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Alaska Open-file Report 133B
GEOCHEMICAL RECONNAISSANCE OF THE SOUTH-
WEST WISEMAN QUADRANGLE; SUMMARY OF DATA ON
ROCK SAMPLES

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INTRODUCTION

A reconnaissance geochemical survey was undertaken in the southwestern half of the Wiseman Quadrangle, northern Alaska, from 1977 through 1979 to aid in evaluation of regional mineral-resource potential and to provide a baseline for private geochemical prospecting surveys. Localities, analytical results, and statistical data for 536 rock samples collected during this study and during earlier geochemical studies of the southwestern Wiseman Quadrangle are presented in this report. The geochemical assays of 647 stream-sediment samples and 156 heavy-mineral-pan-concentrate samples from the study area are reported in Alaska Open-file Report 133A.

Samples 1-380 were collected by the Alaska Division of Geological and Geophysical Surveys (DGGs) and analyzed in the laboratories of the U.S. Geological Survey, Branch of Exploration Research (USGS). Samples 381-480 and 505-536 were collected and analyzed by DGGs; samples 480-505 are included from the 1979 DGGs geochemical report by Chipp. Sample localities, anomalous samples, geologic areas favorable for ore deposits, most active claims, and federal land withdrawals are shown on plate 1. Threshold values above which the concentration of elements is considered anomalous are listed in table 1. Analytical results for rock samples are listed in table 2. Table 3 lists the description, type, source, and location of samples and discusses the nature of any mineralization. Statistical data computed from the analyses are listed in tables 4-6.

SAMPLING AND SAMPLE PREPARATION

Rock samples were collected primarily from outcrops; however, a few samples are float. Most samples are representative hand specimens from outcrop and are called grab samples; assemblages of several grab samples from nearby outcrops are called composite samples. Several subequal-size specimens taken at regular intervals across a mineralized zone are called chip samples.

Representative samples of all types and varieties of rock in the study area were collected. Although altered and metallic, mineral-bearing rocks were preferentially sampled, only about 25 percent of the samples showed visible indication of alteration or mineralization. The remaining 75 percent typify the bedrock formation in the area sampled. Sample weights range from 0.10 to 10 kg. All rocks were crushed in a jaw crusher to <6 mm, ground to <0.1 mm in a vertical pulverizer with ceramic plates, and stored in metal-free cardboard containers for subsequent analysis.

ANALYTICAL METHODS

A six-step, DC-arc, semiquantitative emission-spectrographic method (indicated by S below) generally following that described by Grimes and Marranzino (1968) was used for the determinations of Fe, Mg, Ca, Ti, Mn, Ag, As, Au, B, Ba, Be, Bi, Cd, Co, Cr, Cu, La, Mo, Nb, Ni, Pb, Sb, Sc, Sn, Sr, V, W, Y, Zn, and Zr in most samples. Atomic-absorption spectrophotometry (indicated by AA below) was used to determine Zn in samples 1-380; Fe, Mg, Ca, Ti, and Mn in samples 381-466; Ag, As, Au, Cu, Mo, Ni, Pb, Zn, and Sb in samples 467-480; and Ag, Au, Cu, Pb, and Zn in samples 481-504. Colorimetric methods were used to determine As in samples 218-380. Ash and volatile contents of carbonaceous-shale samples 505-507 are reported in table 3.

Table 1. Threshold values for geochemical anomalies in Wiseman Quadrangle rock, >0.2-mm-stream sediment, and nonmagnetic pan-concentrate samples analyzed by emission spectroscopy (S) and atomic-absorption spectrophotometry (AA) in percent (%) and parts per million (ppm). Data for stream-sediment and pan-concentrate samples is reported in Alaska Open-file Report 133A. Threshold values for most elements were graphically chosen by the method of Lepeltier (1969) and correspond approximately to the second standard deviation above the mean. For other elements (thresholds underlined), insufficient unqualified values were obtained to determine the threshold graphically; in these cases the threshold was set at the detection limit.

Element	Rock threshold	Stream-sediment threshold	Pan-concentrate threshold
S-Fe	18%	6.2%	16%
S-Mg	5.1%	1.8%	4.2%
S-Ca	62%	20.0%	13%
S-Ti	1.1%	0.82%	4.8%
S-Mn	4300 ppm	1700 ppm	2050 ppm
S-Ag	7 ppm	<u>0.5 ppm</u>	3 ppm
S-As	500 ppm	<u>200 ppm</u>	500 ppm
S-Au	<u>10 ppm</u>	<u>10 ppm</u>	<u>20 ppm</u>
S-B	260 ppm	160 ppm	710 ppm
S-Ba	2600 ppm	900 ppm	3000 ppm
S-Be	3.6 ppm	2 ppm	2.4 ppm
S-Bi	<u>10 ppm</u>	<u>10 ppm</u>	<u>20 ppm</u>
S-Cd	<u>20 ppm</u>	<u>20 ppm</u>	<u>50 ppm</u>
S-Co	110 ppm	100 ppm	100 ppm
S-Cr	550 ppm	270 ppm	450 ppm
S-Cu	800 ppm	95 ppm	1350 ppm
S-La	120 ppm	140 ppm	510 ppm
S-Mo	13 ppm	<u>5 ppm</u>	<u>10 ppm</u>
S-Nb	<u>20 ppm</u>	<u>30 ppm</u>	48 ppm
S-Ni	180 ppm	100 ppm	130 ppm
S-Pb	135 ppm	75 ppm	500 ppm
S-Sb	100 ppm	<u>100 ppm</u>	<u>200 ppm</u>
S-Sc	<u>51 ppm</u>	40 ppm	100 ppm
S-Sn	<u>10 ppm</u>	<u>10 ppm</u>	70 ppm
S-Sr	1200 ppm	750 ppm	900 ppm
S-V	580 ppm	300 ppm	330 ppm
S-W	<u>50 ppm</u>	<u>50 ppm</u>	100 ppm
S-Y	70 ppm	88 ppm	320 ppm
S-Zn	500 ppm	<u>200 ppm</u>	900 ppm
S-Zr	390 ppm	350 ppm	1000 ppm
S-Th	<u>100 ppm</u>	<u>100 ppm</u>	<u>200 ppm</u>
AA-Ag	- - -	<u>0.5 ppm</u>	- - -
AA-Au	- - -	<u>10 ppm</u>	- - -
AA-Cu	- - -	90 ppm	- - -
AA-Mo	- - -	<u>5 ppm</u>	- - -
AA-Ni	- - -	115 ppm	- - -
AA-Pb	- - -	38 ppm	- - -
AA-Sb	- - -	<u>100 ppm</u>	- - -
AA-Th	- - -	45 ppm	- - -
AA-U	- - -	18 ppm	- - -
AA-Zn-A	- - -	150 ppm	- - -
AA-Zn-P	170 ppm	180 ppm	- - -

STATISTICAL ANALYSIS

Data listed in table 2 were entered in the USGS Rock Analyses Storage System (RASS). Data entered prior to December 5, 1980 (samples 1-380) were retrieved and examined statistically using the USGS STATPAC computer program. Statistical analyses presented here are not ideal because they are based on only 381 of 507 samples. Results are presented in tables 1 and 4-6.

An important goal of statistical analysis of geochemical data is determination of the threshold value above which the concentration of an element in a sample should be considered anomalous (unusually high) when compared with elemental concentrations over the study area. Threshold values for elements in stream-sediment, pan-concentrate, and rock samples from the southwest Wiseman Quadrangle (table 1) generally represent elemental concentrations higher than those in all but about 2.5 percent of the samples. Anomalous concentrations of elements are underlined in table 2 and the element is listed next to the pertinent sample number on plate 1 and table 3.

It is not necessary to read the statistical data to make use of it. If resulting threshold values for high, anomalous elemental concentrations are accepted, the map may be used directly as a prospecting guide to the geochemically anomalous areas. Some elements typically occur with certain rock types (for example, Ti with magnetite greenschist) and can be used to geochemically trace a rock unit. Prospectors wishing to locate the source of an anomaly or to geochemically trace a promising rock unit probably will need plate 1 and tables 1-3. An approximate measure of the significance of an anomaly can be determined by locating the anomalous elemental concentrations on the curves of the appropriate graphs in table 4 and by determining whether nearby samples are anomalous in the same element. Threshold values also provide a 'base line' or 'background' for comparison of local geochemical surveys within the southwestern Wiseman Quadrangle. Tables 4-6 may be helpful when using this report to define the background for local geochemical surveys.

Table 4 is the graphical analysis of data from rock samples and reports observed frequency, cumulative frequency, percent frequency, and percent-cumulative frequency for unqualified and qualified¹ values of elements detected in one or more samples. Frequency and cumulative-frequency data are used to plot histograms and cumulative-frequency curves for elements detected in unqualified concentrations; these graphs are included in the graphical analysis. Values for a normalized frequency distribution, geometric mean, geometric deviation, variance, and interpolated cumulative frequency are also reported in tables 4 and 7.

The cumulative-frequency curve is used as a guide to select the threshold for anomalously high elemental concentrations. In most cases this means that only 2.5 percent of the samples exceed the upper threshold value, which corresponds approximately to the second standard deviation above the mean. How-

¹Unqualified values are quantitatively defined concentrations recorded in percent or parts per million (ppm) and qualified values are qualitatively defined concentrations at which an element is present in a sample at concentrations less than or exceeding quantitative detection limits and is recorded as greater than or less than the upper and lower detection limits, respectively.

ever, the form of the cumulative-frequency curve for Cu and Zn provides evidence for a mixed sample population with an excess of high values. In these cases the cumulative-frequency curves are projected (see dashed line) to the 2.5-percent-frequency-line according to the method of Lepeltier (1969). If the concentration of an element in all or nearly all samples falls below the detection limit, the anomaly threshold is arbitrarily set at the detection limit for the method used (table 1).

Threshold values determined by this method have been applied to analyses of samples 381-504 and samples 508-536. The application of thresholds in table 1 to elements in the above samples determined by S should be regarded with caution, because S is a subjective and semiquantitative method of analysis and because these samples were not included in the statistical determination of the thresholds.

Table 5 summarizes the number and type of qualified values; the number of unqualified values; the maximum and minimum unqualified value; and the mean, standard deviation, variance, skewness, and kurtosis of the unqualified values.

Simple linear correlation coefficients among logarithmic values of elemental concentrations in 380 samples and the number of pairs of values used to compute these coefficients are shown in the upper-left half of table 6. When the number of pairs in the lower-left corner is less than the total number of samples analyzed, the bivariate-frequency distribution was censored for one or both elements because of limitations in the methods of analysis. In the uncensored portion of the bivariate population, the correlation coefficient was not computed if the number of pairs was less than 3. The statistical reliability of the correlation coefficients increases as the number of pairs increases up to a total of 380 pairs.

Correlation coefficients based on a statistically significant set of pairs provide a measure of the correlation of elements on the abscissa and ordinate. A high positive correlation is represented by a high positive coefficient (50 to 100) and indicates that samples rich in one of the compared elements are rich in both. Conversely, a high negative correlation, represented by a high negative correlation coefficient (-50 to -100), indicates that samples rich in one of the compared elements is poor in the other. Stronger positive and negative correlations are indicated by larger positive and negative numbers, respectively. Very low positive and negative correlation coefficients (close to zero) indicate that there is no systematic relationship between the concentration of the two elements being compared.

ACKNOWLEDGMENTS

We wish to extend special thanks to John B. Cathrall and the Branch of Exploration Research of the USGS. They analysed most of the samples, provided computer listings of the analytical data and statistics for the samples which they analyzed, and advised us on sample collection and report-preparation procedures.

USGS reviewers rejected the report primarily because the statistical analysis is based on only 71 percent of the sample population. They feel the analysis must be based on 80 percent or more of the sample population.

Although Cathrall was a coauthor on the previous draft of this report, the USGS asked that his name be removed until the statistics were rerun. Because this process would delay publication of the report for at least six months, DGGs is publishing it as is, so that the data are available on a timely basis. The reader may want to use other values for the anomaly thresholds.

We are grateful for the assistance of David D. Adams in preparing this report. Gar Pessel, Mitchell Henning, Warren Hamilton, James Riehle, and Chad Price collected many of the samples. Milton Wiltse reviewed the report. The Fickus family's hospitality made our Crevice Creek field camp more comfortable.

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- Grimes, D.J. and Marranzino, A.P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.
- Lepeltier, Claude, 1969, A simplified statistical treatment of geochemical data by graphical representation: Economic Geology, v. 64, no. 5, p. 538-661.

Table 2. Analytical results for 536 rock samples from the southwest Wiseman Quadrangle, Alaska. Precision of reported values is approximately plus or minus one reporting value at 68 percent confidence and two reporting values at 95 percent confidence. Fe, Mg, Ca, and Ti are reported in percent; all other elements are reported in ppm. Data-qualified (censored) codes, defined below, were used with some reported values. Approximate limits of determination for unqualified elemental concentrations in this report are:

	<u>S-Fe%</u>	<u>S-Mg%</u>	<u>S-Ca%</u>	<u>S-Ti%</u>	<u>S-Mn</u>	<u>S-Ag</u>	<u>S-As</u>	<u>S-Au</u>	<u>S-B</u>	<u>S-Ba</u>
Max.	20	20.0	20.0	77	5000	100	10000	15	2000	5000
Min.	.05	.02	.05	.005	10	0.5	200	10	10	20
	<u>S-Be</u>	<u>S-Bi</u>	<u>S-Cd</u>	<u>S-Co</u>	<u>S-Cr</u>	<u>S-Cu</u>	<u>S-La</u>	<u>S-Mo</u>	<u>S-Nb</u>	<u>S-Ni</u>
Max.	200	200	200	300	1500	20000	200	150	50	700
Min.	1.0	10	20	5	10	5.0	20	5.0	20	5.0
	<u>S-Pb</u>	<u>S-Sb</u>	<u>S-Sc</u>	<u>S-Sn</u>	<u>S-Sr</u>	<u>S-V</u>	<u>S-W</u>	<u>S-Y</u>	<u>S-Zn</u>	<u>S-Zr</u>
Max.	10000	1000	70	1000	5000	1500	50	150	10000	700
Min.	10	100	5.0	10	100	100	50	10	200	10
	<u>S-Th</u>	<u>AA-Zn-P</u>	<u>Cm-As</u>							
Max.	100	40000	1200							
Min.	100	0.2	1.0							

For a few samples, analyst estimated quantitative values of Ti, Mn, As, and Ba that are higher than maximum detection limit (above); these estimated values are listed. Qualified data codes are N, <, or >; N = not detected; < = detected, but below lower limit of determination of unqualified (quantitative) elemental concentration; > = greater than upper limit of detection. For some elements in samples 381-536, the detection limits vary. Where the detection limit differs from the detection limit stated above, the qualified value is followed by the actual detection limit, for example, N(20) symbolizes 'not detected at a lower limit of 20 ppm.' Anomalously high elemental concentrations are underlined. '-' indicates the element was not determined. Analysis by semiquantitative emission spectrometry is indicated by 'S ~ element'; analysis by atomic absorption spectrophotometry is indicated by 'AA-element.'

Analytical results for rock samples, Wiseman Quadrangle, Alaska.

Sample	S-BF	S-BL	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB
1	<1.0	N	N	50	70	500	50	N	<20	50	50	N
2	1.5	N	N	20	100	700	50	N	<20	50	70	N
3	<1.0	N	N	20	100	100	50	10	<20	100	30	N
4	1.5	N	N	10	150	50	50	N	<20	30	50	N
5	<1.0	N	N	15	200	50	50	N	<20	70	30	N
6	<1.0	N	N	10	300	50	50	5	<20	20	50	N
7	1.5	N	N	20	200	50	50	N	<20	50	50	N
8	<1.0	N	N	50	100	100	50	10	<20	150	20	N
9	1.5	N	N	20	200	50	50	N	<20	70	100	N
10	<1.0	N	N	20	150	<u>1,500</u>	70	N	<20	50	50	N
11	<1.0	N	N	30	150	<u>10,000</u>	50	<u>30</u>	<20	100	10	N
12	<1.0	N	N	<5	200	300	50	<u>N</u>	<20	10	30	N
13	<1.0	N	N	10	150	100	50	N	<20	10	20	N
14	1.0	N	N	<5	100	70	50	<u>20</u>	<20	70	50	N
15	1.0	N	N	20	150	70	50	<u>N</u>	<20	20	20	N
16	<1.0	N	N	50	20	<u>1,000</u>	50	N	<20	70	100	N
17	<1.0	N	N	10	20	20	50	N	<20	20	<10	N
18	<1.0	N	N	<5	50	10	50	N	<20	<5	70	N
19	<1.0	N	N	<5	<10	10	50	N	<20	<5	30	N
20	1.0	N	N	30	<u>1,500</u>	200	50	N	<20	<u>500</u>	<u>200</u>	N
21	1.0	N	N	<5	50	7	50	N	<20	15	30	N
22	1.5	N	N	10	50	50	50	N	<20	10	20	N
23	1.5	N	N	<5	20	10	50	N	<20	<5	30	N
24	N	N	N	N	<10	<5	<20	N	N	<5	<10	N
25	<1.0	N	N	10	<10	10	70	N	<20	10	50	N
26	<1.0	N	N	20	50	50	70	N	<20	20	<10	N
27	1.0	N	N	30	100	150	50	<u>20</u>	<20	100	100	N
28	1.0	N	N	<5	20	10	70	N	<20	<5	50	N
29	1.0	N	N	<5	50	300	50	N	<20	50	20	N
30	<1.0	N	N	<5	150	150	50	<5	<20	20	20	N
31	<1.0	N	N	70	300	500	50	N	<20	100	<10	N
32	1.0	N	N	10	50	200	70	N	<20	30	<10	N
33	<1.0	N	N	20	200	150	70	<5	<20	30	<u>150</u>	N
34	<1.0	N	N	50	300	200	50	N	<20	70	<u>20</u>	N
35	N	N	N	10	N	10	50	N	<20	30	<10	N
36	<1.0	N	N	15	200	100	70	N	<20	50	50	N
37	<1.0	N	N	20	300	100	100	N	<20	70	50	N
38	<1.0	N	N	N	20	<5	50	N	<20	<5	50	N
39	<1.0	N	N	N	20	<5	50	N	<20	<5	50	N
40	<1.0	N	N	15	100	50	100	N	<20	20	20	N
41	1.0	N	N	N	<10	10	50	N	<20	<5	<10	N
42	1.5	N	N	<5	50	30	100	N	<20	<5	100	N
43	1.5	N	N	<5	20	<5	70	N	<20	<5	10	N
44	1.0	N	N	20	20	15	<u>150</u>	N	<20	30	10	N
45	<1.0	N	N	50	100	<5	<u>100</u>	N	<20	50	30	N

Table 2 (cont.)

Sample	Grain	Sr	Y	Zr	Th	U	Pa	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	AA-Zr-P	CM-AS
1	20	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	65.0	--
2	10	300	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	60.0	--
3	10	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	130.0	--
4	10	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	45.0	--
5	15	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	55.0	--
6	20	100	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	85.0	--
7	15	500	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	80.0	--
8	15	500	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	65.0	--
9	15	500	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	30.0	--
10	15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	20.0	--
11	15	<100	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	110.0	--
12	20	100	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	75.0	--
13	20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	40.0	--
14	30	50	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	430.0	--
15	20	200	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50.0	--
16	<5	200	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	20.0	--
17	<5	200	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	15.0	--
18	<5	200	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	30.0	--
19	<5	200	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	25.0	--
20	20	1000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	20.0	--
21	5	1000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	30.0	--
22	7	<100	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	35.0	--
23	5	<100	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	20.0	--
24	10	500	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	10.0	--
25	10	200	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	25.0	--
26	20	200	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	95.0	--
27	15	500	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	360.0	--
28	5	200	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	30.0	--
29	5	<100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	190.0	--
30	15	<100	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	80.0	--
31	50	200	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	110.0	--
32	20	100	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	140.0	--
33	20	100	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	65.0	--
34	50	300	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	65.0	--
35	20	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	15.0	--
36	20	100	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	85.0	--
37	20	<100	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	60.0	--
38	5	200	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	10.0	--
39	<5	1000	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	5.0	--
40	15	150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	95.0	--
41	10	50	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	5.0	--
42	5	50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	55.0	--
43	5	50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	5.0	--
44	5	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	10.0	--
45	15	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	55.0	--

ANALYTICAL RESULTS FOR ROCK SAMPLES, WISEMAN QUADRANGLE, ALASKA.--CONTINUED

SAMPLE	LATITUDE	LONGITUDE	S-FeZ	S-MgZ	S-CaZ	S-TiZ	S-Mn	S-AG	S-AS	S-AU	S-B	S-BA
46	67 11 43	152 2 48	2.00	.30	.20	.150	1.000	N	N	N	50	2,000
47	67 11 44	152 3 48	10.00	3.00	.10	.500	700	N	N	N	70	1,000
48	67 12 31	151 34 0	10.00	5.00	2.00	.700	1,500	N	N	N	20	100
49	67 13 31	151 34 0	2.00	1.00	.07	.200	300	N	N	N	20	500
50	67 14 55	151 34 39	5.00	2.00	5.00	.500	300	N	N	N	200	1,500
51	67 14 55	151 34 39	20.00	.50	1.00	.150	200	15.0	100,000	15	30	1,000
52	67 17 1	151 17 0	10.00	5.00	2.00	1.000	2,000	N	500	N	20	700
53	67 32 30	151 27 24	2.00	1.00	10.00	.300	1,500	N	<200	N	20	150
54	67 21 21	152 50 0	5.00	1.00	.50	.300	150	N	N	N	100	500
55	67 25 35	152 51 6	5.00	.10	.10	.100	1,500	N	N	N	15	50
56	67 24 47	152 52 3	7.00	5.00	7.00	.500	2,000	N	N	N	10	300
57	67 24 46	152 52 15	>20.00	.50	2.00	.100	100	<.5	N	N	20	70
58	67 18 53	151 21 30	3.00	.20	.05	.150	150	N	N	N	70	1,000
59	67 18 46	151 17 42	5.00	.70	.15	.300	500	N	N	N	50	500
60	67 18 8	151 16 18	5.00	2.00	.07	.500	700	N	N	N	100	1,500
61	67 27 34	151 43 26	.70	2.00	7.00	.100	200	N	N	N	50	200
62	67 26 43	151 41 6	5.00	2.00	.10	.500	1,000	N	N	N	100	500
63	67 26 13	151 41 36	5.00	3.00	.30	.500	1,000	N	N	N	100	700
64	67 24 8	151 41 6	5.00	3.00	.30	.500	1,000	N	N	N	100	700
65	67 23 1	151 40 48	2.00	.15	.50	.100	300	N	N	N	50	300
66	67 27 48	151 42 0	3.00	2.00	15.00	.950	1,000	N	<200	N	<10	200
67	67 25 9	151 39 50	3.00	.20	.50	.200	300	N	N	N	100	200
68	67 31 45	152 22 12	.50	.30	>20.00	.030	300	N	N	N	N	N
69	67 31 20	152 21 30	5.00	2.00	.20	.500	500	N	N	N	50	500
70	67 17 53	152 25 39	5.00	2.00	.30	.500	1,000	N	N	N	100	500
71	67 21 5	151 41 36	3.00	3.00	7.00	.200	1,500	N	500	N	20	700
72	67 20 6	151 44 30	20.00	.50	.50	1.000	200	2.0	1,500	N	50	500
73	67 21 16	151 44 30	5.00	1.50	.15	.500	700	N	N	N	50	500
74	67 27 42	151 55 43	10.00	3.00	10.00	.300	3,000	N	N	N	20	100
75	67 25 42	151 13 24	10.00	.20	.05	.200	200	N	N	N	100	500
76	67 19 9	151 55 51	1.00	.20	.02	.200	150	N	N	N	10	100
77	67 6 29	152 16 54	5.00	3.00	5.00	.500	1,500	N	N	N	20	100
78	67 6 22	152 12 6	10.00	5.00	7.00	.500	2,000	N	N	N	30	50
79	67 6 17	152 18 27	10.00	5.00	7.00	.500	2,000	N	N	N	30	100
80	67 16 44	152 28 15	.50	5.00	7.00	.100	500	3.0	N	N	20	50
81	67 16 44	152 28 15	10.00	5.00	5.00	1.000	2,000	N	N	N	30	300
82	67 15 46	152 12 45	20.00	2.00	10.00	.200	1,500	N	500	N	700	200
83	67 28 51	152 32 6	20.00	.50	.20	.050	7,000	N	500	N	20	150
84	67 32 30	152 34 42	3.00	1.50	.10	.200	1,000	100.0	N	N	20	200
85	67 4 24	152 36 0	10.00	3.00	7.00	.500	2,000	N	N	N	20	50
86	67 18 39	151 28 40	1.00	.10	<.05	.100	100	N	N	N	100	200
87	67 16 56	151 21 36	1.50	1.00	<.05	.500	50	N	N	N	100	2,000
88	67 16 23	151 44 12	1.50	1.00	20.00	.150	300	N	N	N	10	100
89	67 18 0	151 6 54	5.00	1.50	.15	.300	1,000	N	N	N	50	500
90	67 25 52	151 16 42	1.50	.15	.15	.200	200	N	N	N	300	300

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

Sample	S-SC	S-SR	S-V	S-J	S-Y	S-ZH	S-ZR	S-TH	AA-LN-P	CM-AS
46	7	N	300	N	20	<200	150	N	35.0	--
47	20	N	200	N	20	200	150	N	90.0	--
48	N	N	200	N	20	<200	100	N	40.0	--
49	10	N	150	N	10	<200	100	N	30.0	--
50	15	N	200	N	20	300	150	N	200.0	--
51	7	N	70	N	10	200	70	N	15.0	--
52	20	N	300	N	50	200	150	N	20.0	--
53	10	N	70	N	20	<200	50	N	20.0	--
54	10	N	50	N	30	N	150	N	30.0	--
55	7	N	70	N	20	500	100	N	350.0	--
56	30	N	200	N	30	200	100	N	5.0	--
57	20	N	50	N	20	500	50	N	20.0	--
58	5	N	15	N	30	<200	200	N	10.0	--
59	15	N	100	N	30	<200	150	N	90.0	--
60	20	N	200	N	20	200	200	N	95.0	--
61	<5	N	20	N	10	<200	150	N	10.0	--
62	20	N	200	N	15	<200	150	N	75.0	--
63	20	N	200	N	15	<200	200	N	80.0	--
64	20	N	200	N	15	<200	200	N	80.0	--
65	5	N	20	N	15	N	200	N	10.0	--
66	<5	N	15	N	20	N	20	N	15.0	--
67	5	N	20	N	20	<200	300	N	25.0	--
68	20	N	<10	N	N	N	<10	N	10.0	--
69	20	N	200	N	20	N	300	N	60.0	--
70	20	N	200	N	20	<200	200	N	65.0	--
71	10	N	100	N	10	500	70	N	200.0	--
72	20	N	200	N	50	N	200	N	15.0	--
73	20	N	150	N	30	N	150	N	130.0	--
74	15	N	150	N	20	N	30	N	50.0	--
75	10	N	100	N	30	N	200	N	20.0	--
76	5	N	20	N	<10	N	20	N	10.0	--
77	20	N	200	N	20	N	50	N	65.0	--
78	50	N	300	N	20	N	50	N	60.0	--
79	80	N	100	N	20	<200	50	N	80.0	--
80	<5	N	10	N	<10	500	<10	N	240.0	--
81	10	N	200	N	30	N	150	N	110.0	--
82	10	N	70	N	20	3,000	50	N	3,000.0	--
83	7	N	70	N	20	N	30	N	20.0	--
84	10	N	<100	N	50	N	100	N	95.0	--
85	50	N	<100	N	50	N	100	N	75.0	--
86	5	N	<10	N	30	N	300	N	<5.0	--
87	5	N	50	N	20	N	300	N	20.0	--
88	5	N	20	N	10	N	20	N	25.0	--
89	20	N	150	N	20	N	200	N	75.0	--
90	10	N	300	N	15	N	100	N	10.0	--

Table 2 (cont.)

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

Table 2 (cont.)

Sample	Latitude	Longitude	S-FRZ	S-MGZ	S-CAZ	S-TLZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
91	67 24 11	151 14 1	5.00	5.00	2.00	.500	1,000	N	N	N	10	1,000
92	67 8 54	152 55 12	1.00	.20	.10	.150	500	N	N	N	10	2,000
93	67 0 31	152 56 0	1.00	.50	<.05	.300	70	N	N	N	10	2,000
94	67 0 23	152 57 30	.30	.10	<.05	.150	20	N	N	N	10	1,000
95	67 0 23	152 57 30	1.50	.70	.20	.150	200	N	N	N	15	200
96	67 8 12	152 57 27	1.00	.10	<.05	.150	150	N	N	N	20	2,000
97	67 14 51	152 29 0	5.00	2.00	.15	.500	2,000	N	N	N	100	700
98	67 15 16	152 28 36	1.00	.15	.05	.100	50	N	N	N	70	100
99	67 20 0	152 6 0	1.50	1.50	10.00	.200	700	N	N	N	70	500
100	67 4 10	152 57 51	10.00	5.00	5.00	.500	2,000	N	N	N	20	200
101	67 10 21	152 49 50	2.00	1.00	1.00	.200	300	N	N	N	10	1,500
102	67 14 55	151 27 6	5.00	2.00	5.00	.500	1,500	N	N	N	10	300
103	67 24 32	151 38 36	5.00	1.50	2.00	.200	1,000	N	N	N	15	500
104	67 34 12	151 38 30	5.00	2.00	10.00	.200	3,000	N	N	N	20	500
105	67 37 30	151 36 42	5.00	2.00	5.00	.500	1,500	N	N	N	50	200
106	67 15 7	151 54 30	5.00	3.00	5.00	.300	1,500	N	N	N	20	300
107	67 51 56	151 16 24	5.00	2.00	.30	.500	1,000	N	N	N	50	500
108	67 0 49	152 18 0	2.00	5.00	20.00	.030	1,500	N	N	N	<10	<20
109	67 51 12	152 16 42	2.00	.30	.30	.200	500	N	N	N	<10	200
110	67 30 28	152 21 48	5.00	2.00	7.00	.300	3,000	N	N	N	20	500
111	67 50 39	152 22 15	5.00	1.50	5.00	.300	1,500	N	N	N	50	1,000
112	67 42 54	152 22 0	5.00	2.00	1.00	.300	1,000	N	N	N	50	500
113	67 52 20	152 33 9	5.00	2.00	5.00	.300	1,500	N	N	N	70	500
114	67 12 11	152 33 6	.50	3.00	>20.00	.070	150	N	N	N	10	100
115	67 51 50	152 33 6	3.00	.70	.50	.200	1,000	N	N	N	20	200
116	67 28 57	151 18 54	7.00	3.00	1.50	.700	1,000	N	N	N	10	200
117	67 26 53	151 12 36	5.00	2.00	.10	.700	1,000	N	N	N	100	700
118	67 25 54	151 12 42	7.00	5.00	5.00	.300	2,000	N	N	N	20	N
119	67 22 1	151 12 0	10.00	5.00	5.00	.700	3,000	N	N	N	20	<20
120	67 20 53	151 22 0	3.00	.70	.20	.200	1,000	N	N	N	<10	<20
121	67 20 45	151 22 12	5.00	5.00	1.50	.300	1,500	N	N	N	10	100
122	67 21 36	151 17 0	10.00	5.00	1.50	.700	1,000	N	N	N	20	700
123	67 20 25	151 17 27	5.00	2.00	.00	.500	7,000	N	N	N	20	700
124	67 19 45	151 18 12	1.50	.30	.15	.200	500	N	N	N	20	1,000
125	67 19 15	151 20 6	.50	.30	<.15	.300	20	2.0	N	N	100	2,000
126	67 19 19	151 20 18	1.00	.10	<.05	.100	300	N	N	N	50	1,500
127	67 19 24	151 20 19	5.00	.50	2.00	.500	2,000	N	N	N	20	500
128	67 18 11	151 7 12	2.00	.20	.05	.200	50	N	N	N	70	1,500
129	67 18 7	151 7 6	2.00	2.00	>20.00	.150	500	N	N	N	100	150
130	67 19 54	151 5 57	5.00	2.00	10.00	.300	5,000	N	N	N	70	1,000
131	67 19 12	151 6 24	7.00	2.00	.30	.700	1,000	N	N	N	100	1,000
132	67 19 19	151 6 18	5.00	5.00	>20.00	.150	1,000	N	N	N	70	2,000
133	67 22 58	151 35 27	5.00	2.00	.30	.500	1,500	N	N	N	100	700
134	67 22 45	151 35 29	5.00	1.50	.70	.500	500	N	N	N	100	700
135	67 22 6	151 35 12	.20	.10	.05	.030	200	N	N	N	70	700

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

Sample	S-W	S-DT	S-CD	S-TO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB
91	2.0	W	W	30	500	20	<20	N	<20	150	<10	N
92	3.0	W	W	W	20	10	50	N	<20	<5	100	N
93	2.0	W	W	W	20	10	70	N	<20	10	50	N
94	2.0	W	W	W	<10	10	100	N	<20	<5	70	N
95	3.0	W	W	<5	<10	5	100	N	<20	<5	30	N
96	3.0	W	W	<5	<10	10	70	N	<20	<5	30	N
97	2.0	W	W	30	200	70	50	N	<20	70	30	N
98	<1.5	W	W	<5	50	30	50	W	<20	20	<10	N
99	1.0	W	W	<5	100	10	50	N	<20	20	100	N
100	W	W	W	50	400	500	50	N	<20	100	<10	N
101	2.0	W	W	<5	20	20	70	N	<20	<5	30	N
102	1.0	W	W	20	150	50	50	<5	<20	50	30	N
103	1.0	W	W	20	100	30	50	N	<20	50	30	N
104	1.0	W	W	20	200	10	50	N	<20	100	50	N
105	2.0	W	W	20	100	300	50	N	<20	50	20	N
106	1.0	W	W	30	300	200	50	N	<20	100	20	N
107	1.0	W	W	20	150	<5	50	N	<20	50	20	N
108	<1.0	W	W	<5	20	20	50	N	<20	<5	100	N
109	<1.0	W	W	10	70	20	70	N	<20	20	20	N
110	1.0	W	W	20	100	150	50	N	<20	20	50	N
111	1.0	W	W	20	100	50	50	N	<20	20	20	N
112	2.0	W	W	20	100	20	70	N	<20	20	30	N
113	2.0	W	W	20	100	50	70	N	<20	20	30	N
114	W	W	W	W	<10	10	50	N	N	N	N	N
115	1.0	W	W	20	150	30	50	N	<20	50	N	N
116	<1.0	W	W	70	500	50	50	N	<20	150	<10	N
117	2.0	W	W	20	300	50	70	N	<20	100	50	N
118	<1.0	W	W	50	300	1000	50	N	<20	100	<10	N
119	<1.0	W	W	50	100	300	50	N	<20	70	<10	N
120	<1.0	W	W	<5	<10	10	50	N	<20	<5	N	N
121	<1.0	W	W	50	150	500	50	N	<20	30	<10	N
122	1.0	W	W	50	200	200	50	N	<20	100	20	N
123	1.5	W	W	20	70	30	50	N	<20	70	20	N
124	2.0	W	W	<5	20	<5	150	N	<20	<5	20	N
125	1.5	W	W	<5	100	10	50	30	<20	20	20	N
126	2.0	W	W	<5	<10	15	100	N	<20	<5	15	N
127	2.0	W	W	15	100	20	200	N	<20	20	100	N
128	2.0	W	W	<5	100	50	50	20	<20	50	50	N
129	1.0	W	W	<5	100	20	50	N	N	20	50	N
130	1.0	W	W	20	200	20	50	N	<20	70	100	N
131	2.0	W	W	20	500	150	50	N	<20	70	70	N
132	1.5	W	W	20	300	50	50	N	<20	50	50	N
133	2.0	W	W	20	300	100	50	N	<20	100	50	N
134	2.0	W	W	30	200	300	70	N	<20	50	100	N
135	<1.0	W	W	<5	<10	<5	50	N	N	<5	20	N

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

Sample	Latitude	Longitude	S-Fr%	S-Mg%	S-Ca%	S-Ti%	S-Mn	S-AG	S-AS	S-AU	S-B	S-BA
136	67 22 53	151 37 24	5.00	1.50	.20	.500	500	N	N	N	50	1,000
137	67 25 42	151 41 0	5.00	1.50	.10	.300	1,000	N	N	N	50	700
138	67 25 26	151 44 42	5.00	1.00	.20	.300	1,000	N	N	N	100	300
139	67 26 24	151 52 36	3.00	.50	.500	.200	3,000	N	N	N	30	200
140	67 26 51	151 59 54	3.00	1.00	20.00	.150	700	N	N	N	10	500
141	67 25 24	151 55 12	3.00	1.00	1.50	.300	1,000	N	N	N	30	500
142	67 25 43	151 58 6	2.00	.20	1.50	.200	1,500	N	N	N	<10	<20
143	67 25 35	151 53 9	10.00	3.00	.20	.700	1,000	N	N	N	200	100
144	67 28 16	151 55 42	5.00	1.00	.10	.300	700	N	N	N	100	300
145	67 27 57	151 58 54	10.00	3.00	.70	.500	3,000	N	N	N	100	700
146	67 20 45	151 56 12	.50	.70	>20.00	.050	200	N	N	N	<10	50
147	67 21 24	151 58 18	10.00	5.00	10.00	.500	2,000	N	N	N	20	1,500
148	67 21 21	151 53 12	2.00	1.50	1.00	.300	500	N	N	N	150	500
149	67 18 7	151 54 30	10.00	2.00	.20	.700	1,500	N	N	N	100	300
150	67 18 27	151 55 0	1.50	.10	<.05	.100	50	N	10,000	N	10	200
151	67 17 12	151 56 0	2.00	.20	.05	.300	500	N	N	N	20	300
152	67 15 18	151 46 30	3.00	2.00	5.00	.500	700	N	N	N	100	500
153	67 19 45	151 47 36	15.00	3.00	3.00	1.000	1,500	N	N	N	20	50
154	67 15 54	151 36 12	15.00	3.00	5.00	1.000	2,000	N	N	N	20	300
155	67 15 4	151 35 18	5.00	3.00	2.00	.500	500	N	N	N	200	1,000
156	67 19 0	151 31 18	7.00	1.50	1.00	.500	2,000	N	N	N	100	1,000
157	67 18 6	151 46 42	7.00	3.00	.50	.700	1,500	N	N	N	100	300
158	67 29 3	152 14 48	10.00	5.00	5.00	.500	1,500	N	N	N	30	1,500
159	67 20 46	152 12 3	5.00	1.50	.05	.500	150	N	N	N	150	500
160	67 25 40	152 16 9	5.00	7.00	.15	.500	300	N	N	N	150	1,000
161	67 17 42	152 18 12	10.00	5.00	5.00	.700	2,000	N	N	N	15	20
162	67 15 30	152 18 27	7.00	5.00	.50	.500	2,000	N	N	N	100	700
163	67 17 36	152 16 42	5.00	3.00	5.00	.300	3,000	N	N	N	100	500
164	67 18 6	152 16 33	5.00	1.00	.20	.300	1,000	N	N	N	70	500
165	67 17 59	152 18 33	7.00	2.00	.10	.500	1,500	N	N	N	100	300
166	67 25 6	152 13 57	3.00	5.00	10.00	.200	700	N	N	N	100	300
167	67 15 0	152 3 42	7.00	5.00	5.00	.300	1,500	N	N	N	20	1,000
168	67 16 45	152 9 33	7.00	5.00	.50	.500	2,000	N	N	N	100	500
169	67 25 26	152 45 3	1.00	.30	.50	.050	200	N	N	N	50	200
170	67 25 15	152 54 56	.05	.02	.05	.100	50	N	N	N	50	100
171	67 25 24	152 54 48	1.00	.05	<.05	.200	150	1.0	N	N	50	10,000
172	67 23 45	152 53 24	2.00	.50	.10	.100	200	N	N	N	50	500
173	67 23 53	152 52 12	2.00	.50	.10	.300	200	N	N	N	20	1,000
174	67 15 27	152 53 6	10.00	5.00	7.00	.200	5,000	N	N	N	100	300
175	67 15 35	152 53 54	7.00	2.00	.20	.500	1,000	N	N	N	100	700
176	67 16 3	152 54 48	2.00	5.00	10.00	.150	5,000	N	N	N	30	500
177	67 15 42	152 56 36	5.00	2.00	.50	.300	1,000	N	N	N	100	1,500
178	67 16 48	152 55 56	10.00	1.00	.15	.200	1,000	N	N	N	20	1,000
179	67 17 3	152 55 9	10.00	2.00	.15	.500	500	N	N	N	150	1,000
180	67 10 30	151 12 3	5.00	3.50	.55	.300	500	N	N	N	70	500

Table 2 (cont.)

S-amp	S-101	S-102	S-103	S-104	S-105	S-106	S-107	S-108	S-109	S-110	S-111	S-112	S-113
146	146	146	146	146	146	146	146	146	146	146	146	146	146
147	147	147	147	147	147	147	147	147	147	147	147	147	147
148	148	148	148	148	148	148	148	148	148	148	148	148	148
149	149	149	149	149	149	149	149	149	149	149	149	149	149
150	150	150	150	150	150	150	150	150	150	150	150	150	150
151	151	151	151	151	151	151	151	151	151	151	151	151	151
152	152	152	152	152	152	152	152	152	152	152	152	152	152
153	153	153	153	153	153	153	153	153	153	153	153	153	153
154	154	154	154	154	154	154	154	154	154	154	154	154	154
155	155	155	155	155	155	155	155	155	155	155	155	155	155
156	156	156	156	156	156	156	156	156	156	156	156	156	156
157	157	157	157	157	157	157	157	157	157	157	157	157	157
158	158	158	158	158	158	158	158	158	158	158	158	158	158
159	159	159	159	159	159	159	159	159	159	159	159	159	159
160	160	160	160	160	160	160	160	160	160	160	160	160	160
161	161	161	161	161	161	161	161	161	161	161	161	161	161
162	162	162	162	162	162	162	162	162	162	162	162	162	162
163	163	163	163	163	163	163	163	163	163	163	163	163	163
164	164	164	164	164	164	164	164	164	164	164	164	164	164
165	165	165	165	165	165	165	165	165	165	165	165	165	165
166	166	166	166	166	166	166	166	166	166	166	166	166	166
167	167	167	167	167	167	167	167	167	167	167	167	167	167
168	168	168	168	168	168	168	168	168	168	168	168	168	168
169	169	169	169	169	169	169	169	169	169	169	169	169	169
170	170	170	170	170	170	170	170	170	170	170	170	170	170
171	171	171	171	171	171	171	171	171	171	171	171	171	171
172	172	172	172	172	172	172	172	172	172	172	172	172	172
173	173	173	173	173	173	173	173	173	173	173	173	173	173
174	174	174	174	174	174	174	174	174	174	174	174	174	174
175	175	175	175	175	175	175	175	175	175	175	175	175	175
176	176	176	176	176	176	176	176	176	176	176	176	176	176
177	177	177	177	177	177	177	177	177	177	177	177	177	177
178	178	178	178	178	178	178	178	178	178	178	178	178	178
179	179	179	179	179	179	179	179	179	179	179	179	179	179
180	180	180	180	180	180	180	180	180	180	180	180	180	180

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

Sample	S-5C	S-5H	S-5P	S-5Y	S-5K	S-5Y	S-7R	S-7H	AA-7N-P	CM-AS
156	35	N	100	100	N	30	300	N	30.0	--
157	20	N	100	200	N	<10	200	N	65.0	--
158	15	N	<100	100	N	20	200	N	80.0	--
159	10	N	500	100	N	30	150	N	40.0	--
160	10	N	500	70	N	30	100	N	10.0	--
161	15	N	200	150	N	30	100	N	85.0	--
162	5	N	150	70	N	15	200	N	20.0	--
163	50	N	200	200	N	50	200	N	110.0	--
164	20	N	<100	150	N	20	150	N	75.0	--
165	20	N	150	200	N	30	200	N	110.0	--
166	30	N	500	10	N	15	30	N	5.0	--
167	30	N	300	200	N	30	100	N	35.0	--
168	50	N	500	150	N	30	300	N	40.0	--
169	15	N	<100	70	N	50	300	N	35.0	--
170	20	N	100	200	N	30	200	N	45.0	--
171	50	N	200	300	N	50	100	N	35.0	--
172	20	N	100	200	N	50	200	N	50.0	--
173	30	N	500	150	N	30	200	N	40.0	--
174	<5	N	100	<10	N	20	150	N	65.0	--
175	<5	N	<100	150	N	30	200	N	65.0	--
176	10	N	200	70	N	30	150	N	40.0	--
177	5	N	100	100	N	10	70	N	5.0	--
178	10	N	50	50	N	50	300	N	5.0	--
179	20	N	400	100	N	50	150	N	95.0	--
180	20	N	<100	200	N	50	200	N	85.0	--
181	5	N	500	50	N	20	100	N	55.0	--
182	20	N	100	200	N	30	200	N	45.0	--
183	10	N	50	20	N	20	150	N	60.0	--
184	20	N	50	30	N	30	200	N	60.0	--
185	15	N	100	200	N	20	200	N	100.0	--

Table 2 (cont.)

Sample	Latitude	Longitude	U ₁ -U ₂	U ₁ -U ₃	U ₁ -U ₄	U ₁ -U ₅	U ₁ -U ₆	U ₁ -U ₇	U ₁ -U ₈	U ₁ -U ₉	U ₁ -U ₁₀	U ₁ -U ₁₁	U ₁ -U ₁₂	U ₁ -U ₁₃	U ₁ -U ₁₄	U ₁ -U ₁₅	U ₁ -U ₁₆	U ₁ -U ₁₇	U ₁ -U ₁₈	U ₁ -U ₁₉	U ₁ -U ₂₀	U ₁ -U ₂₁	U ₁ -U ₂₂	U ₁ -U ₂₃	U ₁ -U ₂₄	U ₁ -U ₂₅	U ₁ -U ₂₆	U ₁ -U ₂₇	U ₁ -U ₂₈	U ₁ -U ₂₉	U ₁ -U ₃₀	U ₁ -U ₃₁	U ₁ -U ₃₂	U ₁ -U ₃₃	U ₁ -U ₃₄	U ₁ -U ₃₅	U ₁ -U ₃₆	U ₁ -U ₃₇	U ₁ -U ₃₈	U ₁ -U ₃₉	U ₁ -U ₄₀	U ₁ -U ₄₁	U ₁ -U ₄₂	U ₁ -U ₄₃	U ₁ -U ₄₄	U ₁ -U ₄₅	U ₁ -U ₄₆	U ₁ -U ₄₇	U ₁ -U ₄₈	U ₁ -U ₄₉	U ₁ -U ₅₀	U ₁ -U ₅₁	U ₁ -U ₅₂	U ₁ -U ₅₃	U ₁ -U ₅₄	U ₁ -U ₅₅	U ₁ -U ₅₆	U ₁ -U ₅₇	U ₁ -U ₅₈	U ₁ -U ₅₉	U ₁ -U ₆₀	U ₁ -U ₆₁	U ₁ -U ₆₂	U ₁ -U ₆₃	U ₁ -U ₆₄	U ₁ -U ₆₅	U ₁ -U ₆₆	U ₁ -U ₆₇	U ₁ -U ₆₈	U ₁ -U ₆₉	U ₁ -U ₇₀	U ₁ -U ₇₁	U ₁ -U ₇₂	U ₁ -U ₇₃	U ₁ -U ₇₄	U ₁ -U ₇₅	U ₁ -U ₇₆	U ₁ -U ₇₇	U ₁ -U ₇₈	U ₁ -U ₇₉	U ₁ -U ₈₀	U ₁ -U ₈₁	U ₁ -U ₈₂	U ₁ -U ₈₃	U ₁ -U ₈₄	U ₁ -U ₈₅	U ₁ -U ₈₆	U ₁ -U ₈₇	U ₁ -U ₈₈	U ₁ -U ₈₉	U ₁ -U ₉₀	U ₁ -U ₉₁	U ₁ -U ₉₂	U ₁ -U ₉₃	U ₁ -U ₉₄	U ₁ -U ₉₅	U ₁ -U ₉₆	U ₁ -U ₉₇	U ₁ -U ₉₈	U ₁ -U ₉₉	U ₁ -U ₁₀₀	U ₁ -U ₁₀₁	U ₁ -U ₁₀₂	U ₁ -U ₁₀₃	U ₁ -U ₁₀₄	U ₁ -U ₁₀₅	U ₁ -U ₁₀₆	U ₁ -U ₁₀₇	U ₁ -U ₁₀₈	U ₁ -U ₁₀₉	U ₁ -U ₁₁₀	U ₁ -U ₁₁₁	U ₁ -U ₁₁₂	U ₁ -U ₁₁₃	U ₁ -U ₁₁₄	U ₁ -U ₁₁₅	U ₁ -U ₁₁₆	U ₁ -U ₁₁₇	U ₁ -U ₁₁₈	U ₁ -U ₁₁₉	U ₁ -U ₁₂₀	U ₁ -U ₁₂₁	U ₁ -U ₁₂₂	U ₁ -U ₁₂₃	U ₁ -U ₁₂₄	U ₁ -U ₁₂₅	U ₁ -U ₁₂₆	U ₁ -U ₁₂₇	U ₁ -U ₁₂₈	U ₁ -U ₁₂₉	U ₁ -U ₁₃₀	U ₁ -U ₁₃₁	U ₁ -U ₁₃₂	U ₁ -U ₁₃₃	U ₁ -U ₁₃₄	U ₁ -U ₁₃₅	U ₁ -U ₁₃₆	U ₁ -U ₁₃₇	U ₁ -U ₁₃₈	U ₁ -U ₁₃₉	U ₁ -U ₁₄₀	U ₁ -U ₁₄₁	U ₁ -U ₁₄₂	U ₁ -U ₁₄₃	U ₁ -U ₁₄₄	U ₁ -U ₁₄₅	U ₁ -U ₁₄₆	U ₁ -U ₁₄₇	U ₁ -U ₁₄₈	U ₁ -U ₁₄₉	U ₁ -U ₁₅₀	U ₁ -U ₁₅₁	U ₁ -U ₁₅₂	U ₁ -U ₁₅₃	U ₁ -U ₁₅₄	U ₁ -U ₁₅₅	U ₁ -U ₁₅₆	U ₁ -U ₁₅₇	U ₁ -U ₁₅₈	U ₁ -U ₁₅₉	U ₁ -U ₁₆₀	U ₁ -U ₁₆₁	U ₁ -U ₁₆₂	U ₁ -U ₁₆₃	U ₁ -U ₁₆₄	U ₁ -U ₁₆₅	U ₁ -U ₁₆₆	U ₁ -U ₁₆₇	U ₁ -U ₁₆₈	U ₁ -U ₁₆₉	U ₁ -U ₁₇₀	U ₁ -U ₁₇₁	U ₁ -U ₁₇₂	U ₁ -U ₁₇₃	U ₁ -U ₁₇₄	U ₁ -U ₁₇₅	U ₁ -U ₁₇₆	U ₁ -U ₁₇₇	U ₁ -U ₁₇₈	U ₁ -U ₁₇₉	U ₁ -U ₁₈₀	U ₁ -U ₁₈₁	U ₁ -U ₁₈₂	U ₁ -U ₁₈₃	U ₁ -U ₁₈₄	U ₁ -U ₁₈₅	U ₁ -U ₁₈₆	U ₁ -U ₁₈₇	U ₁ -U ₁₈₈	U ₁ -U ₁₈₉	U ₁ -U ₁₉₀	U ₁ -U ₁₉₁
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Analytical results for rock samples, Wisconsin quadrangles, Alaska,--continued.

