5	N
MH595S	63 19 37	144 32 8	7.0	2.0	.20	.50	700	1.5	700	N	150	1,000	2.0	<10
MH596S	63 23 40	144 35 51	5.0	1.0	1.50	.30	1,000	N	N	N	50	700	2.0	N
MH597S	63 23 36	144 37 34	7.0	1.5	.50	.70	1,000	.5	N	N	100	1,500	2.0	N
MH598S	63 24 5	144 39 54	10.0	2.0	.70	.70	1,000	<.5	N	N	100	1,500	2.0	N
MH599S	63 23 50	144 42 9	5.0	1.0	1.00	.70	500	N	N	N	100	1,000	1.5	N
MH600S	63 24 0	144 41 28	10.0	1.5	.50	1.00	700	<.5	N	N	150	2,000	3.0	N
MH601S	63 24 10	144 33 7	7.0	2.0	1.00	.70	1,000	<.5	N	N	70	2,000	2.0	N
MH602S	63 19 27	144 29 17	7.0	1.5	.30	.70	700	.5	N	N	150	1,500	2.0	N
MH603S	63 22 30	144 29 4	10.0	1.5	.70	.50	700	.7	N	N	30	>5,000	2.0	N
MH604S	63 20 34	144 30 0	3.0	.7	.70	.30	700	N	N	N	50	1,000	3.0	N
MH605S	63 20 23	144 28 40	5.0	.7	.50	.50	700	N	N	N	30	1,500	2.0	N
MH606S	63 26 7	144 27 50	5.0	1.0	.70	.50	1,000	<.5	N	N	70	1,000	2.0	N
MH607S	63 21 56	144 21 12	10.0	1.5	.50	1.00	700	N	N	N	50	2,000	2.0	N
MH608S	63 21 57	144 21 42	7.0	1.5	.20	.70	500	.5	N	N	30	5,000	2.0	N
MH609S	63 22 46	144 17 36	7.0	1.5	.50	.70	700	<.5	N	N	50	3,000	2.0	N
MH610S	63 22 42	144 17 2	10.0	1.5	.70	.70	700	N	N	N	150	2,000	2.0	N
MH611S	63 23 11	144 16 56	10.0	2.0	1.00	1.00	700	<.5	N	N	150	3,000	2.0	N
MH612S	63 24 10	144 17 6	5.0	1.5	.70	.70	700	N	N	N	100	1,500	2.0	N
MH613D	63 31 4	145 35 37	10.0	2.0	.20	.70	700	N	N	N	100	3,000	2.0	N
MH614S	63 32 39	145 38 6	10.0	1.5	.30	.70	1,500	.5	N	N	150	1,500	2.0	N
MH615S	63 32 26	145 38 6	5.0	.7	.70	.70	1,000	N	N	N	150	700	1.5	N
MH616S	63 32 47	145 38 37	10.0	2.0	.15	.70	2,000	N	N	N	150	2,000	2.0	N
MH617D	63 30 57	146 41 5	10.0	5.0	15.00	.70	1,000	<.5	N	N	150	100	1.0	N
MH618D	63 30 24	146 43 53	5.0	1.5	2.00	.30	1,000	N	N	N	30	1,500	1.0	N
MH619D	63 31 31	146 45 4	7.0	7.0	15.00	.70	1,000	N	N	N	100	1,500	<1.0	N
MH620D	63 31 31	146 47 52	10.0	5.0	3.00	1.00	1,500	N	N	N	50	1,500	2.0	N
MH621S	63 30 22	146 48 33	3.0	1.0	5.00	.30	700	N	N	N	30	1,000	1.0	N
MH622S	63 31 34	146 50 21	20.0	10.0	5.00	>1.00	2,000	N	N	N	15	500	<1.0	N
MH623D	63 30 13	146 53 3	2.0	1.0	2.00	.20	500	N	N	N	30	1,500	1.0	N
MH624D	63 32 1	146 54 39	15.0	7.0	5.00	>1.00	2,000	N	N	N	50	1,000	<1.0	N
MH625D	63 32 43	146 54 1	10.0	7.0	7.00	>1.00	2,000	N	N	N	20	700	1.0	N
MH626D	63 33 7	146 55 32	10.0	5.0	5.00	1.00	2,000	<.5	N	N	10	1,500	1.5	N
MH627D	63 32 39	146 56 22	7.0	5.0	5.00	.70	1,500	N	N	N	200	1,500	1.0	N
MH628S	63 32 12	146 57 52	5.0	1.0	5.00	.50	1,000	<.5	N	N	200	1,000	3.0	N
MH629S	63 31 29	146 54 32	10.0	1.0	.50	.50	1,000	N	N	N	200	1,500	2.0	N
MH630S	63 30 30	146 57 26	7.0	1.5	1.50	.50	1,000	N	N	N	200	1,500	2.0	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	S-W	S-Y
MH586S	N	50	100	70	100	N	30	50	20	N	30	N	200	200	N	50
MH587S	N	30	70	20	100	N	50	30	20	N	50	10	200	300	N	70
MH588D	N	30	70	70	70	N	30	50	100	N	30	<10	100	200	N	50
MH589S	N	30	70	70	100	N	30	50	30	N	20	N	100	150	N	30
MH590S	N	50	70	150	150	N	30	70	50	N	20	N	<100	150	N	50
MH591S	N	30	100	100	100	N	30	70	50	N	30	N	100	200	N	50
MH592S	N	70	200	150	150	N	30	100	100	N	30	N	100	300	N	70
MH593S	N	30	100	50	70	N	20	50	70	N	20	N	100	150	N	20
MH594S	N	30	70	70	100	N	20	50	150	N	20	N	<100	200	N	50
MH595S	N	50	70	70	100	N	20	50	100	N	20	N	100	150	N	70
