UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analyses of Rocks and Stream Sediment from the Magruder Corridor Roadless Area, Idaho County, Idaho

By

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Studies Related to Wilderness

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a geochemical survey of the Magruder Corridor roadless area in the Bitterroot National Forest, Idaho County, Idaho. The Magruder Corridor roadless area was included in the Selway-Bitterroot Wilderness by Public Law 96-312, July 23, 1980.

Introduction

The geochemical evaluation of the Magruder Corridor roadless area consisted of the collection and analyses of 775 samples. These samples included 673 rocks and 102 stream sediments. The stream-sediment samples were separated by various preparation techniques into three fractions to be analyzed: a less than 170-mesh (0.090 mm) fraction, a magnetic heavy-mineral-concentrate fraction, and a nonmagnetic heavy-mineral-concentrate fraction. The sample localities and analytical results are listed in this report.

Analyses were performed by Elwin L. Mosier. The analytical data were entered into the RASS II computer storage system by C. M. McDougal and S. K. McDanal. Geochemical sampling was carried out by field parties of the U.S. Geological Survey, which included F. E. Mutschler, M. R. Pawlowski, Steve Azadian, Patty Billings, Robert Bruce, Bethany Bye, Gerry Cotton, W. R. Greenwood, Thomas Hanley, Patsy Miller, and Glen Schaeffer.

Location

The study area is located in Idaho just over the Idaho-Montana border, approximately 100 miles south of Missoula, Montana. The area is in the southern portion of the Bitterroot Mountains and encompasses much of the headwater territory of the Selway River (fig. 1).

Sample preparation

Rock samples were crushed and pulverized to less than 100-mesh (0.15 mm) in a vertical pulverizer with ceramic plates.

At each stream-sediment site, approximately one liter of sediment, screened to -10 mesh (1.0 mm), was taken. In the field laboratory, this material was dried and sieved. The less than 170-mesh (0.090 mm) fraction was analyzed without further preparation. The greater than 170-mesh (0.090 mm)

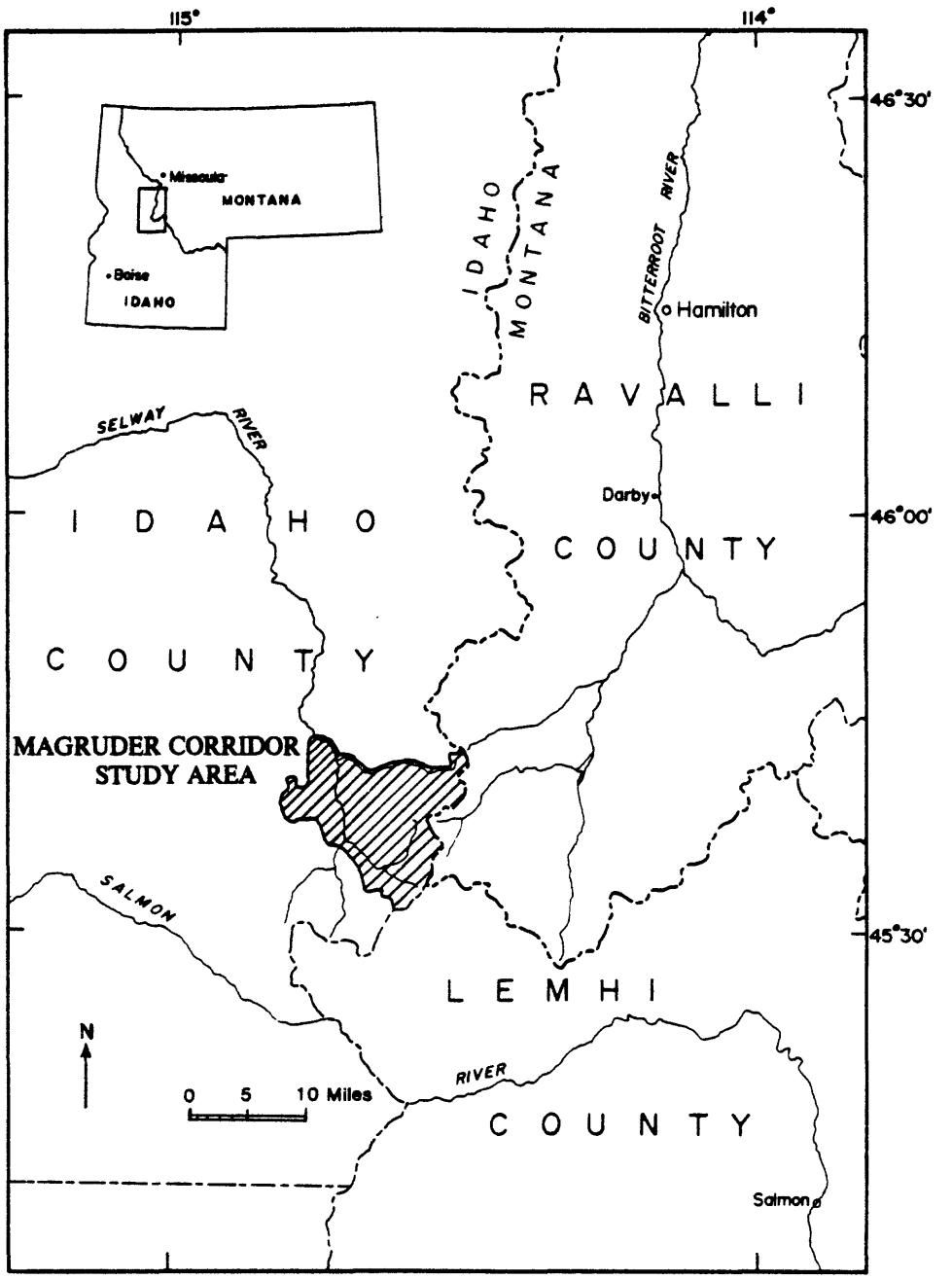

Figure 1.--Index map showing location of the study area.

but less than 35-mesh (0.5 mm) material was further processed with a Wilfley concentrating table to obtain a concentrate made up largely of minerals with a specific gravity greater than 0.0. The less dense material was discarded. From the heavy-mineral concentrate, the ferromagnetic minerals were separated out with a hand magnet (magnetic fraction). This fraction and the remaining heavy-mineral fraction (nonmagnetic fraction) were pulverized by mortar and pestle and analyzed separately.

Preparation of the samples for analysis was performed both in the project mobile laboratory and at the U.S. Geological Survey laboratories in Golden, Colorado, by B. W. Coxe, M. E. Koesterer, G. L. Sims, Robert Wheaton, James Scott, and Gerry Cotton.

Analytical procedures

Each sample was analyzed semiquantitatively for 31 elements by a size-step d.c.-arc optical emission spectrographic method (Grimes and Marranzino, 1968). All analyses were performed at the U.S. Geological Survey laboratories in Golden, Colorado, by Elwin L. Mosier.

The semiquantitative spectrographic values are reported as six steps per order of magnitude (1, 0.7, 0.5, 0.3, 0.2, 0.15, or multiples of ten of these numbers) and are approximate geometric midpoints of the concentration ranges. Due to the high concentration of iron, titanium, and zirconium in the heavy-mineral concentrates, a modification of the analytical procedure, described by Grimes and Marranzino, is necessary. To reduce spectral interferences, each of these samples is diluted to half its original concentration by an equal amount of pure SiO_2. Consequently, the lower limits of detection for each element are doubled.

One hundred and three analyses on eleven different standard reference samples analyzed with the samples enabled us to monitor the precision of the

analytical method. One standard was randomly placed within each block of 23 samples. The precision generally exceeds the 83 percent and 96 percent frequency values for plus or minus one and two adjoining reporting intervals of the mean value (Motooka and Grimes, 1976). This higher level of precision is expected when one analyst uses one spectrographic instrument and completes the analyses in a relatively short time.

Explanation of data tables

All values are in units of parts per million except those for iron, magnesium, calcium, and titanium, which are in units of percent. Qualifying codes N, L, and G are used for values near or outside of the upper and lower detection limits. In these cases, the detection limit is reported with the qualifying code following. Code N indicates the element was not detected for that sample. Code L indicates the element was detected, but the value was at or below the lower quantifiable limit. Code G indicates the value was greater than the upper quantifiable limit.

Stream-sediment heavy-mineral-concentrate samples

Reported along with the raw analytical data for the three fractions of stream-sediment samples are statistical summaries of the data. Frequency distributions and histograms, reported on logarithmic scales and employing the same class intervals used in reporting six-step semiquantitative spectrographic data, have been computed for each element, and the geometric mean and geometric deviation have also been computed and are reported here.

Rock samples

Age designations for the rock samples are tentative, and names given under rock type are field designations. The explanation of formation symbols is given on page 102a.

Sample number system

Example--79WR001A

The first and second numbers indicate the year the sample was taken. The third and fourth characters are the sampler's initials. Fifth, sixth, and seventh numbers indicate the station at which the sample was taken. Eighth and ninth characters indicate the sample type.

Suffixes (eighth and ninth characters):

A, B, C--R are rock samples.

A1 and A2 are replicate rock samples.

SF--stream sediment-fine fraction (-170 mesh).

SM--stream sediment-magnetic fraction of heavy-mineral concentrate.

SN--stream sediment-nonmagnetic fraction of heavy-mineral concentrate.

TF, TN, TM--replicate stream sediment fine, magnetic, and nonmagnetic fractions.

The first one or two digits of each sample number (either 9 or 79) were left off of the sample location map.

References cited

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

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

Table 1.--Analytical data for stream sediment fine fraction

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Magruder <170 Mesh Fraction

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9BB041SF	45 40 44	114 43 12	5.0	0.7	1.0	0.50	700	0.5L	10 L	700
9BB042SF	45 41 42	114 43 08	3.0	0.3	0.7	0.30	500	0.5N	10 L	500
9CH039SF	45 39 36	114 33 22	2.0	0.2	0.5	0.15	500	0.5N	10 L	200
9CH040SF	45 39 50	114 33 22	2.0	0.3	0.5	0.20	500	0.7	10 L	200
9CH041SF	45 40 08	114 33 18	1.5	0.2	0.3	0.10	300	0.7	10 L	150
9CH042SF	45 40 37	114 32 06	2.0	0.5	0.3	0.20	200	0.5N	10 L	700
9CH044SF	45 41 10	114 33 04	2.0	0.3	0.3	0.20	300	1.0	10 L	200
9MP001SF	45 42 40	114 31 19	3.0	1.0	0.5	0.50	500	0.5N	10	500
9MP003SF	45 42 25	114 30 54	2.0	1.0	0.2	0.20	300	0.5N	10	500
9MP004SF	45 41 49	114 31 37	3.0	1.0	0.5	0.50	500	0.5L	10 L	300
9MP005SF	45 41 46	114 31 37	2.0	0.7	0.3	0.20	300	0.5N	10	200
9MP006SF	45 41 46	114 32 17	2.0	0.7	0.5	0.30	700	0.5N	10	300
9MP007SF	45 41 53	114 33 11	2.0	0.5	0.5	0.20	700	0.7	10 L	200
9MP008SF	45 41 49	114 33 58	3.0	0.5	0.7	0.30	1000	1.0	10 L	200
9MP009SF	45 42 29	114 36 18	3.0	0.7	0.7	0.50	500	0.5N	10 L	300
9MP010SF	45 41 56	114 36 25	2.0	0.3	0.5	0.20	700	0.5	10 L	200
9MP011SF	45 42 04	114 37 37	5.0	0.7	0.7	0.70	500	0.5N	10 L	700
9MP012SF	45 42 07	114 38 17	3.0	0.7	1.0	0.70	500	0.5L	10 L	700
9MP014SF	45 42 47	114 37 01	5.0	0.7	0.7	0.70	500	0.5N	10 L	700
9MP015SF	45 41 46	114 39 07	5.0	0.7	1.0	0.50	1000	0.5N	10 L	300
9MP016SF	45 41 31	114 39 25	5.0	2.0	2.0	1.00	1000	0.5N	10 L	500
9MP017SF	45 41 31	114 39 43	10.0	2.0	1.5	1.00G	1000	0.5N	10 L	500
9MP018SF	45 41 31	114 39 43	10.0	2.0	1.5	1.00G	1000	0.5N	10 L	500
9MP019SF	45 41 49	114 39 54	7.0	1.5	1.5	1.00G	1000	0.5N	10 L	500
9MP021SF	45 42 25	114 41 20	3.0	0.7	1.0	0.50	700	0.7	10 L	500
9MP022SF	45 41 38	114 34 52	3.0	0.5	0.5	0.20	700	0.7	10 L	300
9MP022SF	45 41 38	114 34 52	5.0	0.5	1.0	1.00	700	0.5N	10 L	500
9MP023SF	45 42 50	114 42 00	5.0	1.0	1.0	1.00	1000	0.5N	10 L	700
9MP026SF	45 42 50	114 43 12	7.0	1.0	1.0	1.00	1000	0.5N	10 L	700
9MP027SF	45 44 06	114 45 04	7.0	1.0	1.0	0.70	1000	0.5N	10 L	500
9MP028SF	45 44 42	114 45 32	7.0	0.7	0.7	1.00	1000	0.5N	10 L	500
9MP029SF	45 44 06	114 45 32	7.0	1.0	1.0	1.00	700	1.0	10 L	700
9MP031SF	45 43 34	114 46 16	5.0	0.7	1.0	0.50	700	0.5N	10 L	700
9MP032SF	45 43 01	114 46 44	7.0	1.0	1.0	1.00G	1000	0.5N	10 L	500
9MP048SF	45 40 01	114 39 07	5.0	1.0	1.0	0.70	1000	0.5	10 L	500
9MP051SF	45 36 00	114 42 50	3.0	1.0	1.0	0.20	300	0.5	10 L	300
9MP052SF	45 37 01	114 42 07	5.0	0.7	1.0	0.70	1000	0.5L	10 L	300
9MP053SF	45 38 20	114 42 18	3.0	0.7	0.5	0.30	300	1.0	10 L	500
9MP054SF	45 38 42	114 42 22	5.0	1.5	1.0	0.50	500	0.7	10 L	300
9MP056SF	45 38 20	114 42 18	2.0	0.7	0.5	0.20	300	1.0	10 L	300
9MP058SF	45 40 19	114 40 41	5.0	1.0	1.0	0.50	1000	0.7	10 L	500
9MP060SF	45 36 22	114 33 50	5.0	1.0	1.0	0.70	1000	0.5N	10 L	500

Magruder <170 Mesh Fraction-continued

SAMPLE	sbe	sbi	sco	scr	scu	sla	smo	snb	sni	spb
9BB041SF	2	10 N	10	50	15	200	5 N	20	7	20
9BB042SF	5	10 N	7	20	20	150	5 N	20 L	7	15
9CH039SF	20	10 N	5 N	15	15	150	5 L	30	5	50
9CH040SF	10	10 N	5	20	15	150	5 N	30	7	30
9CH041SF	15	10 N	5	20	15	150	5 N	20 L	5	20
9CH042SF	2	10 N	7	50	7	70	7	20 L	7	15
9CH044SF	10	10 N	5	20	15	100	7	50	7	30
9MP001SF	2	10 N	7	30	5	50	5 N	10 L	15	15
9MP003SF	1	10 N	5	30	10 L	20	5 N	20 N	15	10 N
9MP004SF	3	10 N	10	70	10	50	5 N	20 N	20	15
9MP005SF	2	10 N	5	20	5	100	5 N	20 L	10	10
9MP006SF	5	10 N	7	70	7	70	5 N	20 L	30	20
9MP007SF	15	10 N	5	20	10	500	5 N	20 L	10	30
9MP008SF	50	10 N	5	20	50	700	5 N	30	10	50
9MP009SF	10	10 N	5	20	10	200	5 N	100	7	30
9MP010SF	20	10 N	5 N	20	20	200	5 N	70	7	50
9MP011SF	5	10 N	7	20	5	300	5 N	20	10	20
9MP012SF	3	10 N	7	20	10	70	5 N	20	7	30
9MP014SF	5	10 N	7	20	7	300	5 N	30	7	30
9MP015SF	7	10 N	7	30	30	200	5 N	20	10	15
9MP016SF	2	10 N	20	200	10	150	5 N	20 L	50	15
9MP017SF	2	10 N	30	100	10	300	5 N	20	30	10
9MP018SF	1	10 N	30	150	20	200	5 N	20	30	15
9MP019SF	2	10 N	20	150	15	150	5 N	20	30	10
9MP021SF	10	10 N	7	30	150	200	5 N	20 N	20	15
9MP022SF	15	10 N	5	20	15	150	5	70	10	50
9MP022SF	2	10 N	7	20	15	500	5 N	70	7	20
9MP023SF	3	10 N	10	100	30	300	5 N	30	20	20
9MP026SF	2	10 N	10	50	15	300	5 N	50	15	20
9MP027SF	2	10 N	5	30	30	200	5 N	50	10	20
9MP028SF	3	10 N	7	15	7	300	5 N	50	5 N	15
9MP029SF	3	10 N	5	20	20	500	7	50	5 N	20
9MP031SF	2	10 N	7	50	15	200	5 N	50	7	20
9MP032SF	2	10 N	15	100	15	500	5 N	50	20	20
9MP048SF	10	10 N	7	50	30	200	5	30	10	30
9MP051SF	7	10 N	10	50	10	300	5 N	20	10	20
9MP052SF	5	10 N	7	70	50	300	5 N	20 L	10	20
9MP053SF	7	10 N	10	50	30	200	5	20	10	30
9MP054SF	10	10 N	7	70	50	300	5 N	50	15	30
9MP056SF	7	10 N	7	30	30	200	5 N	30	7	30
9MP058SF	5	10 N	15	100	30	150	5 N	20	20	30
9MP060SF	20	10 N	10	70	70	50	5 N	20	15	20

Magruder <170 Mesh Fraction-continued

SAMPLE	ssc	ssn	ssr	sv	sy	szn	szr	sth
9BB041SF	10	10 N	200	50	70	200 N	1000	100 N
9BB042SF	7	10 L	150	30	150	200 N	1000	100 N
9CH039SF	5 L	10	100 L	20	150	200 N	300	100 N
9CH040SF	5	20	100	30	100	200 N	200	100 N
9CH041SF	5 N	10 L	100 N	20	100	200 N	100	100 N
9CH042SF	5	10 N	100	50	70	200 N	300	100 N
9CH044SF	5 L	30	100 L	30	200	200 N	200	100 N
9MP001SF	5	10 N	100 L	50	70	200 N	700	100 N
9MP003SF	5 L	10 N	100 N	50	20	200 N	300	100 N
9MP004SF	7	10 N	100	70	50	200 N	500	100 N
9MP005SF	5 N	10 N	100 L	30	50	200 N	700	100 N
9MP006SF	5 L	10 N	100	50	100	200 N	200	100 N
9MP007SF	5	30	100 L	30	300	200 N	200	100 N
9MP008SF	7	10 L	100 N	50	700	200 N	700	100 N
9MP009SF	5 L	10	100	50	300	200 N	1000 G	100 L
9MP010SF	5	70	100 L	30	500	200 N	500	100 N
9MP011SF	10	10 N	200	50	100	200 N	1000	100
9MP012SF	7	10 N	200	50	200	200 N	1000	150
9MP014SF	7	10 N	200	50	100	200 N	500	100 L
9MP015SF	7	10 L	200	50	200	200 N	1000	100 N
9MP016SF	20	10 L	200	150	70	200 N	1000	100 N
9MP017SF	15	10 N	200	150	200	200 N	1000 G	100 N
9MP018SF	15	10 N	200	200	100	200 N	1000 G	100 N
9MP019SF	15	10 N	200	150	150	200 N	1000 G	100 N
9MP021SF	10	10 N	200	50	200	200 N	150	100 N
9MP022SF	5	15	200	30	150	200	500	100 N
9MP022SF	10	10 N	150	70	150	200 N	1000 G	100 N
9MP023SF	10	10 N	200	100	150	200 N	1000 G	100 N
9MP026SF	10	10 N	200	70	150	200 N	1000 G	100 L
9MP027SF	10	15	150	50	150	200 N	1000 G	100 N
9MP028SF	10	10 N	150	50	150	200 N	1000 G	100 N
9MP029SF	10	10	100	50	150	200 N	1000 G	100
9MP031SF	7	10 N	150	50	100	200 N	1000 G	100 N
9MP032SF	10	10 N	200	70	100	200 N	1000 G	100 N
9MP048SF	7	10	150	50	200	200 N	1000	100 N
9MP051SF	10	10 N	150	50	150	200 N	500	100 N
9MP052SF	10	10 N	100	50	200	200 N	1000 G	100 N
9MP053SF	7	10	150	70	200	200 N	300	100 N
9MP054SF	10	30	100	70	200	200 N	1000	100 N
9MP056SF	7	10	100 L	30	200	200 N	700	100 N
9MP058SF	10	10	150	100	100	200 N	500	100 N
9MP060SF	10	10 N	100	100	100	200 N	1000	100 N

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Magruder <170 Mesh Fraction-continued

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9MP061SF	45 36 22	114 33 47	7.0	2.0	1.0	0.50	700	0.5L	10	700
9MP062SF	45 36 04	114 34 34	5.0	1.0	1.0	1.00	700	1.0	10 L	700
9MP064SF	45 35 38	114 35 38	3.0	1.0	0.5	0.30	500	0.5N	10 L	300
9MP065SF	45 35 13	114 36 04	7.0	1.5	1.0	1.00	1000	0.5N	10 L	300
9MP066SF	45 35 02	114 36 40	7.0	1.5	1.0	1.00	1000	0.5N	10 L	500
9MP067SF	45 34 52	114 37 34	5.0	0.7	1.0	0.50	1000	0.7	10 L	500
9MP071SF	45 37 34	114 34 48	3.0	1.0	0.3	0.20	500	0.5L	10 L	300
9MP072SF	45 36 47	114 35 17	5.0	1.0	0.7	0.50	700	0.5N	10 L	500
9MP073SF	45 36 14	114 35 38	7.0	2.0	1.0	1.00G	1000	0.5L	10 L	500
9MP077SF	45 35 13	114 39 54	5.0	1.0	0.7	0.50	500	0.5N	10 L	700
9MP078SF	45 35 46	114 40 19	5.0	0.7	1.0	0.50	500	0.5N	10 L	700
9MP080SF	45 36 04	114 40 59	2.0	0.3	0.7	0.20	300	1.0	10 L	200
9MP081SF	45 35 56	114 40 55	5.0	0.7	0.7	0.50	500	0.7	10 L	500
9RB023SF	45 44 42	114 45 29	7.0	0.7	1.0	1.00G	1000	0.5N	10 L	500
9RB024SF	45 43 30	114 44 38	3.0	0.3	0.7	0.30	500	0.5L	10 L	300
9SA003SF	45 43 05	114 43 16	5.0	0.5	0.5	0.50	500	0.5	10 L	300
9SA004SF	45 38 35	114 41 06	2.0	0.5	0.5	0.20	300	2.0	10 L	200
9SA005SF	45 38 10	114 40 37	2.0	0.5	0.5	0.30	300	1.0	10 L	300
9SA006SF	45 39 07	114 42 25	3.0	0.5	0.7	0.50	500	0.5N	10 L	300
9SA007SF	45 37 01	114 44 10	5.0	1.0	1.0	1.00	700	0.5N	10 L	700
9SA008SF	45 37 05	114 43 19	3.0	0.5	0.7	0.30	300	0.5N	10 L	500
9SA009SF	45 38 17	114 42 25	3.0	0.5	0.7	0.50	500	0.5N	10 L	500
9SA010SF	45 39 40	114 43 08	5.0	0.7	1.0	7.00	700	0.5N	10 L	700
9SA011SF	45 34 01	114 37 41	5.0	0.5	0.7	0.30	700	0.5N	10 L	500
9SA012SF	45 34 01	114 37 41	5.0	0.7	1.0	0.50	700	0.5N	10 L	500
9SA013SF	45 44 46	114 35 17	2.0	0.7	0.5	0.20	300	0.5L	10 L	500
9SA014SF	45 44 38	114 35 02	3.0	0.7	0.5	0.50	500	0.5N	10 L	700
9SA015SF	45 44 20	114 36 40	3.0	0.7	0.7	0.30	500	0.5N	10 L	700
9SA016SF	45 43 59	114 36 54	3.0	0.7	0.5	0.30	500	0.5N	10 L	500
9SA017SF	45 42 50	114 33 32	2.0	0.3	0.5	0.20	300	0.7	10 L	300
9SA018SF	45 42 47	114 37 01	3.0	0.5	0.5	0.50	500	0.5L	10 L	700
9SA019SF	45 34 34	114 38 42	2.0	0.5	0.5	0.30	300	0.5	10 L	300
9SA020SF	45 41 49	114 42 36	2.0	0.3	0.7	0.20	500	0.7	10 L	300
9SA021SF	45 37 26	114 38 56	2.0	0.5	0.5	0.30	300	0.5	10 L	300
9SA022SF	45 36 58	114 39 54	3.0	0.5	0.5	0.30	300	1.0	10 L	500
9SA090SF	45 40 01	114 43 16	3.0	0.3	0.7	0.30	300	0.5N	10 L	300

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Magruder <170 Mesh Fraction-continued

SAMPLE	sbe	sbi	sco	scr	scu	sla	smo	snb	sni	spb
9MP061SF	7	10 N	30	200	30	200	5	30	50	20
9MP062SF	5	10 N	10	100	50	150	5 N	20	15	30
9MP064SF	15	10 N	7	50	10	150	5 L	50	15	30
9MP065SF	5	10 N	10	100	20	300	5 N	30	15	20
9MP066SF	7	10 N	20	150	30	100	5 L	50	30	30
9MP067SF	7	10 N	5	30	20	150	5 N	20	7	30
9MP071SF	10	10 N	10	70	30	100	5	20	20	30
9MP072SF	10	10 N	10	70	20	150	5 N	30	15	20
9MP073SF	7	10 N	20	200	50	150	5	30	30	30
9MP077SF	5	10 N	15	70	15	300	5 N	30	10	30
9MP078SF	2	10 N	15	50	20	150	5 N	20	10	20
9MP080SF	7	10 N	7	30	20	300	5 N	20 N	10	15
9MP081SF	10	10 N	15	70	20	300	5 N	20	10	20
9RB023SF	2	10 N	7	20	20	500	5 N	50	5 N	20
9RB024SF	3	10 N	5 N	15	30	150	5 N	20 L	5	15
9SA003SF	5	10 N	5	30	30	100	5 N	20	7	20
9SA004SF	30	10 N	5	30	70	200	5	30	10	50
9SA005SF	15	10 N	7	30	30	200	5 N	30	10	30
9SA006SF	2	10 N	10	30	10	70	5 N	20 L	10	10
9SA007SF	1	10 N	20	70	30	100	7	20	15	15
9SA008SF	2	10 N	7	70	15	100	5	20	10	15
9SA009SF	2	10 N	10	50	20	100	5 N	30	10	15
9SA010SF	1	10 N	10	50	10	100	5 N	50	10	15
9SA011SF	5	10 N	5	30	10	300	5 L	30	7	20
9SA012SF	3	10 N	7	50	10	500	5 L	100	7	20
9SA013SF	5	10 N	7	70	20	70	5 N	20 N	15	20
9SA014SF	7	10 N	10	70	15	200	5 N	30	15	30
9SA015SF	5	10 N	10	50	15	100	5 N	20	10	20
9SA016SF	7	10 N	7	50	20	200	5 N	20	15	20
9SA017SF	15	10 N	5	30	30	300	7	20 N	10	15
9SA018SF	3	10 N	7	30	15	100	7	30	7	30
9SA019SF	10	10 N	5	20	20	200	5 N	30	7	30
9SA020SF	7	10 N	5	20	30	150	5 N	20 L	7	20
9SA021SF	10	10 N	7	50	20	150	5 L	20	7	20
9SA022SF	15	10 N	7	20	20	200	5 L	50	10	30
9SA090SF	2	10 N	7	30	10	100	5 N	20	7	15

DATE 6/ 7/81

Magruder <170 Mesh Fraction-continued

SAMPLE	ssc	ssn	ssr	sv	sy	szn	szr	sth
9MP061SF	20	10 N	200	200	70	200 N	500	100 N
9MP062SF	15	10 N	150	200	200	200 N	500	100 N
9MP064SF	10	10 L	100	50	100	200 N	1000	100 N
9MP065SF	15	10	150	100	100	200 N	1000 G	100 N
9MP066SF	10	10	100	200	200	200 N	1000 G	100 N
9MP067SF	10	10	150	70	150	200 N	1000	100 N
9MP071SF	7	10	100	100	100	200 N	500	100 N
9MP072SF	10	10	150	100	150	200 N	1000	100 N
9MP073SF	15	20	150	300	200	200 N	1000	100 N
9MP077SF	10	10	200	100	100	200 N	1000	100 N
9MP078SF	10	10 L	200	100	70	200 N	1000	100 N
9MP080SF	7	10 N	100 L	30	500	200 N	200	100 N
9MP081SF	15	10 N	150	100	200	200 N	500	100 N
9RB023SF	10	10	100	70	200	200 N	1000 G	100 N
9RB024SF	7	10 L	100	15	100	200 N	1000	100 N
9SA003SF	5	10	100	30	50	200 N	1000 G	100 N
9SA004SF	5	10	100 L	30	500	200 N	300	100 N
9SA005SF	5	10	100 L	30	200	200 N	500	100 N
9SA006SF	10	10 N	150	70	50	200 N	500	100 N
9SA007SF	15	10 N	200	150	50	200 N	1000 G	100 N
9SA008SF	7	10 N	200	50	50	200 N	1000	100 N
9SA009SF	7	10 N	150	50	70	200 N	1000	100 N
9SA010SF	10	10 N	200	50	50	200 N	1000 G	100 N
9SA011SF	10	10	150	30	100	200 N	1000	100 N
9SA012SF	10	10 N	150	50	150	200 N	1000 G	100 N
9SA013SF	7	10 N	100	50	70	200 N	500	100 N
9SA014SF	7	10 L	150	50	100	200 N	1000	100 N
9SA015SF	7	10	200	70	100	200 N	700	100 N
9SA016SF	7	10	100	50	150	200 N	500	100 L
9SA017SF	5	10 N	100	30	300	200 N	300	100 N
9SA018SF	7	10	150	70	70	200 N	700	100 N
9SA019SF	7	10	100	50	150	200 N	500	100 N
9SA020SF	5	10	100	30	100	200 N	200	100 N
9SA021SF	7	10	100	50	100	200 N	300	100 N
9SA022SF	7	15	150	50	150	200 N	1000	100 N
9SA090SF	7	10 N	150	30	50	200 N	1000	100 N

TITLE
Magruder <170 Mesh Fraction

Table 2.--Statistical summary for stream sediment fine fraction

THE FREQUENCY DISTRIBUTIONS AND HISTOGRAMS ON THE FOLLOWING PAGES ARE ON LOGARITHMIC SCALES, AND EMPLOY THE SAME CLASS INTERVALS AS USED IN REPORTING 6-STEP SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES. IMPORTANT NOTE- THE STATISTICS GIVEN BELOW THE HISTOGRAMS ARE DERIVED ONLY FROM DATA VALUES WITHIN THE RANGES OF ANALYTICAL DETERMINATION, AND ARE, THEREFORE, BIASED IF DATA VALUES QUALIFIED WITH N, L, G, T, OR H CODES ARE PRESENT. SEE LATER SECTION OF OUTPUT FOR STATISTICAL ESTIMATES THAT ARE UNBIASED IN THIS REGARD. THE GEOMETRIC MEAN IS AN ESTIMATE OF "CENTRAL TEND ENCY," OR OF A CHARACTERISTIC VALUE, OF A FREQUENCY DISTRIBUTION THAT IS APPROXIMATELY SYMMETRICAL ON A LOG SCALE, AND IS THEREFORE USEFUL FOR CHARACTERIZING MANY GEOCHEMICAL DISTRIBUTIONS. THE GEOMETRIC MEAN IS NOT AN ESTIMATE OF GEOCHEMICAL ABUNDANCE AND IS OF NO VALUE IN ESTIMATING RESERVES OR TOTAL AMOUNTS OF ELEMENTS PRESENT. SEE USGS PROFESSIONAL PAPER 574-B FOR FURTHER DISCUSSION. SEE USGS BULLETIN 1147E, PAGE 23, FOR EXPLANATION OF GEOMETRIC DEVIATION.

THE CUMULATIVE FREQUENCY PERCENTS GIVEN BELOW SHOULD BE PLOTTED AGAINST THE "LOWER" LIMITS TO GIVE THE LEPELTIER-TYPE CUMULATIVE CURVE.

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 3 (sfe%)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	0	0	0.00	100.00
2.6E-01 -	3.8E-01	0	0	0.00	100.00
3.8E-01 -	5.6E-01	0	0	0.00	100.00
5.6E-01 -	8.3E-01	0	0	0.00	100.00
8.3E-01 -	1.2E+00	0	0	0.00	100.00
1.2E+00 -	1.8E+00	1	1	1.28	100.00
1.8E+00 -	2.6E+00	18	19	23.08	98.72
2.6E+00 -	3.8E+00	22	41	28.21	75.64
3.8E+00 -	5.6E+00	24	65	30.77	47.44
5.6E+00 -	8.3E+00	11	76	14.10	16.67
8.3E+00 -	1.2E+01	2	78	2.56	2.56

HISTOGRAM FOR COLUMN 3 (sfe%)

14

```
      1.5E+00 X
      2.0E+00 XXXXXXXXXXXXXXXXXXXXX
      3.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXX
      5.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      7.0E+00 XXXXXXXXXXXXXX
      1.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+01
MINIMUM = 1.50000E+00
GEOMETRIC MEAN = 3.68238E+00
GEOMETRIC DEVIATION = 1.60460E+00

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 4 (smg%)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-02 -	2.6E-02	0	0	0.00	100.00
2.6E-02 -	3.8E-02	0	0	0.00	100.00
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	2	2	2.56	100.00
2.6E-01 -	3.8E-01	9	11	11.54	97.44
3.8E-01 -	5.6E-01	16	27	20.51	85.90
5.6E-01 -	8.3E-01	24	51	30.77	65.38
8.3E-01 -	1.2E+00	18	69	23.08	34.62
1.2E+00 -	1.8E+00	4	73	5.13	11.54
1.8E+00 -	2.6E+00	5	78	6.41	6.41

HISTOGRAM FOR COLUMN 4 (smg%)

```
      2.0E-01 XXX
      3.0E-01 XXXXXXXXXXXX
      5.0E-01 XXXXXXXXXXXXXXXXXXXX
      7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      1.0E+00 XXXXXXXXXXXXXXXXXXXX
      1.5E+00 XXXXX
      2.0E+00 XXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 2.00000E+00
MINIMUM = 2.00000E-01
GEOMETRIC MEAN = 6.92884E-01
GEOMETRIC DEVIATION = 1.69681E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 5 (sca%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	1	1	1.28	100.00
2.6E-01 -	3.8E-01	5	6	6.41	98.72
3.8E-01 -	5.6E-01	22	28	28.21	92.31
5.6E-01 -	8.3E-01	18	46	23.08	64.10
8.3E-01 -	1.2E+00	28	74	35.90	41.03
1.2E+00 -	1.8E+00	3	77	3.85	5.13
1.8E+00 -	2.6E+00	1	78	1.28	1.28

HISTOGRAM FOR COLUMN 5 (sca%)

```
2.0E-01 X
3.0E-01 XXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXXXXX
1.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+00 XXXX
2.0E+00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 2.00000E+00
MINIMUM = 2.00000E-01
GEOMETRIC MEAN = 7.03883E-01
GEOMETRIC DEVIATION = 1.53300E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 6 (sti%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-03 -	2.6E-03	0	0	0.00	100.00
2.6E-03 -	3.8E-03	0	0	0.00	100.00
3.8E-03 -	5.6E-03	0	0	0.00	100.00
5.6E-03 -	8.3E-03	0	0	0.00	100.00
8.3E-03 -	1.2E-02	0	0	0.00	100.00
1.2E-02 -	1.8E-02	0	0	0.00	100.00
1.8E-02 -	2.6E-02	0	0	0.00	100.00
2.6E-02 -	3.8E-02	0	0	0.00	100.00
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	1	1	1.28	100.00
1.2E-01 -	1.8E-01	1	2	1.28	98.72
1.8E-01 -	2.6E-01	16	18	20.51	97.44
2.6E-01 -	3.8E-01	15	33	19.23	76.92
3.8E-01 -	5.6E-01	21	54	26.92	57.69
5.6E-01 -	8.3E-01	7	61	8.97	30.77
8.3E-01 -	1.2E+00	10	71	12.82	21.79
1.2E+00 -	1.8E+00	0	71	0.00	8.97
1.8E+00 -	2.6E+00	0	71	0.00	8.97
2.6E+00 -	3.8E+00	0	71	0.00	8.97
3.8E+00 -	5.6E+00	0	71	0.00	8.97
5.6E+00 -	8.3E+00	1	72	1.28	8.97

HISTOGRAM FOR COLUMN 6 (sti%)

```
1.0E-01 X
1.5E-01 X
2.0E-01 XXXXXXXXXXXXXXXXXXXX
3.0E-01 XXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXX
1.0E+00 XXXXXXXXXXXX
1.5E+00
2.0E+00
3.0E+00
5.0E+00
7.0E+00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	6	72
0.00	0.00			0.00	7.69	

MAXIMUM = 7.00000E+00
MINIMUM = 1.00000E-01
GEOMETRIC MEAN = 4.16184E-01
GEOMETRIC DEVIATION = 1.94711E+00

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 7 (smn)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	0	0	0.00	100.00
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	1	1	1.28	100.00
2.6E+02 -	3.8E+02	17	18	21.79	98.72
3.8E+02 -	5.6E+02	24	42	30.77	76.92
5.6E+02 -	8.3E+02	16	58	20.51	46.15
8.3E+02 -	1.2E+03	20	78	25.64	25.64

HISTOGRAM FOR COLUMN 7 (smn)

```
2.0E+02 X
3.0E+02 XXXXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXXXXXXXXXXXXX
1.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 2.00000E+02
GEOMETRIC MEAN = 5.65821E+02
GEOMETRIC DEVIATION = 1.56628E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 8 (sag)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-01 -	5.6E-01	6	6	7.69	34.62
5.6E-01 -	8.3E-01	11	17	14.10	26.92
8.3E-01 -	1.2E+00	9	26	11.54	12.82
1.2E+00 -	1.8E+00	0	26	0.00	1.28
1.8E+00 -	2.6E+00	1	27	1.28	1.28

HISTOGRAM FOR COLUMN 8 (sag)

```
5.0E-01 XXXXXXXX
7.0E-01 XXXXXXXXXXXXXX
1.0E+00 XXXXXXXXXXXX
1.5E+00
2.0E+00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
41	10	0	0	0	0	27
52.56	12.82			0.00	0.00	

MAXIMUM = 2.00000E+00
MINIMUM = 5.00000E-01
GEOMETRIC MEAN = 7.60581E-01
GEOMETRIC DEVIATION = 1.38355E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 12 (sba)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	1	1	1.28	100.00
1.8E+02 -	2.6E+02	9	10	11.54	98.72
2.6E+02 -	3.8E+02	21	31	26.92	87.18
3.8E+02 -	5.6E+02	29	60	37.18	60.26
5.6E+02 -	8.3E+02	18	78	23.08	23.08

HISTOGRAM FOR COLUMN 12 (sba)

```
1.5E+02 X
2.0E+02 XXXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXXXXXXXXXXXXXX
```

20

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E+02
MINIMUM = 1.50000E+02
GEOMETRIC MEAN = 4.17200E+02
GEOMETRIC DEVIATION = 1.53096E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 13 (sbe)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-01 -	1.2E+00	4	4	5.13	100.00
1.2E+00 -	1.8E+00	7	11	8.97	94.87
1.8E+00 -	2.6E+00	11	22	14.10	85.90
2.6E+00 -	3.8E+00	8	30	10.26	71.79
3.8E+00 -	5.6E+00	13	43	16.67	61.54
5.6E+00 -	8.3E+00	12	55	15.38	44.87
8.3E+00 -	1.2E+01	11	66	14.10	29.49
1.2E+01 -	1.8E+01	7	73	8.97	15.38
1.8E+01 -	2.6E+01	3	76	3.85	6.41
2.6E+01 -	3.8E+01	1	77	1.28	2.56
3.8E+01 -	5.6E+01	1	78	1.28	1.28

HISTOGRAM FOR COLUMN 13 (sbe)

```
1.0E+00 XXXXX
1.5E+00 XXXXXXXXX
2.0E+00 XXXXXXXXXXXXXX
3.0E+00 XXXXXXXXXX
5.0E+00 XXXXXXXXXXXXXXXXX
7.0E+00 XXXXXXXXXXXXXXX
1.0E+01 XXXXXXXXXXXXXX
1.5E+01 XXXXXXXXX
2.0E+01 XXXX
3.0E+01 X
5.0E+01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 5.00000E+01
MINIMUM = 1.00000E+00
GEOMETRIC MEAN = 4.90945E+00
GEOMETRIC DEVIATION = 2.43838E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 16 (sco)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 -	5.6E+00	18	18	23.08	96.15
5.6E+00 -	8.3E+00	28	46	35.90	73.08
8.3E+00 -	1.2E+01	16	62	20.51	37.18
1.2E+01 -	1.8E+01	5	67	6.41	16.67
1.8E+01 -	2.6E+01	5	72	6.41	10.26
2.6E+01 -	3.8E+01	3	75	3.85	3.85

HISTOGRAM FOR COLUMN 16 (sco)

```
       5.0E+00 XXXXXXXXXXXXXXXXXXXXX
       7.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       1.0E+01 XXXXXXXXXXXXXXXXXXXX
       1.5E+01 XXXXXX
       2.0E+01 XXXXXX
       3.0E+01 XXXX
```

	N	L	H	B	T	G	ANALYTICAL VALUES
22	3	0	0	0	0	0	75
	3.85	0.00			0.00	0.00	

MAXIMUM = 3.00000E+01
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 8.33327E+00
GEOMETRIC DEVIATION = 1.60494E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 17 (scr)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	3	3	3.85	100.00
1.8E+01 -	2.6E+01	19	22	24.36	96.15
2.6E+01 -	3.8E+01	16	38	20.51	71.79
3.8E+01 -	5.6E+01	15	53	19.23	51.28
5.6E+01 -	8.3E+01	13	66	16.67	32.05
8.3E+01 -	1.2E+02	6	72	7.69	15.38
1.2E+02 -	1.8E+02	3	75	3.85	7.69
1.8E+02 -	2.6E+02	3	78	3.85	3.85

HISTOGRAM FOR COLUMN 17 (scr)