Table 2 (cont.)

Sample no.	S-Hf	S-Hf	S-Cd	S-Cd	S-Cr	S-Cu	S-La	S-Ho	S-Mn	S-Pb	S-Sb
181	1.5	N	20	20	<10	150	70	N	10	20	N
182	2.0	N	20	20	200	50	70	N	100	20	N
183	1.0	N	20	20	200	70	70	N	50	20	N
184	1.5	N	15	15	200	<5	50	N	20	50	N
185	2.0	N	50	50	300	200	50	N	100	50	N
186	2.0	N	15	15	200	100	50	N	50	50	N
187	1.0	N	50	50	500	200	50	N	70	50	N
188	2.0	N	10	10	200	50	70	N	30	20	N
189	5.0	N	10	10	200	100	70	N	50	20	N
190	5.0	N	10	10	200	50	50	N	30	20	N
191	<1.0	N	<5	<5	50	20	50	N	20	20	N
192	<1.0	N	50	50	500	200	50	N	100	<10	N
193	<1.0	N	15	15	70	15	50	N	50	<10	N
194	<1.0	N	50	50	1,000	100	<20	N	200	<10	N
195	N	N	50	50	500	150	<20	N	200	10	N
196	1.5	N	50	50	200	50	200	N	150	50	N
197	1.5	N	20	20	100	20	70	N	50	500	N
198	<1.0	N	<5	<5	50	<5	<20	N	<5	50	N
199	2.0	N	20	20	150	50	50	N	50	150	N
200	2.0	N	20	20	200	200	50	N	50	50	N
201	<1.0	N	<5	<5	<10	10	50	N	10	<10	N
202	<1.0	N	<5	<5	<10	30	50	N	10	<10	N
203	<1.0	N	50	50	500	300	50	N	100	20	N
204	2.0	N	20	20	150	70	50	N	50	20	N
205	1.5	N	15	15	100	70	50	N	15	20	N
206	2.0	N	<5	<5	<10	<5	100	N	<5	50	N
207	2.0	N	20	20	200	70	50	N	100	50	N
208	2.0	N	<5	<5	20	10	50	N	<5	50	N
209	1.0	N	20	20	200	<5	50	N	10	20	N
210	1.0	N	50	50	200	150	50	N	70	20	N
211	<1.0	N	100	100	150	300	50	N	100	20	N
212	<1.0	N	70	70	500	100	100	N	100	20	N
213	2.0	N	<5	<5	<10	<5	<20	N	<5	100	N
214	<1.0	N	30	30	300	200	<20	N	70	<10	N
215	<1.0	N	50	50	300	500	<20	N	70	<10	N
216	2.0	N	70	70	100	70	50	20	20	<10	N
217	<1.0	N	10	10	50	10	50	N	30	30	N
218	<1.0	N	100	100	20	500	<20	N	150	10,000	N
219	5.0	N	<5	<5	<10	10	50	N	5	300	N
220	<1.0	N	10	10	20	200	<20	N	20	1,500	N
221	2.0	N	10	10	20	20	100	70	10	70	N
222	1.0	N	<5	<5	20	<5	50	N	<5	30	N
223	5.0	N	70	70	100	70	70	N	<5	30	N
224	2.0	N	5	5	N	5,000	50	N	N	20	N
225	2.0	N	10	10	N	5,000	<20	N	<5	20	N

Analytical results for rock samples, Wiseman quadrangle, Alaska,--continued

Sample	Latitude	Longitude	S-SF7	S-7G7	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
226	67 25 0	152 48 50	1.50	.20	.50	.100	200	N	N	N	50	200
227	67 20 45	152 10 42	1.50	.50	.50	.200	200	N	N	N	50	500
228	67 21 54	152 39 18	1.50	2.00	10.00	.150	5.000	100.0	N	N	50	100
229	67 21 53	152 48 36	3.00	.50	.10	.200	70	N	N	N	50	500
230	67 22 3	152 49 6	3.00	.50	.10	.200	1.000	N	N	N	150	300
231	67 19 54	152 36 12	2.00	.20	.10	.500	150	N	N	N	50	1.000
232	67 19 54	152 36 12	5.00	3.00	2.00	.700	2.000	N	N	N	50	200
233	67 43 58	152 22 24	10.00	20.00	>20.00	.005	3.000	N	N	N	N	70
234	67 20 21	152 39 24	10.00	7.00	.50	1.000	50	N	N	N	50	500
235	67 20 21	152 49 24	5.00	7.00	15.00	.300	1.000	N	N	N	1.000	100
236	67 18 12	152 47 48	15.00	3.00	1.00	>1.000	1.500	N	N	N	50	3.000
237	67 22 54	151 59 48	10.00	2.00	1.50	.500	2.000	<.5	<200	N	50	500
238	67 30 14	151 58 18	15.00	2.00	1.50	.700	2.000	N	N	N	50	50
239	67 36 18	151 53 24	10.00	2.00	2.00	1.000	3.000	N	N	N	50	500
240	67 35 48	151 53 30	3.00	.20	1.50	.300	1.000	N	N	N	100	500
241	67 35 45	151 53 0	3.00	.50	<.05	.500	200	N	N	N	100	1.000
242	67 35 45	151 52 30	5.00	1.50	.70	.700	1.000	N	N	N	200	500
243	67 34 51	151 52 42	3.00	1.00	.70	.500	1.000	N	N	N	100	200
244	67 35 36	151 53 30	5.00	1.50	2.00	.200	1.500	10.0	N	N	50	100
245	67 35 31	151 53 42	20.00	.30	1.50	>1.000	700	N	N	N	50	1.500
246	67 35 33	151 54 12	1.00	1.50	>20.00	.100	1.000	N	N	N	100	300
247	67 33 48	151 57 12	7.00	2.00	.30	.500	300	N	N	N	200	700
248	67 33 23	151 57 6	3.00	1.50	2.00	.500	2.000	N	N	N	100	300
249	67 34 28	152 7 36	3.00	.20	.10	.500	2.000	N	N	N	100	500
250	67 35 39	151 57 0	2.00	.20	.50	.300	1.500	N	N	N	20	50
251	67 32 29	151 25 48	3.00	2.00	15.00	.150	1.500	N	N	N	150	500
252	67 33 57	151 15 30	2.00	.50	.10	.500	300	N	N	N	70	300
253	67 22 6	151 46 6	2.00	3.00	2.00	.200	1.000	N	N	N	20	100
254	67 22 0	151 46 30	5.00	2.00	10.00	.500	2.000	N	N	N	10	<20
255	67 21 41	151 48 12	10.00	2.00	.20	.700	300	N	N	N	50	500
256	67 21 52	151 48 54	5.00	2.00	.20	.500	700	N	N	N	100	1.500
257	67 21 25	151 49 18	10.00	1.00	.20	.500	700	N	500	N	200	7.500
258	67 21 7	151 34 36	.50	.20	.07	.200	200	N	N	N	10	300
259	67 19 42	151 54 48	10.00	2.00	5.00	1.000	3.000	N	N	N	50	<20
260	67 31 45	151 45 42	3.00	1.50	.70	.500	2.000	N	N	N	100	300
261	67 32 0	151 45 6	5.00	1.50	5.00	.500	2.000	1.5	N	N	150	300
262	67 35 15	151 19 6	5.00	1.00	.10	.500	1.500	N	N	N	70	300
263	67 34 3	151 16 24	5.00	1.00	.10	.500	700	N	N	N	100	300
264	67 32 54	151 27 12	5.00	1.00	.10	.500	700	1.0	N	N	100	1.000
265	67 34 13	151 26 48	<.05	.50	>20.00	.030	700	N	N	N	N	N
266	67 35 16	151 37 18	2.00	.50	.20	.500	30	N	N	N	100	5.000
267	67 39 8	151 31 54	10.00	2.00	2.00	.500	2.000	N	N	N	50	500
268	67 38 45	151 32 12	3.00	.20	<.05	.150	10	N	N	N	50	500
269	67 34 12	151 32 48	7.00	2.00	1.00	.500	200	N	N	N	100	500
270	67 36 57	151 34 24	.20	5.00	20.00	.050	100	N	N	N	N	<20

Table 2 (cont.)

[illegible]

Analytical results for rock samples, Wisconsin quadrangle, Alaska.--continued

Sample	S-Sr	S-Sr	S-J	S-M	S-Y	S-Zn	S-Zr	S-Th	AA-Zn-P	CM-As
226	S	N	10	N	50	N	200	N	25.0	<10
227	S	N	30	N	70	N	70	N	15.0	<10
228	10	200	50	N	50	N	150	N	--	--
229	S	N	50	N	<10	N	500	N	5.0	20
230	10	N	100	N	20	N	100	N	40.0	60
231	10	N	100	N	50	N	500	N	35.0	<10
232	30	300	200	N	70	N	300	N	80.0	<10
233	N	500	<10	N	N	N	N	N	20.0	N
234	50	N	200	N	50	N	300	N	35.0	20
235	20	300	50	N	30	N	100	N	30.0	N
236	50	<100	200	N	30	<200	300	N	75.0	N
237	20	200	200	N	50	<200	150	N	320.0	100
238	50	500	500	N	50	N	250	N	160.0	20
239	50	200	500	N	70	<200	250	N	120.0	<10
240	15	<100	100	N	20	N	200	N	85.0	<10
241	10	N	100	N	20	N	300	N	40.0	N
242	20	160	200	N	50	<200	500	N	90.0	20
243	20	N	150	N	30	N	300	N	45.0	<10
244	10	N	100	N	30	<200	50	N	90.0	<10
245	20	N	700	N	50	500	300	N	35.0	10
246	5	2000	50	N	20	<200	200	N	200.0	10
247	20	<100	200	N	50	<200	300	N	100.0	10
248	15	<100	200	N	50	N	500	N	50.0	<10
249	15	<100	200	N	20	<200	200	N	15.0	20
250	10	N	150	N	30	N	100	N	50.0	10
251	20	500	150	N	20	N	50	N	60.0	40
252	15	N	100	N	30	N	300	N	45.0	<10
253	20	300	200	N	<10	N	20	N	50.0	<10
254	50	200	200	N	50	N	70	N	45.0	<10
255	20	200	300	N	50	200	300	N	95.0	10
256	20	200	200	N	20	N	200	N	50.0	20
257	50	<100	200	N	50	N	500	N	55.0	140
258	N	N	20	N	20	N	300	N	5.0	N
259	20	200	200	N	70	N	200	N	70.0	10
260	20	100	100	N	50	N	200	N	30.0	10
261	50	100	150	N	50	N	200	N	40.0	10
262	20	<100	100	N	50	N	500	N	85.0	40
263	50	<100	200	N	50	<200	300	N	100.0	<10
264	50	<100	500	N	50	<200	300	N	40.0	30
265	N	2000	<10	N	N	N	N	N	5.0	10
266	10	N	200	N	15	<200	100	N	60.0	30
267	50	500	500	N	50	N	70	N	45.0	10
268	5	200	200	N	N	<200	50	N	90.0	40
269	20	200	500	N	30	N	200	N	65.0	10
270	N	500	10	N	N	N	70	N	10.0	10

Table 2 (cont.)

Table 2 (cont.)

Sample	LA-1000	LA-1001	LA-1002	LA-1003	LA-1004	LA-1005	LA-1006	LA-1007	LA-1008	S-AS	S-AU	S-B	S-BA
271	57 46 42	151 54 17	5.00	5.00	19.00	-050	200	1.5	N	N	N	<10	100
272	67 17 12	151 54 24	3.00	3.00	10.00	-500	100	N	N	N	N	200	1,000
273	67 18 17	152 15 66	2.00	3.00	10.00	-000	3,000	N	N	N	N	50	500
274	67 27 45	151 29 9	2.00	3.00	2.00	-150	3,000	N	N	N	N	10	<20
275	67 27 12	151 28 63	5.00	5.00	7.00	-200	3,000	N	N	N	N	200	500
276	67 27 17	151 28 64	2.00	-20	10	-200	<10	N	N	N	N	100	700
277	67 28 62	151 29 49	5.00	3.00	20.00	-050	1,000	N	200	N	N	10	200
278	67 35 0	151 19 68	1.50	2.00	>20.00	-150	1,000	N	N	N	N	20	700
279	67 24 56	152 0 9	-07	2.00	>20.00	-100	300	N	N	N	N	10	100
280	67 21 7	152 26 43	10.00	1.00	30	-500	500	N	N	N	N	50	500
281	67 19 50	152 55 4	3.00	3.00	2.00	-500	200	N	N	N	N	50	2,000
282	67 19 50	152 55 0	7.00	1.50	10.00	-200	5,000	N	N	N	N	10	200
283	67 19 24	152 34 24	5.00	1.50	1.00	-500	5,000	N	N	N	N	200	1,500
284	67 32 50	152 2 42	5.00	1.50	10	-500	7,000	N	N	N	N	150	200
285	67 22 51	152 54 6	10.00	-50	10	-050	7,000	N	N	N	N	70	N
286	67 22 52	152 51 24	2.00	-20	-25	-300	300	N	N	N	N	30	1,000
287	67 20 45	152 19 42	5.00	3.00	3.00	-500	1,500	N	N	N	N	20	300
288	67 24 18	152 45 54	2.00	5.00	20.00	-100	2,000	2.0	N	N	N	150	50
289	67 27 12	152 51 12	7.00	-30	50	-100	300	N	N	N	N	150	500
290	67 27 20	152 51 19	2.00	50	20	-200	300	1.5	N	N	N	50	300
291	67 6 6	152 2 54	3.00	50	<.05	-500	200	N	N	N	N	150	700
292	67 21 22	152 41 30	1.00	-30	-05	-200	30	N	N	N	N	70	300
293	67 19 59	152 40 56	3.00	-50	<.05	-500	100	N	N	N	N	150	500
294	67 19 42	152 40 6	3.00	-20	-20	-300	1,000	N	N	N	N	50	300
295	67 19 53	152 34 62	3.00	5.00	15.00	-200	2,000	N	N	N	N	10	200
296	67 19 14	152 55 0	3.00	1.00	10	-500	1,000	N	N	N	N	150	500
297	67 19 5	152 34 19	3.00	1.00	-07	-500	500	N	N	N	N	200	700
298	67 18 54	152 34 54	3.00	1.50	-07	-700	700	N	N	N	N	50	700
299	67 19 42	152 40 30	3.00	2.00	5.00	-700	2,000	N	N	N	N	50	700
300	67 16 30	152 56 54	1.50	-70	2.00	-200	200	N	N	N	N	20	300
301	67 14 59	152 36 0	-50	7.00	15.00	-020	300	N	N	N	N	N	100
302	67 17 7	152 35 46	3.00	1.00	-20	-500	1,000	N	N	N	N	200	200
303	67 22 27	151 54 6	-20	-10	<.05	-030	10	N	N	N	N	10	50
304	67 33 38	152 0 0	2.00	-12	20	-200	10	2.0	N	N	N	10	100
305	67 32 23	152 1 36	2.00	-20	15.00	-500	3,000	N	N	N	N	50	100
306	67 33 11	152 1 56	2.00	-50	50	-200	1,000	N	N	N	N	10	50
307	67 31 36	152 1 48	1.50	1.00	20.00	-100	1,000	N	N	N	N	10	50
308	67 32 54	152 3 50	3.00	-50	-10	-300	1,000	N	N	N	N	50	150
309	67 53 42	152 3 54	-50	-20	-07	-100	<10	N	N	N	N	50	300
310	67 32 50	152 8 24	50	-20	20	-100	100	N	N	N	N	20	500
311	67 33 54	152 3 42	2.00	-15	105	-100	200	N	N	N	N	20	500
312	67 34 15	152 2 0	5.00	-70	-20	-500	500	N	N	N	N	50	500
313	67 34 3	152 2 54	-10	1.00	20.00	-050	50	N	N	N	N	10	100
314	67 26 0	151 28 30	2.00	-30	30	-300	500	N	N	N	N	30	200
315	67 29 37	151 24 12	2.00	1.00	20.00	-200	2,000	N	N	N	N	50	700

Table 2 (cont.)

sample	S-DE	S-NI	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB
271	N	10	70	N	<5	30	10	<20	70	30	N
272	5.0	20	20	150	500	30	20	<20	70	20	N
273	5.0	50	50	500	150	30	N	<20	200	20	N
274	N	50	50	500	10	30	N	<20	50	<10	N
275	1.0	50	50	70	500	50	N	<20	100	50	N
276	2.0	N	10	70	20	50	N	<20	15	30	N
277	0	0	30	0	30	50	N	N	10	30	N
278	0	0	10	70	30	50	N	N	30	10	N
279	0	0	5	30	<5	<20	N	N	10	10	N
280	2.0	0	20	20	<5	100	N	<20	15	100	N
281	2.0	0	20	150	100	50	N	<20	20	50	N
282	1.0	0	20	50	5	70	N	<20	50	300	N
283	5.0	0	15	100	<5	70	N	<20	20	20	N
284	5.0	0	20	200	5.000	50	10	<20	100	20	N
285	<1.0	0	10	0	50	50	N	<20	30	<10	N
286	2.0	0	10	10	5	50	N	<20	10	100	N
287	1.0	0	30	100	7	30	N	<20	30	30	N
288	1.0	20	10	N	200	30	N	<20	5	20	N
289	2.0	N	<5	N	5	<20	N	<20	5	50	N
290	5.0	N	<5	N	5	100	<5	<20	5	50	N
291	1.0	0	20	100	30	50	N	<20	100	20	N
292	1.0	0	<5	<10	7	30	N	<20	<5	20	N
293	2.0	0	10	100	7	50	N	<20	30	20	N
294	1.0	0	20	30	10	100	N	<20	30	70	N
295	1.0	0	50	50	10	50	<5	<20	50	50	N
296	2.0	0	10	100	15	50	N	<20	20	30	N
297	5.0	0	50	100	50	50	N	<20	70	30	N
298	2.0	0	30	100	10	100	N	<20	50	10	N
299	2.0	0	70	150	500	100	N	<20	70	50	N
300	<1.0	0	<5	<10	15	50	N	<20	10	20	N
301	0	0	<5	N	<5	N	N	<20	N	10	N
302	1.0	0	30	100	500	100	N	<20	50	15	N
303	<1.0	0	<5	<10	<5	<20	N	<20	5	N	N
304	<1.0	0	15	<10	5.000	<20	N	<20	20	N	N
305	0	0	<5	70	50	30	N	<20	10	30	N
306	0	0	15	50	<5	30	N	<20	30	N	N
307	0	0	5	20	<5	30	N	<20	15	50	N
308	<1.0	0	20	70	100	30	N	<20	50	N	N
309	1.0	0	10	50	5	30	N	<20	10	N	N
310	1.0	0	10	20	30	30	N	<20	<5	N	N
311	<1.0	0	10	20	7	30	N	<20	15	N	N
312	<1.0	0	20	150	30	50	N	<20	100	20	N
313	0	0	0	0	<5	<20	N	<20	N	N	N
314	<1.0	0	10	100	50	30	N	<20	20	N	N
315	0	0	20	100	10	<20	N	<20	20	30	N

Analytical results for rock samples, Wiseman quadrangle, Alaska.--continued

S. sample	S-C	S-Si	S-Si	S-V	S-W	S-Y	S-Zn	S-Zr	S-Th	AR-Zn-P	(M-AS
271	5	1	200	50	N	20	N	<10	N	160.0	<10
272	5	0	500	500	N	50	N	300	N	120.0	20
273	10	N	500	150	N	30	N	200	N	45.0	20
274	50	0	500	500	N	10	N	10	N	40.0	<10
275	5	N	300	150	N	20	<200	70	N	20.0	<10
276	10	0	100	100	N	50	N	150	N	5.0	30
277	5	0	200	20	N	50	N	<10	N	15.0	160
278	15	0	200	100	N	20	N	30	N	30.0	<10
279	5	0	200	20	N	10	N	70	N	5.0	<10
280	10	0	N	70	N	50	500.0	300	N	1,100.0	<10
281	50	0	500	200	N	50	<200	200	N	10.0	<10
282	15	0	1,000	100	N	70	300	150	N	220.0	20
283	50	0	100	150	N	50	N	150	N	25.0	20
284	50	0	<100	200	N	50	<200	200	N	20.0	20
285	5	0	N	100	N	10	N	50	N	30.0	30
286	15	0	150	50	N	50	N	200	N	15.0	10
287	50	0	200	200	N	30	N	50	N	20.0	<10
288	10	0	2,000	50	N	50	1,500	70	N	100.0	60
289	5	0	100	<10	N	100	N	150	N	5.0	10
290	5	0	N	20	N	70	N	200	N	30.0	20
291	15	0	N	200	N	20	<200	150	N	95.0	<10
292	5	0	N	50	N	30	N	150	N	<5.0	10
293	20	0	N	150	N	20	<200	300	N	75.0	10
294	10	0	N	50	N	50	<200	200	N	180.0	20
295	10	0	500	100	N	30	N	50	N	10.0	<10
296	20	0	150	150	N	70	<200	500	N	55.0	60
297	20	0	N	200	N	70	500	200	N	160.0	30
298	20	0	100	100	N	70	N	200	N	40.0	<10
299	20	0	100	200	N	50	<200	200	N	35.0	<10
300	5	0	200	50	N	15	N	200	N	10.0	<10
301	0	0	150	<10	N	N	N	N	N	15.0	<10
302	15	0	<100	100	N	50	N	200	N	50.0	N
303	0	0	N	10	N	N	N	20	N	25.0	<10
304	5	0	N	50	N	N	N	20	N	5.0	20
305	10	0	1,500	70	N	50	N	200	N	10.0	20
306	5	0	N	200	N	20	N	100	N	5.0	<10
307	5	0	500	20	N	20	1,500	50	N	50.0	10
308	15	0	N	20	N	20	<200	150	N	20.0	10
309	5	0	N	70	N	10	N	50	N	<5.0	<10
310	0	0	N	<10	N	50	N	70	N	5.0	<10
311	5	0	N	150	N	10	N	50	N	10.0	<10
312	15	0	N	150	N	20	N	200	N	45.0	<10
313	0	0	500	10	N	N	N	10	N	5.0	<10
314	10	0	N	200	N	20	<200	70	N	15.0	<10
315	15	0	500	70	N	50	N	50	N	35.0	<10

ANALYTICAL RESULTS FOR ROCK SAMPLES, WISEMAN QUADRANGLE, ALASKA--CONTINUED

Sample	Latitude	Longitude	S-1FX	S-HQ7	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
3316	67 29 34	151 27 0	5.00	5.00	7.00	.500	5,000	N	N	N	30	700
3317	67 29 50	151 27 54	3.00	1.00	.10	.300	500	N	N	N	50	200
3318	67 57 42	151 27 18	.05	.10	.05	.500	10	N	N	N	20	700
3319	67 57 29	151 27 0	5.00	2.00	.05	.700	500	N	N	N	100	2,000
3320	67 33 36	151 38 56	10.00	3.00	5.00	.500	3,000	N	N	N	20	
3321	67 33 30	151 42 13	5.00	2.00	5.00	.300	2,000	N	N	N	100	300
3322	67 35 6	151 37 42	.20	1.00	>20.00	.100	300	N	N	N	10	700
3323	67 34 55	151 38 0	.10	1.00	>20.00	.070	150	N	N	N	N	200
3324	67 31 53	151 20 24	2.00	.50	.70	.200	200	N	N	N	70	200
3325	67 34 48	151 32 0	2.00	2.00	20.00	.200	5,000	N	N	N	70	2,000
3326	67 33 26	151 44 6	5.00	2.00	7.00	.500	3,000	N	N	N	100	700
3327	67 19 47	152 26 54	5.00	1.00	.10	.300	200	N	N	N	100	1,000
3328	67 19 17	152 26 12	5.00	2.00	5.00	.700	2,000	N	N	N	150	1,000
3329	67 29 48	152 2 0	2.00	2.00	>20.00	.500	2,000	N	N	N	<10	20
3330	67 22 6	152 13 15	1.00	5.00	>20.00	.150	1,000	N	N	N	70	200
3331	67 22 27	152 56 0	10.00	3.00	5.00	.500	2,000	N	N	N	20	500
3332	67 22 26	152 16 42	.20	1.50	>20.00	.100	700	N	N	N	<10	200
3333	67 22 27	152 15 24	.20	1.50	15.00	.200	2,000	N	N	N	70	200
3334	67 23 30	152 15 12	3.00	1.50	15.00	.300	3,000	N	N	N	200	700
3335	67 24 24	152 17 26	.20	5.00	20.00	.050	200	N	N	N	20	100
3336	67 24 18	152 16 46	2.00	2.00	.20	.700	500	N	N	N	200	1,000
3337	67 20 27	152 49 13	2.00	5.00	10.00	.200	1,000	N	N	N	100	1,000
3338	67 20 27	152 49 30	15.00	3.00	5.00	.500	150	N	N	N	50	700
3339	67 20 27	152 49 30	15.00	2.00	.50	1.000	150	N	N	N	20	50
3340	67 19 57	152 49 42	7.00	.70	.10	.500	2,000	N	N	N	150	1,000
3341	67 19 41	152 49 48	3.00	5.00	1.50	.200	100	N	N	N	30	300
3342	67 19 54	151 49 6	15.00	5.00	2.00	1.000	3,000	N	N	N	50	100
3343	67 28 57	151 41 31	5.00	3.00	5.00	.700	3,000	N	N	N	50	500
3344	67 28 36	151 42 0	20.00	3.00	5.00	1.5	3,000	N	N	N	50	300
3345	67 29 36	151 44 26	.50	.20	20.00	.030	100	N	N	N	10	<20
3346	67 22 5	152 17 6	5.00	1.00	1.50	.500	500	N	N	N	20	1,000
3347	67 35 6	151 38 0	.05	.20	15.00	.010	50	N	N	N	<10	300
3348	67 35 31	151 34 6	2.00	.10	10.00	.010	150	N	N	N	<10	70
3349	67 35 6	151 39 43	.20	1.00	>20.00	.050	200	N	N	N	N	100
3350	67 35 14	151 41 3	2.00	.50	.50	.200	<10	N	N	N	100	3,000
3351	67 35 56	151 43 18	5.00	2.00	2.00	.300	2,000	N	N	N	50	300
3352	67 36 29	151 39 31	5.00	1.00	1.00	.500	1,000	N	N	N	20	300
3353	67 37 56	151 39 0	5.00	2.00	.70	.500	5,000	N	N	N	100	3,000
3354	67 32 54	152 25 12	5.00	3.00	3.00	.500	2,000	N	N	N	100	500
3355	67 34 0	152 26 26	5.00	3.00	5.00	.500	1,500	N	N	N	150	500
3356	67 34 13	151 42 54	5.00	2.00	1.50	.200	1,500	N	N	N	20	200
3357	67 34 53	151 44 42	3.00	2.00	3.00	.200	1,500	N	N	N	30	150
3358	67 36 20	151 45 0	5.00	2.00	5.00	.200	1,500	N	N	N	100	700
3359	67 40 54	151 55 6	10.00	3.00	5.00	1.000	3,000	N	N	N	50	100
3360	67 40 54	151 55 5	10.00	3.00	2.00	.700	3,000	N	N	N	20	50

Table 2 (cont.)

Table 2 (cont.)

Sample	Y=0.0	Y=0.1	Y=0.2	Y=0.3	Y=0.4	Y=0.5	Y=0.6	Y=0.7	Y=0.8	Y=0.9	Y=1.0
341	0	0	0	50	100	<20	N	<20	150	15	N
342	<1.0	0	0	100	5	30	N	<20	50	N	N
343	0	0	0	50	5	30	20	<20	<5	<10	N
344	1.0	0	0	200	<5	30	N	<20	50	<10	N
345	<1.0	0	0	100	10	30	N	<20	100	200	N
346	2.0	0	0	100	100	30	0	<20	50	20	N
347	0	0	0	20	<5	<20	N	<20	<5	<10	N
348	0	0	0	0	<5	<20	N	0	N	N	N
349	1.0	0	0	20	<5	30	N	<20	20	N	N
350	1.0	0	0	15	50	30	N	<20	50	50	N
351	1.0	0	0	200	70	50	N	<20	70	30	N
352	2.0	0	0	20	20	30	N	<20	5	20	N
353	2.0	0	0	150	10	70	N	<20	70	50	N
354	0	0	0	50	N	30	N	N	5	100	N
355	<1.0	0	0	50	<5	30	N	N	<5	70	N
356	1.0	0	0	200	100	30	N	<20	100	30	N
357	<1.0	0	0	20	<5	30	N	N	5	50	N
358	<1.0	0	0	50	N	30	N	<20	5	10	N
359	2.0	0	0	15	30	50	N	<20	20	50	N
360	<1.0	0	0	0	N	30	N	N	N	10	N
361	2.0	0	0	15	30	50	N	<20	50	20	N
362	1.5	0	0	100	<5	30	N	<20	20	30	N
363	0	0	0	20	20	30	N	<20	30	<10	N
364	0	0	0	300	20	30	N	<20	100	<10	N
365	0	0	0	20	20	50	N	<20	50	<10	N
366	1.0	0	0	200	100	30	N	N	30	<10	N
367	0	0	0	50	70	30	N	<20	30	<10	N
368	1.0	0	0	150	50	50	N	<20	30	70	N
369	N	0	0	150	500	30	N	<20	150	<10	N
370	<1.0	0	0	0	15	<20	N	N	N	N	N
371	2.0, 0.0	0	0	20	20	70	N	<20	30	20	N
372	0	0	0	0	100	0	N	N	<5	N	N
373	0	0	0	<5	20, 0.00	0	N	N	<5	N	N
374	0	0	0	0	20	<20	5	<20	<5	10	N
375	<1.0	0	0	0	0	30	N	<20	50	20	N
376	0	0	0	0	30	30	N	<20	50	20	N
377	0	0	0	15	50	50	N	<20	30	30	N
378	1.0	0	0	20	50	30	N	<20	20	30	N
379	1.0	0	0	15	30	50	N	<20	20	50	N
380	2.0	0	0	0	30	50	N	<20	100	20	N
381	0	0	0	0	70	30	N	<20	50	10	N
382	0	0	0	15	30	30	N	<20	50	30	N
383	1.0	0	0	20	70	50	N	<20	30	30	N
384	1.0	0	0	100	50	30	N	<20	20	30	N
385	1.0	0	0	100	30	50	N	<20	20	50	N
386	<1.0	0	0	150	30	50	N	<20	100	20	N
387	0	0	0	0	30	30	N	<20	30	20	N
388	0	0	0	0	30	30	N	<20	30	20	N
389	0	0	0	0	100	<20	N	<20	70	20	N
390	0	0	0	50	30	30	N	<20	30	N	N

ANALYTICAL RESULTS FOR ROCK SAMPLES, WISMAN QUADRANGLE, ALASKA,--CONTINUED

Sample	S-SiO ₂	S-SiO ₂	S-SiO ₂	S-V	S-W	S-Y	S-Zn	S-Zr	S-TH	AA-Zn-P	CM-AS
316	50	200	N	50	N	N	<200	150	N	25.0	10
317	10	100	N	N	N	N	N	150	N	15.0	<10
318	10	150	N	10	N	N	N	20	N	N	<10
319	50	150	N	30	N	N	N	200	N	15.0	<10
320	50	500	N	50	N	N	N	50	N	75.0	20
321	20	200	N	50	N	N	N	200	N	45.0	N
322	N	15.00	N	20	N	N	N	20	N	15.0	10
323	10	700	N	N	N	N	N	N	N	5.0	<10
324	5	<100	N	20	N	N	N	150	N	25.0	10
325	15	1,000	N	50	N	N	N	100	N	30.0	10
326	50	300	N	50	N	N	N	200	N	75.0	10
327	15	N	N	20	N	N	N	100	N	35.0	N
328	50	500	N	20	N	N	N	300	N	55.0	10
329	5	300	N	20	N	N	N	<10	N	60.0	N
330	5	2,000	N	20	N	N	N	200	N	15.0	<10
331	50	300	N	30	N	N	N	150	N	60.0	10
332	<5	2,000	N	15	N	N	N	100	N	15.0	10
333	<5	1,000	N	20	N	N	N	200	N	10.0	10
334	20	1,000	N	50	N	N	N	200	N	40.0	10
335	N	500	N	<10	N	N	N	20	N	15.0	<10
336	30	200	N	50	N	N	N	300	N	70.0	10
337	10	70	N	30	N	N	<200	100	N	50.0	N
338	50	500	N	50	N	N	300	70	N	60.0	N
339	70	200	N	20	N	N	200	200	N	120.0	<10
340	20	200	N	50	N	N	200	200	N	85.0	10
341	15	N	N	30	N	N	<200	100	N	50.0	N
342	20	200	N	50	N	N	<200	200	N	55.0	10
343	20	200	N	50	N	N	N	300	N	45.0	N
344	20	500	N	50	N	N	N	300	N	75.0	20
345	N	1,000	N	N	N	N	N	10	N	5.0	20
346	20	100	N	50	N	N	N	200	N	30.0	<10
347	10	10	N	N	N	N	N	N	N	35.0	30
348	10	<10	N	N	N	N	N	N	N	20.0	20
349	10	<10	N	N	N	N	N	N	N	5.0	<10
350	10	200	N	20	N	N	500	50	N	N	20
351	20	200	N	20	N	N	N	200	N	50.0	20
352	20	200	N	20	N	N	N	70	N	55.0	10
353	30	<100	N	20	N	N	N	200	N	60.0	10
354	20	150	N	20	N	N	N	200	N	90.0	20
355	15	100	N	20	N	N	N	300	N	80.0	20
356	15	<100	N	20	N	N	N	70	N	45.0	N
357	15	150	N	20	N	N	N	70	N	75.0	20
358	20	200	N	20	N	N	N	100	N	45.0	10
359	20	200	N	50	N	N	N	100	N	95.0	N
360	50	500	N	50	N	N	N	200	N	80.0	<10

sample	1-11-79F	1-08-11-79F	S-FFZ	S-FGZ	S-CAZ	S-IFZ	S-WN	S-AG	S-AS	S-AU	S-B	S-BA
361	6.7 4.0 5.0	15.1 5.5 3.6	10.00	3.00	5.00	.700	2,000	N	N	N	20	300
362	6.7 1.9 0	15.2 4.5 0	5.00	5.00	7.00	.500	2,000	N	N	N	20	1,000
363	6.7 1.7 3.0	15.2 5.2 4.8	2.00	5.00	7.00	.200	1,500	N	N	N	150	500
364	6.7 1.7 3.5	15.2 5.2 5.4	7.00	5.00	2.00	.500	1,500	N	N	N	20	200
365	6.7 2.1 6	15.2 5.4 0	1.50	1.00	.50	.200	200	N	N	N	150	300
366	6.7 1.9 2.1	15.2 5.2 2.0	5.00	5.00	15.00	.500	2,000	N	N	N	50	1,000
367	6.7 1.7 1.0	15.2 5.2 2.4	5.00	1.00	2.00	.500	2,000	N	N	N	150	500
368	6.7 3.3 4.2	15.2 1.8 6	10.00	1.50	.20	.700	700	N	N	N	150	500
369	6.7 3.4 2	15.2 1.8 6	7.00	5.00	10.00	.500	3,000	N	N	N	100	500
370	6.7 3.4 3.5	15.2 1.8 6	5.00	2.00	2.00	.500	2,000	N	N	N	100	500
371	6.7 2.0 6	15.2 2.1 2.4	5.00	2.00	10.00	.500	1,500	N	N	N	100	700
372	6.7 2.3 4.8	15.1 4.0 6	>20.00	.20	.20	.015	5,000	N	3,000	N	150	50
373	6.7 1.8 3	15.1 5.0 6	7.00	2.00	.20	.700	2,000	N	N	N	200	700
374	6.7 2.3 4.8	15.1 4.4 4.2	5.00	1.50	.50	.700	300	1.0	N	N	300	700
375	6.7 2.9 1.7	15.1 4.2 5.4	2.00	1.00	.70	.200	500	N	N	N	50	500
376	6.7 2.9 3.3	15.1 6.4 1.2	.20	.20	>20.00	.050	100	N	N	N	<10	<20
377	6.7 2.2 4.8	15.1 2.2 2.6	.20	10.00	20.00	.020	300	N	N	N	<10	<20
378	6.7 2.2 1.2	15.1 3.4 3.6	1.00	.20	.20	.100	10	7.0	N	N	300	700
379	6.7 1.4 5.8	15.1 5.5 6	5.00	1.50	5.00	.150	2,000	N	N	N	<10	N
380	6.7 1.5 4.6	15.1 1.8 1.5	>20.00	.60	.10	.010	50	20.0	1,000	N	30	5,000

Table 2 (cont.)

Analytical results for rock samples, Wisconsin quadrangle, Alaska.--continued

Sample #	S-10F	S-101	S-CD	S-10	S-CK	S-CU	S-LA	S-MO	S-WB	S-NI	S-PB	S-SB
361	11	11	N	150	20	150	30	N	<20	20	N	N
362	<1.0	11	11	100	200	50	100	N	<20	200	15	N
363	1.0	11	N	10	70	10	50	N	<20	15	15	N
364	N	11	11	70	200	200	30	N	<20	150	N	N
365	<1.0	11	N	10	20	<5	50	N	<20	5	<10	N
366	1.0	11	11	50	500	70	50	N	<20	70	<10	N
367	2.0	11	11	20	150	20	70	N	<20	50	20	N
368	1.5	11	11	20	200	50	50	N	<20	50	100	N
369	1.5	11	11	50	500	150	30	N	<20	100	20	N
370	1.5	11	N	20	100	70	30	N	<20	50	50	N
371	1.0	11	11	20	100	<5	50	N	<20	30	20	N
372	11	11	N	<5	50	2,100	50	N	<20	30	10	N
373	5.0	11	11	20	200	150	<20	N	<20	30	N	N
374	5.0	11	N	30	150	150	70	N	<20	30	100	N
375	1.0	11	11	10	20	15	50	N	<20	10	10	N
376	11	11	N	11	N	<5	<20	N	N	N	N	N
377	11	11	11	11	N	<5	11	N	N	N	20	N
378	<1.0	11	N	10	150	5	<20	N	<20	10	300	N
379	1.5	11	N	10	50	10	50	N	N	<5	20	N
380	11	11	11	N	<10	30	50	N	N	N	1,500	N

ANALYTICAL RESULTS FOR ROCK SAMPLES, WILHELM QUADRANGLE, ALASKA--CONT (continued)

SAMPLE	S-50	S-50	S-V	S-M	S-Y	S-Zn	S-ZR	S-TH	AA-Zn-P	CM-AS
361	5.1	300	500	N	70	N	200	N	55.0	<10
362	3.0	1,000	250	N	50	N	100	N	70.0	10
363	1.5	200	300	N	20	N	100	N	25.0	20
364	5.1	200	200	N	20	N	100	N	55.0	10
365	5	N	50	N	20	N	300	N	30.0	10
366	5.1	300	200	N	20	N	50	N	40.0	10
367	2.0	N	150	N	70	N	300	N	65.0	20
368	2.0	N	200	N	50	<200	300	N	130.0	<10
369	5.0	300	200	N	50	<200	100	N	55.0	20
370	2.0	500	200	N	50	<200	300	N	110.0	10
371	2.0	700	150	N	50	N	100	N	35.0	20
372	3.0	N	<10	N	N	N	20	N	30.0	1,200
373	3.0	<10	200	N	50	N	300	N	40.0	10
374	2.0	N	200	N	50	N	500	N	55.0	30
375	5	N	100	N	30	N	200	N	20.0	<10
376	3.0	2,000	<10	N	N	N	10	N	<5.0	20
377	3.0	300	50	N	N	N	N	N	20.0	10
378	<5	N	150	N	<10	N	70	N	10.0	30
379	1.0	300	20	N	15	<200	100	--	5.0	N
380	3.0	<100	<10	N	10	1,000	<10	--	1,800.0	200

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	AA-FE%	AA-MG%	AA-CA%	AA-TI%	AA-MN ppm	S-AG	S-AS	S-B	S-BA
381	67 21 01	152 17 48	1.76	.31	.63	.14	240	N(2)	N(1000)	5	N(1000)
382	67 21 01	152 17 48	2.63	.53	.49	.26	160	N(2)	N(1000)	10	N(1000)
383	67 20 48	152 17 00	2.28	.42	.42	.19	240	N(2)	N(1000)	10	N(1000)
384	67 20 16	152 14 09	5.50	1.22	2.17	.41	720	N(2)	N(1000)	20	N(1000)
385	67 10 29	152 49 03	1.88	.67	.84	.20	240	N(2)	N(1000)	20	N(1000)
386	67 10 29	152 49 03	2.58	.97	.02	.13	80	N(2)	N(1000)	10	N(1000)
387	67 10 33	152 48 48	11.26	4.22	5.39	.79	2,000	2	N(1000)	5	N(1000)
388	67 12 00	152 51 12	4.25	1.24	1.05	.57	1,200	N(2)	N(1000)	20	N(1000)
389	67 07 00	152 22 42	9.52	4.32	6.65	1.03	1,600	2	N(1000)	10	N(1000)
390	67 07 00	152 22 42	7.84	<u>5.27</u>	8.12	.78	1,360	2	N(1000)	10	N(1000)
391	67 07 00	152 22 42	9.24	3.63	6.65	1.06	1,440	2	N(1000)	15	N(1000)
392	67 07 00	152 22 42	10.36	.96	4.55	<u>1.38</u>	1,600	2	N(1000)	10	N(1000)
393	67 03 48	152 53 48	8.96	1.98	6.37	<u>1.60</u>	960	N(2)	N(1000)	20	N(1000)
394	67 05 15	152 43 18	7.77	<u>5.90</u>	5.25	.94	1,520	2	N(1000)	20	N(1000)
395	67 19 02	152 13 23	9.35	4.36	6.86	<u>1.46</u>	1,520	N(2)	N(1000)	N(5)	N(1000)
396	67 19 20	152 13 42	11.62	3.50	5.88	<u>1.74</u>	1,760	N(2)	N(1000)	N(5)	N(1000)
397	67 17 42	152 18 12	9.24	4.32	6.13	<u>1.13</u>	1,680	N(2)	N(1000)	N(5)	N(1000)
398	67 14 30	152 17 36	6.50	1.64	.32	<u>.73</u>	880	N(2)	N(1000)	100	N(1000)
399	67 12 39	152 05 48	4.78	1.32	.15	.46	400	N(2)	N(1000)	100	N(1000)
400	67 13 18	152 00 24	7.28	<u>5.52</u>	8.12	.45	1,280	2	N(1000)	N(5)	N(1000)
401	67 23 21	152 37 42	1.10	.14	.13	.05	80	N(2)	N(1000)	20	N(1000)
402	67 17 01	151 17 00	12.11	3.81	5.62	.88	1,840	N(2)	N(1000)	5	N(1000)
403	67 21 38	152 16 54	1.82	.28	.14	.10	160	N(2)	N(1000)	10	N(1000)
404	67 19 57	151 48 00	13.72	4.62	6.02	<u>1.43</u>	2,560	2	N(1000)	<u>1,000</u>	N(1000)
405	67 19 30	151 35 08	11.34	3.95	4.48	<u>1.58</u>	1,760	2	N(1000)	5	N(1000)
406	67 19 03	151 34 54	3.50	1.64	3.04	.40	1,120	2	N(1000)	70	N(1000)
407	67 18 33	151 35 06	2.37	.84	2.52	.16	960	N(2)	N(1000)	5	N(1000)
408	67 18 06	151 34 48	11.06	2.20	.77	<u>1.25</u>	2,240	2	N(1000)	100	N(1000)
409	67 17 36	151 34 36	5.81	<u>6.88</u>	6.65	.31	1,280	N(2)	N(1000)	5	N(1000)
410	67 17 36	151 34 36	4.69	<u>2.01</u>	3.96	.74	400	N(2)	N(1000)	5	N(1000)
411	67 10 12	152 49 48	.49	.08	.06	.13	80	N(2)	N(1000)	5	N(1000)
412	67 10 24	152 49 06	.91	.09	.04	.10	160	N(2)	N(1000)	50	N(1000)
413	67 10 26	152 49 00	7.49	4.36	6.52	.61	1,600	2	N(1000)	10	N(1000)
414	67 23 16	152 48 30	.84	.16	.70	.44	80	N(2)	N(1000)	50	N(1000)
415	67 23 50	152 48 52	1.19	.10	.06	.06	<(100)	N(2)	N(1000)	20	N(1000)

Sample	S-B ₂	S-B ₁	S-C ₁₀	S-C ₈	S-C ₁₀	S-LA	S-H ₀	S-N _B	S-N ₁
381	1	N(20)	N(10)	50	15	N(500)	N(20)	N(200)	10
382	1	N(20)	N(10)	500	7	N(500)	<u>10</u>	N(200)	150
383	2	N(20)	N(10)	20	100	N(500)	N(20)	N(200)	10
384	2	N(20)	10	20	30	N(500)	N(20)	N(200)	10
385	<u>5</u>	N(20)	N(10)	20	50	N(500)	N(20)	N(200)	10
386	2	N(20)	N(10)	20	70	N(500)	N(20)	N(200)	10
387	N	N(20)	50	50	150	N(500)	N(20)	N(200)	20
388	1	N(20)	N(10)	20	20	N(500)	N(20)	N(200)	5
389	N	N(20)	50	50	200	N(500)	N(20)	N(200)	50
390	N	N(20)	50	100	150	N(500)	N(20)	N(200)	50
391	N	N(20)	50	20	200	N(500)	N(20)	N(200)	20
392	N	N(20)	50	20	300	N(500)	N(20)	N(200)	10
393	N	N(20)	50	50	150	N(500)	N(20)	N(200)	10
394	N	N(20)	50	50	150	N(500)	N(20)	N(200)	20
395	N	N(20)	20	20	70	N(500)	N(20)	N(200)	20
396	N	N(20)	50	50	300	N(500)	N(20)	N(200)	20
397	N	N(20)	20	50	150	N(500)	N(20)	N(200)	20
398	N	N(20)	20	50	10	N(500)	N(20)	N(200)	20
399	2	N(20)	N(10)	50	50	N(500)	N(20)	N(200)	10
400	N	N(20)	50	200	100	N(500)	N(20)	N(200)	100
401	2	N(20)	N(10)	100	10	N(500)	N(20)	N(200)	N
402	N	N(20)	50	100	150	N(500)	N(20)	N(200)	10
403	2	N(20)	N(10)	20	20	N(500)	N(20)	N(200)	N
404	N	N(20)	50	20	500	N(500)	N(20)	N(200)	10
405	N	N(20)	30	20	150	N(500)	N(20)	N(200)	10
406	2	N(20)	20	20	50	N(500)	N(20)	N(200)	5
407	1	N(20)	30	20	7	N(500)	N(20)	N(200)	30
408	2	N(20)	30	50	70	N(500)	N(20)	N(200)	10
409	N	N(20)	50	500	100	N(500)	N(20)	N(200)	200
410	1	N(20)	20	20	5	N(500)	N(20)	N(200)	<u>5</u>
411	2	N(20)	N(10)	100	2	N(500)	N(20)	N(200)	50
412	2	N(20)	N(10)	20	10	N(500)	N(20)	N(200)	7
413	N	N(20)	30	20	10	N(500)	N(20)	N(200)	5
414	1	N(20)	N(10)	50	2	N(500)	N(20)	N(200)	7
415	2	N(20)	N(10)	100	5	N(500)	N(20)	N(200)	50

S _{imp} /f ₀	S-FB	S-SH	S-SC	S-SN	S-V	S-W	S-Y	S-ZN	S-ZR	S-GA
381	20	N	N(10)	N(50)	100	N	N(100)	N(500)	200	20
382	30	N	N(10)	N(50)	100	N	N(100)	N(500)	<u>500</u>	15
383	20	N	N(10)	N(50)	50	N	N(100)	N(500)	300	5
384	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	300	10
385	50	N	N(10)	N(50)	20	N	N(100)	N(500)	200	20
386	20	N	N(10)	N(50)	20	N	N(100)	N(500)	<u>500</u>	20
387	N(20)	N	10	<u>50</u>	200	N	N(100)	N(500)	<u>200</u>	10
388	N(20)	N	N(10)	N(50)	70	N	N(100)	N(500)	200	5
389	N(20)	N	10	N(50)	200	N	N(100)	N(500)	200	5
390	N(20)	N	10	N(50)	200	N	N(100)	N(500)	200	5
391	N(20)	N	10	N(50)	200	N	N(100)	N(500)	200	10
392	N(20)	N	N(10)	N(50)	500	N	N(100)	N(500)	200	10
393	N(20)	N	N(10)	N(50)	500	N	N(100)	N(500)	200	10
394	N(20)	N	N(10)	N(50)	500	N	N(100)	N(500)	200	5
395	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	200	5
396	N(20)	N	N(10)	N(50)	300	N	N(100)	N(500)	200	5
397	N(20)	N	N(10)	N(50)	300	N	N(100)	N(500)	N(200)	5
398	N(20)	N	N(10)	N(50)	150	N	N(100)	N(500)	200	10
399	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	200	5
400	N(20)	N	10	N(50)	200	N	N(100)	N(500)	N(200)	5
401	N(20)	N	N(10)	N(50)	70	N	N(100)	N(500)	N(200)	20
402	N(20)	N	10	N(50)	<u>1,000</u>	N	N(100)	N(500)	N(200)	50
403	N(20)	N	N(10)	<u>50</u>	70	N	N(100)	N(500)	200	10
404	N(20)	N	10	N(50)	<u>2,000</u>	N	N(100)	N(500)	200	20
405	N(20)	N	N(10)	N(50)	<u>500</u>	N	<u>100</u>	N(500)	200	20
406	20	N	N(10)	N(50)	200	N	<u>100</u>	N(500)	200	20
407	20	N	N(10)	N(50)	70	N	<u>100</u>	N(500)	N(200)	N(5)
408	20	N	10	<u>50</u>	500	N	N(100)	N(500)	200	50
409	20	N	N(10)	N(50)	200	N	N(100)	N(500)	200	10
410	20	N	10	N(50)	500	N	<u>100</u>	N(500)	200	20
411	20	N	N(10)	N(50)	50	N	<u>100</u>	N(500)	<u>500</u>	10
412	<u>200</u>	N	N(10)	N(50)	20	N	<u>100</u>	N(500)	<u>200</u>	5
413	50	N	N(10)	N(50)	<u>700</u>	N	<u>100</u>	N(500)	200	50
414	50	N	N(10)	<u>50</u>	<u>20</u>	N	N(100)	N(500)	300	70
415	100	N	N(10)	N(50)	20	N	<u>100</u>	N(500)	200	50

Table 2 (cont.)