MH596S	N	20	100	20	100	N	<20	30	30	N	50	N	300	200	N	70
MH597S	N	30	100	50	70	N	30	50	20	N	30	N	150	200	N	50
MH598S	N	50	150	100	70	N	30	70	50	N	50	N	150	300	N	50
MH599S	N	50	70	70	70	N	30	50	20	N	20	N	100	150	N	30
MH600S	N	50	150	100	150	N	30	100	70	N	30	N	150	200	N	70
MH601S	N	30	150	50	100	N	<20	70	50	N	50	N	200	300	N	50
MH602S	N	100	100	70	150	N	20	70	50	N	20	N	<100	150	N	70
MH603S	N	30	100	500	70	N	20	70	70	N	30	N	100	200	N	50
MH604S	N	20	150	30	70	N	20	30	20	N	20	N	200	150	N	50
MH605S	N	20	70	20	150	N	30	20	20	N	20	N	150	150	50	50
MH606S	N	30	100	50	150	N	<20	50	15	N	30	N	200	150	N	50
MH607S	N	70	100	100	150	N	50	70	20	N	30	N	100	200	N	100
MH608S	N	30	100	100	100	5	50	70	70	N	30	N	<100	300	<50	50
MH609S	N	30	100	100	70	N	30	70	70	N	30	N	100	200	<50	30
MH610S	N	50	150	100	100	N	50	70	30	N	30	N	100	200	N	70
MH611S	N	70	150	100	100	N	30	100	20	N	30	N	150	150	N	50
MH612S	N	30	100	70	70	N	30	50	20	N	30	N	100	150	N	30
MH613D	N	50	100	50	150	<5	30	70	50	N	50	<10	200	300	N	70
MH614S	N	50	100	150	100	N	30	100	70	N	30	N	150	150	N	50
MH615S	N	30	70	70	70	N	<20	70	15	N	20	N	150	70	N	30
MH616S	N	50	100	70	100	N	30	70	50	N	30	N	200	200	N	50
MH617D	N	50	700	70	50	N	<20	150	50	N	20	N	1,000	500	N	70
MH618D	N	7	30	5	30	N	N	<5	50	N	7	N	700	200	N	20
MH619D	N	50	500	50	50	N	N	150	30	N	20	N	1,500	700	N	50
MH620D	N	50	300	20	70	N	20	150	50	N	20	N	500	300	N	70
MH621S	N	7	50	7	70	N	20	5	30	N	15	N	700	200	N	70
MH622S	N	70	700	7	20	N	20	100	10	N	30	N	500	500	N	20
MH623D	N	7	30	5	50	N	N	5	30	N	7	N	500	150	N	30
MH624D	N	70	500	30	20	N	<20	70	10	N	30	N	700	500	N	30
MH625D	N	70	700	20	20	N	<20	50	10	N	30	N	700	700	N	30
MH626D	N	30	200	7	30	N	<20	15	30	N	20	N	700	300	N	30
MH627D	N	30	500	15	50	N	<20	30	20	N	20	N	700	500	N	30
MH628S	N	30	150	50	100	N	N	70	70	N	20	N	200	150	N	50
MH629S	N	50	200	70	100	N	<20	150	50	N	20	N	150	200	N	50
MH630S	N	30	150	50	100	N	20	150	50	N	15	N	200	200	N	50

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH586S	<200	500	N	75
MH587S	<200	300	N	85
MH588S	200	200	N	180
MH589S	<200	300	N	120
MH590S	<200	1,000	N	90
MH591S	<200	500	N	100
MH592S	<200	1,000	N	130
MH593S	200	300	N	130
MH594S	<200	500	N	120
MH595S	<200	500	N	120
MH596S	N	700	N	55
MH597S	<200	200	N	70
MH598S	<200	300	N	100
MH599S	<200	500	N	65
MH600S	<200	500	N	110
MH601S	<200	200	N	80
MH602S	200	1,000	N	140
MH603S	700	200	N	340
MH604S	N	1,000	N	40
MH605S	N	>1,000	N	45
MH606S	<200	200	N	60
MH607S	<200	700	N	130
MH608S	700	300	N	340
MH609S	300	300	N	240
MH610S	<200	500	N	110
MH611S	<200	300	N	100
MH612S	<200	700	N	85
MH613D	<200	300	N	90
MH614S	<200	500	N	120
MH615S	<200	500	N	85
MH616S	<200	300	N	120
MH617D	<200	300	N	80
MH618D	N	>1,000	N	35
MH619D	N	200	N	75
MH620D	N	300	N	50
MH621S	N	1,000	N	15
MH622S	N	10	N	15
MH623D	N	100	N	35
MH624D	N	50	N	30
MH625D	<200	70	N	15
MH626D	N	300	N	20
MH627S	N	200	N	35
MH628S	N	100	N	95
MH629S	N	300	N	110
MH630S	N	500	N	85

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH631S	63 30 2	145 59 31	5.0	2.0	5.00	.70	1,500	N	N	N	200	1,500	1.5	N
MH632S	63 30 29	145 56 48	7.0	1.0	.70	.70	1,000	N	500	N	200	1,500	1.5	N
MH633S	63 33 21	145 51 38	7.0	1.0	1.00	.50	1,000	<.5	N	N	200	1,500	2.0	N