```
1.5E+01 XXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXXXX
1.0E+02 XXXXXXXX
1.5E+02 XXXX
2.0E+02 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 2.00000E+02
MINIMUM = 1.50000E+01
GEOMETRIC MEAN = 4.22120E+01
GEOMETRIC DEVIATION = 1.98095E+00

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 18 (scu)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 -	5.6E+00	3	3	3.85	98.72
5.6E+00 -	8.3E+00	4	7	5.13	94.87
8.3E+00 -	1.2E+01	13	20	16.67	89.74
1.2E+01 -	1.8E+01	16	36	20.51	73.08
1.8E+01 -	2.6E+01	17	53	21.79	52.56
2.6E+01 -	3.8E+01	16	69	20.51	30.77
3.8E+01 -	5.6E+01	5	74	6.41	10.26
5.6E+01 -	8.3E+01	2	76	2.56	3.85
8.3E+01 -	1.2E+02	0	76	0.00	1.28
1.2E+02 -	1.8E+02	1	77	1.28	1.28

HISTOGRAM FOR COLUMN 18 (scu)

```
5.0E+00 XXXX
7.0E+00 XXXXX
1.0E+01 XXXXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXX
7.0E+01 XXX
1.0E+02
1.5E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	1	0	0	0	0	77
0.00	1.28			0.00	0.00	

MAXIMUM = 1.50000E+02
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 1.84090E+01
GEOMETRIC DEVIATION = 1.89867E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 19 (sla)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	1	1	1.28	100.00
2.6E+01 -	3.8E+01	0	1	0.00	98.72
3.8E+01 -	5.6E+01	3	4	3.85	98.72
5.6E+01 -	8.3E+01	5	9	6.41	94.87
8.3E+01 -	1.2E+02	12	21	15.38	88.46
1.2E+02 -	1.8E+02	17	38	21.79	73.08
1.8E+02 -	2.6E+02	18	56	23.08	51.28
2.6E+02 -	3.8E+02	15	71	19.23	28.21
3.8E+02 -	5.6E+02	6	77	7.69	8.97
5.6E+02 -	8.3E+02	1	78	1.28	1.28

HISTOGRAM FOR COLUMN 19 (sla)

```
        2.0E+01 X
        3.0E+01
        5.0E+01 XXXX
        7.0E+01 XXXXXX
        1.0E+02 XXXXXXXXXXXXXX
        1.5E+02 XXXXXXXXXXXXXXXXXXXXX
        2.0E+02 XXXXXXXXXXXXXXXXXXXXXX
        3.0E+02 XXXXXXXXXXXXXXXXXX
        5.0E+02 XXXXXXXX
        7.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 1.71291E+02
GEOMETRIC DEVIATION = 1.88513E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 20 (smo)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 -	5.6E+00	8	8	10.26	17.95
5.6E+00 -	8.3E+00	6	14	7.69	7.69

HISTOGRAM FOR COLUMN 20 (smo)

5.0E+00 XXXXXXXXXX
7.0E+00 XXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
57	7	0	0	0	0	14
73.08	8.97			0.00	0.00	

MAXIMUM = 7.00000E+00
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 5.77559E+00
GEOMETRIC DEVIATION = 1.18862E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 21 (snb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	23	23	29.49	76.92
2.6E+01 -	3.8E+01	19	42	24.36	47.44
3.8E+01 -	5.6E+01	13	55	16.67	23.08
5.6E+01 -	8.3E+01	3	58	3.85	6.41
8.3E+01 -	1.2E+02	2	60	2.56	2.56

HISTOGRAM FOR COLUMN 21 (snb)

```
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXX
7.0E+01 XXXX
1.0E+02 XXX
```

	N	L	H	B	T	G	ANALYTICAL VALUES
	6	12	0	0	0	0	60
27	7.69	15.38			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 3.11541E+01
GEOMETRIC DEVIATION = 1.57401E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 22 (sni)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 -	5.6E+00	3	3	3.85	96.15
5.6E+00 -	8.3E+00	21	24	26.92	92.31
8.3E+00 -	1.2E+01	24	48	30.77	65.38
1.2E+01 -	1.8E+01	13	61	16.67	34.62
1.8E+01 -	2.6E+01	6	67	7.69	17.95
2.6E+01 -	3.8E+01	6	73	7.69	10.26
3.8E+01 -	5.6E+01	2	75	2.56	2.56

HISTOGRAM FOR COLUMN 22 (sni)

```
5.0E+00 XXXX
7.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXX
1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXX
3.0E+01 XXXXXXXX
5.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
3	0	0	0	0	0	75
3.85	0.00			0.00	0.00	

MAXIMUM = 5.00000E+01
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 1.13763E+01
GEOMETRIC DEVIATION = 1.68854E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 23 (spb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	4	4	5.13	98.72
1.2E+01 -	1.8E+01	17	21	21.79	93.59
1.8E+01 -	2.6E+01	28	49	35.90	71.79
2.6E+01 -	3.8E+01	23	72	29.49	35.90
3.8E+01 -	5.6E+01	5	77	6.41	6.41

HISTOGRAM FOR COLUMN 23 (spb)

```
1.0E+01 XXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXX
```

	N	L	H	B	T	G	ANALYTICAL VALUES
	1	0	0	0	0	0	77
29	1.28	0.00			0.00	0.00	

MAXIMUM = 5.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 2.16894E+01
GEOMETRIC DEVIATION = 1.45790E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 25 (ssc)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 -	5.6E+00	11	11	14.10	91.03
5.6E+00 -	8.3E+00	24	35	30.77	76.92
8.3E+00 -	1.2E+01	26	61	33.33	46.15
1.2E+01 -	1.8E+01	8	69	10.26	12.82
1.8E+01 -	2.6E+01	2	71	2.56	2.56

HISTOGRAM FOR COLUMN 25 (ssc)

```
5.0E+00 XXXXXXXXXXXXX
7.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXX
2.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	5	0	0	0	0	71
2.56	6.41			0.00	0.00	

MAXIMUM = 2.00000E+01
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 8.49809E+00
GEOMETRIC DEVIATION = 1.42365E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 26 (ssn)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	24	24	30.77	42.31
1.2E+01 -	1.8E+01	3	27	3.85	11.54
1.8E+01 -	2.6E+01	2	29	2.56	7.69
2.6E+01 -	3.8E+01	3	32	3.85	5.13
3.8E+01 -	5.6E+01	0	32	0.00	1.28
5.6E+01 -	8.3E+01	1	33	1.28	1.28

HISTOGRAM FOR COLUMN 26 (ssn)

```
1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+01 XXXX
2.0E+01 XXX
3.0E+01 XXXX
5.0E+01
7.0E+01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
36	9	0	0	0	0	33
46.15	11.54			0.00	0.00	

MAXIMUM = 7.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.26834E+01
GEOMETRIC DEVIATION = 1.59616E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 27 (ssr)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+01 -	1.2E+02	21	21	26.92	83.33
1.2E+02 -	1.8E+02	23	44	29.49	56.41
1.8E+02 -	2.6E+02	21	65	26.92	26.92

HISTOGRAM FOR COLUMN 27 (ssr)

```
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
3	10	0	0	0	0	65
3.85	12.82			0.00	0.00	

MAXIMUM = 2.00000E+02
MINIMUM = 1.00000E+02
GEOMETRIC MEAN = 1.44399E+02
GEOMETRIC DEVIATION = 1.32602E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 28 (sv)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	1	1	1.28	100.00
1.8E+01 -	2.6E+01	2	3	2.56	98.72
2.6E+01 -	3.8E+01	16	19	20.51	96.15
3.8E+01 -	5.6E+01	30	49	38.46	75.64
5.6E+01 -	8.3E+01	11	60	14.10	37.18
8.3E+01 -	1.2E+02	9	69	11.54	23.08
1.2E+02 -	1.8E+02	4	73	5.13	11.54
1.8E+02 -	2.6E+02	4	77	5.13	6.41
2.6E+02 -	3.8E+02	1	78	1.28	1.28

HISTOGRAM FOR COLUMN 28 (sv)

```
1.5E+01 X
2.0E+01 XXX
3.0E+01 XXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXX
1.5E+02 XXXXX
2.0E+02 XXXXX
3.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 3.00000E+02
MINIMUM = 1.50000E+01
GEOMETRIC MEAN = 5.71763E+01
GEOMETRIC DEVIATION = 1.81176E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 30 (sy)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	0	0	0.00	100.00
1.8E+01 -	2.6E+01	1	1	1.28	100.00
2.6E+01 -	3.8E+01	0	1	0.00	98.72
3.8E+01 -	5.6E+01	8	9	10.26	98.72
5.6E+01 -	8.3E+01	9	18	11.54	88.46
8.3E+01 -	1.2E+02	20	38	25.64	76.92
1.2E+02 -	1.8E+02	17	55	21.79	51.28
1.8E+02 -	2.6E+02	16	71	20.51	29.49
2.6E+02 -	3.8E+02	3	74	3.85	8.97
3.8E+02 -	5.6E+02	3	77	3.85	5.13
5.6E+02 -	8.3E+02	1	78	1.28	1.28

HISTOGRAM FOR COLUMN 30 (sy)

```
2.0E+01 X
3.0E+01
5.0E+01 XXXXXXXXXX
7.0E+01 XXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXX
5.0E+02 XXXX
7.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	78
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 1.25455E+02
GEOMETRIC DEVIATION = 1.85169E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 32 (szr)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	0	0	0.00	100.00
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	1	1	1.28	100.00
1.2E+02 -	1.8E+02	1	2	1.28	98.72
1.8E+02 -	2.6E+02	6	8	7.69	97.44
2.6E+02 -	3.8E+02	7	15	8.97	89.74
3.8E+02 -	5.6E+02	15	30	19.23	80.77
5.6E+02 -	8.3E+02	6	36	7.69	61.54
8.3E+02 -	1.2E+03	22	58	28.21	53.85

HISTOGRAM FOR COLUMN 32 (szr)

```
      1.0E+02 X
      1.5E+02 X
      2.0E+02 XXXXXXXX
      3.0E+02 XXXXXXXXX
      5.0E+02 XXXXXXXXXXXXXXXXXX
      7.0E+02 XXXXXXXX
      1.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	20	58
0.00	0.00			0.00	25.64	

MAXIMUM = 1.00000E+03
MINIMUM = 1.00000E+02
GEOMETRIC MEAN = 5.48609E+02
GEOMETRIC DEVIATION = 1.85216E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

FREQUENCY TABLE FOR COLUMN 33 (sth)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PEPCENT FREQ CUM
8.3E+01 -	1.2E+02	2	2	2.56	3.85
1.2E+02 -	1.8E+02	1	3	1.28	1.28

HISTOGRAM FOR COLUMN 33 (sth)

1.0E+02 XXX
1.5E+02 X

N	L	H	B	T	G	ANALYTICAL VALUES
71	4	0	0	0	0	3
91.03	5.13			0.00	0.00	

MAXIMUM = 1.50000E+02
MINIMUM = 1.00000E+02
GEOMETRIC MEAN = 1.14471E+02
GEOMETRIC DEVIATION = 1.26376E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder <170 Mesh Fraction

IN THE COMPUTATIONS PERFORMED TO PRODUCE THE FOLLOWING TABLE OF GEOMETRIC MEANS AND DEVIATIONS, ALL ELEMENTS ARE IGNORED WHERE ONE OR MORE OF THE UNQUALIFIED DATA VALUES IS LESS THAN THE ANALYTICAL LIMIT OF DETECTION SPECIFIED ON INPUT OR WHERE ANY DATA VALUES ARE QUALIFIED WITH THE G (GREATER THAN) CODE. DATA VALUES QUALIFIED WITH B OR H ARE NOT USED IN THE COMPUTATIONS. WHERE NONE OF THE DATA VALUES FOR AN ELEMENT ARE QUALIFIED THE MEAN AND DEVIATION SHOULD BE THE SAME AS THOSE GIVEN IN THE PRECEDING SECTION. WHERE DATA ARE QUALIFIED WITH THE CODES N, L, OR T, THE ESTIMATES OF GEOMETRIC MEAN AND DEVIATION ARE BASED ON A METHOD BY A. J. COHEN FOR TREATING CENSORED DISTRIBUTIONS. THE APPLICATION OF THIS METHOD TO GEOCHEMICAL PROBLEMS IS DESCRIBED IN USGS PROFESSIONAL PAPER 574-B. THE ESTIMATES ARE UNBIASED IN A STRICT SENSE ONLY WHERE THE DATA ARE DERIVED FROM A LOGNORMAL PARENT POPULATION, BUT EXPERIMENTS HAVE SHOWN THAT LARGE DEPARTURES FROM THIS REQUIREMENT MAY NOT GREATLY INVALIDATE THE RESULTS ACCEPTANCE AND USE OF THE ESTIMATES, HOWEVER, IS THE RESPONSIBILITY OF THE INDIVIDUAL.

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
sfe%	0	0	0	0	0	0	78
smg%	0	0	0	0	0	0	78
sca%	0	0	0	0	0	0	78
sti%	0	0	0	0	0	6	72
smn	0	0	0	0	0	0	78
sag	41	10	0	0	0	0	27
sba	0	0	0	0	0	0	78
sbe	0	0	0	0	0	0	78
sco	3	0	0	0	0	0	75
scr	0	0	0	0	0	0	78
scu	0	1	0	0	0	0	77
sla	0	0	0	0	0	0	78
smo	57	7	0	0	0	0	14
snb	6	12	0	0	0	0	60
sni	3	0	0	0	0	0	75
spb	1	0	0	0	0	0	77
ssc	2	5	0	0	0	0	71
ssn	36	9	0	0	0	0	33
ssr	3	10	0	0	0	0	65
sv	0	0	0	0	0	0	78
sy	0	0	0	0	0	0	78
szr	0	0	0	0	0	20	58
sth	71	4	0	0	0	0	3

TITLE

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
sfe%	3.682833	1.60	78 SAMPLES AND 78 ANALYTICAL VALUES.
smg%	0.692884	1.70	78 SAMPLES AND 78 ANALYTICAL VALUES.
sca%	0.703883	1.53	78 SAMPLES AND 78 ANALYTICAL VALUES.
sti%	********	******	6 GREATER THAN VALUES. NO COMPUTATIONS.
smn	565.820869	1.57	78 SAMPLES AND 78 ANALYTICAL VALUES.
sag	0.282302	2.43	51 NOT DETECTED, LESS THAN, OR TRACE VALUES. 27 REPORTED VALUES.
sba	417.199554	1.53	78 SAMPLES AND 78 ANALYTICAL VALUES.
sbe	4.909448	2.44	78 SAMPLES AND 78 ANALYTICAL VALUES.
sco	8.018635	1.65	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 75 REPORTED VALUES.
scr	42.211967	1.98	78 SAMPLES AND 78 ANALYTICAL VALUES.
scu	17.990142	1.95	1 NOT DETECTED, LESS THAN, OR TRACE VALUES. 77 REPORTED VALUES.
sla	171.290825	1.89	78 SAMPLES AND 78 ANALYTICAL VALUES.
smo	2.120942	1.94	64 NOT DETECTED, LESS THAN, OR TRACE VALUES. 14 REPORTED VALUES.
snb	25.265699	1.77	18 NOT DETECTED, LESS THAN, OR TRACE VALUES. 60 REPORTED VALUES.
sni	10.814913	1.78	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 75 REPORTED VALUES.
spb	21.386986	1.48	1 NOT DETECTED, LESS THAN, OR TRACE VALUES. 77 REPORTED VALUES.
ssc	7.779954	1.56	7 NOT DETECTED, LESS THAN, OR TRACE VALUES. 71 REPORTED VALUES.
ssn	6.915155	2.00	45 NOT DETECTED, LESS THAN, OR TRACE VALUES. 33 REPORTED VALUES.
ssr	127.353303	1.47	13 NOT DETECTED, LESS THAN, OR TRACE VALUES. 65 REPORTED VALUES.
sv	57.176352	1.81	78 SAMPLES AND 78 ANALYTICAL VALUES.
sy	125.455103	1.85	78 SAMPLES AND 78 ANALYTICAL VALUES.
szr	********	******	20 GREATER THAN VALUES. NO COMPUTATIONS.
sth	20.683758	2.19	75 NOT DETECTED, LESS THAN, OR TRACE VALUES. 3 REPORTED VALUES.

Table 3.--Analytical data for magnetic heavy-mineral-concentrate fraction

DATE 6/ 7/81

Magruder Magnetic Fraction

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9BB041SM	45 40 44	114 43 12	30.0	0.2	0.3	2.00G	1500	1.0N	20 N	70
9MP001SM	45 42 40	114 31 19	30.0	0.2	0.1L	2.00G	500	1.0N	20 N	70
9MP003SM	45 42 25	114 30 54	30.0	0.2	0.1L	2.00	500	1.0N	20 N	150
9MP005SM	45 41 46	114 31 37	50.0	0.2	0.2	2.00G	1500	1.0N	20 N	200
9MP009SM	45 42 29	114 36 18	30.0	0.1	0.1	2.00G	1500	1.0N	20 N	50 N
9MP011SM	45 42 04	114 37 37	30.0	0.1	0.1	2.00G	1000	1.0N	20 N	50
9MP012SM	45 42 07	114 38 17	30.0	0.1	0.1	2.00G	2000	1.0N	20 N	50
9MP014SM	45 42 47	114 37 01	20.0	0.1	0.2	2.00G	7000	1.0N	20 N	100
9MP015SM	45 41 46	114 39 07	50.0	0.1	0.1L	2.00G	2000	1.0N	20 N	50 N
9MP016SM	45 41 31	114 39 25	30.0	0.5	0.2	2.00G	2000	1.0N	20 N	50
9MP017SM	45 41 31	114 39 43	30.0	0.1	0.1	2.00G	1000	1.0N	20 N	50 N
9MP018SM	45 41 31	114 39 43	30.0	0.2	0.3	2.00G	1500	1.0N	20 N	70
9MP019SM	45 41 49	114 39 54	30.0	0.2	0.2	2.00G	2000	1.0N	20 N	50
9MP020SM	45 42 22	114 41 10	30.0	0.1	0.1	2.00G	2000	1.0N	20 N	200
9MP022SM	45 41 38	114 34 52	50.0	0.2	0.2	2.00G	2000	1.0N	100	100
9MP023SM	45 42 50	114 42 00	30.0	0.2	0.3	2.00G	1500	1.0N	20 N	70
9MP023SM	45 42 50	114 42 00	50.0	0.2	0.2	2.00G	1500	1.0N	20 N	150
9MP026SM	45 42 50	114 43 12	50.0	0.2	0.2	2.00	1000	1.0N	20 N	70
9MP027SM	45 44 06	114 45 04	30.0	0.5	1.0	2.00	1500	1.0N	20 N	150
9MP028SM	45 44 42	114 45 32	30.0	0.2	0.3	2.00G	1000	1.0N	20 N	50
9MP029SM	45 44 06	114 45 32	30.0	0.3	0.5	2.00	1000	1.0N	20 N	70
9MP031SM	45 43 34	114 46 16	30.0	0.2	0.5	2.00G	1500	1.0N	20 N	50
9MP032SM	45 43 01	114 46 44	30.0	0.3	0.5	2.00G	2000	1.0N	20 N	50
9MP048SM	45 40 01	114 39 07	30.0	0.2	0.3	2.00G	1000	1.0N	20 N	150
9MP051SM	45 36 00	114 42 50	30.0	0.2	0.3	2.00	1000	1.0N	20 N	100
9MP052SM	45 37 01	114 42 07	20.0	0.5	1.0	2.00	1500	1.0N	20 N	200
9MP054SM	45 38 42	114 42 22	30.0	0.2	0.5	2.00	1000	1.0N	20	150
9MP058SM	45 40 19	114 40 41	30.0	0.2	0.2	2.00G	1000	1.0N	20 N	50
9MP060SM	45 36 22	114 33 50	50.0	0.1	0.1	0.50	500	1.0N	20 N	50 N
9MP061SM	45 36 22	114 33 47	50.0	0.1	0.2	2.00G	1500	1.0N	20 N	50
9MP062SM	45 36 04	114 34 34	30.0	0.3	0.3	2.00G	1000	1.0N	20 N	100
9MP064SM	45 35 38	114 35 38	50.0	0.1	0.2	2.00	2000	1.0N	20 N	50 N
9MP065SM	45 35 13	114 36 04	30.0	0.5	1.0	2.00	1500	1.0N	20 N	50
9MP066SM	45 35 02	114 36 40	30.0	0.2	0.3	2.00G	1000	1.0N	20 N	70
9MP071SM	45 37 34	114 34 48	50.0	0.2	0.2	2.00G	2000	1.0N	20 L	100
9MP072SM	45 36 47	114 35 17	50.0	0.2	0.2	2.00	1000	1.0N	20 N	150
9MP073SM	45 36 14	114 35 38	30.0	0.2	0.2	2.00G	1000	1.0N	20 N	70
9MP077SM	45 35 13	114 39 54	30.0	0.1	0.2	2.00G	1500	1.0N	20 N	70
9MP078SM	45 35 46	114 40 19	50.0	0.3	0.5	2.00G	1000	1.0N	20 N	150
9MP078SM	45 35 46	114 40 19	50.0	0.3	0.5	2.00	700	1.0N	20 N	150
9MP080SM	45 36 04	114 40 59	20.0	0.7	0.2	2.00G	1500	1.0N	20 N	50
9MP081SM	45 35 56	114 40 55	30.0	0.5	0.5	2.00G	1000	1.0N	20 N	300

Magruder Magnetic Fraction-continued

SAMPLE	sbe	sbi	scd	sco	scr	scu	sla	smo	snb	sni
9BB041SM	2 N	20 N	50 N	20	200	15	1000	30	200	10
9MP001SM	2 N	20 N	50 N	20	1000	10	50 N	10 N	100	20
9MP003SM	2 N	20 N	50 N	30	7000	10 L	70	10 N	70	70
9MP005SM	2 N	20 N	50 N	50	1000	10	1000	10 N	100	20
9MP009SM	2	20 N	50 N	10 N	100	10	1000	20	200	10 N
9MP011SM	2 N	20 N	50 N	30	200	10 L	500	10 N	200	10
9MP012SM	2 N	20 N	50 N	30	500	10	200	10 N	500	20
9MP014SM	2 N	20 N	50 N	30	50	10 L	700	10 N	1000	10 N
9MP015SM	2 N	20 N	50 N	20	50	10 L	150	10 N	300	15
9MP016SM	2 N	20 N	50 N	50	700	10	150	10 N	200	30
9MP017SM	2 N	20 N	50 N	70	300	10	50	10 N	150	20
9MP018SM	2 N	20 N	50 N	70	500	10	300	10 N	150	20
9MP019SM	2 N	20 N	50 N	30	700	10 L	100	10 N	200	30
9MP020SM	5	20 N	50 N	30	100	15	700	10 N	700	10
9MP022SM	7	20 N	50 N	20	100	70	500	70	150	10 N
9MP023SM	2	20 N	50 N	20	300	10	2000	30	150	10 N
9MP023SM	2 N	20 N	50 N	30	150	20	200	20	150	10 N
9MP026SM	2 N	20 N	50 N	30	200	20	300	10 N	150	15
9MP027SM	5	20 N	50 N	20	100	20	2000 G	20	150	10 N
9MP028SM	3	20 N	50 N	20	100	15	2000 G	30	150	10 N
9MP029SM	3	20 N	50 N	20	100	30	2000 G	30	150	10 N
9MP031SM	2	20 N	50 N	20	100	20	2000 G	20	150	10 N
9MP032SM	2	20 N	50 N	30	200	10	2000 G	20	200	20
9MP048SM	10	20 N	50 N	50	500	50	2000	20	150	20
9MP051SM	5	20 N	50 N	30	200	15	500	15	150	15
9MP052SM	7	20 N	50 N	20	70	20	500	10 N	200	10
9MP054SM	10	20 N	50 N	30	100	50	2000 G	20	150	10 N
9MP058SM	2 N	20 N	50 N	70	700	10	700	10 N	150	30
9MP060SM	3	20 N	50 N	50	100	15	100	10 N	50 N	20
9MP061SM	2 N	20 N	50 N	50	200	15	700	10 N	50	30
9MP062SM	3	20 N	50 N	100	150	50	300	10 N	100	50
9MP064SM	7	20 N	50 N	50	200	50	1500	30	100	50
9MP065SM	7	20 N	50 N	20	100	15	2000 G	30	150	10 N
9MP066SM	2	20 N	50 N	70	500	15	50	10 N	100	30
9MP071SM	5	20 N	50 N	70	1000	50	50	10 N	50	100
9MP072SM	3	20 N	50 N	70	200	30	1000	10 N	70	70
9MP073SM	2	20 N	50 N	70	200	20	50	10 N	70	50
9MP077SM	3	20 N	50 N	30	200	10	2000	30	150	15
9MP078SM	2 N	20 N	50 N	50	500	10	1000	10 N	100	20
9MP078SM	2 N	20 N	50 N	50	500	10	500	10 N	100	20
9MP080SM	2 N	20 N	50 N	100	70	10	700	20	150	30
9MP081SM	5	20 N	50 N	30	150	15	2000	20	150	15

Magruder Magnetic Fraction-continued

SAMPLE	spb	ssc	ssn	sv	sy	szn	szr	sth
9BB041SM	20 N	10	30	300	150	500	2000	200 N
9MP001SM	20 N	10 N	20 N	500	70	500 N	700	200 N
9MP003SM	20 N	10 N	30	200	50	500 N	500	1000
9MP005SM	20 N	10	20 N	700	100	500 L	1000	200 N
9MP009SM	20 N	10 N	100	300	150	700	2000 G	200 N
9MP011SM	20 N	10	30	500	200	500	700	200 N
9MP012SM	20 N	20	50	700	100	500 L	1000	200 N
9MP014SM	50	30	70	200	200	500	500	300
9MP015SM	20 N	20	50	300	100	700	200	200 N
9MP016SM	20 N	30	20	700	70	500 L	500	200 N
9MP017SM	20 N	10	20 N	700	50	500 L	700	200 N
9MP018SM	20 N	15	20 N	700	100	500 L	700	200 N
9MP019SM	20 N	20	20 N	700	100	500 L	1000	200 N
9MP020SM	100	20	70	500	150	500 L	500	200 L
9MP022SM	70	10 H	150	200	150	1000	2000 G	200 N
9MP023SM	20 N	10	50	200	200	500 L	2000	200 N
9MP023SM	20 N	10	30	200	100	500	1500	200 N
9MP026SM	20 N	10	20	500	100	500 L	1000	200 N
9MP027SM	20 N	20	50	150	300	500	2000	500
9MP028SM	20 N	10	50	200	200	500	1500	200 L
9MP029SM	20 N	20	50	150	200	500	2000	500
9MP031SM	20 N	15	50	150	300	500 L	2000	500
9MP032SM	20 N	10	50	150	200	500 L	1500	300
9MP048SM	50	15	50	200	200	500 L	1500	200 L
9MP051SM	20 N	15	20	300	150	500	1500	200 N
9MP052SM	20 N	20	20	100	200	500	2000	200 N
9MP054SM	70	15	50	150	300	500	2000	200
9MP058SM	20 N	20	20 N	500	150	500 N	500	200 L
9MP060SM	20 N	10 N	20 N	500	70	500 N	300	200 N
9MP061SM	20 L	10	20 N	500	50	500 L	500	200 N
9MP062SM	50	10	20 N	300	100	500 N	500	200 N
9MP064SM	20	10	70	300	200	1000	2000	200 L
9MP065SM	20 N	20	70	150	500	500	2000	500
9MP066SM	20 N	15	30	500	150	500 N	200	200 N
9MP071SM	20 L	10	20 N	500	70	500 L	700	200 N
9MP072SM	20 N	10 N	20 N	500	100	500 N	700	200 N
9MP073SM	20 N	10	20 N	500	150	500 N	500	200 N
9MP077SM	20 N	10	70	300	150	700	2000	200 N
9MP078SM	20 N	15	20	500	150	500 L	1000	200 N
9MP078SM	20 N	15	20	500	150	500 L	1000	200 N
9MP080SM	20 N	15	20 N	500	100	500 N	500	200 N
9MP081SM	30	15	30	200	200	500	1500	200 L

Magruder Magnetic Fraction-continued

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9RB022SM	45 44 42	114 45 29	30.0	0.2	0.3	2.00G	1000	1.0N	20 N	50
9RB024SM	45 43 30	114 44 38	20.0	0.2	0.5	2.00G	1500	1.0N	20 N	50
9SA003SM	45 43 05	114 43 16	50.0	0.5	1.0	2.00G	2000	0.1N	20 N	100
9SA005SM	45 38 10	114 40 37	50.0G	0.1	0.5	2.00G	2000	0.1N	20 N	50 N
9SA006SM	45 39 07	114 42 25	30.0	0.1	0.5	2.00G	3000	0.1N	20 N	50 N
9SA007SM	45 37 01	114 44 10	50.0	0.2	0.3	2.00G	5000	0.1N	20 N	50
9SA008SM	45 37 05	114 43 19	20.0	0.5	1.0	2.00G	2000	0.1N	20	150
9SA009SM	45 38 17	114 42 25	30.0	0.2	0.5	2.00G	1500	0.1N	20 N	50 N
9SA010SM	45 39 40	114 43 08	50.0G	0.2	0.5	2.00G	5000	0.1N	20 N	50
9SA011SM	45 34 01	114 37 41	50.0G	0.2	1.0	2.00G	7000	0.1N	20 N	50 N
9SA012SM	45 34 01	114 37 41	50.0	0.2	0.7	2.00G	2000	0.1N	20 N	50 N
9SA013SM	45 44 46	114 35 17	50.0	0.3	0.2	2.00G	1000	0.1N	20 N	100
9SA014SM	45 44 38	114 35 02	30.0	0.2	0.1	2.00G	2000	1.0	20 N	100
9SA015SM	45 44 20	114 36 40	50.0	0.2	0.5	2.00G	5000	0.1N	20 N	50 N
9SA016SM	45 43 59	114 36 54	50.0	0.2	0.2	2.00G	1500	0.1N	20 N	50 N
9SA021SM	45 37 26	114 38 56	30.0	0.2	0.5	2.00	1000	1.0N	20	150
9SA022SM	45 36 58	114 39 54	30.0	0.2	0.3	2.00G	1000	1.0N	20 N	100
9SA090SM	45 40 01	114 43 16	30.0	0.2	0.2	2.00G	1500	1.0N	20 N	50 N

DATE 6/ 7/81

Magruder Magnetic Fraction-continued

SAMPLE	sbe	sbi	scd	sco	scr	scu	sla	smo	snb	sni
9RB022SM	2	20 N	50 N	15	150	10	2000	30	150	10 N
9RB024SM	2 N	20 N	50 N	15	50	15	2000 G	10	300	10 N
9SA003SM	5	20 N	50 N	20	50	50	1000	10	200	10 N
9SA005SM	7	20 N	50 N	15	150	15	2000 G	20	70	10 N
9SA006SM	2 N	20 N	50 N	30	200	15	200	10 N	200	15
9SA007SM	2 N	20 N	50 N	20	150	10 L	1000	15	200	10
9SA008SM	7	20 N	50 N	15	100	10	2000 G	10	200	10 N
9SA009SM	2	20 N	50 N	20	100	10	1000	70	100	10 N
9SA010SM	2 N	20	50 N	10	200	20	700	20	100	10 N
9SA011SM	2	20 N	50 N	10 N	70	10 L	2000 G	50	150	10 N
9SA012SM	3	20 N	50 N	15	70	10	2000 G	50	150	10 N
9SA013SM	5	20 N	50 N	15	1000	15	2000	10 N	70	20
9SA014SM	7	20 N	50 N	20	70	15	200	30	300	10 N
9SA015SM	2	20 N	50 N	50	100	10	50 N	10	100	15
9SA016SM	7	20 N	50 N	15	70	15	1500	30	500	10 N
9SA021SM	7	20 N	50 N	20	150	20	2000 G	30	150	10 N
9SA022SM	7	20 N	50 N	20	70	20	2000	30	150	10 N
9SA090SM	2 N	20 N	50 N	30	200	10	500	30	200	15

Magruder Magnetic Fraction-continued

SAMPLE	spb	ssc	ssn	sv	sy	szn	szr	sth
9RB022SM	20 N	15	50	200	200	500 L	2000	200 N
9RB024SM	20 N	10	20	150	200	500 N	2000	500
9SA003SM	20	20	50	200	200	500	2000 G	200 N
9SA005SM	30	10	200	200	300	1000	2000 G	200 L
9SA006SM	20 N	10 N	20 N	500	100	500	1500	200 N
9SA007SM	20 N	10	20 N	500	70	500 N	2000 G	200 N
9SA008SM	20	20	50	200	200	500 L	2000 G	200 N
9SA009SM	20 N	20	30	300	150	500	2000 G	200 N
9SA010SM	50	10 N	50	300	70	700	2000 G	200 N
9SA011SM	20 N	15	100	150	1000	1000	2000 G	200 L
9SA012SM	20 N	10	100	200	300	1000	2000 G	200
9SA013SM	20	15	20	500	500	500 N	2000 G	200 L
9SA014SM	70	10	70	300	150	500	2000 G	200 N
9SA015SM	20 L	10	30	1000	70	500	2000	200 N
9SA016SM	20	10	70	300	300	700	2000 G	200 N
9SA021SM	50	10	100	150	300	700	1500	500
9SA022SM	20	10	20	150	150	500	2000 G	200
9SA090SM	20 N	10	30	300	100	700	1000	200 N

TITLE
Magruder Magnetic Fraction

Table 4.--Statistical summary for magnetic heavy-mineral-concentrate fraction

THE FREQUENCY DISTRIBUTIONS AND HISTOGRAMS ON THE FOLLOWING PAGES ARE ON LOGARITHMIC SCALES, AND EMPLOY THE SAME CLASS INTERVALS AS USED IN REPORTING 6-STEP SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES. IMPORTANT NOTE- THE STATISTICS GIVEN BELOW THE HISTOGRAMS ARE DERIVED ONLY FROM DATA VALUES WITHIN THE RANGES OF ANALYTICAL DETERMINATION, AND ARE, THEREFORE, BIASED IF DATA VALUES QUALIFIED WITH N, L, G, T, OR H CODES ARE PRESENT. SEE LATER SECTION OF OUTPUT FOR STATISTICAL ESTIMATES THAT ARE UNBIASED IN THIS REGARD. THE GEOMETRIC MEAN IS AN ESTIMATE OF "CENTRAL TEND ENCY," OR OF A CHARACTERISTIC VALUE, OF A FREQUENCY DISTRIBUTION THAT IS APPROXIMATELY SYMMETRICAL ON A LOG SCALE, AND IS THEREFORE USEFUL FOR CHARACTERIZING MANY GEOCHEMICAL DISTRIBUTIONS. THE GEOMETRIC MEAN IS NOT AN ESTIMATE OF GEOCHEMICAL ABUNDANCE AND IS OF NO VALUE IN ESTIMATING RESERVES OR TOTAL AMOUNTS OF ELEMENTS PRESENT. SEE USGS PROFESSIONAL PAPER 574-B FOR FURTHER DISCUSSION. SEE USGS BULLETIN 1147E, PAGE 23, FOR EXPLANATION OF GEOMETRIC DEVIATION.

THE CUMULATIVE FREQUENCY PERCENTS GIVEN BELOW SHOULD BE PLOTTED AGAINST THE "LOWER" LIMITS TO GIVE THE LEPELTIER-TYPE CUMULATIVE CURVE.

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 3 (sfe%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	0	0	0.00	100.00
2.6E-01 -	3.8E-01	0	0	0.00	100.00
3.8E-01 -	5.6E-01	0	0	0.00	100.00
5.6E-01 -	8.3E-01	0	0	0.00	100.00
8.3E-01 -	1.2E+00	0	0	0.00	100.00
1.2E+00 -	1.8E+00	0	0	0.00	100.00
1.8E+00 -	2.6E+00	0	0	0.00	100.00
2.6E+00 -	3.8E+00	0	0	0.00	100.00
3.8E+00 -	5.6E+00	0	0	0.00	100.00
5.6E+00 -	8.3E+00	0	0	0.00	100.00
8.3E+00 -	1.2E+01	0	0	0.00	100.00
1.2E+01 -	1.8E+01	0	0	0.00	100.00
1.8E+01 -	2.6E+01	5	5	8.33	100.00
2.6E+01 -	3.8E+01	34	39	56.67	91.67
3.8E+01 -	5.6E+01	18	57	30.00	35.00

HISTOGRAM FOR COLUMN 3 (sfe%)

```
2.0E+01 XXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	3	57
0.00	0.00			0.00	5.00	

MAXIMUM = 5.00000E+01
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 3.40198E+01
GEOMETRIC DEVIATION = 1.33263E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 4 (smg%)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	6	6	10.00	100.00
8.3E-02 -	1.2E-01	7	13	11.67	90.00
1.2E-01 -	1.8E-01	16	29	26.67	78.33
1.8E-01 -	2.6E-01	17	46	28.33	51.67
2.6E-01 -	3.8E-01	6	52	10.00	23.33
3.8E-01 -	5.6E-01	7	59	11.67	13.33
5.6E-01 -	8.3E-01	1	60	1.67	1.67

HISTOGRAM FOR COLUMN 4 (smg%)

```
  7.0E-02 XXXXXXXXXX
  1.0E-01 XXXXXXXXXXXX
  1.5E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
  2.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
  3.0E-01 XXXXXXXXXX
  5.0E-01 XXXXXXXXXXXX
  7.0E-01 XX
```

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N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	60
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E-01
MINIMUM = 7.00000E-02
GEOMETRIC MEAN = 1.82013E-01
GEOMETRIC DEVIATION = 1.76908E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 5 (sca%)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-02 -	1.2E-01	7	7	11.67	95.00
1.2E-01 -	1.8E-01	5	12	8.33	83.33
1.8E-01 -	2.6E-01	13	25	21.67	75.00
2.6E-01 -	3.8E-01	11	36	18.33	53.33
3.8E-01 -	5.6E-01	14	50	23.33	35.00
5.6E-01 -	8.3E-01	1	51	1.67	11.67
8.3E-01 -	1.2E+00	6	57	10.00	10.00

HISTOGRAM FOR COLUMN 5 (sca%)

```
1.0E-01 XXXXXXXXXXX
1.5E-01 XXXXXXXX
2.0E-01 XXXXXXXXXXXXXXXXXXXX
3.0E-01 XXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XX
1.0E+00 XXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	57
0.00	5.00			0.00	0.00	

MAXIMUM = 1.00000E+00
MINIMUM = 1.00000E-01
GEOMETRIC MEAN = 2.93728E-01
GEOMETRIC DEVIATION = 1.97742E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 6 (sti%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-03 -	5.6E-03	0	0	0.00	100.00
5.6E-03 -	8.3E-03	0	0	0.00	100.00
8.3E-03 -	1.2E-02	0	0	0.00	100.00
1.2E-02 -	1.8E-02	0	0	0.00	100.00
1.8E-02 -	2.6E-02	0	0	0.00	100.00
2.6E-02 -	3.8E-02	0	0	0.00	100.00
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	0	0	0.00	100.00
2.6E-01 -	3.8E-01	0	0	0.00	100.00
3.8E-01 -	5.6E-01	1	1	1.67	100.00
5.6E-01 -	8.3E-01	0	1	0.00	98.33
8.3E-01 -	1.2E+00	0	1	0.00	98.33
1.2E+00 -	1.8E+00	0	1	0.00	98.33
1.8E+00 -	2.6E+00	12	13	20.00	98.33

HISTOGRAM FOR COLUMN 6 (sti%)

```
    5.0E-01 XX
    7.0E-01
    1.0E+00
    1.5E+00
    2.0E+00 XXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	47	13
0.00	0.00			0.00	78.33	

MAXIMUM = 2.00000E+00
MINIMUM = 5.00000E-01
GEOMETRIC MEAN = 1.79770E+00
GEOMETRIC DEVIATION = 1.46886E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 7 (smn)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	0	0	0.00	100.00
2.6E+02 -	3.8E+02	0	0	0.00	100.00
3.8E+02 -	5.6E+02	3	3	5.00	100.00
5.6E+02 -	8.3E+02	1	4	1.67	95.00
8.3E+02 -	1.2E+03	19	23	31.67	93.33
1.2E+03 -	1.8E+03	17	40	28.33	61.67
1.8E+03 -	2.6E+03	14	54	23.33	33.33
2.6E+03 -	3.8E+03	1	55	1.67	10.00
3.8E+03 -	5.6E+03	3	58	5.00	8.33
5.6E+03 -	8.3E+03	2	60	3.33	3.33

HISTOGRAM FOR COLUMN 7 (smn)

```
     5.0E+02 XXXXX
     7.0E+02 XX
     1.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
     1.5E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXX
     2.0E+03 XXXXXXXXXXXXXXXXXXXXX
     3.0E+03 XX
     5.0E+03 XXXXX
     7.0E+03 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	60
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E+03
MINIMUM = 5.00000E+02
GEOMETRIC MEAN = 1.49132E+03
GEOMETRIC DEVIATION = 1.73884E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 11 (sb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	3	3	5.00	6.67
2.6E+01 -	3.8E+01	0	3	0.00	1.67
3.8E+01 -	5.6E+01	0	3	0.00	1.67
5.6E+01 -	8.3E+01	0	3	0.00	1.67
8.3E+01 -	1.2E+02	1	4	1.67	1.67

HISTOGRAM FOR COLUMN 11 (sb)