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	AA-PERZ	AA-MIGZ	AA-GAZ	AA-T1 Z	AA-MN ppm	S-AG	S-AS	S-B	S-BA
4.16	67 25 26	151 55 12	1.96	.28	1.37	-.16	720	N(2)	N(1000)	5	N(1000)
4.17	67 19 38	151 44 29	11.2	3.49	3.92	1.03	2,960	2	N(1000)	5	N(1000)
4.18	67 10 24	152 44 54	5.81	5.77	8.96	-.66	1,120	2	N(1000)	5	N(1000)
4.19	67 17 05	151 36 06	13.3	2.62	5.85	<u>1.90</u>	2,000	2	N(1000)	5	N(1000)
4.20	67 16 37	151 46 58	3.85	.89	8.12	-.32	1,120	N(2)	N(1000)	50	N(1000)
4.21	67 19 21	151 20 33	1.75	.19	.70	.16	240	N(2)	N(1000)	10	N(1000)
4.22	67 11 51	152 36 36	1.68	.26	.21	.12	370	N(2)	N(1000)	10	N(1000)
4.23	67 11 26	152 35 18	.28	.04	.04	.08	80	N(2)	N(1000)	10	N(1000)
4.24	67 11 15	152 34 48	1.19	.28	.84	.27	240	N(2)	N(1000)	50	N(1000)
4.25	67 30 18	152 15 42	9.87	4.75	5.74	.59	1,680	2	N(1000)	5	N(1000)
4.26	67 08 31	152 55 42	.91	.24	.01	.13	<(100)	N(2)	N(1000)	10	N(1000)
4.27	67 08 30	152 55 30	.49	.10	N	.07	<(100)	N(2)	N(1000)	5	N(1000)
4.28	67 08 23	152 53 30	.84	.06	.01	.12	80	N(2)	N(1000)	5	1000
4.29	67 08 12	152 53 27	1.26	.12	.01	.12	80	N(2)	N(1000)	20	N(1000)
4.30	67 06 30	152 17 00	8.68	1.90	5.39	.84	1,200	2	N(1000)	20	N(1000)
4.31	67 06 18	152 18 30	7.49	2.16	13.44	1.02	88	N(2)	N(1000)	30	N(1000)
4.32	67 27 26	151 41 45	4.06	1.10	1.47	.30	1,680	2	N(1000)	50	N(1000)
4.33	67 21 42	151 40 58	8.82	<u>5.22</u>	1.96	<u>1.12</u>	640	2	N(1000)	5	N(1000)
4.34	67 30 39	152 22 15	3.92	<u>1.36</u>	6.09	.26	1,120	N(2)	N(1000)	20	N(1000)
4.35	67 30 51	152 22 00	1.47	.20	.03	.09	80	N(2)	N(1000)	20	1000
4.36	67 31 11	152 21 37	1.82	.14	7.84	.18	1,200	N(2)	N(1000)	10	N(1000)
4.37	67 13 48	152 25 54	6.30	1.62	.63	.66	1,040	2	N(1000)	100	N(1000)
4.38	67 12 18	152 23 00	8.33	<u>6.12</u>	7.42	.68	1,760	2	N(1000)	5	N(1000)
4.39	67 11 30	152 36 06	6.72	<u>4.98</u>	3.85	.47	480	2	N(1000)	N(5)	N(1000)
4.40	67 11 12	152 36 24	.56	.08	<.05	.07	<(100)	N(2)	N(1000)	5	N(1000)
4.41	67 20 42	151 41 42	4.13	1.08	.84	-.55	720	N(2)	N(1000)	5	N(1000)
4.42	67 23 09	152 14 00	10.08	3.12	8.05	<u>1.44</u>	2,080	N(2)	N(1000)	N(5)	N(1000)
4.43	67 11 36	151 18 00	5.67	2.52	7.00	-.65	960	N(2)	N(1000)	N(5)	N(1000)
4.44	67 06 39	151 11 00	7.21	2.94	6.79	<u>1.16</u>	1,680	2	N(1000)	5	N(1000)
4.45	67 20 42	151 53 19	5.39	2.16	.12	-.50	480	N(2)	N(1000)	100	N(1000)
4.46	67 19 45	151 47 36	8.75	2.10	5.32	.99	1,360	2	N(1000)	10	N(1000)
4.47	67 19 42	151 46 55	9.73	2.28	6.82	1.27	2,000	2	N(1000)	5	N(1000)
4.48	67 24 51	151 59 54	8.61	3.96	5.95	<u>1.23</u>	1,600	2	N(1000)	N(5)	N(1000)
4.49	67 28 51	152 38 06	<u>18.83</u>	1.00	.08	-.02	6,320	2	N(1000)	N(5)	N(1000)
4.50	67 34 32	151 38 36	<u>3.85</u>	.93	3.96	.20	<u>300</u>	2	N(1000)	20	N(1000)

Table 2 (cont.)

Sample	S-BE	S-B1	S-C1	S-C0	S-CR	S-CU	S-LA	S-M0	S-NB	S-NI
4.10	N	N(20)	N(200)	N(10)	N(20)	5	N(500)	N(20)	N(200)	5
4.17	N	N(20)	N(200)	30	50	20	N(500)	N(20)	N(200)	5
4.18	N	N(20)	N(200)	30	500	30	N(500)	N(20)	N(200)	50
4.19	N	N(20)	N(200)	20	20	10	N(500)	N(20)	N(200)	7
4.20	2	N(20)	N(200)	10	20	10	N(500)	N(20)	N(200)	7
4.21	2	N(20)	N(200)	10	150	2	N(500)	$\frac{30}{N(20)}$	N(200)	70
4.22	1	N(20)	N(200)	N(10)	N(20)	7	N(500)	$\frac{30}{N(20)}$	N(200)	5
4.21	N	N(20)	N(200)	N(10)	N(20)	N(2)	N(500)	N(20)	N(200)	5
4.24	1	N(20)	N(200)	N(10)	700	10	N(500)	$\frac{30}{N(20)}$	N(200)	300
4.25	N	N(20)	N(200)	50	20	100	N(500)	N(20)	N(200)	20
4.26	$\frac{5}{3}$	N(20)	N(200)	N(10)	100	N(2)	N(500)	N(20)	N(200)	20
4.27		N(20)	N(200)	N(10)	20	N(2)	N(500)	N(20)	N(200)	5
4.28		N(20)	N(200)	N(10)	50	2	N(500)	N(20)	N(200)	7
4.29		N(20)	N(200)	N(10)	20	2	N(500)	N(20)	N(200)	10
4.30	N	N(20)	N(200)	20	20	150	N(500)	N(20)	N(200)	10
4.31	N	N(20)	N(200)	20	200	50	N(500)	N(20)	N(200)	50
4.32	N	N(20)	N(200)	10	50	50	N(500)	N(20)	N(200)	20
4.33	N	N(20)	N(200)	50	50	7	N(500)	N(20)	N(200)	50
4.34	N	N(20)	N(200)	20	20	15	N(500)	N(20)	N(200)	15
4.35	N	N(20)	N(200)	N(10)	20	2	N(500)	N(20)	N(200)	5
4.36	N	N(20)	N(200)	N(10)	50	2	N(500)	N(20)	N(200)	10
4.37	N	N(20)	N(200)	20	100	50	N(500)	N(20)	N(200)	20
4.38	N	N(20)	N(200)	50	100	200	N(500)	N(20)	N(200)	20
4.39	N	N(20)	N(200)	30	200	20	N(500)	N(20)	N(200)	15
4.40	N	N(20)	N(200)	N(10)	50	2	N(500)	N(20)	N(200)	10
4.41	N	N(20)	N(200)	10	100	30	N(500)	N(20)	N(200)	10
4.42	N	N(20)	N(200)	50	200	70	N(500)	N(20)	N(200)	20
4.43	N	N(20)	N(200)	70	200	50	N(500)	N(20)	N(200)	10
4.44	N	N(20)	N(200)	20	100	50	N(500)	N(20)	N(200)	10
4.45	N	N(20)	N(200)	10	100	10	N(500)	N(20)	N(200)	20
4.46	N	N(20)	N(200)	20	100	10	N(500)	N(20)	N(200)	10
4.47	N	N(20)	N(200)	20	200	5	N(500)	N(20)	N(200)	20
4.48	N	N(20)	N(200)	50	200	30	N(500)	N(20)	N(200)	100
4.49	N	N(20)	N(200)	N(10)	300	10	N(500)	N(20)	N(200)	20

Table 2 (cont.)

Sample	S-P3	S-S3	S-SC	S-SN	S-V	S-W	S-Y	S-ZN	S-ZR	S-GA
4.16	20	N	N(10)	N(50)	50	N	$\frac{100}{N(100)}$	N(500)	200	N(5)
4.17	N(20)	N	N(10)	N(50)	$\frac{700}{500}$	N	N(100)	N(500)	200	20
4.18	20	N	N(10)	N(50)	500	N	N(100)	N(500)	N(200)	20
4.19	N(20)	N	15	N(50)	$\frac{1,000}{200}$	N	N(100)	N(500)	N(200)	10
4.20	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	200	5
4.21	20	N	N(10)	N(50)	50	N	N(100)	N(500)	200	15
4.22	100	N	N(10)	N(50)	50	N	N(100)	N(500)	300	10
4.23	20	N	N(10)	N(50)	20	N	N(100)	N(500)	300	5
4.24	50	N	N(10)	N(50)	100	N	N(100)	N(500)	700	15
4.25	20	N	10	N(50)	300	N	N(100)	N(500)	300	10
4.26	100	N	N(10)	N(50)	20	N	N(100)	N(500)	$\frac{500}{200}$	5
4.27	20	N	N(10)	N(50)	20	N	N(100)	N(500)	$\frac{500}{500}$	5
4.28	$\frac{200}{20}$	N	N(10)	N(50)	20	N	N(100)	N(500)	$\frac{500}{200}$	N(5)
4.29	20	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	200	N(5)
4.30	N(20)	N	N(10)	N(50)	500	N	N(100)	N(500)	N(200)	20
4.31	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	N(200)	20
4.32	N(20)	N	N(10)	N(50)	150	N	N(100)	N(500)	200	10
4.33	N(20)	N	10	N(50)	500	N	N(100)	N(500)	200	10
4.34	20	N	N(10)	N(50)	150	N	N(100)	N(500)	200	N(5)
4.35	20	N	N(10)	N(50)	50	N	N(100)	N(500)	200	N(5)
4.36	20	N	N(10)	N(50)	200	N	N(100)	N(500)	200	N(5)
4.37	N(20)	N	10	N(50)	300	N	N(100)	N(500)	N(200)	20
4.38	N(20)	N	20	N(50)	$\frac{1,000}{1,000}$	N	N(100)	N(500)	N(200)	20
4.39	20	N	10	N(50)	$\frac{1,000}{20}$	N	N(100)	N(500)	200	20
4.40	20	∞	N(10)	N(50)	20	N	N(100)	N(500)	N(200)	20
4.41	200	N	N(10)	N(50)	300	N	N(100)	N(500)	200	50
4.42	N(20)	N	N(10)	N(50)	500	N	N(100)	N(500)	N(200)	20
4.43	N(20)	N	N(10)	N(50)	$\frac{1,000}{1,000}$	N	N(100)	N(500)	200	50
4.44	N(20)	N	N(10)	N(50)	100	N	$\frac{100}{N(100)}$	N(500)	$\frac{500}{200}$	70
4.45	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	200	30
4.46	N(20)	N	N(10)	N(50)	$\frac{700}{700}$	N	N(100)	N(500)	N(200)	50
4.47	N(20)	N	N(10)	N(50)	$\frac{500}{500}$	N	N(100)	N(500)	N(200)	20
4.48	N(20)	N	N(10)	N(50)	20	N	N(100)	N(500)	N(200)	20
4.49	N(20)	N	N(10)	N(50)	20	N	N(100)	N(500)	N(200)	10
4.50	20	N	N(10)	N(50)	500	N	N(100)	N(500)	N(200)	20

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	AA-FEZ	AA-HCZ	AA-CAZ	AA-TLZ	AA-MN ppm	S-AG	S-AS	S-B	S-BA
451	67 14 12	151 38 30	5.11	2.22	6.58	.38	1,360	2	N(1000)	50	N(1000)
452	67 25 35	152 51 06	.42	.01	.07	.08	80	N(2)	N(1000)	10	N(1000)
453	67 25 12	152 51 46	1.19	.06	8.05	.66	160	N(2)	N(1000)	5	N(1000)
454	67 25 15	152 56 33	.70	.01	<.05	.04	80	N(2)	N(1000)	10	N(1000)
455	67 24 44	152 53 26	1.56	.03	.02	.06	80	N(2)	N(1000)	60	N(1000)
456	67 23 31	152 57 12	1.75	.03	.07	.16	80	N(2)	N(1000)	5	N(1000)
457	67 15 04	151 35 18	3.08	2.88	3.71	.37	400	N(2)	N(1000)	30	N(1000)
458	67 14 51	151 34 54	3.57	3.18	15.40	.28	560	N(2)	N(1000)	10	N(1000)
459	67 19 00	151 31 12	3.78	1.18	2.10	.43	1,200	N(2)	N(1000)	30	N(1000)
460	67 18 39	151 28 30	.56	.05	<.05	.09	80	N(2)	N(1000)	70	1,000
461	67 20 45	151 22 12	6.44	3.12	3.50	.53	1,120	N(2)	N(1000)	N(5)	N(1000)
462	67 21 36	151 17 00	3.36	1.08	15.75	.30	720	N(2)	N(1000)	30	N(1000)
463	67 19 45	151 18 12	2.03	.30	.30	.20	640	N(2)	N(1000)	50	N(1000)
464	67 19 18	151 20 18	.98	.04	<.05	.06	80	N(2)	N(1000)	20	N(1000)
465	67 19 24	151 20 30	1.89	.22	.01	.16	400	N(2)	N(1000)	15	N(1000)
466	67 19 00	151 21 36	1.96	.21	<.05	.14	400	N(2)	N(1000)	15	N(1000)

Sample	S-BE	S-BJ	S-CB	S-CO	S-CK	S-CU	S-IA	S-MO	S-NH	S-NI
451	N	N(20)	N(200)	20	200	2	N(500)	N(20)	N(200)	50
452	N	N(20)	N(200)	N(10)	N(20)	2	N(500)	N(20)	N(200)	10
453	N	N(20)	N(200)	N(10)	N(20)	2	N(500)	N(20)	N(200)	10
454	N	N(20)	N(200)	N(10)	N(20)	2	N(500)	N(20)	N(200)	5
455	N	N(20)	N(200)	N(10)	50	2	N(500)	N(20)	N(200)	10
456	N	N(20)	N(200)	10	500	7	N(500)	N(20)	N(200)	<u>200</u>
457	1	N(20)	N(200)	10	500	7	N(500)	N(20)	N(200)	100
458	1	N(20)	N(200)	N(10)	200	10	N(500)	N(20)	N(200)	10
459	1	N(20)	N(200)	N(10)	100	15	N(500)	N(20)	N(200)	20
460	2	N(20)	N(200)	N(10)	200	7	N(500)	N(20)	N(200)	70
461	N	N(20)	N(200)	10	500	170	N(500)	N(20)	N(200)	70
462	N	N(20)	N(200)	N(10)	200	2	N(500)	N(20)	N(200)	30
463	2	N(20)	N(200)	N(10)	300	5	N(500)	N(20)	N(200)	70
464	2	N(20)	N(200)	N(10)	200	2	N(500)	N(20)	N(200)	70
465	2	N(20)	N(200)	N(10)	200	2	N(500)	N(20)	N(200)	70
466	1	N(20)	N(200)	N(10)	200	2	N(500)	N(20)	N(200)	70

Table 2 (cont.)

Table 2 (cont.)

Sample	S-PB	S-SB	S-SC	S-SN	S-V	S-W	S-Y	S-2N	S-2K	S-GA
4.51	20	N	N(10)	N(50)	500	N	N(100)	N(500)	200	20
4.52	N(20)	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	N(200)	N(5)
4.53	N(20)	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	N(200)	N(5)
4.54	20	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	N(200)	N(5)
4.55	20	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	200	15
4.56	N(20)	N	N(10)	N(50)	50	N	N(100)	N(500)	200	10
4.57	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	300	30
4.58	N(20)	N	N(10)	N(50)	150	N	N(100)	N(500)	N(200)	15
4.59	N(20)	N	N(10)	N(50)	200	N	N(100)	N(500)	200	10
4.60	20	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	300	20
4.61	N(20)	N	N(10)	N(50)	400	N	N(100)	N(500)	N(200)	20
4.62	20	N	N(10)	N(50)	200	N	N(100)	N(500)	<u>500</u>	10
4.63	20	N	N(10)	N(50)	50	N	N(100)	N(500)	<u>500</u>	15
4.64	20	N	N(10)	N(50)	N(20)	N	N(100)	N(500)	N(200)	20
4.65	50	N	N(10)	N(50)	100	N	N(100)	N(500)	<u>500</u>	20
4.66	20	N	N(10)	N(50)	50	N	N(100)	N(500)	<u>500</u>	10

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	S-PWZ	S-NGZ	S-TLZ	S-SIN	AA-AG	AA-AS	AA-AU	S-CO
467	67 18 24	151 14 12	7.0	3.0	.07	700	2.1	500	.43	150
468	67 18 30	151 14 18	5.0	2.0	.07	500	2.9	6,700	.88	300
469	67 18 30	151 14 18	7.0	3.0	.07	700	3.9	7,700	8.28	300
470	67 18 30	151 14 18	7.0	2.0	.05	500	2.8	518	.54	200
471	67 18 30	151 14 18	5.0	2.0	.20	500	5.6	82,000	2.45	700
472	67 18 18	151 14 34	5.0	2.0	1.0	1,500	1.2	68	.01	20
473	67 13 48	151 16 48	5.0	3.0	2.0	2,000	.4	7	.00	20
474	67 18 06	151 14 42	1.5	5.0	1.0	700	.5	5	.02	30
475	67 18 06	151 14 42	2.0	5.0	1.0	700	.2	140	.01	30
476	67 14 42	151 40 30	5.0	2.0	.3	1,000	.2	10	.00	30
477	67 25 36	151 16 54	5.0	2.0	.5	1,000	11.0	3	.07	30
478	67 26 40	151 28 30	7.0	7.0	.1	>5000	2.2	37	.40	30
479	67 38 04	152 14 18	10.0	1.0	.03	1,000	.2	237	.01	70
480	67 23 54	152 40 06	10.0	.2	.05	500	37.7	130,000	1.22	70

Sample	S-CR	AA-CU	AA-MU	AA-NL	AA-PB	AA-ZN	AA-SB	S-SN	S-H
667	<10	<u>1,365</u>	1	136	83	<u>329</u>	0	<u>50</u>	N(50)
668	<10	<u>923</u>	3	97	118	<u>11</u>	18	N(20)	N(50)
669	<10	<u>1,309</u>	1	100	135	74	6	N(20)	N(50)
670	<10	<u>1,360</u>	1	49	<u>52</u>	37	4	N(20)	N(50)
671	<10	<u>1,260</u>	4	99	102	12	70	N(20)	N(50)
672	<10	<u>1,051</u>	2	9	7	35	6	N(20)	N(50)
673	<10	<u>65</u>	1	42	22	108	0	N(20)	N(50)
674	<10	<u>493</u>	0	44	11	7	0	N(20)	N(50)
675	<10	<u>50</u>	0	20	10	29	0	N(20)	N(50)
676	<10	<u>27</u>	2	4	10	101	0	N(20)	N(50)
677	<10	<u>1,360</u>	<u>320</u>	24	20	62	0	N(20)	N(50)
678	200	<u>30</u>	1	2	<u>200</u>	<u>103,000</u>	0	N(20)	N(50)
679	100	<u>41</u>	<u>18</u>	103	<u>10</u>	<u>288</u>	34	N(20)	N(50)
680	70	<u>330</u>	1	5	<u>18,266</u>	<u>18,317</u>	<u>315</u>	N(20)	N(50)

Table 2 (cont.)

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	S-PERZ	S-MCZ	S-CAZ	S-TLZ	S-MN	AA-AG	S-AS	S-AU	AA-AU	S-B
481	67 32 15	151 29 27	1	.05	5	.005	1,000	3.1	N(500)	N	.14	100
482	67 32 27	151 28 57	1	.05	.2	.01	100	-	N(500)	N	N(0.1)	50
483	67 31 45	151 31 40	5	2	10	.05	1,000	0.6	N(500)	N	N(0.1)	500
484	67 33 32	151 31 00	1	.05	2	.005	200	-	N(500)	N	N(0.1)	50
485	67 33 36	151 30 51	5	2	10	.1	1,000	0.6	N(500)	N	.08	200
486	67 31 21	151 33 12	5	5	10	.02	5,000	1.1	N(500)	N	N(0.1)	500
487	67 31 18	151 33 27	1	.05	.5	.005	200	0.3	N(500)	N	N(0.1)	50
488	67 32 14	151 35 18	1	.05	10	.01	2,000	-	N(500)	N	N(0.1)	200
489	67 31 45	151 35 15	2	.2	5	.01	1,000	0.6	N(500)	N	N(0.1)	100
490	67 31 21	151 35 18	5	5	10	.2	2,000	0.4	N(500)	N	N(0.1)	200
491	67 31 22	151 35 05	5	2	5	.1	2,000	0.6	N(500)	N	N(0.1)	200
492	67 31 22	151 35 05	10	2	.5	1	1,000	0.4	N(500)	N	N(0.1)	100
493	67 31 18	151 35 15	5	2	5	.2	2,000	31.0	500	N	.52	200
494	67 28 57	151 40 48	1	.05	.5	.01	200	0.3	N(500)	N	N(0.1)	50
495	67 28 40	151 41 00	5	5	10	.2	5,000	2.4	N(500)	N	N(0.1)	200
496	67 26 34	151 37 06	2	10	20	.2	200	1.3	N(500)	N	N(0.1)	100
497	67 26 34	151 37 06	2	10	20	.2	200	1.0	N(500)	N	N(0.1)	100
498	67 28 25	151 33 30	1	.10	.2	.01	200	-	N(500)	N	N(0.1)	50
499	67 28 24	151 28 42	5	5	10	.2	2,000	1.3	N(500)	N	0.08	200
500	67 28 24	151 28 42	1	.2	1	.01	200	4.1	N(500)	N	N(0.1)	100
501	67 28 33	151 29 02	1	.05	1	N	500	0.3	N(500)	N	.10	50
502	67 28 36	151 28 48	2	1	.1	1	500	14.0	N(500)	N	N(0.1)	100
503	67 29 46	151 30 28	1	.05	.2	.005	200	13.0	N(500)	N	6.5	50
504	67 29 58	151 30 42	1	.05	.05	N	200	-	N(500)	N	N(0.1)	50

Sample	S-BA	S-DE	S-BI	S-CD	S-OD	S-CR	S-CU	AA-CU	S-LA	S-MO	S-NB	S-NI
481	50	N	N(5)	N(100)	10	200	$\frac{2,000}{20}$	$\frac{2,700}{22}$	20	5	N	10
482	100	N	N(5)	N(100)	10	100	20	22	20	N	10	10
483	100	N	N(5)	N(100)	10	100	20	21	50	N	10	10
484	100	N	N(5)	N(100)	10	200	20	21	20	5	10	50
485	200	N	N(5)	N(100)	20	100	10	15	20	N	10	20
486	20	1	N(5)	N(100)	20	200	50	36	N	5	20	20
487	50	1	N(5)	N(100)	N(10)	200	10	14	N	10	$\frac{20}{10}$	20
488	100	1	N(5)	N(100)	N(10)	200	10	11	20	5	N	10
489	100	N	N(5)	N(100)	10	200	10	12	N	5	10	20
490	500	1	N(5)	N(100)	20	100	50	40	N	N	$\frac{20}{20}$	20
491	100	N	N(5)	N(100)	10	100	20	18	N	5	10	10
492	200	N	N(5)	N(100)	50	500	10	17	20	10	20	50
493	100	1	$\frac{20}{N(5)}$	N(100)	10	200	$\frac{10,000}{200}$	$\frac{9,700}{12}$	N	10	$\frac{20}{20}$	50
494	50	N	N(5)	N(100)	N(10)	200	200	12	N	10	N	20
495	200	N	N(5)	N(100)	50	100	$\frac{2,000}{2,000}$	$\frac{2,100}{2,100}$	20	5	10	20
496	20	N	N(5)	N(100)	50	500	20	16	50	N	10	$\frac{200}{100}$
497	50	N	N(5)	N(100)	20	500	5	7	50	N	10	100
498	50	N	N(5)	N(100)	10	200	20	35	20	10	N	20
499	100	N	N(5)	N(100)	20	100	$\frac{1,000}{5,000}$	600	N	10	10	20
500	50	N	N(5)	N(100)	10	100	$\frac{5,000}{5,000}$	$\frac{3,900}{3,900}$	20	5	10	20
501	20	N	N(5)	N(100)	10	200	10	18	20	N	10	20
502	50	2	N(5)	N(100)	20	200	- - -	$\frac{21,000}{2,400}$	20	5	$\frac{20}{10}$	20
503	20	N	N(5)	N(100)	10	100	$\frac{2,000}{2,000}$	$\frac{2,400}{17}$	20	N	N	10
504	20	N	N(5)	N(100)	10	100	20	17	20	5	N	20

Table 2 (cont.)

Sample	S-PB	AA-PB	S-SB	S-SC	S-SN	S-SK	S-V	S-M	S-Y	S-ZN	AA-ZN	S-ZK
181	N	15	N	N	N	100	N	N	N	N(100)	6	N(20)
482	N	3	N	N	N	50	10	N	N	N(100)	5	N(20)
483	10	12	N	10	N	500	20	N	20	100	30	20
484	N	3	100	N	N	50	10	N	N	100	7	N(20)
485	10	11	N	10	N	200	50	N	200	100	43	20
486	10	21	N	20	N	500	50	N	20	100	56	N(20)
487	N	2	100	11	N	50	10	N	N	N(100)	8	N(20)
488	N	8	50	10	N	200	10	N	20	N(100)	8	N(20)
489	50	68	50	N	N	100	10	N	N	100	18	N(20)
490	20	20	N	20	N	200	100	N	10	100	60	100
491	20	68	N	10	N	200	50	N	10	100	40	50
492	10	8	100	20	N	100	20	N	20	100	67	100
493	2,000	2,400	10,000	10	N	200	50	N	10	1,000	1,000	200
494	N	68	N	N	N	50	10	N	N	N(100)	18	N(20)
495	20	22	N	10	N	200	50	N	50	100	70	100
496	N	27	N	10	N	100	20	N	N	100	20	50
497	N	23	50	10	N	100	20	N	10	100	25	20
498	N	2	50	N	N	50	10	N	N	N(100)	8	N(20)
499	20	18	N	20	N	200	100	N	20	N(100)	47	100
500	N	6	50	N	N	100	10	N	N	100	15	N(20)
501	N	3	50	N	N	50	50	N	N	N(100)	7	N(20)
502	10	7	2,000	20	N	100	100	N	20	100	65	200
503	N	N	2,000	N	N	50	10	N	N	200	250	N(20)
504	N	N(5)	50	N	N	50	10	N	N	100	7	N(20)

Sample	LATITUDE	LONGITUDE	MOISTURE (%)	VOLATILES (%)	CARBON (%)	ASH (%)
505a	67 05 17	151 27 56	1.9	31.2	28.6	38.3
506a	67 07 32	151 53 39	--	--	--	75.6
507a	67 06 14	151 54 08	1.2	20.9	25.9	52.0

a) samples 505-507 are from weathered outcrops of carbonaceous shale. No effort was made to avoid sampling oxidized material from the outcrop or to prevent subsequent oxidation. Maturity of organic material has not been determined by reflectance studies. High ash contents would prevent agglomeration. Only the -160. mesh fraction of sample 79 Dn 79 was ranked as coal. Fossil plants are late Albian in age.

Table 2 (cont.)

Sample	LATITUDE	LONGITUDE	AA-FEZ	S-NG%	TL%	AA-MN	AA-AG	S-AS	AA-AU	S-B	S-BE	S-BI
508	67 21 12	152 21 55	3.3	1.0	1.0	149	1.1	N(500)	N(.04)	50	2	N(20)
509	67 16 36	152 24 18	3.2	1.0	1.0	1,040	0.6	N(500)	N(.04)	30	N	N(20)
510	67 17 18	152 51 58	4.4	>1.0	1.0	244	0.9	N(500)	N(.04)	30	N	N(20)
511	67 10 22	152 38 30	70.0	0.2	0.3	17,500	1.8	N(500)	N(.04)	70	1	—
512	67 26 17	152 28 8	1.1	0.05	0.07	89	2.3	N(500)	N(.04)	50	N	N(20)
513	67 28 48	152 20 18	7.0	1.0	0.2	402	1.4	N(500)	N(.04)	70	N	N(20)
514	67 28 55	151 52 02	2.6	>1.0	1.0	169	0.9	N(500)	N(.04)	100	1	N(20)
515	67 27 45	152 43 20	62.0*	0.5	0.1	70	2.6*	N(500)	N(.04)	50	1	—
516	67 26 18	152 39 30	40.0	0.2	0.2	—	1.7	N(500)	N(.04)	50	1	—
517	67 31 40	152 19 00	3.2	>1.0	>1.0	2,100	0.8	N(500)	N(.04)	100	N	—
518	67 30 54	152 16 53	0.9	0.5	0.5	169	2.6*	N(500)	N(.04)	100	1	N(20)
519	67 17 47	152 28 10	23.0	0.3	0.15	55	1.6	N(500)	N(.04)	50	2	N(20)
Sample	LATITUDE	LONGITUDE	AA-FEZ	S-HC%	S-TL%	S-MN	S-AS	S-B	S-BE	S-BI	S-CD	S-CU
520	67 23 34	151 05 15	3.0	0.5	1.0	1,000	N(500)	20	1	N(20)	N(500)	20
521	67 13 56	152 17 12	14.0	>1.0	>1.0	>5,000	N(500)	70	1	50	N(500)	50
522	67 10 24	152 26 20	1.9	1.0	1.0	2,000	N(500)	50	2	N(20)	N(500)	20
523	67 09 48	152 19 24	5.7	1.0	1.0	2,000	N(500)	20	2	N(20)	N(500)	20
524	67 12 48	152 35 00	3.5	1.0	0.2	500	N(500)	20	1	N(20)	N(500)	20
525	67 11 33	152 34 00	1.9	>1.0	>1.0	700	N(500)	50	5	N(20)	N(500)	N(20)
526	67 10 30	152 36 42	2.5	1.0	1.0	1,000	N(500)	30	2	N(20)	N(500)	N(20)
527	67 10 30	152 36 42	9.7	>1.0	>1.0	5,000	N(500)	30	1	50	N(500)	50
528	67 22 42	152 32 27	2.4	0.5	0.5	500	N(500)	50	2	N(20)	N(500)	N(20)
529	67 28 40	152 23 36	10.3	>1.0	>1.0	>5,000	N(500)	>5	1	20	N(500)	30
530	67 16 42	152 24 24	12.1	>1.0	>1.0	1,500	N(500)	15	2	N(20)	N(500)	50
531	67 27 45	152 43 00	0.9	0.3	0.3	1,500	N(500)	70	5	N(20)	N(500)	N(20)
532	67 27 26	152 33 06	5.0	>1.0	>1.0	3,000	N(500)	50	1	N(20)	N(500)	20
533	67 35 18	152 14 18	9.3	>1.0	>1.0	3,000	N(500)	20	N	20	N(500)	70
534	67 35 18	152 14 18	7.8	>1.0	>1.0	3,000	N(500)	10	N	N(20)	N(500)	50
535	67 35 18	152 14 18	11.1	>1.0	>1.0	5,000	N(500)	10	N	N(20)	N(500)	70
536	67 32 06	152 16 06	16.2	>1.0	>1.0	3,000	N(500)	20	1	20	N(500)	50

*Determinations are on roasted sample material.

Table 2 (cont.)

Sample	S-Cu	S-Co	S-Cr	AA-Cu	AA-Mo	S-Ni	AA-Pb	AA-Sb	S-Sn	S-V	S-M	S-Y		S-W	S-Zn
508	N(500)	N(20)	N(20)	56	3	$\frac{300}{200}$	29	40	N(20)	300	N(100)			N(100)	N(200)
509	N(500)	30	300	21	2	$\frac{78}{50}$	78	70	N(20)	300	N(100)			N(100)	N(200)
510	N(500)	N(20)	2,000	31	3	50	36	44	N(20)	500	N(100)			N(100)	N(200)
511	N(500)	N(20)	--	27	1	100	40	22	$\frac{70}{20}$	100	N(100)			$\frac{200}{200}$	N(200)
512	N(500)	N(20)	$\frac{1,370}{1}$	N(1)	$\frac{500}{1}$	8	4	N(20)	N(20)	N(20)	N(100)			N(100)	N(200)
513	N(500)	N(20)	N(20)	70	3	10	$\frac{137}{51}$	126	N(20)	100	N(200)			200	N(200)
514	N(500)	N(20)	N(20)	29	3	$\frac{70}{200}$	51	60	N(20)	500	N(100)			N(100)	N(200)
515	N(500)	50	--	550*	N(1)*	$\frac{200}{200}$	104*	21*	N(20)	50	N(200)			200	N(200)
516	N(500)	30	--	162	N(1)	$\frac{200}{50}$	46	22	N(20)	200	N(100)			100	N(200)
517	N(500)	30	20	235	1	50	35	28	N(20)	300	N(100)			N(100)	N(200)
518	N(500)	N(20)	N(20)	$\frac{664}{23}$	N(1)	10	$\frac{61}{53}$	16	N(20)	100	N(100)			N(100)	N(200)
519	N(500)	N(20)	N(20)	23	1	50	$\frac{219}{53}$	$\frac{219}{53}$	N(20)	150	N(100)			N(100)	N(200)
Sample	S-Cr	S-Mo	S-Ni	S-Sn	S-V	S-M	S-Y			Sample	AA-Zn	S-Zn			
520	N(20)	N(10)	50	N(20)	150	N(100)	N(200)			508	24	700			
521	N(20)	N(10)	70	N(20)	700	N(100)	N(200)			509	41	200			
522	N(20)	N(10)	200	N(20)	300	N(100)	N(200)			510	58	300			
523	N(20)	N(10)	200	N(20)	300	N(100)	N(200)			511	93	N(200)			
524	N(20)	N(10)	200	N(20)	100	N(100)	N(200)			512	8	N(200)			
525	N(20)	N(10)	50	N(20)	200	N(100)	$\frac{200}{200}$			513	44	N(200)			
526	N(20)	N(10)	$\frac{500}{200}$	N(20)	100	N(100)	N(200)			514	127	300			
527	150	N(10)	$\frac{200}{150}$	N(20)	$\frac{1,000}{150}$	N(100)	N(200)			515	253	N(200)			
528	N(20)	N(10)	150	N(20)	700	N(100)	N(200)			516	67	N(200)			
529	50	N(10)	$\frac{200}{200}$	N(20)	$\frac{700}{200}$	N(100)	N(200)			517	141	200			
530	500	N(10)	$\frac{300}{700}$	N(20)	500	N(100)	N(200)			518	62	--			
531	N(20)	N(10)	700	N(20)	150	N(100)	N(200)			519	118	N(200)			
532	N(20)	N(10)	70	N(20)	700	N(100)	N(200)								
533	200	N(10)	200	N(20)	500	N(100)	N(200)								
534	50	N(10)	$\frac{200}{200}$	N(20)	$\frac{700}{200}$	N(100)	N(200)								
535	$\frac{1,000}{500}$	N(10)	300	N(20)	$\frac{1,000}{1,000}$	N(100)	N(200)								
536	500	N(10)	500	N(20)	$\frac{1,000}{1,000}$	N(100)	N(200)								

*Determinations are on roasted sample material.

Table 3. Description of rock samples. Column 1 lists sample numbers used on plate 1. Column 2 shows elements present in anomalously high concentrations. '*' indicates atomic-absorption-spectrophotometry analysis; all others analyzed by semiquantitative emission spectroscopy. Columns 3 and 4 show coordinates of sample locality. Columns 6 and 7 indicate sample type and source. Column 8 is a hand specimen and, for most samples, petrographic description of the rock. Column 9 is a description of ore minerals detected in outcrop, hand specimen, and thin or polished section and any remarks about outcrop relationships or age of rock unit. Minerals in rock descriptions are listed in order of increasing abundance followed by rock name.

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Outcrop	Rock description	Nature of mineralization and remarks
					A, Chip	B Composite			
1		67 17 05N	151 36 06W	77 Dnx 19	A	A	A	Rusty, dense, medium-grained, calcite-garnet-epidote-albite greenschist.	Rust may come from pyrite or magnetite.
2		67 16 37N	151 46 48W	77 Dnx 20	A	A	A	Red-gray, medium-grained, biotite-muscovite-quartz-feldspar schist.	Pyrrhotite or magnetite lensed 2 cm in diameter with leache rims.
3		67 16 30N	151 42 30W	77 Dnx 23	A	A	A	Rusty, gray, coarse-grained, muscovite-feldspar-quartz schist.	Limonite.
4		67 16 03N	151 41 42W	77 Dnx 25	A	A	A	Gray, medium-grained, calcite-muscovite-quartz schist with graphitic-schist lenses.	Contains small lenses of oxidized sulfides.
5		67 14 36N	151 41 06W	77 Dnx 29	A	A	A	Pale-green, fine-grained, talc-quartz schist.	Some oxidized pyrite.
6	Ba	67 17 00N	151 41 09W	77 Dnx 30	A	A	A	Dark-gray, medium-grained, muscovite-quartz schist with graphitic-schist lenses.	Sample from gossan.
7		67 17 12N	151 40 00W	77 Dnx 31	A	A	A	Medium-grained, calcite-muscovite-quartz schist with small graphitic-schist lenses.	Sample from unit with numerous small gossans.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
8		57 27 26N	151 41 48W	77 Dnx 46	A	A	Fine-grained, actinolite-chlorite greenschist with carbonate interlayers.	Associated with ferruginous dolomite.
9		67 30 38N	151 55 33W	77 Dnx 49	A	A	Pale-green, fine-grained, chlorite-calc-quartz schist with 1% sulfides.	Sulfide is probably oxidized pyrite.
10	Cu	67 31 12N	151 57 06W	77 Dnx 51	A	A	Silver-gray, fine-grained, muscovite-quartz metasiltstone.	Malachite staining and disseminated, partly oxidized copper sulfides.
11	Cu, Mo	67 30 38N	151 57 33W	77 Dnx 52	A	A	Synmetamorphic(?) quartz veins with malachite, bornite, and galena cutting calcite-quartz schist.	Stockwork of quartz veins, some disseminated minerals in schist.
12		67 13 03N	152 36 48W	77 Dnx 65	B	A	Rusty, medium-grained, garnet-muscovite-quartz-albite schist.	Sample from iron-stained zone.
13		67 12 49N	152 36 15W	77 Dnx 66	B	A	Quartz veins in fuchsite-garnet-quartz-feldspar schist.	Chip sample of gossan associated with quartz-vein stockwork.
14	Ba, Mo, V, Zn, Zn*	67 11 01N	152 34 45W	77 Dnx 73	A	A	Black, fine-grained, graphitic muscovite-albite-quartz schist.	Contains about 3% disseminated, oxidized sulfides.
15		67 19 13N	151 43 06W	77 Dnx 80	A	A	Gray, fine-grained, chlorite-silpnomelane-feldspar-quartz schist.	Contains about 2% disseminated, oxidized sulfides.
16	Mn, Cu	67 19 28N	151 40 24W	77 Dnx 83	A	D	Stream boulder of quartz vein.	Contains about 10% disseminated pyrrhotite altered to marcasite; also a trace of chalcopyrite and sphalerite(?).

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					Composite	Chip	Outcrop		
					C	B	A		
							Float		
							D		
17		67 27 16N	151 42 12W	77 Dux 87	A			Stream boulder of interlayered specular marble and dolomite.	Disseminated specular hematite in marble layers, disseminated pencil ore in dolomite.
18	As	67 26 50N	151 43 24W	77 Dux 89	A		A	White, medium-grained, pyrite-muscovite marble.	Contains pyrite or chalcopyrite.
19		67 29 43N	152 16 33W	77 Dux 96	A		A	White, fine-grained, calcareous quartzite.	Contains disseminated hematite.
20	As, Pb, Cu, Ni	67 28 05N	152 16 18W	77 Dux 98	A		D	Red, medium-grained, fuchsite-quartz dolomite.	Contains about 1% disseminated arsenopyrite or galena plus some pyrite with chalcopyrite cores.
21		67 26 33N	152 13 00W	77 Dux 100	A		A	White, medium-grained, muscovite marble.	4% oxidized pyrite + pyrrhotite + rutile.
22	Zn	67 26 28N	152 11 18W	77 Dux 101	A		A	Cream, pyrite-talc pyllite from dolomite section.	Contains disseminated pyrite.
23		67 21 01N	152 17 48W	77 Dux 102	A		A	Gray, coarse-grained, granite orthogneiss.	
24		67 20 49N	152 13 56W	77 Dux 106	A		A	Banded, gray and white, medium-grained, pyritic marble.	
25		67 20 48N	152 14 06W	77 Dux 107	A		A	Gray, medium-grained, biotite-muscovite-quartz-feldspar schist.	From contact zone of granite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Group		Field #	Outcrop		Nature of mineralization and remarks
				A, Chip	B, Composite		A, Flow	D	
26		67 20 45N	152 14 09W	A	A	77 Dnx 108	A	A	Sample taken in granite near contact.
27	Pb, Zn, Zn*	67 10 30N	152 49 02W	B	B	77 Dnx 112	A	A	Ferrite-enriched outcrop. Possible vein mineralization.
28		67 10 30N	152 48 54W	A	A	77 Dnx 113	A	A	Contains sulfides in vuggy quartz veins and as disseminated grains.
29	Zn*	67 11 11N	152 49 24W	B	B	77 Dnx 117x	A	A	Chip sample from 5- to 20-cm-thick zone of ferrite in graphitic schist just above felsic schist.
30		67 11 11N	152 49 24W	A	A	77 Dnx 117y	A	A	Grab samples across graphitic schist-ferrite-felsic schist zone.
31		67 03 48N	152 53 48W	A	A	77 Dnx 126	A	A	Contains about 2% sulfides (pyrite?).
32		67 03 55N	152 53 54W	A	A	77 Dnx 127	A	A	Contains about 1% chalcopyrite.
33	Pb	67 18 37N	152 13 27W	A	A	77 Dnx 142	A	A	From 3-m-thick gossan.
34		67 18 50N	152 13 21W	A	A	77 Dnx 143x	A	A	Contains 2% pyrite or chalcopyrite.

Table 3 (cont.)