MH634S	63 32 37	145 51 31	10.0	2.0	.50	.70	1,500	<.5	N	N	300	1,500	2.0	N
MH635S	63 34 29	145 47 30	7.0	1.5	.50	.70	1,000	N	N	N	200	1,000	2.0	N
MH636S	63 36 2	145 45 51	7.0	1.0	.50	.50	1,000	N	N	N	150	1,000	2.0	N
MH637S	63 38 1	145 41 15	2.0	.2	.15	.50	300	N	N	N	150	1,000	1.0	N
MH638S	63 37 43	145 39 40	10.0	2.0	1.00	.50	1,000	N	N	N	200	1,500	2.0	N
MH639S	63 38 33	145 35 29	5.0	1.5	1.00	.70	1,000	N	N	N	150	1,000	1.5	N
MH640S	63 36 53	145 33 36	10.0	2.0	1.50	1.00	1,500	N	N	N	150	1,000	2.0	N
MH641S	63 36 2	145 32 30	20.0	2.0	1.00	>1.00	1,500	N	N	N	200	1,500	1.0	N
MH642S	63 35 56	145 32 38	20.0	3.0	2.00	>1.00	2,000	N	N	N	200	1,000	1.0	N
MH643S	63 34 21	145 33 55	10.0	2.0	2.00	>1.00	2,000	N	N	N	100	700	2.0	N
MH644S	63 36 25	145 37 12	10.0	3.0	.50	>1.00	2,000	<.5	N	N	150	1,000	3.0	N
MH645S	63 36 3	145 38 10	10.0	5.0	1.50	1.00	1,000	<.5	N	N	200	1,500	2.0	N
MH646S	63 33 12	145 40 55	10.0	3.0	2.00	>1.00	1,000	N	N	N	200	1,000	2.0	N
MH647S	63 32 38	145 41 15	10.0	2.0	2.00	>1.00	1,000	N	N	N	200	1,000	2.0	N
MH648S	63 32 9	145 41 4	10.0	3.0	.50	1.00	1,000	N	N	N	150	1,500	2.0	N
MH649S	63 29 49	145 41 8	10.0	5.0	1.00	>1.00	1,500	N	N	N	200	2,000	2.0	N
MH650S	63 28 52	145 50 46	7.0	2.0	1.50	>1.00	1,500	N	N	N	150	1,000	2.0	N
MH651S	63 28 32	145 52 32	10.0	5.0	5.00	>1.00	1,500	N	N	N	100	1,000	1.0	N
MH652S	63 27 23	145 51 16	10.0	5.0	3.00	1.00	1,500	N	N	N	150	1,000	<1.0	N
MH653S	63 26 10	145 46 36	5.0	1.5	.50	.70	1,000	N	N	N	100	700	1.5	N
MH654S	63 18 35	145 43 31	7.0	5.0	5.00	.70	1,000	N	N	N	50	1,000	<1.0	N
MH655S	63 18 0	145 46 21	5.0	7.0	5.00	1.00	1,500	N	N	N	30	700	<1.0	N
MH656S	63 12 51	145 31 24	5.0	10.0	1.50	.30	1,000	N	N	N	20	200	<1.0	N
MH657S	63 13 57	145 37 2	5.0	5.0	3.00	.70	1,000	N	N	N	150	700	1.0	N
MH658S	63 14 58	145 34 15	10.0	7.0	5.00	.50	1,000	N	N	N	100	1,000	<1.0	N
MH659S	63 12 38	145 39 54	7.0	5.0	5.00	.70	1,000	N	N	N	50	700	<1.0	N
MH660S	63 14 13	145 41 32	7.0	5.0	5.00	.70	1,500	N	N	N	70	700	<1.0	N
MH661S	63 14 41	145 47 8	3.0	3.0	5.00	.50	1,000	N	N	N	20	500	<1.0	N
MH662S	63 15 27	145 48 53	7.0	7.0	5.00	1.00	1,500	N	N	N	100	700	<1.0	N
MH663S	63 17 1	145 52 55	7.0	5.0	3.00	.50	1,000	N	N	N	70	1,000	<1.0	N
MH664S	63 16 5	145 59 24	10.0	5.0	7.00	.70	1,500	N	N	N	70	1,000	<1.0	N
MH665S	63 5 2	146 52 11	7.0	3.0	3.00	1.00	1,000	N	N	N	50	700	1.0	N
MH666S	63 5 51	146 49 27	10.0	5.0	5.00	1.00	1,500	N	N	N	50	700	<1.0	N
MH667S	63 6 31	146 47 45	15.0	5.0	3.00	1.00	1,500	N	N	N	70	700	<1.0	N
MH668S	63 7 59	146 48 29	10.0	3.0	5.00	.70	1,500	N	N	N	50	500	<1.0	N
MH669S	63 8 26	146 47 36	2.0	1.0	1.50	.30	1,000	N	N	N	30	500	1.0	N
MH670S	63 9 22	146 46 32	10.0	5.0	5.00	.50	1,500	N	N	N	50	500	<1.0	N
MH671S	63 10 22	146 49 50	15.0	5.0	5.00	.70	1,500	N	N	N	70	700	<1.0	N
MH672S	63 10 4	146 49 59	15.0	5.0	5.00	.70	1,500	N	N	N	70	500	<1.0	N
MH673S	63 7 22	146 43 28	7.0	3.0	3.00	.50	1,500	10.0	N	N	50	700	<1.0	N
MH674S	63 12 37	146 46 22	7.0	5.0	5.00	.50	1,500	N	N	N	50	500	<1.0	N
MH675S	63 12 46	146 43 4	20.0	2.0	10.00	.30	2,000	N	N	N	50	700	<1.0	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	S-W	S-Y
MH631S	N	50	300	70	100	N	20	150	30	N	20	N	500	300	N	50