```
2.0E+01 XXXXX
3.0E+01
5.0E+01
7.0E+01
1.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
55	1	0	0	0	0	4
91.67	1.67			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 2.99070E+01
GEOMETRIC DEVIATION = 2.23607E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 12 (sba)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	15	15	25.00	78.33
5.6E+01 -	8.3E+01	9	24	15.00	53.33
8.3E+01 -	1.2E+02	9	33	15.00	38.33
1.2E+02 -	1.8E+02	10	43	16.67	23.33
1.8E+02 -	2.6E+02	3	46	5.00	6.67
2.6E+02 -	3.8E+02	1	47	1.67	1.67

HISTOGRAM FOR COLUMN 12 (sba)

```
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXX
2.0E+02 XXXXX
3.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
13	0	0	0	0	0	47
21.67	0.00			0.00	0.00	

MAXIMUM = 3.00000E+02
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 8.73166E+01
GEOMETRIC DEVIATION = 1.65871E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 13 (sbe)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+00 -	2.6E+00	10	10	16.67	60.00
2.6E+00 -	3.8E+00	7	17	11.67	43.33
3.8E+00 -	5.6E+00	7	24	11.67	31.67
5.6E+00 -	8.3E+00	10	34	16.67	20.00
8.3E+00 -	1.2E+01	2	36	3.33	3.33

HISTOGRAM FOR COLUMN 13 (sbe)

```
2.0E+00 XXXXXXXXXXXXXXXX
3.0E+00 XXXXXXXXXXX
5.0E+00 XXXXXXXXXXX
7.0E+00 XXXXXXXXXXXXXXXX
1.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
24	0	0	0	0	0	36
40.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+01
MINIMUM = 2.00000E+00
GEOMETRIC MEAN = 4.00506E+00
GEOMETRIC DEVIATION = 1.73126E+00

TITLE
Nagruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 16 (sco)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	1	1	1.67	96.67
1.2E+01 -	1.8E+01	7	8	11.67	95.00
1.8E+01 -	2.6E+01	17	25	28.33	83.33
2.6E+01 -	3.8E+01	15	40	25.00	55.00
3.8E+01 -	5.6E+01	9	49	15.00	30.00
5.6E+01 -	8.3E+01	7	56	11.67	15.00
8.3E+01 -	1.2E+02	2	58	3.33	3.33

HISTOGRAM FOR COLUMN 16 (sco)

```
1.0E+01 XX
1.5E+01 XXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXX
1.0E+02 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	0	0	0	0	0	58
3.33	0.00			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 3.00481E+01
GEOMETRIC DEVIATION = 1.74415E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 17 (scr)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	4	4	6.67	100.00
5.6E+01 -	8.3E+01	7	11	11.67	93.33
8.3E+01 -	1.2E+02	13	24	21.67	81.67
1.2E+02 -	1.8E+02	7	31	11.67	60.00
1.8E+02 -	2.6E+02	13	44	21.67	48.33
2.6E+02 -	3.8E+02	2	46	3.33	26.67
3.8E+02 -	5.6E+02	6	52	10.00	23.33
5.6E+02 -	8.3E+02	3	55	5.00	13.33
8.3E+02 -	1.2E+03	4	59	6.67	8.33
1.2E+03 -	1.8E+03	0	59	0.00	1.67
1.8E+03 -	2.6E+03	0	59	0.00	1.67
2.6E+03 -	3.8E+03	0	59	0.00	1.67
3.8E+03 -	5.6E+03	0	59	0.00	1.67
5.6E+03 -	8.3E+03	1	60	1.67	1.67

HISTOGRAM FOR COLUMN 17 (scr)

```
     5.0E+01 XXXXXXX
     7.0E+01 XXXXXXXXXXX
     1.0E+02 XXXXXXXXXXXXXXXXXXXXX
     1.5E+02 XXXXXXXXXXXX
     2.0E+02 XXXXXXXXXXXXXXXXXXXXX
     3.0E+02 XXX
     5.0E+02 XXXXXXXXXX
     7.0E+02 XXXXX
     1.0E+03 XXXXXXX
     1.5E+03
     2.0E+03
     3.0E+03
     5.0E+03
     7.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	60
0.00	0.00			0.00	0.00	

MAXIMUM = 7.00000E+03
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 1.87543E+02
GEOMETRIC DEVIATION = 2.62739E+00

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 18 (scu)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	20	20	33.33	88.33
1.2E+01 -	1.8E+01	15	35	25.00	55.00
1.8E+01 -	2.6E+01	9	44	15.00	30.00
2.6E+01 -	3.8E+01	2	46	3.33	15.00
3.8E+01 -	5.6E+01	6	52	10.00	11.67
5.6E+01 -	8.3E+01	1	53	1.67	1.67

HISTOGRAM FOR COLUMN 18 (scu)

```
1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXX
3.0E+01 XXX
5.0E+01 XXXXXXXXXX
7.0E+01 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	7	0	0	0	0	53
0.00	11.67			0.00	0.00	

MAXIMUM = 7.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.63694E+01
GEOMETRIC DEVIATION = 1.73112E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 19 (sla)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	4	4	6.67	96.67
5.6E+01 -	8.3E+01	1	5	1.67	90.00
8.3E+01 -	1.2E+02	2	7	3.33	88.33
1.2E+02 -	1.8E+02	2	9	3.33	85.00
1.8E+02 -	2.6E+02	4	13	6.67	81.67
2.6E+02 -	3.8E+02	3	16	5.00	75.00
3.8E+02 -	5.6E+02	6	22	10.00	70.00
5.6E+02 -	8.3E+02	6	28	10.00	60.00
8.3E+02 -	1.2E+03	8	36	13.33	50.00
1.2E+03 -	1.8E+03	2	38	3.33	36.67
1.8E+03 -	2.6E+03	7	45	11.67	33.33

HISTOGRAM FOR COLUMN 19 (sla)

```
      5.0E+01 XXXXXXX
      7.0E+01 XX
      1.0E+02 XXX
      1.5E+02 XXX
      2.0E+02 XXXXXXX
      3.0E+02 XXXXX
      5.0E+02 XXXXXXXXXX
      7.0E+02 XXXXXXXXXX
      1.0E+03 XXXXXXXXXXXXX
      1.5E+03 XXX
      2.0E+03 XXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	0	0	0	0	13	45
3.33	0.00			0.00	21.67	

MAXIMUM = 2.00000E+03
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 4.72606E+02
GEOMETRIC DEVIATION = 3.13794E+00

TITLE
Nagruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 20 (smo)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	4	4	6.67	56.67
1.2E+01 -	1.8E+01	2	6	3.33	50.00
1.8E+01 -	2.6E+01	11	17	18.33	46.67
2.6E+01 -	3.8E+01	13	30	21.67	28.33
3.8E+01 -	5.6E+01	2	32	3.33	6.67
5.6E+01 -	8.3E+01	2	34	3.33	3.33

HISTOGRAM FOR COLUMN 20 (smo)

```
1.0E+01 XXXXXXX
1.5E+01 XXX
2.0E+01 XXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXX
7.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
26	0	0	0	0	0	34
43.33	0.00			0.00	0.00	

MAXIMUM = 7.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 2.40440E+01
GEOMETRIC DEVIATION = 1.63061E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 21 (snb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	2	2	3.33	98.33
5.6E+01 -	8.3E+01	5	7	8.33	95.00
8.3E+01 -	1.2E+02	10	17	16.67	86.67
1.2E+02 -	1.8E+02	23	40	38.33	70.00
1.8E+02 -	2.6E+02	12	52	20.00	31.67
2.6E+02 -	3.8E+02	3	55	5.00	11.67
3.8E+02 -	5.6E+02	2	57	3.33	6.67
5.6E+02 -	8.3E+02	1	58	1.67	3.33
8.3E+02 -	1.2E+03	1	59	1.67	1.67

HISTOGRAM FOR COLUMN 21 (snb)

```
5.0E+01 XXX
7.0E+01 XXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXX
3.0E+02 XXXXX
5.0E+02 XXX
7.0E+02 XX
1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
1	0	0	0	0	0	59
1.67	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 1.53380E+02
GEOMETRIC DEVIATION = 1.75201E+00

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 22 (sni)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	5	5	8.33	60.00
1.2E+01 -	1.8E+01	8	13	13.33	51.67
1.8E+01 -	2.6E+01	11	24	18.33	38.33
2.6E+01 -	3.8E+01	6	30	10.00	20.00
3.8E+01 -	5.6E+01	3	33	5.00	10.00
5.6E+01 -	8.3E+01	2	35	3.33	5.00
8.3E+01 -	1.2E+02	1	36	1.67	1.67

HISTOGRAM FOR COLUMN 22 (sni)

```
1.0E+01 XXXXXXXX
1.5E+01 XXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXX
5.0E+01 XXXXX
7.0E+01 XXX
1.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
24	0	0	0	0	0	36
40.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 2.20601E+01
GEOMETRIC DEVIATION = 1.79388E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 23 (spb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	6	6	10.00	28.33
2.6E+01 -	3.8E+01	2	8	3.33	18.33
3.8E+01 -	5.6E+01	5	13	8.33	15.00
5.6E+01 -	8.3E+01	3	16	5.00	6.67
8.3E+01 -	1.2E+02	1	17	1.67	1.67

HISTOGRAM FOR COLUMN 23 (spb)

```
2.0E+01 XXXXXXXXXX
3.0E+01 XXX
5.0E+01 XXXXXXXX
7.0E+01 XXXXX
1.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
40	3	0	0	0	0	17
66.67	5.00			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 3.76631E+01
GEOMETRIC DEVIATION = 1.75039E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 25 (ssc)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	25	25	42.37	88.14
1.2E+01 -	1.8E+01	13	38	22.03	45.76
1.8E+01 -	2.6E+01	12	50	20.34	23.73
2.6E+01 -	3.8E+01	2	52	3.39	3.39

HISTOGRAM FOR COLUMN 25 (ssc)

```
1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXX
3.0E+01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
7	0	1	0	0	0	52
11.86	0.00			0.00	0.00	

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MAXIMUM = 3.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.35470E+01
GEOMETRIC DEVIATION = 1.38974E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 26 (ssn)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	9	9	15.00	75.00
2.6E+01 -	3.8E+01	9	18	15.00	60.00
3.8E+01 -	5.6E+01	14	32	23.33	45.00
5.6E+01 -	8.3E+01	7	39	11.67	21.67
8.3E+01 -	1.2E+02	4	43	6.67	10.00
1.2E+02 -	1.8E+02	1	44	1.67	3.33
1.8E+02 -	2.6E+02	1	45	1.67	1.67

HISTOGRAM FOR COLUMN 26 (ssn)

```
2.0E+01 XXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXX
1.0E+02 XXXXXXX
1.5E+02 XX
2.0E+02 XX
```


N	L	H	B	T	G	ANALYTICAL VALUES
15	0	0	0	0	0	45
25.00	0.00			0.00	0.00	

MAXIMUM = 2.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 4.45126E+01
GEOMETRIC DEVIATION = 1.79784E+00

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 28 (sv)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	1	1	1.67	100.00
1.2E+02 -	1.8E+02	10	11	16.67	98.33
1.8E+02 -	2.6E+02	13	24	21.67	81.67
2.6E+02 -	3.8E+02	12	36	20.00	60.00
3.8E+02 -	5.6E+02	17	53	28.33	40.00
5.6E+02 -	8.3E+02	6	59	10.00	11.67
8.3E+02 -	1.2E+03	1	60	1.67	1.67

HISTOGRAM FOR COLUMN 28 (sv)

```
1.0E+02 XX
1.5E+02 XXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXX
1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	60
0.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 1.00000E+02
GEOMETRIC MEAN = 3.08471E+02
GEOMETRIC DEVIATION = 1.74518E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 30 (sy)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	3	3	5.00	100.00
5.6E+01 -	8.3E+01	7	10	11.67	95.00
8.3E+01 -	1.2E+02	12	22	20.00	83.33
1.2E+02 -	1.8E+02	14	36	23.33	63.33
1.8E+02 -	2.6E+02	14	50	23.33	40.00
2.6E+02 -	3.8E+02	7	57	11.67	16.67
3.8E+02 -	5.6E+02	2	59	3.33	5.00
5.6E+02 -	8.3E+02	0	59	0.00	1.67
8.3E+02 -	1.2E+03	1	60	1.67	1.67

HISTOGRAM FOR COLUMN 30 (sy)

```
5.0E+01 XXXXX
7.0E+01 XXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXXX
5.0E+02 XXX
7.0E+02
1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	60
0.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 1.49223E+02
GEOMETRIC DEVIATION = 1.80762E+00

TITLE
Hagruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 31 (szn)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+02 -	5.6E+02	18	18	30.00	50.00
5.6E+02 -	8.3E+02	7	25	11.67	20.00
8.3E+02 -	1.2E+03	5	30	8.33	8.33

HISTOGRAM FOR COLUMN 31 (szn)

```
      5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      7.0E+02 XXXXXXXXXXXX
      1.0E+03 XXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
12	18	0	0	0	0	30
20.00	30.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 5.00000E+02
GEOMETRIC MEAN = 6.07069E+02
GEOMETRIC DEVIATION = 1.30586E+00

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A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 32 (szr)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	2	2	3.33	100.00
2.6E+02 -	3.8E+02	1	3	1.67	96.67
3.8E+02 -	5.6E+02	9	12	15.00	95.00
5.6E+02 -	8.3E+02	6	18	10.00	80.00
8.3E+02 -	1.2E+03	7	25	11.67	70.00
1.2E+03 -	1.8E+03	8	33	13.33	58.33
1.8E+03 -	2.6E+03	13	46	21.67	45.00

HISTOGRAM FOR COLUMN 32 (szr)

```
2.0E+02 XXX
3.0E+02 XX
5.0E+02 XXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXX
1.0E+03 XXXXXXXXXXX
1.5E+03 XXXXXXXXXXXX
2.0E+03 XXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	14	46
0.00	0.00			0.00	23.33	

MAXIMUM = 2.00000E+03
MINIMUM = 2.00000E+02
GEOMETRIC MEAN = 9.88188E+02
GEOMETRIC DEVIATION = 1.92403E+00

TITLE
Magruder Magnetic Fraction

FREQUENCY TABLE FOR COLUMN 33 (sth)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+02 -	2.6E+02	3	3	5.00	20.00
2.6E+02 -	3.8E+02	2	5	3.33	15.00
3.8E+02 -	5.6E+02	6	11	10.00	11.67
5.6E+02 -	8.3E+02	0	11	0.00	1.67
8.3E+02 -	1.2E+03	1	12	1.67	1.67

HISTOGRAM FOR COLUMN 33 (sth)

```
2.0E+02 XXXXX
3.0E+02 XXX
5.0E+02 XXXXXXXXXX
7.0E+02
1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
39	9	0	0	0	0	12
65.00	15.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 2.00000E+02
GEOMETRIC MEAN = 3.86898E+02
GEOMETRIC DEVIATION = 1.64601E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Magnetic Fraction

IN THE COMPUTATIONS PERFORMED TO PRODUCE THE FOLLOWING TABLE OF GEOMETRIC MEANS AND DEVIATIONS, ALL ELEMENTS ARE IGNORED WHERE ONE OR MORE OF THE UNQUALIFIED DATA VALUES IS LESS THAN THE ANALYTICAL LIMIT OF DETECTION SPECIFIED ON INPUT OR WHERE ANY DATA VALUES ARE QUALIFIED WITH THE G (GREATER THAN) CODE. DATA VALUES QUALIFIED WITH B OR H ARE NOT USED IN THE COMPUTATIONS. WHERE NONE OF THE DATA VALUES FOR AN ELEMENT ARE QUALIFIED THE MEAN AND DEVIATION SHOULD BE THE SAME AS THOSE GIVEN IN THE PRECEDING SECTION. WHERE DATA ARE QUALIFIED WITH THE CODES N, L, OR T, THE ESTIMATES OF GEOMETRIC MEAN AND DEVIATION ARE BASED ON A METHOD BY A. J. COHEN FOR TREATING CENSORED DISTRIBUTIONS. THE APPLICATION OF THIS METHOD TO GEOCHEMICAL PROBLEMS IS DESCRIBED IN USGS PROFESSIONAL PAPER 574-B. THE ESTIMATES ARE UNBIASED IN A STRICT SENSE ONLY WHERE THE DATA ARE DERIVED FROM A LOGNORMAL PARENT POPULATION, BUT EXPERIMENTS HAVE SHOWN THAT LARGE DEPARTURES FROM THIS REQUIREMENT MAY NOT GREATLY INVALIDATE THE RESULTS ACCEPTANCE AND USE OF THE ESTIMATES, HOWEVER, IS THE RESPONSIBILITY OF THE INDIVIDUAL.

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
sfe%	0	0	0	0	0	3	57
smg%	0	0	0	0	0	0	60
sca%	0	3	0	0	0	0	57
sti%	0	0	0	0	0	47	13
smn	0	0	0	0	0	0	60
sb	55	1	0	0	0	0	4
sba	13	0	0	0	0	0	47
sbe	24	0	0	0	0	0	36
sco	2	0	0	0	0	0	58
scr	0	0	0	0	0	0	60
scu	0	7	0	0	0	0	53
sla	2	0	0	0	0	13	45
smo	26	0	0	0	0	0	34
snb	1	0	0	0	0	0	59
sni	24	0	0	0	0	0	36
spb	40	3	0	0	0	0	17
ssc	7	0	1	0	0	0	52
ssn	15	0	0	0	0	0	45
sv	0	0	0	0	0	0	60
sy	0	0	0	0	0	0	60
szn	12	18	0	0	0	0	30
szr	0	0	0	0	0	14	46
sth	39	9	0	0	0	0	12

TITLE

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
sfe%	********	******	3 GREATER THAN VALUES. NO COMPUTATIONS.
smg%	0.182013	1.77	60 SAMPLES AND 60 ANALYTICAL VALUES.
sca%	0.271275	2.12	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 57 REPORTED VALUES.
sti%	********	******	47 GREATER THAN VALUES. NO COMPUTATIONS.
smn	1491.317856	1.74	60 SAMPLES AND 60 ANALYTICAL VALUES.
sb	29.914264	2.24	56 NOT DETECTED, LESS THAN, OR TRACE VALUES. 4 REPORTED VALUES.
sba	67.163836	1.99	13 NOT DETECTED, LESS THAN, OR TRACE VALUES. 47 REPORTED VALUES.
sbe	2.260785	2.40	24 NOT DETECTED, LESS THAN, OR TRACE VALUES. 36 REPORTED VALUES.
sco	28.565459	1.84	2 NOT DETECTED, LESS THAN, OR TRACE VALUES. 58 REPORTED VALUES.
scr	187.543036	2.63	60 SAMPLES AND 60 ANALYTICAL VALUES.
scu	14.532271	1.86	7 NOT DETECTED, LESS THAN, OR TRACE VALUES. 53 REPORTED VALUES.
sla	********	******	13 GREATER THAN VALUES. NO COMPUTATIONS.
smo	11.028980	2.82	26 NOT DETECTED, LESS THAN, OR TRACE VALUES. 34 REPORTED VALUES.
snb	149.373087	1.81	1 NOT DETECTED, LESS THAN, OR TRACE VALUES. 59 REPORTED VALUES.
sni	11.273754	2.72	24 NOT DETECTED, LESS THAN, OR TRACE VALUES. 36 REPORTED VALUES.
spb	9.174212	3.23	43 NOT DETECTED, LESS THAN, OR TRACE VALUES. 17 REPORTED VALUES.
ssc	12.477782	1.47	7 NOT DETECTED, LESS THAN, OR TRACE VALUES. 52 REPORTED VALUES.
ssn	31.368112	2.26	15 NOT DETECTED, LESS THAN, OR TRACE VALUES. 45 REPORTED VALUES.
sv	308.470760	1.75	60 SAMPLES AND 60 ANALYTICAL VALUES.
sy	149.222668	1.81	60 SAMPLES AND 60 ANALYTICAL VALUES.
szn	393.862068	1.68	30 NOT DETECTED, LESS THAN, OR TRACE VALUES. 30 REPORTED VALUES.
szr	********	******	14 GREATER THAN VALUES. NO COMPUTATIONS.
sth	60.772754	3.67	48 NOT DETECTED, LESS THAN, OR TRACE VALUES. 12 REPORTED VALUES.

Table 5.--Analytical data for nonmagnetic heavy-mineral-concentrate fraction

DATE 6/ 7/81

Magruder Nonmagnetic Fraction

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9BB038SN	45 29 13	114 32 31	20.0	0.1	0.5	2.00G	7000	1.0N	20 L	70
9BB041SN	45 40 44	114 43 12	20.0	0.3	0.7	2.00G	5000	1.0N	20 N	50 N
9BB042SN	45 41 42	114 43 08	20.0	0.3	0.5	2.00G	5000	1.0N	20 N	300
9MP001SN	45 42 40	114 31 19	15.0	0.5	0.1	2.00	500	1.0N	20 L	500
9MP003SN	45 42 25	114 30 54	15.0	0.3	0.1	1.00	300	1.0N	20 L	500
9MP005SN	45 41 46	114 31 37	20.0	0.2	0.1	2.00G	2000	1.0N	30	150
9MP009SN	45 42 29	114 36 18	10.0	0.2	3.0	2.00G	2000	1.0N	20 L	300
9MP011SN	45 42 04	114 37 37	10.0	0.3	0.3	2.00G	2000	1.0N	20 N	500
9MP012SN	45 42 07	114 38 17	15.0	0.2	0.2	2.00G	3000	1.0N	20 N	300
9MP014SN	45 42 47	114 37 01	7.0	0.2	0.2	2.00	1000	1.0N	20 N	700
9MP015SN	45 41 46	114 39 07	10.0	0.3	0.3	2.00G	2000	1.0N	20 L	500
9MP016SN	45 41 31	114 39 25	15.0	2.0	2.0	2.00G	2000	1.0N	20 N	100
9MP017SN	45 41 31	114 39 43	20.0	0.5	0.5	2.00G	2000	1.0N	20 N	70
9MP018SN	45 41 31	114 39 43	15.0	0.5	1.0	2.00G	3000	1.0N	20 N	150
9MP019SN	45 41 49	114 39 54	20.0	0.3	0.5	2.00G	5000	1.0N	20 L	100
9MP020SN	45 42 22	114 41 10	15.0	0.2	0.3	2.00G	2000	1.0N	20 L	500
9MP022SN	45 41 38	114 34 52	20.0	0.5	0.2	2.00G	2000	1.0N	20 L	150
9MP023SN	45 42 50	114 42 00	20.0	0.2	0.5	2.00G	5000	1.0N	20 N	150
9MP026SN	45 42 50	114 43 12	20.0	0.5	1.0	2.00G	5000	1.0N	20 N	200
9MP027SN	45 44 06	114 45 04	15.0	0.5	2.0	2.00G	2000	1.0N	20 N	150
9MP028SN	45 44 42	114 45 32	15.0	0.7	1.5	2.00G	2000	1.0N	20 N	200
9MP029SN	45 44 06	114 45 32	15.0	0.7	2.0	2.00G	2000	1.0N	20 N	100
9MP031SN	45 43 34	114 46 16	15.0	0.5	1.0	2.00G	2000	1.0N	20 N	100
9MP032SN	45 43 01	114 46 44	20.0	0.5	1.0	2.00G	5000	1.0N	20 N	50 N
9MP048SN	45 40 01	114 39 07	15.0	0.5	1.5	2.00G	3000	1.0N	20 N	300
9MP051SN	45 36 00	114 42 50	20.0	0.7	0.7	2.00G	2000	1.0N	20 N	100
9MP052SN	45 37 01	114 42 07	15.0	1.5	2.0	2.00	2000	1.0N	20 L	700
9MP054SN	45 38 42	114 42 22	20.0	0.7	1.0	2.00G	3000	1.0N	20 N	200
9MP056SN	45 38 20	114 42 18	10.0	0.5	1.0	2.00	2000	1.0N	20 L	500
9MP058SN	45 40 19	114 40 41	15.0	2.0	1.5	2.00G	3000	1.0N	20 N	300
9MP060SN	45 36 22	114 33 50	20.0	1.0	1.0	2.00	2000	5.0	20 N	500
9MP061SN	45 36 22	114 33 47	20.0	1.0	0.5	2.00G	5000	1.0N	20 L	150
9MP062SN	45 36 04	114 34 34	15.0	0.5	1.0	2.00G	3000	1.0N	20 L	300
9MP064SN	45 35 38	114 35 38	20.0	0.5	1.0	2.00	2000	1.0	20 L	70
9MP065SN	45 35 13	114 36 04	15.0	1.5	2.0	2.00G	2000	1.0N	20 N	100
9MP066SN	45 35 02	114 36 40	20.0	1.0	1.5	2.00G	2000	1.0N	20 N	200
9MP071SN	45 37 34	114 34 48	15.0	0.5	0.5	2.00G	1500	1.0N	20 L	100
9MP072SN	45 36 47	114 35 17	10.0	0.5	1.0	2.00	1500	1.0N	20 L	300
9MP073SN	45 36 14	114 35 38	10.0	1.0	1.5	2.00G	1500	1.0	20 N	300
9MP077SN	45 35 13	114 39 54	15.0	0.7	0.5	2.00G	3000	1.0N	20 L	700
9MP078SN	45 35 46	114 40 19	15.0	1.5	2.0	2.00G	2000	1.0N	20 N	500
9MP080SN	45 36 04	114 40 59	15.0	1.5	1.5	2.00G	3000	1.0N	20 N	300

Magruder Nonmagnetic Fraction-continued

SAMPLE	sbe	sbi	sco	scr	scu	sla	smo	snb	sni	spb
9BB038SN	50	20 N	20	70	10 L	2000 G	10 N	700	10 N	70
9BB041SN	2	20 N	20	50	10 L	2000 G	10	300	10 N	20 N
9BB042SN	5	20 N	20	30	10 L	2000 G	10 N	500	10 N	20
9MP001SN	2	20 N	10	200	10 L	700	10 N	150	10 N	20
9MP003SN	2 N	20 N	10 N	300	10 L	2000	10 N	100	10 N	20 N
9MP005SN	2 N	20 N	20	200	10	2000	10 N	100	10 N	20
9MP009SN	15	20 N	20	70	10 L	2000 G	10	1000	10 N	50
9MP011SN	2	150	30	50	10 L	2000 G	10 N	200	10 N	70
9MP012SN	2 N	20 N	20	50	10 L	2000 G	10 N	200	10 N	20
9MP014SN	2	20 N	30	30	10 L	2000 G	10 N	150	10 N	100
9MP015SN	3	20 N	15	100	10 L	2000 G	10 N	100	10 N	20 L
9MP016SN	2 N	20 N	70	500	10	1500	10 N	100	50	20 N
9MP017SN	2 N	20 N	50	200	10 L	2000	10	200	20	20 L
9MP018SN	2 N	20 N	50	150	10 L	1500	10	200	20	20 N
9MP019SN	2 N	20 N	50	150	10 L	1500	10 N	200	10 N	20 N
9MP020SN	2	20 N	30	70	10 L	2000 G	15	200	10 N	50
9MP022SN	100	20 N	20	50	30	2000 G	10 N	1000	10 N	50
9MP023SN	2 N	20 N	20	300	10 L	2000 G	15	500	10 N	20 L
9MP026SN	2	20 N	20	50	10 L	2000 G	10	500	10 N	20 N
9MP027SN	5	20 N	20	30	10 L	2000 G	10 N	150	10 N	20 L
9MP028SN	3	20 N	20	30	10 L	2000 G	10 N	200	10 N	20
9MP029SN	5	20 N	20	30	10 L	2000 G	10 N	150	10 N	20
9MP031SN	3	20 N	20	70	10 L	2000 G	10 N	200	10 N	20 N
9MP032SN	2 N	20 N	30	100	10 L	2000 G	10 N	300	15	20 N
9MP048SN	20	20 N	15	70	20	2000 G	10	300	10 N	50
9MP051SN	5	20 N	30	50	10 L	2000	10 N	200	10 N	20 N
9MP052SN	7	20 N	20	70	10	2000	10 N	150	10 N	20 N
9MP054SN	20	20 N	20	50	50	2000 G	10 N	200	10 N	70
9MP056SN	10	20 N	15	20	20	2000 G	10 N	100	10 N	50
9MP058SN	2	20 N	50	500	10	2000 G	10 N	200	30	20
9MP060SN	10	20 N	70	150	150	2000 G	10 N	200	20	200
9MP061SN	2	20 N	100	200	30	2000 G	10 N	500	30	50
9MP062SN	5	20 N	30	150	50	1000	10 N	300	20	100
9MP064SN	50	20 N	70	50	70	2000 G	10	500	30	100
9MP065SN	5	20 N	50	200	10 L	2000 G	10 N	100	15	20 N
9MP066SN	5	20 N	30	500	10	2000	10 N	150	20	70
9MP071SN	5	20 N	70	100	70	2000	10 N	700	30	70
9MP072SN	7	20 N	70	50	20	2000 G	10 N	150	10 N	30
9MP073SN	5	20 N	20	150	15	2000	10 N	150	20	50
9MP077SN	3	20 N	20	100	10 L	2000	10 N	200	10 N	20 N
9MP078SN	3	20 N	50	70	10	2000 G	10 N	150	15	20
9MP080SN	2	20 N	50	50	10	2000 G	10 N	70	20	20 L

Magruder Nonmagnetic Fraction-continued

SAMPLE	ssr	sv	sw	sy	szn	szr	sth
9BB038SN	200 N	150	100 N	2000	500 N	2000 G	5000 G
9BB041SN	200 N	100	100 N	300	500 N	2000	500
9BB042SN	200 N	100	100 N	200	500 N	2000 G	500
9MP001SN	200 N	150	100 N	300	500 N	2000 G	200
9MP003SN	200 N	100	100 N	500	500 N	2000 G	500
9MP005SN	200 N	150	100 N	500	500 N	2000 G	200
9MP009SN	200 N	100	100 N	1000	500 N	2000 G	1500
9MP011SN	200 N	100	100 N	1000	500 N	2000 G	5000
9MP012SN	200 N	150	100 N	500	500 N	2000	2000
9MP014SN	200 N	70	100 N	1000	500 N	2000 G	5000 G
9MP015SN	200 N	150	100 N	300	500 N	1500	1500
9MP016SN	200 N	200	100 N	200	500 N	500	300
9MP017SN	200 N	200	100 N	200	500 N	1000	500
9MP018SN	200 N	150	100 N	300	500 N	1000	200 L
9MP019SN	200 N	200	100 N	200	500 N	2000	200
9MP020SN	200 N	150	100 N	500	500 N	2000	2000
9MP022SN	200 N	150	100 N	1500	500 N	2000 G	2000
9MP023SN	200 N	100	100 N	500	500 N	2000 G	1000
9MP026SN	200 N	100	100 N	300	500 N	2000 G	700
9MP027SN	200 N	70	100 N	500	500 N	2000	1000
9MP028SN	200 N	100	100 N	500	500 N	2000	700
9MP029SN	200 N	70	100 N	500	500 N	2000	700
9MP031SN	200 N	100	100 N	500	500 N	2000	1000
9MP032SN	200 N	100	100 N	500	500 N	2000	700
9MP048SN	200 N	100	100 N	500	500 N	2000 G	500
9MP051SN	200 N	100	100 N	150	500 N	2000	200
9MP052SN	200 N	100	100 N	300	500	2000	200 L
9MP054SN	200 N	70	100 N	700	500 N	2000 G	500
9MP056SN	200 N	70	100 N	300	500 N	2000	300
9MP058SN	200 N	200	100 N	700	500 N	2000 G	500
9MP060SN	200 N	200	100 N	700	500 N	2000 G	1000
9MP061SN	200 N	300	100 N	200	500 N	2000 G	700
9MP062SN	200	200	100 N	300	500 N	700	200
9MP064SN	200 N	100	100 N	2000	500 N	2000 G	1500
9MP065SN	200 N	150	100 N	500	500 N	2000	500
9MP066SN	200 N	500	100 N	1000	500 N	2000 G	700
9MP071SN	200 N	200	100 N	1000	500 N	2000	200
9MP072SN	200 N	100	100 N	500	500 N	2000	2000
9MP073SN	200 N	200	100 N	700	500 N	2000	200
9MP077SN	200 N	200	100 N	200	500 N	2000 G	200 L
9MP078SN	200 N	150	100 N	300	500 N	1000	700
9MP080SN	200 N	150	100 N	200	500 N	1000	200 L

Magruder Nonmagnetic Fraction-continued

SAMPLE	lat	long	sfe%	smg%	sca%	sti%	smn	sag	sb	sba
9MP081SN	45 35 56	114 40 55	10.0	1.0	1.5	2.00G	2000	1.0	20 N	700
9RB022SN	45 44 42	114 45 29	20.0	0.5	1.0	2.00G	3000	1.0N	20 N	200
9RB023SN	45 44 42	114 45 29	20.0	0.7	1.0	2.00G	3000	1.0N	20 N	200
9RB024SN	45 43 30	114 44 38	20.0	0.5	1.0	2.00G	5000	1.0N	20 L	300
9SA003SN	45 43 05	114 43 16	30.0	0.7	2.0	2.00G	10000 G	1.0N	20 N	100
9SA005SN	45 38 10	114 40 37	30.0	0.5	2.0	2.00G	5000	1.0N	20 N	200
9SA006SN	45 39 07	114 42 25	30.0	0.7	2.0	2.00G	10000 G	1.0N	20 N	150
9SA007SN	45 37 01	114 44 10	30.0	0.7	1.0	2.00G	7000	1.0N	20 N	50 N
9SA008SN	45 37 05	114 43 19	20.0	1.0	2.0	2.00G	5000	1.0N	20 N	1000
9SA009SN	45 38 17	114 42 25	30.0	1.0	2.0	2.00G	10000	1.0N	20 N	50 N
9SA010SN	45 39 40	114 43 08	30.0	0.7	2.0	2.00G	5000	1.0N	20 N	50
9SA011SN	45 34 01	114 37 41	30.0	0.7	3.0	2.00G	10000	1.0N	20 N	50
9SA012SN	45 34 01	114 37 41	30.0	0.7	3.0	2.00G	10000	1.0N	20 N	50
9SA013SN	45 44 46	114 35 17	30.0	1.5	2.0	2.00G	10000 G	1.0N	20 N	300
9SA014SN	45 44 38	114 35 02	30.0	0.3	0.3	2.00G	10000	1.0N	20 N	100
9SA015SN	45 44 20	114 36 40	50.0	0.5	1.0	2.00G	10000	1.0N	20 N	50
9SA016SN	45 43 59	114 36 54	30.0	0.5	2.0	2.00G	10000	1.0N	20 N	100
9SA017SN	45 42 50	114 33 32	15.0	0.2	0.2	2.00G	1000	1.0N	20 N	500
9SA018SN	45 42 47	114 37 01	20.0	0.3	1.5	2.00G	7000	1.0N	20 N	300
9SA020SN	45 41 49	114 42 36	10.0	1.0	2.0	2.00G	2000	1.0N	20 N	500
9SA021SN	45 37 26	114 38 56	15.0	1.0	1.0	2.00G	3000	1.0N	20 N	150
9SA022SN	45 36 58	114 39 54	10.0	0.5	1.0	2.00G	3000	1.0N	20 N	300
9SA090SN	45 40 01	114 43 16	20.0	0.7	1.0	2.00G	3000	1.0N	20 N	70

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Magruder Nonmagnetic Fraction-continued

SAMPLE	sbe	sbi	sco	scr	scu	sla	smo	snb	sni	spb
9MP081SN	5	20 N	15	100	10	2000 G	10 N	150	10 N	20
9RB022SN	3	20 N	15	50	10	2000 G	10 N	300	10 N	20
9RB023SN	5	20 N	20	30	10	2000 G	10 N	200	10 N	30
9RB024SN	3	20 N	15	30	10 L	2000 G	10 N	200	10 N	20 N
9SA003SN	2	20 N	10	30	10 L	2000 G	10 N	500	10 N	20 L
9SA005SN	5	20 N	30	70	10 L	2000 G	10 N	150	15	500
9SA006SN	2	20 N	20	70	10 L	2000 G	10 N	500	10 N	20
9SA007SN	2 N	20 N	50	50	10 L	2000 G	10 N	150	10	20 N
9SA008SN	3	20 N	15	70	10 L	2000 G	10 N	200	10 N	20
9SA009SN	2	20 N	20	50	10 L	2000 G	10 N	500	10 N	20 L
9SA010SN	2	20	10 N	20	10 L	2000 G	10 N	500	10 N	20 N
9SA011SN	7	20 N	10 N	20	10 L	2000 G	10 N	300	10 N	20 L
9SA012SN	5	20 N	10 N	30	10 L	2000 G	10 N	500	10 N	20 N
9SA013SN	2	20 N	15	500	15	2000 G	10 N	100	15	30
9SA014SN	2	20 N	20	30	10 L	700	10 N	1000	10 N	20 L
9SA015SN	2 N	20 N	50	50	10 L	700	10 N	300	10 N	20 N
9SA016SN	3	20 N	15	50	10 L	2000 G	10 N	200	10 N	20
9SA017SN	3	20 N	10 N	100	10 L	500	10 N	100	10 N	20
9SA018SN	3	20 N	15	20	10 L	2000 G	10 N	500	10 N	20 N
9SA020SN	7	20 N	10 N	50	15	2000 G	10 N	70	10 N	20
9SA021SN	20	20 N	30	150	15	2000 G	10 N	200	15	30
9SA022SN	10	20 N	10	30	10 L	2000 G	10 N	200	10 N	20 L
9SA090SN	2	20 N	20	70	10 L	2000 G	10	500	10 N	20 N

Magruder Nonmagnetic Fraction-continued

SAMPLE	ssr	sv	sw	sy	szn	szr	sth
9MP081SN	200 L	100	100 N	300	500 N	1500	500
9RB022SN	200 N	70	100 N	500	500 N	2000 G	700
9RB023SN	200 N	100	100 N	500	500 N	2000 G	700
9RB024SN	200 N	70	100 N	500	500 N	2000 G	1000
9SA003SN	200 N	100	100 N	700	500 N	2000 G	500
9SA005SN	200 N	200	100 N	1000	700	2000 G	2000
9SA006SN	200 N	200	100 N	200	500 N	2000 G	1000
9SA007SN	200 N	200	100 N	100	500 N	2000 G	200
9SA008SN	200 N	100	100 N	300	500 N	2000 G	200 L
9SA009SN	200 N	150	100 N	500	500 N	2000 G	200
9SA010SN	200 N	70	100 N	200	500 N	2000 G	200 L
9SA011SN	200 N	70	100 N	1500	500 N	2000 G	1500
9SA012SN	200 N	70	100 N	1000	500 N	2000 G	700
9SA013SN	200 N	150	500	3000	500 N	2000 G	500
9SA014SN	200 N	150	100 N	2000	1000	2000 G	300
9SA015SN	200 N	500	100 N	150	500 N	2000 G	200 N
9SA016SN	200 N	150	100 N	1000	500 N	2000 G	700
9SA017SN	200 N	100	100 N	300	500 N	2000 G	700
9SA018SN	200 N	150	100 N	1000	500 N	2000 G	200
9SA020SN	200 N	50	100 N	300	500 N	2000 G	300
9SA021SN	200 N	150	100 N	700	500 N	2000	700
9SA022SN	200 N	70	100 N	500	500 N	2000 G	700
9SA090SN	200 N	100	100 N	200	500 N	2000	200 L

TITLE Table 6.--Statistical summary for nonmagnetic heavy-mineral-concentrate fraction
Magruder Nonmag Fraction

THE FREQUENCY DISTRIBUTIONS AND HISTOGRAMS ON THE FOLLOWING PAGES ARE ON LOGARITHMIC SCALES, AND EMPLOY THE SAME CLASS INTERVALS AS USED IN REPORTING 6-STEP SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES. IMPORTANT NOTE- THE STATISTICS GIVEN BELOW THE HISTOGRAMS ARE DERIVED ONLY FROM DATA VALUES WITHIN THE RANGES OF ANALYTICAL DETERMINATION, AND ARE, THEREFORE, BIASED IF DATA VALUES QUALIFIED WITH N, L, G, T, OR H CODES ARE PRESENT. SEE LATER SECTION OF OUTPUT FOR STATISTICAL ESTIMATES THAT ARE UNBIASED IN THIS REGARD. THE GEOMETRIC MEAN IS AN ESTIMATE OF "CENTRAL TEND ENCY," OR OF A CHARACTERISTIC VALUE, OF A FREQUENCY DISTRIBUTION THAT IS APPROXIMATELY SYMMETRICAL ON A LOG SCALE, AND IS THEREFORE USEFUL FOR CHARACTERIZING MANY GEOCHEMICAL DISTRIBUTIONS. THE GEOMETRIC MEAN IS NOT AN ESTIMATE OF GEOCHEMICAL ABUNDANCE AND IS OF NO VALUE IN ESTIMATING RESERVES OR TOTAL AMOUNTS OF ELEMENTS PRESENT. SEE USGS PROFESSIONAL PAPER 574-B FOR FURTHER DISCUSSION. SEE USGS BULLETIN 1147E, PAGE 23, FOR EXPLANATION OF GEOMETRIC DEVIATION.

THE CUMULATIVE FREQUENCY PERCENTS GIVEN BELOW SHOULD BE PLOTTED AGAINST THE "LOWER" LIMITS TO GIVE THE LEPELTIER-TYPE CUMULATIVE CURVE.