Sample #	Anomalies	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					Composite C	Chip B	Outcrop A		
35		67 18 50N	152 13 21W	77 Dnx 143y	A	A	A	White, fine-grained, graphitic, albite-muscovite-quartz schist.	Contains 3% pyrrhotite with trace chalcocopyrite.
36		67 18 56N	152 13 24W	77 Dnx 146	D	D	A	Graphite-albite-muscovite-quartz schist.	Chip sample of 2.5-m-thick gossan with disseminated very fine-grained in schist.
37	Y	67 18 58N	152 13 30W	77 Dnx 147	D	D	A	Black, fine-grained, graphitic phyllite with thin quartzite layers.	Chip sample of 4-m-thick gossan with disseminated pyrrhotite, pyrite, and rutile in schist. Some pyrrhotite grains include chalcocopyrite.
38		67 19 07N	152 13 21W	77 Dnx 148	A	A	A	Gray, medium-grained, pyrite-muscovite marble.	Contains pyrite and pyrrhotite.
39		67 19 21N	152 13 18W	77 Dnx 149	A	A	A	Gray, medium-grained marble.	Contains pyrite.
40	Y	67 19 36N	152 13 42W	77 Dnx 151x	A	A	A	Black, medium-grained, muscovite-albite-quartz schist.	
41		67 19 36N	152 13 42W	77 Dnx 151y	A	A	A	White, fine-grained, albite-muscovite quartzite.	2% disseminated iron sulfide.
42	Zr	67 19 55N	152 13 47W	77 Dnx 152	A	A	A	Banded, white and gray, fine-grained, chlorite-muscovite quartzite.	3% disseminated pyrite.
43	Y, Zr	67 21 07N	152 08 03W	77 Dnx 154	A	A	A	White, fine-grained quartzite.	Possible disseminated pyrrhotite.
44	Na	67 18 08N	152 17 15W	77 Dnx 157	A	A	A	Orange and white, fine-grained, muscovite-calcite quartzite.	Disseminated sphalerite(?) or hematite(?).

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
45		67 17 42N	152 18 12W	77 Dnx 158	A	A	Gray, medium-grained, epidote-albite-muscovite schist.	Contains 2% iron sulfides.
46	Mo	67 11 48N	152 09 48W	77 Dnx 162	A	A	Black, fine-grained, muscovite quartzite.	Disseminated pyrite and trace sphalerite(?).
47	Y	67 11 44N	152 03 48W	77 Dnx 164	A	A	Rusty, black, fine-grained, graphitic, muscovite-quartz schist.	Contains disseminated iron sulfides.
48	Ni	67 13 31N	151 34 09W	77 Dnx 171x	A	A	Rusty, gray-green, fine-grained, muscovite-feldspar-quartz schist.	
49		67 13 31N	151 34 09W	77 Dnx 171y	A	A	Black, fine-grained, calcareous, muscovite quartzite.	
50	Sr, Zn*	67 14 55N	151 34 39W	77 Dnx 176x	A	A	Fine-grained, actinolite marble.	Stockwork of narrow, rich, sulfide veins cut marble with a little chalcopyrite and sphalerite.
51	Po, Ag, As, Au, Bi, Sb	67 14 55N	151 34 39W	77 Dnx 176y	A	A	Gray marble.	Stockwork of postmetamorphic arsenopyrite veins to 10 cm thick with sphalerite and a trace of chalcopyrite and sphalerite.
52	As	67 17 01N	151 17 00W	77 Dnx 186	A	A	Dark-green, fine-grained, silicified pyrite-garnet greenschist.	Has disseminated pyrite, and trace sphalerite in veins.
53		67 32 30N	151 27 24W	77 Dnx 206	A	A	Banded, ochre, fine-grained, fuchsite-muscovite-dolomite-quartz metagrit.	Many outcrops have small malachite shows.
54	Pb	67 21 21N	152 58 00W	77 Dnx 208	A	A	Pale-green, fine-grained, chlorite-talc-quartz schist.	Has lenses of pyrite and galena(?) up to 6 cm long.

Table 3 (cont.)

Sample #	Anomalies	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					Composite # C	Chip B	Outcrop A		
55	Zn, Zn*	67 25 35N	152 51 06W	77 Dnx 209	A		A	Maroon, fine-grained, felsic schist.	Contains about 5% oxidized sulfides, mainly pyrite and sphalerite with possible galena.
56		67 24 47N	152 52 03W	77 Dnx 211	A		A	Banded, medium-grained, amphibole-epidote-	Contains disseminated pyrite.
57	Fe, Zn	67 24 46N	152 52 18W	77 Dnx 212	A		A	Dark-green, fine-grained, pyrite-magnetite rock.	Tactite along contact of granitic pluton has magnetite, sphalerite, and pyrite.
58		67 18 53N	151 21 30W	77 Rlx 2	A		A	Yellow-orange, medium-grained, muscovite-granite orthogneiss.	Contains oxidized iron sulfides.
59		67 18 46N	151 17 42W	77 Rlx 3	A		A	Maroon and green, medium-grained schist with 2.5-cm-thick quartz veins and much limonite.	Stockwork of >2 cm-thick quartz veins with much limonite near contact of granite.
60		67 18 08N	151 16 18W	77 Rlx 6	A		D	Kusky, medium-grained, knotty, muscovite-quartz schist with muscovite-rich lenses.	Iron stained; contains hematite(?) and limonite.
61		67 17 54N	151 43 24W	77 Rlx 7	A		A	Medium-grained marble.	Covered with malachite-rich calcite.
62		67 26 43N	151 41 06W	77 Rlx 16	A		A	Gray, fine-grained, graphitic, muscovite-quartz schist.	1% disseminated magnetite.
63		67 24 13N	151 41 36W	77 Rlx 19	A		D	Gray, fine-grained, graphitic schist.	Contains disseminated copper sulfides.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Composite	Field #	Rock description	Nature of mineralization and remarks
					A, Chip	B Outcrop				
							C	D		
64		67 24 08N	151 41 06W	77 Rix 20	A	A	A	A	Gray, fine-grained, muscovite-quartz schist with 1% oxidized pyrite.	Contains 1% oxidized pyrite.
65		67 23 01N	151 40 48W	77 Rix 21	A	A	A	A	Brown, fine-grained, calcite-muscovite quartzite.	Stained brown.
66		67 21 48N	151 42 00W	77 Rix 24	A	A	A	A	Quartz veins in a medium-grained, gray marble.	Rutile occurs along edge of quartz veins.
67		67 25 09N	151 59 30W	77 Rix 30	A	A	A	A	Fine-grained, chlorite quartzite.	Contains disseminated bornite.
68		67 30 45N	152 22 12W	77 Rix 33	A	A	A	A	White marble.	Oxidized iron sulfides, malachite and azurite on joint surfaces in marble.
69		67 31 20N	152 21 30W	77 Rix 36	A	A	A	A	Dark-gray, fine-grained, graphitic schist with limonite pseudomorphs of pyrite.	Disseminated limonite pseudomorphs of pyrite.
70		67 13 53N	152 25 39W	77 Rix 39	A	A	A	A	Rusty, gray, fine-grained, muscovite-quartz schist.	Rust stained.
71	As, Cr, Bi, Pb, Zn, Zn*	67 21 05N	151 41 36W	77 Rix 52	A	A	A	A	Tan, medium-grained, fuchsite-muscovite-calcite quartzite.	Fuchsite accounts for anomalous chromium. Some sphalerite and arsenopyrite may be present but not visible in hand specimen.
72	Fe, As	67 20 06N	151 44 30W	77 Rix 57	A	D	A	D	Kust, medium-grained, limonitic, muscovite-quartz calc-schist.	Float from gossan.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip		Outcrop A	Nature of mineralization and remarks
					Composite C	Flow D		
73		07 21 46N	151 44 30W	77 R1x 61	A	A		Orange, medium-grained, dolomite-quartz metaconglomerate.
74	U	07 21 49N	151 55 48W	77 R1x 64	A	A		Rusty, fine-grained, calcareous schist.
75	W	07 23 42N	151 18 24W	77 R1x 65	A	A		Linonitic schist with postfoliation quartz vein.
76		07 19 09N	151 55 51W	77 Hgx 102	B	D		Chlorite-quartz vein cuts chlorite-muscovite schist.
77		07 06 29N	152 16 54W	77 Hgx 162	A	A		Gray-green, fine-grained metadiabase.
78	W	07 06 22N	152 18 06W	77 Hgx 163	A	A		Brown-green, aphanitic greenstone.
79	W	07 06 17N	152 18 27W	77 Hgx 164	A	A		Aphanitic greenstone.
80	Cu, Sb, Zn, Zn*	07 16 44N	152 28 15W	77 Hgx 179x	A	A		Medium-grained quartz vein cutting dolomite.
81		07 16 44N	152 28 15W	77 Hgx 179y	A	A		Medium-grained, epidote-albite-chlorite greenschist.
								Contains disseminated pyrite.
								Contains pyrite and possibly other sulfides in select horizons.
								Rusty-weathering, bull-quartz vein from gossan.
								Sample from prospect trench.
								Contains some fine, disseminated chalcopyrite and magnetite.
								Contains fine, disseminated chalcopyrite and azurite.
								Stockwork of quartz veins bearing malachite, azurite, bornite(?), and galena near contact with greenschist of sample 81.
								Contains 5% disseminated magnetite.

Table 3 (cont.)

Sample #	Altitude	Latitude	Longitude	Field #	Grab		Rock description	Nature of mineralization and remarks
					A, chip	Outcrop		
					Composite C	Flint D		
82	Fe, Mn, B, Bi, Sn, W, Zn, Au*	67 15 44N	152 13 45W	77 HgX 181	U	A	Greenschist and calc-schist.	Skarn mineralization in calc-schist near intrusion.
83	Fe, Mn, W	67 28 51N	152 38 06W	77 Jrx 7	A	A	Maroon, medium-grained, quartz-calcite schist.	Contains 4% hematite.
84	Ag, Cu	67 32 30N	152 03 42W	77 Jrx 10	A	A	Sulfide-bearing, quartz-vein-cutting, calcareous schist.	Abundant bornite with subordinate covellite and trace chalcopyrite altered to malachite.
85		67 04 24N	152 36 06W	77 Hnx 53A	A	A	Aphanitic greenstone.	
86		67 18 39N	151 28 30W	77 Fox 59	A	A	Yellow, fine-grained, felsic schist.	Possible disseminated pyrite.
87	W	67 18 36N	151 21 16W	77 Fox 79	A	A	Rusty, medium-grained, quartz-feldspar orthogneiss.	Possible disseminated pyrite.
88		67 16 23N	151 44 12W	77 Hnx 3	A	A	Banded, medium-grained marble with local layers of 10% sulfide.	Sphalerite replacing pyrite(?)
89		67 18 00N	151 06 54W	77 HgX 37	A	A	Gray, medium-grained, micaceous marble.	Local layers rich in pyrite.
90	B	67 25 52N	151 14 42W	77 HgX 121	A	A	Banded, gray, fine-grained, quartzite metagrit.	Some limonite stain present.
91		67 24 11N	151 14 03W	77 HgX 129	A	A	Fine-grained, graphitic, chlorite-albite-muscovite-quartz schist.	Trace of pyrite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
92		67 08 34N	152 56 12W	77 Hgx 156	A	A	Gray, medium-grained, felsic schist.	Fine-grained, disseminated, sulfides.
93		67 08 31N	152 56 00W	77 Hgx 157	C	A	Felsic and graphitic schist.	Composite sample with 2% fine-grained, disseminated pyrite; some possible rutile and/or cassiterite.
94		67 08 23N	152 53 30W	77 Hgx 159.1	C	A	Banded, light and dark gray, felsic schist.	Composite sample of 1% fine-grained, disseminated pyrite.
95		67 08 23N	152 53 36W	77 Hgx 159.3	A	A	Gray, medium-grained, felsic, mica schist.	2% oxidized, fine-grained sulfides.
96		67 08 12N	152 53 27W	77 Hgx 160	A	A	Ochre, fine-grained, felsic schist.	3% chalcopyrite(?); many quartz veins.
97		67 14 51N	152 29 00W	77 Hgx 169	A	A	Fine-grained, graphitic, black albite-muscovite-quartz schist.	Disseminated pyrite in schist; abundant quartz veins.
98		67 15 16N	152 28 36W	77 Hgx 172	A	A	Gray, fine-grained, graphitic, muscovite quartzite with relic graded bedding.	Trace of disseminated pyrite.
99		67 20 00N	152 06 00W	77 Hgx 215	A	A	Silver-gray, medium-grained marble.	Disseminated, partially oxidized pyrite.
100		67 04 10N	152 37 51W	77 WH 54	A	A	Fine-grained greenstone with relic pillow structure.	Secondary silica and calcite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					A, Chip B	Composite C	Outcrop A Float D		
101		67 10 21N	152 49 30W	77 Pe 7	A	A	A	White, medium-grained, muscovite felsite.	Orange weathering suggests iron sulfides.
102		57 34 55N	151 38 06W	77 Dn 200	A	A	A	Fine-grained, chlorite-quartzite interlayer in gneissic schist.	Disseminated, oxidized pyrite.
103		67 34 32N	151 38 36W	77 Dn 201	A	A	A	Chlorite-quartzite metaconglomerate and metagrit.	
104		67 34 12N	151 38 30W	77 Dn 202	A	A	A	Epidote-chlorite-muscovite-quartz calc-schist.	
105		67 33 30N	151 34 42W	77 Dn 204	A	A	A	Fine-grained, chlorite schist.	
106		67 33 07N	151 34 30W	77 Dn 205	A	A	A	Chlorite quartzite.	
107		67 31 36N	151 56 24W	77 Dnx 47	A	A	A	Chlorite-muscovite-quartz schist.	
108		67 30 49N	152 18 00W	77 Wn 4	A	A	A	Gray, medium-grained, calcareous-quartzite metagrit.	
109		67 31 12N	152 16 42W	77 Wn 5	A	A	A	Green, calcareous-quartzite metagrit and metaconglomerate.	Oxidized, disseminated iron sulfides.
110		67 30 23N	152 21 48W	77 K1 31	A	A	A	Green, calcareous-quartzite metagrit and metaconglomerate.	
111		67 30 39N	152 22 15W	77 K1 32	A	A	A	Green, medium-grained, chlorite-quartz-feldspar schist.	Sulfurous odor.
112		67 32 34N	152 33 09W	77 Wn 100	A	A	A	Dark-gray, graphitic and calcareous, chlorite phyllite.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
113		67 32 20N	152 33 09W	77 WH 101	A	A	Green, chlorite-quartz calc-schist.	
114		67 32 11N	152 33 06W	77 WH 102	A	A	Gray marble.	
115		67 31 50N	152 33 06W	77 WH 104	A	A	Calcareous, graphitic phyllite.	Quartz veins containing oxidized sulfides cut sample.
116		67 23 57N	151 13 54W	77 Ug 130	A	A	Chlorite greenschist.	
117		67 26 53N	151 12 36W	77 WH 28	A	A	Graphitic, quartz phyllite.	
118	Cu	67 25 54N	151 17 42W	77 WH 33	A	A	Fine-grained, calcareous, epidote-albite-chlorite-actinolite greenschist.	Disseminated magnetite.
119		67 22 01N	151 22 00W	77 Pe 62	A	A	Coarse-grained, biotite-epidote-chlorite-albite-actinolite greenschist.	
120		67 20 53N	151 22 00W	77 Pe 63	A	A	Medium-grained, calcite-muscovite-chlorite biotite felsic schist.	
121		67 20 45N	151 22 12W	77 Pe 64	A	A	Coarse-grained, garnet greenschist.	Disseminated magnetite.
122		67 21 36N	151 17 00W	77 Pe 66	A	A	Fine-grained, chlorite schist.	Disseminated, oxidized iron sulfides.
123	Mn	67 20 25N	151 17 27W	77 Pe 69	A	A	Fine-grained, muscovite-quartz schist.	
124	La	67 19 45N	151 18 12W	77 Pe 71	A	A	Medium-grained, chlorite-biotite quartz monzonite.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					A, Chip	B Composite	C Outcrop		
125	Mo, V	67 19 15N	151 20 06W	77 Pe 74	A	A	A	Dark-gray, fine-grained, muscovite quartzite.	1% disseminated limonite.
126		67 19 18N	151 20 18W	77 Pe 75	A		A	Cream to pink, medium-grained, quartz-monzonite orthogneiss.	1% disseminated, oxidized sulfides.
127	Lu	67 19 24N	151 20 39W	77 Pe 76	A		A	Cream, fine-grained, quartz-monzonite gneiss in contact with calc-schist, local skarn.	3% partly oxidized sulfides in a replacement deposit.
128	Nb	67 18 12N	151 07 12W	77 Hg 35	A		A	Dark-gray, medium-grained, graphitic, muscovite-quartz-albite schist.	
129	Sc	67 18 09N	151 07 06W	77 Hg 36	A		A	Gray, graphitic quartzite.	
130		67 19 56N	151 05 57W	77 Un 40	A		A	Medium-grained, garnet-muscovite-calcite-quartz schist.	Disseminated cubic sulfides replaced by limonite.
131		67 19 32N	151 06 24W	77 Un 41	A		A	Rusty, medium-grained, knotty, mica-quartz schist.	
132	V	67 19 19N	151 06 18W	77 Un 42	A		A	Fault-breccia. Mixed lenses of medium-grained, mica-quartz schist, marble, and metapelite.	
133		67 22 58N	151 35 27W	77 Wh 25	A		A	Gray, medium-grained, graphitic muscovite-quartz schist.	
134		67 22 45N	151 35 30W	77 Wh 26	A		A	Slightly calcareous, muscovite-quartz schist.	
135	Zr	67 22 06N	151 35 12W	77 Wh 27	A		A	Rusty, white, fine-grained quartzite.	
136		67 22 53N	151 37 24W	77 Hg 119	A		A	Gray, fine-grained, albite-chlorite-muscovite-quartz schist and quartzite.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
137		67 25 42N	151 41 00W	77 R1 17	A	A	Gray, fine-grained, muscovite-quartz schist, may be feldspathic.	
138		67 25 26N	151 44 42W	77 Dn 90	A	A	Fine-grained, graphitic, albite-muscovite-quartz schist.	
139		67 26 24N	151 57 30W	77 R1 29	A	A	Pink, medium-grained, calcareous, muscovite-quartz schist.	
140		67 24 51N	151 59 54W	77 Wh 3a	A	A	Tan dolomite and marble interlayered with graphitic schist.	
141		67 25 24N	151 55 12W	77 R1 70	A	A	Gray, fine-grained, graphitic, quartz-muscovite schist.	
142		67 23 43N	151 58 06W	77 R1 71	A	A	Light-gray, fine-grained, calcite-garnet-muscovite quartzite.	
143		67 23 15N	151 53 09W	77 Wh 40	A	A	Fine-grained, graphitic, quartz-mica schist.	
144		67 23 16N	151 55 42W	77 Wh 41	A	A	Gray, medium-grained, graphitic, muscovite-quartz schist.	
145		67 22 57N	151 58 54W	77 Wh 44	A	A	Medium-grained, graphitic, black albite-muscovite-quartz schist.	
146	Sr	67 20 45N	151 56 12W	77 Wh 37b	A	A	Medium-grained marble.	
147		67 21 24N	151 58 18W	77 Wh 39	A	A	Beige-striped, medium-grained, epidote-muscovite calc-schist.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Gr. in			Rock description	Nature of mineralization and remarks
					A	B	C		
148		67 21 21N	151 53 12W	77 Wh 24	A			Fine-grained, graphitic, muscovite-quartz schist with quartz-muscovite-schist interlayers.	Disseminated magnetite.
149		67 18 07N	151 54 30W	77 Hg 100	A			Interlayered, fine-grained, graphitic, albite-mica-quartz and quartz-mica schist.	Disseminated, oxidized pyrite.
150	As	67 18 27N	151 55 00W	77 Hg 101	A			White, fine-grained quartzite.	Disseminated arsenopyrite.
151		67 19 12N	151 56 00W	77 Hg 103	A			Off-white, fine-grained, calcareous, chlorite-muscovite-feldspar-quartz schist.	
152		67 15 18N	151 46 30W	77 Pe 34	A			Dark-gray, medium-grained, chlorite-albite-muscovite-quartz schist.	
153		67 19 45N	151 47 36W	77 Wh 18	A			Dark-green, medium-grained, epidote-albite-chlorite greenschist.	W disseminated magnetite.
154		67 15 54N	151 36 12W	77 Pe 39	A			Green, coarse-grained, calcite-chlorite-garnet-albite-actinolite greenschist.	
155		67 15 04N	151 35 18W	77 Pe 43	A			Pale-green, medium-grained, micaceous meta-chert.	
156	Y	67 19 00N	151 31 18W	77 Pe 53	A			Gray-green, coarse-grained, muscovite-biotite-quartzofeldspathic schist (felsite).	
157		67 18 06N	151 46 42W	77 Wh 12	A			Gray, medium-grained, muscovite-quartz schist.	
158		67 29 03N	152 14 48W	77 R1 67	A			Gray-green, fine- to coarse-grained, chlorite-epidote-albite-actinolite greenschist.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip		Rock description	Nature of mineralization and remarks
					Composite C	Outcrop A Float D		
159		67 29 46N	152 12 03W	77 Hg 154	A	A	White, interlayered, fine-grained quartzite and crenulated, pelitic schist.	
160		57 23 40N	152 16 09W	77 Hg 135	A	A	Pale-green, medium-grained, albite-chlorite schist.	
161		67 17 42N	152 18 12W	77 Dn 158	A	A	Medium-grained, epidote-amphibole-albite-chlorite metadiabase.	
162		67 15 30N	152 18 27W	77 Dn 159	A	A	Silver, medium-grained, biotite-chlorite-muscovite-quartz schist.	
163	Pb	67 17 36N	152 10 42W	77 Hg 200	A	A	Silver, medium-grained, calcareous, chlorite-muscovite-quartz schist.	
164		67 18 06N	152 10 33W	77 Hg 203	A	A	Silver, medium-grained, calcareous, garnet-chlorite-muscovite-quartzfeldspathic schist.	
165		67 17 59N	152 06 33W	77 Hg 209	A	A	Gray, fine-grained, muscovite-black albite-quartz schist.	
166		67 23 06N	152 11 57W	77 Dn 56	A	A	Yellow-orange, medium-grained, ferruginous, muscovite-chlorite marble.	
167		57 15 00N	152 03 42W	77 Dn 177	A	A	Fine- to medium-grained, calcareous greenschist.	Quartz vein.
168		67 16 45N	152 09 33W	77 Nm 1	A	A	Fine-grained, tourmaline-epidote-chlorite-quartz-muscovite-albite greenschist.	
169	Sn	67 23 36N	152 45 03W	77 Pe 4	A	A	Banded, pale-green and white, medium-grained, fluorite-muscovite granite gneiss.	Contact facies of granite gneiss contains disseminated fluorite and cassiterite.

Table 3 (cont.)

Sample #	Antenatons	Latitude	Longitude	Field #	Grab		Rock description	Nature of mineralization and remarks
					A, Chip	Outcrop		
					Composite C	Float D		
170		67 25 13N	152 54 36W	77 Dn 213	A	A	White, medium-grained, schistose quartzite.	
171	Ba	67 25 24N	152 54 48W	77 Dn 214	A	A	White, medium-grained, muscovite-schistose quartzite.	
172	So	67 23 45N	152 53 24W	77 Dn 215	A	A	Light-olive-green, medium-grained, schistose, chlorite-muscovite metagranite.	Contact facies of granitic gneiss, contains disseminated fluorite and cassiterite.
173		67 23 43N	152 57 12W	77 Dn 217	A	A	Light-olive-green, coarse-grained, chlorite metagranite.	Rock gives Proterozoic U/Pb zircon date.
174	Th, W	67 15 27N	152 53 06W	77 Wh 47	A	A	Red, coarse-grained, ferruginous marble with interlayers of chlorite schist.	
175	W	67 15 32N	152 53 54W	77 Wh 48	A	A	Silver-gray, medium-grained, calcareous, muscovite-quartz schist.	
176	Wh	67 16 03N	152 54 48W	77 Wh 50	A	A	Off-white, medium- to fine-grained, micaceous marble.	Disseminated dark mineral.
177		67 15 42N	152 54 36W	77 Wh 49	A	A	Gray-green, chlorite and dolomite metasandstone.	1% oxidized, disseminated iron-sulfide.
178		67 16 48N	152 55 30W	77 Wh 51a	A	A	Fine-grained, graphitic, albite-muscovite-quartz schist.	
179		67 17 03N	152 55 09W	77 Wh 52	A	A	Green, fine-grained, schistose, chlorite quartzite.	
180		67 10 36N	151 12 03W	77 Wh 91	A	A	Dark, interlayered phyllite and semischist formed from argillite and mudstone.	

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					A, Chip	B	Outcrop		
181	U, Y, Zn*	67 08 39N	151 11 00W	77 Wh 95a	A	A		Olive-green, amygdaloidal metabasite.	
182		67 13 09N	151 12 06W	77 Wh 96	A	A		Fine-grained, graphitic, albite-muscovite-quartz schist.	
183		67 12 31N	151 11 36W	77 Wh 98a	A	A		Medium-grained, calcareous greenschist.	
184		67 15 00N	151 35 06W	77 Ye 44	A	A		Pale-green, garnet-epidote-tremolite-calcite skarn.	Skarn.
185		67 15 00N	151 41 24W	77 Un 27	A	A		Rusty, medium-grained, chlorite-muscovite-quartz schist.	Quartz veins.
186		67 13 49N	151 34 39W	77 Un 173	A	A		Fine-grained, graphitic, mica-quartz schist.	Quartz veins.
187	Y	67 14 25N	151 34 30W	77 Un 174	A	A		Gray-green, medium-grained, muscovite-chlorite schist.	
188		67 12 31N	151 33 06W	77 Wh 87a	A	A		Graphitic phyllite with limonitized pyrite.	50% of rock is quartz vein.
189		67 11 11N	151 37 06W	77 Wh 89	A	A		Dark, pyritic phyllite with 10% quartzite interlayers.	
190		67 11 31N	151 37 30W	77 Wh 90a	A	A		Dark, graphitic, albite-muscovite-quartz phyllite.	Quartz veins.
191		67 04 53N	152 28 26W	77 Un 9	A	A		Interbedded fossiliferous limestone and mafic tuff (Permian fossils).	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Rock description	Nature of mineralization and remarks
					A, Chip	Outcrop		
					Composite C	Float D		
192		67 05 33H	152 17 48W	77 Dn 124	A	A	Greenstone with felty plagioclase.	
193		67 07 45N	152 12 12W	77 Dn 14	A	A	Gray, fine-grained, graphitic, muscovite-quartz schist.	
194	Cr, ol	67 09 41N	152 06 36W	77 Dn 12	A	A	Pale-green, medium-grained, calcite-epidote-albite-chlorite schist.	
195	Ni	67 13 45N	152 12 03W	77 Hg 190	A	A	Pale-green, medium-grained, garnet-chlorite-albite schist.	
196	La	67 08 37N	152 15 54W	77 Wh 66	A	A	Gray, fine-grained, graphitic schist.	Proteromorphite quartz vein with oxidized sulfides.
197	Pb	67 09 51N	152 19 18W	77 Wh 65	A	A	Amber, medium-grained, biotite-quartzofeldspathic schist.	
198		67 12 51N	152 02 54W	77 Wh 72	A	A	Gray, medium-grained marble.	
199	Pb	67 11 09N	152 25 36W	77 Wh 58	A	A	Gray, medium-grained, epidote-muscovite-feldspar-quartz schist.	Disseminated galena and limonite replacing pyrite(?).
200		67 12 12N	152 22 48W	77 K1 46	A	A	Rusty, medium-grained, garnet-calcite-muscovite-quartz schist.	
201		67 05 14N	152 43 18W	77 Dn 136	A	A	Cherty marble.	
202	Ag, ba	67 04 00N	152 53 57W	77 Dn 128	A	A	Gray chert.	
203		67 04 44N	152 55 06W	77 Dn 130	A	A	Greenstone with porphyritic feldspar in an aphanitic groundmass.	

Table 3 (cont.)

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Nature of mineralization and remarks
					A, Chip Composite C	Outcrop Float D	
204		67 14 20N	152 38 09W	77 Dn 60	A	A	Fine-grained, graphitic, albite-muscovite-quartz schist.
205		67 13 24N	152 37 30W	77 Dn 63	A	A	Gray, medium-grained, chlorite-albite-muscovite-quartz schist.
206		67 13 22N	152 36 36W	77 Dn 70	A	A	Pinkish-white, medium-grained, banded granite gneiss.
207		67 11 02N	152 34 42W	77 Dn 73	A	A	Banded, gray, yellow, and rust-colored dolomite and metapelite with relict sedimentary bedding structures.
208		67 10 29N	152 49 03W	77 Dn 114	A	A	Yellow-green, coarse-grained, micaceous meta-crystal tuff.
209		67 10 34N	152 46 42W	77 Dn 7	A	A	Gray-green, medium-grained, garnet-chlorite-quartzofeldspathic schist.
210		67 14 33N	152 52 48W	77 WH 45b	A	A	Gray-green, fine-grained, garnet-chlorite-quartzofeldspathic schist.
211		67 22 24N	151 21 00W	77 Rix 64y	A	A	Fine-grained, chlorite greenschist. Selected grab sample from gossan with disseminated chalcopyrite.
212	Ti	67 11 04N	151 50 24W	77 Dn 16	A	A	Medium-grained, albite-chlorite greenschist.
213		67 11 15N	152 34 48W	77 Dn 72	A	A	Pale-line-green, medium-grained, quartzofeldspathic schist with relic euhedral feldspar and quartz.
							Metatuff.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Lead, Cu, Pb		Outcrop	Rock description	Nature of mineralization and remarks
					Compositional	Flotation			
					C	D			
214		07 05 14N	152 43 18W	77 Dn 136	A	A	A	Brown-green, medium-grained metagabbro.	
215		07 07 00N	152 15 42W	77 Dn 123	A	A	A	Dark-green, medium-grained, pyroxene metagabbro.	
216	Bi, Pb, V	07 20 22N	151 01 24W	77 Dn 93	A	A	A	Black, fine-grained quartzite.	
217		07 24 33N	152 43 12W	77 Jr 6	A	A	A	Dark-gray, argillaceous carbonate cross-cut by chlorite veins.	Disseminated magnetite altered to hematite.
218	Fe, Ag, As, Pb, Sb, Zn, Zn*	07 19 00N	152 55 00W	78 Dux Frog 1	A	A	A	Gray, coarse-grained, muscovite-calcite quartzite.	Disseminated pyrite, arsenopyrite(?), sphalerite, and galena form 50% of rock.
219	Pb	07 19 00N	152 55 00W	78 Dux Frog 2	A	A	A	Beige, fine-grained, sericite-quartz schist.	Disseminated fine-grained sulfides form 1% of rock.
220	Ag, As, Pb, Zn	07 19 00N	152 55 00W	78 Dux Frog 4	C	A	A	Gray, coarse-grained, muscovite-quartzite pebble conglomerate(?).	Disseminated pyrite, arsenopyrite, and sphalerite form 10% of rock.
221	Pb	07 20 54N	152 17 30W	78 Dux 1	A	A	A	Coarse-grained, biotite-granite orthogneiss with blue betaquartz.	From outcrop near the contact of the pluton.
222		07 22 14N	152 38 30W	78 Dux 3	A	A	A	Cream, medium-grained, plagioclase-muscovite quartzite.	Cut by fluorite-epidote-quartz vein.
223	B	07 21 57N	152 47 26W	78 Dux 8	A	A	A	White, fine- to medium-grained, biotite-calcite-albite-muscovite-quartz schist.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Rock description	Nature of mineralization and remarks
					Composite C	Outcrop A		
224	Ag, Bi, Be, Bi, Cd, Cu, Sb, Sn, Zn, Zn*	67 24 21N	152 45 54W	78 Dux 13	A	A	White, medium-grained, leucogranite and graphitic-gneiss gneiss.	Malachite- and azurite-stained, sulfide-bearing rock from contact of granite with marble.
225	Ag, Ag, Bi, Cu, Sn, Zn, Zn*	67 23 57N	152 45 18W	78 Dux 14	A	A	Green, coarse-grained, garnet-epidote skarn.	Malachite- and azurite-stained, bornite- and sphalerite-bearing pyrometamorphic skarn.
226		67 25 00N	152 48 30W	78 Dux 15	A	A	Dark-gray, muscovite-granite gneiss.	From outcrop in center of the pluton.
227	Be, Y	67 20 45N	152 19 42W	78 Dux 16.1	A	A	Coarse-grained metamorphosed gneiss?	
228	Pb, Ag, Bi, Cu	67 21 34N	152 39 18W	78 Dux 20	A	A	Gray-green, fine- to medium-grained, calcareous, biotite-quartz-chlorite-albite schist.	Probably intermediate metaigneous rock.
229	Zr	67 21 53N	152 38 36W	78 Dux 21	A	A	Iron-stained, white, muscovite quartzite.	
230		67 22 03N	152 39 00W	78 Dux 23	A	A	Sulfur- and iron-stained graphitic schist.	
231	Zr	67 19 54N	152 36 12W	78 Dux 30.1	A	A	Cream to pink, medium-grained, chlorite-muscovite-quartz schist.	Zircon common.
232	Cr, La, Ni, Y	67 19 54N	152 36 12W	78 Dux 30.2	A	A	Dark-green, calcareous, biotite-chlorite-albite metadiabase.	Rutile and opaques constitute >1% of rock.

Sample #	Anomalous	Latitude	Longitude	Field #	Chip		Outerop	Rock description	Nature of mineralization and remarks
					B Composite	A Float			
233	Mg	67 43 58N	152 22 24W	78 Dnx 32	C	A		Limestone breccia.	Main rock type of large gossan.
234		67 20 21N	152 39 24W	78 Dnx 35.1	A	A		Fine-grained, greenschist matrix containing subangular dolomite and quartzite clasts.	Disseminated euhedral pyrite crystals up to 5 cm wide.
235	Mg, B	67 20 21N	152 49 24W	78 Dnx 35.2	A	D		Fine-grained, quartz schist with layers and clasts of dolomite.	Disseminated fine-grained, black aphanitic mineral.
236	Ti, Ba, Ca, Nb, Ni	67 18 12N	152 47 48W	78 Dnx 41	C	A		Mixed greenschist and graphitic schist with pebble-size lenses of fuchsite.	Rutile, fuchsite, and siderite may account for anomalous titanium, chromium, and barium, respectively.
237	Cu, Ni, Zn	67 22 54N	151 59 48W	78 Dnx 53	A	A		Gray, fine-grained quartzite, metaclastic texture.	Malachite and azurite plus disseminated(?) chalcopyrite and sphalerite + rutile and cassiterite(?).
238		67 30 14N	151 58 18W	78 Dnx 55	A	A		Coarse-grained, calcareous, epidote-albite-quartz-chlorite schist.	Azurite stained.
239	Y	67 36 18N	151 53 24W	78 Dnx 61	A	A		Fine-grained, pyrite-chlorite-albite green-schist.	
240		67 35 48N	151 53 30W	78 Dnx 62.4	A	A		Blky-green, medium-grained, calcareous, chloritoid-quartzite metagrit.	Abundant malachite staining and disseminated copper sulfides in variegated maroon and green, quartz-rich schist that has a relic clastic texture.

Table 3 (cont.)

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
241		67 35 45N	151 53 00W	78 Dnx 63	C	A	Dark-silver-gray, fine-grained, tourmaline-chlorite-sericite-quartz metagrit.	
242	Zr	67 35 45N	151 52 30W	78 Dnx 64	A	A	Rusty, maroon to orange, calcareous, quartz phyllite.	
243		67 34 51N	151 52 42W	78 Dnx 66	A	A	Purple, fine-grained, calcareous, sericite-chlorite-quartz phyllite.	
244	Ag, Cu, Ho	67 35 36N	151 53 30W	78 Dnx 68	A	A	Malachite-stained, carbonate- and quartzite-clast pebble conglomerate.	Rocks at facies change from quartzose metaclastic to metacarbonate rock contain disseminated chalcopryrite, sphalerite, and galena.
245	Fe, Ti, Sc, V, Zn	67 35 31N	151 53 42W	78 Dnx 69	A	A	Brown, cross-bedded metasandstone.	Near same facies change as sample 244. Abundant hematite and sphalerite in metasandstone.
246	Sr, Zn*	67 35 33N	151 54 12W	78 Dnx 70	A	A	Cream to beige, medium-grained, muscovite-quartz-calcite schist.	1% disseminated opaques.
247		67 33 48N	151 57 12W	78 Dnx 74	C	A	Slate-gray, fine-grained, dolomite-sericite-chlorite-quartz phyllite.	
248	Zr	67 33 23N	151 57 06W	78 Dnx 75	A	A	Slate-gray, fine-grained, calcareous, chlorite-muscovite-quartz metagrit.	
249		67 34 28N	152 07 36W	78 Dnx 86	C	A	Beige, coarse-grained, schistose, sericite-quartz metaconglomerate and grit.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Nature of mineralization and remarks
					A, Chip Composite	Outcrop Float	
					C	D	
250		67 35 39N	151 57 00W	78 Dnx 87	A	A	Gray, coarse-grained, schistose, epidote-dolomite-chlorite-sericite-quartz metaconglomerate.
251		67 32 39N	151 25 48W	78 Dnx 96	A	A	Interlayered, fine-grained, graphitic schist and calcareous quartzite.
252		67 33 57N	151 15 30W	78 Dnx 100	A	A	Dark-gray, fine-grained, graphitic, albite-sericite-quartz schist.
253	Co	67 22 06N	151 46 06W	78 Dnx 102	C	A	Orange, chlorite marble; calcareous, chlorite quartzite and marble.
254		67 22 00N	151 46 10W	78 Dnx 103	A	A	Coarse-grained, calcareous, epidote-chlorite-albite greenschist with porphyroblastic albite.
255	Sc	67 21 41N	151 48 12W	78 Dnx 105	A	A	Iron-stained, green, chloritoid-chlorite-muscovite-quartz schist.
256	Y	67 21 32N	151 48 34W	78 Dnx 106	A	A	Silver-gray, medium-grained, calcite-talc-muscovite-quartz schist.
257	As, Co, Cu, Pb, V, Zr	67 21 25N	151 49 18W	78 Dnx 107	A	A	Handed, medium-grained, calcareous, muscovite-quartz schist.
258		67 21 07N	151 34 16W	78 Dnx 116	A	A	Cream, fine-grained, muscovite-albite-quartzite.
259	Co, Sc, V, Y	67 19 48N	151 56 48W	78 Dnx 122	A	A	Medium-grained, calcareous, quartz-albite-chlorite greenschist.
							Contains coarse-grained, disseminated iron(?) sulfide.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip		Composite C	Durotop A	Front D	Rock description	Nature of mineralization and remarks
					B	C					
260		07 31 43N	151 45 42W	78 Dnx 132	A	A	A	A	A	Blue-green, fine-grained, chlorite-calcite-muscovite-quartz phyllite.	
261		07 32 00N	151 45 06W	78 Dnx 133	A	A	A	A	A	Banded, green and maroon, albite-chlorite-muscovite-quartz metagrit and siderite-chlorite calc-schist.	
262	Zr	07 35 15N	151 19 06W	78 Dnx 139	A	A	A	A	A	Gray, fine-grained, chlorite-sericite-albite-quartz metagraywacke with relic clastic texture.	
263	Ni	07 34 03N	151 19 24W	78 Dnx 141	A	A	A	A	A	Brownish-gray, very fine-grained, graphitic and calcareous, chlorite-quartz-sericite phyllite.	Contains oxidized pyrite cubes up to 1 cm on a side.
264		07 32 54N	151 22 12W	78 Dnx 142	A	A	A	A	A	Iron-stained, chlorite-quartzite metagrit.	
265	Sc	07 34 12N	151 26 48W	78 Dnx 145	A	A	A	A	A	Gray and black, fine-grained marble with 12 quartz.	
266	Ba, Mo, V	07 35 16N	151 37 18W	78 Dnx 147	A	A	A	A	A	Laminated, gray and black, fine-grained, muscovite quartzite.	Contains disseminated barite and extremely oxidized opaque minerals.
267		07 39 08N	151 31 54W	78 Dnx 152	A	A	A	A	A	Banded, blue-gray and ochre, fine-grained, zoisite-sericite-quartz schist.	
268	Mo, V	07 38 48N	151 32 12W	78 Dnx 153	A	A	A	A	A	Black, very fine-grained, graphitic quartzite.	Possibly a metachert.
269		07 38 12N	151 32 48W	78 Dnx 154	C	C	A	A	A	Greenish-brown, medium-grained, muscovite-epidote-albite-quartz schist.	Relict clastic and volcanic textures.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
270		67 36 33N	151 54 24W	78 Dnx 157	A	A	Laminated, gray, very fine-grained marble or limestone.	
271	Bi, Mo	67 36 42N	151 54 12W	78 Dnx 159	A	A	Maroon to beige marble layer at top of siliceous clastic unit and below thick carbonate units.	Chalcocite and chlorite occur in irregular thin veins and replacement bodies.
272	Be, Mo	67 37 12N	151 54 24W	78 Dnx 160	A	A	Graphitic phyllite below siliceous, clastic unit.	Chalcopyrite occurs in marble layers in phyllite.
273	Ni	67 38 17N	152 13 36W	78 Dnx 161	A	A	Orange, fuchsite-bearing marble with sparse quartz.	
274		67 27 43N	151 29 00W	78 Dnx 165	A	A	Medium-grained, quartz-albite-epidote-chlorite greenschist.	
275		67 27 12N	151 28 48W	78 Dnx 167D	A	A	Fine-grained, brown, pyrite-muscovite-quartz dolomite unconformably overlain by quartz-muscovite schist with clasts of dolomite.	Disseminated pyrite; trace sphalerite(?) in dolomite.
276		67 27 12N	151 28 48W	78 Dnx 167b	A	A	Fine-grained, green, muscovite-chloritoid-quartz schist.	
277		67 28 42N	151 02 30W	78 Dnx 171	A	A	Gray marble.	Dense, ferricrete encrusted.
278		67 35 00N	151 39 48W	78 Dnx 172	A	A	Black, graphitic phyllite with stretched carbonate clasts; some may be fossils.	
279		67 24 56N	151 00 00W	78 Dnx 173	A	A	Medium-grained, spotted metaconglomerate with marble matrix and clasts.	Clasts mainly of marble and dolomite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Outcrop	Rock description	Nature of mineralization and remarks
					Composite C	Chip A, B	Float A, U		
280	Zn, Zn*	67 21 07N	152 26 48W	78 Dax 176	A	A	A	Off-white, fine-grained, albite-chlorite-muscovite-quartz schist.	A few chalcopyrite grains.
281		67 19 30N	152 35 08W	78 Dax 178	A	A	A	Rusty, fine-grained, clinzoisite-epidote calc-silicate.	Dense, malachite stained, contains disseminated, oxidized pyrite.
282	Mn, Pb, Y, Zn*	67 19 30N	152 35 00W	78 Dax 178-2	C		A	Medium-grained, quartz-garnet-biotite-albite, intrusive, metaigneous rock and calc-silicate country rock.	A trace of disseminated pyrite.
283	Pb	67 19 24N	152 34 24W	78 Dax 179	A		A	Intrusive contact of muscovite-biotite-epidote-albite metaigneous rock with quartz-calcite-epidote hornfels.	
284	Cu, Pb	67 32 50N	152 02 42W	77 Mnx 11	C		A	Pale-green, medium-grained, muscovite-enchloritoid-quartz calc-schist.	Covellite and bornite, disseminated and in quartz veins, malachite stained.
285	Pb	67 28 51N	152 38 06W	77 SWR 388	A		A	Narcon, iron-stained, medium-grained, calcareous, chloritoid quartzite.	Secondary iron in fractures.
286		67 22 42N	152 31 24W	78 Pex 1	A		A	Blue-quartz-granite orthogneiss.	
287		67 20 45N	152 19 42W	78 Pex 7	A		A	Medium-grained, chlorite-albite-zoisite-actinolite metagabbro.	
288	Bi, Sn, Sr, Zn	67 24 18N	152 45 54W	78 Pex 8	C		A	Coarse-grained, garnet-epidote-tremolite-calcite skarn with local tourmaline and diopside(?).	Contains disseminated cassiterite(?). Stained with malachite. Occurs at contact of Ernie Lake pluton.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab, A, Chip		Outcrop	Nature of mineralization and remarks
					Quartzite	Flint		
					C	B	A	
289	Be, Mn, Y	N 27 12N	152 51 12W	78 Pex 12	A		A	Medium-grained, muscovite-granite orthogneiss near contact with country rock.
290	Be, Mn, Y	N 27 20N	152 51 19W	78 Pex 13	C		A	Composite sample across contact of muscovite-granite orthogneiss. Includes pluton and country rock.
291		N 27 06N	152 07 54W	78 Pex 14	C		A	Graywacke grit with angular clasts.
292		N 27 22N	152 41 30W	78 Pex 23	C		A	Yellow-brown-stained, fine-grained, white-mica quartzite.
293		N 27 19 59N	152 40 30W	78 Pex 28	C		A	Faded-green, fine-grained, chloritoid-chlorite quartzite.
294	Zn ⁴	N 27 19 42N	152 40 00W	78 Pex 29	C		A	Green and white, medium-grained, chlorite-muscovite-albite-quartz schist.
295		N 27 19 30N	152 34 42W	78 Pex 30	C		A	Composite sample upsection through following rock types: biotite-albite greenschist, garnet-muscovite-quartz schist, calc-schist with detrital albite and biotite, unconformity(?), muscovite marble.
296	Y, Zr	N 27 19 16N	152 35 00W	78 Pex 31	C		A	Pale-green, medium-grained, biotite-chlorite-chloritoid-muscovite quartzite.
297	Y, Zr	N 27 19 05N	152 34 19W	78 Pex 32	C		A	Polymetamorphic, graphitic, sphene-muscovite-quartz schist.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Nature of mineralization and remarks
					A, Chip Composite	Outcrop A Flat D	
298	Y	67 18 54N	152 34 54W	78 Pex 34	C	A	Green and white, medium-grained, clinzoisite-chlorite-muscovite-albite-quartz schist.
299		67 19 42N	152 46 30W	78 Pex 39	C	A	Pale-olive-green, fine- to medium-grained, chloritoid-calcite-quartz-albite-muscovite schist.
300		67 16 30N	152 36 54W	78 Pex 41	C	A	White, fine-grained, calcareous, epidote-chlorite-muscovite-albite quartzite.
301	Fe	67 16 59N	152 36 00W	78 Pex 42	C	A	White, fine-grained dolomite.
302		67 17 07N	152 35 30W	78 Pex 43	C	A	Medium-grained, chlorite-quartz-muscovite-albite greenschist.
303		67 22 27N	151 54 06W	78 Pex 51	C	A	Macoon and white, fine-grained, muscovite quartzite.
304	Cu	67 23 38N	152 00 00W	78 Pex 69	C	A	Dark, fine-grained, graphitic, chlorite-sectite-quartz schist and quartz vein.
305	Sr	67 12 23N	152 01 30W	78 Pex 72	C	A	Fossiliferous, muscovite-quartz marble and albite-muscovite-quartz calc-schist.
306		67 13 11N	152 01 30W	78 Pex 73	C	A	Gray-green, medium-grained, chloritoid-bearing, stretched-quartzite pebble conglomerate.
307	Zn	67 21 36N	152 01 48W	78 Pex 75	C	A	Macoon, fine-grained marble.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					A. Chip	B. Composite	C. Outcrop		
							Float		
							D		
308		57 32 54N	152 03 30W	78 Pex 84		C	A	Olive-green and white, chloritoid-muscovite-quartzite metagrit.	
309		67 33 42N	152 03 54W	78 Pex 87		C	A	Gray and white, muscovite-quartzite stretched, pebble conglomerate with blue quartz grains.	
310		67 32 30N	152 08 24W	78 Pex 92		C	A	White, coarse-grained, calcareous, muscovite-albite-quartz (elsaite with relic beta-quartz pseudomorphs).	
311		67 33 54N	152 01 42W	78 Pex 93		C	A	Gray and white, muscovite-quartzite metagrit.	
312		67 38 15N	152 02 00W	78 Pex 94		C	A	Black, (fine-grained, pyritic, muscovite-chlorite-quartz phyllite.	
313		67 38 03N	152 02 33W	78 Pex 96		C	A	Dark-gray to black metabiotite.	
314		67 28 00N	151 28 36W	78 Pex 103		C	A	Gray-green, medium-grained, muscovite-chlorite-chloritoid-quartz, stretched-pebble metaconglomerate.	
315		67 29 57N	151 28 12W	78 Pex 108		C	A	Maroon and gray conglomeratic marble.	
316	lin, Sc	67 29 54N	151 23 00W	78 Pex 112		C	A	Olive-green, fine-grained, fuchsite-muscovite-chlorite-quartz-albite calc-schist.	
317		67 29 50N	151 21 54W	78 Pex 113		A	A	Gray, medium-grained, muscovite-chlorite quartzite.	
318	fb	67 37 42N	151 27 18W	78 Pex 116		A	A	Black, calcite-chlorite-sericite-quartz phyllite.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grat.			Rock description	Nature of mineralization and remarks
					A, Chip	B Composite	C Outcrop		
							Float		
							D		
319		6° 37' 29N	151 27 00W	78 Pex 117	A		A	Banded, black and green, graphitic, chlorite-sericite-quartz phyllite with relic bedding and clastic texture.	
320	Pb	6° 33' 36N	151 38 36W	78 Cox 31	A		A	Medium-grained, quartz-calcite-albite-chlorite greenschist.	
321		6° 33' 30N	151 42 18W	78 Cox 32	A		A	Medium-grained, quartz-calcite-chlorite-albite greenschist.	
322	Sr	6° 35' 06N	151 37 42W	78 Cox 34	A		A	Coarse-grained Kft with carbonate clasts in a muscovite-chlorite-quartz schist matrix.	
323		6° 34' 55N	151 38 00W	78 Cpx 37	A		A	Gray, medium-grained marble.	
324		6° 31' 53N	151 20 24W	78 Cpx 43	A		A	White, fine-grained, chloritoid-muscovite quartzite.	
325	Pb	6° 34' 48N	151 32 00W	78 Cpx 47	C		A	Green, calcite-muscovite-quartz schist and gray marble.	
326		6° 33' 26N	151 44 06W	78 Cpx 48	C		A	Green and brown, coarse-grained metagrit and pebble conglomerate; now a chlorite-muscovite-quartz schist.	
327		6° 19' 47N	152 26 54W	78 Cpx 53	A		A	Brown, chlorite-muscovite-quartzfeldspathic schist.	
328	Y	6° 19' 17N	152 26 12W	78 Cpx 54	A		A	Olive-brown, medium-grained, calcareous, chlorite-muscovite-albite-quartz schist.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
329	Hg	67 29 48N	152 02 00W	78 Cpx 55	A	A	Purple to maroon, fine-grained, quartz-rich marble.	
330	Sr	67 22 06N	152 13 18W	78 Kcx 1	C	A	Gray, fine-grained, muscovite-quartz marble.	
331		67 22 27N	151 56 00W	78 Kcx 9	A	A	Medium-grained, sphene-muscovite-quartz calc-schist.	
332	Sr	67 22 24N	152 14 42W	78 Kcx 10	A	D	Gray and white, fine-grained, muscovite-quartz marble.	
333		67 22 27N	152 15 24W	78 Kcx 12	A	A	Silver, medium-grained, quartz-muscovite marble.	
334		67 23 30N	152 15 12W	78 Kcx 18	A	A	Banded, green and white, thinly interlayered, chlorite-albite schist and muscovite-quartz marble.	
335		67 24 24N	152 17 24W	78 Kcx 24	A	A	Light-gray breccia with dolomite clasts in a muscovite-quartz-marble matrix.	
336		67 24 18N	152 16 48W	78 Kcx 27	A	A	Dark-green, fine-grained, chlorite-muscovite-quartzofeldspathic schist.	
337		67 20 33N	152 49 18W	78 Kcx 39	A	A	Gray, medium-grained, chlorite-muscovite-quartz calc-schist.	
338		67 20 27N	152 49 30W	78 Kcx 40.1	A	A	Fine-grained, albite-chlorite greenschist with porphyroblasts of albite and pyrite.	Pyrite crystals up to 2.5 cm on a side.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Nature of mineralization and remarks
					A, Chip Composite	Outcrop Float	
					C	D	
339	Hg, Y	67 20 27N	152 29 30W	78 Kcx 40-2	A	A	Calcareous greenschist.
340		67 19 37N	152 49 42W	78 Kcx 47	A	A	White, medium-grained, calcareous, magnetite-chloritoid-muscovite quartzite.
341		67 19 41N	152 49 48W	78 Kcx 48	A	A	Medium-grained, chlorite-albite greenschist.
342	Sc	67 19 56N	151 49 06W	78 Kcx 62	A	A	Medium-grained, actinolite-epidote-chlorite greenschist.
343		67 28 57N	151 41 30W	78 Kcx 70	A	A	Green, banded, epidote-muscovite-chlorite-albite-quartz calc-schist.
344	Fe, Ti, Co, Sc	67 28 36N	151 42 00W	78 Kcx 72	A	A	Medium-grained, sphene-chlorite-biotite-albite-actinolite greenschist.
345		67 29 35N	151 44 24W	78 Kcx 75	A	A	Light-gray, medium-grained marble.
346	Be	67 22 03W	152 17 06W	78 Kcx 87	A	A	Salt and pepper, medium-grained, calcareous, muscovite-biotite-albite granodiorite gneiss.
347		67 35 06N	151 38 00W	78 Kcx 89	A	D	White and gray, interlayered quartzite and marble.
348	Cu, Sb	67 36 31N	151 34 06W	78 Kcx 100-2	B	A	Chalcopyrite in fine-grained quartz. Layer composed mainly of chalcopyrite with sparse cuprite and sphalerite in quartz gangue; layer is 5 to 250 cm thick and 300 m long.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Cliff B		Outcrop A B	Nature of mineralization and remarks
					Composite C	Flint D		
349		67 35 06N	151 39 48W	78 Pex 120	A		A	Marble breccia with coarse-grained, white, carbonate clasts in a black, graphitic, marble matrix.
350	Ba, V, Zn	67 35 18N	151 41 00W	78 Pex 122	A		A	Black and beige, laminated, very fine-grained metachert or shale.
351		67 35 54N	151 43 18W	78 Pex 125	A		A	Gray-green, fine-grained, calcareous, albite-muscovite-quartz schist.
352		67 34 29N	151 39 00W	78 Pex 127	C		A	Green and brown metaconglomerate with stretched pebble- to cobble-sized clasts of quartzite, carbonate, and metagneous rock.
353	Mn, Ba	67 37 36N	151 39 00W	78 Pex 131	A		A	Green, fine-grained, chlorite-quartz schist.
354		67 32 54N	152 25 12W	78 Pex 134	C		A	Beige, laminated, muscovite-calcite-quartz schist and green, fine-grained, chlorite quartzite.
355		67 34 00N	152 24 24W	78 Pex 137	A		A	Gray, fine- to medium-grained, muscovite-quartz-calcite metasediment.
356		67 34 18N	151 42 54W	78 Pex 145	C		A	Green metaconglomerate and grit with clasts of quartzite and intermediate metagneous rock.
357		67 34 33N	151 46 42W	78 Pex 147	A		A	Laminated, graphitic, chlorite-muscovite-quartz phyllite and calc-phyllite.