MH632S	N	50	200	70	100	N	<20	150	100	N	15	N	150	200	N	30
MH633S	N	30	200	50	100	N	<20	100	70	N	20	N	200	200	N	50
MH634S	N	50	300	70	100	N	<20	150	70	N	20	N	200	200	N	50
MH635S	N	50	150	50	100	N	20	150	50	N	15	N	150	200	N	50
MH636S	N	30	150	30	70	N	<20	100	50	N	15	N	100	150	N	30
MH637S	N	10	70	20	20	N	<20	20	50	N	7	N	<100	70	N	15
MH638S	N	50	200	100	100	N	<20	150	70	N	15	N	150	200	N	50
MH639S	N	30	150	50	70	N	<20	70	30	N	15	N	150	150	N	30
MH640S	N	50	300	100	70	N	<20	70	50	N	20	N	150	300	N	50
MH641S	N	50	500	70	70	N	<20	70	70	N	30	N	150	500	N	50
MH642S	N	50	200	70	70	N	20	70	100	N	15	N	150	300	N	30
MH643S	N	70	700	300	50	N	20	100	50	N	15	N	150	150	N	30
MH644S	N	50	200	100	200	N	20	100	70	N	20	N	150	200	N	70
MH645S	N	50	200	200	100	N	<20	100	100	N	20	N	200	150	N	50
MH646S	N	50	200	100	150	N	20	100	50	N	20	N	200	200	N	70
MH647S	N	50	150	70	150	N	20	100	50	N	15	N	200	150	N	70
MH648D	N	50	300	50	100	N	<20	100	50	N	20	N	200	150	N	50
MH649D	N	50	200	50	100	N	20	70	100	N	20	N	200	200	N	70
MH650S	N	30	150	100	70	N	<20	100	50	N	20	N	150	200	N	50
MH651S	N	70	300	70	70	N	30	100	15	N	30	N	700	300	N	50
MH652S	N	50	500	70	50	5	30	100	50	N	20	N	300	300	N	50
MH653S	N	30	150	30	50	N	<20	70	50	N	15	N	150	100	N	30
MH654S	N	30	1,000	50	50	N	N	100	30	N	30	N	500	500	N	50
MH655S	N	50	>5,000	30	30	N	N	300	10	N	20	N	500	500	N	50
MH656S	N	100	>5,000	30	20	N	N	2,000	<10	N	15	N	150	300	N	10
MH657S	N	50	>5,000	50	30	N	N	300	10	N	20	N	300	500	N	50
MH658S	N	70	5,000	200	30	N	N	200	10	N	30	N	700	500	N	30
MH659S	N	50	5,000	50	20	N	N	200	10	N	30	N	500	500	N	30
MH660S	N	50	2,000	100	30	N	N	200	20	N	30	N	500	500	N	50
MH661S	N	30	5,000	70	20	N	N	150	<10	N	30	N	300	200	N	30
MH662S	N	70	>5,000	50	30	N	N	500	20	N	20	N	300	500	N	30
MH663S	N	70	3,000	70	20	N	N	300	15	N	30	N	200	500	N	30
MH664S	N	70	>5,000	100	20	N	N	300	10	N	30	N	700	500	N	30
MH665S	N	30	500	100	30	N	<20	70	20	N	30	N	300	500	N	30
MH666S	N	70	700	70	50	N	N	70	15	N	30	N	500	1,000	N	30
MH667S	N	70	500	100	30	N	<20	100	10	N	30	N	200	1,000	N	20
MH668S	N	70	500	100	30	N	N	100	10	N	30	N	300	500	N	30
MH669S	N	10	200	50	N	N	N	30	10	N	15	N	200	150	N	15
MH670S	N	70	500	150	30	N	N	100	10	N	30	N	300	500	N	30
MH671S	N	70	700	300	20	N	<20	100	<10	N	30	N	300	1,000	N	30
MH672S	N	70	700	200	30	N	<20	150	<10	N	30	N	300	1,000	N	30
MH673S	N	30	500	70	30	N	N	70	10	N	20	N	500	500	N	30
MH674S	N	50	500	300	20	N	N	70	10	N	30	N	200	500	N	30
MH675S	N	50	150	200	20	N	N	50	15	N	20	N	300	700	N	50

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH631S	N	100	N	140
MH632S	<200	300	N	110
MH633S	N	500	N	100
MH634S	<200	500	N	110
MH635S	N	500	N	90
MH636S	N	300	N	70
MH637S	N	500	N	40
MH638S	<200	500	N	80
MH639S	N	300	N	55
MH640S	N	300	N	65
MH641S	N	1,000	N	80
MH642S	N	1,000	N	65
MH643S	N	300	N	90
MH644S	N	200	N	95
MH645S	N	200	N	100
MH646S	N	500	N	100
MH647S	N	500	N	95
MH648D	N	200	N	100
MH649D	300	300	N	190
MH650S	200	100	N	110
MH651S	N	200	N	130
MH652S	N	200	N	135
MH653S	N	700	N	75
MH654S	N	100	N	65
MH655S	N	300	N	65
MH656S	<200	20	N	60
MH657S	N	100	N	75
MH658S	N	70	N	75
MH659S	N	20	N	50
MH660S	N	100	N	60
MH661S	N	70	N	55
MH662S	N	150	N	75
MH663S	200	70	N	100
MH664S	N	70	N	75
MH665S	<200	100	N	100