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 3 (sfe%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	0	0	0.00	100.00
2.6E-01 -	3.8E-01	0	0	0.00	100.00
3.8E-01 -	5.6E-01	0	0	0.00	100.00
5.6E-01 -	8.3E-01	0	0	0.00	100.00
8.3E-01 -	1.2E+00	0	0	0.00	100.00
1.2E+00 -	1.8E+00	0	0	0.00	100.00
1.8E+00 -	2.6E+00	0	0	0.00	100.00
2.6E+00 -	3.8E+00	0	0	0.00	100.00
3.8E+00 -	5.6E+00	0	0	0.00	100.00
5.6E+00 -	8.3E+00	1	1	1.54	100.00
8.3E+00 -	1.2E+01	9	10	13.85	98.46
1.2E+01 -	1.8E+01	21	31	32.31	84.62
1.8E+01 -	2.6E+01	22	53	33.85	52.31
2.6E+01 -	3.8E+01	11	64	16.92	18.46
3.8E+01 -	5.6E+01	1	65	1.54	1.54

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HISTOGRAM FOR COLUMN 3 (sfe%)

```
7.0E+00 XX
1.0E+01 XXXXXXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXX
5.0E+01 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 5.00000E+01
MINIMUM = 7.00000E+00
GEOMETRIC MEAN = 1.76967E+01
GEOMETRIC DEVIATION = 1.45010E+00

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TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 4 (smg%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	1	1	1.54	100.00
1.2E-01 -	1.8E-01	1	2	1.54	98.46
1.8E-01 -	2.6E-01	6	8	9.23	96.92
2.6E-01 -	3.8E-01	8	16	12.31	87.69
3.8E-01 -	5.6E-01	20	36	30.77	75.38
5.6E-01 -	8.3E-01	13	49	20.00	44.62
8.3E-01 -	1.2E+00	9	58	13.85	24.62
1.2E+00 -	1.8E+00	5	63	7.69	10.77
1.8E+00 -	2.6E+00	2	65	3.08	3.08

HISTOGRAM FOR COLUMN 4 (smg%)

```
1.0E-01 XX
1.5E-01 XX
2.0E-01 XXXXXXXXX
3.0E-01 XXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXXX
1.0E+00 XXXXXXXXXXXXX
1.5E+00 XXXXXXXX
2.0E+00 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 2.00000E+00
MINIMUM = 1.00000E-01
GEOMETRIC MEAN = 5.52418E-01
GEOMETRIC DEVIATION = 1.89599E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 5 (sca%)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-02 -	1.2E-01	3	3	4.62	100.00
1.2E-01 -	1.8E-01	0	3	0.00	95.38
1.8E-01 -	2.6E-01	4	7	6.15	95.38
2.6E-01 -	3.8E-01	4	11	6.15	89.23
3.8E-01 -	5.6E-01	8	19	12.31	83.08
5.6E-01 -	8.3E-01	2	21	3.08	70.77
8.3E-01 -	1.2E+00	18	39	27.69	67.69
1.2E+00 -	1.8E+00	8	47	12.31	40.00
1.8E+00 -	2.6E+00	15	62	23.08	27.69
2.6E+00 -	3.8E+00	3	65	4.62	4.62

HISTOGRAM FOR COLUMN 5 (sca%)

```
1.0E-01 XXXXX
1.5E-01
2.0E-01 XXXXXX
3.0E-01 XXXXXX
5.0E-01 XXXXXXXXXXXX
7.0E-01 XXX
1.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+00 XXXXXXXXXXXX
2.0E+00 XXXXXXXXXXXXXXXXXXXXXX
3.0E+00 XXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 3.00000E+00
MINIMUM = 1.00000E-01
GEOMETRIC MEAN = 8.91254E-01
GEOMETRIC DEVIATION = 2.36552E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 6 (sti%)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-03 -	5.6E-03	0	0	0.00	100.00
5.6E-03 -	8.3E-03	0	0	0.00	100.00
8.3E-03 -	1.2E-02	0	0	0.00	100.00
1.2E-02 -	1.8E-02	0	0	0.00	100.00
1.8E-02 -	2.6E-02	0	0	0.00	100.00
2.6E-02 -	3.8E-02	0	0	0.00	100.00
3.8E-02 -	5.6E-02	0	0	0.00	100.00
5.6E-02 -	8.3E-02	0	0	0.00	100.00
8.3E-02 -	1.2E-01	0	0	0.00	100.00
1.2E-01 -	1.8E-01	0	0	0.00	100.00
1.8E-01 -	2.6E-01	0	0	0.00	100.00
2.6E-01 -	3.8E-01	0	0	0.00	100.00
3.8E-01 -	5.6E-01	0	0	0.00	100.00
5.6E-01 -	8.3E-01	0	0	0.00	100.00
8.3E-01 -	1.2E+00	1	1	1.54	100.00
1.2E+00 -	1.8E+00	0	1	0.00	98.46
1.8E+00 -	2.6E+00	7	8	10.77	98.46

HISTOGRAM FOR COLUMN 6 (sti%)

```
      1.0E+00 XX
      1.5E+00
      2.0E+00 XXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	57	8
0.00	0.00			0.00	87.69	

MAXIMUM = 2.00000E+00
MINIMUM = 1.00000E+00
GEOMETRIC MEAN = 1.83401E+00
GEOMETRIC DEVIATION = 1.27770E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 7 (smn)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	0	0	0.00	100.00
2.6E+02 -	3.8E+02	1	1	1.54	100.00
3.8E+02 -	5.6E+02	1	2	1.54	98.46
5.6E+02 -	8.3E+02	0	2	0.00	96.92
8.3E+02 -	1.2E+03	2	4	3.08	96.92
1.2E+03 -	1.8E+03	3	7	4.62	93.85
1.8E+03 -	2.6E+03	22	29	33.85	89.23
2.6E+03 -	3.8E+03	13	42	20.00	55.38
3.8E+03 -	5.6E+03	11	53	16.92	35.38
5.6E+03 -	8.3E+03	3	56	4.62	18.46
8.3E+03 -	1.2E+04	6	62	9.23	13.85

HISTOGRAM FOR COLUMN 7 (smn)

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```
3.0E+02 XX
5.0E+02 XX
7.0E+02
1.0E+03 XXX
1.5E+03 XXXXX
2.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+03 XXXXXXXXXXXXXXXXXXX
5.0E+03 XXXXXXXXXXXXXXXX
7.0E+03 XXXXX
1.0E+04 XXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	3	62
0.00	0.00			0.00	4.62	

MAXIMUM = 1.00000E+04
MINIMUM = 3.00000E+02
GEOMETRIC MEAN = 2.90916E+03
GEOMETRIC DEVIATION = 2.00802E+00

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TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 8 (sag)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-01 -	1.2E+00	3	3	4.62	6.15
1.2E+00 -	1.8E+00	0	3	0.00	1.54
1.8E+00 -	2.6E+00	0	3	0.00	1.54
2.6E+00 -	3.8E+00	0	3	0.00	1.54
3.8E+00 -	5.6E+00	1	4	1.54	1.54

HISTOGRAM FOR COLUMN 8 (sag)

```
1.0E+00 XXXXX
1.5E+00
2.0E+00
3.0E+00
5.0E+00 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
61	0	0	0	0	0	4
93.85	0.00			0.00	0.00	

MAXIMUM = 5.00000E+00
MINIMUM = 1.00000E+00
GEOMETRIC MEAN = 1.49535E+00
GEOMETRIC DEVIATION = 2.23607E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 12 (sba)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	4	4	6.15	93.85
5.6E+01 -	8.3E+01	4	8	6.15	87.69
8.3E+01 -	1.2E+02	10	18	15.38	81.54
1.2E+02 -	1.8E+02	8	26	12.31	66.15
1.8E+02 -	2.6E+02	7	33	10.77	53.85
2.6E+02 -	3.8E+02	13	46	20.00	43.08
3.8E+02 -	5.6E+02	10	56	15.38	23.08
5.6E+02 -	8.3E+02	4	60	6.15	7.69
8.3E+02 -	1.2E+03	1	61	1.54	1.54

HISTOGRAM FOR COLUMN 12 (sba)

```
5.0E+01 XXXXXX
7.0E+01 XXXXXX
1.0E+02 XXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXX
2.0E+02 XXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXX
7.0E+02 XXXXXX
1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
4	0	0	0	0	0	61
6.15	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 2.06927E+02
GEOMETRIC DEVIATION = 2.19052E+00

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TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 13 (sbe)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+00 -	2.6E+00	16	16	24.62	83.08
2.6E+00 -	3.8E+00	11	27	16.92	58.46
3.8E+00 -	5.6E+00	13	40	20.00	41.54
5.6E+00 -	8.3E+00	4	44	6.15	21.54
8.3E+00 -	1.2E+01	3	47	4.62	15.38
1.2E+01 -	1.8E+01	1	48	1.54	10.77
1.8E+01 -	2.6E+01	3	51	4.62	9.23
2.6E+01 -	3.8E+01	0	51	0.00	4.62
3.8E+01 -	5.6E+01	2	53	3.08	4.62
5.6E+01 -	8.3E+01	0	53	0.00	1.54
8.3E+01 -	1.2E+02	1	54	1.54	1.54

HISTOGRAM FOR COLUMN 13 (sbe)

```
      2.0E+00 XXXXXXXXXXXXXXXXXXXXXXX
      3.0E+00 XXXXXXXXXXXXXXXX
      5.0E+00 XXXXXXXXXXXXXXXXXXX
      7.0E+00 XXXXXX
      1.0E+01 XXXXX
      1.5E+01 XX
      2.0E+01 XXXXX
      3.0E+01
      5.0E+01 XXX
      7.0E+01
      1.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
11	0	0	0	0	0	54
16.92	0.00			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 2.00000E+00
GEOMETRIC MEAN = 4.64336E+00
GEOMETRIC DEVIATION = 2.49883E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 14 (sbi)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	1	1	1.54	3.08
2.6E+01 -	3.8E+01	0	1	0.00	1.54
3.8E+01 -	5.6E+01	0	1	0.00	1.54
5.6E+01 -	8.3E+01	0	1	0.00	1.54
8.3E+01 -	1.2E+02	0	1	0.00	1.54
1.2E+02 -	1.8E+02	1	2	1.54	1.54

HISTOGRAM FOR COLUMN 14 (sbi)

```
2.0E+01 XX
3.0E+01
5.0E+01
7.0E+01
1.0E+02
1.5E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
63	0	0	0	0	0	2
96.92	0.00			0.00	0.00	

MAXIMUM = 1.50000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 5.47723E+01
GEOMETRIC DEVIATION = 4.15682E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 16 (sco)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	3	3	4.62	90.77
1.2E+01 -	1.8E+01	10	13	15.38	86.15
1.8E+01 -	2.6E+01	22	35	33.85	70.77
2.6E+01 -	3.8E+01	9	44	13.85	36.92
3.8E+01 -	5.6E+01	9	53	13.85	23.08
5.6E+01 -	8.3E+01	5	58	7.69	9.23
8.3E+01 -	1.2E+02	1	59	1.54	1.54

HISTOGRAM FOR COLUMN 16 (sco)

```
1.0E+01 XXXXX
1.5E+01 XXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXX
7.0E+01 XXXXXXXX
1.0E+02 XX
```

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N	L	H	B	T	G	ANALYTICAL VALUES
6	0	0	0	0	0	59
9.23	0.00			0.00	0.00	

MAXIMUM = 1.00000E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 2.57079E+01
GEOMETRIC DEVIATION = 1.74621E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 17 (scr)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	4	4	6.15	100.00
2.6E+01 -	3.8E+01	11	15	16.92	93.85
3.8E+01 -	5.6E+01	16	31	24.62	76.92
5.6E+01 -	8.3E+01	11	42	16.92	52.31
8.3E+01 -	1.2E+02	6	48	9.23	35.38
1.2E+02 -	1.8E+02	6	54	9.23	26.15
1.8E+02 -	2.6E+02	5	59	7.69	16.92
2.6E+02 -	3.8E+02	2	61	3.08	9.23
3.8E+02 -	5.6E+02	4	65	6.15	6.15

HISTOGRAM FOR COLUMN 17 (scr)

```
2.0E+01 XXXXXX
3.0E+01 XXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXXXX
1.0E+02 XXXXXXXXX
1.5E+02 XXXXXXXXX
2.0E+02 XXXXXXXX
3.0E+02 XXX
5.0E+02 XXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 5.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 7.33315E+01
GEOMETRIC DEVIATION = 2.31948E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 18 (scu)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	10	10	15.38	36.92
1.2E+01 -	1.8E+01	4	14	6.15	21.54
1.8E+01 -	2.6E+01	3	17	4.62	15.38
2.6E+01 -	3.8E+01	2	19	3.08	10.77
3.8E+01 -	5.6E+01	2	21	3.08	7.69
5.6E+01 -	8.3E+01	2	23	3.08	4.62
8.3E+01 -	1.2E+02	0	23	0.00	1.54
1.2E+02 -	1.8E+02	1	24	1.54	1.54

HISTOGRAM FOR COLUMN 18 (scu)

```
1.0E+01 XXXXXXXXXXXXXX
1.5E+01 XXXXXX
2.0E+01 XXXXX
3.0E+01 XXX
5.0E+01 XXX
7.0E+01 XXX
1.0E+02
1.5E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	41	0	0	0	0	24
0.00	63.08			0.00	0.00	

MAXIMUM = 1.50000E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.92492E+01
GEOMETRIC DEVIATION = 2.20053E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 19 (sla)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	0	0	0.00	100.00
2.6E+02 -	3.8E+02	0	0	0.00	100.00
3.8E+02 -	5.6E+02	1	1	1.54	100.00
5.6E+02 -	8.3E+02	3	4	4.62	98.46
8.3E+02 -	1.2E+03	1	5	1.54	93.85
1.2E+03 -	1.8E+03	3	8	4.62	92.31
1.8E+03 -	2.6E+03	9	17	13.85	87.69

HISTOGRAM FOR COLUMN 19 (sla)

```
5.0E+02 XX
7.0E+02 XXXXX
1.0E+03 XX
1.5E+03 XXXXX
2.0E+03 XXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	48	17
0.00	0.00			0.00	73.85	

MAXIMUM = 2.00000E+03
MINIMUM = 5.00000E+02
GEOMETRIC MEAN = 1.39766E+03
GEOMETRIC DEVIATION = 1.62525E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 20 (smo)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	8	8	12.31	15.38
1.2E+01 -	1.8E+01	2	10	3.08	3.08

HISTOGRAM FOR COLUMN 20 (smo)

1.0E+01 XXXXXXXXXXX
1.5E+01 XXX

N	L	H	B	T	G	ANALYTICAL VALUES
55	0	0	0	0	0	10
84.62	0.00			0.00	0.00	

MAXIMUM = 1.50000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.08447E+01
GEOMETRIC DEVIATION = 1.18644E+00

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 21 (snb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	2	2	3.08	100.00
8.3E+01 -	1.2E+02	8	10	12.31	96.92
1.2E+02 -	1.8E+02	12	22	18.46	84.62
1.8E+02 -	2.6E+02	19	41	29.23	66.15
2.6E+02 -	3.8E+02	7	48	10.77	36.92
3.8E+02 -	5.6E+02	12	60	18.46	26.15
5.6E+02 -	8.3E+02	2	62	3.08	7.69
8.3E+02 -	1.2E+03	3	65	4.62	4.62

HISTOGRAM FOR COLUMN 21 (snb)

```
7.0E+01 XXX
1.0E+02 XXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXX
7.0E+02 XXX
1.0E+03 XXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 7.00000E+01
GEOMETRIC MEAN = 2.33516E+02
GEOMETRIC DEVIATION = 1.92878E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 22 (sni)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	1	1	1.54	29.23
1.2E+01 -	1.8E+01	6	7	9.23	27.69
1.8E+01 -	2.6E+01	7	14	10.77	18.46
2.6E+01 -	3.8E+01	4	18	6.15	7.69
3.8E+01 -	5.6E+01	1	19	1.54	1.54

HISTOGRAM FOR COLUMN 22 (sni)

```
1.0E+01 XX
1.5E+01 XXXXXXXXX
2.0E+01 XXXXXXXXXXX
3.0E+01 XXXXXX
5.0E+01 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
46	0	0	0	0	0	19
70.77	0.00			0.00	0.00	

MAXIMUM = 5.00000E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 2.01256E+01
GEOMETRIC DEVIATION = 1.44874E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 23 (spb)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	15	15	23.08	55.38
2.6E+01 -	3.8E+01	4	19	6.15	32.31
3.8E+01 -	5.6E+01	7	26	10.77	26.15
5.6E+01 -	8.3E+01	5	31	7.69	15.38
8.3E+01 -	1.2E+02	3	34	4.62	7.69
1.2E+02 -	1.8E+02	0	34	0.00	3.08
1.8E+02 -	2.6E+02	1	35	1.54	3.08
2.6E+02 -	3.8E+02	0	35	0.00	1.54
3.8E+02 -	5.6E+02	1	36	1.54	1.54

HISTOGRAM FOR COLUMN 23 (spb)

```
2.0E+01 XXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXX
5.0E+01 XXXXXXXXXX
7.0E+01 XXXXXXXX
1.0E+02 XXXXX
1.5E+02
2.0E+02 XX
3.0E+02
5.0E+02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
19	10	0	0	0	0	36
29.23	15.38			0.00	0.00	

MAXIMUM = 5.00000E+02
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 3.96639E+01
GEOMETRIC DEVIATION = 2.16724E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 25 (ssn)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	11	11	16.92	53.85
2.6E+01 -	3.8E+01	7	18	10.77	36.92
3.8E+01 -	5.6E+01	5	23	7.69	26.15
5.6E+01 -	8.3E+01	3	26	4.62	18.46
8.3E+01 -	1.2E+02	0	26	0.00	13.85
1.2E+02 -	1.8E+02	0	26	0.00	13.85
1.8E+02 -	2.6E+02	0	26	0.00	13.85
2.6E+02 -	3.8E+02	2	28	3.08	13.85
3.8E+02 -	5.6E+02	0	28	0.00	10.77
5.6E+02 -	8.3E+02	1	29	1.54	10.77
8.3E+02 -	1.2E+03	3	32	4.62	9.23
1.2E+03 -	1.8E+03	1	33	1.54	4.62
1.8E+03 -	2.6E+03	1	34	1.54	3.08
2.6E+03 -	3.8E+03	0	34	0.00	1.54
3.8E+03 -	5.6E+03	1	35	1.54	1.54

HISTOGRAM FOR COLUMN 25 (ssn)

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```
2.0E+01 XXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXX
5.0E+01 XXXXXXXX
7.0E+01 XXXXX
1.0E+02
1.5E+02
2.0E+02
3.0E+02 XXX
5.0E+02
7.0E+02 XX
1.0E+03 XXXXX
1.5E+03 XX
2.0E+03 XX
3.0E+03
5.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
30	0	0	0	0	0	35
46.15	0.00			0.00	0.00	

MAXIMUM = 5.00000E+03
MINIMUM = 2.00000E+01
GEOMETRIC MEAN = 7.51463E+01
GEOMETRIC DEVIATION = 5.19397E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 27 (sv)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	1	1	1.54	100.00
5.6E+01 -	8.3E+01	11	12	16.92	98.46
8.3E+01 -	1.2E+02	21	33	32.31	81.54
1.2E+02 -	1.8E+02	17	50	26.15	49.23
1.8E+02 -	2.6E+02	12	62	18.46	23.08
2.6E+02 -	3.8E+02	1	63	1.54	4.62
3.8E+02 -	5.6E+02	2	65	3.08	3.08

HISTOGRAM FOR COLUMN 27 (sv)

```
5.0E+01 XX
7.0E+01 XXXXXXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXX
3.0E+02 XX
5.0E+02 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 5.00000E+02
MINIMUM = 5.00000E+01
GEOMETRIC MEAN = 1.25786E+02
GEOMETRIC DEVIATION = 1.58042E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 29 (sy)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	1	1	1.54	100.00
1.2E+02 -	1.8E+02	2	3	3.08	98.46
1.8E+02 -	2.6E+02	10	13	15.38	95.38
2.6E+02 -	3.8E+02	13	26	20.00	80.00
3.8E+02 -	5.6E+02	18	44	27.69	60.00
5.6E+02 -	8.3E+02	6	50	9.23	32.31
8.3E+02 -	1.2E+03	9	59	13.85	23.08
1.2E+03 -	1.8E+03	2	61	3.08	9.23
1.8E+03 -	2.6E+03	3	64	4.62	6.15
2.6E+03 -	3.8E+03	1	65	1.54	1.54

HISTOGRAM FOR COLUMN 29 (sy)

```
1.0E+02 XX
1.5E+02 XXX
2.0E+02 XXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXX
1.0E+03 XXXXXXXXXXXXX
1.5E+03 XXX
2.0E+03 XXXXX
3.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	65
0.00	0.00			0.00	0.00	

MAXIMUM = 3.00000E+03
MINIMUM = 1.00000E+02
GEOMETRIC MEAN = 4.74402E+02
GEOMETRIC DEVIATION = 2.06142E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 30 (szn)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+02 -	5.6E+02	1	1	1.54	4.62
5.6E+02 -	8.3E+02	1	2	1.54	3.08
8.3E+02 -	1.2E+03	1	3	1.54	1.54

HISTOGRAM FOR COLUMN 30 (szn)

```
  5.0E+02 XX
  7.0E+02 XX
  1.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
62	0	0	0	0	0	3
95.38	0.00			0.00	0.00	

MAXIMUM = 1.00000E+03
MINIMUM = 5.00000E+02
GEOMETRIC MEAN = 7.04730E+02
GEOMETRIC DEVIATION = 1.41428E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 31 (szr)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	0	0	0.00	100.00
2.6E+01 -	3.8E+01	0	0	0.00	100.00
3.8E+01 -	5.6E+01	0	0	0.00	100.00
5.6E+01 -	8.3E+01	0	0	0.00	100.00
8.3E+01 -	1.2E+02	0	0	0.00	100.00
1.2E+02 -	1.8E+02	0	0	0.00	100.00
1.8E+02 -	2.6E+02	0	0	0.00	100.00
2.6E+02 -	3.8E+02	0	0	0.00	100.00
3.8E+02 -	5.6E+02	1	1	1.54	100.00
5.6E+02 -	8.3E+02	1	2	1.54	98.46
8.3E+02 -	1.2E+03	4	6	6.15	96.92
1.2E+03 -	1.8E+03	2	8	3.08	90.77
1.8E+03 -	2.6E+03	18	26	27.69	87.69

HISTOGRAM FOR COLUMN 31 (szr)

```
      5.0E+02 XX
      7.0E+02 XX
      1.0E+03 XXXXXX
      1.5E+03 XXX
      2.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	39	26
0.00	0.00			0.00	60.00	

MAXIMUM = 2.00000E+03
MINIMUM = 5.00000E+02
GEOMETRIC MEAN = 1.60109E+03
GEOMETRIC DEVIATION = 1.47865E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (04/02/80) DATE 6/ 7/81

TITLE
Magruder Nonmag Fraction

FREQUENCY TABLE FOR COLUMN 32 (sth)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+02 -	2.6E+02	10	10	15.38	87.69
2.6E+02 -	3.8E+02	4	14	6.15	72.31
3.8E+02 -	5.6E+02	11	25	16.92	66.15
5.6E+02 -	8.3E+02	14	39	21.54	49.23
8.3E+02 -	1.2E+03	6	45	9.23	27.69
1.2E+03 -	1.8E+03	4	49	6.15	18.46
1.8E+03 -	2.6E+03	5	54	7.69	12.31
2.6E+03 -	3.8E+03	0	54	0.00	4.62
3.8E+03 -	5.6E+03	1	55	1.54	4.62