Disseminated pyrite cubes
to 1 cm on a side.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Crab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
358		67 34 30N	151 45 00W	78 Pex 148	C	A	Beige and gray metagrit and pebble conglomerate with clasts of quartzite, shale, marble, and albite-quartz rock.	
359	Co, Sc, V	67 18 55N	151 55 00W	78 Pex 154	A	A	Medium-grained, chlorite-actinolite-albite greenschist.	Retrograded (chlorite pseudomorphs of garnet).
360	Co	67 40 54N	151 55 06W	78 Pex 154B	A	A	Very fine-grained, magnetite-actinolite-albite-chlorite greenschist.	5% pyrite(?)
361	Co, V	67 40 30N	151 55 36W	78 Pex 156	A	A	Medium-grained, actinolite-chlorite-albite metagabbro.	5% magnetite(?)
362	Cr, Ni	67 19 00N	152 45 00W	78 Pex 171	A	A	Coarse-grained, retrograded, muscovite-epidote-actinolite-albite metagabbro with relict hornblende.	Relic holocrystalline texture and relic hornblende phenocrysts.
363		67 19 30N	152 52 48W	78 Wsx 48	A	A	Cream, medium-grained, muscovite-quartz-dolomite metaconglomerate.	
364		67 19 33N	152 52 54W	78 Wsx 49	A	A	Green, fine-grained, calcareous, quartz-chlorite schist.	
365		67 21 06N	152 54 00W	78 Wsx 52	A	A	Medium- to coarse-grained, calcareous, muscovite-biotite-quartz gneiss.	
366		67 19 21N	152 52 30W	78 Wsx 53	C	A	Green and white, fine-grained, muscovite-chlorite-quartz retrograded gneiss and muscovite-albite-quartz calc-schist.	

Table 3 (cont.)

Sample #	Approx. Loc.	Latitude	Longitude	Field #	Grab A, Chip		Nature of mineralization and remarks
					Composite C	Outcrop A Fluc D	
367	Y	67 18 10N	152 53 24W	78 Wsx 57	A	A	Green, fine-grained, calcareous chloritoid-chlorite-muscovite-quartz schist.
368		67 33 42N	152 18 06W	78 Wsx 71	A	A	Laminated, fine-grained, graphitic, chlorite-sericite-quartz phyllite.
369		67 34 18N	152 18 06W	78 Wsx 71	A	A	Orange, fine-grained, muscovite-quartz calc-schist.
370		67 34 35N	152 18 06W	78 Wsx 73	C	A	Olive, chlorite-muscovite-quartz metagrit and calcareous sericite-quartz phyllite.
371		67 20 06N	152 21 24W	78 Wsx 78	A	A	Banded, green and white, chlorite-quartz-muscovite calc-schist.
372	Fe, Mn, As, Cu	67 23 48N	151 40 06W	78 Cpx 6	A	D	Scoriaceous ferricrete. Angular ferricrete float covers about 1 sq 2 and probably is weathered from underlying outcrop.
373		67 18 03N	151 50 06W	78 Cpx 9	A	A	Blue-gray, medium-grained, garnet-quartz-muscovite-illite schist.
374	B, Zr	67 23 48N	151 44 48W	78 Cpx 16	A	A	Laminated, fine-grained, graphitic, chlorite-quartz-muscovite pelitic schist.
375		67 29 17N	151 42 54W	78 Cpx 24	A	A	Pale-green, laminated, fine-grained, chlorite-illite-muscovite quartzite.
376	Si	67 29 33N	151 44 12W	78 Cpx 25	A	A	Gray, medium-grained marble.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B		Outcrop A	Nature of mineralization and remarks
					Composite C	Float D		
377	Hg	67 22 48N	151 32 36W	78 Cpx 29	A	A	A	Gray, fine-grained, dolomite breccia.
378	Ag, B, Pb	67 24 12N	151 32 36W	78 Cpx 30	A	A	A	Black, very fine-grained, graphite-muscovite quartzite.
379		67 14 58N	151 35 6W	77 Pe 44x	A	A	A	Hornfelsed garnet-actinolite-epidote green- schist.
380	Fe, Ag, As, Bi, Pb, Zn, Zn*	67 19 46N	151 18 18W	77 Fe 71x	A	D	D	Angular float from gossan zone in calc-schist and marble.
381		67 21 01N	152 17 48W	77 Un 102a	A	A	A	Gray, coarse-grained, biotite-muscovite- albite-granite orthogneiss.
382	Mo, Zr	67 21 01N	152 17 158W	77 Un 102b	A	A	A	Gray, coarse-grained, biotite-muscovite- albite-granite orthogneiss.
383		67 20 48N	152 17 00	77 Un 103	A	A	A	Porphyritic biotite-muscovite-tapakivi- granite orthogneiss.
384		67 20 45N	152 14 09W	77 Un 108	A	A	A	Silver, coarse-grained, biotite-muscovite- albite-quartz orthogneiss.
385	Re	67 10 29N	152 49 03W	77 Un 114a	A	A	A	Silver, coarse-grained, biotite-chlorite- muscovite-quartz-albite felsic schist.
386	Zr	67 10 29N	152 49 03W	77 Un 114b	A	A	A	Light-gray, coarse-grained, biotite-musco- vite-quartz-albite felsic gneiss.
								Sample taken in granitic pluton near contact. Contains relic beta-quartz phenoclasts.

Table 3 (cont.)

Sample #	Ammonious	Latitude	Longitude	Field #	Grab		Outcrop	Rock description	Nature of mineralization and remarks
					A, Chip B Composite C	A Float D			
307	Sn	07 10 33N	152 48 48W	77 Dn 115	A	A	A	Green, medium-grained, albite-actinolite-chlorite-garnet-glaucophane gneiss.	Glaucophane rimmed by actinolite.
308		07 12 00N	152 51 12W	77 Dn 119	A	A	A	Gray, medium-grained, chlorite-garnet-muscovite-albite-quartz schist.	
309		07 07 00N	152 22 42W	77 Dn 123a	A	A	A	Green, fine-grained, actinolite-chlorite-quartz-hornblende metadiabase.	
310	Fe	07 07 00N	152 22 42W	77 Dn 123b	A	A	A	Green, medium-grained, hornblende diabase.	
311		07 07 00N	152 22 42W	77 Dn 123c	A	A	A	Olive-green, medium-grained, enstatite(?) quartz-diopside metagabbro.	With pumpellyite.
312	Ti	07 07 00N	152 22 42W	77 Dn 123d	A	A	A	Coarse-grained, quartz-enstatite-diopside metagabbro.	Contains pumpellyite; 3% ilmenite and leucocene.
313	Ti	07 03 48N	152 53 48W	77 Dn 126	A	A	A	Very fine-grained, chlorite-pumpellyite pillowed metabasalt.	Contains about 2% iron sulfide in amygdalus.
314	Ng	07 05 15N	152 43 18W	77 Dn 136	A	A	A	Brown, medium-grained, augite metagabbro.	Contains pumpellyite.
315	Ti	07 19 02N	152 13 23W	77 Dn 144	A	A	A	Metaintrusive, quartz-biotite-actinolite-albite-chlorite greenstone.	About 5% sphene.
316	Ti	07 19 20N	152 13 42W	77 Dn 150	A	A	A	Medium-grained, epidote-chlorite-actinolite-albite greenschist.	Relic intrusive igneous texture; contains 2% magnetite and 5% sphene.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chlp B	Outcrop A	Rock description	Nature of mineralization and remarks
					Composite C	Float D		
397	Tl	67 17 42N	152 18 12W	77 Dn 158	A	A	Dark-green, medium-grained, epidote-actinolite-chlorite-albite greenstone.	Relict intrusive igneous texture; 1% magnetite, 3% sphene.
398		67 17 42N	152 18 12W	77 Dn 160	A	A	Green, medium-grained, chlorite-muscovite-albite-quartz schist.	
399		67 12 39N	152 05 48W	77 Dn 161	A	A	Polymetamorphic schist; consists of lenses of quartzite and graphitic, quartz-chlorite-muscovite schist.	
400	Mg	67 13 18	152 00 24W	77 Dn 167	A	A	Medium-grained, chlorite-albite-actinolite-epidote metadiorite.	
401		67 23 21N	152 34 42W	77 Dn 184	A	A	Medium-grained, muscovite-metagranite sill.	Has dark-gray, blasto-porphyritic microcline.
402	V	67 17 01N	151 17 00W	77 Dn 186	A	A	Fine-grained, albite-epidote-garnet-actinolite greenschist.	Has thin quartz and pyrite veins.
403	Sn	67 21 38N	152 16 54W	77 Dn 2	A	A	Coarse-grained, biotite-granite orthogneiss.	Pre-Devonian intrusive.
404	Ti, B, V	67 19 57N	151 48 00W	77 Dn 1	A	A	Fine-grained, biotite-albite-epidote-actinolite greenschist.	Has about 5% sphene and 2% coarse-grained, tourmaline (dravite) zones.
405	Fl, Y	67 19 30N	151 35 08W	77 Pe 30	A	A	Fine-grained, porphyroblastic, epidote-albite-actinolite-chlorite greenschist.	
406	Y	67 19 03N	151 34 54W	77 Pe 27	A	A	Green and white, coarse-grained, calcareous, chlorite-muscovite-albite-quartz schist.	

Table 3 (cont.)

Sample #	Longitude	Latitude	Longitude	Latitude	Field #	Grab		Outcrop	Nature of mineralization and remarks
						A, Chip	B, Composite		
							C	A	
407	Y	67 18 33N	151 35 06W	77 Pe 24a		A	A	A	White, fine-grained, calcite-chlorite-quartzite. 32 disseminated pyrite.
408	T1, Sn	67 18 06N	151 34 48W	77 Pe 22		A	A	A	Green, coarse-grained, garnet-chlorite-albite-muscovite metagabbro(?) 24 disseminated opaques.
409	Pg, Ni	67 17 36N	151 34 36W	77 Pe 16a		A	A	A	Medium-grained, talc(?) - chlorite-albite greenschist.
410	Y	67 17 36N	151 34 36W	77 Pe 16		A	A	A	Medium-grained, clinzoisite-chlorite-albite-actinolite greenschist.
411	Y, Zc	67 10 12N	152 49 48W	77 Pe 8a		A	A	A	Blue-gray, very fine-grained, muscovite-albite-microcline-quartz felsite.
412	Y, Pb	67 10 24N	152 49 06W	77 Pe 6		A	A	A	Orange-weathering, muscovite-microcline-albite-quartz felsite. Euhedral opaque may be galena.
413	Y, V	67 10 26N	152 49 00W	77 Pe 5		A	A	A	
414	Sn	67 23 16N	152 48 30W	77 Pe 4		A	A	A	Samples from granite-marble-injection wigmattite; contains disseminated fluorite and cassiterite.
415	Y	67 23 50N	152 48 52W	77 Pe 3		A	A	A	In granite about 4 m below contact with marble; no hornfels.

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Composite	Outcrop	Rock description	Nature of mineralization and remarks
					A, Chip	B				
					C	D				
416	Y	67 25 24N	151 55 12W	77 K1 70a	A	A		A	Gray, fine-grained, calcite-muscovite quartzite.	
417	V	67 19 38N	151 44 39W	77 K1 59	A	A		A	Fine-grained, epidote-chlorite-actinolite-albite greenschist.	1% disseminated magnetite.
418	Ng	67 10 24N	152 44 54W	77 Dn 8	A	A		A	Green and white, coarse-grained, albite-clinozoisite-rich ferite metagabbro.	
419	TL, V	67 17 05N	151 36 06W	77 Dn 19	A	A		A	Red and green, medium-grained, actinolite-calcite-albite-garnet hornfels.	Gossan in felsic schists crops out nearby.
420		67 16 37N	151 46 48W	77 Dn 20	A	A		A	Gray, medium-grained, chlorite-muscovite-quartzofeldspathic schist.	Contains pyrite.
421	Mo	67 19 21N	151 20 13W	77 Dn 43	A	A		A	Medium-grained, blastoporphyratic, biotite-muscovite quartz-monzonite orthogneiss.	Dated Late Devonian granite near contact with schist.
422		67 11 51N	152 36 30W	77 Dn 70	A	A		A	Fine-grained, biotite-muscovite-quartz monzonite orthogneiss or felsic schist.	
423		67 11 24N	152 35 18W	77 Dn 71	A	A		A	White, fine-grained, muscovite-metarhyolite porphyry.	Protoclastic texture.
424	Mo, R1, Zr	67 11 15N	152 34 48W	77 Dn 72	A	A		A	Light-gray, blastoporphyratic, beta quartz-microcline felsic metatuff.	Dated Late Devonian.

Table 3 (cont.)

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
425		67 30 18N	152 15 42W	77 Hg 149	A	A	Very fine-grained, epidote-albite-actinolite-chlorite greenschist.	A sill 2 to 8 m thick in marble; 1% disseminated magnetite.
426	Be, Zr	67 08 31N	152 55 42W	77 Hg 157a	A	A	Light-gray, medium- to coarse-grained, muscovite-quartz-albite felsic schist.	
427	Be	67 08 30N	152 55 30W	77 Hg 158	A	A	Gray, very fine-grained, cristobalite(?) - muscovite felsite.	
428	Pb, Zr	67 08 23N	152 53 30W	77 Hg 159.2a	A	A	Blue-gray, very fine-grained, muscovite-albite-quartz-microcline felsite.	Equant opaques may be galena.
429		67 08 12N	152 53 27W	77 Hg 160	A	A	Pale-yellow, medium-grained, muscovite-quartz-albite felsic schist.	Quartz veins abundant.
430		67 06 30N	152 17 00W	77 Hg 162	A	A	Fine-grained, pigeonite-albite greenstone with a glassy groundmass that is replaced by clay.	Disseminated chalcopyrite.
431		67 06 19N	152 18 30W	77 Hg 164	A	A	Aphanitic, amygdaloidal, celadonite greenstone.	Possible pumpellyite.
432		67 27 26N	151 41 48W	77 R1 14	A	A	Light-green, fine-grained, albite-chlorite-muscovite-quartz schist.	
433	Hg, Ti	67 21 42N	151 40 58W	77 R1 25	A	A	Drab, medium-grained, porphyroblastic, ankerite-albite-quartz-chlorite granofels.	
434		67 30 39N	152 22 15W	77 R1 32	A	A	Tan, fine-grained, chloritoid-calcite-quartz metagrit.	

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization
435		67 30 51N	152 22 00W	77 R1 34	A	A	Gray, fine-grained, chlorite-muscovite-quartzite metaconglomerate.	
436		67 31 11N	152 21 37W	77 R1 35	A	A	Maroon, fine-grained, muscovite-siderite-calcite-quartzite metagrit.	
437		67 13 48N	152 25 54W	77 R1 40	A	A	Olive, medium-grained, garnet-albite-muscovite-quartz schist.	
438	Hg, V	67 12 18N	152 23 00W	77 R1 43	A	A	Coarse-grained, garnet-albite-epidote-actinolite greenschist.	
439	V	67 11 30N	152 36 06W	77 R1 48a	A	A	Coarse-grained, nematoblastic, clinzoisite-muscovite-glaucophane schist.	Near felsite outcrops in 'schist belt'.
440		67 11 12N	152 36 24W	77 R1 49a	A	A	Blue-gray, fine-grained, muscovite-albite-microcline-quartz felsite.	
441	Pb	67 20 42N	151 41 42W	77 R1 53	A	A	White, coarse-grained, garnet-chlorite-albite metabasite.	
442	Ti	67 23 09N	152 14 00W	77 Hg 41	A	A	Medium-grained, actinolite-biotite-albite-chlorite greenschist.	1% disseminated magnetite.
443	V	67 11 36N	151 18 00W	77 Wh 99a	A	A	Pale-green, calcareous, chlorite-epidote-albite gneiss.	
444	Ti, Sn, Y, Zr	67 08 39N	151 11 00W	77 Wh 95a	A	A	Porphyritic, amygdaloidal, prehnite greenstone.	
445		67 20 42N	151 53 19W	77 Wh 21	A	A	Medium-grained, biotite-chlorite-muscovite-quartz-albite schist.	Intermediate meta-igneous rock.
446	V	67 19 45N	151 47 36W	77 Wh 18a	A	A	Fine-grained, biotite-epidote-albite-actinolite greenschist.	1% disseminated magnetite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Nature of mineralization and remarks
					Composite C	Outcrop A, B, C, D	
447	TL, V	67 19 42N	151 46 55W	77 Wh 17a	A	A	Fine-grained, biotite-epidote-albite-actinolite greenschist.
448	TI	67 24 51N	151 59 54W	77 Wh 3-b	A	A	Coarse-grained, epidote-calcite-chlorite-albite-actinolite greenschist.
449	Pl*, Fe*, Sn	67 28 51N	152 38 06W	77 Jr 7	A	A	Maroon and white, fine-grained, chloritoid-siderite-quartz metaconglomerate.
450		67 34 32N	151 38 36W	77 Dn 201	A	A	Brown, medium-grained, calcareous, muscovite-quartz metagrit.
451		67 34 12N	151 38 30W	77 Dn 202	A	A	Green, fine-grained, epidote-chlorite-quartz calc-schist.
452		67 25 35N	152 51 06W	77 Dn 209	A	A	Gray, medium-grained, biotite-quartzite metagrit.
453		67 25 12N	152 51 36W	77 Dn 210	A	A	Fine-grained, porphyroclastic, chloritoid-quartzite metagrit.
454		67 25 15N	152 54 33W	77 Dn 213	A	A	White, fine-grained, porphyroclastic, muscovite-quartzite metagrit.
455		67 23 44N	152 53 24W	77 Dn 215	A	A	Fine-grained, blastoporphyratic, muscovite-granite gneiss.
456	N	67 23 33N	152 57 12W	77 Dn 217	A	A	Medium-grained, blastoporphyratic, muscovite-biotite-granite orthogneiss.

Border facies of Ernie-Lake orthogneiss contains fluorite and cassiterite. Dated as 1,000 m.y. old.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Outcrop	Rock description	Nature of mineralization and remarks
					Composite C	Chip B			
457		67 15 04N	151 35 18W	77 Pe 43	A		A	Green and white, medium- to coarse-grained, actinolite-quartz-albite gneiss.	
458		67 14 51N	151 34 54W	77 Pe 45a	A		A	Brown, coarse-grained, epidote-albite-tremolite calc-schist.	
459		67 19 00N	151 31 12W	77 Pe 53a	A		A	Green, medium-grained, chlorite-muscovite-quartz-albite schist.	
460		67 18 39N	151 28 30W	77 Pe 59a	A		A	White, fine-grained, muscovite-albite-quartz schist.	
461		67 20 45N	151 22 12W	77 Pe 64	A		A	Medium-grained, biotite-quartz-epidote-chlorite-albite greenschist.	3% tabular and equant, opaque minerals.
462	Zr	67 21 36N	151 77 00W	77 Pe 60a	A		A	Muscovite-epidote-chlorite-quartz calc-schist.	
463	Zr	67 19 45N	151 18 12W	77 Pe 71	A		A	Medium-grained, muscovite-biotite-quartz-monzonite orthogneiss.	Intrudes calc-schist and marble.
464		67 19 18N	151 20 18W	77 Pe 75	A		A	Beige, fine-grained, muscovite-quartz-monzonite orthogneiss.	
465	Zr	67 19 24N	151 20 30W	77 Pe 76a	A		A	Tan, fine-grained, muscovite-quartz-monzonite orthogneiss.	Forms skarn in calc-schist.
466	Zr	67 19 00N	151 21 36W	77 Pe 78a	A		A	Beige, fine-grained, blastoporphyratic, biotite-muscovite-quartz-monzonite orthogneiss.	

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab			Rock description	Nature of mineralization and remarks
					Composite	Outcrop	Chip		
467	As, Co, Cu, Sn, Zn*	67 18 24N	151 14 12W	79 Dnx69s-1	C	A		Actinolite-biotite felsite with interlayers of marble and garnet-quartz-albite-muscovite schist.	Layers and veins of massive sulfides up to 15 cm thick. Massive pyrrhotite altering to marcasite, abundant chalcocopyrite, some cassiterite a rutile, trace sphalerite.
468	As, Co	67 18 30N	151 14 18W	79 Dnx69n-1	A	A		Marble interlayer with rounded structures that may be very poorly preserved fossils.	Layers and veins of massive sulfides up to 30 cm thick. Quartz gangue. Sulfides are pyrrhotite, arsenopyrite, sphalerite, and chalcopyrite.
469	As, Au*, Co, Cu, Pb	67 18 30N	151 14 18W	79 Dnx69n-2	C	A		Marble interlayer with rounded structures that may be very poorly preserved fossils.	Layers and veins of oxidized sulfides up to 30 cm thick. Pyrrhotite altering to marcasite, abundant chalcopyrite and sphalerite in pyrrhotite, some pyrite and/or arsenopyrite filling fractures.
470	As, Co, Cu	67 18 30N	151 14 18W	79 Dnx69n-3	A	A		Massive sulfide layer in calcite-muscovite-quartz schist.	Massive pyrrhotite, chalcopyrite, and arsenopyrite in layers.
471	Ag, As, Co, Cu	67 18 30N	151 14 18W	79 Dnx69n-4	C	A		Actinolite-biotite felsite with interlayers of marble and garnet-quartz-albite-muscovite schist.	Muscovite-quartzite layers rich in arsenopyrite, chalcopyrite, and black, sooty material.
472	Pb, Cu	67 18 18N	151 14 34W	79 Dnx 139	A	A		Medium-grained, chlorite-garnet-quartz-muscovite-albite schist.	Possible molybdenite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
473	Tl	67 13 48N	151 14 48W	79 Dux 148	A	A	Medium-grained, chlorite-muscovite-quartz schist.	Disseminated pyrite(?).
474		67 18 06N	151 14 42W	79 Dux 150a	C	A	Hornfelsed calc-silicate at contact with felsite.	Disseminated pyrite(?).
475	Tl	67 18 06N	151 14 42W	79 Dux 150b	A	A	Hornfelsed calc-silicate at contact with felsite.	Disseminated pyrite(?).
476		67 14 42N	151 40 30W	79 Dux 210	A	A	Pink, medium-grained, garnet-chlorite-muscovite-granite orthogneiss.	Disseminated pyrite(?).
477	Ag, Cu, Mo	67 25 36N	151 16 54W	79 Dux 230b	A	A	Fine-grained, actinolite-epidote-quartz-chlorite-biotite-albite greenschist.	Disseminated chalcopyrite and tetrahedrite(?).
478	Ni, Mn, Pb, Zn*	67 26 40N	151 28 30W	79 Dux 243	A	A	Orange, coarse-grained, dolomite layer in gray marble.	Contains sphalerite and pyrite in replaced layers or veins up to 8 cm thick.
479	Mo, Zn*	67 38 04N	152 14 18W	79 Dux 248	C	A	Arenaceous, crinoidal marble.	Marcasite(?) replaces crinoids.
480	Ag, As, Pb, Zn*, Sb	67 23 54N	152 40 06W	79 Dux 262	C	A	Calcareous, muscovite-quartz schist near contact with granite gneiss and marble.	Massive sulfides (pyrite, arsenopyrite, pyrrhotite(?), galena, and chalcopyrite) in layers and veins.
481	Cu*, Cu	67 32 15N	151 29 27W	Chip 116	A	A	Vein quartz with calcite.	Bornite.
482		67 32 27N	151 28 57W	Chip 117	A	A	Vein quartz with calcite.	Malachite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B		Outcrop A Float D	Rock description	Nature of mineralization and remarks
					Composite C				
483	B	67 31 44N	151 31 40W	Chip 118	A	A	A	Vein quartz with ankerite.	Trace pyrite.
484	Sb	67 33 32N	151 31 00W	Chip 119	A	A	A	Vein quartz with ankerite.	Trace pyrite.
485	Y	67 33 36N	151 30 51W	Chip 120	A	A	A	Vein quartz with calcite.	Trace pyrite.
486	Mn, Nb	67 31 22N	151 33 12W	Chip 121	A	A	A	Vein quartz with dolomite.	Rare malachite.
487	Sb	67 31 18N	151 33 27W	Chip 122	A	A	A	Vein quartz.	Trace limonite.
488		67 32 14N	151 35 18W	Chip 123	A	A	A	Vein quartz.	Minor calcite.
489		67 31 45N	151 35 15W	Chip 124	B	A	A	Vein-quartz stockwork.	Minor malachite and galena.
490	Nb	67 31 21N	151 35 18W	Chip 125	A	A	A	Altered calc-schist.	Pyritic.
491	Nb	67 31 22N	151 35 05W	Chip 126	A	A	A	Vein quartz with ankerite.	
492	Nb, Sb	67 31 22N	151 35 05W	Chip 127	A	A	A	Altered calc-schist.	Limonite replacing ankerite.
493	Ag, As, Bi, Cu, Cu*, Pb, Pb, Pb*, Sb, Zn, Zn*	67 31 18N	151 35 15W	Chip 128	A	A	A	Altered calc-schist.	Some sulfides.
494		67 28 57N	151 40 48W	Chip 129	A	A	A	Vein quartz.	Trace malachite.
495	Cu*, Cu, Ni	67 28 40N	151 41 00W	Chip 130	A	A	A	Vein quartz with dolomite.	Sulfides and malachite.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grub A, Chip		Outcrop A	Rock description	Nature of mineralization and remarks
					Composite C	Float D			
496	Ni, Hg	67 26 34N	151 37 06W	Chip 131	A	A	A	Tactite (skarn).	Contact near greenstone.
497	Hg	67 26 34N	151 37 06W	Chip 132	A	A	A	Dolomite.	Contact near greenstone.
498		67 28 28N	151 33 30W	Chip 133	A	A	A	Vein quartz with tourmaline.	Rare chalcopyrite.
499	Cu	67 28 24N	151 28 42W	Chip 134	A	A	A	Altered calc-schist.	Trace malachite.
500	Cu*, Cu	67 28 24N	151 28 42W	Chip 135	A	A	A	Vein quartz.	Visible bornite and malachite.
501		67 28 33N	151 29 02W	Chip 136	A	A	A	Vein quartz.	Trace malachite.
502	Cu*, Ag, Nb	67 28 36N	151 28 48W	Chip 137	A	A	A	Schist.	Trace malachite.
503	Au*, Cu*, Zn*, F, Cu, Ag, Sb	67 29 46N	151 30 28W	Chip 138	A	A	A	Vein quartz.	Tetrahedrite and limonite.
504		67 29 58N	151 30 42W	Chip 139	A	A	A	Vein quartz.	Kare malachite.
505 ^a	Coal	67 05 17N	151 27 56W	79 Dn 79	B	A	A	3-m-thick layer of fossil-plant material in cross-bedded sandstone and plant-fossil-rich shale sequence.	Moisture = 1.9% volatiles = 31.2%, carbon = 28.6%, ash = 38.3%

^aSamples 505-507 are from weathered outcrops of carbonaceous shale. No effort was made to avoid sampling oxidized material or prevent subsequent oxidation. Naturity of organic material has not been determined by reflectance studies. High ash contents would prevent agglomeration. Only the -1.60 mesh fraction of sample 79 Dn 79 was ranked as coal. Fossil plants are late Albian in age.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Crab		Rock description	Nature of mineralization and remarks
					Composite B	Outcrop A Flot B		
506 ^a	High carbon shale	67 07 32N	151 53 39W	79 bn 97	B	A	30-cm-thick layer of fossil, plant-rich shale in cross-bedded sandstone, grit, and conglomerate sequence.	Ash = 75.6%
507 ^a	High carbon shale	67 06 14N	151 54 08W	79 bn 98	B	A	10-cm-thick layers of fossil, plant-rich shale in sequence of sandstone, mudstone, shale, and siltstone.	Moisture = 1.2% volatiles = 20.9%, carbon = 25.4%, ash = 52.0%
508	Hg, Zr	67 21 12N	151 21 55W	80Ad 44	A	A	White, medium-grained, quartz-muscovite calc-schist.	32 chalcopyrite(?).
509	Al, W	67 13 26N	152 24 18W	80Ad 55	A	A	Greenish, medium-grained, muscovite-epidote-quartz calc-schist.	22 magnetite.
510		67 17 18N	152 51 58W	80Ad 59	C	A	Greenish, medium-grained, quartz-chloritoid-muscovite calc-schist.	22 hematite, contains fuchsite.
511	Fe, Mn, Sn, W, V	67 10 22N	152 38 30W	80bn 44	C	A	Green to reddish, medium-grained, chlorite-muscovite-quartzite conglomerate with lenses.	Layer parallel about 4 x 20 cm lens of ironstone.
512	Cu, Ni	67 26 17N	152 28 08W	80bn 47	A	A	Interbanded white, muscovite quartzite, green-chlorite quartzite, and gray, graphitic schist.	Gossan in banded rocks formed by weathering of thin sulfide seams. Quartz veins present.
513	Pb, W	67 26 48N	152 20 18W	80bn 67	C	A	Gossan in base of massive marble.	Oxidized sulfides in layer 10 cm thick that parallels lithologic layering for 30 m.
514		67 28 55N	151 52 02W	80bn 97	A	A	Platy gray marble.	Seams of oxidized sulfides.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab		Component	Outcrop		Rock description	Nature of mineralization and remarks
					A, chip	B		A	D		
515	Fe, Ni, W	67 27 45N	152 43 20W	800n 106	C		C	A	A	Angular float of sulfide bearing quartz vein. Source not located but must be nearby.	Sulfides include arsenopyrite, pyrite, chalcopyrite(?).
516	Fe, Ni, U	67 26 18N	152 39 30W	800n 108	A		A	A	A	Brown and green pyrite-hematite-quartzite.	15% stratoparallel hematite layers and 10% disseminated pyrite. Trace of metamorphic kyanite.
517	Ti	67 31 40N	152 19 00W	800n 134	C		C	A	A	Grayish to purple schistose metaconglomerate with stretched, subrounded cobbles of quartzite and carbonate and interlayers of marble, dolomite, graphitic schist, and ferruginous quartzite.	1-4% disseminated malachite in several outcrops.
518	Ag, Cu	67 30 54N	152 18 33W	800n 135	A		A	B	B	Angular slab of copper sulfide and sulfate about 2 cm thick on dolomite rubble-crop.	Auzite-malachite-chalcocite vein >2 cm thick in metamorphosed, copper-rich conglomerate, sandstone, and shale unit beneath marble.
519	Pb, As, Sb	67 19 04N	152 20 10W	800n 79	C		C	A	A	Marble with calc-schist and quartzite layers.	Quartzite layers contain massive arsenopyrite and pyrite in strata-parallel bands up to 10 cm thick and 20 m long. Other similar occurrences along strike up to 1 km apart.

Table 3 (cont.)

Sample #	Anomalous	Latitude	Longitude	Field #	Grab A, Chip B Composite C	Outcrop A Float D	Rock description	Nature of mineralization and remarks
520		67 23 34N	152 05 15W	80Dn 2	A	A	Possible plagioclase granite from section of metagabbro + greenschist.	
521	Ti, Mn, Bi, V	67 13 56N	152 17 12W	80Dn 10	A	A	Medium-grained, sphene-chlorite-garnet-albite greenschist.	
522	Ni	67 10 24N	152 26 20W	80Dn 19	A	A	Light-gray, medium-grained, porphyroblastic, quartz-muscovite-albite felsic schist.	
523	Ni	67 09 48N	152 19 24W	80Dn 21	A	A	Medium-gray, coarse-grained, calcareous, quartz-muscovite-albite felsic schist.	
524	Ni	67 12 48N	152 35 00W	80Dn 22	A	A	Banded, gray and white, graphitic, clinozoisite-chlorite-quartz schist.	1% disseminated chalcopyrite. Small gossans in outcrops.
525	Ti, Mn, Y	67 11 33N	152 34 00W	80Dn 26	A	A	White, coarse-grained, blastoporphyratic, albite-muscovite-quartz gneiss.	
526	Ni	67 10 30N	152 36 42W	80Dn 28	C	A	White to pale-yellow, fine- and medium-grained, muscovite-albite-quartz-microcline felsic schist.	
527	Ti, Mn, Bi, Ni, V	67 10 30N	152 36 42W	80Dn 28c	A	A	Coarse-grained, porphyroblastic, calcareous, actinolite-chlorite-albite greenschist.	
528		67 22 42N	152 32 27W	80Dn 55	A	A	Gray, medium-grained, blastoporphyratic granite gneiss.	Similar to gneiss of Ernie Lake.
529	Ti, Mn, Bi, Ni, V	67 28 40N	152 23 36W	80Dn 65	A	A	Green, fine-grained, actinolite-chlorite-quartz calc-schist with calcite porphyroblasts.	

Sample #	Anomalous	Latitude	Longitude	Field #	Grab chip		Rock description	Nature of mineralization and remarks
					Composite C	Outcrop A		
530	Ti, Ni	67 16 42N	152 24 24W	800m 87	A	A	Coarse-grained, biotite-muscovite-chlorite-albite greenschist.	Malachite stained.
531	Be, Hf	67 27 55N	152 43 00W	800m 106	A	A	White, fine-grained, biotite-muscovite-albite-quartz felsic metatuff.	Biastoporphyrific plagioclase and embayed beta-quartz.
532	Fl, V	67 27 26N	152 33 06W	800m 107	A	A	Coarse-grained, epidote-chlorite-biotite-quartz-albite granitic gneiss.	
533	Ti, Hf, R	67 35 18N	152 14 18W	800m 128a	A	A	Green, fine-grained, chlorite-quartzite hornfels.	At intrusive contact.
534	Ti, Hf, V	67 35 18N	152 14 16W	800m 128b	A	A	Green, fine-grained, chlorite-quartzite hornfels and intruding diabasic gabbro.	At intrusive contact.
535	Fl, Hf, Cr, Ni, V	67 35 18N	152 14 18W	800m 128c	A	A	Green, coarse-grained, hornblende megacryst.	
536	Hf, Ni, V	67 32 06N	152 18 06W	800m 136	A	A	Green, coarse-grained, epidote-chlorite-actinolite-albite megacryst.	

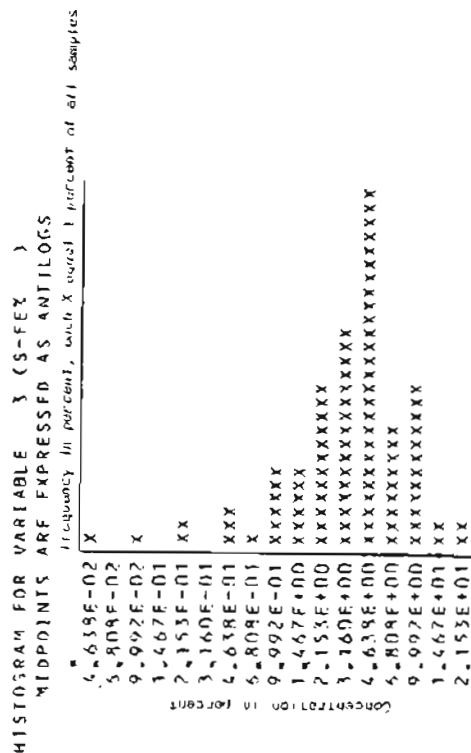
Table 3 (cont.)

Table 4. Graphical analysis of analytical results for 381 of 536 rock samples from the southwest Wiseman Quadrangle, Alaska.

Table 4 presents the following statistics and graphs for each element detected in a sufficient number of samples to permit statistical analysis: 1) observed frequency (obs. freq.), cumulative frequency (cum. freq.), percent frequency (percent freq.), percent-cumulative frequency (percent-cum. freq.), and theoretically predicted frequency of samples falling within certain logarithmically expressed concentration intervals for a log-normal distribution (theor. freq.); 2) histogram and cumulative-frequency curve from data in (1) above; 3) threshold value used to distinguish samples with anomalously high concentrations; 4) highest and lowest unqualified elemental concentrations detected (maximum and minimum antilog); 5) geometric mean, deviation, and variance of elements detected in unqualified concentrations; and 6) interpolated concentrations higher than 25, 50, 90, and 95 percent of the samples. Analysis by atomic-absorption spectrophotometry is indicated by 'AA-element'; analysis by semiquantitative emission spectrography is indicated by 'S-element.' Concentrations of Fe, Mg, Ca, and Ti are reported in percent; all others are reported in parts per million (ppm). Qualified data are coded N, L, T, G, H, and B; N = not detected at lower detection limit, L = detected but below lower limit of detection and quantitative determination of concentration, T = at lower limit for detection and quantitative determination of the concentration, G = greater than upper limit of detection and quantitative determination of concentration, H = severe interference problem, and B = not determined. Detection limits are listed in caption for table 2.

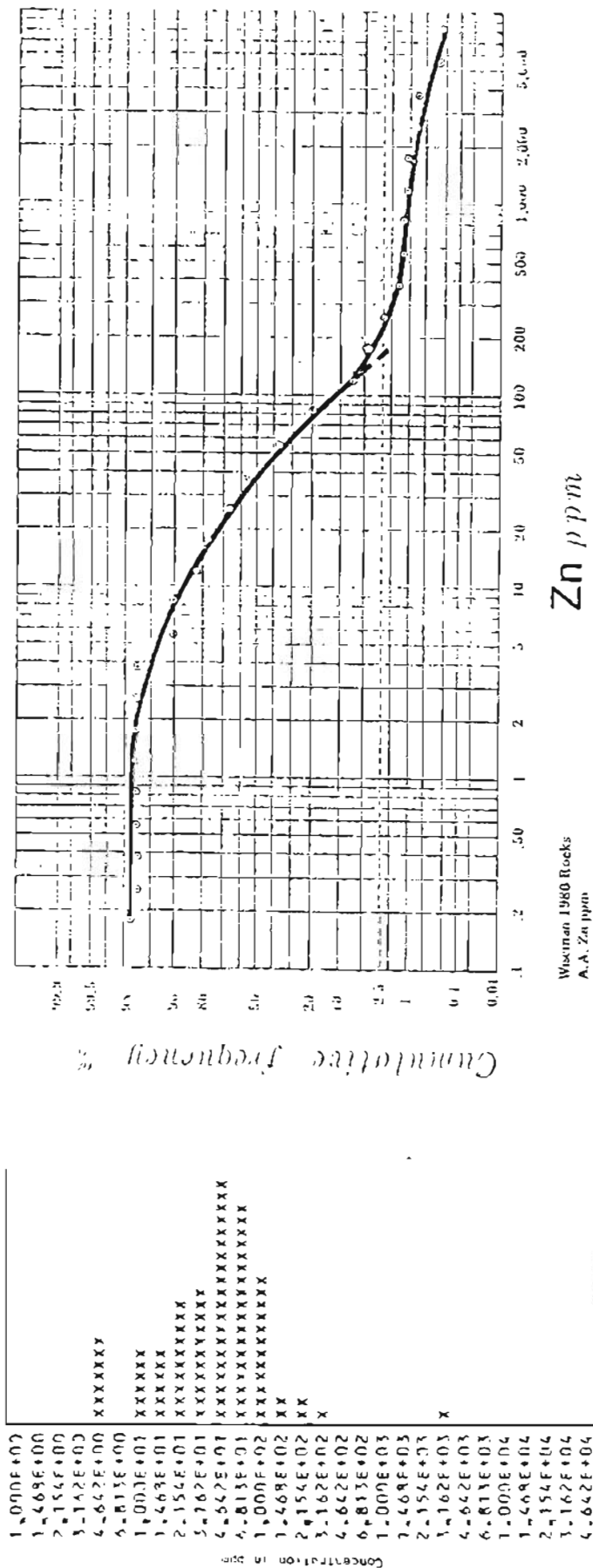
Table 4. Graphical analysis of analytical results for 380 of 537 rock samples from the southwest Wiseman Quadrangle, Alaska.

FREQUENCY TABLE FOR VARIABLE 3 (S-FEX)							
LOG LIMITS	UPPER	ORIG FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - ORIG FREQ)*2/THEOR FREQ
1		0	0	0.00	0.00	7.123E-03	1.384E+02
-1.417E+00	-1.250E+00	1	1	0.26	0.26	2.452E-02	1.223E+02
-1.250E+00	-1.084E+00	3	4	0.79	1.05	9.284E-02	1.068E+01
-1.084E+00	-0.917E+00	1	5	0.26	1.32	3.098E-01	6.145E+00
-0.917E+00	-0.750E+00	2	7	0.53	1.84	9.113E-01	1.860E-01
-0.750E+00	-0.583E+00	1	8	0.26	2.11	2.352E+00	6.016E-01
-0.583E+00	-0.417E+00	7	15	1.44	3.95	5.395E+00	-5.210E+00
-0.417E+00	-0.250E+00	12	27	0.26	4.21	7.086E+01	-9.754E+00
-0.250E+00	-0.084E+00	8	35	3.16	7.37	1.926E+01	-1.900E+01
-0.084E+00	0.084E+00	24	59	1.32	8.68	3.011E+01	-2.932E+01
0.084E+00	0.250E+00	21	80	6.32	15.00	4.148E+01	-4.098E+01
0.250E+00	0.417E+00	67	147	12.37	27.37	5.037E+01	-4.943E+01
0.417E+00	0.583E+00	61	208	16.05	43.42	5.389E+01	-5.276E+01
0.583E+00	0.750E+00	97	285	25.53	68.95	5.081E+01	-4.890E+01
0.750E+00	0.917E+00	34	319	8.95	77.87	4.223E+01	-4.142E+01
0.917E+00	1.084E+00	44	363	11.58	89.45	3.092E+01	-2.950E+01
1.084E+00	1.250E+00	9	372	2.37	91.82	1.996E+01	-1.951E+01
1.250E+00	1.416E+00	3	375	0.79	92.61	2.100E+01	-2.067E+01
		3	378		100.00	0.000E+00	0.000E+00
		0	380				
		1	381				
TOTALS	LESS H AND B	380				3.800E+02	-8.810E+01



HISTOGRAM FOR VARIABLE 34 (AA-ZN-P)

Frequency in percent, each X equal 1 percent of all samples.



THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E-01
MAXIMUM ANTILOG = 4.00000E+04
GEOMETRIC MEAN = 4.04605E+07
GEOMETRIC DEVIATION = 3.40513E+00
VARIANCE OF LOGS = 2.34726E-01

PERCENT TABLE FOR VARIABLE 34 (AA-ZN-P) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991F 50

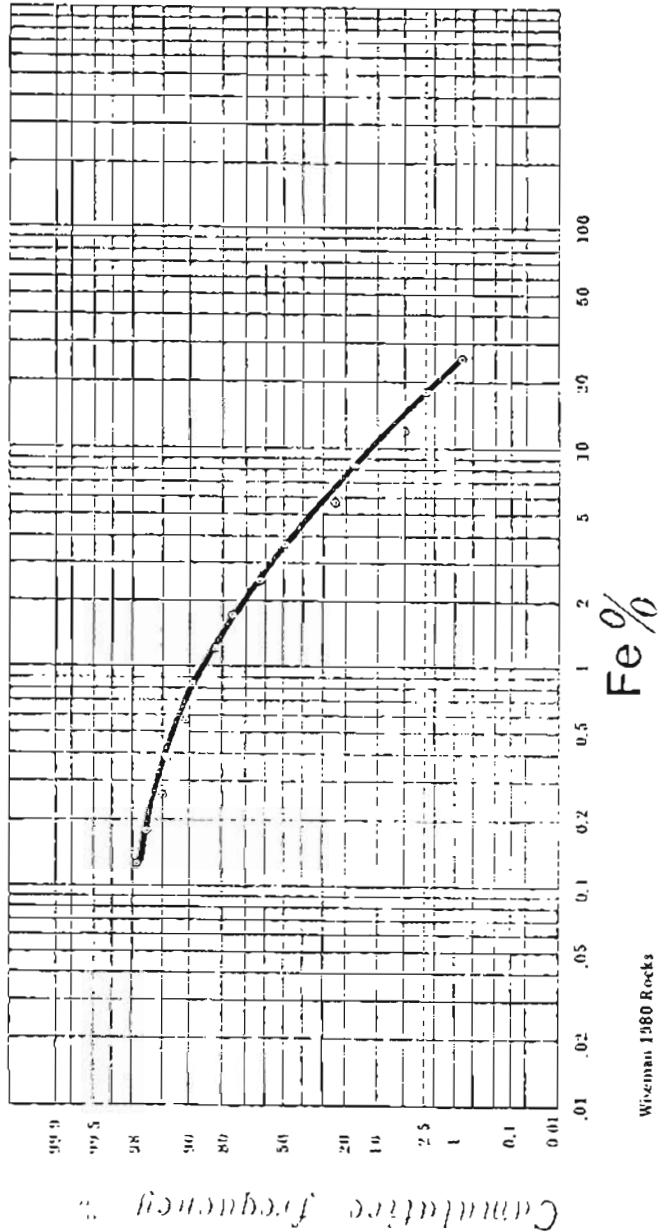
SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.130856E+01	0.203499E+02
50.00	0.164556E+01	0.442141E+02
75.00	0.186595E+01	0.734425E+02
90.00	0.204431E+01	0.110747E+03
95.00	0.223149E+01	0.170407E+03

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-02
 MAXIMUM ANTILOG = 2.00000E+01
 GEOMETRIC MEAN = 1.10130E+00
 GEOMETRIC DEVIATION = 2.34383E+00
 VARIANCE OF LOGS = 2.06028E-01

PERCENT TABLE FOR VARIABLE 1 (S-FE2) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.309954E+00	0.204152E+01
50.00	0.589877E+00	0.388935E+01
75.00	0.759475E+00	0.574745E+01
90.00	0.101104E+01	0.102573E+02
95.00	0.108300E+01	0.121061E+02



Wizenan 1980 Rocks
 Spec. Fe in %
 Threshold - 18%

FREQUENCY TABLE FOR VARIABLE 4 (S-MGX)

LOG LIMITS	UPPER	NO	CUM	PERCENT	PERCENT	THEOR FREQ	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER		FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	
-1.750E+00	-1.583E+00	0	0	0.00	0.00	1.068E-01	2.798E+01
-1.583E+00	-1.417E+00	0	0	0.00	0.00	3.291E-01	-3.291E-01
-1.417E+00	-1.250E+00	0	0	0.00	0.00	9.054E-01	1.986E-01
-1.250E+00	-1.083E+00	0	0	0.00	0.00	2.225E+00	-2.225E+00
-1.083E+00	-9.167E-01	14	14	3.58	4.74	4.882E+00	-2.014E+00
-9.167E-01	-7.500E-01	7	21	1.84	6.58	9.563E+00	-8.831E+00
-7.500E-01	-5.833E-01	22	43	5.79	12.37	1.673E+01	-1.541E+01
-5.833E-01	-4.167E-01	16	59	4.21	16.59	2.613E+01	-2.552E+01
-4.167E-01	-2.500E-01	30	89	7.89	24.47	3.644E+01	-3.562E+01
-2.500E-01	-8.333E-02	25	114	6.54	31.05	4.538E+01	-4.483E+01
-8.333E-02	8.333E-02	46	160	12.11	43.16	5.046E+01	-4.955E+01
8.333E-02	2.500E-01	38	202	10.00	53.16	5.011E+01	-4.935E+01
2.500E-01	4.167E-01	73	275	19.21	72.37	4.443E+01	-4.279E+01
4.167E-01	5.833E-01	60	335	15.79	88.16	3.518E+01	-3.347E+01
5.833E-01	7.500E-01	38	373	10.00	98.16	2.487E+01	-2.334E+01
7.500E-01	9.167E-01	4	377	1.05	99.21	1.570E+01	-1.544E+01
9.167E-01	1.083E+00	2	379	0.53	99.74	8.849E+00	-8.623E+00
1.083E+00	1.250E+00	0	379	0.00	99.74	4.454E+00	-4.454E+00
1.250E+00	1.417E+00	1	380	0.26	100.00	3.220E+00	-2.909E+00
		0	380	0.00	100.00		
		0	380				
		1	381				
		380				3.800E+02	-3.365E+02

TOTALS LESS H AND R 380

HISTOGRAM FOR VARIABLE 4 (S-MGX)
WINDPOINTS ARE EXPRESSED AS ANTILOGS

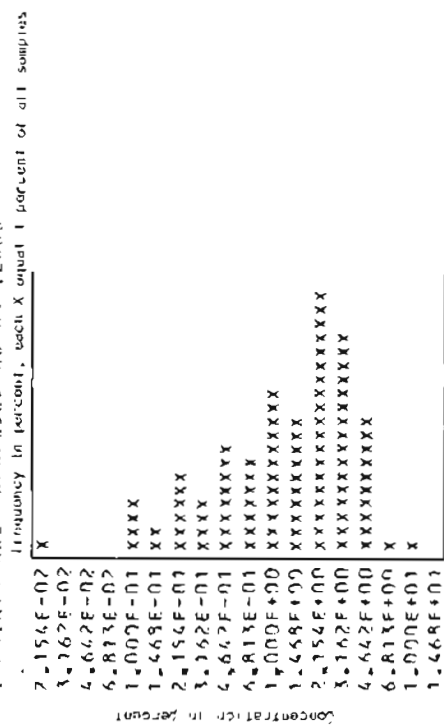


Table 4 (cont.)

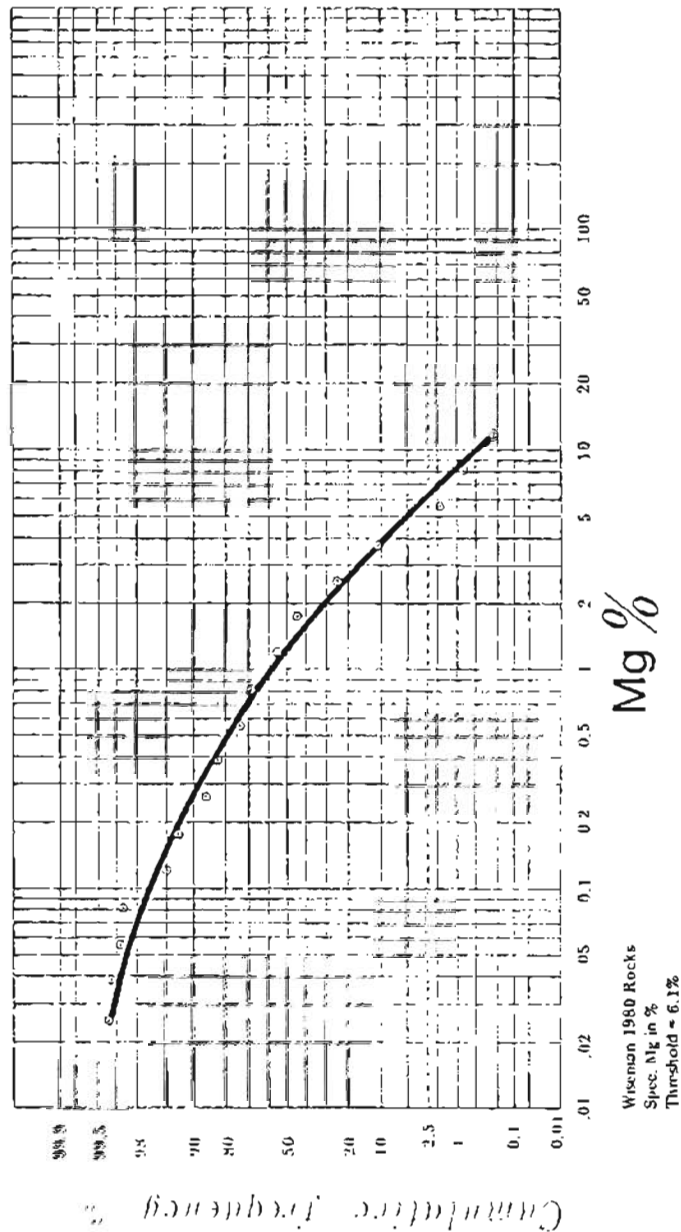
2.154E+01

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E-02
 MAXIMUM ANTILOG = 2.00000E+01
 GEOMETRIC MEAN = 1.18293E+00
 GEOMETRIC DEVIATION = 3.11123E+00
 VARIANCE OF LOGS = 2.42980E-01

PERCENT TABLE FOR VARIABLE 4 (S-MG%) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-0.236664E+00	0.579978E+00
50.00	0.197372E+00	0.157533E+01
75.00	0.444449E+00	0.278259E+01
90.00	0.614040E+00	0.411197E+01
95.00	0.697373E+00	0.498165E+01



FREQUENCY TABLE FOR VARIABLE S (S-CAT)

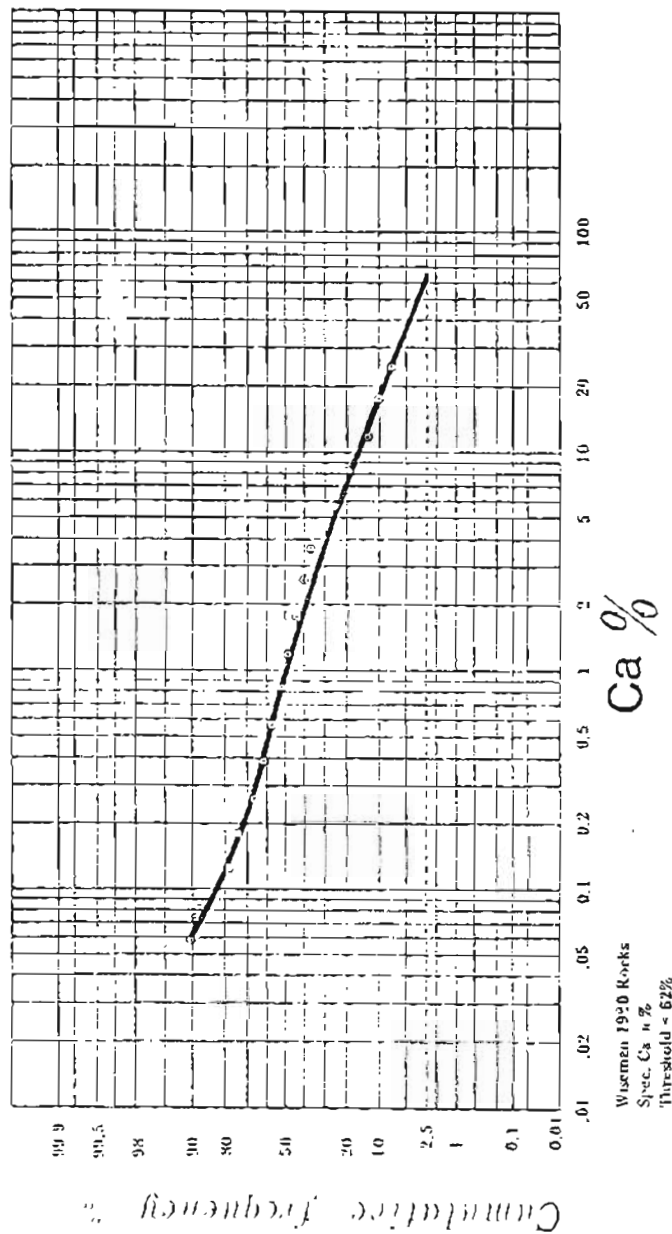
LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
-1.417E+00	-1.250E+00	0	0	0.00	0.00	1.801E+01	5.663E-02
-1.250E+00	-1.084E+00	17	17	4.47	4.47	8.449E+00	-6.437E+00
-1.084E+00	-0.917E+00	0	17	0.00	4.47	1.122E+01	-1.041E+01
-0.917E+00	-0.750E+00	17	34	4.47	8.95	1.435E+01	-1.177E+01
-0.750E+00	-0.584E+00	37	51	9.74	21.05	1.769E+01	-1.696E+01
-0.584E+00	-0.417E+00	13	64	3.42	24.47	2.103E+01	-1.956E+01
-0.417E+00	-0.250E+00	31	95	8.16	32.63	2.409E+01	-2.343E+01
-0.250E+00	-0.084E+00	16	111	4.21	36.84	2.651E+01	-2.589E+01
0.084E+00	0.250E+00	19	130	5.00	41.84	2.832E+01	-2.776E+01
0.250E+00	0.417E+00	15	145	3.95	46.05	2.906E+01	-2.854E+01
0.417E+00	0.584E+00	16	161	4.21	50.00	2.873E+01	-2.818E+01
0.584E+00	0.750E+00	22	183	5.79	54.21	2.739E+01	-2.659E+01
0.750E+00	0.917E+00	27	210	7.00	60.00	2.516E+01	-2.473E+01
0.917E+00	1.084E+00	11	221	2.99	62.89	2.228E+01	-2.040E+01
1.084E+00	1.250E+00	42	263	11.05	73.95	1.902E+01	-1.771E+01
1.250E+00	1.417E+00	25	288	6.58	80.53	1.565E+01	-1.418E+01
1.417E+00	1.584E+00	23	311	6.05	86.58	1.241E+01	-1.136E+01
1.584E+00	1.750E+00	13	324	3.42	90.00	3.052E+01	-2.996E+01
1.750E+00	1.917E+00	17	341	4.47	94.47	0.000E+00	0.000E+00
1.917E+00	2.084E+00	21	362	5.53	100.00		
2.084E+00	2.250E+00	0	362				
2.250E+00	2.417E+00	1	363				
2.417E+00	2.584E+00	1	364				
2.584E+00	2.750E+00	0	364				
2.750E+00	2.917E+00	0	364				
2.917E+00	3.084E+00	0	364				
3.084E+00	3.250E+00	0	364				
3.250E+00	3.417E+00	0	364				
3.417E+00	3.584E+00	0	364				
3.584E+00	3.750E+00	0	364				
3.750E+00	3.917E+00	0	364				
3.917E+00	4.084E+00	0	364				
4.084E+00	4.250E+00	0	364				
4.250E+00	4.417E+00	0	364				
4.417E+00	4.584E+00	0	364				
4.584E+00	4.750E+00	0	364				
4.750E+00	4.917E+00	0	364				
4.917E+00	5.084E+00	0	364				
5.084E+00	5.250E+00	0	364				
5.250E+00	5.417E+00	0	364				
5.417E+00	5.584E+00	0	364				
5.584E+00	5.750E+00	0	364				
5.750E+00	5.917E+00	0	364				
5.917E+00	6.084E+00	0	364				
6.084E+00	6.250E+00	0	364				
6.250E+00	6.417E+00	0	364				
6.417E+00	6.584E+00	0	364				
6.584E+00	6.750E+00	0	364				
6.750E+00	6.917E+00	0	364				
6.917E+00	7.084E+00	0	364				
7.084E+00	7.250E+00	0	364				
7.250E+00	7.417E+00	0	364				
7.417E+00	7.584E+00	0	364				
7.584E+00	7.750E+00	0	364				
7.750E+00	7.917E+00	0	364				
7.917E+00	8.084E+00	0	364				
8.084E+00	8.250E+00	0	364				
8.250E+00	8.417E+00	0	364				
8.417E+00	8.584E+00	0	364				
8.584E+00	8.750E+00	0	364				
8.750E+00	8.917E+00	0	364				
8.917E+00	9.084E+00	0	364				
9.084E+00	9.250E+00	0	364				
9.250E+00	9.417E+00	0	364				
9.417E+00	9.584E+00	0	364				
9.584E+00	9.750E+00	0	364				
9.750E+00	9.917E+00	0	364				
9.917E+00	10.084E+00	0	364				
10.084E+00	10.250E+00	0	364				
10.250E+00	10.417E+00	0	364				
10.417E+00	10.584E+00	0	364				
10.584E+00	10.750E+00	0	364				
10.750E+00	10.917E+00	0	364				
10.917E+00	11.084E+00	0	364				
11.084E+00	11.250E+00	0	364				
11.250E+00	11.417E+00	0	364				
11.417E+00	11.584E+00	0	364				
11.584E+00	11.750E+00	0	364				
11.750E+00	11.917E+00	0	364				
11.917E+00	12.084E+00	0	364				
12.084E+00	12.250E+00	0	364				
12.250E+00	12.417E+00	0	364				
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12.584E+00	12.750E+00	0	364				
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12.917E+00	13.084E+00	0	364				
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13.250E+00	13.417E+00	0	364				
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13.584E+00	13.750E+00	0	364				
13.750E+00	13.917E+00	0	364				
13.917E+00	14.084E+00	0	364				
14.084E+00	14.250E+00	0	364				
14.250E+00	14.417E+00	0	364				
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14.584E+00	14.750E+00	0	364				
14.750E+00	14.917E+00	0	364				
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15.250E+00	15.417E+00	0	364				
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16.917E+00	17.084E+00	0	364				
17.084E+00	17.250E+00	0	364				
17.250E+00	17.417E+00	0	364				
17.417E+00	17.584E+00	0	364				
17.584E+00	17.750E+00	0	364				
17.750E+00	17.917E+00	0	364				
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20.084E+00	20.250E+00	0	364				
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20.417E+00	20.584E+00	0	364				
20.584E+00	20.750E+00	0	364				
20.750E+00	20.917E+00	0	364				
20.917E+00	21.084E+00	0	364				
21.084E+00	21.250E+00	0	364				
21.250E+00	21.417E+00	0	364				
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21.750E+00	21.917E+00	0	364				
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23.084E+00	23.250E+00	0	364				
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23.584E+00	23.750E+00	0	364				
23.750E+00	23.917E+00	0	364				
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24.917E+00	25.084E+00	0	364				
25.084E+00	25.250E+00	0	364				
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26.084E+00	26.250E+00	0	364				
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26.417E+00	26.584E+00	0	364				
26.584E+00	26.750E+00	0	364				
26.750E+00	26.917E+00	0	364				
26.917E+00	27.084E+00	0	364				
27.084E+00	27.250E+00	0	364				
27.250E+00	27.417E+00	0	364				
27.417E+00	27.584E+00	0	364				
27.584E+00	27.750E+00	0	364				

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-02
 MAXIMUM ANTILOG = 2.00000E+01
 GEOMETRIC MEAN = 1.04914E+00
 GEOMETRIC DEVIATION = 5.38879E+00
 VARIANCE OF LOGS = 6.48700E-01

PERCENT TABLE FOR VARIABLE S (S-CAL) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-0.739579E+00	0.182146E+00
50.00	0.810030E-01	0.121061E+01
75.00	0.776338E+00	0.597500E+01
90.00	0.124967E+01	0.177694E+02
95.00	0.110000E+36	0.100000E+36



FREQUENCY TABLE FOR VARIABLE 6 (9-11%)

LOS LIMITS		ORS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - ORS FREQ)*2/(THEOR FREQ
LOWEP	UPPER						
N		0	0	0.00	0.00	2.4644F-02	1.636E+02
L		0	0	0.00	0.00	1.007E-01	-1.007E-01
T		0	0	0.00	0.00	3.596E-01	7.982E+00
-2.617F+00	-2.250E+00	4	4	1.06	1.06	1.114F+00	-2.151E-01
-2.250E+00	-2.084E+00	0	4	0.00	1.06	2.992E+00	1.655E+00
-2.084E+00	-1.917E+00	3	7	0.79	1.85	1.407E+01	-5.676E+00
-1.917E+00	-1.750E+00	1	8	0.26	2.11	2.465F+01	-1.279E+01
-1.750E+00	-1.584E+00	4	12	1.06	3.17	3.743E+01	-3.677E+01
-1.584E+00	-1.417E+00	9	21	2.32	5.54	4.930F+01	-4.876E+01
-1.417E+00	-1.250E+00	18	39	4.75	10.29	5.632E+01	-5.516E+01
-1.250E+00	-1.084E+00	3	42	0.79	11.08	5.578F+01	-5.462E+01
-1.084E+00	-0.917E+00	25	67	6.60	17.68	4.792E+01	-4.579E+01
-0.917E+00	-0.750E+00	27	94	7.12	24.80	3.569F+01	-3.488F+01
-0.750E+00	-0.584E+00	65	159	17.15	41.95	2.306E+01	-2.223E+01
-0.584E+00	-0.417E+00	65	224	17.15	59.10	1.292F+01	-1.292F+01
-0.417E+00	-0.250E+00	102	326	26.91	86.02	6.275E+00	-6.275E+00
-0.250E+00	-0.084E+00	29	355	7.65	93.67	2.643E+00	-2.643E+00
-0.084E+00	0.084E+00	19	374	5.01	98.68	9.265E-01	-9.265E-01
0.084E+00	0.250E+00	0	374	0.00	98.68	4.149E-01	1.995F+00
0.250E+00	0.417E+00	0	374	0.00	98.68	6.256F-03	2.550E+03
0.417E+00	0.584E+00	0	374	0.00	98.68		
0.584E+00	0.750E+00	0	374	0.00	98.68		
0.750E+00	0.917E+00	0	374	0.00	98.68		
0.917E+00	1.084E+00	1	375	0.26	99.94		
1.084E+00	1.250E+00	4	379	1.06	100.00		
1.250E+00	1.417E+00	0	379				
1.417E+00	1.584E+00	2	381				
TOTALS LESS H AND B		379 L				3.790E+02	2.357E+03

HISTOGRAM FOR VARIABLE 6 (S-VIZ)

WIOPOINTS ARE EXPRESSED AS ANTILOGS

frequency in percent, each \times equal 1 percent of all samples[illegible]

1.160E+00
 2.619E+00
 6.809E+00

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-03
 MAXIMUM ANTILOG = 7.00000E+00
 GEOMETRIC MEAN = 2.50525E-01
 GEOMETRIC DEVIATION = 2.73455E+00
 VARIANCE OF LOGS = 1.90869E-01

PERCENT TABLE FOR VARIABLE 6 (S-112) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-0.748407E+00	0.178481E+00
50.00	-0.505458E+00	0.312279E+00
75.00	-0.318548E+00	0.480233E+00
90.00	-0.163547E+00	0.686203E+00
95.00	-0.103637E-01	0.913348E+00

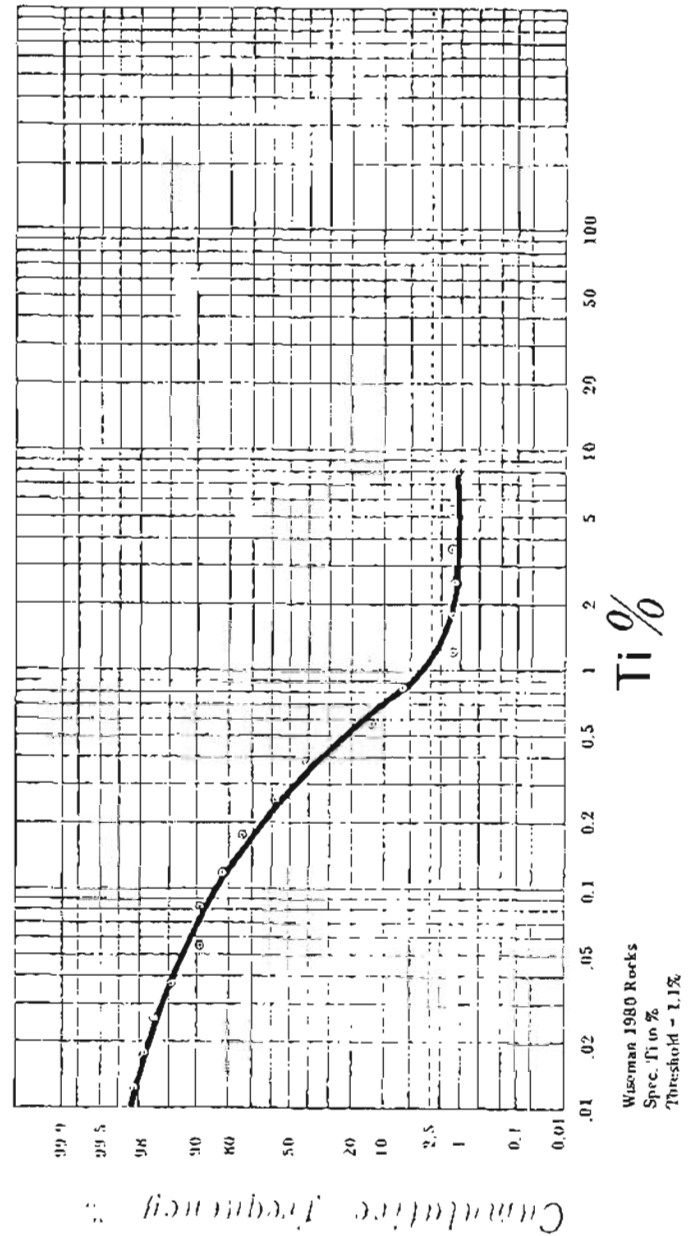
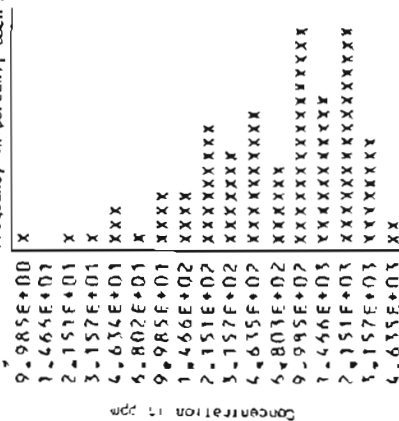


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 7 (S-MN)									
LOG LIMITS		N	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER								
0.150E+01	1.083E+00	0	0	0	0.00	0.00	1.714E+01	4.668E+01	
1.093E+00	1.249E+00	3	3	3	0.70	0.70	1.664E+01	1.664E+01	
1.249E+00	1.416E+00	5	5	8	1.32	2.11	7.075E+01	-7.075E+01	
1.416E+00	1.583E+00	3	3	11	0.79	2.89	1.560E+00	3.641E+01	
1.583E+00	1.749E+00	2	2	13	0.53	3.42	3.161E+00	-2.528E+00	
1.749E+00	1.916E+00	10	10	23	2.63	6.05	5.891E+00	-4.193E+00	
1.916E+00	2.083E+00	2	2	25	0.53	6.58	1.009E+01	-9.897E+00	
2.083E+00	2.249E+00	15	15	40	3.95	10.53	1.591E+01	-1.496E+01	
2.249E+00	2.416E+00	14	14	54	3.68	14.21	2.305E+01	-2.244E+01	
2.416E+00	2.583E+00	34	34	88	8.95	23.16	3.071E+01	-2.960E+01	
2.583E+00	2.749E+00	25	25	113	6.58	29.74	3.762E+01	-3.696E+01	
2.749E+00	2.916E+00	38	38	151	10.20	39.74	4.238E+01	-4.148E+01	
2.916E+00	3.083E+00	24	24	175	6.32	46.05	4.390E+01	-4.335E+01	
3.083E+00	3.249E+00	59	59	234	15.53	61.58	4.181E+01	-4.040E+01	
3.249E+00	3.416E+00	42	42	276	11.05	72.63	3.662E+01	-3.548E+01	
3.416E+00	3.583E+00	60	60	336	15.79	88.42	2.949E+01	-2.746E+01	
3.583E+00	3.749E+00	31	31	367	8.16	96.58	2.184E+01	-2.042E+01	
3.749E+00		9	9	376	2.37	98.95	3.479E+01	-3.453E+01	
		4	4	380	1.05	100.00	0.000E+00	0.000E+00	
		0	0	380					
		1	1	381					
TOTALS LESS H AND B					380		3.800E+02	-3.007E+02	

HISTOGRAM FOR VARIABLE 7 (S-MN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples

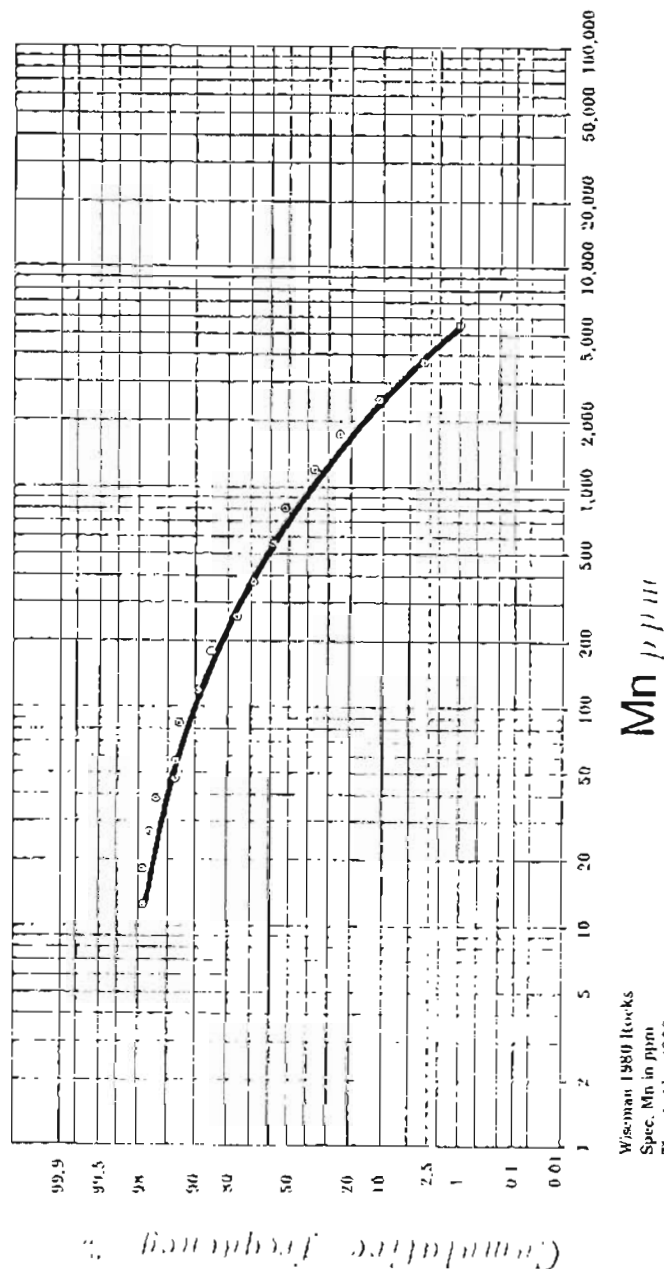


THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 5.00000E+03
 GEOMETRIC MEAN = 6.67614E+02
 GEOMETRIC DEVIATION = 3.52895E+01
 VARIANCE OF LOGS = 2.99916E-01

PERCENT TABLE FOR VARIABLE 7 (S-MN) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.246267E+01	0.290182E+03
50.00	0.295819E+01	0.908609E+03
75.00	0.327436E+01	0.188078E+04
90.00	0.346826E+01	0.280713E+04
95.00	0.355041E+01	0.355157E+04



FREQUENCY TABLE FOR VARIABLE R (S-AG)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER	UPPER						
N		347	347	91.32	91.32		
L		5	352	1.32	92.63		
T		0	352	0.00	93.63		
R-267E-02		3	355	0.20	93.42	2.594E+02	3.306E+01
R-267E-02		3	358	0.70	94.21	4.233E+01	-6.229E+01
2.493E-01		R	366	2.11	96.32	3.612E+01	-3.604E+01
4.160E-01		2	368	0.53	96.84	1.563E+01	-1.512E+01
5.827E-01		2	370	0.53	97.37	5.048E+00	-4.652E+00
7.493E-01		2	372	0.53	97.89	1.217E+00	4.267E-01
9.160E-01		1	373	0.26	98.16	2.189E-01	8.918E+00
1.083E+00		1	374	0.26	98.42	0.000E+00	0.000E+00
1.249E+00		3	377	0.79	99.21	0.000E+00	0.000E+00
1.415E+00		0	377	0.00	99.21	0.000E+00	0.000E+00
1.583E+00		0	377	0.00	99.21	0.000E+00	0.000E+00
1.749E+00		3	380	0.79	100.00	0.000E+00	0.000E+00
1.916E+00		0	380	0.00	100.00	3.254E-02	9.216E+01
T		0	380	0.00			
H		0	380				
B		1	381				
TOTALS LESS H AND B		380				3.900E+02	1.646E+01

HISTOGRAM FOR VARIABLE R (S-AG)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples

9.985E-01	X
1.466E+00	X
2.151E+00	XX
3.157E+00	X
4.634E+00	X
6.802E+00	X
9.985E+00	X
1.466E+01	X
2.151E+01	X
3.157E+01	X
4.634E+01	X
6.802E+01	X
9.985E+01	X

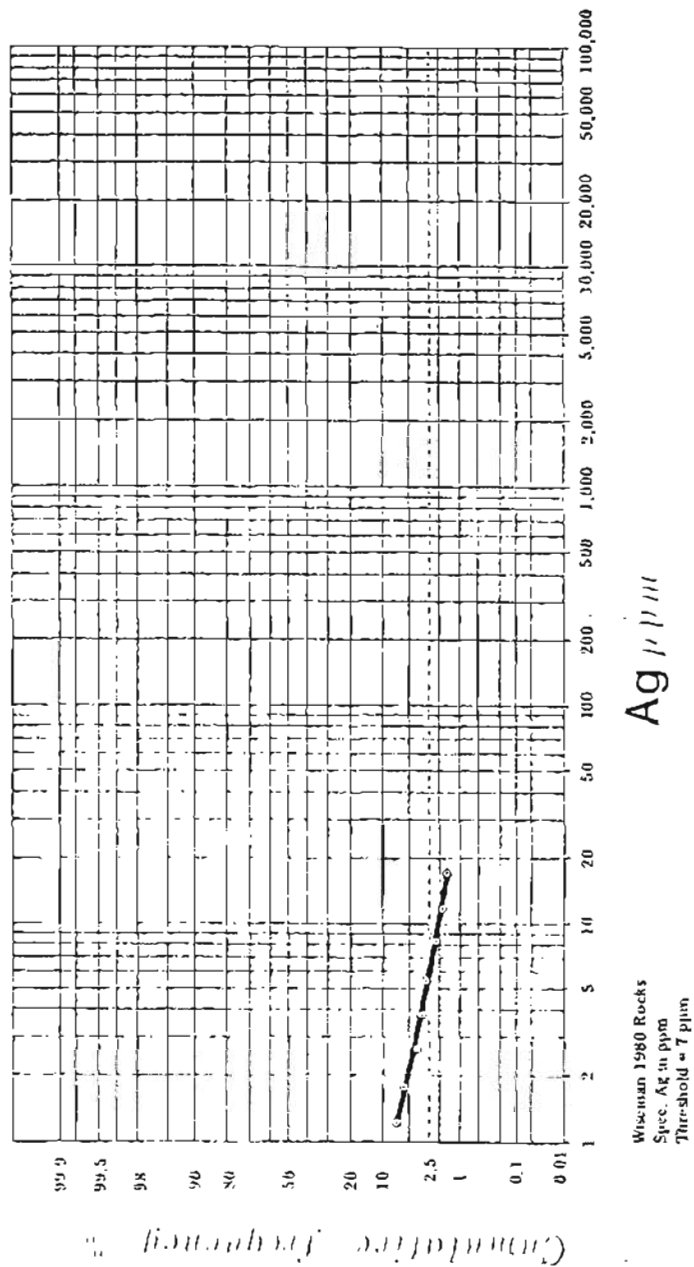
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+00
MAXIMUM ANTILOG = 1.00000E+02
GEOMETRIC MEAN = 4.79342E+00
GEOMETRIC DEVIATION = 4.10845E+00
VARIANCE OF LOGS = 3.76600E-01

Table 4 (cont.)

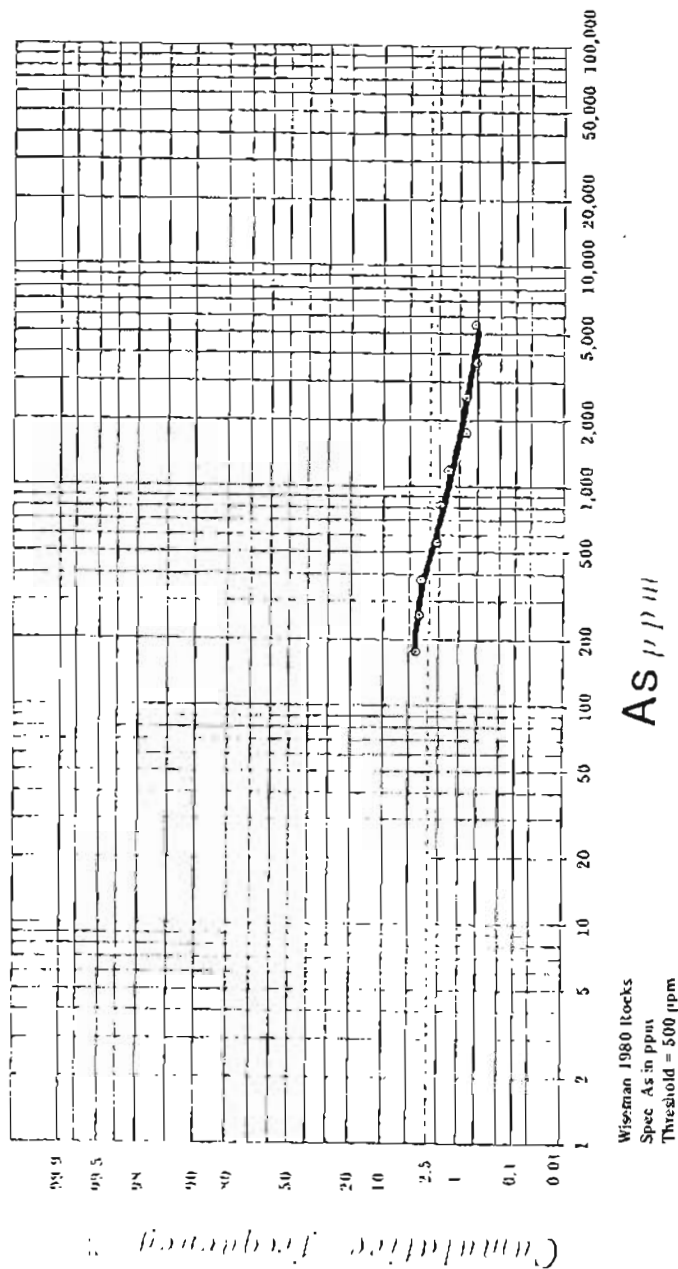
PERCENT TABLE FOR VARIABLE A (S-46) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36
75.00	0.100000E+36	0.100000E+36
90.00	0.100000E+36	0.100000E+36
95.00	0.311834E+00	0.205038E+01



IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36
75.00	0.100000E+36	0.100000E+36
90.00	0.100000E+36	0.100000E+36
95.00	0.100000E+36	0.100000E+36



Au ppm

Wiseman 1980 Rocks
Spec Au in ppm
Threshold = Detection limit = 10 ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

FREQUENCY TABLE FOR VARIABLE 11 (S-R)									
LOG LIMITS	UPPER	ORS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FRF3 (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ		
9.150E+01	1.083E+00	9	9	2.37	2.37	2.154E+01	1.936E+00		
1.083E+01	1.240E+00	19	28	5.00	7.37	2.202E+01	-2.017E+01		
1.240E+01	1.416E+00	0	28	0.00	7.37	3.472E+01	-3.446E+01		
1.416E+01	1.583E+00	42	70	11.05	18.42	4.730E+01	-4.576E+01		
1.583E+01	1.749E+00	9	79	2.37	20.79	5.580E+01	-5.544E+01		
1.749E+01	1.916E+00	74	153	19.67	40.26	5.700E+01	-5.586E+01		
1.916E+01	2.083E+00	20	173	5.26	45.53	5.042E+01	-4.999E+01		
2.083E+01	2.249E+00	66	239	17.37	62.89	3.863E+01	-3.669E+01		
2.249E+01	2.416E+00	22	261	5.79	68.68	2.562E+01	-2.477E+01		
2.416E+01	2.583E+00	75	336	19.74	88.42	1.472E+01	-1.370E+01		
2.583E+01	2.749E+00	22	358	5.79	94.21	7.322E+00	-6.912E+00		
2.749E+01	2.916E+00	15	373	3.95	98.16	3.154E+00	-2.837E+00		
2.916E+01	3.083E+00	3	376	0.79	98.95	1.176E+00	-3.243E-01		
3.083E+01	3.249E+00	1	377	0.26	99.21	3.799E-01	-2.257E+00		
3.249E+01	3.416E+00	1	378	0.26	99.47	1.063E-01	-1.063E-01		
3.416E+01	3.583E+00	0	379	0.00	99.74	3.228E-02	3.095E+01		
3.583E+01	3.749E+00	0	380	0.00	100.00				
3.749E+01	3.916E+00	0	380	0.00	100.00				
3.916E+01	4.083E+00	0	380	0.00	100.00				
4.083E+01	4.249E+00	1	381	0.26	100.26				
4.249E+01	4.416E+00	0	381	0.00	100.26				
4.416E+01	4.583E+00	0	381	0.00	100.26				
4.583E+01	4.749E+00	0	381	0.00	100.26				
4.749E+01	4.916E+00	0	381	0.00	100.26				
4.916E+01	5.083E+00	0	381	0.00	100.26				
5.083E+01	5.249E+00	0	381	0.00	100.26				
5.249E+01	5.416E+00	0	381	0.00	100.26				
5.416E+01	5.583E+00	0	381	0.00	100.26				
5.583E+01	5.749E+00	0	381	0.00	100.26				
5.749E+01	5.916E+00	0	381	0.00	100.26				
5.916E+01	6.083E+00	0	381	0.00	100.26				
6.083E+01	6.249E+00	0	381	0.00	100.26				
6.249E+01	6.416E+00	0	381	0.00	100.26				
6.416E+01	6.583E+00	0	381	0.00	100.26				
6.583E+01	6.749E+00	0	381	0.00	100.26				
6.749E+01	6.916E+00	0	381	0.00	100.26				
6.916E+01	7.083E+00	0	381	0.00	100.26				
7.083E+01	7.249E+00	0	381	0.00	100.26				
7.249E+01	7.416E+00	0	381	0.00	100.26				
7.416E+01	7.583E+00	0	381	0.00	100.26				
7.583E+01	7.749E+00	0	381	0.00	100.26				
7.749E+01	7.916E+00	0	381	0.00	100.26				
7.916E+01	8.083E+00	0	381	0.00	100.26				
8.083E+01	8.249E+00	0	381	0.00	100.26				
8.249E+01	8.416E+00	0	381	0.00	100.26				
8.416E+01	8.583E+00	0	381	0.00	100.26				
8.583E+01	8.749E+00	0	381	0.00	100.26				
8.749E+01	8.916E+00	0	381	0.00	100.26				
8.916E+01	9.083E+00	0	381	0.00	100.26				
9.083E+01	9.249E+00	0	381	0.00	100.26				
9.249E+01	9.416E+00	0	381	0.00	100.26				
9.416E+01	9.583E+00	0	381	0.00	100.26				
9.583E+01	9.749E+00	0	381	0.00	100.26				
9.749E+01	9.916E+00	0	381	0.00	100.26				
9.916E+01	10.083E+00	0	381	0.00	100.26				
10.083E+01	10.249E+00	0	381	0.00	100.26				
10.249E+01	10.416E+00	0	381	0.00	100.26				
10.416E+01	10.583E+00	0	381	0.00	100.26				
10.583E+01	10.749E+00	0	381	0.00	100.26				
10.749E+01	10.916E+00	0	381	0.00	100.26				
10.916E+01	11.083E+00	0	381	0.00	100.26				
11.083E+01	11.249E+00	0	381	0.00	100.26				
11.249E+01	11.416E+00	0	381	0.00	100.26				
11.416E+01	11.583E+00	0	381	0.00	100.26				
11.583E+01	11.749E+00	0	381	0.00	100.26				
11.749E+01	11.916E+00	0	381	0.00	100.26				
11.916E+01	12.083E+00	0	381	0.00	100.26				
12.083E+01	12.249E+00	0	381	0.00	100.26				
12.249E+01	12.416E+00	0	381	0.00	100.26				
12.416E+01	12.583E+00	0	381	0.00	100.26				
12.583E+01	12.749E+00	0	381	0.00	100.26				
12.749E+01	12.916E+00	0	381	0.00	100.26				
12.916E+01	13.083E+00	0	381	0.00	100.26				
13.083E+01	13.249E+00	0	381	0.00	100.26				
13.249E+01	13.416E+00	0	381	0.00	100.26				
13.416E+01	13.583E+00	0	381	0.00	100.26				
13.583E+01	13.749E+00	0	381	0.00	100.26				
13.749E+01	13.916E+00	0	381	0.00	100.26				
13.916E+01	14.083E+00	0	381	0.00	100.26				
14.083E+01	14.249E+00	0	381	0.00	100.26				
14.249E+01	14.416E+00	0	381	0.00	100.26				
14.416E+01	14.583E+00	0	381	0.00	100.26				
14.583E+01	14.749E+00	0	381	0.00	100.26				
14.749E+01	14.916E+00	0	381	0.00	100.26				
14.916E+01	15.083E+00	0	381	0.00	100.26				
15.083E+01	15.249E+00	0	381	0.00	100.26				
15.249E+01	15.416E+00	0	381	0.00	100.26				
15.416E+01	15.583E+00	0	381	0.00	100.26				
15.583E+01	15.749E+00	0	381	0.00	100.26				
15.749E+01	15.916E+00	0	381	0.00	100.26				
15.916E+01	16.083E+00	0	381	0.00	100.26				
16.083E+01	16.249E+00	0	381	0.00	100.26				
16.249E+01	16.416E+00	0	381	0.00	100.26				
16.416E+01	16.583E+00	0	381	0.00	100.26				
16.583E+01	16.749E+00	0	381	0.00	100.26				
16.749E+01	16.916E+00	0	381	0.00	100.26				
16.916E+01	17.083E+00	0	381	0.00	100.26				
17.083E+01	17.249E+00	0	381	0.00	100.26				
17.249E+01	17.416E+00	0	381	0.00	100.26				
17.416E+01	17.583E+00	0	381	0.00	100.26				
17.583E+01	17.749E+00	0	381	0.00	100.26				
17.749E+01	17.916E+00	0	381	0.00	100.26				
17.916E+01	18.083E+00	0	381	0.00	100.26				
18.083E+01	18.249E+00	0	381	0.00	100.26				
18.249E+01	18.416E+00	0	381	0.00	100.26				
18.416E+01	18.583E+00	0	381	0.00	100.26				
18.583E+01	18.749E+00	0	381	0.00	100.26				
18.749E+01	18.916E+00	0	381	0.00	100.26				
18.916E+01	19.083E+00	0	381	0.00	100.26				
19.083E+01	19.249E+00	0	381	0.00	100.26				
19.249E+01	19.416E+00	0	381	0.00	100.26				
19.416E+01	19.583E+00	0	381	0.00	100.26				
19.583E+01	19.749E+00	0	381	0.00	100.26				
19.749E+01	19.916E+00	0	381	0.00	100.26				
19.916E+01	20.083E+00	0	381	0.00	100.26				
20.083E+01	20.249E+00	0	381	0.00	100.26				
20.249E+01	20.416E+00	0	381	0.00	100.26				
20.416E+01	20.583E+00	0	381	0.00	100.26				
20.583E+01	20.749E+00	0	381	0.00	100.26				
20.749E+01	20.916E+00	0	381	0.00	100.26				
20.916E+01	21.083E+00	0	381	0.00	100.26				
21.083E+01	21.249E+00	0	381	0.00	100.26				
21.249E+01	21.416E+00	0	381	0.00	100.26				
21.416E+01	21.583E+00	0	381	0.00	100.26				
21.583E+01	21.749E+00	0	381	0.00	100.26				
21.749E+01	21.916E+00	0	381	0.00	100.26				
21.916E+01	22.083E+00	0	381	0.00	100.26				
22.083E+01	22.249E+00	0	381	0.00	100.26				
22.249E+01	22.416E+00	0	381	0.00	100.26				
22.416E+01	22.583E+00	0	381	0.00	100.26				
22.583E+01	22.749E+00	0	381	0.00	100.26				
22.749E+01	22.916E+00	0	381	0.00	100.26				
22.916E+01	23.083E+00	0	381	0.00	100.26				
23.083E+01	23.249E+00	0	381	0.00	100.26				
23.249E+01	23.416E+00	0	381	0.00	100.26				
23.416E+01	23.583E+00	0	381	0.00	100.26				
23.583E+01	23.749E+00	0	381	0.00	100.26				