MH666S	<200	300	N	80
MH667S	N	100	N	85
MH668S	<200	100	N	100
MH669S	<200	50	N	100
MH670S	N	70	N	85
MH671S	N	100	N	85
MH672S	N	100	N	80
MH673S	N	70	N	65
MH674S	N	70	N	80
MH675S	N	100	N	40

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH676S	63 10 29	146 37 42	5.0	2.0	2.00	.50	1,000	N	N	N	50	700	<1.0	N
MH677S	63 12 49	146 35 18	10.0	5.0	5.00	.70	1,500	N	N	N	30	300	<1.0	N
MH678S	63 14 53	146 36 42	15.0	5.0	7.00	1.00	1,500	N	N	N	30	150	<1.0	N
MH679S	63 11 47	146 35 21	10.0	5.0	5.00	.70	1,500	N	N	N	50	700	<1.0	N
MH680S	63 7 37	146 35 33	5.0	2.0	3.00	.50	1,000	N	N	N	50	1,000	1.0	N
MH681S	63 3 25	146 17 6	5.0	1.5	2.00	.70	2,000	N	N	N	70	700	<1.0	N
MH682S	63 6 41	145 59 36	10.0	5.0	5.00	1.00	1,500	N	N	N	30	1,000	<1.0	N
MH683S	63 9 11	145 57 41	10.0	5.0	5.00	.70	2,000	N	N	N	20	500	<1.0	N
MH684S	63 7 1	145 56 37	10.0	5.0	5.00	.70	3,000	N	N	N	50	3,000	7.0	N
MH685S	63 4 57	145 53 18	7.0	5.0	5.00	.50	1,500	N	N	N	70	700	<1.0	N
MH686S	63 6 51	145 45 34	10.0	10.0	7.00	.70	2,000	N	N	N	70	700	<1.0	N
MH687S	63 7 40	145 40 42	5.0	3.0	2.00	.50	700	N	N	N	70	700	<1.0	N
MH688S	63 3 58	145 35 37	10.0	5.0	5.00	.50	1,000	N	N	N	50	1,000	<1.0	N
MH689S	63 5 22	145 36 10	7.0	.2	1.00	.15	200	<.5	N	N	30	150	1.0	N
MH690S	63 4 50	145 41 27	5.0	5.0	3.00	.50	1,000	N	N	N	70	700	1.0	N
MH691S	63 4 35	145 42 43	3.0	3.0	3.00	.50	1,000	.5	N	N	50	700	1.0	N
MH692S	63 44 6	146 58 3	2.0	2.0	.70	.20	300	<.5	N	N	70	2,000	1.0	N
MH693S	63 43 31	146 56 45	5.0	1.5	3.00	.50	1,500	N	N	N	200	1,000	2.0	N
MH694S	63 45 49	146 56 55	3.0	3.0	2.00	.50	500	N	N	N	150	2,000	1.0	N
MH695S	63 45 43	146 52 50	5.0	5.0	3.00	.30	1,000	N	N	N	100	1,000	1.5	N
MH696S	63 47 51	146 48 24	3.0	2.0	2.00	.50	1,000	.5	N	N	100	1,000	2.0	N
MH697S	63 47 16	146 46 48	5.0	2.0	1.50	.70	1,000	N	N	N	150	2,000	2.0	N
MH698S	63 48 46	146 45 31	5.0	3.0	5.00	.50	1,000	N	N	N	100	2,000	2.0	N
MH699S	63 49 6	146 49 1	3.0	1.5	1.50	.30	500	.5	N	N	150	3,000	2.0	N
MH700S	63 51 32	146 54 36	3.0	2.0	2.00	.70	1,000	N	N	N	100	2,000	1.5	N
MH701S	63 49 49	146 56 19	5.0	3.0	2.00	.50	700	N	N	N	100	2,000	2.0	N
MH702S	63 49 56	146 55 51	7.0	5.0	2.00	.50	1,000	N	N	N	100	2,000	1.5	N
MH703S	63 50 22	146 57 2	3.0	3.0	2.00	.30	1,000	1.5	N	N	150	1,500	2.0	N
MH704S	63 49 17	146 59 49	5.0	3.0	2.00	.50	1,000	<.5	N	N	150	2,000	2.0	N
MH705S	63 51 57	146 42 2	3.0	2.0	2.00	.50	700	.5	N	N	100	>5,000	1.0	N
MH706S	63 53 7	146 39 47	5.0	2.0	2.00	.50	1,500	<.5	N	N	100	2,000	2.0	N
MH707S	63 51 43	146 34 45	5.0	3.0	2.00	.30	1,000	.7	N	N	100	>5,000	2.0	N
MH708S	63 52 0	146 35 17	7.0	5.0	3.00	.30	1,000	1.0	N	N	100	>5,000	1.5	N
MH709S	63 48 50	146 30 38	5.0	5.0	2.00	.50	1,500	N	N	N	100	2,000	2.0	N
MH710S	63 48 29	146 30 22	5.0	3.0	2.00	.30	1,500	N	N	N	100	2,000	2.0	N
MH711S	63 47 21	146 31 27	5.0	2.0	1.00	1.00	3,000	N	N	N	150	2,000	3.0	N
MH712S	63 47 14	146 35 31	3.0	1.5	1.50	.50	500	N	N	N	100	1,500	2.0	N
MH713S	63 47 3	146 35 24	3.0	2.0	1.50	.30	700	<.5	N	N	100	2,000	2.0	N
MH714S	63 44 24	146 26 32	5.0	5.0	3.00	1.00	1,500	N	N	N	150	2,000	1.5	N
MH715S	63 41 49	146 27 15	5.0	2.0	3.00	1.00	1,000	N	N	N	100	1,000	1.0	N
MH716S	63 41 24	146 42 29	5.0	5.0	3.00	1.00	1,500	<.5	N	N	300	1,500	2.0	N