HISTOGRAM FOR COLUMN 32 (sth)

```
2.0E+02 XXXXXXXXXXXXXXX
3.0E+02 XXXXXX
5.0E+02 XXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXXXXXXXXXXXXXX
1.0E+03 XXXXXXXXX
1.5E+03 XXXXXX
2.0E+03 XXXXXXXX
3.0E+03
5.0E+03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
1	7	0	0	0	2	55
1.54	10.77			0.00	3.08	

MAXIMUM = 5.00000E+03
MINIMUM = 2.00000E+02
GEOMETRIC MEAN = 6.13950E+02
GEOMETRIC DEVIATION = 2.14185E+00

TITLE
Magruder Nonmag Fraction

IN THE COMPUTATIONS PERFORMED TO PRODUCE THE FOLLOWING TABLE OF GEOMETRIC MEANS AND DEVIATIONS, ALL ELEMENTS ARE IGNORED WHERE ONE OR MORE OF THE UNQUALIFIED DATA VALUES IS LESS THAN THE ANALYTICAL LIMIT OF DETECTION SPECIFIED ON INPUT OR WHERE ANY DATA VALUES ARE QUALIFIED WITH THE G (GREATER THAN) CODE. DATA VALUES QUALIFIED WITH B OR H ARE NOT USED IN THE COMPUTATIONS. WHERE NONE OF THE DATA VALUES FOR AN ELEMENT ARE QUALIFIED THE MEAN AND DEVIATION SHOULD BE THE SAME AS THOSE GIVEN IN THE PRECEDING SECTION. WHERE DATA ARE QUALIFIED WITH THE CODES N, L, OR T, THE ESTIMATES OF GEOMETRIC MEAN AND DEVIATION ARE BASED ON A METHOD BY A. J. COHEN FOR TREATING CENSORED DISTRIBUTIONS. THE APPLICATION OF THIS METHOD TO GEOCHEMICAL PROBLEMS IS DESCRIBED IN USGS PROFESSIONAL PAPER 574-B. THE ESTIMATES ARE UNBIASED IN A STRICT SENSE ONLY WHERE THE DATA ARE DERIVED FROM A LOGNORMAL PARENT POPULATION, BUT EXPERIMENTS HAVE SHOWN THAT LARGE DEPARTURES FROM THIS REQUIREMENT MAY NOT GREATLY INVALIDATE THE RESULTS ACCEPTANCE AND USE OF THE ESTIMATES, HOWEVER, IS THE RESPONSIBILITY OF THE INDIVIDUAL.

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
sfe%	0	0	0	0	0	0	65
smg%	0	0	0	0	0	0	65
sca%	0	0	0	0	0	0	65
sti%	0	0	0	0	0	57	8
smn	0	0	0	0	0	3	62
sag	61	0	0	0	0	0	4
sba	4	0	0	0	0	0	61
sbe	11	0	0	0	0	0	54
sbi	63	0	0	0	0	0	2
sco	6	0	0	0	0	0	59
scr	0	0	0	0	0	0	65
scu	0	41	0	0	0	0	24
sla	0	0	0	0	0	48	17
smo	55	0	0	0	0	0	10
snb	0	0	0	0	0	0	65
sni	46	0	0	0	0	0	19
spb	19	10	0	0	0	0	36
ssn	30	0	0	0	0	0	35
sv	0	0	0	0	0	0	65
sy	0	0	0	0	0	0	65
szn	62	0	0	0	0	0	3
szr	0	0	0	0	0	39	26
sth	1	7	0	0	0	2	55

TITLE

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS		
sfe%	17.696688	1.45	65 SAMPLES AND	65 ANALYTICAL VALUES.	
smg%	0.552418	1.90	65 SAMPLES AND	65 ANALYTICAL VALUES.	
sca%	0.891254	2.37	65 SAMPLES AND	65 ANALYTICAL VALUES.	
sti%	********	******	57 GREATER THAN VALUES. NO COMPUTATIONS.		
smn	********	******	3 GREATER THAN VALUES. NO COMPUTATIONS.		
sag	1.495802	2.24	61 NOT DETECTED, LESS THAN, OR TRACE VALUES.	4	REPORTED VALUES.
sba	182.307913	2.48	4 NOT DETECTED, LESS THAN, OR TRACE VALUES.	61	REPORTED VALUES.
sbe	3.548954	2.85	11 NOT DETECTED, LESS THAN, OR TRACE VALUES.	54	REPORTED VALUES.
sbi	0.047909	23.44	63 NOT DETECTED, LESS THAN, OR TRACE VALUES.	2	REPORTED VALUES.
sco	22.515328	1.97	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	59	REPORTED VALUES.
scr	73.331467	2.32	65 SAMPLES AND	65 ANALYTICAL VALUES.	
scu	5.153030	3.74	41 NOT DETECTED, LESS THAN, OR TRACE VALUES.	24	REPORTED VALUES.
sla	********	******	48 GREATER THAN VALUES. NO COMPUTATIONS.		
smo	5.050407	1.63	55 NOT DETECTED, LESS THAN, OR TRACE VALUES.	10	REPORTED VALUES.
snb	233.515732	1.93	65 SAMPLES AND	65 ANALYTICAL VALUES.	
sni	4.505535	3.36	46 NOT DETECTED, LESS THAN, OR TRACE VALUES.	19	REPORTED VALUES.
spb	19.013790	2.97	29 NOT DETECTED, LESS THAN, OR TRACE VALUES.	36	REPORTED VALUES.
ssn	17.046724	9.05	30 NOT DETECTED, LESS THAN, OR TRACE VALUES.	35	REPORTED VALUES.
sv	125.785686	1.58	65 SAMPLES AND	65 ANALYTICAL VALUES.	
sy	474.401733	2.06	65 SAMPLES AND	65 ANALYTICAL VALUES.	
szn	37.938919	3.97	62 NOT DETECTED, LESS THAN, OR TRACE VALUES.	3	REPORTED VALUES.
szr	********	******	39 GREATER THAN VALUES. NO COMPUTATIONS.		
sth	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.		

Explanation of Formation Symbols used in Table 7

Tvn	Quartz veins (Tertiary)
Tl	Mafic dikes (Eocene)
Ta	Aplite (Eocene)
Tr	Granophyre (Eocene)
Tw	White quartz porphyry (Eocene)
Tm	Medium-grained muscovite-biotite granite (Eocene)
Tp	Medium-grained biotite quartz monzonite (Eocene)
Tc	Coarse-grained biotite granite (Eocene)
Tmz	Biotite-hornblende quartz monzonite and granite (Eocene)
Tv	Volcanic rocks (Eocene)
Ki	Foliated granodiorite (Cretaceous)
Kd	Foliated diorite and gabbro (Cretaceous)
Yga	Amphibolite (Precambrian Y)
Ygn	Gneiss (Precambrian Y)
Yq	Quartzite (Precambrian Y)
Ys	Schist (Precambrian Y)
myl	Mylonite
unkn	Unknown

Table 7.--Analytical data for Magruder Corridor rocks

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9CH002A	Tm	45 42 28N	114 37 8W	1.50	0.20	0.30	0.100	200	10 L	1000	1.5	5
9CH003A	Tm	45 42 28N	114 35 31W	1.00	0.05	0.10	0.070	200	10 L	200	2.0	5 N
9CH003B	Tm	45 42 28N	114 35 31W	1.50	0.10	0.20	0.070	300	10 L	300	3.0	5 N
9CH037A1	Tr	45 39 7N	114 32 31W	1.50	0.10	0.05	0.070	1000	10 L	500	2.0	5 N
9CH037A2	Tr	45 39 7N	114 32 31W	1.50	0.50	0.05	0.070	1000	10 L	500	2.0	5
9CH037A2	Tr	45 39 7N	114 32 31W	1.50	0.50	0.05	0.070	700	10 L	500	2.0	7
9CH037B	Tr	45 39 7N	114 32 31W	0.50	0.15	0.07	0.050	150	10 L	500	1.0N	5 N
9CH037C	Tm	45 39 7N	114 32 31W	1.50	0.20	0.15	0.150	200	10 L	1000	2.0	5 N
9CH038A	Tm	45 39 21N	114 33 0W	1.50	0.20	0.20	0.100	200	10 L	500	2.0	5 N
9CH199A	Tr	45 39 7N	114 32 31W	1.00	0.20	0.05	0.070	1000	10 L	500	3.0	5
9FM500A1	Tm	45 42 50N	114 42 21W	1.00	0.20	0.30	0.070	200	10 L	700	2.0	5 N
9FM501A1	Tmz	45 42 50N	114 42 21W	2.00	0.10	0.50	0.150	300	10 L	2000	1.0N	5 N
9FM501A2	Tmz	45 42 50N	114 42 21W	1.00	0.15	0.50	0.070	150	10 L	700	2.0	5 N
9FM501A2	Tmz	45 42 50N	114 42 21W	1.00	0.15	0.50	0.070	200	10 L	700	2.0	5 N
9FM501B	Ta	45 42 50N	114 42 21W	0.50	0.10	0.30	0.020	200	10 L	100	5.0	5 N
9FM502A	Tm	45 42 50N	114 42 10W	1.00	0.20	0.50	0.100	150	10 L	700	1.5	5 N
9FM503A	Tm	45 42 39N	114 41 27W	1.00	0.15	0.50	0.070	200	10 L	700	5.0	5 N
9FM504A	Tm	45 42 21N	114 41 16W	1.00	0.20	0.50	0.100	200	10 L	1000	1.5	5 N
9FM505A	Tm	45 42 32N	114 43 8W	1.50	0.50	0.50	0.100	300	10 L	700	1.0	5 N
9FM506A	Tvn	45 42 14N	114 41 2W	1.50	0.10	0.10	0.030	70	10 L	500	1.0	5 N
9FM507A	Tm	45 41 59N	114 40 48W	2.00	0.50	1.00	0.150	200	10 L	1500	1.5	5
9FM508A	Tr	45 41 34N	114 39 21W	1.50	0.30	0.50	0.100	200	10 L	1000	1.5	5 N
9FM509A	Tl	45 42 28N	114 43 15W	5.00	1.50	1.50	0.500	500	10 L	1000	1.5	20
9FM510A	Tm	45 43 4N	114 43 15W	1.00	0.20	0.50	0.100	150	10 L	1000	1.5	5 N
9FM511A	Tmz	45 43 40N	114 43 51W	5.00	0.20	1.00	0.200	500	10 L	5000	1.0	5 N
9FM512A	Tm	45 43 37N	114 43 47W	1.00	0.30	0.70	0.100	150	10 L	1000	5.0	5 N
9FM513A	Tmz	45 43 44N	114 43 58W	3.00	0.50	1.00	0.200	300	10 L	1000	1.0	5
9FM514A	Tmz	45 43 51N	114 44 2W	5.00	0.50	1.50	0.300	500	10 L	3000	1.0L	5
9FM515A	Tmz	45 43 55N	114 44 34W	2.00	0.50	0.70	0.200	300	10 L	1500	1.5	5 L
9FM516A	Tp	45 44 2N	114 45 14W	1.50	0.30	0.70	0.150	150	10 L	1000	2.0	5 N
9FM517A	Tl	45 44 23N	114 45 25W	10.00	1.50	2.00	1.000G	1000	10 L	1500	1.0	30
9FM518A	Tm	45 44 41N	114 45 32W	1.50	0.07	0.30	0.070	150	10 L	300	1.0	5 N
9FM518B	Kd	45 44 41N	114 45 32W	7.00	1.50	3.00	1.000G	1000	10	700	2.0	30
9FM521A	Kd	45 48 28N	114 45 36W	5.00	1.50	2.00	1.000	700	10 L	1500	1.0	20
9FM521B	Ta	45 48 28N	114 45 36W	1.00	0.20	0.50	0.100	200	10 L	700	2.0	5 N
9FM522A	Tmz	45 47 56N	114 45 39W	1.50	0.30	0.70	0.150	200	10 L	1500	1.5	5 L
9FM523A	Tmz	45 46 22N	114 46 40W	2.00	0.30	1.00	0.200	500	10 L	3000	1.0	5 L
9FM523B	unkn	45 46 22N	114 46 40W	1.50	0.10	0.50	0.100	200	10 L	1000	1.0	5 N
9FM524A	Kd	45 44 52N	114 46 8W	5.00	1.50	2.00	1.000	700	10 L	700	1.0	30
9FM525A	Tm	45 41 42N	114 39 10W	1.50	0.30	0.70	0.150	300	10 L	1500	2.0	5 L
9FM526A	Tm	45 41 59N	114 38 20W	2.00	0.50	1.00	0.300	300	10 L	2000	2.0	5
9FM527A	Tm	45 42 7N	114 37 51W	2.00	0.20	0.70	0.150	300	10 L	2000	2.0	5 L
9FM528A	Tm	45 42 10N	114 37 22W	1.50	0.20	0.70	0.150	200	10 L	1500	2.0	5 N
9FM529A	Tm	45 42 28N	114 36 10W	1.00	0.02	0.20	0.050	200	10 L	20 N	3.0	5 N
9FM530A1	Tm	45 42 21N	114 35 49W	1.00	0.02	0.30	0.050	200	10 L	20 N	5.0	5 N
9FM530A2	Tm	45 42 21N	114 35 49W	1.00	0.03	0.30	0.050	150	10 L	30	5.0	5 N
9FM530A2	Tm	45 42 21N	114 35 49W	1.00	0.03	0.30	0.070	200	10 L	30	5.0	5 N
9FM531A1	Tm	45 42 21N	114 35 49W	1.00	0.02L	0.20	0.020	300	10 L	20 N	5.0	5 N
9FM532A	Tm	45 42 17N	114 34 55W	0.20	0.03	0.20	0.070	20	10 L	200	2.0	5 N
9FM533A	Tm	45 42 17N	114 35 6W	0.70	0.02	0.20	0.050	100	10 L	20 N	5.0	5 N

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9CH002A	10 N	5 L	50	5 N	20 L	5 N	30	5 N	10 N	200	20	20	150
9CH003A	10 N	5 L	30	5 N	20	5 N	20	5 N	10 N	100 N	10 N	20	150
9CH003B	10 N	5 L	30	5 N	20	5 N	30	5 N	10 N	100 L	10 N	30	150
9CH037A1	10 N	5	20 N	5 N	20 L	5 N	20	5 N	10 L	100 L	10	15	100
9CH037A2	20	5	20 N	5 N	20 L	5	20	5 N	10 N	100	20	15	100
9CH037A2	20	5	20 N	5 N	20 L	7	20	5 N	10 N	100	20	20	150
9CH037B	10 L	5 L	20 N	5 N	20 N	5 N	10 L	5 N	10 N	100 L	10 N	10 N	70
9CH037C	10 L	5 L	30	5 N	20 L	5 N	30	5 N	10 N	200	20	10	200
9CH038A	10 N	5 L	100	5 N	20	5 N	30	5 N	10 N	100 L	10	30	200
9CH199A	10	5 L	20 N	5 N	20 L	5 N	20	5 N	10 N	100 L	10	15	100
9FM500A1	10 N	5 N	30	5 N	20 L	5 N	20	5 N	10 L	150	10	10	100
9FM501A1	10 N	20	150	5 N	20 L	5 N	15	5	10 L	150	10 L	20	500
9FM501A2	10 N	5 N	50	5 N	20 N	5 N	20	5 N	10 L	150	10 L	10	100
9FM501A2	10 N	5 N	30	5 N	20 L	5 N	20	5 N	10 L	150	10 L	10 L	100
9FM501B	10 N	5 L	20 N	7	20 N	5 N	20	5 N	10 N	100 N	10 N	10	50
9FM502A	10 N	5 N	20	20	20 N	5 N	30	5 N	10 N	150	10	15	100
9FM503A	10 N	5 N	30	5 N	20 N	5 N	20	5 N	10 N	150	10	10 L	70
9FM504A	10 N	5 N	30	5 N	20 N	5 N	30	5 N	10 N	200	10	15	300
9FM505A	10	5 N	50	5 N	20 N	5 N	20	5 N	10 L	200	20	15	70
9FM506A	10 N	5 L	20 N	500	20 N	5 N	10 N	5 N	30	100 N	10	10 N	50
9FM507A	10 N	5 L	70	5 N	20 L	5 N	50	5 L	10 N	300	30	15	200
9FM508A	10 N	5 N	30	5 N	20 N	5 N	30	5 N	10 N	200	20	10	100
9FM509A	100	20	50	5 N	20 L	30	10	10	10 N	500	100	20	200
9FM510A	10 L	5 N	100	5 N	20 N	5 N	30	5 N	10 N	200	15	20	70
9FM511A	10 N	5	20	5 L	20 L	5 N	15	10	10 N	300	10 L	20	500
9FM512A	10 L	5 L	100	5 N	20 L	5 N	20	5 N	10 L	200	20	20	100
9FM513A	10 L	5 L	100	5 N	30	5 N	15	7	10 N	200	30	50	300
9FM514A	10 L	5 L	30	5 L	20 N	5 N	10	15	10 N	500	30	20	500
9FM515A	10	5	150	5 N	20 L	5 N	20	5 L	10 N	200	30	20	200
9FM516A	10	5 N	200	5 N	20	5 N	15	5 N	10 N	300	30	30	150
9FM517A	70	30	70	5 N	20 L	50	15	15	10 N	500	200	30	300
9FM518A	10 N	5 N	70	5 N	20 L	5 N	20	5 L	10 N	100 L	10 N	30	100
9FM518B	100	20	20	5 N	20 L	15	15	20	10 N	500	200	30	300
9FM521A	100	20	70	5 N	20 L	30	15	15	10 N	500	200	30	300
9FM521B	10 N	5 N	70	5 N	20 N	5 N	30	5 L	10 N	150	15	15	100
9FM522A	10	20	70	5 N	20 N	5 N	20	5 L	10 N	200	20	20	150
9FM523A	10 N	5	30	5 N	20	5 N	20	7	10 N	200	20	30	500
9FM523B	10 N	5 N	70	5 N	20 L	5 N	20	5 L	10 N	150	10 L	15	200
9FM524A	100	50	70	5 N	20 L	50	15	15	10 N	500	150	30	200
9FM525A	10 L	7	50	10	20 L	5 N	50	5 L	10 L	200	20	30	100
9FM526A	10 N	5 L	150	5 N	20 L	5 N	20	5	10 N	300	50	50	300
9FM527A	10 N	5 N	200	5 N	20 L	5 N	30	5 L	10 N	200	30	30	150
9FM528A	10 N	5 N	70	5 N	20 L	5 N	20	5 L	10 N	200	30	20	200
9FM529A	10 N	5 L	20	5 N	30	5 N	30	5 N	10	100 N	10 N	50	150
9FM530A1	10 N	5 N	20	5 N	70	5 N	30	5 N	10 L	100 N	10 N	100	150
9FM530A2	10 N	5 N	20	5 N	50	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM530A2	10 N	5 N	150	5 N	50	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM531A1	10 N	5 N	20 N	5 N	50	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM532A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 N	10 N	30	100
9FM533B	10 N	5 N	30	5 N	30	5 N	30	5 N	10 L	100 N	10 N	50	150

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9FM534A	Tm	45 42 25N	114 36 0W	1.50	0.02	0.20	0.050	200	10 L	20 N	5.0	5 N
9FM534B	Ta	45 42 25N	114 36 0W	1.00	0.02	0.20	0.030	200	10 L	20 N	10.0	5 N
9FM535A	Tm	45 42 36N	114 42 50W	1.50	0.20	0.70	0.150	200	10 L	1000	5.0	5 N
9FM536A	Tl	45 43 55N	114 35 6W	2.00	1.00	1.00	0.200	300	10 L	1000	2.0	10
9FM538A	Tm	45 43 55N	114 34 51W	2.00	0.70	1.00	0.300	200	10 L	1000	2.0	7
9FM542A	Tm	45 44 2N	114 33 39W	1.50	0.10	0.05	0.100	200	10 L	200	1.5	5 N
9FM543A	Tc	45 44 16N	114 34 8W	1.50	0.10	0.05	0.100	200	10 L	500	3.0	5 N
9FM546A	Tm	45 44 45N	114 35 27W	1.50	0.05	0.15	0.070	200	10 L	100	3.0	5 N
9FM550A	Tc	45 43 55N	114 33 18W	2.00	0.07	0.30	0.150	200	10 L	500	3.0	5 N
9FM551A	Tm	45 43 48N	114 33 14W	1.50	0.07	0.10	0.100	150	10 L	500	3.0	5 N
9FM552A	Tm	45 43 37N	114 33 10W	1.50	0.10	0.15	0.100	200	10 L	500	5.0	5 N
9FM553A	Tr	45 43 4N	114 33 32W	1.50	0.15	0.10	0.150	150	10 L	500	2.0	5 N
9FM554A	Tm	45 43 33N	114 34 4W	1.00	0.07	0.07	0.050	200	10 L	150	5.0	5 N
9FM555A	Tr	45 43 19N	114 33 50W	1.50	0.15	0.10	0.100	200	10 L	500	2.0	5 N
9FM557A	Tr	45 42 32N	114 34 26W	1.50	0.05	0.10	0.070	200	10 L	500	2.0	5 N
9FM559A	Tmz	45 44 23N	114 32 45W	5.00	0.15	0.50	0.300	700	10 L	700	1.5	5 N
9FM560A	Tmz	45 44 34N	114 32 42W	3.00	0.05	0.50	0.100	500	10 L	300	1.0	5 N
9FM561A	Tm	45 43 44N	114 35 52W	1.50	0.07	0.10	0.070	200	10 L	200	3.0	5 N
9FM562A	Tm	45 43 33N	114 36 21W	1.50	0.07	0.15	0.100	200	10 L	150	3.0	5 N
9FM563A	Tm	45 43 51N	114 31 40W	2.00	0.70	0.15	0.200	200	10 L	1500	1.5	5
9FM579A	Tr	45 43 15N	114 30 21W	1.00	0.10	0.05	0.050	200	10 L	200	3.0	5 N
9FM580A	Tr	45 43 19N	114 30 46W	1.50	0.20	0.10	0.100	150	10 L	500	2.0	5 N
9FM580B	Tr	45 43 19N	114 30 46W	1.00	0.15	0.30	0.100	200	10 L	500	3.0	5 N
9FM581A	Tw	45 39 25N	114 30 43W	1.00	0.10	0.30	0.070	100	10 L	300	2.0	5 N
9FM581B	Tw	45 39 25N	114 30 43W	0.20	0.03	0.05	0.100	150	10 L	700	2.0	5 N
9FM582A	Tw	45 39 14N	114 30 46W	1.00	0.02	0.05	0.070	70	10 L	100	5.0	5 N
9FM583A	Tw	45 39 10N	114 30 54W	0.50	0.02L	0.05	0.030	50	10 L	100	5.0	5 N
9FM584A	Tw	45 39 3N	114 31 8W	1.00	0.02	0.07	0.070	100	10 L	150	1.5	5 N
9FM585A	Tw	45 39 0N	114 31 19W	0.50	0.02L	0.05	0.030	200	10 L	70	3.0	5 N
9FM585B	Tw	45 39 0N	114 31 19W	0.20	0.02L	0.05	0.010	50	10 L	50	2.0	5 N
9FM587A	Tm	45 38 31N	114 34 11W	3.00	0.50	0.30	0.100	200	100	700	2.0	5
9FM588A	Tm	45 38 34N	114 34 15W	1.50	0.30	0.50	0.150	150	10 L	1000	1.5	5 N
9FM589A	Tr	45 39 10N	114 34 51W	1.00	0.10	0.07	0.050	200	10 L	200	3.0	5 N
9FM590A	Tm	45 39 32N	114 34 22W	1.00	0.02	0.10	0.050	200	10 L	30	5.0	5 N
9FM591A	Tm	45 40 26N	114 34 1W	2.00	0.05	0.07	0.050	300	10 L	100	3.0	5 N
9FM592A	Tm	45 40 33N	114 32 52W	0.70	0.02	0.20	0.030	100	10 L	20 N	5.0	5 N
9FM593A	Tc	45 38 41N	114 37 40W	1.00	0.07	0.07	0.070	100	10 L	200	2.0	5 N
9FM594A	Tr	45 38 49N	114 37 11W	1.50	0.20	0.30	0.150	200	10 L	500	3.0	5 N
9FM595A	Tr	45 38 52N	114 36 39W	1.00	0.10	0.20	0.100	150	10 L	200	2.0	5 N
9FM596A	Tr	45 39 3N	114 36 10W	1.00	0.15	0.10	0.100	100	10 L	500	5.0	5 N
9FM597A	Tc	45 39 0N	114 36 17W	1.00	0.07	0.10	0.070	150	10 L	200	5.0	5 N
9FM598A	Tr	45 38 52N	114 36 21W	1.00	0.05	0.05	0.030	100	10 L	150	1.5	5 N
9FM599A	Tr	45 38 45N	114 36 10W	1.00	0.15	0.10	0.070	100	10 L	300	3.0	5 N
9FM599B	Tr	45 38 45N	114 36 10W	1.00	0.20	0.20	0.100	200	10 L	300	5.0	5 N
9FM599C	Tc	45 38 45N	114 36 10W	2.00	0.10	0.15	0.100	200	10 L	150	10.0.	5 N
9FM599D	Tc	45 38 45N	114 36 10W	1.00	0.07	0.10	0.070	200	10 L	100	10.0	5 N
9FM600A	Yga	45 43 19N	114 32 2W	7.00	3.00	5.00	1.000	1000	10 L	300	1.0N	50
9FM601A	Yga	45 42 57N	114 32 9W	10.00	3.00	5.00	1.000	1500	10 L	150	1.0N	70
9FM601B	Yga	45 42 57N	114 32 9W	2.00	1.00	0.15	1.000	300	10	150	1.0	15
9FM602A	Tr	45 42 46N	114 32 45W	2.00	0.50	0.70	0.200	200	10 L	1000	1.5	5

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9FM534A	10 N	5 N	20	5	50	5 N	30	5 N	10 L	100 N	10 N	70	150
9FM534B	10 N	5 N	30	5 N	50	5 N	50	5 N	15	100 N	10 N	70	150
9FM535A	10 N	5 L	50	5 N	20 L	5 N	30	5 L	10 L	300	20	15	150
9FM536A	30	5	100	5 N	20 N	20	30	5	10	500	70	15	150
9FM538A	10 N	5	100	5 N	20 L	5	20	7	10 N	300	70	15	150
9FM542A	10 N	5 L	20	7	20	5 N	20	5 L	10 L	100 N	10 L	20	100
9FM543A	10 N	5 L	20	5	20	5 N	20	5 N	15	100 L	10 N	20	200
9FM546A	10 N	5 L	70	5 N	30	5 N	20	5 N	10 L	100 N	10 N	50	200
9FM550A	10 N	7	100	5 N	20	5 N	20	5 L	10 L	100 L	10 N	30	200
9FM551A	10 N	7	20	5 N	30	5 N	15	5 N	10 N	100 L	10 N	20	150
9FM552A	20	5 N	70	5 N	50	5 N	20	5 N	10 N	100 L	10 N	50	200
9FM553A	10 N	5 L	20	5 N	20	5 N	20	5 L	10 L	100	10 L	20	150
9FM554A	10 N	5	20 N	10	30	5 N	20	5 N	10 N	100 N	10 N	30	150
9FM555A	10 N	5 L	20	5 N	20	5 N	15	5 N	10 N	100	10 L	15	150
9FM557A	10 N	5 L	30	5 N	20 N	5 N	20	5 N	10 N	100 L	10 N	30	70
9FM559A	10 N	5	50	5 N	20 L	5 N	20	20	10 N	100 L	10 L	30	500
9FM560A	10 N	5 N	20 N	5 N	20 N	5 N	20	7	10 N	100 N	10 N	15	150
9FM561A	10 N	5 L	50	5 N	20	5 N	30	5 N	10 N	100 N	10 N	30	100
9FM562A	10 N	10	100	5 N	20	5 N	20	5 L	10 N	100 N	10 N	30	200
9FM563A	500	5 L	30	5 N	20 L	7	20	5	10 N	200	30	10	150
9FM579A	10 N	5 L	20	5 N	20	5 N	20	5	10 L	100 L	10 N	30	150
9FM580A	10 N	5 N	50	5 N	20 L	5 N	20	5 N	10 N	100	10 L	50	150
9FM580B	10 N	15	70	5 N	20	5 N	100	5 N	15	100 L	10 N	50	150
9FM581A	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100 N	10 N	50	100
9FM581B	10 N	5 L	20 N	5 N	20 N	5 N	10 L	5 N	10 N	100 L	10 N	10 L	200
9FM582A	10 N	5 L	50	5	30	5 N	30	5 N	10	100 N	10 N	50	150
9FM583A	10 N	5 L	30	5 N	20	5 N	20	5 N	10 L	100 N	10 N	30	100
9FM584A	10 N	5 L	30	5 N	30	5 N	15	5 N	10 L	100 L	10 N	50	100
9FM585A	10 L	5	20	5 N	20	5 N	15	5 N	10 N	100 L	10 N	30	70
9FM585B	10 N	5 L	20 N	5 N	20 L	5 N	10 L	5 N	10 N	100 N	10 N	15	70
9FM587A	15	15	20 N	5 N	20 N	15	15	5 N	10 N	100 L	30	15	100
9FM588A	10 N	5 L	70	5 N	20 N	5 N	20	5 N	10 N	150	20	10	200
9FM589A	10 N	5 N	20	5 N	20 L	5 N	20	5 N	10 L	100 N	10 N	20	100
9FM590A	10 N	5 L	20	5 N	50	5 N	50	5 N	10	100 N	10 N	50	100
9FM591A	10 N	15	20	5 N	50	5 N	50	5 N	30	100 N	10 N	50	150
9FM592A	10 N	10	20 N	5 L	50	5 N	30	5 N	50	100 N	10 N	50	100
9FM593A	10 N	5 L	20 N	30	20 L	5 N	10	5 N	10 N	100 N	10 N	20	150
9FM594A	10 N	5 L	50	5 N	20 L	5 N	20	5 N	10 L	100	10	50	200
9FM595A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 L	10 N	50	150
9FM596A	10 N	5 N	20	5 N	20 L	5 N	20	5 N	10 N	100 L	10 L	20	100
9FM597A	10 N	5 L	20	5	20 L	5 N	20	5 N	10 L	100 N	10 N	30	100
9FM598A	10 N	5	20	5 N	20 L	5 N	15	5 N	10 N	100 N	10 N	20	150
9FM599A	10 N	5 N	70	5 N	20 L	5 N	30	5 N	10 N	100	10 L	50	100
9FM599B	10 N	5 N	50	5 N	20 L	5 N	30	5 N	10 L	100 L	10 N	30	100
9FM599C	10 N	5 N	50	5 N	50	5 N	20	5 N	20	100 L	10 N	50	150
9FM599D	10 N	5	20	5 N	20	5 N	20	5 N	10	100 N	10 N	30	100
9FM600A	50	500	20 N	5 N	20 N	50	10 N	20	10 N	200	300	20	100
9FM601A	70	70	20 N	5 N	20 N	70	10 N	30	10 N	200	500	30	70
9FM601B	30	70	20 N	5 N	20 N	20	10 L	20	10 N	100 N	300	10	100
9FM602A	15	5 L	50	5 N	20 N	5 N	15	5 N	10 N	300	30	10	150

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9FM602B	Yga	45 42 46N	114 32 45W	3.00	2.00	2.00	0.300	500	10 L	1000	1.0	30
9FM603A	Tr	45 42 21N	114 33 7W	1.50	0.20	0.50	0.100	200	10 L	500	3.0	5 N
9FM604A	Tr	45 41 38N	114 33 18W	2.00	0.10	0.10	0.150	200	10 L	700	3.0	5 N
9FM604B	Tr	45 41 38N	114 33 18W	1.00	0.05	0.07	0.050	100	10 L	150	3.0	5 N
9FM604C	Tm	45 41 38N	114 33 18W	1.00	0.07	0.10	0.070	150	10 L	150	3.0	5 N
9FM605A	Tr	45 41 24N	114 32 31W	1.00	0.10	0.07	0.100	100	10 L	500	2.0	5 N
9FM606A	Tr	45 41 9N	114 32 2W	2.00	0.70	0.70	0.200	300	10 L	1000	2.0	5
9FM606B	Tr	45 41 9N	114 32 2W	1.50	0.20	0.20	0.100	500	10 L	1000	2.0	5 N
9FM607A	Tvn	45 41 5N	114 30 54W	5.00	3.00	0.70	0.300	700	10 L	1000	1.5	30
9FM609A	Tr	45 41 2N	114 32 49W	1.50	0.10	0.20	0.100	200	10 L	500	3.0	5 N
9FM610A	Tr	45 40 37N	114 32 13W	1.00	0.10	0.20	0.070	200	10 L	300	3.0	5 N
9FM611A	Yq	45 42 21N	114 29 56W	1.50	0.70	0.05	0.150	50	20	300	1.5	5 N
9FM613A	Tr	45 38 56N	114 34 1W	1.00	0.10	0.20	0.070	200	10 L	300	3.0	5 N
9FM614A	Tm	45 40 4N	114 32 45W	1.00	0.15	0.30	0.070	150	10 L	500	2.0	5 N
9FM615A	Tm	45 40 1N	114 34 47W	1.00	0.02	0.30	0.050	200	10 L	50	3.0	5 N
9FM616A	Tm	45 40 55N	114 35 6W	1.50	0.07	0.20	0.070	300	10 L	100	3.0	5 N
9FM617A	Tr	45 41 5N	114 35 2W	2.00	0.50	0.30	0.150	100	10 L	1500	2.0	5 N
9FM618A1	Tc	45 41 38N	114 33 28W	1.50	0.10	0.10	0.100	200	10 L	700	2.0	5 N
9FM618A2	Tc	45 41 38N	114 33 28W	1.50	0.10	0.10	0.100	200	10 L	700	2.0	5 N
9FM618A2	Tc	45 41 38N	114 33 28W	1.50	0.10	0.10	0.100	300	10 L	700	3.0	5 N
9FM619A	Tc	45 41 38N	114 33 21W	1.00	0.10	0.20	0.070	200	10 L	200	2.0	5 N
9FM620A	Tc	45 39 23N	114 37 34W	1.50	0.10	0.07	0.100	200	10 L	300	1.5	5 N
9FM620B	Tm	45 39 23N	114 37 34W	1.00	0.15	0.10	0.070	150	10 L	700	1.5	5 N
9FM621A	Tc	45 40 47N	114 37 48W	2.00	1.00	0.50	0.300	500	10 L	2000	1.5	15
9FM621B	Kd	45 40 47N	114 37 48W	5.00	2.00	2.00	1.000G	1000	10 L	700	1.0	30
9FM622A	Tc	45 40 51N	114 37 15W	3.00	0.30	0.30	0.500	500	10 L	2000	1.0	5 N
9FM623A	Tm	45 41 16N	114 37 30W	1.00	0.20	0.50	0.100	200	10 L	1000	1.5	5 N
9FM624A	Ygn	45 41 20N	114 38 31W	3.00	0.70	0.50	0.300	300	10 L	1500	2.0	15
9FM625A1	Tm	45 41 20N	114 38 34W	0.70	0.10	0.50	0.100	200	10 L	500	1.5	5 N
9FM626A1	Tm	45 41 24N	114 38 31W	1.50	0.20	0.50	0.100	200	10 L	700	2.0	5 N
9FM626A2	Tm	45 41 24N	114 38 31W	1.50	0.30	0.70	0.150	200	10 L	1000	2.0	5 N
9FM626A2	Tm	45 41 24N	114 38 31W	1.50	0.20	0.70	0.150	150	10 L	1000	2.0	5 N
9FM627A	Tm	45 41 49N	114 38 9W	3.00	0.50	1.00	0.500	300	10 L	1500	1.5	5 L
9FM628A	Tm	45 42 3N	114 38 6W	1.50	0.20	1.00	0.200	200	10 L	700	1.5	5 N
9FM630A	Tl	45 38 52N	114 32 52W	2.00	1.50	2.00	0.200	500	10 L	700	1.5	15
9FM631A	Ygn	45 37 30N	114 33 28W	7.00	2.00	2.00	1.000	1000	10	500	1.0	30
9FM632A	Yq	45 42 14N	114 30 39W	0.20	0.10	0.05L	0.020	15	10 L	70	1.0N	5 N
9FM633A	Tl	45 36 46N	114 34 33W	5.00	2.00	1.50	0.500	500	10	700	1.5	30
9FM634A	Tw	45 36 28N	114 34 51W	1.00	0.05	0.05	0.070	500	10 L	200	1.5	5 N
9FM635A	Ygn	45 35 56N	114 35 27W	10.00	3.00	5.00	0.500	1000	10 L	300	1.5	50
9FM636A	Tm	45 35 31N	114 35 52W	1.00	0.10	0.10	0.100	200	10 L	100	2.0	5 N
9FM636B	Ygn	45 35 31N	114 35 52W	3.00	0.70	0.30	0.300	200	10 L	300	2.0	10
9FM637A	Tr	45 36 21N	114 32 16W	0.70	0.02	0.10	0.030	150	10 L	20 N	3.0	5 N
9FM638A	Tr	45 35 56N	114 32 49W	1.00	0.05	0.15	0.070	150	10 L	70	3.0	5 N
9FM639A	Tm	45 35 34N	114 33 36W	1.00	0.02	0.15	0.050	150	10 L	20 N	2.0	5 N
9FM640A	Tr	45 35 34N	114 33 57W	2.00	0.15	0.15	0.150	200	10 L	500	2.0	5 N
9FM641A	Tr	45 35 41N	114 34 58W	1.00	0.05	0.20	0.050	100	10 L	70	5.0	5 N
9FM641B	Yq	45 35 41N	114 34 58W	2.00	1.00	2.00	0.700	100	10 L	300	3.0	5
9FM644A	Tr	45 44 56N	114 21 25W	2.00	0.15	0.50	0.150	200	10 L	700	1.5	5 N
9FM645A	Tc	45 44 41N	114 25 51W	1.00	0.15	0.15	0.100	100	10 L	500	2.0	5 N

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9FM602B	300	20	20 N	7	20 N	150	30	15	10 N	500	150	15	100
9FM603A	10 N	5 L	100	5 N	30	5 N	20	5 N	10 N	100	10	50	150
9FM604A	10 N	5 L	70	5 N	20	5 N	15	5 L	10 L	100	10	30	200
9FM604B	10 N	5 L	30	5 N	30	5 N	30	5 N	10 N	100 L	10 N	50	150
9FM604C	10 N	5 L	20	5 N	20	5 N	15	5 N	10 L	100 N	10 N	30	200
9FM605A	10 N	5 N	30	5 N	20 L	5 N	15	5 N	10 N	100 L	10 L	20	100
9FM606A	15	5 L	70	5 N	20 L	5	20	5 L	10 N	200	50	15	150
9FM606B	10 N	5 L	50	5 N	20 N	5 N	20	5 N	10 L	200	15	10	150
9FM607A	500	10	20 N	5 N	20 N	15	10	15	10 N	100	150	20	100
9FM609A	10 N	5 L	100	5 N	30	5 N	20	5 N	10 N	100 L	10 N	50	200
9FM610A	10 N	5 L	50	5	20	5 N	100	5 N	10 N	100 L	10 L	30	150
9FM611A	20	5 N	20 N	5 N	20 N	7	10 N	5 L	10 N	100 N	30	20	100
9FM613A	10 N	5 N	50	5 N	20 L	5 N	15	5 N	10 N	100 L	10 N	20	100
9FM614A	10 N	5 N	50	5 N	20 L	5 N	20	5 N	10 L	100	10 N	20	100
9FM615A	10 N	5 L	100	5 N	50	5 N	30	5 N	10 N	100 N	10 N	70	300
9FM616A	10 N	5 L	30	5 N	20	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM617A	10 L	5 N	100	5 N	20 L	5 N	20	5 L	10 N	300	50	20	150
9FM618A1	10 N	5 L	50	5 N	30	5 N	15	5 L	10 N	100 L	10	30	200
9FM618A2	10 N	5 L	50	5 N	20	5 N	20	5 N	10 L	100	10 L	20	150
9FM618A2	10 N	5 L	30	5 N	20	5 N	15	5 N	10 N	100 L	10 L	30	300
9FM619A	10 N	5 L	50	5 N	20	5 N	15	5 N	10 L	100 N	10 N	30	150
9FM620A	10 N	5 L	20	5 N	20 L	5 N	15	5 N	10	100 N	10 N	15	200
9FM620B	10 L	5 N	50	5 N	20	5 N	30	5 N	10	150	10 N	20	100
9FM621A	50	5	150	5 N	20 L	20	10	7	10 N	500	50	30	200
9FM621B	150	50	70	5 N	20 N	100	10	15	10 N	500	200	30	100
9FM622A	10 N	5	100	5 L	20	5 N	20	7	10 N	200	30	20	1000
9FM623A	10 N	5 N	70	5 N	20 N	5 N	20	5 N	10 N	200	20	10	200
9FM624A	20	10	20 N	5 N	20 N	10	15	7	10 L	150	50	50	200
9FM625A1	10 N	5 N	30	5 N	20 N	5 N	20	5 N	10 N	100	10 N	10	100
9FM626A1	10 N	5 N	70	5 N	20 N	5 N	20	5 N	10 N	200	20	20	150
9FM626A2	10 N	5 L	100	5 N	20 L	5 N	30	5 N	10 L	150	20	15	150
9FM626A2	10 N	5 N	150	5 N	20 N	5 N	20	5 N	10 N	150	20	20	150
9FM627A	10 N	5 L	50	5 N	20 L	5 N	20	5	10 N	300	50	30	500
9FM628A	10 N	5 N	200	5	20	5 N	30	5 L	10 N	150	20	50	150
9FM630A	100	10	70	5 N	20 N	30	15	15	10 N	300	100	15	100
9FM631A	150	50	20 N	5 N	20 N	70	10 L	20	10 N	200	300	30	300
9FM632A	10 N	5 N	20 N	5 N	20 N	5 N	10 N	5 N	10 N	100 N	10 N	30	50
9FM633A	300	50	20 N	5 N	20 N	200	10	15	10 N	700	200	15	100
9FM634A	10 N	5 L	20 N	5 N	20	5 N	15	5 N	10 L	100	10 L	20	100
9FM635A	150	10	20 N	5 N	20 N	50	10 N	30	10 N	500	300	50	50
9FM636A	10 N	30	30	5 N	20 L	5 N	200	5 N	10	100 N	10 L	30	100
9FM636B	70	5 N	20	5 N	20 N	20	10	10	10 N	100	70	20	300
9FM637A	10 N	5 N	20 N	5 N	20	5 N	20	5 N	10 L	100 N	10 N	20	30
9FM638A	10 N	5 L	30	5 N	50	5 N	30	5 N	20	100 N	10 N	50	200
9FM639A	10 N	7	50	5 N	30	5 N	30	5 N	10 L	100 N	10 N	50.	300
9FM640A	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 N	100	10 L	30	200
9FM641A	10 N	5	20	10	20 L	5 N	70	5 L	10 N	100 L	10 N	30	100
9FM641B	100	5 N	30	5 N	20 L	30	10 L	20	10 N	700	200	50	200
9FM644A	10 N	5 L	70	5 N	20	5 N	20	5 N	10 N	100	10 L	50	300
9FM645A	10 N	5 N	50	5 N	20 N	5 N	20	5 N	10 N	100	15	20	100

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9FM646D	Tmz	45 44 49N	114 26 49W	1.00	0.10	0.10	0.070	150	10 L	300	1.5	5 N
9FM647A	Tc	45 44 34N	114 27 21W	1.50	0.10	0.30	0.100	150	10 L	300	1.5	5 N
9FM648A1	Tc	45 43 55N	114 28 37W	1.00	0.15	0.20	0.100	200	10 L	300	2.0	5 N
9FM649A1	Tc	45 43 55N	114 28 37W	1.50	0.20	0.30	0.100	200	10 L	300	5.0	5 N
9FM649A2	Tc	45 43 55N	114 28 37W	1.00	0.10	0.30	0.100	150	10 L	300	2.0	5 N
9FM649A2	Tc	45 43 55N	114 28 37W	1.50	0.15	0.20	0.100	300	10 L	200	2.0	5 N
9FM651A	Tm	45 35 20N	114 33 7W	2.00	0.15	0.30	0.100	200	10 L	300	3.0	5 N
9FM652A	Tm	45 35 6N	114 34 4W	1.00	0.05	0.20	0.030	100	10 L	20 N	2.0	5 N
9FM653A	Tr	45 34 33N	114 33 10W	2.00	0.20	0.30	0.150	200	10 L	300	5.0	5 N
9FM654A1	Tm	45 33 46N	114 33 57W	1.00	0.15	5.00	0.100	200	10 L	300	2.0	5 N
9FM655A1	Tm	45 33 46N	114 34 1W	1.50	0.20	0.50	0.100	200	10 L	500	3.0	5 N
9FM655A2	Tm	45 33 46N	114 34 1W	1.50	0.20	0.50	0.100	200	10 L	500	5.0	5 N
9FM655A2	Tm	45 33 46N	114 34 1W	1.50	0.20	0.50	0.100	200	10 L	500	3.0	5 N
9FM656A	Tc	45 32 52N	114 34 22W	1.00	0.10	0.20	0.070	150	10 L	500	3.0	5 N
9FM659A	Tc	45 32 45N	114 35 31W	1.50	0.10	0.50	0.150	200	10 L	1500	3.0	5 N
9FM660A	Tr	45 32 5N	114 35 34W	1.50	0.15	0.50	0.150	150	10 L	700	2.0	5 N
9FM660B	Tr	45 32 5N	114 35 34W	2.00	0.20	0.50	0.150	200	10 L	1000	2.0	5 N
9FM661A	Tmz	45 31 55N	114 36 7W	0.30	0.20	1.00	0.300	300	10 L	2000	2.0	5 N
9FM662B	Tm	45 31 37N	114 37 15W	1.00	0.02L	0.20	0.050	150	10 L	20 N	5.0	5 N
9FM662C	Tc	45 31 37N	114 37 15W	2.00	0.07	0.30	0.100	300	10 L	500	2.0	5 N
9FM663A	Tw	45 37 58N	114 34 19W	1.00	0.10	0.07	0.030	200	10 L	150	2.0	5 N
9FM664A	Ygn	45 37 11N	114 34 1W	10.00	2.00	5.00	0.500	1000	10 L	500	1.0N	50