MAXIMUM ANTILOG = 2.00000E+01

GEOMETRIC MEAN = 4.52547E+01
GEOMETRIC DEVIATION = 2.61198E+00
VARIANCE OF LOGS = 1.74141E-01

PERCENT TABLE FOR VARIABLE 11 (S-B) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.128537E+01	0.192917E+02
50.00	0.162560E+01	0.422277E+02
75.00	0.196936E+01	0.931827E+02
90.00	0.212872E+01	0.734315E+03
95.00	0.228267E+01	0.191721E+03

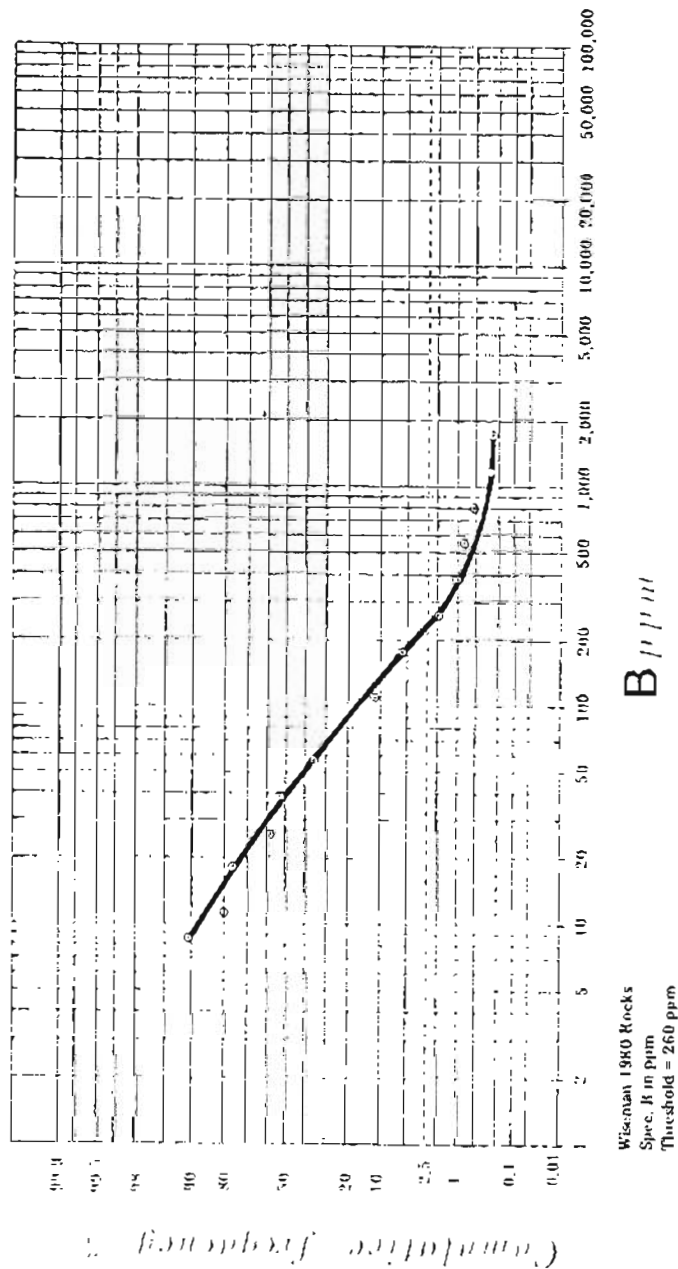


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 12 (S-BA)									
LOG LIMITS		N	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER								
1.250E+00	1.417E+00	6	6	6	100	100	2.810E+00	1.177E+02	
1.417E+00	1.583E+00	15	15	21	250	250	3.645E+00	-1.999E+00	
1.583E+00	1.750E+00	0	0	21	0.00	5.53	7.100E+00	-7.100E+00	
1.750E+00	1.917E+00	6	6	27	1.58	7.11	1.252E+01	-1.132E+01	
1.917E+00	2.083E+00	15	15	42	3.95	11.05	1.907E+01	-1.982E+01	
2.083E+00	2.250E+00	30	30	72	0.79	11.84	2.895E+01	-2.781E+01	
2.250E+00	2.417E+00	5	5	77	7.32	19.74	3.771E+01	-3.758E+01	
2.417E+00	2.583E+00	42	42	119	11.05	32.11	4.662E+01	-4.369E+01	
2.583E+00	2.750E+00	49	49	168	12.89	45.00	4.778E+01	-4.676E+01	
2.750E+00	2.917E+00	81	81	249	21.32	66.32	4.632E+01	-4.457E+01	
2.917E+00	3.083E+00	44	44	293	17.58	90.79	3.227E+01	-3.090E+01	
3.083E+00	3.250E+00	13	13	306	3.42	94.21	2.319E+01	-2.263E+01	
3.250E+00	3.417E+00	12	12	318	3.16	97.37	1.509E+01	-1.429E+01	
3.417E+00	3.583E+00	3	3	321	1.32	98.69	8.882E+00	-8.319E+00	
3.583E+00	3.750E+00	2	2	323	0.79	99.47	8.611E+00	-8.263E+00	
		0	0	323	0.53	100.00	0.000E+00	0.000E+00	
		0	0	323					
		1	1	324					
TOTALS	LESS H AND 9		380				3.900E+02	-2.467E+02	

HISTOGRAM FOR VARIABLE 12 (S-BA)

MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples

2.154E+01	XX
3.162E+01	XXXX
4.642E+01	XXXX
6.813E+01	X
1.000E+02	XXXXXXXX
1.468E+02	X
2.154E+02	XXXXXXXXXXXX
3.162E+02	XXXXXXXXXXXX
4.642E+02	XXXXXXXXXXXX
6.813E+02	XXXXXXXXXXXX
1.000E+03	XXXXXXXXXXXX
1.468E+03	XXXX
2.154E+03	XXXX
3.162E+03	X
4.642E+03	X

Concentration in ppm

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

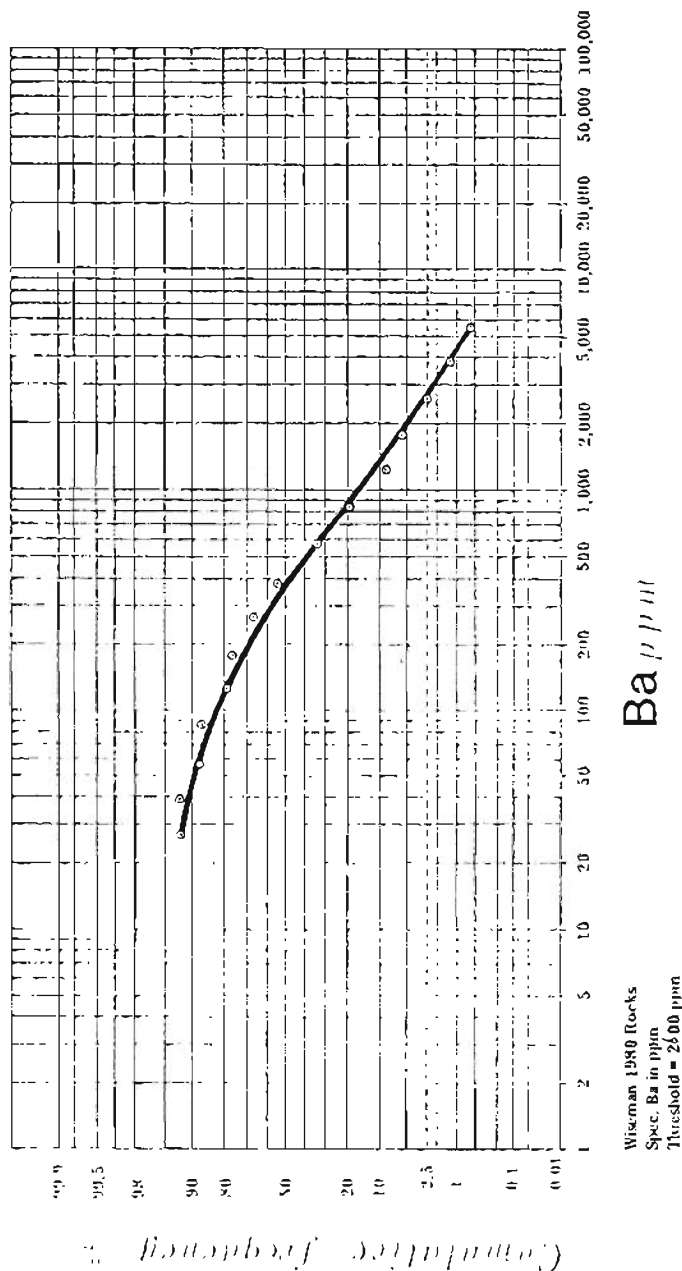
MINIMUM ANTILOG = 2.00000E+01
 MAXIMUM ANTILOG = 5.00000E+03

Table 4 (cont.)

GEOMETRIC MEAN = 3.95392E+02
 GEOMETRIC DEVIATION = 2.74894E+00
 VARIANCE OF LOGS = 1.92866E-01

PERCENT TABLE FOR VARIABLE 12 (S-9A) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999999E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.230953E+01	0.203951E+03
50.00	0.262243E+01	0.419209E+03
75.00	0.286275E+01	0.728196E+03
90.00	0.307197E+01	0.118025E+04
95.00	0.329167E+01	0.195736E+04



FREQUENCY TABLE FOR VARIABLE 13 (S-RF)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
		57	57	15.70	15.70	5.498E+01	1.315E+02
		83	140	21.84	36.84	9.522E+01	-9.439E+01
		0	140	0.00	36.84	1.163E+02	-1.160E+02
		79	219	20.79	57.63	7.813E+01	-7.682E+01
		33	252	8.64	66.27	2.884E+01	-2.814E+01
		102	354	26.84	93.16	5.838E+00	-5.325E+00
		120	374	5.26	98.42	6.467E-01	3.997E-01
		3	377	0.79	99.21	0.000E+00	0.000E+00
		1	378	0.26	99.47	0.000E+00	0.000E+00
		0	378	0.00	99.47	0.000E+00	0.000E+00
		0	378	0.26	99.74	0.000E+00	0.000E+00
		1	379	0.26	99.74	0.000E+00	0.000E+00
		0	379	0.00	99.74	0.000E+00	0.000E+00
		0	379	0.90	99.74	0.000E+00	0.000E+00
		0	379	0.90	99.74	0.000E+00	0.000E+00
		0	379	0.00	99.74	0.000E+00	0.000E+00
		0	379	0.26	100.00	0.000E+00	0.000E+00
		1	380	0.26	100.00	4.038E-02	2.473E+01
		0	380	0.00	100.00		
		0	380				
		1	381				
TOTALS LESS H AND R		380				3.800E+02	-1.636E+02

HISTOGRAM FOR VARIABLE 13 (S-RE)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

MIDPOINTS ARE EXPRESSED AS ANTILOGS

Salaries (10 to 15 percent) and X-wages

```

Concentration in ppm
2 - 985E+01 XXXXXXXXXXXXXXXX
1 - 466E+00 XXXXXXXX
2 - 151E+00 XXXXXXXXXXXXXXXX
5 - 157E+00 XXXXXXXXXXXXXXXX
4 - 634E+00 XXXX
3 - 802E+00 X
2 - 985E+00 XXXXXXXXXXXXXXXX
1 - 466E+01 XXXXXXXXXXXXXXXX
2 - 151E+01 XXXXXXXXXXXXXXXX
3 - 157E+01 XXXXXXXXXXXXXXXX
4 - 634E+01 XXXXXXXXXXXXXXXX
5 - 802E+01 XXXXXXXXXXXXXXXX
6 - 985E+01 XXXXXXXXXXXXXXXX
7 - 126E+02 XXXXXXXXXXXXXXXX
8 - 151E+02 XXXXXXXXXXXXXXXX

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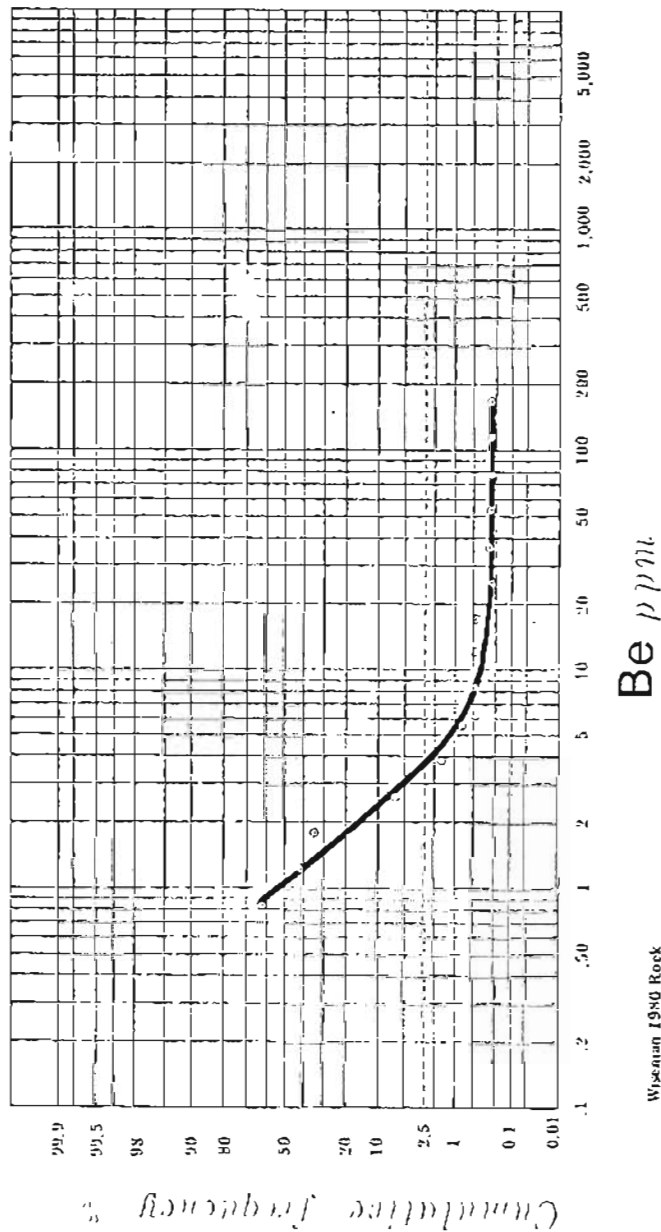
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANYLOG	=	1.00000E+00
MAXIMUM ANYLOG	=	2.00000E+02

GEOMETRIC MEAN = 1.45645E+00
 GEOMETRIC DEVIATION = 1.69162E+00
 VARIANCE OF LOGS = 5.21226E-02

PERCENT TABLE FOR VARIABLE 13 (S-PE) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36
75.00	0.303256E+00	0.201028E+01
90.00	0.396393E+00	0.249111E+01
95.00	0.474334E+00	0.298081E+01



NO035 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

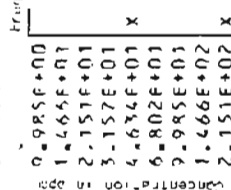
FREQUENCY TABLE FOR VARIABLE 14 (S-01)

LOG LIMITS		OBS		PERCENT		PERCENT	
LOWER	UPPER	FREQ	CUM FREQ	FREQ	CUM FREQ	FREQ	CUM FREQ
H		371	371	97.53	97.53		
L		2	373	0.53	98.16		
T		0	373	0.00	98.16		
9.16E-01	1.08E+00	1	374	0.26	98.42		
1.09E+00	1.24E+00	0	374	0.00	98.42		
1.24E+00	1.41E+00	0	374	0.00	98.42		
1.41E+00	1.58E+00	0	374	0.00	98.42		
1.58E+00	1.74E+00	2	376	0.53	98.95		
1.74E+00	1.91E+00	1	377	0.26	99.21		
1.91E+00	2.08E+00	1	378	0.26	99.47		
2.08E+00	2.24E+00	0	378	0.00	99.47		
2.24E+00	2.41E+00	2	380	0.53	100.00		
G		0	380	0.00	100.00		
H		0	380				
B		1	381				

TOTALS LESS H AND B 380 3.500E+02 7.509E+02

HISTOGRAM FOR VARIABLE 14 (S-01)

MINPOINTS ARE EXPRESSED AS ANTILOGS



THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 2.00000E+02
 GEOMETRIC MEAN = 6.8934E+01
 GEOMETRIC DEVIATION = 2.79547E+00
 VARIANCE OF LOGS = 1.99321E-01

PERCENT TABLE FOR VARIABLE 14 (S-01) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.999999E 50

SELECTED DATA VALUE ANTILOG OF VALUE

PERCENTILE

25.00
50.00
75.00
90.00
95.00

0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36

0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36

Wiseman 1980 Rocks

Spec. B: in ppm

Threshold = Detection limit = 10 ppm

Bi μm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit

FREQUENCY TABLE FOR VARIABLE 15 (S-CD)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
N		377	377	99.47	99.47		
L		0	377	0.00	99.47		
T		0	377	0.00	99.47		
1.215E+00	2.083E+00	1	378	0.26	99.74	0.000E+00	0.000E+00
2.083E+00	2.269E+00	0	378	0.00	99.74	0.000E+00	0.000E+00
2.269E+00	2.416E+00	1	379	0.26	100.00	3.790E+02	-3.790E+02
G		0	379	0.00	100.00		
H		0	379				
B		2	381				
TOTALS LESS H AND B		379				3.790E+02	-3.790E+02

HISTOGRAM FOR VARIABLE 15 (S-CD)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

9.985E+01
1.466E+02
2.151E+02

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02
MAXIMUM ANTILOG = 2.00000E+02
GEOMETRIC MEAN = 1.41421E+02
GEOMETRIC DEVIATION = 1.63253E+00
VARIANCE OF LOGS = 4.53095E-02

PERCENT TABLE FOR VARIABLE 15 (S-CD) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36
75.00	0.100000E+36	0.100000E+36
90.00	0.100000E+36	0.100000E+36
95.00	0.100000E+36	0.100000E+36

Wiseman 1980 Rocks
Spec. Cd in ppm
Threshold = Detection limit = 20 ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

Cd ppm

D0036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

DATE 12/ 5/79

FREQUENCY TABLE FOR VARIABLE 16 (S-CO)

LOG LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
N	26	26	6.84	6.84		
L	70	96	18.42	25.26		
T	0	96	0.00	25.26	2.209E+01	2.473E+02
5.830E-01 - 7.497E-01	2	98	0.53	25.79	2.533E+01	-2.525E+01
7.497E-01 - 9.163E-01	0	98	0.00	25.79	4.076E+01	-4.076E+01
9.163E-01 - 1.083E+00	54	152	14.21	40.00	5.516E+01	-5.418E+01
1.083E+00 - 1.250E+00	29	181	7.63	47.63	6.277E+01	-6.230E+01
1.250E+00 - 1.416E+00	91	272	23.95	71.58	6.007E+01	-5.855E+01
1.416E+00 - 1.583E+00	36	308	9.47	81.05	4.834E+01	-4.760E+01
1.583E+00 - 1.750E+00	41	349	10.79	91.84	3.272E+01	-3.146E+01
1.750E+00 - 1.916E+00	19	368	5.10	96.84	1.862E+01	-1.760E+01
1.916E+00 - 2.083E+00	5	373	1.32	98.16	8.910E+00	-8.349E+00
2.083E+00 - 2.250E+00	3	376	0.79	98.95	3.586E+00	-2.749E+00
2.250E+00 - 2.416E+00	3	379	0.79	99.74	1.213E+00	1.259E+00
2.416E+00 - 2.583E+00	1	380	0.26	100.00	4.476E-01	1.785E+00
B	0	380	0.00	100.00		
H	0	380				
B	1	381				
TOTALS LESS H AND B	380				3.800E+02	-9.347E+01

HISTOGRAM FOR VARIABLE 16 (S-CO)

MINPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples

4.638E+00	X
6.808E+00	
9.992E+00	XXXXXXXXXXXXXXXX
1.467E+01	XXXXXXXXXX
2.153E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.150E+01	XXXXXXXXXX
4.638E+01	XXXXXXXXXXXX
6.808E+01	XXXXXX
9.992E+01	X
1.467E+02	X
2.153E+02	X
3.150E+02	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
 MAXIMUM ANTILOG = 3.00000E+02
 GEOMETRIC MEAN = 2.39451E+01
 GEOMETRIC DEVIATION = 2.02819E+00
 VARIANCE OF LOGS = 9.43156E-02

PERCENT TABLE FOR VARIABLE 16 (S-CD) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.126615E+01	0.184566E+02
75.00	0.167652E+01	0.290585E+02
90.00	0.172125E+01	0.526276E+02
95.00	0.185493E+01	0.716032E+02

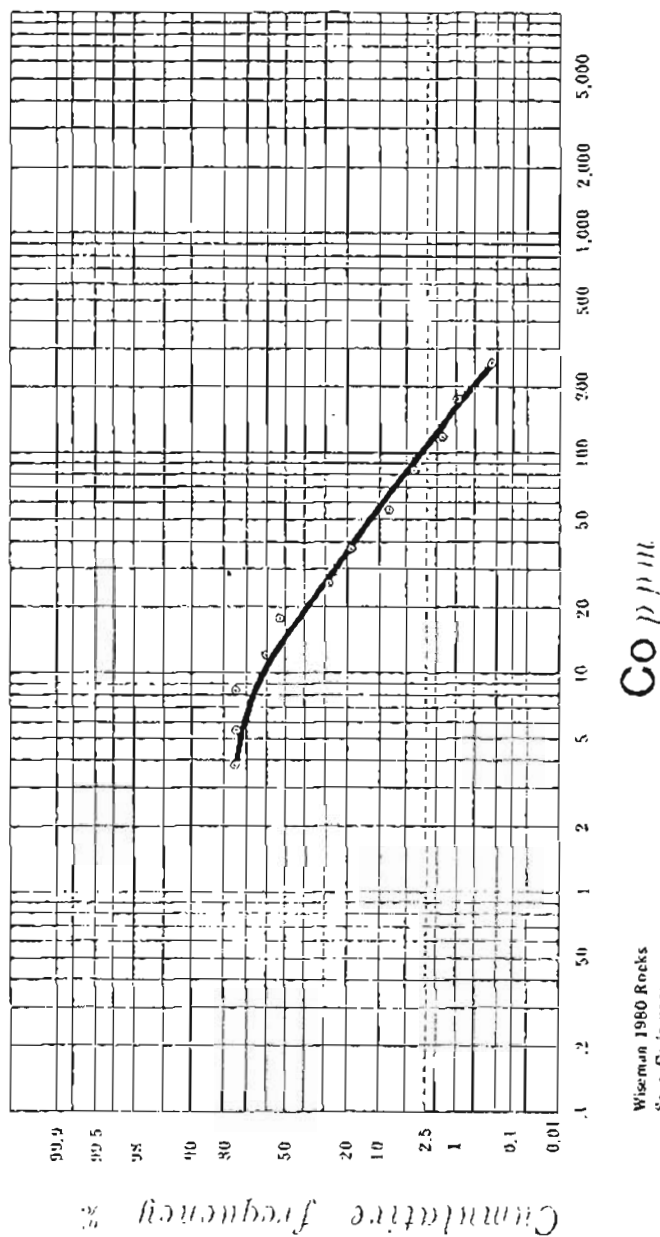


Table 4 (cont.)

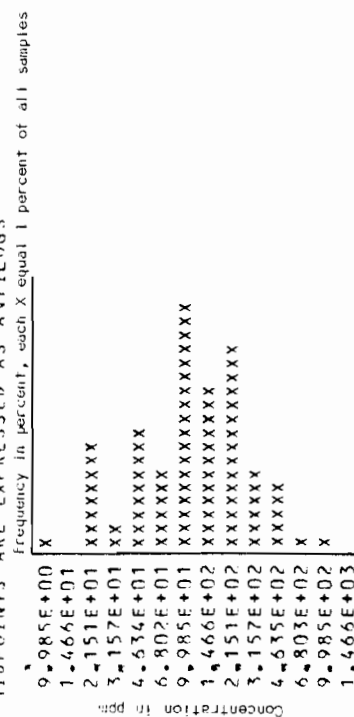
DATE 12/ 5/79

00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 17 (S-CR)

LOG LIMITS	ORF	CUM	PERCENT	PERCENT	THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER - UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	
N	25	25	6.58			
L	39	64	10.26	16.84	1.385E+01	1.816E+02
T	0	64	0.00	16.84	1.242E+01	-1.226E+01
9.160E-01 - 1.083E+00	2	66	0.53	17.37	1.963E+01	-1.963E+01
1.083E+00 - 1.249E+00	0	66	0.00	17.37	2.818E+01	-2.712E+01
1.249E+00 - 1.416E+00	30	96	7.89	25.26	3.675E+01	-3.656E+01
1.416E+00 - 1.583E+00	7	103	1.84	27.11	4.354E+01	-4.275E+01
1.583E+00 - 1.749E+00	34	137	8.95	36.05	4.684E+01	-4.637E+01
1.749E+00 - 1.916E+00	22	159	5.79	41.84	4.578E+01	-4.432E+01
1.916E+00 - 2.083E+00	67	226	17.63	59.47	4.065E+01	-3.949E+01
2.083E+00 - 2.249E+00	47	273	12.37	71.84	3.278E+01	-3.107E+01
2.249E+00 - 2.416E+00	56	329	14.74	86.58	2.401E+01	-2.301E+01
2.416E+00 - 2.583E+00	24	353	6.32	92.89	1.598E+01	-1.473E+01
2.583E+00 - 2.749E+00	20	373	5.26	98.16	9.659E+00	-9.348E+00
2.749E+00 - 2.916E+00	3	376	0.79	98.95	5.303E+00	-4.737E+00
2.916E+00 - 3.083E+00	3	379	0.79	99.74	4.609E+00	-4.392E+00
3.083E+00 - 3.249E+00	1	380	0.26	100.00		
G	0	380	0.00	100.00		
H	0	380				
B	1	381				
TOTALS	LESS H AND B	380			3.800E+02	-1.742E+02

HISTOGRAM FOR VARIABLE 17 (S-CR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS



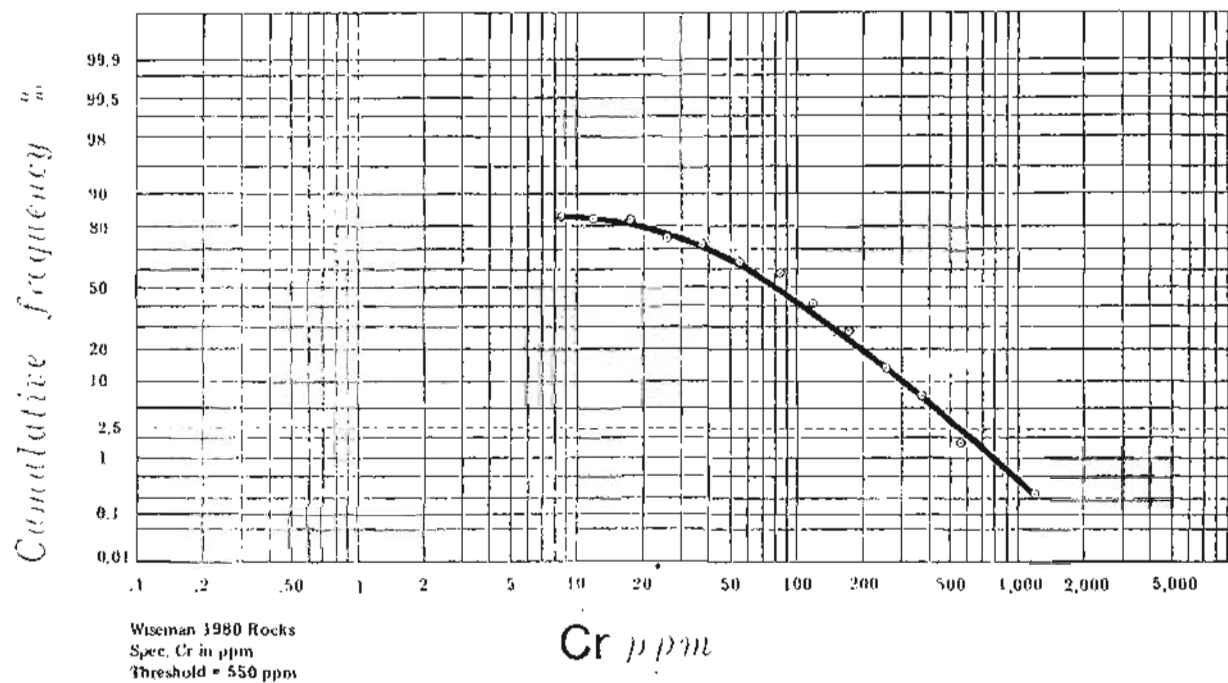
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 1.50000E+03
 GEOMETRIC MEAN = 1.13190E+02
 GEOMETRIC DEVIATION = 2.49253E+00

VARIANCE OF LOSS = 1.57373E-01

PERCENT TABLE FOR VARIABLE 17 (S-CR) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.999999E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.140489E+01	0.254033E+02
50.00	0.199312E+01	0.984275E+02
75.00	0.228505E+01	0.192775E+03
90.00	0.250628E+01	0.320834E+03
95.00	0.264934E+01	0.446002E+03



FREQUENCY TABLE FOR VARIABLE 18 (S-CU)

LOG LIMITS	LOG LOWER	LOG UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N			5	5	1.32	1.32	2.695E+01	1.492E+01
L			42	47	11.05	12.37	1.420E+01	-1.328E+01
T			0	47	0.00	12.37	1.992E+01	-1.865E+01
			13	60	3.42	15.79	2.387E+01	-2.224E+01
			5	65	1.32	17.11	2.854E+01	-2.824E+01
			39	104	10.26	27.37	3.233E+01	-3.121E+01
			8	112	2.11	29.47	3.458E+01	-3.358E+01
			36	148	9.47	38.95	3.524E+01	-3.385E+01
			38	186	10.00	48.95	3.393E+01	-3.316E+01
			49	235	12.89	61.84	3.094E+01	-2.994E+01
			26	261	6.84	68.68	2.673E+01	-2.594E+01
			31	292	8.16	76.84	1.695E+01	-1.589E+01
			21	313	5.53	82.37	1.245E+01	-1.172E+01
			33	346	8.79	91.16	8.658E+00	-8.311E+00
			18	364	5.23	96.32	5.704E+00	-5.354E+00
			9	373	2.37	98.69	3.560E+00	-2.999E+00
			3	376	0.53	99.21	2.105E+00	-1.155E+00
			0	376	0.00	99.21	6.254E-01	-1.179E+00
			5	381	1.32	99.53	3.143E-01	2.847E+00
			1	382	0.26	99.79	1.496E-01	6.534E+00
			0	382	0.00	99.79	6.747E-02	-5.747E-02
			1	383	0.26	99.47	4.740E-02	2.105E+01
			2	385	0.53	100.00	0.000E+00	0.000E+00
H			0	385	0.00			
g			1	386	0.53			

HISTOGRAM FOR VARIABLE 18 (S-CU)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

* Frequency in percent, each X equal 1 percent of all samples

4.638E+00	XXX
5.808E+00	X
9.992E+00	XXXXXXXXXX
1.467E+01	XX
2.153E+01	XXXXXXXXXX
3.160E+01	XXXXXXXXXX
4.638E+01	XXXXXXXXXXXXXX
5.808E+01	XXXXXX
9.992E+01	XXXXXXXXXX
1.467E+02	XXXXXX
2.153E+02	XXXXXX
3.160E+02	XX
4.638E+02	X
5.808E+02	X
9.992E+02	X
1.467E+03	X
2.153E+03	X
3.160E+03	X
4.638E+03	X
5.808E+03	X

3.800E+02
-2.850E+02

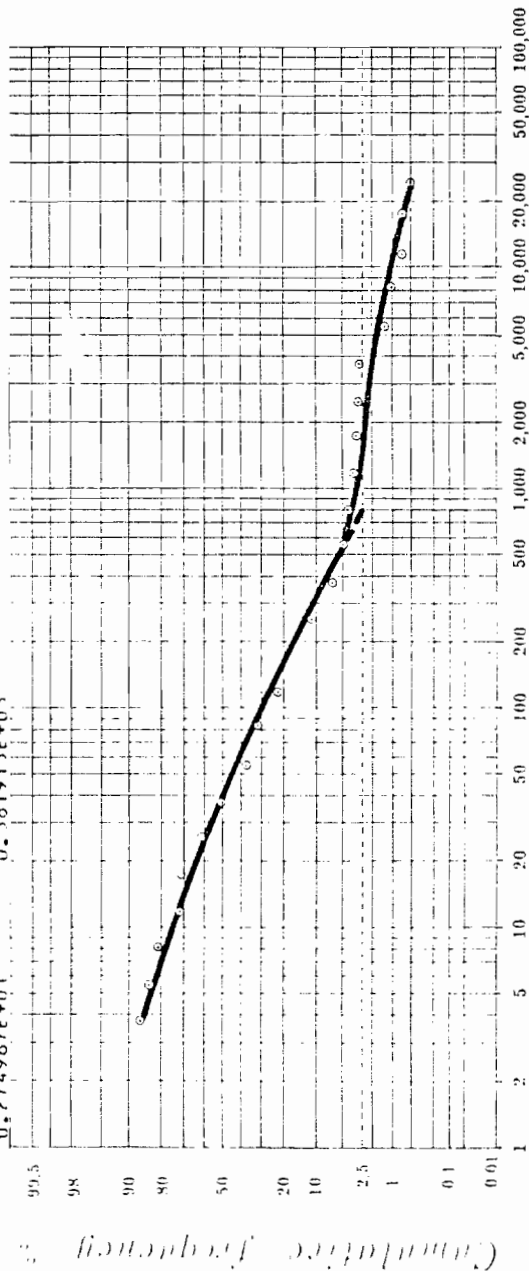
0.992E+02 X
 1.467E+03 X
 2.153E+03 X
 3.160E+03 X
 4.638E+03 X
 6.808E+03
 9.992E+03
 1.467E+04
 2.153E+04

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
 MAXIMUM ANTILOG = 2.00000E+04
 GEOMETRIC MEAN = 5.61128E+01
 GEOMETRIC DEVIATION = 4.33212E+00
 VARIANCE OF LOGS = 4.05387E-01

PERCENT TABLE FOR VARIABLE 1R (S-CU) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.104454E+01	0.110800E+02
50.00	0.159661E+01	0.395009E+02
75.00	0.204537E+01	0.111012E+03
90.00	0.249041E+01	0.309322E+03
95.00	0.274967E+01	0.561915E+03



Wiseman 1980 Rocks
 Spec. Cu in ppm
 Threshold = 800 ppm

DATE 12/ 5/79

00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 19 (S-LA)

LOG LIMITS		ORS		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	CUM FREQ	FREQ	CUM FREQ	(NORMAL DIST)			
N		4	4	1.05	1.05				
L		32	36	8.42	9.47				
T		0	36	0.00	9.47				
1.416E+00	1.583E+00	63	99	16.58	26.05	3.304E+01		2.644E-01	
1.583E+00	1.749E+00	205	304	53.95	80.00	8.953E+01		-8.883E+01	
1.749E+00	1.916E+00	49	353	12.49	92.49	1.319E+02		-1.303E+02	
1.916E+00	2.083E+00	22	375	5.79	98.28	2.957E+01		-9.065E+01	
2.083E+00	2.249E+00	2	377	0.53	99.81	4.478E+00		-2.883E+01	
2.249E+00	2.416E+00	3	380	0.79	100.00	3.251E-01		-4.032E+00	
G		0	380	0.00	100.00			8.902E+00	
H		0	380						
a		1	381						
TOTALS	LESS H AND a	380				3.800E+02		-3.335E+02	

HISTOGRAM FOR VARIABLE 19 (S-LA)

MIDPOINTS ARE EXPRESSED AS ANTILOGS	
Frequency in percent, each X equal to percent of all samples	
3.157E+01	XXXXXXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXX
5.802E+01	XXXXXXXXXXXXXXXXXXXX
9.955E+01	XXXXXXXXXXXX
1.464E+02	X
2.151E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	3.00000E+01
MAXIMUM ANTILOG	=	2.00000E+02
GEOMETRIC MEAN	=	5.08665E+01
GEOMETRIC DEVIATION	=	1.41085E+00
VARIANCE OF LOGS	=	2.23447E-02

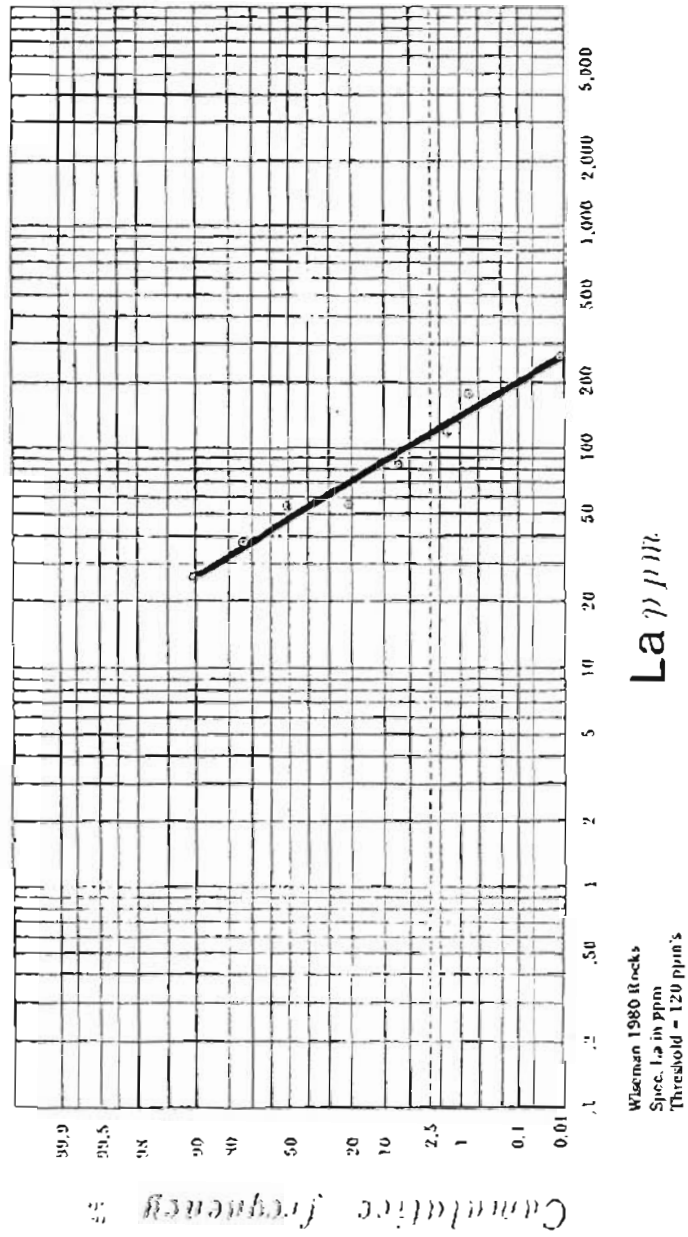
PERCENT TABLE FOR VARIABLE 19 (S-LA) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.165665E+01	0.451572E+02
75.00	0.173389E+01	0.541860E+02
90.00	0.187859E+01	0.756112E+02

05.00

0.197661E+01

0.947961E+02



DATE 12/ 5/79

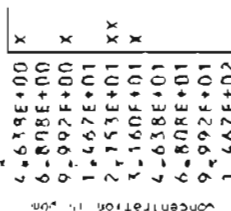
00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 20 (S-MO)

LOG LIMITS	OBS	CUM	PERCENT	PERCENT	THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER - UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	
N	354	354	93.16	93.16	6.958E+01	1.220E+03
L	7	361	1.84	95.00	1.376E+02	-1.376E+02
T	0	361	0.00	95.00	1.238E+02	-1.238E+02
5.830E-01 - 7.497E-01	2	363	0.53	95.53	4.304E+01	-4.297E+01
7.497E-01 - 9.163E-01	0	363	0.00	95.53	5.739E+00	-5.739E+00
9.163E-01 - 1.083E+00	3	366	0.79	96.32	2.898E-01	2.782E+01
1.083E+00 - 1.250E+00	0	366	0.00	96.32	0.000E+00	0.000E+00
1.250E+00 - 1.416E+00	8	374	2.11	98.42	0.000E+00	0.000E+00
1.416E+00 - 1.583E+00	2	376	0.53	98.95	0.000E+00	0.000E+00
1.583E+00 - 1.750E+00	1	377	0.26	99.21	0.000E+00	0.000E+00
1.750E+00 - 1.916E+00	1	378	0.26	99.47	0.000E+00	0.000E+00
1.916E+00 - 2.083E+00	1	379	0.26	99.74	5.510E-03	1.815E+02
2.083E+00 - 2.250E+00	1	380	0.26	100.00		
G	0	380	0.00	100.00		
H	0	380				
A	1	381				
TOTALS LESS H AND B	380				3.830E+02	1.119E+03

HISTOGRAM FOR VARIABLE 20 (S-MO)

MIDPOINTS ARE EXPRESSED AS ANTILOGS
Frequency in percent, each X equal 1 percent of all samples



THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
 MAXIMUM ANTILOG = 1.50000E+02
 GEOMETRIC MEAN = 2.19323E+01
 GEOMETRIC DEVIATION = 2.45439E+00
 VARIANCE OF LOGS = 1.52056E-01

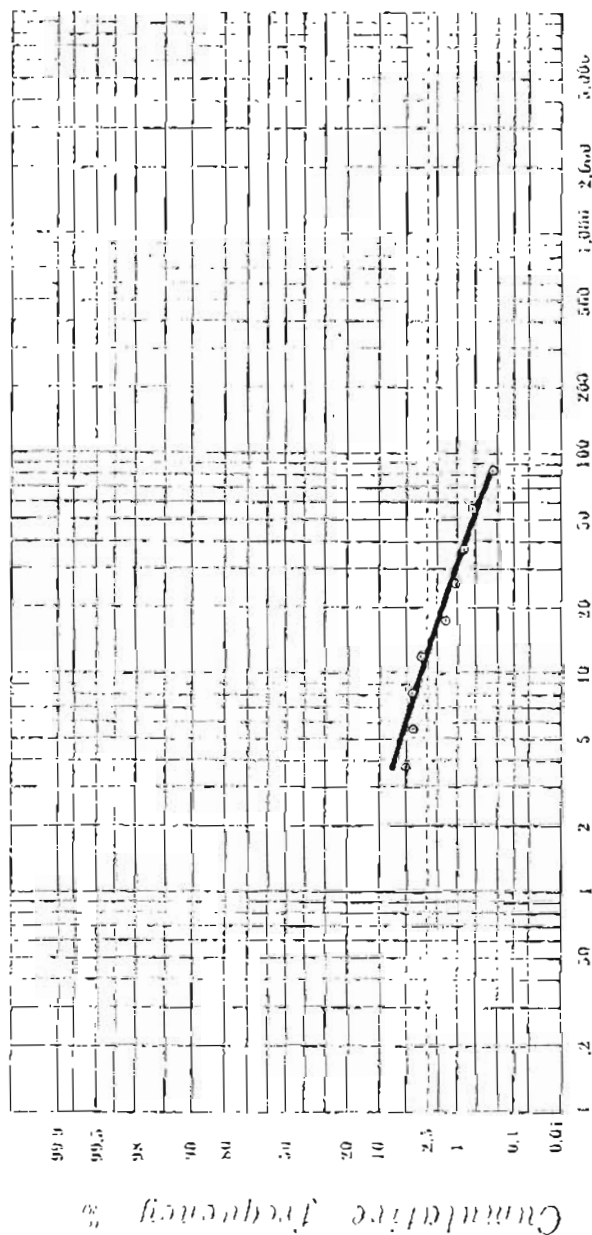
PERCENT TABLE FOR VARIABLE 20 (S-MO) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.99999991F 50

SELECTED
PERCENTILE

25.00
50.00
75.00
90.00
95.00

DATA VALUE ANTI LOG OF VALUE

0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36



Wiseman 1980 Rocks
Spec. Mo in ppm
Threshold = 13 ppm

Mo in ppm

Wiseman 1980 Rocks
Spec. Nb in ppm
Threshold = Detection limit = 20 ppm

Nb in ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

DATE 12/ 5/79

00034 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 22 (S-NI)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
N		14	14	3.58	3.58		
L		52	66	13.68	17.37		
Y		0	66	0.00	17.37		
5.830E-01	7.497E-01	11	77	2.89	20.26	1.487E+01	1.757E+02
7.497E-01	9.163E-01	0	77	0.00	20.26	1.437E+01	-1.361E+01
9.163E-01	1.083E+00	25	102	6.58	26.84	2.307E+01	-2.307E+01
1.083E+00	1.250E+00	9	111	2.37	29.21	3.313E+01	-3.237E+01
1.250E+00	1.416E+00	45	156	11.84	41.05	4.257E+01	-4.236E+01
1.416E+00	1.583E+00	61	200	11.58	52.63	4.895E+01	-4.803E+01
1.583E+00	1.750E+00	61	261	16.05	68.68	5.037E+01	-4.950E+01
1.750E+00	1.916E+00	48	309	12.53	81.22	4.638E+01	-4.507E+01
1.916E+00	2.083E+00	44	353	11.58	92.89	3.821E+01	-3.696E+01
2.083E+00	2.250E+00	17	370	4.47	97.37	2.817E+01	-2.661E+01
2.250E+00	2.416E+00	7	377	1.84	99.21	1.097E+01	-1.767E+01
2.416E+00	2.583E+00	0	377	0.00	99.21	1.033E+01	-1.033E+01
2.583E+00	2.750E+00	2	379	0.53	99.74	5.795E+00	-5.795E+00
2.750E+00	2.916E+00	1	380	0.26	100.00	2.719E+00	-2.719E+00
G		0	380	0.00	100.00	1.806E+00	-1.252E+00
H		0	380				
A		1	381				
TOTALS LESS H AND R		380				3.800E+02	-1.789E+02

HISTOGRAM FOR VARIABLE 22 (S-NI) MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each x equal 1 percent of all samples

4.638E+00	XXX
6.908E+00	XXXXXX
9.992E+00	XXXXXXXX
1.467E+01	XX
2.153E+01	XXXXXXXXXXXXXX
3.160E+01	XXXXXXXXXXXXXX
4.639E+01	XXXXXXXXXXXXXX
6.809E+01	XXXXXXXXXXXXXX
7.992E+01	XXXXXXXXXXXXXX
1.467E+02	XXXX
2.153E+02	XX
3.160E+02	X
4.639E+02	X
6.809E+02	

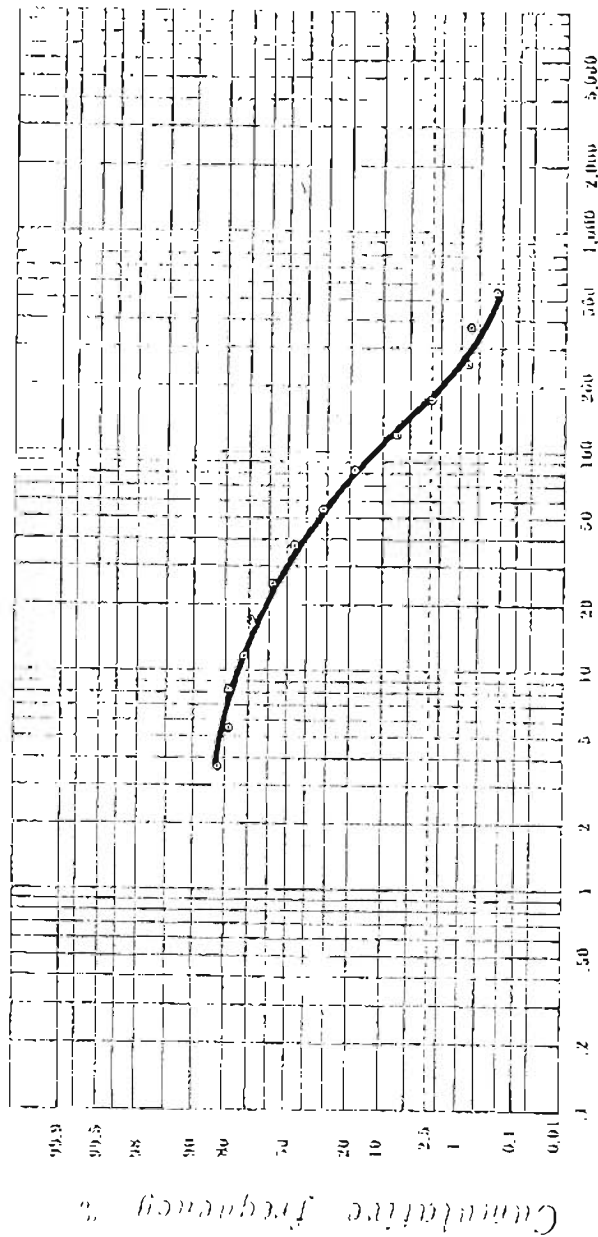
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
 MAXIMUM ANTILOG = 2.00000E+02
 GEOMETRIC MEAN = 4.15889E+01
 GEOMETRIC DEVIATION = 2.45663E+00

VARIANCE OF LOGS = 1.52365E-01

PERCENT TABLE FOR VARIABLE 27 (S-NI) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.000000E+00

SELECTED PERCENTILE	DATA VALUE	ANY LOG OF VALUE
25.00	0.989667E+00	0.976689E+01
50.00	0.154512E+01	0.350851E+02
75.00	0.183100E+01	0.680773E+02
90.00	0.204134E+01	0.109986E+03
95.00	0.216143E+01	0.145022E+03



Ni ppm

Wiseman 1980 Itcks
 Spec. Ni in ppm
 Threshold = 180 ppm

DATE 12/ 5/79

00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 23 (S-PA)

LOG LIMITS		N	DMS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER							
9.160E+01	1.083E+00	30	30	30	7.50	7.50	3.982E+01	4.056E+01
1.083E+00	1.249E+00	50	80	80	13.16	21.05	3.650E+01	-3.581E+01
1.249E+00	1.416E+00	0	80	80	0.00	21.05	5.165E+01	-5.152E+01
1.416E+00	1.583E+00	29	109	109	7.53	28.68	6.140E+01	-5.982E+01
1.583E+00	1.749E+00	7	116	116	1.84	30.53	5.187E+01	-5.066E+01
1.749E+00	1.916E+00	97	213	213	25.53	56.05	3.687E+01	-3.651E+01
1.916E+00	2.083E+00	51	264	264	13.42	69.47	2.207E+01	-2.089E+01
2.083E+00	2.249E+00	62	326	326	16.32	85.79	1.113E+01	-1.086E+01
2.249E+00	2.416E+00	13	339	339	3.42	89.21	4.728E+00	-3.671E+00
2.416E+00	2.583E+00	26	365	365	6.84	96.13	1.692E+00	8.135E-02
2.583E+00	2.749E+00	3	368	368	0.79	96.84	5.099E-01	-1.295E-01
2.749E+00	2.916E+00	5	373	373	1.32	98.16	2.768E-02	-2.768E-02
2.916E+00	3.083E+00	3	376	376	0.79	98.95	0.000E+00	0.000E+00
3.083E+00	3.249E+00	1	377	377	0.26	99.21	0.000E+00	0.000E+00
3.249E+00	3.416E+00	0	377	377	0.00	99.21	0.000E+00	0.000E+00
3.416E+00	3.583E+00	2	379	379	0.53	99.74	0.000E+00	0.000E+00
3.583E+00	3.749E+00	0	379	379	0.00	99.74	0.000E+00	0.000E+00
3.749E+00	3.916E+00	0	379	379	0.00	99.74	0.000E+00	0.000E+00
3.916E+00	4.083E+00	1	380	380	0.26	100.00	5.849E-03	1.710E+02
TOTALS LESS H AND A		G	0	380	0.00	100.00		
		H	0	380	0.00	100.00		
		A	1	381	0.00	100.00		
							3.800E+02	-1.175E+02

HISTOGRAM FOR VARIABLE 23 (S-PA)

MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency, in percent, each X equal 1 percent of all samples

9.085E+00	XXXXXXXX
1.466E+01	XX
2.151E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXX
6.807E+01	XXX
9.985E+01	XXXXXXXX
1.466E+02	X
2.151E+02	X
3.157E+02	X
4.635E+02	
6.803E+02	
9.985E+02	
1.466E+03	X
2.151E+03	
3.157E+03	
4.635E+03	
6.803E+03	

2.985E+03

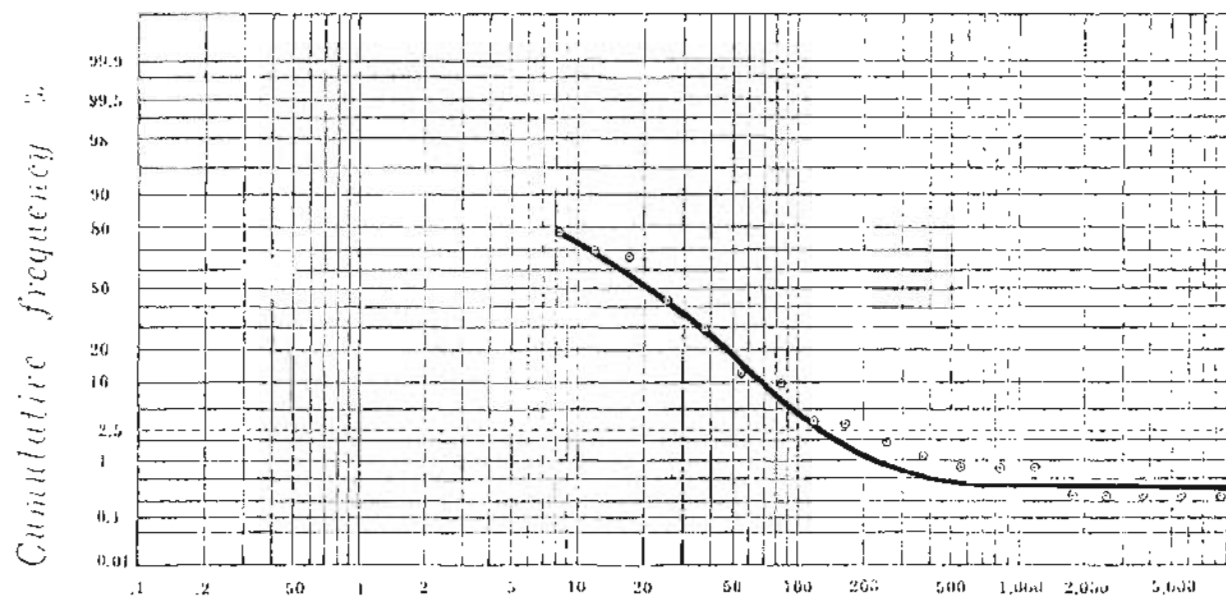
Table 4 (cont.)

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 1.00000E+04
 GEOMETRIC MEAN = 3.37816E+03
 GEOMETRIC DEVIATION = 2.39110E+00
 VARIANCE OF LOGS = 1.43336E-01

PERCENT TABLE FOR VARIABLE 23 (S-Pb) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.137648E+03	0.237948E+02
75.00	0.163912E+03	0.435632E+02
90.00	0.193523E+03	0.861455E+02
95.00	0.205703E+03	0.114032E+03



Wiseman 1980 Rocks
 Spec. Pb in ppm
 Threshold = 135 ppm

Pb ppm

DATE 12/ 5/79

D0036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 24 (S-SR)

LOG LIMITS	OBS	CUM	PERCENT	PERCENT	THEOR FREQ	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER - UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	
N	375	375	98.68	98.68		
L	1	376	0.26	98.95	2.498E+01	4.934E+03
T	0	376	0.00	98.95	3.199E+02	-3.199E+02
1.916E+00 - 2.083E+00	1	377	0.26	99.21	3.508E+01	-3.508E+01
2.083E+00 - 2.249E+00	0	377	0.00	99.21	0.000E+00	0.000E+00
2.249E+00 - 2.416E+00	1	378	0.26	99.47	0.000E+00	0.000E+00
2.416E+00 - 2.583E+00	1	379	0.26	99.74	0.000E+00	0.000E+00
2.583E+00 - 2.749E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
2.749E+00 - 2.916E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
2.916E+00 - 3.083E+00	1	380	0.26	100.00	6.011E-03	1.664E+02
G	0	380	0.00	100.00		
H	0	380				
R	1	381				
TOTALS LESS H AND R	380				3.900E+02	4.745E+03

HISTOGRAM FOR VARIABLE 24 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

9.985E+01
1.466E+02
2.151E+02
3.157E+02
4.634E+02
6.802E+02
9.985E+02

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02
MAXIMUM ANTILOG = 1.00000E+03
GEOMETRIC MEAN = 2.79316E+02
GEOMETRIC DEVIATION = 2.62692E+00
VARIANCE OF LOGS = 1.75936E-01

PERCENT TABLE FOR VARIABLE 24 (S-SR) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36

25.00	0.100000E+36	0.100000E+36
99.99	0.100000E+36	0.100000E+36
95.00	0.100000E+36	0.100000E+36

Sb

Wiseman 1980 Rocks
Spec. Sb. in ppm
Threshold = Detection limit = 100 ppm
Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

000036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 25 (S-5C)

LOG LIMITS		ORS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
	N	33	33	8.58	8.58	1.870E+01	6.643E+01
	L	23	54	5.53	14.21	2.885E+01	-2.715E+01
	T	0	54	0.00	14.21	5.082E+01	-5.066E+01
5.830E-01	7.497E-01	49	103	12.89	27.11	6.988E+01	-6.912E+01
7.497E-01	9.163E-01	8	111	2.11	29.21	7.501E+01	-7.453E+01
9.163E-01	1.083E+00	53	164	13.95	43.16	6.286E+01	-6.153E+01
1.083E+00	1.250E+00	51	215	13.42	56.58	6.113E+01	-4.003E+01
1.250E+00	1.416E+00	84	299	22.11	78.68	2.100E+01	-1.962E+01
1.416E+00	1.583E+00	45	344	11.84	90.53	1.175E+01	-1.116E+01
1.583E+00	1.750E+00	29	373	7.63	98.16		
1.750E+00	1.916E+00	7	380	1.84	100.00		
	G	0	380	0.00	100.00		
	H	0	380				
	B	1	381				
TOTALS LESS H AND B		380				3.800E+02	-2.870E+02

HISTOGRAM FOR VARIABLE 25 (S-SC)
MIDPOINTS ARE EXPRESSED AS ANYLOGS

MIDPOINTS ARE EXPRESSED AS ANYLOGS
Frequency in percent, each X equal 1 percent of all samples

Concentration in ppm	Concentration in percent	Weight % cadmium
4.638E+00	XX	XX
6.808E+00	XX	XX
9.992E+00	XX	XX
1.467E+01	XX	XX
2.153E+01	XX	XX
3.160E+01	XX	XX
4.638E+01	XX	XX
6.808E+01	XX	XX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	5.00000E+00
MAXIMUM ANTILOG	=	7.00000E+01
GEOMETRIC MEAN	=	1.59373E+01
GEOMETRIC DEVIATION	=	2.01060E+00
VARIANCE OF LOGS	=	9.20069E-02

PERCENT TABLE FOR VARIABLE 25 (S-SC) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991F 50

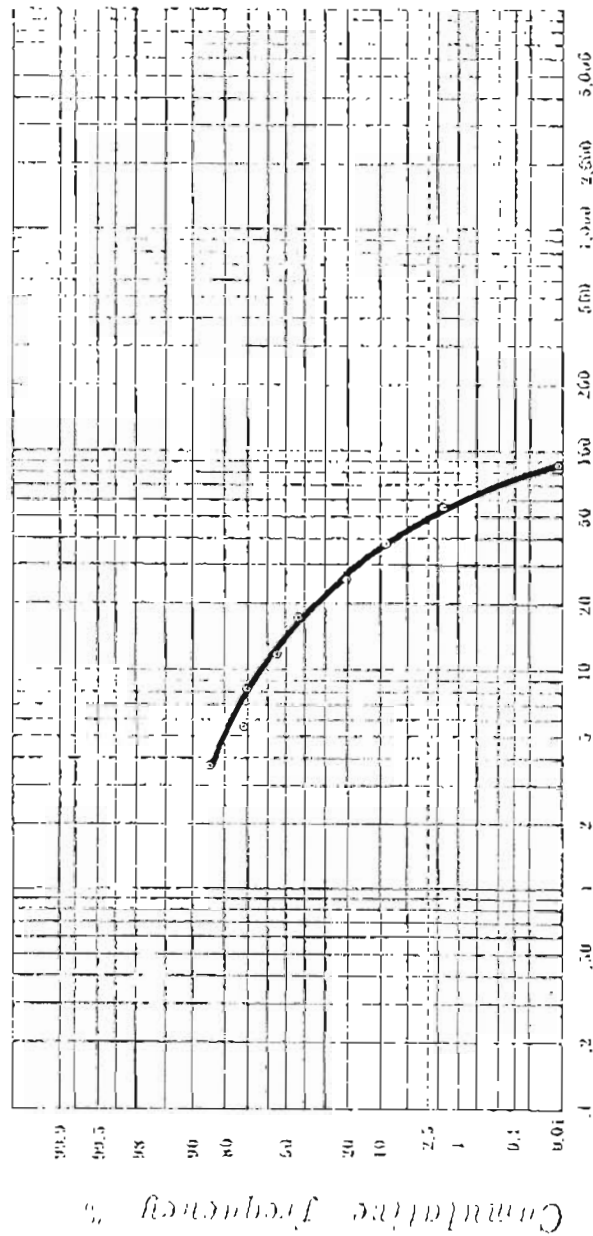
SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
------------------------	------------	-------------------

25.00
50.00
75.00
90.00
95.00

0.100000E+36
0.116797E+01
0.138856E+01
0.157559E+01
0.168070E+01

0.100000E+36
0.147221E+02
0.244657E+02
0.376352E+02
0.479406E+02

Table 4 (cont.)



Sc ppm

Wisconsin 1980 Rocks
Spec. Sc in ppm
Threshold = 61 ppm's

DATE 12/ 5/79

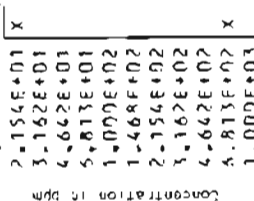
00036 GRAPHICAL ANALYSIS - II S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 26 (S-SN)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/(THEOR FREQ
LOWER	UPPER						
N		372	372	97.89	97.89		
L		0	372	0.00	97.89	3.367E+02	3.712E+00
T		0	372	0.00	97.89	3.644E+01	-3.638E+01
1.250E+00	1.417E+00	2	374	0.53	98.42	6.363E+00	-5.353E+00
1.417E+00	1.583E+00	0	374	0.00	98.42	5.262E-01	1.374E+00
1.583E+00	1.750E+00	1	375	0.26	98.68	0.000E+00	0.000E+00
1.750E+00	1.917E+00	1	376	0.26	98.95	0.000E+00	0.000E+00
1.917E+00	2.083E+00	0	376	0.00	98.95	0.000E+00	0.000E+00
2.083E+00	2.250E+00	1	377	0.26	99.21	0.000E+00	0.000E+00
2.250E+00	2.417E+00	0	377	0.00	99.21	0.000E+00	0.000E+00
2.417E+00	2.583E+00	0	377	0.00	99.21	0.000E+00	0.000E+00
2.583E+00	2.750E+00	0	377	0.00	99.21	0.000E+00	0.000E+00
2.750E+00	2.917E+00	2	379	0.53	99.74	0.000E+00	0.000E+00
2.917E+00	3.083E+00	1	380	0.26	100.00	2.086E-02	6.792E+01
G		0	380	0.00	100.00		
H		0	380				
q		1	381				
TOTALS LESS H AND B		380				3.500E+02	1.026E+01

HISTOGRAM FOR VARIABLE 26 (S-SN)

MIDPOINTS ARE EXPRESSED AS ANTILOGS



THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
 MAXIMUM ANTILOG = 1.00000E+03
 GEOMETRIC MEAN = 1.33830E+02
 GEOMETRIC DEVIATION = 5.00000E+00
 VARIANCE OF LOGS = 4.89000E-01

PERCENT TABLE FOR VARIABLE 26 (S-SN) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE

IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991F 50

SELECTED PERCENTILE	DATA VALUE	ANY LOG OF VALUE
25.00	0.1000000E+36	0.1000000E+36
50.00	0.1000000E+36	0.1000000E+36
75.00	0.1000000E+36	0.1000000E+36
90.00	0.1000000E+36	0.1000000E+36
95.00	0.1000000E+36	0.1000000E+36

Sn

Wiseman 1980 Rocks
Spec. Sn in ppm
Threshold = Detection limit = 10 ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

DD034 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

DATE 12/ 5/79

FREQUENCY TABLE FOR VARIABLE 27 (S-SR)

LOG LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N	85	85	22.43	22.43		
L	42	127	11.08	33.51		
T	0	127	0.00	33.51	5.318E+01	1.025E+02
1.916E+00 - 2.083E+00	48	175	12.56	46.17	5.330E+01	-5.740E+01
2.083E+00 - 2.249E+00	15	190	3.96	50.13	7.077E+01	-7.056E+01
2.249E+00 - 2.416E+00	73	263	19.26	69.39	7.363E+01	-7.264E+01
2.416E+00 - 2.583E+00	59	322	15.57	84.96	6.003E+01	-5.905E+01
2.583E+00 - 2.749E+00	24	346	6.33	91.29	3.836E+01	-3.773E+01
2.749E+00 - 2.916E+00	8	354	2.11	93.40	1.920E+01	-1.879E+01
2.916E+00 - 3.083E+00	14	368	3.59	97.10	7.533E+00	-5.674E+00
3.083E+00 - 3.249E+00	2	370	0.53	97.63	2.315E+00	-1.451E+00
3.249E+00 - 3.416E+00	8	378	2.11	99.74	5.573E-01	1.380E+01
3.416E+00 - 3.583E+00	0	378	0.00	99.74	1.051E-01	-1.051E-01
3.583E+00 - 3.749E+00	1	379	0.26	100.00	1.749E-02	5.716E+01
G	0	379	0.00	100.00		
H	0	379				
R	2	381				
TOTALS LESS H AND R	379				3.790E+02	-1.450E+02

HISTOGRAM FOR VARIABLE 27 (S-SR)

MIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples

Concentration in ppm	0.985E+01	XXXXXXXXXXXXXX
	1.466E+02	XXXX
	2.151E+02	XXXXXXXXXXXXXXXXXXXX
	3.157E+02	XXXXXXXXXXXXXXXXXXXX
	4.634E+02	XXXXXX
	5.802E+02	XX
	9.985E+02	XXXX
	1.466E+03	X
	2.157E+03	XX
	3.157E+03	
	4.635E+03	

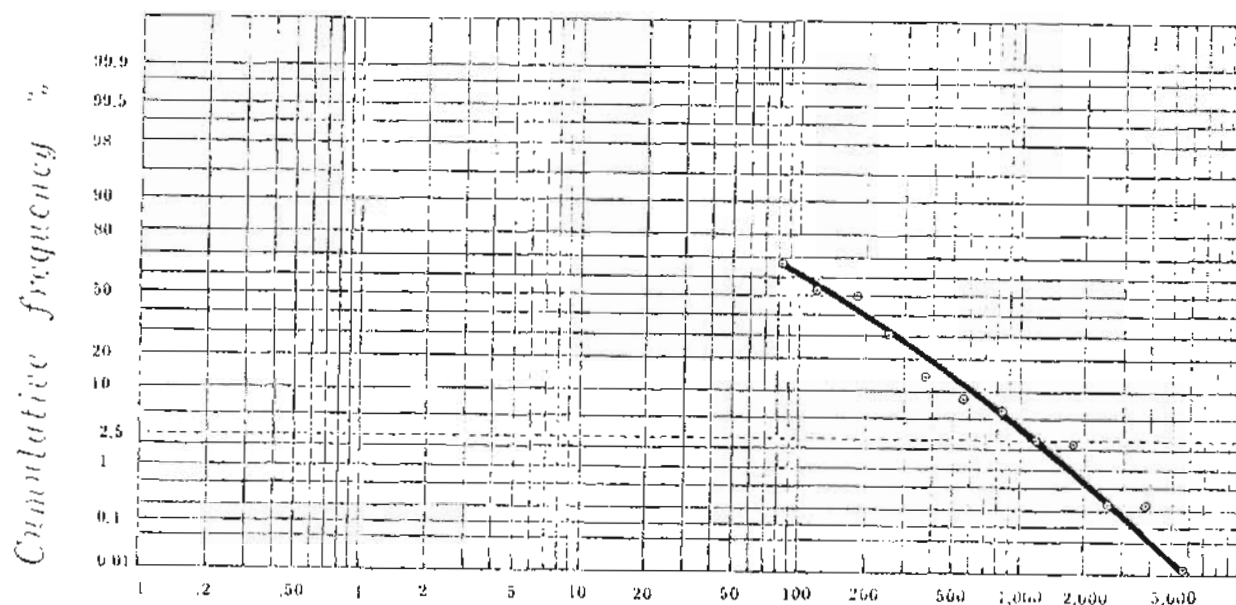
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02
 MAXIMUM ANTILOG = 5.00000E+03
 GEOMETRIC MEAN = 2.60449E+02
 GEOMETRIC DEVIATION = 2.14565E+00
 VARIANCE OF LOGS = 1.09933E-01

PERCENT TABLE FOR VARIABLE 27 (S-SR) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE

IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.224378E+01	0.175299E+03
75.00	0.247603E+01	0.299247E+03
90.00	0.271531E+01	0.519167E+03
95.00	0.298803E+01	0.972805E+03



Wiseman 1980 Rocks
Spec. Sr in ppm
Threshold = 1200 ppm's

Sr ppm

Wiseman 1980 Rocks
Spec. Th in ppm
Threshold = Detection limit = 100 ppm

Th ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

FREQUENCY TABLE FOR VARIABLE 28 (S-V)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER						
N		0	0	0.00	0.00		
L		27	27	7.11	7.11		
T		0	27	0.00	7.11		
9.160E-01	1.083E+00	12	39	3.16	10.26	5.249E+00	9.013E+01
1.083E+00	1.249E+00	4	43	1.05	11.32	6.700E+00	-4.909E+00
1.249E+00	1.416E+00	19	62	5.00	16.32	1.259E+01	-1.228E+01
1.416E+00	1.583E+00	14	76	3.58	20.00	2.107E+01	-2.017E+01
1.583E+00	1.749E+00	24	100	6.32	26.32	3.139E+01	-3.094E+01
1.749E+00	1.916E+00	31	131	8.16	34.47	4.163E+01	-4.105E+01
1.916E+00	2.083E+00	52	183	13.68	48.16	6.915E+01	-4.852E+01
2.083E+00	2.249E+00	45	228	11.94	60.00	5.167E+01	-5.066E+01
2.249E+00	2.416E+00	100	328	26.32	86.32	6.835E+01	-4.742E+01
2.416E+00	2.583E+00	29	357	7.53	93.95	4.028E+01	-3.780E+01
2.583E+00	2.749E+00	12	369	3.16	97.11	2.988E+01	-2.897E+01
2.749E+00	2.916E+00	8	377	2.11	99.21	1.973E+01	-1.912E+01
2.916E+00	3.083E+00	2	379	0.53	99.74	1.160E+01	-1.091E+01
3.083E+00	3.249E+00	1	380	0.26	100.00	6.070E+00	-5.741E+00
G		0	380	0.00	100.00	4.633E+00	-4.417E+00
H		0	380				
P		1	381				
TOTALS LESS H AND R		380				3.800E+02	-2.727E+02

HISTOGRAM FOR VARIABLE 28 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

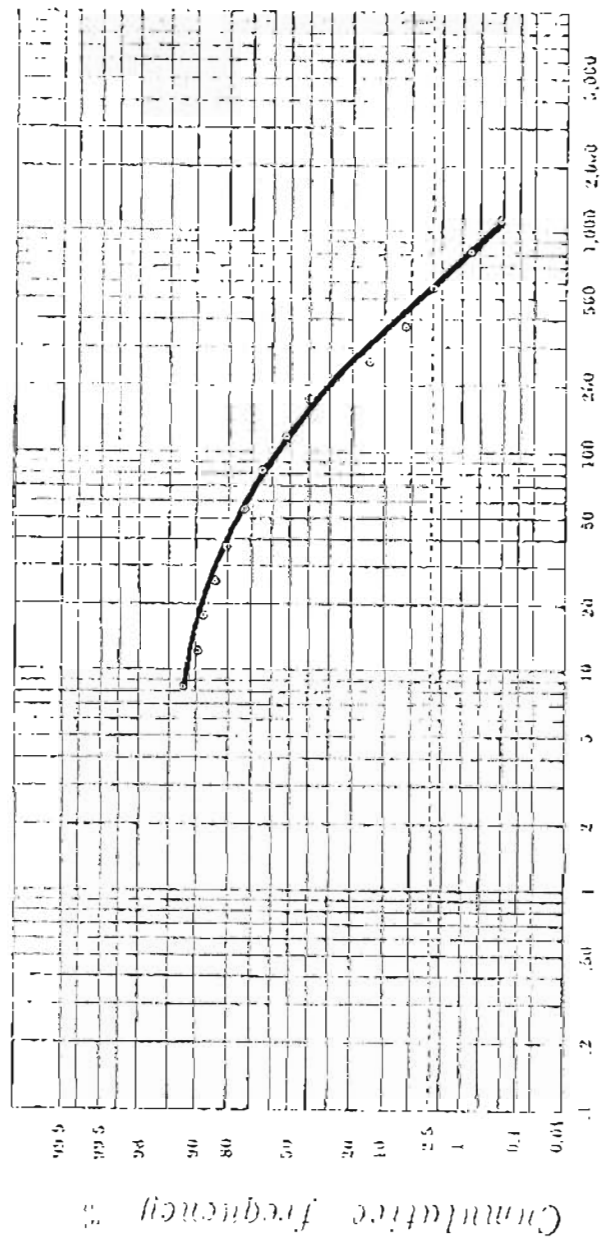
Frequency in percent, each k equal 1 percent of all samples
9.985E+00 XXX
1.466E+01 X
2.151E+01 XXXX
3.157E+01 XXXX
4.634E+01 XXXXX
5.802E+01 XXXXXXX
9.985E+01 XXXXXXXX
1.466E+02 XXXXXXXX
2.151E+02 XXXXXXXX
3.157E+02 XXXXXXXX
4.634E+02 XXXX
5.802E+02 XX
9.985E+02 X
1.466E+03

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 1.50000E+03
 GEOMETRIC MEAN = 1.15631E+02
 GEOMETRIC DEVIATION = 2.61522E+00

PERCENT TABLE FOR VARIABLE 28 (S-V) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999999E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.171461E+01	0.518338E+02
50.00	0.210859E+01	0.128409E+03
75.00	0.234434E+01	0.220971E+03
90.00	0.249666E+01	0.313663E+03
95.00	0.263823E+01	0.434736E+03



Wiseman 1980 Rocks
Spec. Vanadium ppm
Threshold = 500 ppm's

Wiseman 1980 Rocks
Spec. W in ppm
Threshold = Detection limit = 50 ppm

Not enough unqualified values above detection limit
to determine threshold graphically so threshold set
at detection limit.

DATE 12/ 5/79

00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/06/76)

FREQUENCY TABLE FOR VARIABLE 30 (S-Y)						
LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	
LOWER	UPPER					
N		20	20	5.26	5.26	
L		15	35	3.95	9.21	
T		0	35	0.00	9.21	
9.150E+01	1.083E+00	24	59	6.32	15.53	9.885E+00
1.083E+00	1.249E+00	15	74	3.95	19.47	2.737E+01
1.249E+00	1.416E+00	112	186	29.47	48.95	6.163E+01
1.416E+00	1.583E+00	84	270	22.11	71.05	9.225E+01
1.583E+00	1.749E+00	88	358	23.14	94.21	9.182E+01
1.749E+00	1.916E+00	19	377	5.00	99.21	5.077E+01
1.916E+00	2.083E+00	1	378	0.26	99.47	2.674E+01
2.083E+00	2.249E+00	2	380	0.53	100.00	7.816E+00
G		0	380	0.00	100.00	1.730E+00
H		0	380			
R		1	381			
TOTALS LESS H AND R						3.800E+02
						-2.996E+02

HISTOGRAM FOR VARIABLE 30 (S-Y)	
MIDPOINTS ARE EXPRESSED AS ANTILOGS	
Frequency in percent, each X equal 1 percent of all samples	
9.985E+00	XXXXXX
1.466E+01	XXXX
2.151E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+01	XXXXX
9.985E+01	
1.466E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
 MAXIMUM ANTILOG = 1.50000E+02
 GEOMETRIC MEAN = 2.85822E+01
 GEOMETRIC DEVIATION = 1.70072E+00
 VARIANCE OF LOGS = 5.31909E-02

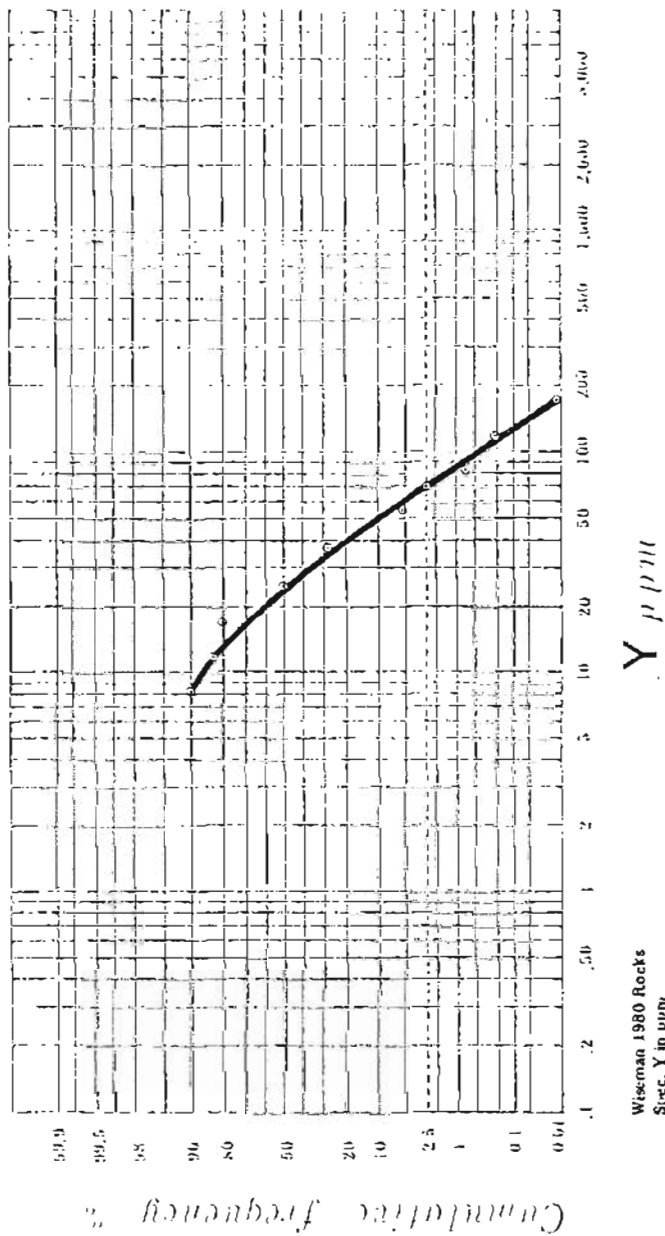
PERCENT TABLE FOR VARIABLE 30 (S-Y) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.00000001E 50

SF(CCTFD) DATA VALUE ANTI LOG OF VALUE
 PERCENTILE

25.00
50.00
75.00
90.00
95.00

0.128058E+01
0.142394E+01
0.161108E+01
0.171903E+01
0.177565E+01

0.190801E+02
0.265422E+02
0.408392E+02
0.523639E+02
0.596555E+02



Wiseman 1980 Rocks
Spec. Y in ppm
Threshold = 70 ppm

DATE 12/ 5/79

DD016 GRAPHICAL ANALYSIS - U S G S STATMAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 31 (S-ZN)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*.2/THEOR FREQ
LOWER	UPPER						
N		224	224	58.95	58.95		
L		101	325	26.58	85.53		
T		0	325	0.00	85.53		
2.250E+00	2.417E+00	31	356	8.16	93.68	1.168E+02	3.713E+02
2.417E+00	2.583E+00	6	362	1.58	95.26	1.499E+02	-1.407E+02
2.583E+00	2.750E+00	10	372	2.53	97.80	9.322E+01	-9.316E+01
2.750E+00	2.917E+00	0	372	0.00	97.80	2.596E+01	-2.558E+01
2.917E+00	3.083E+00	1	373	0.26	98.16	3.022E+00	-3.022E+00
3.083E+00	3.250E+00	3	376	0.79	98.95	0.000E+00	0.000E+00
3.250E+00	3.417E+00	1	377	0.26	99.21	0.000E+00	0.000E+00
3.417E+00	3.583E+00	1	378	0.26	99.47	0.000E+00	0.000E+00
3.583E+00	3.750E+00	1	379	0.26	99.74	1.485E-01	6.586E+00
G		1	380	0.26	100.00	-3.815E-06	-2.621E+05
H		0	380				
A		1	381				

TOTALS LESS H AND R 380

3.800E+02 -2.620E+05

HISTOGRAM FOR VARIABLE 31 (S-ZN)

MIDPOINTS ARE EXPRESSED AS ANTILOGS
Frequency in percent, each X equal 1 percent of all samples