MH717S	63 41 45	146 38 38	7.0	5.0	2.00	.50	1,500	<.5	N	N	200	2,000	2.0	N
MH718S	63 40 0	146 39 36	10.0	2.0	.50	.70	700	.5	N	N	300	5,000	3.0	N
MH719S	63 39 27	146 39 24	10.0	5.0	1.00	.70	1,500	.7	N	N	200	2,000	1.0	N
MH720S	63 42 40	146 33 18	7.0	2.0	.50	1.00	1,500	<.5	N	N	150	1,500	2.0	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	S-W	S-Y
MH676S	N	30	200	50	30	N	N	50	10	N	20	N	500	500	N	20
MH677S	N	50	300	100	30	N	N	50	10	N	20	N	300	500	N	20
MH678S	N	100	500	200	20	N	<20	100	10	N	50	N	200	1,000	N	30
MH679S	N	50	500	100	30	N	N	70	10	N	30	N	500	500	N	30
MH680S	N	30	300	100	30	N	N	70	15	N	20	N	500	300	N	30
MH681S	N	50	700	50	30	N	N	70	15	N	30	N	300	500	N	30
MH682S	N	70	3,000	150	20	N	N	150	15	N	30	N	300	1,000	N	30
MH683S	N	50	500	300	20	N	N	100	10	N	20	N	300	500	N	20
MH684S	N	50	1,000	200	30	N	N	150	30	N	20	N	500	500	N	30
MH685S	N	70	>5,000	100	30	N	N	200	10	N	20	N	300	300	N	30
MH686S	N	70	>5,000	150	30	N	N	500	15	N	30	N	500	700	N	30
MH687S	N	30	2,000	50	30	N	N	150	15	N	20	N	200	500	N	30
MH688S	N	50	>5,000	100	50	N	N	200	15	N	30	N	500	500	N	30
MH689S	N	N	100	50	N	N	N	20	<10	N	10	N	<100	70	N	20
MH690S	N	50	2,000	70	20	N	N	200	10	N	20	N	300	200	N	30
MH691S	N	30	1,000	30	20	N	N	100	10	N	20	N	500	200	N	20
MH692S	N	10	50	10	100	N	<20	20	50	N	20	N	150	100	N	50
MH693S	N	20	150	100	150	N	N	70	30	N	15	N	150	150	N	50
MH694S	N	15	200	20	100	N	<20	50	50	N	20	N	500	500	N	50
MH695S	N	30	200	50	70	N	N	50	50	N	20	N	500	300	N	50
MH696S	N	20	150	30	100	7	<20	50	70	N	15	N	500	200	N	50
MH697S	N	20	150	30	50	N	<20	50	30	N	20	N	300	300	N	50
MH698S	N	20	200	30	100	5	<20	50	50	N	20	N	500	300	N	50
MH699S	N	15	200	20	100	N	<20	50	70	N	15	N	500	300	N	50
MH700S	N	20	200	20	100	N	<20	30	50	N	20	N	500	500	N	50
MH701S	N	20	200	20	100	N	<20	50	70	N	20	N	500	500	N	50
MH702S	N	30	300	30	100	5	<20	70	70	N	20	N	500	500	N	50
MH703S	N	20	200	20	100	N	<20	70	30	N	20	N	200	300	N	50
MH704S	N	30	300	50	100	N	<20	70	70	N	20	N	300	500	N	50
MH705S	N	30	200	50	70	N	<20	70	30	N	15	N	200	300	N	30
MH706S	N	50	200	30	70	5	<20	70	30	N	20	N	300	200	N	30
MH707S	N	30	500	50	100	5	<20	100	70	N	20	N	500	300	N	50
MH708S	N	50	700	70	70	7	N	150	70	N	20	N	700	300	N	50
MH709S	N	30	500	20	70	N	<20	70	50	N	30	N	700	300	N	50
MH710S	N	50	300	30	70	N	N	100	70	N	20	N	500	200	N	50
MH711S	N	50	500	30	100	N	<20	100	50	N	15	N	500	200	N	30
MH712S	N	15	150	15	70	N	<20	30	30	N	20	N	300	200	N	30
MH713S	N	20	700	30	150	N	N	100	30	N	15	N	700	200	N	30
MH714S	N	30	500	50	70	N	<20	150	50	N	30	N	500	200	N	70
MH715S	N	30	150	50	100	N	50	70	20	N	30	N	150	200	N	70
MH716S	N	50	700	50	200	N	20	150	70	N	20	N	200	200	N	70
MH717S	N	30	500	70	150	N	<20	100	70	N	20	N	150	200	N	50
MH718S	N	50	500	100	200	7	<20	150	70	N	30	<10	150	300	N	70
MH719S	N	70	700	100	50	5	<20	200	50	N	20	N	300	300	N	50
MH720S	N	30	200	50	150	N	N	100	100	N	20	N	100	200	N	70

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH676S	N	50	N	55
MH677S	N	70	N	40
MH678S	N	70	N	55
MH679S	N	200	N	60
MH680S	N	70	N	45
MH681S	N	200	N	55
MH682S	N	150	N	75
MH683S	<200	70	N	75
MH684S	N	100	N	140
MH685S	<200	50	N	50
MH686S	<200	70	N	50
MH687S	N	70	N	55
MH688S	N	70	N	70
MH689S	N	30	N	35
MH690S	N	100	N	55