9FM665A	Tr	45 36 21N	114 36 53W	1.00	0.10	0.15	0.050	100	10 L	100	7.0	5 N
9FM666A	Yq	45 36 7N	114 36 25W	1.00	1.00	1.00	1.000	70	10 L	1000	1.0	5 N
9FM668A	Tm	45 32 49N	114 37 15W	1.00	0.03	0.20	0.050	200	10 L	100	2.0	5 N
9FM669A	Tm	45 35 13N	114 37 8W	1.50	0.10	0.10	0.100	100	10 L	200	2.0	5 N
9FM670A	Tr	45 35 59N	114 37 1W	1.00	0.02	0.07	0.030	70	10 L	50	2.0	5 N
9FM671A	Tr	45 43 51N	114 35 6W	1.50	0.15	0.30	0.100	150	10 L	300	3.0	5 N
9FM672A	Yga	45 43 37N	114 35 2W	5.00	3.00	2.00	0.500	700	10 L	1000	1.0	30
9FM673A	Tr	45 43 11N	114 34 55W	1.50	0.05	0.10	0.050	300	10 L	200	5.0	5 N
9FM674A1	Tm	45 42 25N	114 36 0W	1.00	0.02	0.30	0.050	200	10 L	20 N	5.0	5 N
9FM675A1	Tc	45 42 25N	114 36 0W	1.00	0.02	0.20	0.050	200	10 L	20 N	5.0	5 N
9FM675A2	Tc	45 42 25N	114 36 0W	0.70	0.02	0.20	0.050	100	10 L	20 N	5.0	5 N
9FM675A2	Tc	45 42 25N	114 36 0W	1.00	0.02	0.20	0.030	150	10 L	20 N	5.0	5 N
9FM679A	Tr	45 43 29N	114 31 4W	1.00	0.10	0.05	0.070	200	10 L	200	3.0	5 N
9FM680A	Tv	45 40 47N	114 30 25W	5.00	0.20	0.07	0.200	200	10 L	1000	1.5	5 N
9FM681A	Tv	45 40 37N	114 30 43W	1.00	0.30	0.50	0.150	500	10 L	1000	1.5	5 L
9FM682A	Tr	45 40 19N	114 31 4W	1.50	0.15	0.05	0.100	200	10 L	300	2.0	5 N
9FM683A1	Tr	45 39 10N	114 35 49W	1.00	0.15	0.10	0.100	150	10 L	300	2.0	5 N
9FM683A2	Tr	45 39 10N	114 35 49W	1.00	0.15	0.10	0.100	150	10 L	300	2.0	5 N
9FM683A2	Tr	45 39 10N	114 35 49W	1.50	0.15	0.10	0.100	200	10 L	300	2.0	5 N
9FM684A1	Tr	45 39 7N	114 35 49W	1.50	0.15	0.50	0.100	300	10 L	200	5.0	5 N
9FM684B	Tc	45 39 7N	114 35 49W	2.00	0.10	0.30	0.100	200	10 L	500	3.0	5 N
9FM685A1	Tr	45 40 15N	114 35 49W	1.50	0.10	0.15	0.100	200	10 L	500	3.0	5 N
9FM686A1	Tr	45 40 19N	114 35 49W	1.50	0.10	0.15	0.100	200	10 L	500	2.0	5 N
9FM686A2	Tr	45 40 19N	114 35 49W	1.50	0.15	0.20	0.150	200	10 L	500	3.0	5 N
9FM686A2	Tr	45 40 19N	114 35 49W	1.50	0.15	0.15	0.100	200	10 L	500	3.0	5 N
9FM687A1	Tm	45 40 22N	114 37 19W	1.50	0.10	0.10	0.070	200	10 L	200	2.0	5 N
9FM687A2	Tm	45 40 22N	114 37 19W	1.50	0.10	0.10	0.070	300	10 L	300	2.0	5 N
9FM687A2	Tm	45 40 22N	114 37 19W	1.50	0.10	0.10	0.070	300	10 L	200	2.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9FM646D	10 N	5 N	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	50	150
9FM647A	10 N	5 N	50	5 N	30	5 N	20	5 N	10 N	100	10 N	50	300
9FM648A1	10 N	5 N	70	5 N	20 L	5 N	20	5 N	10 L	100	10 L	30	150
9FM649A1	10 N	5 L	50	5 N	20	5 N	30	5 N	10 L	100 L	10 N	30	150
9FM649A2	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9FM649A2	10 N	5 L	70	5 N	20	5 N	20	5 N	10 N	100 L	10 L	30	100
9FM651A	10 N	100	100	5 N	20	5 N	30	5 N	20	100 L	10 N	30	200
9FM652A	10 N	5 L	30	5 N	30	5 N	15	5 N	10 N	100 N	10 N	30	100
9FM653A	10 N	50	50	5 N	20	5 N	15	5 N	15	100 L	10 L	50	300
9FM654A1	10 N	5 L	70	5 N	20 L	5 N	15	5 N	10 N	100	10 L	20	100
9FM655A1	10 N	5 L	70	5 N	20	5 N	15	5 N	10 N	100	15	15	100
9FM655A2	10 N	5 N	50	5 N	20	5 N	15	5 N	10 N	100	15	20	100
9FM655A2	10 N	5 L	30	5 N	20 L	5 N	15	5 N	10 N	100	10 L	15	100
9FM656A	10 N	5 L	50	5 N	20	5 N	20	5 N	10 N	100 L	10 N	30	150
9FM659A	10 N	5 N	20	5	20	50	15	5 N	10 N	150	10 L	20	200
9FM660A	10 N	20	100	5 N	20 L	5 N	20	5 N	10	100 L	10 L	30	200
9FM660B	10 N	5	50	5 N	20	5 N	20	5 N	10 N	150	10	30	200
9FM661A	10 N	5 N	200	5 N	20	5 N	20	5 L	10 N	150	10 L	50	500
9FM662B	10 N	5 N	50	5 N	20	5 N	30	5 N	10 N	100 N	10 N	50	100
9FM662C	10 N	5 N	100	5 N	20	5 N	20	5 N	10 N	100 N	10 N	20	100
9FM663A	10 L	5 L	20 N	5 N	20	5 N	15	5 N	10 N	100 N	10	30	100
9FM664A	100	50	20 N	5 N	20 N	5 N	10 N	30	10 N	150	300	30	200
9FM665A	10 N	5 L	20	5 N	50	5 N	30	5 N	10 N	100 N	10 N	50	200
9FM666A	100	5 N	20 N	5 N	20 N	5 N	15	15	10 N	500	100	70	500
9FM668A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 N	10 N	30	150
9FM669A	10 N	5 L	20 N	5 N	20 N	5 N	20	5 N	10 N	100 L	10 N	20	100
9FM670A	10 N	5 L	20 N	5 N	50	5 N	20	5 N	10 N	100 N	10 N	50	100
9FM671A	10 N	5 L	100	5 N	20	5 N	20	5 L	10 N	100	10 N	50	200
9FM672A	200	15	20	5 N	20 N	70	10 N	15	10 N	500	150	15	150
9FM673A	10 N	5 L	30	5 N	30	5 N	20	5 N	10 N	100 N	10 N	30	200
9FM674A1	10 N	5 N	20	5 N	30	5 N	30	5 N	10	100 N	10 N	50	70
9FM675A1	10 N	5 N	20 N	7	30	5 N	30	5 N	10	100 N	10 N	50	100
9FM675A2	10 N	5 N	20	5 N	50	5 N	30	5 N	10 L	100 N	10 N	70	100
9FM675A2	10 N	5 N	20 N	5 N	30	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM679A	10 N	5 L	20	7	20	5 N	20	5 N	10 N	100 N	10 N	30	150
9FM680A	10 N	10	20 N	15	20 N	5 N	20	5 L	10 N	200	10	10 L	300
9FM681A	10 L	5 L	50	7	20 L	5 L	20	5 L	10 L	300	15	10	150
9FM682A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 L	100 N	10 N	30	200
9FM683A1	10 N	5 N	30	5 N	20	5 N	20	5 N	10 N	100 L	10 L	30	150
9FM683A2	10 N	5 N	30	5 N	20 L	5 N	15	5 N	10 N	100 L	10 L	30	300
9FM683A2	10 N	5 N	70	5 N	20 L	5 N	20	5 N	10 L	100 L	10	30	150
9FM684A1	10 N	5 L	50	5 N	20	5 N	20	5 N	10	100 L	10 N	50	200
9FM684B	10 N	5 N	150	5 N	50	5 N	20	5 N	10 N	100 L	10 N	50	150
9FM685A1	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 L	100 L	10 N	30	200
9FM686A1	10 N	5	50	5 L	20	5 N	20	5 N	10 L	100 L	10 N	30	150
9FM686A2	10 N	5	50	5 N	20 L	5 N	20	5 N	10 L	100 L	10 N	30	200
9FM686A2	10 N	5	50	5 N	20	5 N	30	5 N	10 L	100 L	10 N	30	200
9FM687A1	10 N	5 N	20	5 N	20 L	5 N	20	5 N	10 L	100 N	10 N	20	100
9FM687A2	10 N	5 N	20	5 N	20	5 N	20	5 N	10 L	100 N	10 N	20	100
9FM687A2	10 N	5 N	20	5 N	20	5 N	20	5 N	10 L	100 N	10 N	20	100

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9FM688A1	Tm	45 40 22N	114 37 4W	1.50	0.10	0.10	0.070	200	10 L	300	2.0	5 N
9FM690A1	Tm	45 42 25N	114 36 0W	1.00	0.02	0.20	0.030	150	10 L	20 N	7.0	5 N
9FM691A1	Tm	45 42 25N	114 36 0W	1.50	0.02	0.30	0.070	200	10 L	20 N	10.0	5 N
9FM691A2	Tm	45 42 25N	114 36 0W	1.00	0.02	0.20	0.050	150	10 L	20 N	7.0	5 N
9FM691A2	Tm	45 42 25N	114 36 0W	1.00	0.02L	0.30	0.030	100	10 L	20 N	7.0	5 N
9FM692A1	Tm	45 42 3N	114 38 20W	2.00	0.50	1.00	0.300	200	10 L	2000	2.0	5
9FM692A2	Tm	45 42 3N	114 38 20W	2.00	0.50	1.00	0.500	200	10 L	1500	1.5	5
9FM692A2	Tm	45 42 3N	114 38 20W	2.00	0.50	1.00	0.300	300	10 L	2000	1.5	5
9FM693A1	Tm	45 42 3N	114 38 20W	2.00	0.50	1.00	0.200	200	10 L	2000	2.0	5
9FM698A	unkn	45 42 25N	114 32 16W	1.00	0.02	0.20	0.050	200	10 L	20 N	5.0	5 N
9FM699A	Tr	45 43 8N	114 31 33W	2.00	0.15	0.10	0.100	300	10 L	300	3.0	5 N
9FM700A	Tc	45 41 59N	114 36 28W	1.00	0.05	0.20	0.050	200	10 L	70	5.0	5 N
9FM701A	Tr	45 41 42N	114 36 32W	1.00	0.20	0.20	0.150	300	10 L	1000	2.0	5 N
9FM702A	Tr	45 41 2N	114 36 3W	2.00	0.05	0.07	0.100	300	10 L	100	3.0	5 N
9FM703A	Tr	45 40 44N	114 36 28W	1.00	0.10	0.30	0.100	200	10 L	300	5.0	5 N
9FM704A	Tr	45 40 30N	114 36 32W	1.50	0.10	0.10	0.100	300	10 L	300	7.0	5 N
9FM705A	Tm	45 39 43N	114 35 42W	1.50	0.10	0.30	0.070	500	10 L	1000	3.0	5 N
9FM705B	Tc	45 39 43N	114 35 42W	1.00	0.02	0.15	0.005	500	10 L	70	2.0	5 N
9FM706A	Tc	45 38 56N	114 35 42W	2.00	0.15	0.10	0.100	300	10 L	300	2.0	5 N
9FM706B	Tr	45 38 56N	114 35 42W	1.50	0.10	0.20	0.100	200	10 L	300	5.0	5 N
9FM706D	Tr	45 38 56N	114 35 42W	1.50	0.10	0.50	0.070	200	10 L	300	2.0	5 N
9FM707A	Tc	45 39 46N	114 36 3W	1.00	0.03	0.10	0.050	200	10 L	20	5.0	5 N
9FM708A	Tw	45 39 14N	114 31 19W	1.00	0.10	0.05L	0.070	100	10 L	300	1.5	5 N
9FM708B	Tw	45 39 14N	114 31 19W	1.00	0.15	0.05	0.070	100	10 L	300	3.0	5 N
9FM709A	Tw	45 39 21N	114 31 4W	1.00	0.03	0.05	0.050	70	10 L	70	3.0	5 N
9FM710A	Tw	45 39 39N	114 30 54W	0.70	0.03	0.05	0.150	50	10 L	1500	1.0	5 N
9FM711A	Tw	45 40 1N	114 30 50W	1.50	0.20	0.20	0.100	300	15	300	5.0	5 N
9FM715A1	Tr	45 41 49N	114 32 16W	2.00	0.50	0.50	0.150	300	10 L	1000	3.0	5 N
9FM715A2	Tr	45 41 49N	114 32 16W	2.00	0.50	0.70	0.150	200	10 L	1000	3.0	5 N
9FM715A2	Tr	45 41 49N	114 32 16W	2.00	0.50	0.70	0.200	200	10 L	1500	2.0	5 N
9FM716A1	Tr	45 41 49N	114 32 16W	2.00	0.70	1.00	0.200	200	10 L	1500	2.0	5
9FM717A	Tr	45 41 52N	114 32 31W	1.50	0.20	0.20	0.100	200	10 L	300	3.0	5 N
9FM718A	Tr	45 41 49N	114 33 0W	1.00	0.10	0.15	0.050	200	10 L	200	5.0	5 N
9FM719A	Tc	45 41 42N	114 33 21W	1.00	0.10	0.20	0.070	150	10 L	150	5.0	5 N
9FM720A	Tc	45 41 38N	114 33 36W	1.50	0.10	0.20	0.070	200	10 L	200	5.0	5 N
9FM721A	Tm	45 42 10N	114 34 37W	1.00	0.07	0.20	0.050	150	10 L	20 N	5.0	5 N
9FM722A	Tc	45 41 49N	114 34 4W	2.00	0.10	0.10	0.100	300	10 L	300	5.0	5 N
9FM723A	Tr	45 41 49N	114 34 4W	2.00	0.20	0.50	0.150	200	10 L	700	3.0	5 N
9FM724A	Tr	45 43 15N	114 30 46W	1.50	0.20	0.15	0.100	200	10 L	700	3.0	5 N
9FM730A	Tc	45 38 16N	114 36 10W	1.50	0.10	0.10	0.070	200	10 L	300	2.0	5 N
9FM731A	Tr	45 37 55N	114 36 50W	1.00	0.10	0.05	0.070	150	10 L	150	2.0	5 N
9FM732A	Tr	45 36 43N	114 37 26W	2.00	0.15	0.10	0.100	200	10 L	700	3.0	5 N
9FM733A	Tr	45 37 22N	114 36 25W	1.50	0.10	0.10	0.100	200	10 L	200	1.5	5 N
9FM737A	Tr	45 37 58N	114 36 53W	7.00	2.00	0.50	1.000	700	10 L	1500	1.5	20
9FM738A	Tr	45 37 8N	114 37 1W	1.50	0.10	0.07	0.050	150	10 L	500	1.5	5 N
9FM739A	Tr	45 36 36N	114 37 40W	1.50	0.10	0.07	0.100	150	10 L	300	2.0	5 N
9FM740A	Tr	45 35 45N	114 37 55W	2.00	0.05	0.10	0.070	200	10 L	300	1.5	5 N
9FM741A	Tr	45 38 2N	114 35 38W	1.00	0.05	0.05	0.050	100	10 L	70	2.0	5 N
9FM742A	Ygn	45 37 8N	114 35 31W	3.00	0.70	1.00	0.300	1500	10 L	1500	1.5	7
9FM743A	Tr	45 42 25N	114 36 0W	1.50	0.05	0.07	0.050	200	10 L	70	3.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9FM688A1	10 N	5 N	20	5 N	20 L	5 N	20	5 N	10 L	100 N	10 N	20	100
9FM690A1	10 N	5 L	20	5 N	50	5 N	20	5 N	10	100 N	10 N	50	100
9FM691A1	10 N	5 L	20	5 N	50	5 N	30	5 N	15	100 N	10 N	70	100
9FM691A2	10 N	5 L	50	5 N	50	5 N	30	5 N	15	100 N	10 N	50	150
9FM691A2	10 N	5	20 N	5 N	50	5 N	30	5 N	15	100 N	10 N	50	150
9FM692A1	10 N	5 N	50	5 N	20 L	5 N	20	5 L	10 N	300	50	30	500
9FM692A2	10 N	5 L	70	5 N	20 L	5 N	20	5	10 N	200	50	30	500
9FM692A2	10 L	5 L	200	5 N	20 L	5 N	20	5 L	10 N	300	50	30	500
9FM693A1	10 N	5 N	100	5 N	20 N	5 N	20	5 L	10 N	300	50	20	300
9FM698A	10 N	5 L	20	5 N	50	5 N	50	5 N	10	100 N	10 N	70	200
9FM699A	10 N	5 L	20	5 N	20 L	5 N	30	5 N	10 L	100 L	10 L	30	150
9FM700A	10 N	5 L	30	5	30	5 N	20	5 N	10 L	100 N	10 N	30	100
9FM701A	10 N	5 N	50	5 N	20 L	5 N	30	5 L	10 L	200	20	15	100
9FM702A	10 N	5 N	20	5 L	50	5 N	50	5 N	10	100 N	10 N	30	100
9FM703A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 L	100 N	10 N	20	150
9FM704A	10 N	5 L	50	5 N	20	5 N	20	5 N	10 L	100 L	10 N	50	100
9FM705A	10 N	5 L	50	5 N	20	5 N	15	5 N	10 L	150	10 N	20	300
9FM705B	10 N	10	20 N	5 L	20 N	5 N	15	5 N	10 L	100 N	10 N	10 N	50
9FM706A	10 N	30	200	5 L	30	5 N	20	5 L	10 L	100 L	10 N	50	200
9FM706B	10 N	5 N	70	5 N	20	5 N	20	5 N	10 N	100 L	10 N	50	100
9FM706D	10 N	5 N	70	5	20 L	5 N	20	5 N	10 N	100 L	10 N	50	100
9FM707A	10 N	5 L	30	5 N	30	5 N	30	5 N	10 L	100 N	10 N	50	100
9FM708A	10 N	5 L	70	5	20 L	5 N	30	5 N	10 L	100 L	10	20	200
9FM708B	10 N	7	70	7	20 L	5 N	30	5 N	10 L	100 L	15	20	200
9FM709A	10 N	5 L	20 N	10	30	5 N	20	5 N	10 L	100 N	10 N	50	150
9FM710A	10 N	5	50	5 N	20 L	5 N	15	5 N	10 N	100	10	15	200
9FM711A	10 N	5 L	50	5 N	20	5 N	30	5 N	10 L	100 N	10 N	50	150
9FM715A1	10 N	5 N	70	5 N	20 L	5 N	20	5 N	10 N	150	30	20	200
9FM715A2	10 N	5 N	100	5 N	20 L	5 N	30	5 N	10 N	200	20	20	200
9FM715A2	10 N	5 N	70	5 N	20 L	5 N	20	5 L	10 N	150	30	20	200
9FM716A1	20	15	50	5 N	20 N	5	20	5 L	10 L	500	70	10 L	150
9FM717A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 L	100	10 L	30	200
9FM718A	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9FM719A	10 N	5 L	30	5 N	20	5 N	20	5 N	10	100 N	10 N	30	100
9FM720A	10 N	5 L	70	5 N	20	5 N	30	5 N	10 L	100 L	10 N	50	100
9FM721A	10 N	5 N	20 N	5 N	30	5 N	20	5 N	10 L	100 N	10 N	50	100
9FM722A	10 N	5 L	70	5 N	20	5 N	30	5 N	10	100 N	10 N	30	150
9FM723A	10 N	5 L	70	5 N	20	5 N	20	5 N	10 L	150	20	30	300
9FM724A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100	10	20	200
9FM730A	10 N	5	100	5 N	20	5 N	20	5 N	10 N	100 L	10 N	50	200
9FM731A	10 N	5 L	20	5 N	20	5 N	15	5 N	10 L	100 N	10 N	20	100
9FM732A	10 N	5 L	70	5 N	20	5 N	20	5 N	10 N	100	10 L	30	500
9FM733A	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	50	300
9FM737A	30	15	50	5 N	20	15	20	10	10 N	200	150	30	500
9FM738A	10 N	5 L	30	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	20.	100
9FM739A	10 N	5 N	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	150
9FM740A	10 N	5 N	30	5 N	20 L	5 N	20	5 N	10 N	100 N	10 N	20	200
9FM741A	10 N	5 N	20	5 N	20	5 N	15	5 N	10 N	100 N	10 N	30	100
9FM742A	10 L	5 L	50	5 N	50	5 N	15	5	10 N	700	100	30	200
9FM743A	10 N	5 L	30	5 N	70	5 N	50	5 N	10	100 N	10 N	50	150

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9FM743D	Tm	45 42 25N	114 36 0W	1.00	0.02L	0.20	0.020	200	10 L	20 N	10.0	5 N
9FM744D	Tp	45 42 3N	114 38 20W	2.00	0.50	1.00	0.200	500	10 L	2000	1.5	5
9FM745D	Tm	45 41 34N	114 39 21W	1.50	0.50	0.70	0.150	300	10 L	1000	1.5	5 N
9FM746D	Tmz	45 44 2N	114 44 52W	5.00	0.20	1.00	0.200	700	10 L	2000	1.0	5 N
9FM747D	Tp	45 44 2N	114 44 56W	2.00	0.20	0.70	0.200	300	10 L	1000	1.5	5 N
9FM748D	Tc	45 39 28N	114 36 25W	1.00	0.05	0.10	0.050	200	10 L	70	5.0	5 N
9FM749A	Tc	45 34 19N	114 34 58W	1.00	0.05	0.20	0.050	200	10 L	70	2.0	5 N
9FM749B	Tm	45 34 19N	114 34 58W	0.70	0.02L	0.10	0.003	150	10 L	20 N	7.0	5 N
9FM750A	Tr	45 34 15N	114 35 16W	1.50	0.50	0.50	0.150	200	10 L	1000	2.0	5 N
9FM751A	Tc	45 34 1N	114 35 38W	1.50	0.05	0.50	0.100	200	10 L	300	1.5	5 N
9FM752A	Tr	45 34 12N	114 37 15W	2.00	0.50	1.00	0.200	500	10 L	700	2.0	5
9FM753A	Tc	45 43 33N	114 36 25W	1.00	0.07	0.20	0.070	100	10 L	300	2.0	5 N
9FM755A	Tm	45 44 34N	114 41 27W	1.50	0.10	0.30	0.100	200	10 L	700	1.0	5 N
9FM756A	Tm	45 35 9N	114 37 8W	1.00	0.05	0.20	0.050	200	10 L	30	2.0	5 N
9FM757A	Tr	45 38 34N	114 36 10W	1.50	0.15	0.07	0.070	150	10 L	300	2.0	5 N
9FM758A	Tc	45 38 23N	114 35 45W	1.00	0.02	0.10	0.050	150	10 L	100	3.0	5 N
9FM759A	Tw	45 36 18N	114 33 39W	0.70	0.10	0.10	0.030	150	10 L	300	5.0	5 N
9FM760A	Tr	45 35 2N	114 35 24W	2.00	0.20	0.20	0.150	200	10 L	500	2.0	5 N
9FM761A	Tm	45 34 55N	114 35 38W	5.00	1.50	1.50	1.000	700	10 L	700	1.5	20
9FM762A	Tc	45 35 20N	114 35 45W	1.50	0.20	0.30	0.150	200	10 L	500	2.0	5 N
9FM763A	Tr	45 42 39N	114 33 7W	1.50	0.10	0.10	0.100	100	10 L	200	3.0	5 N
9FM764A	Tc	45 42 14N	114 33 53W	2.00	0.10	0.20	0.100	200	10 L	300	2.0	5 N
9FM765A	Tw	45 39 46N	114 30 14W	2.00	0.10	0.05	0.100	200	10 L	300	2.0	5 N
9FM766A	Tv	45 40 30N	114 30 7W	1.00	0.10	0.70	0.050	70	10 L	200	5.0	5 N
9FM767A	Tmz	45 44 56N	114 32 45W	5.00	0.70	1.00	0.150	1000	10 L	700	1.5	5 L
9FM768A	Tc	45 44 23N	114 32 16W	2.00	0.10	0.10	0.150	300	10 L	150	1.0	5 N
9FM769A	Kd	45 44 52N	114 46 8W	7.00	2.00	2.00	1.000	1000	10 L	700	1.0	30
9FM770A	Tmz	45 44 49N	114 45 57W	3.00	0.15	1.00	0.200	500	10 L	3000	1.5	5 N
9FM771A	Tr	45 39 0N	114 36 57W	2.00	0.15	0.20	0.150	200	10 L	700	2.0	5 N
9FM772A1	Tr	45 39 18N	114 37 1W	1.50	0.15	0.07	0.070	300	10 L	300	3.0	5 N
9FM772A2	Tr	45 39 18N	114 37 1W	1.50	0.20	0.10	0.100	300	10 L	300	3.0	5 N
9FM772A2	Tr	45 39 18N	114 37 1W	1.00	0.15	0.10	0.070	300	10 L	300	2.0	5 N
9FM773A1	Tc	45 39 18N	114 37 1W	2.00	0.20	0.15	0.100	300	10 L	500	3.0	5 N
9FM776A	Tc	45 41 13N	114 35 52W	1.50	0.10	0.10	0.100	200	10 L	300	3.0	5 N
9FM777A	Tv	45 40 12N	114 30 21W	0.70	0.02	0.10	0.100	50	10 L	700	2.0	5 N
9FM778A	Tc	45 38 16N	114 35 31W	1.00	0.02	0.07	0.050	200	10 L	20 N	2.0	5 N
9FM779A	Tr	45 47 13N	114 31 37W	3.00	0.30	0.50	0.200	300	10 L	1500	2.0	5 L
9FM782A	Tm	45 42 28N	114 36 14W	1.00	0.02	0.20	0.070	200	10 L	20 N	3.0	5 N
9FM783A	Tm	45 42 28N	114 36 25W	1.00	0.02	0.10	0.050	200	10 L	20 N	5.0	5 N
9FM784A	Tc	45 41 49N	114 33 57W	2.00	0.10	0.10	0.070	300	10 L	150	3.0	5 N
9FM787A	Tr	45 39 3N	114 31 47W	1.00	0.02	0.05	0.030	100	10 L	100	3.0	5 N
9MP001A	Yq	45 42 39N	114 31 19W	1.50	0.50	0.05	0.100	30	10 L	200	1.0	5
9MP001B	Yq	45 42 39N	114 31 19W	1.50	0.15	0.20	0.070	150	10 L	200	2.0	5 N
9MP001C	Yq	45 42 39N	114 31 19W	1.50	0.20	0.10	0.050	200	10 L	150	7.0	5 N
9MP002A	Yq	45 42 28N	114 30 57W	1.50	0.50	0.05L	0.100	50	10	150	1.0	5 N
9MP028A	Tmz	45 44 41N	114 45 32W	3.00	0.10	0.30	0.150	300	10 L	500	1.0	5 N
9MP028B	Tmz	45 44 41N	114 45 32W	5.00	0.20	0.15	0.300	300	10 L	700	1.0	5 N
9MP028C	Tmz	45 44 41N	114 45 32W	0.10	0.02	0.05L	0.010	20	10 N	20 N	1.0N	5 N
9MP033A	Kd	45 42 54N	114 46 33W	7.00	1.50	2.00	1.000	700	10 L	1000	1.5	30
9MP033B	Tm	45 42 54N	114 46 33W	3.00	0.70	1.50	0.200	300	10 L	1000	2.0	7

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9FM743D	10 N	5 N	20	5 N	50	5 N	50	5 N	10	100 N	10 N	50	150
9FM744D	10 N	5 L	100	5 N	20 L	5 N	20	5 N	10 N	300	50	30	300
9FM745D	10 N	5 N	30	5 N	20 N	5 N	30	5 L	10 L	200	30	15	100
9FM746D	10 N	700	100	5 N	30	5 N	20	10	10	200	10	30	500
9FM747D	10 N	5 L	150	5 N	20	5 N	20	5 L	10 N	150	15	30	200
9FM748D	10 N	5 N	20 N	5 N	30	5 N	20	5 N	10 N	100 N	10 N	30	70
9FM749A	10 N	5 N	30	5 N	30	5 N	20	5 N	10 N	100 N	10 N	30	70
9FM749B	10 N	5 N	20	5 N	70	5 N	50	5 N	10 N	100 N	10 N	50	200
9FM750A	10 L	5 L	100	5 N	20 L	5 N	30	5 L	10 N	200	20	20	150
9FM751A	10 N	5 N	150	5 N	20 L	5 N	20	5 N	10 N	100 N	10 N	20	100
9FM752A	10	5 L	70	7	20	5 N	20	5 L	10 L	150	20	50	200
9FM753A	10 N	5 N	100	5 N	20 L	5 N	15	5 N	10 N	100 L	10 N	30	150
9FM755A	10 N	5 L	70	5 N	20 N	5 N	20	5 N	10 N	100	10 N	10	30
9FM756A	10 N	5 N	20 N	5 N	20 L	5 N	20	5 N	10 N	100 N	10 N	20	70
9FM757A	10 N	5 N	30	5 N	20 L	5 N	20	5 N	10 N	100 N	10 N	20	150
9FM758A	10 N	5 N	30	5 N	30	5 N	20	5 N	10 N	100 N	10 N	50	150
9FM759A	10 N	5	20	5 N	20	5 N	50	5 N	10 N	100 N	10 N	50	100
9FM760A	10 N	5 L	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10	20	200
9FM761A	70	10	20	5 N	20 L	20	15	10	10	500	150	20	200
9FM762A	10 N	5 L	30	5 N	20 L	5 N	20	5 N	10 N	100 L	15	30	200
9FM763A	10 N	5 N	30	5 N	30	5 N	30	5 N	10 N	100 N	10 N	20	200
9FM764A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 L	10 N	20	300
9FM765A	10 N	5 L	70	15	20	5 N	20	5 N	10 N	100 N	10 N	30	200
9FM766A	10 N	5 L	50	5 N	20 L	5 N	20	5 N	10 L	100 L	10 N	30	100
9FM767A	30	5 L	20	5 N	20 N	10	20	10	10 N	500	30	20	1000
9FM768A	10 N	5 N	70	5 N	30	5 N	20	5 L	10 N	100 N	10 N	20	1000
9FM769A	150	20	50	5 N	20 L	100	15	15	10 N	500	150	30	200
9FM770A	10 N	5 N	70	5 N	30	5 N	20	5	10 N	300	10 L	20	1000
9FM771A	10 N	5 L	100	5 N	20	5 N	30	5 N	10 N	100	10 L	50	200
9FM772A1	10 N	5 L	20	5 N	20	5 N	20	5 N	10 L	100 L	10 N	20	100
9FM772A2	10 N	5 L	20	5 N	20 L	5 N	30	5 N	10 L	100 L	10 L	20	150
9FM772A2	10 N	5 L	30	5 N	20 L	5 N	20	5 N	10 L	100 L	10 N	20	150
9FM773A1	10 N	5 L	100	5 N	20 L	5 N	30	5 N	10 L	100 L	10 L	30	100
9FM776A	10 N	5 N	20 N	5 N	20	5 N	20	5 N	10 N	100 L	10 L	30	200
9FM777A	10 N	5 L	100	5 N	20	5 N	10	5 L	10 L	100 N	10 N	30	200
9FM778A	10 N	5 L	20 N	5 N	70	5 N	30	5 N	10 N	100 N	10 N	70	150
9FM779A	10 N	5 L	100	5 N	20	5 N	15	5 L	10 N	150	20	30	500
9FM782A	30	5 L	30	5 N	50	5 N	20	5 N	15	100 N	10 N	50	100
9FM783A	10 N	5 L	20 N	5 N	50	5 N	30	5 N	15	100 N	10 N	50	200
9FM784A	10 N	5 L	70	5 N	30	5 N	30	5 N	10 L	100 N	10 N	50	200
9FM787A	10 N	7	20 N	5 L	30	5 N	20	5 N	10 N	100 N	10 N	30	100
9MP001A	20	5 L	20 N	5 N	20 N	5	10 N	5 N	10 N	100 N	30	10	200
9MP001B	10 N	5 L	150	5 N	30	5 N	30	5 N	10	100 N	10 N	70	100
9MP001C	10 N	5 L	30	5 N	30	5 N	20	5 N	10 L	100 N	10 N	50	100
9MP002A	15	5 N	20 N	5 N	20 N	5	10 N	5 N	10 N	100 N	20	10.	70
9MP028A	10 N	5 L	200	7	20	7	20	5 N	10 N	100	10 N	30	200
9MP028B	10 N	20	300	15	30	5 N	20	7	10	100 L	20	50	700
9MP028C	10 N	5 L	20 N	5 N	20 N	5 N	10 N	5 N	10 N	100 N	10 N	10 N	10
9MP033A	10 N	30	100	5 N	30	15	15	20	10	700	300	70	150
9MP033B	10	5 L	70	5 N	20 N	7	30	5	10	500	50	20	100

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP034A	Ygn	45 43 26N	114 46 4W	3.00	0.20	0.30	0.200	300	10 L	5000	1.0	5 N
9MP035A1	Tm	45 42 25N	114 43 4W	2.00	0.30	0.50	0.100	200	10 L	1000	3.0	5 N
9MP035A2	Tm	45 42 25N	114 43 4W	1.50	0.20	0.50	0.100	200	10	1000	2.0	5 N
9MP035A2	Tm	45 42 25N	114 43 4W	1.50	0.20	0.50	0.100	200	10 L	700	5.0	5 N
9MP036A1	Tm	45 42 25N	114 43 1W	1.50	0.30	0.70	0.100	200	10 L	700	3.0	5 N
9MP037A	Tm	45 42 32N	114 43 8W	2.00	0.50	0.70	0.150	200	10 L	1000	1.0	5
9MP038A	Tm	45 42 32N	114 43 15W	2.00	0.50	0.70	0.150	200	10 L	1500	5.0	5 L
9MP038B	Tm	45 42 32N	114 43 15W	0.50	0.10	0.50	0.030	100	10 N	100	5.0	5 N
9MP039A	Tl	45 42 32N	114 43 15W	5.00	2.00	1.50	0.700	500	10 L	1000	1.0	20
9MP039B	Tm	45 42 32N	114 43 15W	2.00	0.30	0.70	0.150	200	10 L	1000	1.5	5 N
9MP040A	Tm	45 42 46N	114 43 15W	2.00	0.30	0.70	0.200	300	10 L	1000	2.0	5 L
9MP041A	Tm	45 43 1N	114 43 15W	2.00	0.30	0.70	0.150	300	10	1000	2.0	5 N
9MP042A	Tm	45 43 4N	114 43 15W	1.50	0.20	0.50	0.100	200	10	700	2.0	5 N
9MP043A	Tm	45 43 8N	114 43 15W	2.00	0.30	0.70	0.200	200	10 L	1000	2.0	5
9MP044A	Tm	45 43 22N	114 43 26W	1.50	0.30	0.70	0.150	200	10 L	1000	1.5	5 N
9MP045A	Tm	45 43 26N	114 43 33W	2.00	0.20	0.70	0.150	200	10 L	1000	1.5	5 N
9MP046A	Tm	45 43 37N	114 43 47W	2.00	0.50	0.70	0.150	200	10 L	1000	2.0	5 N
9MP046B	Tm	45 43 37N	114 43 47W	0.50	0.15	0.50	0.070	100	10 L	500	2.0	5 N
9MP047A	Ygn	45 40 15N	114 38 27W	2.00	0.70	1.50	0.200	200	10 L	700	1.5	7
9MP049A	Tm	45 40 19N	114 40 15W	1.50	0.30	0.70	0.150	200	10 L	1000	1.5	5 N
9MP049B	Tl	45 40 19N	114 40 15W	7.00	2.00	1.50	1.000	500	10 L	1500	1.0	30
9MP050A	Tmz	45 41 56N	114 42 50W	3.00	0.70	1.00	0.300	200	10 L	2000	1.0	7
9MP050B	Tm	45 41 56N	114 42 50W	1.50	0.30	1.00	0.150	200	10 L	3000	1.0L	5 N
9MP055A	Tm	45 38 45N	114 42 21W	3.00	0.50	1.00	0.200	500	10 L	2000	1.5	5
9MP055B	Tm	45 38 45N	114 42 21W	2.00	0.30	0.70	0.200	300	10 L	1500	1.5	5 N
9MP057A	Tmz	45 38 56N	114 42 3W	5.00	0.30	0.50	0.300	700	10 L	2000	1.0	5
9MP059A	Tc	45 36 43N	114 33 57W	7.00	3.00	3.00	0.500	1000	10 L	300	1.0	50
9MP063D	Kd	45 35 52N	114 35 27W	1.50	0.70	2.00	0.100	200	10 L	500	2.0	15
9MP068A	Yga	45 37 51N	114 34 29W	10.00	3.00	5.00	0.500	700	10	300	1.0N	70
9MP069A1	Yga	45 37 51N	114 34 29W	10.00	3.00	5.00	0.700	1000	10	300	1.0N	50
9MP069A2	Yga	45 37 51N	114 34 29W	10.00	3.00	5.00	0.700	1000	10 L	300	1.0N	70
9MP069A2	Yga	45 37 51N	114 34 29W	10.00	3.00	7.00	0.700	1000	10 L	300	1.0N	100
9MP070A	Tvn	45 37 33N	114 34 44W	0.20	0.05	0.05	0.020	50	10 L	30	1.0N	5 N
9MP074A	Ys	45 36 10N	114 35 34W	5.00	1.00	1.50	0.500	300	10	700	1.5	20
9MP075A	Tm	45 34 33N	114 38 13W	3.00	0.10	0.15	0.150	300	10 L	2000	1.5	5 N
9MP076A	Tmz	45 34 40N	114 39 10W	10.00	3.00	3.00	1.000	700	10 L	500	1.0L	70
9MP079A	Tmz	45 35 56N	114 40 30W	10.00	2.00	3.00	1.000	500	10 L	700	1.0N	70
9MP082A	Tmz	45 43 58N	114 44 20W	7.00	0.50	1.50	0.300	700	10 L	5000	1.0L	5
9MP083A	Tmz	45 43 58N	114 44 20W	10.00	0.70	2.00	0.500	700	10 L	1500	1.0	10
9MP083B	Tl	45 43 58N	114 44 20W	7.00	2.00	2.00	1.000	500	10 L	1500	1.0	30
9MP083C	Tm	45 43 58N	114 44 20W	3.00	1.00	1.00	0.300	300	10 L	1500	1.5	7
9MP084A	Tl	45 43 55N	114 44 16W	10.00	2.00	3.00	1.000G	1000	10 L	1000	1.0L	50
9MP084B	Tmz	45 43 55N	114 44 16W	1.00	0.20	0.50	0.070	150	10 L	700	1.5	5 N
9MP084D	Tl	45 43 55N	114 44 16W	7.00	2.00	2.00	1.000	1000	10 L	1000	1.0	50
9MP084E	Tmz	45 43 55N	114 44 16W	5.00	0.50	1.50	0.300	500	10 L	3000	1.0	10
9MP086A	Tm	45 38 45N	114 37 37W	1.00	0.10	0.10	0.070	150	10 L	300	3.0	5 N
9MP087A	Tm	45 38 41N	114 38 2W	1.50	0.10	0.20	0.100	150	10 L	500	1.5	5 N
9MP088A	Tm	45 38 27N	114 38 42W	1.50	0.15	0.30	0.100	200	10 L	700	2.0	5 N
9MP090A1	Tm	45 38 38N	114 39 39W	1.50	0.05	0.05	0.100	100	10 L	500	2.0	5 N
9MP090A2	Tm	45 38 38N	114 39 39W	1.50	0.05	0.05	0.100	100	10 L	500	1.5	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP034A	10 N	5	70	7	20 L	5 N	15	7	10 N	200	15	20	300
9MP035A1	10 N	5 L	50	5 N	20 L	5 N	50	5 N	10	200	20	15	100
9MP035A2	10 L	5 N	50	5 N	20 L	5 N	30	5 L	10	200	20	20	70
9MP035A2	10 L	5 L	50	5 N	20 L	5 N	30	5 N	10	150	15	20	100
9MP036A1	10 N	5 L	30	5 N	20 L	5 N	30	5 N	10	200	20	50	100
9MP037A	10	5 L	50	5 N	20 N	5 N	50	5 L	10	300	30	20	70
9MP038A	10 L	5 L	70	5 N	20 N	5 N	50	5 L	10	300	30	15	100
9MP038B	10 N	5 N	20 N	5 N	20 N	5 N	50	5 N	10 N	100 N	10 N	15	30
9MP039A	150	15	70	5 N	20 L	50	15	15	10 N	700	150	30	200
9MP039B	10 L	5	70	5 N	20 L	5 N	50	5 L	15	300	30	20	100
9MP040A	10	5 L	70	5 N	20	5 N	30	5 N	10 L	200	30	30	200
9MP041A	10 L	5 L	100	5 N	20 L	5 N	50	5 L	10	200	30	30	70
9MP042A	10 N	5 L	20	5 N	20 L	5 N	30	5 N	10	150	15	15	70
9MP043A	15	5 L	70	5 N	20 L	5	30	5	10 L	300	30	30	100
9MP044A	10	5 L	50	5 N	20	5 N	50	5 L	10	200	30	20	100
9MP045A	10	5 L	70	5 N	20 L	5 N	30	5 L	10 L	200	20	20	100
9MP046A	10	5 L	50	5	20 N	5 N	30	5 L	10 N	200	50	20	100
9MP046B	10 N	5 N	20 N	5 N	20 N	5 N	30	5 N	10 L	150	10 L	20	100
9MP047A	20	7	20 N	10	20 N	7	10	5	10 N	500	50	10	100
9MP049A	10 L	5 L	50	5 N	20 N	5 N	20	5 L	10 N	300	30	15	100
9MP049B	100	20	70	5 N	20	30	15	15	10 N	700	200	50	500
9MP050A	15	7	100	5 N	20 L	5	30	5	10 N	300	50	20	100
9MP050B	10	5 L	70	5	20 N	5 N	50	5 L	10 N	500	15	10	70
9MP055A	10 N	5 L	70	5 N	20	5 N	20	5 N	10 N	200	20	30	300
9MP055B	10 N	5 L	50	5 N	20 L	5 N	15	10	10 N	200	10 L	10	150
9MP057A	10 N	5	20	5 N	20	5 N	15	5 N	10 N	200	15	20	500
9MP059A	70	50	20	5 L	20 N	50	10 L	30	10 N	200	200	30	150
9MP063D	20	5	20 N	5 N	20 N	15	10	5 L	10 N	1000	50	10	100
9MP068A	500	50	20 N	5 N	20 N	100	10 N	30	10 N	150	500	50	100
9MP069A1	500	50	20 N	5 N	20 N	100	10 N	50	10 N	100	300	30	70
9MP069A2	500	50	20 N	7	20 N	100	10 N	50	10 N	150	300	30	70
9MP069A2	500	50	20 N	5 N	20 N	100	10 N	50	10 N	150	500	50	70
9MP070A	10 N	5 L	20 N	5 N	20 N	5 N	10 N	5 N	10 N	100 N	10 N	10 N	10 N
9MP074A	100	5 L	100	5 N	20 L	20	20	20	10 N	300	200	70	200
9MP075A	10 N	5 L	30	5 N	20 L	5 N	15	5 L	10 N	200	30	15	200
9MP076A	200	20	20 N	5 N	20 L	20	10 N	30	10 N	1000	300	30	70
9MP079A	30	20	50	7	20 L	50	10	15	10 N	500	300	50	200
9MP082A	10 N	7	20	5 N	20	5 N	20	15	10 N	500	30	30	700
9MP083A	10	15	70	5 N	50	5 N	20	10	10 N	500	50	50	1000
9MP083B	50	10	70	5 N	20	15	10	15	10 N	1000	300	50	300
9MP083C	20	5 L	70	5 N	20 N	5 N	20	5	10	700	70	20	150
9MP084A	30	20	30	5 N	20	10	10 L	30	10 N	700	300	50	200
9MP084B	10 N	5 L	20 N	5 N	20 N	5 N	30	5 N	10 N	200	30	10	50
9MP084D	50	20	50	5 N	20	15	10 L	20	10 N	500	150	30	200
9MP084E	10 L	5	30	7	20 N	5 N	10	15	10 N	500	50	30	700
9MP086A	10 N	5 N	30	5 N	20	5 N	15	5 N	10	100 L	10 N	30	100
9MP087A	10 N	5 L	100	5 N	20 L	5 N	20	5 N	10 N	100	10 L	20	100
9MP088A	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 N	100	10 L	30	100
9MP090A1	10 N	7	30	5 N	20	5 N	50	5 L	10	100 N	10 N	20	200
9MP090A2	10 N	7	50	5 N	20	5 N	50	5 N	10 L	100 L	10 N	20	150

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP090A2	Tm	45 38 38N	114 39 39W	1.50	0.07	0.10	0.070	100	10 L	500	1.5	5 N
9MP091A1	Tm	45 38 38N	114 39 39W	1.50	0.02	0.05	0.070	100	10 L	150	2.0	5 N
9MP092A	Tr	45 33 34N	114 39 43W	1.00	0.10	0.10	0.100	150	10 L	500	2.0	5 N
9MP093A	Tmz	45 38 20N	114 38 59W	5.00	0.20	1.00	0.200	500	10 L	2000	1.5	5 N
9MP094A	Tl	45 33 16N	114 38 56W	5.00	2.00	2.00	0.500	700	10 L	700	1.5	30
9MP096A	Tmz	45 38 31N	114 38 56W	2.00	0.10	1.00	0.100	500	10 L	2000	1.0	5 N
9MP097A	Tmz	45 38 23N	114 38 56W	5.00	0.20	0.70	0.200	700	10 L	2000	1.5	5
9MP098A	Tr	45 38 9N	114 39 3W	2.00	0.15	0.30	0.100	300	10 L	700	2.0	5 N
9MP099A	Tm	45 38 6N	114 39 10W	1.50	0.10	0.20	0.070	150	10 L	500	1.5	5 N
9MP100A	Tm	45 37 44N	114 39 50W	1.00	0.07	0.15	0.070	200	10 L	100	7.0	5 N
9MP101A	Tm	45 37 55N	114 41 2W	2.00	0.50	0.70	0.300	500	10 L	2000	3.0	5 N