MH691S	N	200	N	45
MH692S	N	100	N	60
MH693S	N	150	N	80
MH694S	N	200	N	65
MH695S	N	200	N	80
MH696S	N	300	N	80
MH697S	N	500	N	70
MH698S	N	200	N	60
MH699S	N	300	N	80
MH700S	N	500	N	130
MH701S	N	500	N	75
MH702S	N	200	N	95
MH703S	N	1,000	N	55
MH704S	N	200	N	80
MH705S	<200	150	N	100
MH706S	<200	200	N	100
MH707S	<200	300	N	100
MH708S	500	100	N	210
MH709S	N	200	N	65
MH710S	300	100	N	260
MH711S	N	200	N	110
MH712S	N	300	N	45
MH713S	<200	70	N	90
MH714S	<200	200	N	110
MH715S	N	500	N	45
MH716S	N	200	N	75
MH717S	<200	100	N	95
MH718S	<200	200	N	150
MH719S	<200	100	N	120
MH720S	<200	300	N	100

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
MH721S	63 46 27	146 47 21	5.0	1.5	1.00	.70	1,000	N	N	N	100	1,500	1.5	N
MH722S	63 46 0	146 16 59	15.0	3.0	5.00	>1.00	2,000	N	N	N	50	1,500	<1.0	N
MH723S	63 47 56	146 10 33	3.0	1.5	1.00	.70	300	N	N	N	70	1,500	1.0	N
MH724S	63 7 48	145 3 20	10.0	7.0	10.00	>1.00	2,000	N	N	N	50	1,000	<1.0	N
MH725S	63 5 44	145 27 55	10.0	5.0	7.00	.70	2,000	N	N	N	50	1,000	<1.0	N
MH726D	63 6 30	145 28 55	20.0	7.0	5.00	1.00	1,500	N	N	N	30	700	<1.0	N
MH727D	63 10 0	145 25 5	10.0	10.0	7.00	.50	1,500	.5	N	N	20	1,000	<1.0	N
MH728S	63 27 0	144 4 2	5.0	2.0	1.00	.50	500	N	N	N	150	1,500	1.5	N
MH729S	63 27 29	144 2 21	10.0	2.0	2.00	.70	1,500	N	N	N	100	1,000	2.0	N
MH730S	63 27 6	144 13 12	5.0	2.0	2.00	.70	1,000	N	N	N	100	1,500	2.0	N
MH731S	63 29 37	144 17 30	2.0	1.0	1.00	.30	1,000	N	N	N	70	1,000	2.0	N
MH732S	63 29 44	144 19 32	3.0	2.0	2.00	.50	1,000	N	N	N	200	1,500	3.0	N
MH733S	63 29 14	144 20 53	3.0	.7	.50	.50	1,000	<.5	N	N	150	700	1.5	N
MH734S	63 30 46	144 19 22	3.0	1.0	1.50	.50	700	N	N	N	100	1,500	1.5	N
MH735S	63 31 12	144 22 11	5.0	1.5	1.50	.50	1,000	N	N	N	50	1,500	2.0	N
MH736S	63 31 32	144 23 44	2.0	.7	1.50	.30	700	N	N	N	30	1,500	2.0	N
MH737S	63 30 44	144 25 14	3.0	1.5	3.00	.30	1,000	N	N	N	15	2,000	2.0	N
MH738S	63 30 29	144 24 47	7.0	1.0	2.00	.30	1,000	N	N	N	50	2,000	1.5	N
MH739S	63 30 53	144 30 9	1.5	.7	2.00	.20	700	<.5	N	N	30	2,000	2.0	N
MH740S	63 35 12	144 39 15	5.0	1.0	3.00	.50	1,000	N	N	N	70	1,500	1.5	N
MH741S	63 35 31	144 39 27	5.0	1.5	1.50	.30	1,000	N	N	N	70	1,500	1.0	N
MH742S	63 36 24	144 36 59	5.0	2.0	1.00	.70	700	N	N	N	100	1,500	2.0	N
MH743S	63 37 1	144 37 34	5.0	2.0	1.00	.50	1,500	N	N	N	100	1,500	1.5	N
MH744S	63 35 20	144 32 33	1.5	.7	1.50	.10	700	7.0	N	N	50	1,500	7.0	N
MH745S	63 33 10	144 35 39	1.5	.5	2.00	.10	500	1.0	N	N	50	1,500	5.0	N
MH746S	63 33 0	144 30 50	3.0	1.0	2.00	.30	700	N	N	N	50	2,000	2.0	N
MH747S	63 35 5	144 28 26	3.0	1.5	1.50	.50	1,000	<.5	N	N	70	1,000	2.0	N
MH748S	63 34 59	144 27 6	5.0	1.5	1.00	1.00	700	N	N	N	70	1,000	2.0	N
MH749S	63 35 54	144 25 14	3.0	1.5	2.00	.50	5,000	N	N	N	70	1,000	2.0	N
MH750S	63 36 47	144 24 48	3.0	1.0	2.00	.30	5,000	N	N	N	70	1,500	1.5	N
MH751S	63 36 16	144 20 26	3.0	1.5	3.00	.20	1,000	N	N	N	70	1,500	1.5	N
MH752S	63 36 35	144 20 22	3.0	1.5	3.00	.50	1,500	<.5	N	N	200	1,500	2.0	N
MH753S	63 33 44	144 20 16	3.0	1.5	2.00	.50	1,000	N	N	N	70	1,500	2.0	N
MH754S	63 32 9	144 15 44	5.0	1.0	1.50	.50	700	N	N	N	70	1,500	2.0	N
MH755S	63 38 10	144 32 32	5.0	2.0	2.00	.50	1,000	N	N	N	50	1,500	2.0	N
MH756S	63 38 29	144 33 6	5.0	2.0	2.00	.70	1,500	N	N	N	100	1,500	2.0	N
MH757S	63 36 15	144 47 18	1.5	.7	1.50	.20	700	N	N	N	50	1,500	2.0	N
MH758S	63 35 39	144 46 51	2.0	.7	2.00	.30	700	N	N	N	50	1,500	1.5	N
MH759S	63 35 25	144 49 18	3.0	1.0	2.00	.50	1,000	N	N	N	100	1,500	2.0	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	S-W	S-Y
MH721S	N	20	150	50	100	N	<20	50	30	N	15	N	200	150	N	50
MH722S	N	50	500	7	50	N	<20	30	20	N	30	N	300	200	N	30
MH723S	N	15	150	15	50	N	<20	30	30	N	15	N	150	150	N	30
MH724S	N	50	>5,000	30	30	N	N	200	10	N	50	N	500	500	N	50
MH725S	N	50	5,000	50	30	N	N	150	20	N	30	N	700	700	N	30
MH726D	N	70	>5,000	70	20	N	N	200	20	N	30	N	300	1,000	N	30
MH727D	N	50	5,000	70	30	N	N	300	20	N	50	N	1,000	500	N	30
MH728S	N	30	200	50	100	N	N	100	50	N	15	N	200	200	N	50
MH729S	N	50	200	50	70	N	<20	70	30	N	70	N	300	300	N	70
MH730S	N	30	200	20	100	5	50	50	50	N	30	N	500	300	N	50
MH731S	N	7	50	7	70	N	<20	7	50	N	7	N	200	150	N	50
MH732S	N	15	200	50	70	N	<20	50	70	N	15	N	300	150	N	50
MH733S	N	15	100	30	50	N	<20	50	15	N	10	N	150	100	N	30
MH734S	N	15	200	7	50	N	50	30	30	N	15	N	500	200	N	50
MH735S	N	15	70	10	70	N	<20	10	50	N	15	N	300	150	N	70
MH736S	N	7	100	7	70	N	<20	5	30	N	15	N	300	100	N	50
MH737S	N	7	30	5	100	N	N	<5	50	N	15	N	500	150	N	50
MH738S	N	15	70	7	150	N	<20	5	70	N	15	N	500	200	N	70
MH739S	N	5	15	7	100	N	N	<5	100	N	7	N	500	50	N	30
MH740S	N	20	150	7	50	N	N	20	30	N	30	N	500	150	N	50
MH741S	N	30	200	10	70	N	N	30	30	N	20	N	300	200	N	50
MH742S	N	20	200	20	70	<5	<20	50	50	N	20	N	300	200	N	50
MH743S	N	50	300	30	70	N	N	70	50	N	20	N	200	200	N	50
MH744S	N	7	20	50	70	N	N	5	150	N	10	500	300	70	50	50
MH745S	N	7	15	50	100	N	N	5	150	N	10	200	300	70	N	50
MH746S	N	10	30	7	70	N	N	10	70	N	15	N	700	150	N	50
MH747S	N	15	150	50	50	N	N	70	70	N	20	50	200	150	<50	50
MH748S	N	20	150	20	100	N	<20	100	30	N	20	N	200	200	N	30
MH749S	N	20	150	20	70	N	<20	70	50	N	15	N	300	150	N	30
MH750S	N	15	70	20	50	7	N	20	50	N	15	N	500	150	N	50
MH751S	N	20	100	20	50	N	N	30	50	N	20	N	500	200	N	30
MH752S	N	20	100	20	70	<5	<20	20	50	N	30	N	500	200	N	50
MH753S	N	10	150	7	70	N	<20	15	30	N	20	N	500	200	N	50
MH754S	N	15	150	15	100	N	<20	30	50	N	15	N	300	150	N	50
MH755S	N	20	150	20	70	N	<20	50	50	N	20	N	300	300	N	30
MH756S	N	30	200	50	100	N	50	100	70	N	20	N	300	200	N	70
MH757S	N	7	100	<5	50	N	N	7	70	N	7	N	200	70	N	15
MH758S	N	10	70	<5	70	N	N	10	70	N	10	N	200	100	N	30
MH759S	N	15	150	10	50	N	<20	50	50	N	15	N	300	150	N	30

sample	S-ZN	S-ZR	S-TH	AA-ZN-P
MH721S	N	300	N	65
MH722S	<200	200	N	50
MH723S	N	200	N	50
MH724S	<200	200	N	45
MH725S	<200	200	N	50
MH726D	<200	300	N	55
MH727D	<200	70	N	60
MH728S	<200	200	N	55
MH729S	N	500	N	95
MH730S	N	1,000	N	40
MH731S	N	500	N	35
MH732S	N	1,000	N	35
MH733S	N	500	N	200
MH734S	N	300	N	35
MH735S	N	500	N	45
MH736S	N	>1,000	N	35
MH737S	N	500	N	30
MH738S	N	>1,000	N	35
MH739S	N	500	N	75
MH740S	N	>1,000	N	40
MH741S	N	300	N	50
MH742S	N	500	N	45
MH743S	N	200	N	65
MH744S	500	300	N	210
MH745S	500	500	N	270
MH746S	N	200	N	35
MH747S	N	300	N	85
MH748S	N	200	N	55
MH749S	N	300	N	50
MH750S	N	200	N	45
MH751S	N	200	N	40
MH752S	N	500	N	45
MH753S	N	>1,000	N	35
MH754S	N	700	N	35
MH755S	N	300	N	60
MH756S	<200	300	N	80
MH757S	N	200	N	25
MH758S	N	300	N	45
MH759S	N	500	N	15