9MP102A	Tm	45 38 2N	114 41 52W	1.50	0.07	0.15	0.070	200	10 L	500	1.5	5 N
9MP102B	Tm	45 38 2N	114 41 52W	1.50	0.10	0.20	0.100	150	10 L	700	2.0	5 N
9MP103A	Tc	45 38 2N	114 42 7W	1.50	0.10	0.20	0.200	300	10 L	700	3.0	5 N
9MP104A	Tc	45 38 16N	114 42 14W	1.00	0.10	0.15	0.100	150	10 L	300	2.0	5 N
9MP105A	Tc	45 38 20N	114 42 17W	2.00	0.20	0.50	0.300	300	10 L	1000	3.0	5 N
9MP106A	Tc	45 38 38N	114 37 44W	1.00	0.10	0.20	0.100	100	10 L	300	5.0	5 N
9MP107A	Tc	45 38 34N	114 37 51W	2.00	0.20	0.50	0.200	300	10 L	1500	3.0	5 N
9MP107B	Tc	45 38 34N	114 37 51W	2.00	0.20	0.30	0.150	300	10 L	700	1.5	5 N
9MP109A	Tmz	45 44 41N	114 45 28W	2.00	0.05	0.50	0.200	200	10 L	300	1.0	5 N
9MP110A	Tmz	45 44 27N	114 45 21W	3.00	0.07	0.50	0.200	300	10 L	5000	1.0	5 N
9MP110B	Tl	45 44 27N	114 45 21W	10.00	2.00	3.00	1.000G	700	10 L	2000	1.0	50
9MP110C	Tc	45 44 27N	114 45 21W	1.00	0.02L	0.30	0.030	200	10 L	2000	1.0	5 N
9MP111A	Tm	45 44 6N	114 45 21W	2.00	0.50	1.00	0.300	200	10 L	1500	2.0	5 N
9MP112A	Tmz	45 44 2N	114 45 10W	3.00	0.15	0.70	0.300	500	10 L	3000	1.0	5 N
9MP113A	Tmz	45 44 6N	114 44 56W	5.00	0.15	1.00	0.300	500	10 L	5000	1.5	5 N
9MP114A	Tmz	45 44 2N	114 44 52W	5.00	0.20	1.00	0.500	500	10 L	5000	1.0	5 N
9MP115A	Tmz	45 43 55N	114 44 34W	5.00	0.70	1.00	0.500	500	10 L	1500	2.0	7
9MP116A	Tm	45 43 15N	114 30 39W	1.50	0.20	0.10	0.100	200	10 L	700	3.0	5 L
9MP117A	Yq	45 42 25N	114 31 4W	1.50	0.50	0.05L	0.100	20	10	200	1.0	5 L
9MP118A	Yq	45 41 49N	114 31 55W	1.50	0.30	0.05	0.150	70	10	200	1.0L	5 L
9MP119A	Tm	45 41 52N	114 32 38W	1.50	0.30	0.50	0.200	150	10 L	700	2.0	5 L
9MP120A	Tc	45 41 38N	114 33 36W	1.00	0.05	0.07	0.070	70	10 L	150	5.0	5 N
9MP121A	Tm	45 42 7N	114 34 33W	1.00	0.02L	0.15	0.050	150	10 L	20 N	5.0	5 N
9MP122A	Tc	45 42 28N	114 36 28W	0.70	0.02	0.15	0.030	150	10 L	20 N	5.0	5 N
9MP123A	Tm	45 42 7N	114 37 40W	1.50	0.15	0.50	0.100	200	10 L	1000	1.5	5 N
9MP124A	Tm	45 42 3N	114 38 20W	2.00	0.30	0.70	0.300	200	10 L	1500	2.0	5
9MP125A	Tc	45 41 49N	114 38 52W	1.50	0.20	0.50	0.150	200	10 L	1000	2.0	5 L
9MP126A	Tc	45 41 49N	114 39 57W	1.50	0.20	0.50	0.200	200	10 L	1000	2.0	5 L
9MP127A	Tc	45 41 56N	114 40 37W	2.00	0.30	0.50	0.150	200	10 L	1000	2.0	5
9MP128A	Tm	45 42 39N	114 41 31W	1.50	0.30	0.70	0.150	200	10 L	700	3.0	5 L
9MP129A	Tm	45 42 46N	114 42 7W	1.50	0.30	0.50	0.150	150	10 L	1000	1.5	5 L
9MP130A	Tm	45 38 52N	114 41 2W	2.00	0.07	0.07	0.100	200	10 L	150	3.0	5 N
9MP130B	Tp	45 38 52N	114 41 2W	1.50	0.05	0.05	0.070	100	10 L	200	3.0	5 N
9MP130C	Tp	45 38 52N	114 41 2W	1.00	0.07	0.07	0.050	100	10 L	150	5.0	5 N
9MP131A	Tc	45 37 44N	114 43 51W	2.00	0.10	0.15	0.150	300	10 L	500	2.0	5 N
9MP132A	Ki	45 38 20N	114 48 43W	10.00	1.50	5.00	1.000G	1000	10 L	3000	1.5	10
9MP133A	Tmz	45 42 14N	114 44 41W	5.00	0.50	1.00	0.700	500	10 L	2000	1.5	5
9MP134A	Tmz	45 40 19N	114 42 39W	5.00	0.30	1.50	1.000	1000	10 L	5000	1.0	5 N
9MP135A	Yq	45 37 58N	114 34 1W	15.00	3.00	3.00	1.000G	2000	10 L	1000	1.0	50

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP090A2	10 N	10	70	5 N	20 L	5 N	50	5 L	10 L	100 L	10 N	20	200
9MP091A1	10 N	5 L	50	5 N	20	5 N	15	5 N	10 N	100 N	10 N	20	150
9MP092A	10 N	5 L	50	5 N	20	5 N	20	5 N	10 N	100	10 L	30	150
9MP093A	10 N	5 L	150	5 N	20	5 N	15	7	10 N	200	10	30	300
9MP094A	100	10	50	5 N	20 N	30	10	15	10 N	500	100	20	70
9MP096A	10 N	5 L	50	5 N	20 L	5 N	20	5	10 N	300	10 N	20	200
9MP097A	10 N	7	50	5 N	20	5 N	20	10	10 N	200	15	30	500
9MP098A	10 N	5 L	100	5	20 L	5 N	20	5 N	10 N	100	10	30	150
9MP099A	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9MP100A	10 N	5 L	20 N	5 N	50	5 N	30	5 N	10	100 N	10 N	30	150
9MP101A	10	7	50	5	20	5 N	50	5 N	15	300	30	30	200
9MP102A	10 N	5 L	100	5 N	20 L	5 N	20	5 N	10 L	100 L	10 N	20	100
9MP102B	10 N	5 N	30	5 N	20	5 N	20	5 N	10 N	100	10 N	20	200
9MP103A	10 N	5 N	50	5 N	30	5 N	20	5 N	10 N	100 N	10 N	20	200
9MP104A	10 N	5 N	70	5 N	20	5 N	20	5 N	10 N	100 N	10 N	30	200
9MP105A	10 N	5 L	100	5 N	20	5 N	20	5 N	10 N	100	10	50	1000
9MP106A	10 N	5 N	50	5 N	20	5 N	20	5 N	10	100 N	10 N	30	150
9MP107A	10 N	5	70	5 N	20	5 N	20	5 N	10	150	10	30	150
9MP107B	10 N	5 L	70	5	20 L	5 N	20	5 N	10 N	150	15	30	300
9MP109A	10 N	5	150	5 N	20	5 N	15	5 N	10 N	100 N	10 N	20	700
9MP110A	10 N	5 L	100	5 L	20	5 N	20	5	10 N	300	10 N	30	300
9MP110B	100	50	70	5 N	20 N	50	20	15	10 N	700	300	50	700
9MP110C	10 N	5 N	20	5 N	20 N	5 N	15	5 N	10 N	200	10 N	10	200
9MP111A	10	5 N	70	5 N	20 L	5 N	30	5	10 L	300	30	50	150
9MP112A	10 N	5 L	300	5 N	30	5 N	20	5	10 N	200	10	50	700
9MP113A	10 N	5 L	150	5 N	20	5 N	20	7	10 N	500	10	50	500
9MP114A	10 N	5	100	5 N	30	5 N	20	10	10 N	500	10	30	1000
9MP115A	15	15	150	5 N	20	5	20	10	10 N	300	70	50	300
9MP116A	10 L	5 N	70	5 N	20	5 N	20	5 N	10 L	100	15	30	100
9MP117A	20	5 N	20 N	5 N	20 N	5 N	10 N	5 L	10 N	100 N	30	10	100
9MP118A	20	5 N	20 N	5 N	20 N	7	10 N	5 N	10 N	100 N	30	10	100
9MP119A	10	5 N	70	5 N	20 N	5 N	20	5 L	10	300	30	15	100
9MP120A	10 N	5 N	70	30	30	5 N	20	5 N	10 L	100 N	10 N	50	150
9MP121A	10 N	5 N	20	5 N	30	5 N	20	5 N	15	100 N	10 N	50	100
9MP122A	10 N	5 L	20	5 N	30	5 N	30	5 N	15	100 N	10 N	50	100
9MP123A	10 N	5 N	200	5 N	20 L	5 N	20	5 L	10 N	200	20	30	100
9MP124A	10 N	5 L	70	5 N	20 L	5 N	15	5	10 N	300	50	30	300
9MP125A	10 N	5 N	30	5 N	20 N	5 N	30	5 L	10 L	200	20	20	150
9MP126A	10 N	5 L	100	5 L	20	5 N	20	5	10 L	200	30	30	200
9MP127A	10 N	5 N	70	5 N	20 N	5 N	30	5 L	10 L	300	30	15	200
9MP128A	10	5 N	30	5 N	20 N	5 N	20	5	10	300	30	30	100
9MP129A	10 L	5 N	100	5	20 N	5 N	20	5 N	10 N	300	30	15	100
9MP130A	10 N	10	50	7	30	5 N	20	5 N	10 N	100 N	10 N	50	200
9MP130B	10 N	7	20	5 N	20	5 N	50	5 N	10	100 N	10 N	20	150
9MP130C	10 N	5 N	30	5 N	30	5 N	20	5 N	10	100 L	10 N	50.	100
9MP131A	10 N	5 L	70	5 N	30	5 N	30	5 N	10 N	100 N	10 N	30	500
9MP132A	20	10	30	5 N	20	10	10	15	10 N	1000	100	30	1000 G
9MP133A	10 N	5 L	200	5 N	20	5 N	20	5	10 N	200	30	50	1000 G
9MP134A	10 N	5	100	5 N	30	5 N	15	7	10 N	150	10	20	1000 G
9MP135A	100	70	20 N	5 N	20 N	70	15	30	10 N	100 N	1000	50	200

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP136A	Tc	45 43 40N	114 43 58W	5.00	0.70	1.50	0.500	500	10 L	3000	1.5	5
9MP137A	Ygn	45 38 41N	114 39 10W	2.00	0.50	0.50	0.300	300	10 L	2000	3.0	7
9MP138A	Tc	45 38 34N	114 39 28W	3.00	0.20	0.30	0.200	300	10 L	700	3.0	5 N
9MP139A	Yq	45 38 41N	114 39 53W	1.00	0.20	1.00	0.030	700	10 L	700	2.0	5 N
9MP140A	Yq	45 38 41N	114 40 1W	7.00	1.50	0.70	1.000	700	10 L	2000	1.5	15
9MP141A	Tc	45 38 34N	114 40 8W	2.00	0.50	0.20	0.500	300	10 L	2000	1.5	5
9MP142A1	Tm	45 38 27N	114 40 15W	1.50	0.05	0.10	0.070	200	10 L	200	2.0	5 N
9MP142A2	Tm	45 38 27N	114 40 15W	1.50	0.07	0.10	0.070	150	10 L	300	1.5	5 N
9MP142A2	Tm	45 38 27N	114 40 15W	1.50	0.07	0.15	0.070	200	10 L	300	1.5	5 N
9MP143A2	Tm	45 38 27N	114 40 12W	1.00	0.07	0.15	0.070	70	10 L	300	2.0	5 N
9MP144A	Tc	45 38 20N	114 40 30W	1.50	0.05	0.50	0.070	200	10 L	100	5.0	5 N
9MP144B	Tr	45 38 20N	114 40 30W	2.00	0.10	0.50	0.150	300	10 L	500	5.0	5 N
9MP145A	Tc	45 38 16N	114 40 37W	2.00	0.10	0.15	0.100	200	10 L	500	10.0	5 N
9MP146A	Tl	45 38 6N	114 40 33W	10.00	2.00	3.00	1.000G	1000	10 L	1000	1.5	20
9MP147A	Tmz	45 38 2N	114 40 30W	2.00	0.15	0.20	0.200	500	10 L	1000	1.5	5 N
9MP148A	Tc	45 39 14N	114 40 58W	3.00	0.50	1.50	0.500	300	10 L	3000	1.5	5 N
9MP149A	Ygn	45 39 50N	114 40 51W	5.00	1.00	0.70	0.700	300	10 L	1500	1.0N	15
9MP150A	Tm	45 40 12N	114 41 13W	3.00	0.70	1.00	0.300	300	10 L	1500	1.5	7
9MP150B	Tm	45 40 12N	114 41 13W	5.00	2.00	3.00	1.000	700	10 L	1500	1.5	20
9MP151A	Tm	45 40 8N	114 41 23W	2.00	0.30	0.70	0.200	100	10 L	1500	1.0	5
9MP152A	Tm	45 40 22N	114 41 38W	3.00	1.50	2.00	0.700	500	10 L	700	1.5	20
9MP152B	Tc	45 40 22N	114 41 38W	2.00	0.50	1.00	0.300	300	10 L	2000	1.5	7
9MP153A	Tmz	45 40 30N	114 41 56W	2.00	0.30	1.00	0.150	300	10 L	2000	1.0	5 L
9MP154A	Tp	45 40 40N	114 42 14W	3.00	0.50	1.00	0.300	500	10 L	1000	2.0	10
9MP155A	Tp	45 40 44N	114 42 25W	3.00	0.50	1.00	0.300	300	10 L	1000	2.0	7
9MP156A	Tp	45 40 47N	114 42 39W	1.50	0.50	1.00	0.150	300	10 L	1000	2.0	5 L
9MP157A	Tp	45 38 20N	114 42 17W	2.00	0.15	0.15	0.150	200	10 L	700	3.0	5 N
9MP157B	Tl	45 38 20N	114 42 17W	7.00	2.00	2.00	1.000G	1000	10 L	1000	2.0	30
9MP158A1	Tmz	45 38 23N	114 42 21W	2.00	0.07	0.15	0.150	200	10 L	300	2.0	5 N
9MP158A2	Tmz	45 38 23N	114 42 21W	2.00	0.10	0.20	0.150	200	10 L	500	2.0	5 N
9MP158A2	Tmz	45 38 23N	114 42 21W	2.00	0.10	0.15	0.150	200	10 L	300	3.0	5 N
9MP159A1	Tm	45 38 23N	114 42 17W	1.50	0.10	0.20	0.100	200	10 L	500	3.0	5 N
9MP160A	Tm	45 38 38N	114 42 17W	1.50	0.30	1.00	0.150	100	10 L	2000	1.5	5 N
9MP160B	Tm	45 38 38N	114 42 17W	1.50	0.10	0.10	0.150	200	10 L	300	3.0	5 N
9MP161A	Tmz	45 38 45N	114 42 21W	2.00	0.20	1.50	0.200	500	10 L	2000	1.0	5 L
9MP161B	Tm	45 38 45N	114 42 21W	2.00	0.70	1.00	0.300	300	10 L	1000	3.0	7
9MP161D	Tm	45 38 45N	114 42 21W	3.00	0.50	1.50	0.500	300	10 L	1500	1.5	7
9MP162A	Tm	45 38 56N	114 42 17W	3.00	0.30	1.00	0.300	500	10 L	2000	1.5	5
9MP162B	Tm	45 38 56N	114 42 17W	3.00	0.50	1.00	0.300	500	10 L	2000	1.0	7
9MP163A	Tc	45 39 21N	114 42 32W	1.50	0.30	1.00	0.200	200	10 L	3000	1.5	5 N
9MP164A	Tm	45 39 25N	114 42 46W	2.00	0.50	0.70	0.200	200	10 L	2000	1.5	7
9MP165A	Tr	45 39 10N	114 41 41W	1.00	0.05	0.20	0.050	100	10 L	100	5.0	5 N
9MP166A	Tc	45 39 25N	114 42 54W	3.00	0.50	1.00	0.300	300	10 L	1000	2.0	7
9MP167A	Tmz	45 39 25N	114 42 57W	3.00	0.20	0.70	0.300	300	10 L	3000	1.0	5 L
9MP168A	Tm	45 40 1N	114 43 15W	1.50	0.50	1.00	0.200	200	10 L	1000	1.5	5
9MP169A1	Tmz	45 40 8N	114 43 19W	2.00	0.20	0.50	0.150	200	10 L	1500	1.0L	5 N
9MP169A2	Tmz	45 40 8N	114 43 19W	2.00	0.15	0.50	0.150	200	10 L	1500	1.0L	5 N
9MP169A2	Tmz	45 40 8N	114 43 19W	2.00	0.15	0.50	0.150	200	10 L	1500	1.0	5 N
9MP170A1	Tmz	45 40 8N	114 43 19W	2.00	0.20	0.50	0.200	200	10 L	1500	1.0N	5 N
9MP170B	Tm	45 40 8N	114 43 19W	2.00	0.30	0.50	0.200	200	10 L	1000	1.5	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP136A	10 L	5 L	70	5 N	20	5 N	20	7	10 N	200	30	70	1000
9MP137A	15	5 L	20	5 N	20 N	5	20	5 N	10 N	500	30	20	100
9MP138A	10 L	100	100	5 N	20	5 N	30	5 N	20	100 L	10	30	500
9MP139A	10 L	5 N	20 N	5 N	20 N	5 N	30	5 N	10 N	200	20	50	50
9MP140A	70	5 L	50	5 N	20 L	20	20	10	10 N	200	200	50	300
9MP141A	10 L	5 L	70	5 N	20 L	5	20	5	10 N	150	20	20	200
9MP142A1	10 N	5 L	100	5	20 L	5 N	15	5 N	10 N	100 N	10 N	30	150
9MP142A2	10 N	5 L	100	5 N	20 L	5 N	20	5 N	10 L	100 N	10 N	30	150
9MP142A2	10 N	5 L	100	5 N	20 L	5 N	20	5 N	10	100 N	10 N	30	100
9MP143A2	10 N	5 N	30	5 N	30	5 N	20	5 N	10	100 L	10 N	30	150
9MP144A	10 L	5 N	50	5 N	30	5 N	20	5 N	10 L	100 N	10 N	50	300
9MP144B	10 N	5 L	100	5 N	20	5 N	20	5 N	10	100 L	10 N	50	200
9MP145A	10 N	5 N	50	5 N	20 L	5 N	15	5 N	10 N	100 N	10 N	50	300
9MP146A	50	5	70	5 N	30	15	20	15	15	700	150	30	500
9MP147A	10 N	30	100	5 N	20	5 N	15	5 N	10 N	100 N	10 N	30	200
9MP148A	10 L	5 L	50	10	20	5 N	15	5	10 N	200	30	20	500
9MP149A	50	5 L	20 N	5	20 N	15	15	7	10 N	300	100	20	500
9MP150A	30	5 L	100	5 N	20 L	5	20	5	10 N	500	70	50	300
9MP150B	100	15	30	5 N	20	10	10	30	10 N	500	150	50	30
9MP151A	10	5 N	300	5 N	20 N	5 N	20	5 N	10 N	300	50	15	200
9MP152A	10	10	30	5 N	20	7	10	15	10 N	500	100	30	100
9MP152B	20	5	150	7	20	5	15	7	10 N	300	70	30	300
9MP153A	15	5 N	50	5 N	20 L	5 N	15	5	10 N	300	30	30	150
9MP154A	10	7	200	7	30	5	20	10	10 L	300	70	50	300
9MP155A	10	5	100	5 N	20 L	5 N	30	7	10	200	30	30	500
9MP156A	15	5 N	100	5 N	20 L	5	30	5	10 L	500	30	30	200
9MP157A	10 L	5 N	70	5 N	20	5 N	20	5 N	10 L	100	10	20	200
9MP157B	100	20	70	5 N	30	30	10	20	10 N	700	200	30	300
9MP158A1	10 N	5 L	100	7	20	5 N	20	5 N	10	100 L	10 N	30	200
9MP158A2	10 N	5 L	100	5 N	20	5 N	20	5 N	10 N	100 N	10 N	20	300
9MP158A2	10 N	5 L	100	5 N	30	5 N	20	5 N	10	100 L	10 N	30	200
9MP159A1	10 N	5 N	50	5 N	20 L	5 N	15	5 N	10 N	100 N	10 N	20	500
9MP160A	10 L	5 N	50	5 N	20 N	5 N	20	5 N	10 N	300	20	15	100
9MP160B	10 L	5 N	50	5 N	30	5 N	20	5 L	10 L	100 L	10 N	30	100
9MP161A	10 L	7	100	5 N	20 L	5 N	30	5	10 N	200	20	20	300
9MP161B	20	5 N	20	5 N	20 N	7	20	5	10 N	500	50	15	150
9MP161D	20	5	100	5 N	20	5 N	20	7	10 N	500	70	50	300
9MP162A	10	5 L	700	5 N	20	5 N	20	7	10 N	300	20	30	200
9MP162B	10	5 N	30	10	20	5 N	20	15	10 N	300	30	50	300
9MP163A	10 N	5 N	20	5 N	20 N	5 N	20	5 N	10 N	500	15	20	500
9MP164A	15	5 N	70	5 N	20 L	5 N	30	5	10 N	300	50	20	200
9MP165A	10 N	5 L	50	5 N	30	5 N	20	5 N	10	100 N	10 N	50	100
9MP166A	10 L	5 N	100	5 N	20	5 N	20	7	10	300	30	50	500
9MP167A	10 L	5	100	5 N	20 L	5 N	15	10	10 N	200	20	20	700
9MP168A	20	5 L	30	5 N	20 N	7	20	5	10 L	700	50	10.	150
9MP169A1	10 L	5 L	100	5 N	20 N	5 N	15	5 N	10 N	200	20	20	300
9MP169A2	10 L	5 L	100	5 L	20 N	5 N	15	5 N	10 N	200	10	15	500
9MP169A2	10 N	5 L	100	5 N	20 N	5 N	20	5 N	10 N	200	10 L	10	200
9MP170A1	10 N	5	100	5 N	20 N	5 N	20	7	10 N	150	15	15	150
9MP170B	10 L	5	100	5 N	20 L	5 N	20	5 L	10	300	30	15	300

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP171A	Tc	45 40 51N	114 43 1W	2.00	0.50	1.00	0.200	200	10 L	2000	1.5	5
9MP172A	Tm	45 41 9N	114 43 1W	1.50	0.15	0.50	0.100	200	10 L	500	2.0	5 N
9MP172B	Tm	45 41 9N	114 43 1W	1.00	0.20	0.50	0.100	150	10 L	700	2.0	5 N
9MP172C	Tm	45 41 9N	114 43 1W	1.00	0.10	0.30	0.070	150	10 L	700	2.0	5 N
9MP173A	Tm	45 41 20N	114 43 1W	1.00	0.15	0.50	0.070	200	10 L	1000	2.0	5 L
9MP173B	Tm	45 41 20N	114 43 1W	2.00	0.30	1.00	0.200	300	10 L	2000	1.0	5 N
9MP174A1	Tmz	45 41 31N	114 43 1W	7.00	0.50	2.00	1.000	1000	10 L	5000 G	1.0	5
9MP174A2	Tmz	45 41 31N	114 43 1W	10.00	0.70	2.00	1.000	1000	10 L	5000 G	1.0N	5
9MP174A2	Tmz	45 41 31N	114 43 1W	10.00	0.50	2.00	1.000	1000	10 L	5000 G	1.0	5
9MP175A1	Tmz	45 41 31N	114 42 57W	7.00	0.50	1.50	1.000	1000	10 L	5000 G	1.0	5 N
9MP176A	Tm	45 41 38N	114 42 50W	2.00	0.30	0.70	0.200	200	10 L	1000	1.0	5 L
9MP177A1	Tm	45 33 7N	114 40 8W	2.00	0.30	0.70	0.150	300	10 L	500	2.0	5 N
9MP177A2	Tm	45 33 7N	114 40 8W	2.00	0.30	0.70	0.150	300	10 L	500	2.0	5
9MP177A2	Tm	45 33 7N	114 40 8W	2.00	0.20	0.70	0.200	300	10 L	500	1.5	5 N
9MP178A	Tm	45 33 7N	114 40 8W	2.00	0.20	0.50	0.150	300	10 L	500	2.0	5 L
9MP179A	Tr	45 33 10N	114 40 12W	1.50	0.10	0.10	0.100	200	10 L	300	5.0	5 N
9MP180A	Tr	45 33 17N	114 40 22W	2.00	0.20	0.10	0.150	200	10 L	1000	1.5	5 N
9MP181A	Tr	45 33 43N	114 40 30W	1.00	0.10	0.10	0.070	150	10 L	300	2.0	5 N
9MP182A	Tm	45 33 50N	114 40 33W	0.70	0.03	0.20	0.030	200	10 L	20 N	5.0	5 N
9MP183A	Tc	45 34 15N	114 40 40W	1.00	0.07	0.07	0.150	150	10 L	200	3.0	5 N
9MP184A	Tm	45 35 31N	114 41 49W	1.50	0.10	0.15	0.100	200	10 L	300	2.0	5 N
9MP185A	Tr	45 36 3N	114 41 56W	1.50	0.10	0.15	0.100	200	10 L	700	2.0	5 N
9MP186A	Tmz	45 36 3N	114 41 59W	5.00	1.00	2.00	1.000	700	10 L	500	1.5	20
9MP187A	Tm	45 36 3N	114 42 7W	2.00	0.10	0.50	0.200	300	10 L	1000	2.0	5 N
9MP187B	Tr	45 36 3N	114 42 7W	1.50	0.15	0.50	0.100	200	10 L	700	2.0	5 N
9MP188A	Tm	45 36 3N	114 42 14W	1.50	0.50	0.70	0.200	150	10 L	1000	1.5	5 N
9MP189A	Tl	45 35 56N	114 42 28W	5.00	0.15	0.70	0.200	500	10 L	3000	2.0	5 N
9MP190A	Tm	45 33 14N	114 40 8W	2.00	0.20	0.50	0.100	200	10 L	500	2.0	5 N
9MP190B	Tr	45 33 14N	114 40 8W	1.00	0.03	0.20	0.020	200	10 L	70	5.0	5 N
9MP191A	Tc	45 33 28N	114 39 28W	1.00	0.10	0.10	0.100	200	10 L	300	2.0	5 N
9MP191B	Tm	45 33 28N	114 39 28W	1.50	0.05	0.05	0.100	200	10 L	1000	1.5	5 N
9MP192A	Tr	45 33 35N	114 39 10W	1.50	0.10	0.10	0.070	150	10 L	300	3.0	5 N
9MP194A1	Tr	45 33 54N	114 38 45W	1.50	0.10	0.10	0.070	200	10 L	300	5.0	5 N
9MP194A2	Tr	45 33 54N	114 38 45W	1.50	0.10	0.15	0.100	200	10 L	500	3.0	5 N
9MP194A2	Tr	45 33 54N	114 38 45W	1.50	0.10	0.15	0.100	200	10 L	500	5.0	5 N
9MP194B	Tm	45 33 54N	114 38 45W	2.00	0.07	0.20	0.100	200	10 L	1000	5.0	5 N
9MP195A	Tr	45 33 54N	114 38 52W	1.50	0.10	0.15	0.100	200	10 L	300	3.0	5 N
9MP195B	Tm	45 33 54N	114 38 52W	1.00	0.05	0.30	0.070	200	10 L	700	2.0	5 N
9MP197A	Tm	45 34 15N	114 38 38W	1.50	0.30	0.70	0.150	100	10 L	1000	5.0	5 N
9MP197B	Tl	45 34 15N	114 38 38W	7.00	2.00	2.00	0.700	700	10 L	700	1.0	50
9MP198A	Tm	45 34 26N	114 38 13W	2.00	0.10	0.10	0.150	200	10 L	3000	1.0	5 N
9MP198B	Tm	45 34 26N	114 38 13W	1.50	0.50	0.50	0.150	300	10 L	1500	2.0	5 N
9MP199A	Tm	45 38 23N	114 38 45W	5.00	2.00	2.00	0.500	1000	10 L	700	2.0	20
9MP199B	Tm	45 38 23N	114 38 45W	1.50	0.07	0.30	0.100	300	10 L	300	2.0	5 N
9MP200A	Tr	45 38 9N	114 38 49W	1.50	0.10	0.10	0.100	100	10 L	500	2.0	5 N
9MP200B	Tm	45 38 9N	114 38 49W	1.50	0.15	0.20	0.150	200	10 L	1000	1.5	5 N
9MP200C	Tl	45 38 9N	114 38 49W	3.00	1.00	2.00	0.500	500	10 L	1000	2.0	15
9MP201A	Tm	45 37 30N	114 38 59W	1.00	0.10	0.10	0.070	100	10 L	300	2.0	5 N
9MP202A	Tm	45 37 1N	114 38 42W	1.50	0.10	0.15	0.100	100	10 L	700	2.0	5 N
9MP204A	Tc	45 36 50N	114 39 21W	2.00	0.20	0.50	0.100	200	10 L	700	2.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP171A	10	5 N	50	5 N	20 L	5 N	20	5 L	10 N	500	30	10	200
9MP172A	10 L	5 N	30	5 N	20 L	5 N	20	5 N	10	150	10	10	100
9MP172B	10 N	5 N	70	5 N	20 L	5 N	20	5 N	10 L	150	15	10	100
9MP172C	10 N	5 L	20	5 N	20 N	5 N	20	5 N	10 L	100	10 N	10 N	70
9MP173A	10 N	10	30	5 N	20 N	5 N	30	5 N	10	200	10 N	10	70
9MP173B	10	5 N	100	5 N	20 L	5 N	10	7	10	300	30	30	150
9MP174A1	10 N	5 L	100	5 N	20	5 N	20	15	10 N	300	20	30	1000 G
9MP174A2	10 N	5 L	50	5 N	20	5 N	20	10	10 N	300	30	30	1000 G
9MP174A2	10 N	5 L	50	5 N	30	5 N	20	10	10 N	300	15	30	1000 G
9MP175A1	10	10	30	5 N	20	5 N	15	15	10 N	300	10 N	20	1000 G
9MP176A	10 L	5 L	70	5 N	20 L	5 N	20	5 L	10 N	200	30	15	70
9MP177A1	20	5 L	100	7	30	5 N	30	5	10 L	100	30	70	200
9MP177A2	20	5 N	200	15	20	5 N	20	5	10 N	100	30	50	200
9MP177A2	30	5 N	50	5 N	20	5 N	20	5	10 N	100	30	70	200
9MP178A	30	5 N	200	5 N	20	5 N	15	5	10 L	150	30	50	200
9MP179A	10 N	5 L	100	5 N	20 L	5 N	30	5 N	10 L	100 N	10 N	30	150
9MP180A	10 L	5	20	5 N	20	5 N	15	5 N	10	100	10 L	20	200
9MP181A	10 N	5 N	20	5 N	20 L	5 N	10	5 N	10 N	100 L	10 N	15	100
9MP182A	10 N	5 L	20 N	5 N	20 L	5 N	30	5 N	10 L	100 N	10 N	20	50
9MP183A	10 N	5 N	30	5 N	20	5 N	15	5 N	10 N	100 N	10 N	20	150
9MP184A	10 N	5 N	100	5 N	20	5 N	20	5 N	10 L	100	10 N	50	150
9MP185A	10 N	5 N	50	5 N	20 L	5 N	15	5 N	10 N	100	10	20	150
9MP186A	15	5	100	5	20	5 N	15	20	15	500	150	50	200
9MP187A	10 N	5	150	5 N	20	5 N	20	5 L	10 N	150	10	50	300
9MP187B	10 N	5 L	50	5 N	20 L	5 N	10	5 N	10 N	150	10	30	150
9MP188A	10	5 L	50	5 N	20 N	5 N	30	5 L	10 N	500	30	10	100
9MP189A	10 N	5	100	5	20	5 N	15	7	10 N	300	10	30	500
9MP190A	10	5 L	70	7	20	5 N	10	5 L	10 N	100	20	30	150
9MP190B	10 N	5 N	20 N	5 N	20	5 N	30	5 N	10 L	100 N	10 N	50	70
9MP191A	10 N	5 L	100	5 N	20 L	5 N	15	5 N	10 L	100 L	10 N	20	150
9MP191B	10 N	5 N	200	5 N	20 L	5 N	15	5 N	10 N	100	10 N	30	200
9MP192A	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 L	100 N	10 N	30	100
9MP194A1	10 N	5 N	30	5 N	20	5 N	20	5 N	15	100 N	10 N	30	300
9MP194A2	10	5 L	150	5 N	20 L	5 N	15	5 N	15	100 L	10 N	50	200
9MP194A2	10 N	5 N	50	5 N	20	5 N	10	5 N	15	100 L	10 N	30	150
9MP194B	10 N	7	100	5 N	20	5 N	15	5 N	30	150	10 L	30	150
9MP195A	10 N	5 N	70	5 N	20	5 N	15	5 N	10	100	10 N	30	500
9MP195B	10 L	5 L	150	5 N	20 L	5 N	20	5 N	10 N	100	10 N	20	150
9MP197A	10 L	5 L	50	5 N	20 L	5 N	30	5 L	10 N	300	20	15	100
9MP197B	200	15	30	5 N	20 N	50	10	20	10 N	500	300	20	150
9MP198A	10 N	5 L	100	5 N	20	5 N	15	5	10 N	200	10 L	30	300
9MP198B	10 L	5 L	50	5 N	20 L	5 N	30	5 L	10 L	200	20	20	100
9MP199A	100	10	30	5 N	20 N	10	15	15	10 N	500	150	30	100
9MP199B	10 L	20	150	5 N	30	5 N	15	5 N	10 N	100 L	10 L	50	300
9MP200A	10 N	5 L	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10 L	20	150
9MP200B	10 N	7	100	5 N	20 L	5 N	15	5	15	100	15	20	200
9MP200C	10 N	50	20	5	20 L	5	10	15	10 N	500	100	30	500
9MP201A	10 N	5 N	50	10	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9MP202A	10 N	5 N	100	5 N	20 L	5 N	15	5 N	10 N	100	10 N	20	150
9MP204A	10 L	5 L	100	5 N	20 L	5 N	20	5 N	10 N	150	20	30	100

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP205A	Tm	45 37 1N	114 39 39W	1.00	0.20	0.50	0.100	150	10 L	1000	1.5	5 N
9MP206A	Tm	45 37 1N	114 39 57W	2.00	0.15	0.30	0.150	200	10 L	5000	1.0N	5 N
9MP206B	Tl	45 37 1N	114 39 57W	7.00	3.00	3.00	1.000	700	10 L	700	1.0	50
9MP207A	Tr	45 36 36N	114 40 33W	1.50	0.20	0.20	0.150	200	10 L	700	2.0	5 N
9MP208A1	Tr	45 36 36N	114 40 33W	1.50	0.20	0.15	0.100	200	10 L	700	2.0	5 N
9MP208A2	Tr	45 36 36N	114 40 33W	1.50	0.20	0.10	0.150	200	10 L	700	2.0	5 N
9MP208A2	Tr	45 36 36N	114 40 33W	1.50	0.20	0.15	0.150	200	10 L	700	2.0	5 N
9MP210A	Tm	45 42 29N	114 35 56W	2.00	0.50	1.00	0.200	150	10 L	2000	1.0	7
9MP211A	Tm	45 42 3N	114 38 20W	2.00	0.50	2.00	0.300	200	10 L	2000	1.5	7
9MP212A	Tm	45 41 34N	114 39 21W	1.50	0.50	1.00	0.200	200	10 L	1000	2.0	5 N
9MP213A	Tmz	45 44 2N	114 44 52W	3.00	0.20	1.50	0.200	500	10 L	3000	1.5	5 N
9MP213B	Tc	45 44 2N	114 44 52W	3.00	0.15	1.00	0.200	500	10 L	2000	1.0	5 N
9MP213E	Tr	45 44 2N	114 44 52W	5.00	0.20	1.00	0.300	700	10 L	5000 G	1.5	5 L
9MP213F	Tvn	45 44 2N	114 44 52W	7.00	0.20	5.00	0.200	1000	10 L	5000 G	1.0	5
9MP214A	Tc	45 44 2N	114 44 56W	2.00	0.30	0.50	0.150	200	10 L	1000	1.5	5 N
9MP216A	Tm	45 37 1N	114 42 7W	3.00	0.20	0.50	0.200	500	10 L	2000	1.5	5 N
9MP217A	Tm	45 37 8N	114 42 17W	1.00	0.10	0.10	0.070	150	10 L	300	2.0	5 N
9MP218A	Ki	45 38 20N	114 48 39W	2.00	0.70	1.00	0.200	300	10 L	1000	1.5	7
9MP219A	Tm	45 38 23N	114 48 14W	1.00	0.20	0.50	0.100	200	10 L	1000	2.0	5 N
9MP219B	Tl	45 38 23N	114 48 14W	7.00	5.00	3.00	0.300	1000	10 L	300	1.0	50
9MP219C	Tp	45 38 23N	114 48 14W	1.00	0.20	5.00	0.100	200	10 L	700	2.0	5 N
9MP220A	Tm	45 38 27N	114 47 45W	2.00	0.50	1.00	0.200	300	10 L	1500	1.0	7
9MP220B	Tmz	45 38 27N	114 47 45W	3.00	1.50	2.00	0.500	1000	10 L	500	3.0	20
9MP220C	Tl	45 38 27N	114 47 45W	5.00	1.00	1.50	0.500	500	10 L	1500	1.5	15
9MP220D	Tvn	45 38 27N	114 47 45W	15.00	0.20	1.00	0.100	700	10 L	30	5.0	50
9MP221A	Tm	45 38 6N	114 47 13W	1.50	0.30	0.10	0.100	300	10 L	700	2.0	5 L
9MP222A	Tvn	45 38 9N	114 46 51W	0.15	0.02	0.05L	0.015	50	10 L	50	1.0	5 N
9MP222B	Tm	45 38 9N	114 46 51W	1.50	0.20	0.20	0.070	300	10 L	500	1.5	5 N
9MP222C	Tm	45 38 9N	114 46 51W	5.00	0.30	0.70	0.300	500	10 L	2000	2.0	5
9MP223A	Tvn	45 38 6N	114 46 33W	0.70	0.15	0.05	0.050	70	10 L	200	2.0	5 N
9MP223B	Tr	45 38 6N	114 46 33W	2.00	0.50	1.00	0.300	300	10 L	1500	3.0	5
9MP223C	Tm	45 38 6N	114 46 33W	3.00	0.20	0.70	0.300	500	10 L	3000	1.0	5 N
9MP224A	Tm	45 37 58N	114 46 15W	5.00	0.30	1.00	0.300	500	10 L	3000	1.5	5 N
9MP225A	Tm	45 38 6N	114 45 54W	1.00	0.05	0.30	0.050	200	10	50	2.0	5 N
9MP225B	Tl	45 38 6N	114 45 54W	10.00	2.00	5.00	1.000G	1000	10 L	1000	1.0L	50
9MP226A	Tl	45 37 44N	114 44 38W	5.00	2.00	1.50	1.000	500	10 L	1500	1.0	20
9MP227A	Tc	45 37 40N	114 43 40W	2.00	0.15	0.20	0.150	200	10 L	500	3.0	5 N
9MP228A1	Tr	45 37 44N	114 43 15W	1.50	0.10	0.05	0.100	300	10 L	300	1.5	5 N
9MP228A2	Tr	45 37 44N	114 43 15W	1.00	0.10	0.07	0.100	200	10 L	300	2.0	5 N
9MP228A2	Tr	45 37 44N	114 43 15W	1.00	0.07	0.05	0.070	200	10 L	300	2.0	5 N
9MP229A	Tr	45 37 40N	114 43 19W	1.00	0.05	0.05	0.070	150	10 L	150	2.0	5 N
9MP230A	Ygn	45 35 56N	114 42 57W	10.00	2.00	1.50	1.000G	700	10 L	700	2.0	50
9MP231A	Tm	45 36 3N	114 42 50W	5.00	0.20	1.00	0.300	500	10 L	3000	1.0L	5
9MP232A	Tm	45 36 18N	114 42 43W	2.00	0.30	0.70	0.200	200	10 L	1000	1.5	5
9MP232B	Tc	45 36 18N	114 42 43W	3.00	1.00	1.00	0.500	300	10 L	1500	1.5	10
9MP233A	Tc	45 36 25N	114 42 36W	2.00	0.50	1.00	0.150	300	10 L	1000	1.5	5 L
9MP234A	Tm	45 36 43N	114 42 21W	3.00	0.15	0.70	0.200	300	10 L	2000	1.5	5 N
9MP234B	Tm	45 36 43N	114 42 21W	1.00	0.30	1.00	0.100	200	10 L	1500	2.0	5 N
9MP239A	Tm	45 38 13N	114 46 8W	1.00	0.10	0.30	0.070	150	10 L	500	1.5	5 N
9MP239B	Tm	45 38 13N	114 46 8W	5.00	1.00	2.00	0.500	700	10 L	2000	1.0	15

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP205A	10 L	5	30	7	20 N	5	30	5 N	10 N	300	10	10 N	70
9MP206A	10 N	5	50	5 N	20 N	5 N	20	5	10 N	200	10	15	200
9MP206B	20	15	30	5 N	20 N	30	10 L	20	10 N	500	200	30	150
9MP207A	10 N	5 L	50	5 N	20 L	5 N	15	5 L	10 N	150	20	20	100
9MP208A1	10 L	5 L	100	5 N	20 L	5 N	20	5 L	10 N	150	20	30	150
9MP208A2	10 N	5 L	50	5 N	20 L	5 N	20	5 L	10 L	150	20	20	100
9MP208A2	10 N	5 L	70	5 N	20 L	5 N	20	5 L	10 L	100	20	20	150
9MP210A	15	5 L	100	5 N	20 N	5	15	5	10 N	500	50	15	150
9MP211A	15	5 L	70	5 N	20 L	5 N	20	7	10 N	300	30	30	300
9MP212A	10 L	5 N	50	5 N	20 N	5 N	20	5 L	10 N	200	20	15	150
9MP213A	10 N	10	70	5 N	20 L	5 N	15	7	10 N	300	10	30	500
9MP213B	10 N	300	100	5 N	20	5 N	20	7	10	300	10 L	30	300
9MP213E	10 N	15	70	5 N	20	5 N	20	10	10 N	300	15	30	500
9MP213F	10 N	1500	200	5 N	20 L	5 N	70	10	20	500	20	50	300
9MP214A	10 N	5 L	100	5 N	20 L	5 N	20	5	10 N	150	20	30	200
9MP216A	10 L	5	50	5 N	20	5 N	15	7	10 N	200	15	20	700
9MP217A	10 N	5 N	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9MP218A	20	7	20	5 N	20 N	7	15	5	10 N	500	50	10	100
9MP219A	10 L	5 N	50	5 N	20 L	5 N	30	5 L	10 N	150	20	20	150
9MP219B	1000	10	20 N	5 N	20 N	70	10 L	30	10 N	300	200	20	70
9MP219C	10 L	5 L	70	5 N	20 L	5 N	20	5 L	10 N	200	20	20	150
9MP220A	10	5 L	70	5 N	20 N	5	30	5 L	10	500	50	15	200
9MP220B	20	10	70	5 N	20 N	10	10	15	20	300	100	30	150
9MP220C	30	10	50	5 N	20 L	10	20	15	10 L	500	100	50	200
9MP220D	15	500	20 N	5 N	20 N	70	20	5 L	20	200	100	10 N	50
9MP221A	10 L	5 L	20	5 N	20	5 N	20	5 L	10 N	200	30	15	100
9MP222A	10 L	5 N	20 N	5 N	20 N	5 N	10 N	5 N	10 N	100 N	10 N	10 N	10 N
9MP222B	10 N	5 N	20	5 N	20 L	5 N	20	5 N	10 N	700	10 N	15	100
9MP222C	10 L	5 L	30	5 N	30	5 N	20	10	10 N	300	20	50	500
9MP223A	10 L	5 L	20	5	20 N	5 N	10 L	5 N	10 N	100 N	10 N	10 N	70
9MP223B	10	5 L	100	5 N	20	5 N	30	5	10 L	300	50	30	200
9MP223C	10 N	5 L	30	7	30	5 N	15	7	10 N	500	15	30	500
9MP224A	10 L	5	100	7	30	5 N	20	10	10 N	500	20	50	300
9MP225A	10 L	5 N	50	5 N	30	5 N	50	5 L	10 N	100 N	10 N	20	100
9MP225B	15	15	50	5 N	30	10	10 N	30	10 N	700	200	50	50
9MP226A	100	5	70	15	20 L	50	15	15	10 N	700	150	30	300
9MP227A	10 L	5 L	70	15	30	5 N	20	5 L	10	100	10	50	150
9MP228A1	10 N	5	20	5 N	20	5 N	30	5 N	15	100 L	10 L	30	100
9MP226A2	10 N	7	30	5 N	20	5 N	30	5 N	10	100 L	10 N	30	200
9MP228A2	10 N	7	30	5 N	20	5 N	30	5 N	10 L	100 N	10 N	30	150
9MP229A	10 N	5 L	20 N	5 N	50	5 N	20	5 N	10 N	100 N	10 N	30	100
9MP230A	50	5	150	7	20	30	15	20	10 N	500	150	50	300
9MP231A	10 L	5	200	5 N	20	5 N	15	10	10 N	200	30	30	1000
9MP232A	10	5 L	150	5 N	20 N	5 N	20	5 L	10 N	300	30	20	200
9MP232B	50	5 L	30	5 N	20 L	10	15	7	10 N	700	100	20	150
9MP233A	15	5 N	50	5 N	20 N	5	20	5 L	10 N	300	30	15	100
9MP234A	10 L	5	50	5 N	20	5 N	20	7	10 N	150	10	30	500
9MP234B	10 L	5 L	50	5 N	20 N	5 N	50	5 N	10 N	500	10	20	70
9MP239A	10 N	5 N	30	5 N	20 N	5 N	10	5 N	10 N	100	10 N	15	70
9MP239B	50	15	50	5 N	20 N	10	20	15	10 N	500	150	30	150

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP240A	Tm	45 38 38N	114 45 32W	5.00	0.20	0.50	0.300	700	10 L	3000	1.0N	5 N
9MP241A	Tm	45 38 45N	114 48 50W	2.00	0.15	0.50	0.150	500	10 L	2000	1.0	5 N
9MP242A	Tm	45 38 56N	114 45 7W	3.00	0.20	0.50	0.150	500	10 L	2000	1.0	5 N
9MP242B	Tm	45 38 56N	114 45 7W	1.00	0.20	0.70	0.100	150	10 L	1000	1.5	5 N
9MP243A	Tm	45 38 49N	114 45 0W	3.00	0.10	0.50	0.200	300	10 L	2000	1.0N	5 N
9MP245A	Tm	45 38 38N	114 44 34W	1.50	0.50	1.50	0.150	200	10 L	1000	1.5	5
9MP246A	Tm	45 38 20N	114 44 23W	1.00	0.30	1.00	0.100	150	10 L	1000	1.5	5 N
9MP247A	Tm	45 38 41N	114 43 40W	1.50	0.50	1.00	0.150	300	10 L	1000	2.0	5 N
9MP249A1	Tm	45 38 34N	114 43 15W	3.00	0.20	0.15	0.300	300	10 L	1000	1.5	5
9MP249A2	Tm	45 38 34N	114 43 15W	2.00	0.20	0.07	0.150	200	10 L	700	2.0	5 N
9MP249A2	Tm	45 38 34N	114 43 15W	2.00	0.10	0.05	0.100	200	10 L	700	1.5	5 N
9MP250A	Tm	45 38 34N	114 43 15W	2.00	0.20	1.50	0.200	500	10 L	700	2.0	5
9MP251A	Tm	45 38 45N	114 43 26W	5.00	0.20	0.20	0.200	700	10 L	2000	1.0	5 N
9MP252A	Tm	45 38 23N	114 46 1W	2.00	0.30	0.50	0.200	200	10 L	1500	1.5	5
9MP253A	Tm	45 38 41N	114 45 28W	3.00	0.15	0.10	0.200	500	10 L	2000	1.0	5 N
9MP255A	Tm	45 39 3N	114 45 10W	1.00	0.02	0.15	0.050	70	10 L	500	1.0N	5 N
9MP255B	Tc	45 39 3N	114 45 10W	2.00	0.50	1.00	0.200	300	10 L	1000	1.0	5 L
9MP255C	Tm	45 39 3N	114 45 10W	3.00	0.20	0.70	0.300	500	10 L	2000	1.0	5 N
9MP258A1	Tr	45 40 8N	114 45 21W	3.00	1.00	1.00	0.300	300	10 L	1000	1.0	15
9MP258A2	Tr	45 40 8N	114 45 21W	3.00	1.00	1.50	0.300	300	10 L	1000	1.0	15
9MP258A2	Tr	45 40 8N	114 45 21W	2.00	1.00	1.50	0.300	300	10 L	1500	1.5	10
9MP259A	Tr	45 40 15N	114 45 10W	2.00	0.70	1.00	0.200	200	10 L	1000	1.5	10
9MP264A	Tm	45 38 20N	114 46 8W	2.00	0.15	0.50	0.150	200	10 L	700	1.5	5 N
9MP265A1	Tm	45 38 34N	114 46 1W	3.00	0.20	1.00	0.200	300	10 L	3000	1.5	5 N
9MP265A2	Tm	45 38 34N	114 46 1W	5.00	0.20	1.00	0.200	500	10 L	3000	1.0	5 N
9MP265A2	Tm	45 38 34N	114 46 1W	5.00	0.20	1.00	0.200	500	10 L	2000	1.5	5 N
9MP266A	Tm	45 38 34N	114 46 1W	1.50	0.10	0.30	0.100	200	10 L	500	1.0	5 N
9MP268A	Tm	45 39 3N	114 46 4W	1.00	0.10	0.50	0.070	200	10 L	500	2.0	5 N
9MP269A	Tm	45 39 18N	114 45 57W	5.00	0.30	0.20	0.300	1000	10 L	5000	1.0	5
9MP271A	Tm	45 39 35N	114 46 15W	1.50	0.30	0.70	0.150	200	10 L	1000	2.0	5 N
9MP272A	Tm	45 40 40N	114 46 4W	5.00	0.20	0.50	0.200	700	10 L	3000	1.5	5 N
9MP273A	Tr	45 40 44N	114 46 8W	2.00	0.30	0.30	0.100	500	10 L	1000	1.5	5 N
9MP275A	Tm	45 41 49N	114 45 3W	1.50	0.30	0.50	0.150	500	10 L	1500	2.0	5 N
9MP277A	Tm	45 41 31N	114 44 34W	3.00	0.20	1.00	0.200	500	10 L	3000	1.0L	5 N
9MP278A	Tm	45 41 34N	114 44 23W	5.00	0.20	1.00	0.200	500	10 L	2000	1.0L	5 N
9MP278B	Tr	45 41 34N	114 44 23W	5.00	0.70	1.00	0.700	700	10 L	2000	1.0N	5
9MP279A	Tc	45 41 45N	114 44 13W	3.00	0.70	1.00	0.200	300	10 L	1500	2.0	5
9MP280A	Tm	45 41 49N	114 43 58W	2.00	0.30	0.70	0.200	200	10 L	1000	1.5	5 N
9MP280B	Tm	45 41 49N	114 43 58W	1.00	0.15	0.30	0.070	100	10 L	700	2.0	5 N
9MP281A	Tc	45 41 52N	114 43 33W	1.50	0.50	1.00	0.150	300	10 L	1000	1.0	5 L
9MP281B	Tc	45 41 52N	114 43 33W	1.00	0.07	0.20	0.050	500	10 L	50	7.0	5 N
9MP282A1	Tm	45 41 52N	114 43 12W	1.00	0.20	0.50	0.100	200	10 L	1000	1.5	5 N
9MP282A2	Tm	45 41 52N	114 43 12W	5.00	0.30	0.50	0.100	200	10 L	2000	1.0	5 N
9MP282A2	Tm	45 41 52N	114 43 12W	1.00	0.20	0.70	0.100	200	10 L	1000	1.5	5 N
9MP282B	Tm	45 41 52N	114 43 12W	5.00	0.20	1.00	0.500	1000	10 L	5000	1.5	5 N
9MP283A	Tm	45 41 49N	114 43 8W	2.00	0.30	1.00	0.100	200	10 L	1500	1.0	5 N
9MP284A	Tm	45 41 56N	114 43 19W	2.00	0.70	0.70	0.150	500	10 L	700	2.0	5 L
9MP285A	Tm	45 41 59N	114 43 22W	5.00	0.10	0.70	0.200	500	10 L	5000	1.0	5 N
9MP286A	Tm	45 42 7N	114 43 15W	1.50	0.50	0.50	0.150	200	10 L	1000	1.5	5 N
9MP287A	Tm	45 39 7N	114 48 28W	0.50	0.10	0.30	0.070	100	10 L	300	2.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP240A	10 N	10	30	5 N	20 L	5 N	20	7	10 N	200	20	30	1000
9MP241A	10 N	5 L	50	5 N	20 L	5 N	15	5 L	10 N	200	10	15	200
9MP242A	10 L	5 L	100	5 N	20	5 N	15	5	10 N	150	10	20	300
9MP242B	10 L	5 N	30	5 N	20 N	5 N	20	5 N	10 N	300	10	10	100
9MP243A	10 N	5 L	70	5 N	20 L	5 N	20	5	10 N	150	10 L	20	500
9MP245A	15	5 L	30	5 N	20 N	7	20	5 L	10 N	500	50	15	100
9MP246A	10	5 N	30	5 N	20 N	5 N	20	5 L	10 N	300	20	20	100
9MP247A	10	5 N	20	5 N	20 N	5 N	20	5	10 N	300	30	15	150
9MP249A1	10 N	5 L	20	5 N	30	5 N	30	5	10	150	30	30	300
9MP249A2	10 N	10	20	5 N	30	5 N	20	5 N	10	100	10	20	500
9MP249A2	10 N	10	20	5 N	20	5 N	20	5 N	10 L	100	10 N	20	200
9MP250A	10 L	5 L	20 N	5 N	20	5 N	20	5 L	10	200	30	30	100
9MP251A	10 N	7	100	5 N	20	5 N	10	7	10 N	200	15	30	1000
9MP252A	10 N	5 L	50	5 N	20 L	5 N	15	5 N	10 N	200	30	30	300
9MP253A	10 N	5 L	50	5 N	20	5 N	10	7	10 N	150	10	20	300
9MP255A	10 N	5 L	100	5 N	20 N	5 N	10	5 N	10 N	100 N	10 N	10 N	100
9MP255B	10 N	5 N	200	5 N	20 L	5 N	15	5 L	10 N	200	20	30	300
9MP255C	10 N	5	30	5 N	20	5 N	15	5	10 N	200	10 L	20	300
9MP258A1	70	15	50	5	20 N	30	20	7	10 N	500	100	20	100
9MP258A2	70	10	50	5 N	20 N	20	20	7	10 N	500	100	20	100
9MP258A2	70	10	50	5 N	20 N	20	20	7	10 L	500	70	20	100
9MP259A	50	5 L	50	5 N	20 N	15	15	7	10 N	500	70	15	100
9MP264A	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100	15	30	200
9MP265A1	10 N	5	30	5 N	20 N	5 N	15	7	10 N	300	20	20	500
9MP265A2	10 N	5	70	5 N	20 N	5 N	15	7	10 N	500	20	30	500
9MP265A2	10 N	5	70	5 N	20 L	5 N	20	7	10 N	300	20	30	500
9MP266A	10	5 N	20	5 N	20 N	5	20	5 N	10 N	100 L	10 N	15	100
9MP268A	10 N	5 N	50	5 N	20 N	5 N	20	5 N	10 N	100	10 N	15	100
9MP269A	10 N	5 L	50	5 N	20	5 N	10	10	10 N	200	15	20	500
9MP271A	10 L	5 L	100	5 N	20 N	5 N	50	5 L	10 L	200	30	30	100
9MP272A	10 N	10	50	5 N	20	5 N	20	7	10 N	300	10 L	30	300
9MP273A	10 N	5 L	30	5 N	20 N	5 N	20	5 N	10 N	200	20	10	150
9MP275A	10 N	5 L	50	5 N	20 L	5 N	30	5 L	10 N	150	20	20	200
9MP277A	10 N	5 L	150	5 N	20 L	5 N	20	5	10 N	150	10	20	500
9MP278A	10 N	5 L	70	5 N	20 L	5 N	20	7	10 N	150	10	20	300
9MP278B	20	20	30	5 N	20 L	5	20	10	10 N	200	100	20	200
9MP279A	10	5 L	70	5 N	20 L	5 L	20	5	10 N	200	50	30	500
9MP280A	10 N	5 L	70	5 N	20 L	5 N	20	5 L	10 N	200	30	15	200
9MP280B	10 N	5 N	20	5 N	20 N	5 N	30	5 N	10 N	150	10 N	15	100
9MP281A	10	5 L	50	5 N	20 N	5 L	20	5 N	10 N	300	30	15	200
9MP281B	10 N	5 N	20	5 N	20	5 N	20	5 L	15	100 N	10 N	30	50
9MP282A1	10 N	5 N	20	5 N	20 N	5 N	20	5 N	10 N	200	15	10	200
9MP282A2	10 N	5 N	50	5 N	20 N	5 N	20	5 N	10 N	300	15	10	50
9MP282A2	10 N	5 N	20	5 N	20 N	5 N	20	5 N	10 N	200	10	15	50
9MP282B	10 N	10	50	5 N	20	5 N	15	10	10 N	300	10 L	30.	1000
9MP283A	10 L	5 L	30	5 N	20 N	5 N	20	5 L	10 N	300	20	20	200
9MP284A	10	5 N	30	5 N	20 L	5 N	30	5 L	10 N	300	30	20	100
9MP285A	10 N	20	20 N	5 N	20 L	5 N	15	7	10 N	200	10 N	20	500
9MP286A	10 N	5 N	50	5 N	20 L	5 N	20	5 L	10 N	200	15	10	100
9MP287A	10 N	5 L	20 N	5 N	20 L	5 N	30	5 N	10 N	100 L	10 N	50	100

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SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP288A	Tm	45 39 7N	114 48 28W	1.50	0.30	0.70	0.150	200	10 L	1000	3.0	5
9MP289A	Tr	45 39 7N	114 48 21W	2.00	0.50	0.50	0.300	300	10 L	1500	2.0	7
9MP290A	Tm	45 38 45N	114 47 2W	1.50	0.30	0.70	0.150	300	10 L	1000	2.0	5 N
9MP291A	Tm	45 38 41N	114 48 53W	1.50	0.15	0.50	0.100	300	10 L	500	2.0	5 L
9MP291B	Ki	45 38 41N	114 48 53W	7.00	0.10	2.00	1.000	700	10 L	3000	1.5	20
9MP292A	Tm	45 38 38N	114 48 0W	2.00	0.30	0.50	0.200	200	10 L	1500	2.0	5
9MP293A	Tm	45 38 41N	114 47 56W	7.00	1.50	1.00	1.000	700	10 L	1500	2.0	30
9MP296A	Tm	45 39 18N	114 47 31W	2.00	0.30	0.70	0.150	300	10 L	1500	2.0	5 L
9MP297A1	Tm	45 39 50N	114 46 15W	3.00	0.15	1.00	0.300	500	10 L	5000	1.5	5 N
9MP297A2	Tm	45 39 50N	114 46 15W	3.00	0.20	1.00	0.300	500	10 L	5000	1.0	5 L
9MP297A2	Tm	45 39 50N	114 46 15W	5.00	0.20	1.00	0.300	500	10 L	5000	1.5	5
9MP298A	Tm	45 39 50N	114 46 15W	3.00	0.20	1.00	0.300	500	10 L	5000	1.5	5 N
9MP299A	Tc	45 37 40N	114 44 2W	3.00	0.20	0.20	0.300	300	10 L	2000	2.0	5 L
9MP299B	Tm	45 37 40N	114 44 2W	2.00	0.10	0.15	0.200	300	10 L	1000	1.0	5 N
9MP300A	Tm	45 37 22N	114 43 55W	2.00	0.50	0.70	0.200	200	10 L	2000	2.0	5
9MP300B	Tr	45 37 22N	114 43 55W	3.00	0.30	0.30	0.300	200	10 L	2000	1.5	5
9MP301A	Tm	45 37 8N	114 44 2W	5.00	0.10	0.20	0.300	500	10 L	3000	1.0L	5 N
9MP303A	Kd	45 36 39N	114 44 31W	10.00	2.00	3.00	1.000G	1000	10 L	700	1.0	50
9MP304A	Tm	45 36 10N	114 44 45W	2.00	0.50	1.00	0.300	200	10 L	3000	1.0	7
9MP305A	Tm	45 36 14N	114 44 41W	2.00	0.30	1.00	0.300	200	10 L	3000	1.0L	5
9MP305B	Tm	45 36 14N	114 44 41W	1.50	0.15	0.50	0.100	200	10 L	700	3.0	5 N
9MP305C	Tl	45 36 14N	114 44 41W	5.00	2.00	2.00	0.500	500	10 L	1000	1.5	30
9MP306A	Tr	45 36 25N	114 44 2W	3.00	0.15	0.10	0.200	500	10 L	5000	1.5	5 N
9MP307A	Tm	45 36 21N	114 43 40W	3.00	0.70	1.00	0.300	300	10 L	1500	1.5	7
9MP308B	Tc	45 40 30N	114 46 12W	2.00	0.15	0.50	0.100	300	10 L	500	1.5	5 N
9MP308C	Tm	45 40 30N	114 46 12W	2.00	0.30	0.70	0.150	200	10 L	1000	2.0	5 N
9MP309A	Tm	45 40 8N	114 45 14W	1.00	0.20	1.00	0.100	200	10 L	700	2.0	5 N
9MP309B	Tm	45 40 8N	114 45 14W	2.00	0.30	0.50	0.150	300	10 L	700	3.0	5 N
9MP310A	Tm	45 40 19N	114 44 56W	5.00	0.15	1.00	0.200	500	10 L	3000	1.0	5 N
9MP311A	Tm	45 40 19N	114 44 41W	3.00	0.15	0.70	0.200	300	10 L	2000	1.5	5 N
9MP311B	Tm	45 40 19N	114 44 41W	1.50	0.10	0.50	0.070	200	10 L	500	1.5	5 N
9MP312A	Tm	45 40 26N	114 44 27W	3.00	0.15	0.70	0.200	1000	10 L	2000	5.0	7
9MP313A	Tr	45 40 30N	114 44 20W	2.00	0.20	0.70	0.100	300	10 L	1000	2.0	5 N
9MP313B	Tm	45 40 30N	114 44 20W	2.00	0.70	1.00	0.150	300	10 L	700	1.5	7
9MP314A	Tc	45 40 44N	114 44 13W	2.00	0.50	1.00	0.200	200	10 L	1000	1.5	7
9MP314B	Tm	45 40 44N	114 44 13W	5.00	0.15	1.00	0.200	1000	10 L	5000	1.0	5 N
9MP315A	Tm	45 40 44N	114 44 2W	2.00	0.10	0.50	0.100	300	10 L	1500	2.0	5 N
9MP316A	Tm	45 40 55N	114 43 51W	2.00	0.50	1.00	0.150	300	10 L	1000	2.0	5
9MP317A	Tm	45 40 58N	114 43 40W	1.50	0.20	0.70	0.100	200	10 L	2000	1.5	5 N
9MP317B	Tm	45 40 58N	114 43 40W	1.00	0.20	0.50	0.070	300	10 L	1000	3.0	5 N
9MP318A	Tm	45 40 58N	114 43 15W	5.00	0.20	0.30	0.200	500	10 L	3000	2.0	5 N
9MP319A	Tc	45 40 55N	114 43 4W	3.00	0.70	1.00	0.200	500	10 L	1000	2.0	7
9MP320A	Tm	45 39 53N	114 48 28W	1.50	0.30	0.50	0.100	1000	10 L	1000	3.0	5 N
9MP321A1	Tm	45 39 57N	114 48 25W	1.50	0.20	0.30	0.100	300	10 L	700	2.0	5 N
9MP321A2	Tm	45 39 57N	114 48 25W	1.50	0.20	0.30	0.100	300	10 L	700	2.0	5 N
9MP321A2	Tm	45 39 57N	114 48 25W	1.00	0.20	0.30	0.100	300	10 L	700	2.0	5 N
9MP322A	Tm	45 39 57N	114 48 25W	1.00	0.15	0.50	0.070	200	10 L	500	1.5	5 N
9MP324A	Tm	45 39 10N	114 48 36W	2.00	0.50	0.50	0.200	300	10 L	1500	3.0	5
9MP324B	Tm	45 39 10N	114 48 36W	1.00	0.15	0.30	0.070	300	10 L	500	5.0	5 N
9MP326A	Tm	45 39 18N	114 48 28W	5.00	1.00	0.20	0.200	700	10 L	1000	2.0	20

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP288A	10	5 L	100	5 N	20 L	5 N	30	5 L	10 L	150	20	50	200
9MP289A	15	5 L	100	5	20 L	5 N	20	5 L	10	200	30	50	200
9MP290A	10 N	5 N	70	5 N	20 L	5 N	30	5	10	200	15	20	150
9MP291A	10 N	5 L	30	5 N	20 L	5 N	50	5 L	15	100	10 N	50	70
9MP291B	30	10	30	5 N	20	50	10	15	10 N	1000	150	30	1000
9MP292A	10	5 L	150	5 N	20 L	5 N	30	5 N	10 L	200	30	50	300
9MP293A	100	10	70	5 N	20 L	30	20	15	10 N	500	200	50	500
9MP296A	10 L	5 L	50	5	20 L	5 N	30	5 L	10 L	200	30	20	200
9MP297A1	10 N	5 L	50	5 N	20	5 N	15	5	10 N	500	10	30	500
9MP297A2	10 N	5	70	5 N	20	5 N	20	7	10 N	500	20	30	700
9MP297A2	10 N	5	100	5 N	30	5 N	20	7	10 N	500	20	50	1000
9MP298A	10 N	5 L	100	5 N	20	5 N	20	7	10 N	500	15	30	700
9MP299A	10 N	5 L	200	7	30	5 N	20	5	10	200	10	50	1000
9MP299B	10 N	30	200	5 N	20 L	5 N	20	5 N	10 N	150	15	30	500
9MP300A	10	5 L	100	5 N	20 L	5 N	30	5 N	10	300	50	20	300
9MP300B	10	7	150	5 N	20 L	5 N	30	5	10	200	50	20	500
9MP301A	10 N	50	100	5 L	20 L	5 N	20	10	10	150	20	30	1000
9MP303A	100	20	20 N	5 N	20 L	50	10	20	10 N	700	300	50	200
9MP304A	20	5	100	7	20 N	7	20	7	10 N	500	50	30	150
9MP305A	15	5 L	100	5 N	20 L	5 N	20	5 L	10 N	300	30	20	300
9MP305B	10 N	5 L	50	7	20 N	5 N	20	5 L	20	150	10 N	10	100
9MP305C	150	20	70	5 N	20 L	70	15	10	10 N	300	100	20	200
9MP306A	10 N	5 L	70	5 N	30	5 N	20	5 L	10 N	150	15	30	500
9MP307A	15	5 L	70	5 N	20 L	5 N	20	5 L	10 N	200	50	15	300
9MP308B	10 N	5 N	100	5 N	20 L	5 N	20	5 N	10 N	100	10 N	20	150
9MP308C	10 L	5	70	5 N	20 L	5 N	30	5	10 L	300	30	20	150
9MP309A	10 N	5 N	20	5 N	20 L	5 N	50	5 L	10 N	300	15	30	100
9MP309B	10 L	5	50	5 N	20 L	5 N	30	5	10	200	20	30	100
9MP310A	10 N	5	30	5 N	20 L	5 N	20	10	10 N	200	10	20	300
9MP311A	10 N	5 L	30	5 N	20	5 N	15	5	10 N	150	10	20	700
9MP311B	10 N	5 N	100	5 N	20 L	5 N	30	5 N	10 N	100	10 N	20	150
9MP312A	10	5 L	100	5 N	20 L	5 N	15	7	10	500	50	30	300
9MP313A	10 N	5 L	50	5 N	20 L	5 N	30	5 L	10 L	200	15	20	200
9MP313B	20	5 L	30	5 N	20 N	10	20	5	10 N	500	50	10	100
9MP314A	20	5 L	150	5 N	20 N	7	20	5 L	10 N	300	50	20	150
9MP314B	10 N	5	100	5 N	20 L	5 N	20	10	10 N	300	10	20	500
9MP315A	10 N	5 L	70	5 N	20 N	5 N	20	5 N	10 L	150	10 N	20	300
9MP316A	20	5 N	50	5 N	20 L	5	20	5 N	10 N	300	30	20	200
9MP317A	10 L	5 N	100	5 N	20 N	5 N	30	5 L	10 N	300	20	15	70
9MP317B	10 N	5 N	30	5 N	20 N	5 N	30	5 L	10 N	200	10 N	10	70
9MP318A	10 N	7	100	5 N	20	5 N	20	7	10 N	300	15	30	500
9MP319A	15	5 L	70	5 N	20	5	20	7	10 N	200	50	30	200
9MP320A	10	5 N	30	5 N	20	5 N	50	5 L	10	150	10	30	150
9MP321A1	10 N	5 L	50	5 N	20 L	5 N	30	5	10	150	15	30	150
9MP321A2	10 N	5 L	70	5 N	20 L	5 N	30	5 L	10	150	10	30.	100
9MP321A2	10 L	5 L	50	5 N	20 L	5 N	30	5 L	10 L	150	10	20	100
9MP322A	10 N	5 N	50	5 N	20 L	5 N	30	5 L	10	100	10 N	30	70
9MP324A	15	5 L	200	5 N	20	5 N	50	5	10	200	50	50	300
9MP324B	10 N	5 N	30	5 N	30	5 N	50	5 L	15	100	10 N	50	70
9MP326A	70	300	50	5 N	20 N	15	20	5	20	300	100	20	100

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date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP327A	Tm	45 38 49N	114 43 12W	1.00	0.15	0.50	0.100	300	10 L	2000	1.5	5 N
9MP327B	Tm	45 38 49N	114 43 12W	3.00	0.15	0.70	0.200	500	10 L	5000	1.0	5 N
9MP328A	Tm	45 38 49N	114 42 50W	2.00	0.30	0.70	0.150	300	10 L	1500	1.5	5
9MP328B	Tm	45 38 49N	114 42 50W	5.00	1.50	1.00	0.700	700	10 L	2000	2.0	20
9MP329A	Tm	45 38 49N	114 42 36W	3.00	0.15	0.50	0.200	500	10 L	5000 G	1.5	5 N
9MP330A	Tm	45 38 56N	114 42 36W	1.50	0.30	0.70	0.150	300	10 L	1500	2.0	5 N
9MP331A	Tm	45 38 45N	114 42 28W	2.00	0.50	0.70	0.150	300	10 L	2000	1.5	5
9MP332A	Tm	45 38 38N	114 42 17W	2.00	0.20	0.70	0.200	500	10 L	1000	2.0	5
9MP333A1	Tr	45 38 31N	114 42 17W	2.00	0.20	0.50	0.150	200	10 L	1500	2.0	5 N
9MP333A2	Tr	45 38 31N	114 42 17W	3.00	0.10	0.50	0.150	300	10 L	1500	3.0	5 N
9MP333A2	Tr	45 38 31N	114 42 17W	2.00	0.15	0.50	0.200	300	10 L	1000	2.0	5 N
9MP334A	Tr	45 38 31N	114 42 14W	1.50	0.20	0.50	0.100	200	10 L	700	3.0	5 N
9MP334B	Tm	45 38 31N	114 42 14W	2.00	0.10	0.30	0.150	200	10 L	700	2.0	5 N
9MP335A	Tm	45 37 33N	114 42 21W	3.00	0.20	1.00	0.200	500	10 L	3000	1.5	5 N
9MP337A	Tm	45 37 4N	114 41 13W	1.00	0.05	0.20	0.050	150	10 L	100	2.0	5 N
9MP338A	Tm	45 37 4N	114 41 16W	5.00	0.50	1.00	0.500	700	10 L	5000	2.0	10
9MP339B	Tr	45 37 11N	114 41 34W	1.50	0.10	0.20	0.070	200	10 L	500	3.0	5 N
9MP339C	Tm	45 37 11N	114 41 34W	0.70	0.05	0.30	0.020	200	10 L	700	1.0	5 N
9MP340A	Tm	45 37 11N	114 41 52W	5.00	0.30	1.00	0.300	700	10 L	3000	1.0	5 L
9MP340B	Tr	45 37 11N	114 41 52W	1.50	0.15	0.30	0.100	200	10 L	500	3.0	5 N
9MP341A	Tm	45 37 11N	114 41 59W	5.00	0.50	1.00	0.300	700	10 L	5000	1.0	5 N
9MP341B	Tm	45 37 11N	114 41 59W	1.50	0.10	0.30	0.050	150	10 L	200	1.5	5 N
9MP341C	Tm	45 37 11N	114 41 59W	10.00	2.00	2.00	1.000	1000	10 L	3000	1.0	50
9MP342A	Tm	45 37 8N	114 42 10W	5.00	0.20	1.00	0.300	500	10 L	5000 G	1.0	5
9MP344A	Tr	45 36 39N	114 42 21W	2.00	0.15	0.20	0.150	200	10 L	700	2.0	5 N
9MP344B	Tm	45 36 39N	114 42 21W	2.00	0.15	0.15	0.150	300	10 L	700	2.0	5 N
9MP344C	Tm	45 36 39N	114 42 21W	1.50	0.50	0.70	0.150	500	10 L	1000	7.0	5 N
9MP345A	Tm	45 42 14N	114 44 41W	5.00	0.70	1.00	0.500	1000	10 L	5000	1.5	5
9MP346A	Tm	45 42 17N	114 44 38W	3.00	0.20	0.50	0.200	500	10 L	700	2.0	5 N
9MP349A	Tm	45 42 39N	114 44 52W	2.00	0.30	1.00	0.150	200	10 L	2000	2.0	5
9MP350A	Tm	45 43 8N	114 44 38W	2.00	0.20	0.50	0.150	200	10 L	2000	2.0	5
9MP351A	Tm	45 43 8N	114 44 38W	5.00	0.50	1.00	0.300	500	10 L	2000	3.0	10
9MP352A	Tm	45 43 15N	114 44 34W	5.00	0.50	1.50	0.300	700	10 L	5000 G	1.5	7
9MP353A	Tm	45 43 22N	114 44 27W	7.00	0.50	1.50	0.500	1000	10 L	5000 G	1.5	10
9MP354A	Tm	45 43 29N	114 44 20W	10.00	1.00	3.00	1.000	1500	10 L	500	1.5	15
9MP356A	Tm	45 43 26N	114 44 9W	3.00	0.20	0.70	0.200	500	10 L	5000	1.5	5 N
9MP357A	Tm	45 43 22N	114 44 2W	1.00	0.20	0.50	0.070	300	10 L	1000	3.0	5 N
9MP358A	Tr	45 33 7N	114 40 22W	2.00	0.10	0.20	0.070	200	10 L	700	3.0	5 N
9MP359A	Tm	45 32 49N	114 39 53W	1.50	0.05	0.30	0.100	200	10 L	1500	2.0	5 N
9MP359B	Tm	45 32 49N	114 39 53W	1.50	0.03	0.30	0.050	200	10 L	300	3.0	5 N
9MP360A	Tm	45 32 49N	114 38 49W	2.00	0.05	0.50	0.100	200	10 L	2000	2.0	5 N
9MP361A	Tm	45 32 49N	114 38 9W	3.00	0.15	1.00	0.200	500	10 L	5000	1.5	5 N
9MP362A	Tm	45 32 56N	114 38 2W	1.50	0.05	0.30	0.100	200	10 L	500	2.0	5 N
9MP363A	Tm	45 33 7N	114 37 58W	5.00	1.50	1.50	0.500	700	10 L	1500	2.0	20
9MP364A	Tr	45 33 21N	114 37 58W	3.00	1.00	1.00	0.300	500	10 L	1000	2.0	10
9MP365A	Tm	45 33 50N	114 37 51W	1.50	0.03	0.30	0.070	200	10 L	700	3.0	5 N
9MP366A1	Tr	45 34 8N	114 37 44W	1.50	0.10	0.15	0.100	100	10 L	300	2.0	5 N
9MP366A2	Tr	45 34 8N	114 37 44W	1.50	0.10	0.15	0.070	100	10 L	300	2.0	5 N
9MP366A2	Tr	45 34 8N	114 37 44W	1.50	0.10	0.15	0.100	100	10 L	300	2.0	5 N
9MP367A	Tr	45 34 12N	114 37 44W	1.50	0.10	0.20	0.100	100	10 L	300	2.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP327A	10 L	5 N	30	5 N	20 N	5 N	20	5 N	10 N	300	15	10	100
9MP327B	10 L	5	50	5 N	20	5 N	20	5	10 N	200	15	30	500
9MP328A	10	15	50	5 N	20 L	5 N	50	5	10 N	300	20	30	150
9MP328B	70	20	50	5 N	20	50	20	15	10 N	300	100	30	300
9MP329A	10 N	5	50	5 N	20	5 N	20	7	10 N	200	10 N	20	500
9MP330A	10	5 N	70	5 N	20 N	5 N	30	5 L	10 N	200	20	20	70
9MP331A	10	5 N	30	5 N	20 L	5 N	50	5	10	300	30	10 L	100
9MP332A	10 L	5 L	100	5 N	20	5 N	30	5	10 L	150	20	30	300
9MP333A1	10 N	5 L	100	5 N	20	5 N	30	5 L	10 N	150	10	50	150
9MP333A2	10 N	5 L	200	5 N	20	5 N	30	5 L	10 L	150	15	30	200
9MP333A2	10 N	5 L	150	5 N	20	5 N	20	5 L	10 L	100	15	50	300
9MP334A	10 N	5	50	5 N	20	5 N	30	5 N	10 L	100	15	30	100
9MP334B	10 N	7	200	5 N	20	5 N	20	5 L	10	100	10	50	300
9MP335A	10 N	5 L	150	5 N	30	5 N	20	7	10 N	300	10 L	30	500
9MP337A	10 N	5 L	20 N	5 N	20	5 N	20	5 N	10 N	100 N	10 N	15	70
9MP338A	20	5 L	100	5 N	20	5 N	30	10	10	200	50	50	300
9MP339B	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	20	100
9MP339C	10 N	5 L	20 N	5 N	20 N	5 N	15	5 N	10 N	150	10 N	10 N	50
9MP340A	10 N	5	100	5 N	30	5 N	20	10	10 N	300	20	50	700
9MP340B	10 N	5 L	100	5 N	20	5 N	20	5 N	10 N	100 L	10 N	20	200
9MP341A	10 N	5	20 N	5 N	20	5 N	20	10	10 N	300	15	30	500
9MP341B	10 N	5 N	100	5 N	20 N	5 N	15	5 N	10 N	100 L	10 N	15	200
9MP341C	15	10	50	5 N	20	7	10	20	10 N	500	200	50	500
9MP342A	10 L	7	100	5 N	20	5 N	20	10	10 N	300	20	30	500
9MP344A	10 N	5 N	70	5 N	20	5 N	20	5 N	10 N	100 L	10 N	30	150
9MP344B	10 N	5 L	100	5 N	20	5 N	20	5 L	10 N	100 L	10 N	20	500
9MP344C	10 L	5 N	50	5 N	20 N	5 N	30	5 N	10 N	200	15	15	100
9MP345A	10 L	7	100	5 N	30	5 N	30	10	10 N	500	20	30	700
9MP346A	10 N	5 L	100	5 N	20	5 N	30	5 N	10 N	200	10 N	30	500
9MP349A	10 L	5	100	5 N	20 L	5 N	30	5 L	10 N	200	30	20	150
9MP350A	10 N	5 L	100	5 N	20 L	5 N	30	5 L	10 N	200	50	30	150
9MP351A	10	5 L	100	5 N	30	5 N	30	7	10 L	200	50	50	300
9MP352A	10 L	20	100	5 N	30	5 N	20	15	10 N	500	30	50	500
9MP353A	10	10	50	5 N	50	5 N	20	15	10 N	500	30	50	1000
9MP354A	30	20	100	5 N	70	5 N	15	20	10 N	300	100	100	1000 G
9MP356A	10 L	5	50	5 N	30	5 N	20	7	10 N	200	15	30	300
9MP357A	10 N	5 L	30	5 N	20 L	5 N	50	5 L	10 L	200	10 L	20	70
9MP358A	10 L	5 L	70	5 N	20	5 N	20	5 N	10 N	100 L	10 N	50	150
9MP359A	10 N	5 N	100	5 N	20	5 N	20	5 N	10 N	100	10 N	20	200
9MP359B	10 N	30	70	5 N	30	5 N	20	5 N	10 N	100 L	10 N	20	200
9MP360A	10 N	5 L	150	5 N	20 L	5 N	20	5 N	10 L	150	10 N	30	150
9MP361A	10 N	5 L	100	5 N	30	5 N	30	5	10 N	300	10	30	300
9MP362A	10 N	5 L	200	5 N	30	5 N	20	5 N	10 N	100 L	10 N	50	200
9MP363A	70	10	50	5 N	20	20	20	10	10 N	300	100	30	150
9MP364A	30	5 L	100	5 N	30	5	20	10	10 N	300	70	50	300
9MP365A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 L	10 N	20	200
9MP366A1	10 N	5 L	50	5 N	20	5 N	20	5 N	10 N	100 L	10 N	30	150
9MP366A2	10 N	5 L	30	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	30	100
9MP366A2	10 N	5 L	50	5 N	20 L	5 N	20	5 N	10 N	100 L	10 N	20	200
9MP367A	10 N	5 L	70	5 N	20	5 N	20	5 N	10 N	100 L	10 N	20	150

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9MP369A1	Tr	45 34 51N	114 37 44W	1.50	0.10	0.15	0.100	300	10 L	500	5.0	5 N
9MP369A2	Tr	45 34 51N	114 37 44W	1.50	0.10	0.10	0.070	150	10 L	500	5.0	5 N
9MP369A2	Tr	45 34 51N	114 37 44W	1.00	0.10	0.20	0.070	150	10 L	500	5.0	5 N
9MP370A	Tr	45 34 51N	114 37 44W	2.00	0.10	0.20	0.100	200	10 L	500	3.0	5 N
9MP371A	Tr	45 36 39N	114 37 33W	1.50	0.20	0.10	0.100	200	10 L	700	5.0	5 N
9MP411A	Tm	45 40 26N	114 40 4W	5.00	0.15	0.70	0.200	500	10	3000	1.0	5 N
9MP412A	Tm	45 40 37N	114 40 8W	2.00	0.20	0.50	0.100	200	10 N	1000	1.0	5 N
9MP413A	Tm	45 40 51N	114 40 40W	0.70	0.05	0.20	0.050	200	10 N	20 N	3.0	5 N
9MP415A	Tm	45 41 38N	114 41 56W	1.00	0.20	0.50	0.070	300	10 L	1000	2.0	5 N
9MP416A	Tm	45 41 38N	114 42 10W	5.00	0.20	1.00	0.300	1000	10 L	5000	2.0	5 N
9MP417A	Tm	45 41 45N	114 42 17W	3.00	0.20	1.00	0.200	500	10 L	1500	1.5	5 N
9MP418A	Tm	45 41 42N	114 42 21W	3.00	0.20	0.50	0.150	500	10 L	1500	1.5	5 N
9MP419A	Tm	45 41 42N	114 42 25W	5.00	0.30	0.70	0.200	500	10 N	2000	1.5	5 L
9MP420A1	Tc	45 41 38N	114 42 36W	3.00	0.50	1.00	0.300	300	10 N	1000	1.5	5
9MP420A2	Tc	45 41 38N	114 42 36W	3.00	0.50	1.00	0.200	300	10 N	1500	1.0	5
9MP420A2	Tc	45 41 38N	114 42 36W	3.00	0.50	0.70	0.200	300	10 L	1500	1.5	5
9MP421A	Tc	45 41 38N	114 42 36W	3.00	0.50	1.00	0.200	500	10 L	1500	2.0	5
9MP441A	Tm	45 44 38N	114 41 49W	2.00	0.30	1.00	0.200	300	10 N	1000	2.0	5 N
9MP443A	Tvn	45 45 10N	114 42 39W	0.30	0.02	0.20	0.010	70	10 N	100	1.0	5 N
9MP444A	Tm	45 45 10N	114 42 39W	3.00	0.70	1.00	0.200	500	10 N	1000	3.0	5
9MP445A	Tm	45 45 18N	114 43 1W	10.00	2.00	3.00	1.000	1000	10	500	1.5	50
9MP446A	Tm	45 45 21N	114 43 8W	3.00	0.50	1.00	0.200	500	10 L	1000	2.0	5
9MP447A	Tm	45 45 18N	114 43 22W	5.00	0.50	1.00	0.200	700	10 L	3000	1.5	5 L
9MP448A	Tm	45 45 10N	114 43 30W	5.00	0.50	1.50	0.500	700	10 L	3000	2.0	5
9MP449A	Tm	45 45 3N	114 43 37W	5.00	0.20	0.70	0.200	700	10 L	3000	1.0	5 N
9MP450A	Tm	45 44 38N	114 43 58W	2.00	0.50	0.70	0.200	200	10 L	1000	3.0	5 L
9MP450B	Tm	45 44 38N	114 43 58W	5.00	0.20	1.00	0.200	500	10 L	2000	1.5	5 N
9PB301A	Tr	45 38 41N	114 37 22W	1.50	0.10	0.15	0.070	200	10 L	300	2.0	5 N
9PB302A	Ygn	45 39 3N	114 39 57W	0.15	0.05	0.30	0.005	70	10 L	300	2.0	5 N
9PB303A	Ygn	45 39 14N	114 40 51W	7.00	3.00	5.00	0.500	1500	10	100	1.0L	50
9PB304A	Tm	45 39 14N	114 40 58W	1.50	0.50	1.50	0.150	200	10 L	1000	2.0	5
9PB305A	Tm	45 29 06N	114 41 20W	1.50	0.30	1.00	0.100	200	10 L	1500	2.0	5 N
9PB307A	Tm	45 39 18N	114 41 49W	1.50	0.30	1.00	0.100	200	10 L	2000	1.0	5 N
9PB308A	Tm	45 39 3N	114 42 7W	2.00	0.50	0.70	0.150	200	10 L	1000	2.0	5 L
9PB309A	Tm	45 38 56N	114 41 59W	1.50	0.10	0.10	0.100	150	10 L	300	3.0	5 N
9PB310A	Ygn	45 40 33N	114 39 53W	5.00	1.00	1.50	0.500	500	10 L	2000	1.5	20
9PB311A	Tm	45 40 33N	114 39 46W	2.00	0.70	1.00	0.200	200	10 L	2000	1.0	7
9PB312A	Tm	45 40 8N	114 39 50W	1.50	0.20	0.50	0.100	200	10 L	1000	2.0	5 N
9PB313A	Tm	45 39 35N	114 42 57W	2.00	1.00	1.00	0.200	200	10 L	1000	2.0	7
9PB314A	Tm	45 39 50N	114 43 4W	3.00	0.50	1.00	0.200	300	10 L	1000	2.0	7
9PB315A	Tm	45 40 15N	114 43 19W	2.00	0.20	0.50	0.150	300	10 L	2000	1.0N	5 N
9PB316A	myl	45 40 33N	114 43 15W	2.00	0.70	1.00	0.150	150	10 L	1500	2.0	5
9PB318A	Tm	45 40 55N	114 42 57W	2.00	0.50	0.70	0.200	300	10 L	1500	1.5	7
9PB319A	Tm	45 41 16N	114 43 1W	1.00	0.20	0.50	0.100	200	10 L	1000	2.0	5 N
9PB323A1	Tp	45 41 16N	114 41 9W	1.50	0.30	0.50	0.100	200	10 L	1500	2.0	5 N
9PB323A2	Tp	45 41 16N	114 41 9W	2.00	0.50	1.00	0.150	200	10 L	1500	3.0	5
9PB323A2	Tp	45 41 16N	114 41 9W	2.00	0.50	0.70	0.100	300	10 L	1000	2.0	5
9PB324A1	Tp	45 41 20N	114 41 13W	2.00	0.30	0.30	0.150	300	10 L	1000	2.0	5 L
9PB325A	Tp	45 41 31N	114 41 38W	2.00	0.70	0.10	0.200	300	10 L	2000	1.0	7
9PB329A	Tr	45 34 58N	114 41 31W	3.00	0.15	0.20	0.150	300	10 L	300	2.0	5 N

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SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9MP369A1	10 L	5 L	50	5 N	20	5 N	20	5 N	10 N	100 L	10 L	30	150
9MP369A2	10 N	5 L	50	5 N	20	5 N	15	5 L	10 N	100	10 L	30	100
9MP369A2	10 N	5 L	70	5 N	20 L	5 N	20	5 N	10 N	100	10 L	30	100
9MP370A	10 N	5 N	50	5 N	20	5 N	20	5 N	10 N	100 L	10 L	30	200
9MP371A	10 N	5 N	70	5 N	30	5 N	30	5 N	10 N	100	10	30	150
9MP411A	10 N	7	100	5 N	20 L	5 N	20	10	10 N	200	10 N	20	500
9MP412A	15	5 L	70	5 N	20 N	5 N	30	7	10 N	500	30	20	50
9MP413A	10 N	5 L	20 N	5 N	20	5 N	50	5 L	10	100 N	10 N	30	70
9MP415A	10 N	5 N	20	5 N	20 N	5 N	30	5 L	10 L	200	10 N	15	70
9MP416A	10 N	7	30	5 N	20	5 N	20	10	10 N	300	10	30	1000
9MP417A	10 N	7	70	5 N	20 L	5 N	20	7	10 N	150	10	20	500
9MP418A	10 L	5 L	70	5 N	20 L	5 N	15	5	10 N	150	15	20	200
9MP419A	10 N	5	70	5 N	20 L	5 N	20	7	10 N	200	15	30	300
9MP420A1	10 N	5	100	5 N	20	5 N	20	5	10 N	200	30	30	300
9MP420A2	10 L	5	100	5 N	20 L	5 N	20	5	10 N	200	30	30	200
9MP420A2	10 N	5 L	100	5 N	20 L	5 N	20	5 L	10 N	200	30	30	500
9MP421A	10 N	5 L	100	5 N	20 L	5 N	30	5	10 N	200	30	50	300
9MP441A	10 L	5 L	50	5 N	20 N	5 N	30	5 L	10 N	300	30	15	150
9MP443A	10 N	5 N	20 N	5 N	20 N	5 N	20	5 N	10 N	100 N	10 N	15	50
9MP444A	10	5	50	5 N	20 L	5	20	5	10 N	200	30	30	200
9MP445A	30	20	30	5 N	20 L	5 N	10	20	10 N	500	200	30	70
9MP446A	10 L	7	100	5 N	20	5 N	30	5	10 N	200	50	50	200
9MP447A	10 N	10	100	5 N	20 L	5 N	15	7	10 N	300	15	20	500
9MP448A	10 N	15	50	5 N	20	5 N	15	10	10 N	500	20	30	1000
9MP449A	10 N	5 L	70	5 N	20	5 N	15	7	10 N	150	10	30	700
9MP450A	10	5 L	50	5 N	20 N	5 N	20	5 L	10 N	300	30	20	150
9MP450B	10 N	5 L	50	5 N	20	5 N	15	5	10 N	200	10	20	500
9PB301A	10 N	5 L	50	5 N	20 L	5 N	30	5 N	10 N	100 L	10 N	30	100
9PB302A	10 N	5 L	20 N	5 N	20 N	5 N	10	5 N	10 N	100	10 N	10 N	10 N
9PB303A	100	70	20 N	5 N	20 N	50	10	30	10 N	200	300	30	30
9PB304A	10 L	5	50	20	20	5 N	20	5 L	10 N	200	30	20	150
9PB305A	10 N	5 L	30	5 N	20 N	5 N	20	5 N	10 N	500	20	10	100
9PB307A	10 N	5 N	20	5 N	20 N	5 N	15	5 N	10 N	300	20	10 N	150
9PB308A	10 L	5 N	50	5 N	20 L	5 N	30	5 N	10 N	200	50	20	200
9PB309A	10 N	15	50	5 N	30	5 N	50	5 L	15	100 L	10 N	30	150
9PB310A	15	15	70	5 N	20	10	20	10	10 N	500	100	30	300
9PB311A	15	5	200	5 N	20 N	5	20	7	10 N	300	50	20	300
9PB312A	10 N	5 L	100	5 N	20 N	5 N	30	5 L	10 N	200	30	30	100
9PB313A	20	5 L	70	5 N	20 N	10	20	5	10 N	500	50	15	200
9PB314A	10	5	200	5 N	20 L	5 N	30	7	10 N	200	50	50	500
9PB315A	10 N	5	70	5 N	20 N	5 N	20	5	10 N	150	15	20	200
9PB316A	20	5 L	30	5 N	20 N	10	20	5 L	10 N	500	50	15	100
9PB318A	10	5	70	5 N	20	5 N	20	5 L	10	300	30	20	200
9PB319A	10 N	5 N	50	5 N	20 L	5 N	30	5	15	200	10	20	100
9PB323A1	10 N	5 L	100	5 N	20 L	5 N	30	5 L	10 N	200	20	20	100
9PB323A2	10 L	5 L	70	5 N	20 L	5 N	50	5	10 L	200	30	30	70
9PB323A2	10 L	5 L	50	5 N	20 L	5 N	50	5	10 N	200	30	30	200
9PB324A1	10 L	5 N	150	5 N	20 L	5 N	30	5	10	150	30	30	150
9PB325A	10	5 L	70	5 N	20 N	5 N	20	5	10 N	300	50	20	200
9PB329A	10 N	5 N	100	5 N	50	5 N	20	5 L	10 N	100 L	10 L	50	300

date 6/ 9/81

SAMPLE	FORMATION	LAT	LONG	Fe(%)	Mg(%)	Ca(%)	Ti(%)	Mn	B	Ba	Be	Co
9P8330A	Tr	45 35 16N	114 42 17W	5.00	2.00	2.00	0.500	1000	10 L	700	1.5	20

ANALYTICAL DATA FOR MAGRUDER CORRIDOR ROCKS

date 6/ 9/81

SAMPLE	Cr	Cu	La	Mo	Nb	Ni	Pb	Sc	Sn	Sr	V	Y	Zr
9PB330A	150	7	30	5 N	20 L	20	10	20	10 N	500	150	30	100