```

2.154E+02 XXXXXXXX
3.162E+02 XX
4.642E+02 XXX
6.813E+02
1.007E+03
1.468E+03 X
2.154E+03
3.162E+03
4.642E+03
  
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+02
 MAXIMUM ANTILOG = 5.00000E+03
 GEOMETRIC MEAN = 3.32684E+02
 GEOMETRIC DEVIATION = 2.20570E+00
 VARIANCE OF LOGS = 1.18025E-01

PERCENT TABLE FOR VARIABLE 31 (S-ZN) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991F 50

SELECTED DATA VALUE ANTI LOG OF VALUE

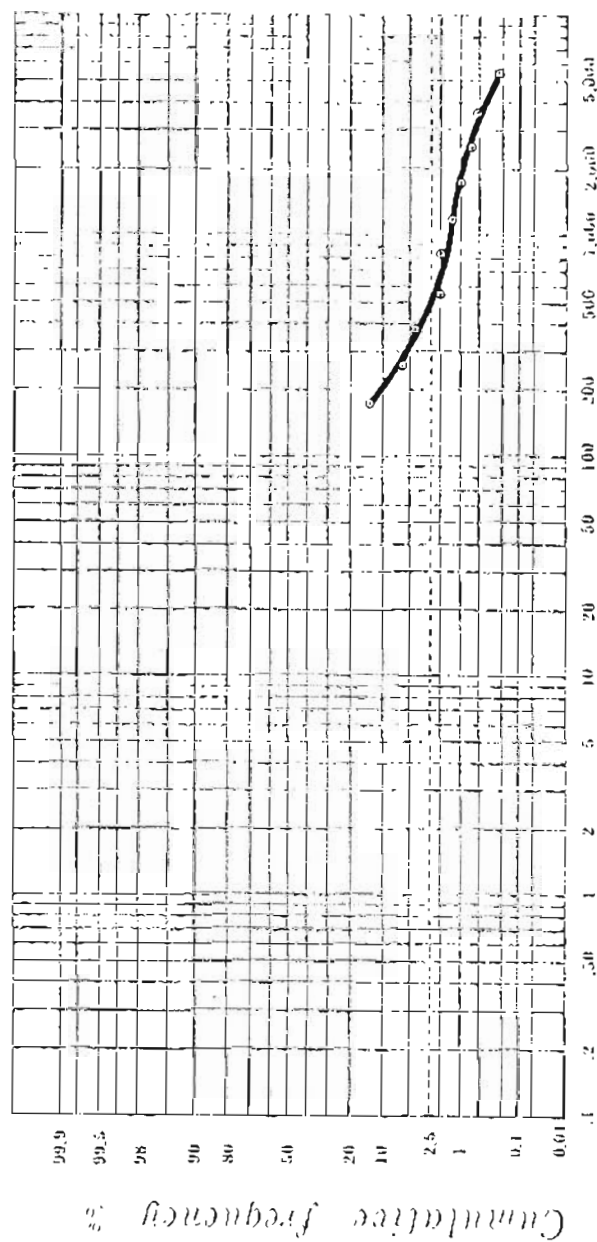
PERCENTILE

25.00
50.00
75.00
90.00
95.00

0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36
0.255556E+01

0.100000E+36
0.100000E+36
0.100000E+36
0.100000E+36
0.159382E+03

Table 4 (cont.)



Wiseman 1980 Rocks
Spec. Zn in ppm
Threshold = 500 ppm

Zn ppm

DATE 12/ 5/79

00036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

FREQUENCY TABLE FOR VARIABLE 32 (S-ZR)

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/(THEOR FREQ
LOWER	UPPER						
N		10	10	2.63	2.63		
L		10	20	2.63	5.26		
T		0	20	0.00	5.26		
9.160E-01	1.083E+00	4	24	1.05	6.32	1.115E+00	3.198E+02
1.083E+00	1.249E+00	0	24	0.00	6.32	2.427E+00	-7.784E-01
1.249E+00	1.416E+00	17	41	4.47	10.79	6.176E+00	-6.176E+00
1.416E+00	1.583E+00	7	48	1.84	12.63	1.340E+01	-1.213E+01
1.583E+00	1.749E+00	30	78	7.89	20.53	2.477E+01	-2.449E+01
1.749E+00	1.916E+00	22	100	5.79	26.32	3.903E+01	-3.826E+01
1.916E+00	2.083E+00	56	156	14.74	41.05	5.242E+01	-5.200E+01
2.083E+00	2.249E+00	63	219	16.58	57.63	6.001E+01	-5.908E+01
2.249E+00	2.416E+00	98	317	25.79	83.42	5.856E+01	-5.749E+01
2.416E+00	2.583E+00	50	367	13.16	96.58	4.871E+01	-4.670E+01
2.583E+00	2.749E+00	12	379	3.16	99.74	3.453E+01	-3.308E+01
2.749E+00	2.916E+00	1	380	0.26	100.00	2.087E+01	-2.029E+01
G		0	380	0.00	100.00	1.799E+01	-1.793E+01
H		0	380	0.00	100.00		
B		1	381				
TOTALS LESS H AND B		380				3.800E+02	-4.857E+01

HISTOGRAM FOR VARIABLE 32 (S-ZR)

MIDPOINTS ARE EXPRESSED AS ANTILOGS
Frequency in percent, each X equal 1 percent of all samples

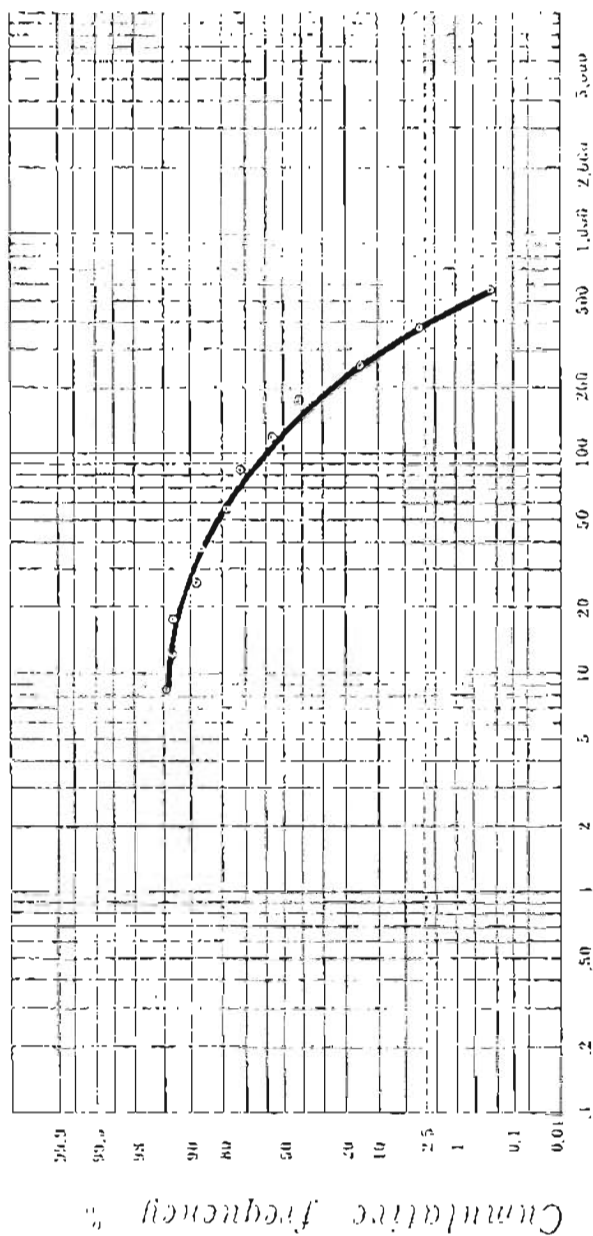
9.985E+00	X
1.466E+01	XXXX
2.151E+01	XXXX
3.157E+01	XX
4.634E+01	XXXXXXXXXX
6.807E+01	XXXXXX
9.985E+01	XXXXXXXXXXXXXXXXXXXX
1.466E+02	XXXXXXXXXXXXXXXXXXXX
2.151E+02	XXXXXXXXXXXXXXXXXXXX
3.157E+02	XXXXXXXXXXXXXXXXXXXX
4.635E+02	XXX
6.803E+02	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 7.00000E+02
GEOMETRIC MEAN = 1.30569E+02
GEOMETRIC DEVIATION = 2.18627E+00
VARIANCE OF LOGS = 1.15399E-01

PERCENT TABLE FOR VARIABLE 52 (S-ZR) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
 IF SELECTED PERCENTILES FAIL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.187812E+01	0.755306E+02
50.00	0.217262E+01	0.148805E+03
75.00	0.236158E+01	0.229922E+03
90.00	0.249934E+01	0.315745E+03
95.00	0.256267E+01	0.365317E+03



Zr ppm

Wisean 1980 Rocks
 Spec. Zr in ppm
 Threshold = 390 ppm

Table 4 (cont.)

DD036 GRAPHICAL ANALYSIS - U S G S STATPAC (07/04/76)

DATE 12/ 5/79

FREQUENCY TABLE FOR VARIABLE 34 (AA-7N-P)

LOG LIMITS		OBS	CUM	PERCENT	PERCENT	THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		2	2	0.53	0.53		
L		8	10	2.11	2.63		
T		0	10	0.00	2.63	0.000E+00	0.000E+00
-7.500E-01	-5.833E-01	1	11	0.26	2.89	0.000E+00	0.000E+00
-5.833E-01	-4.167E-01	0	11	0.00	2.89	1.194E-02	-1.194E-02
-4.167E-01	-2.500E-01	0	11	0.00	2.89	3.445E-02	-3.445E-02
-2.500E-01	-8.333E-02	0	11	0.00	2.89	1.158E-01	-1.158E-01
-8.333E-02	8.333E-02	0	11	0.00	2.89	3.486E-01	-3.486E-01
8.333E-02	2.500E-01	0	11	0.00	2.89	9.400E-01	-9.400E-01
2.500E-01	4.167E-01	0	11	0.00	2.89	2.270E+00	-2.270E+00
4.167E-01	5.833E-01	0	11	0.00	2.89	4.909E+00	-4.909E+00
5.833E-01	7.500E-01	27	38	7.11	10.00	9.510E+00	-6.671E+00
7.500E-01	9.167E-01	0	38	0.00	10.00	1.650E+01	-1.650E+01
9.167E-01	1.083E+00	23	61	6.05	16.05	2.564E+01	-2.474E+01
1.083E+00	1.250E+00	21	82	5.53	21.58	3.568E+01	-3.509E+01
1.250E+00	1.417E+00	37	119	9.74	31.32	4.447E+01	-4.364E+01
1.417E+00	1.583E+00	43	162	11.32	42.63	4.964E+01	-4.878E+01
1.583E+00	1.750E+00	75	237	19.74	62.37	4.964E+01	-4.813E+01
1.750E+00	1.917E+00	69	306	18.16	80.53	4.445E+01	-4.290E+01
1.917E+00	2.083E+00	47	353	12.37	92.89	3.565E+01	-3.433E+01
2.083E+00	2.250E+00	9	362	2.37	95.26	2.561E+01	-2.526E+01
2.250E+00	2.417E+00	7	369	1.84	97.11	1.648E+01	-1.605E+01
2.417E+00	2.583E+00	5	374	1.32	98.42	9.496E+00	-9.969E+00
2.583E+00	2.750E+00	1	375	0.26	98.68	4.901E+00	-4.697E+00
2.750E+00	2.917E+00	0	375	0.00	98.68	2.265E+00	-2.265E+00
2.917E+00	3.083E+00	1	376	0.26	98.95	9.378E-01	1.285E-01
3.083E+00	3.250E+00	0	376	0.00	98.95	3.477E-01	-3.477E-01
3.250E+00	3.417E+00	1	377	0.26	99.21	1.155E-01	8.545E-02
3.417E+00	3.583E+00	2	379	0.53	99.74	3.434E-02	5.820E-02
3.583E+00	3.750E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
3.750E+00	3.917E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
3.917E+00	4.083E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
4.083E+00	4.250E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
4.250E+00	4.417E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
4.417E+00	4.583E+00	0	379	0.00	99.74	0.000E+00	0.000E+00
4.583E+00	4.750E+00	1	380	0.26	100.00	1.191E-02	8.398E-02
G		0	380	0.00	100.00		
H		0	380				
9		1	381				
TOTALS LESS H AND 9		380				3.800E+02	-2.161E+02

Table 5. Statistical summary of analytical results for 380 of 536 rock samples from the southwest Wisconsin Quad-range, Alaska. The number of samples for which qualified values are available are listed under the following codes: N = not detected, H = severe interference problem, L = detected but below limit for detection and quantitative determination, G = greater than upper limit of detection and quantitative determination, B = not determined, and T = at lower limit for detection and quantitative determination. The number of unqualified (quantitatively determined) values and the maximum and minimum values for each element are listed. Mean, standard deviation, variance, skewness, kurtosis, and two other K-moments are computed from the unqualified analytical results for each element.

NO	ELEMENT	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM
1	LA-TITR	0	0	0	0	1	0	380	0	0.670533E+02	0.677327E+02
2	LA-MG-TITR	0	0	0	0	1	0	380	0	0.151000E+03	0.152966E+03
3	S-Fe	0	0	1	3	1	0	376	0	0.500000E-01	0.200000E+02
4	S-MG	0	0	0	0	1	0	380	0	0.200000E-01	0.200000E+02
5	S-CAT	0	0	17	21	1	0	342	0	0.500000E-01	0.200000E+02
6	S-Ti	0	0	0	4	2	0	375	0	0.500000E-02	0.200000E+01
7	S-MN	0	0	3	4	1	0	373	0	0.100000E+02	0.500000E+04
8	S-AG	347	0	5	0	1	0	29	0	0.100000E+01	0.100000E+03
9	S-AS	361	0	3	1	1	0	15	0	0.200000E+03	0.100000E+05
10	S-AU	379	0	0	0	1	0	1	0	0.150000E+02	0.150000E+02
11	S-B	0	0	19	0	1	0	352	0	0.100000E+02	0.200000E+04
12	S-CA	6	0	15	2	1	0	357	0	0.200000E+02	0.500000E+04
13	S-BE	57	0	83	0	1	0	240	0	0.100000E+01	0.200000E+03
14	S-AI	371	0	2	0	1	0	7	0	0.100000E+02	0.200000E+03
15	S-CD	377	0	0	0	2	0	2	0	0.100000E+03	0.200000E+03
16	S-CO	26	0	70	0	1	0	284	0	0.500000E+01	0.300000E+03
17	S-CR	25	0	39	0	1	0	316	0	0.100000E+02	0.150000E+04
18	S-CU	5	0	42	2	1	0	331	0	0.500000E+01	0.200000E+05
19	S-LA	4	0	32	0	1	0	344	0	0.300000E+02	0.200000E+03
20	S-MO	354	0	7	0	1	0	19	0	0.500000E+01	0.150000E+03
21	S-NB	35	0	344	0	1	0	1	0	0.500000E+02	0.500000E+02
22	S-NI	14	0	52	0	1	0	314	0	0.500000E+01	0.700000E+03
23	S-PB	30	0	50	0	1	0	300	0	0.100000E+02	0.100000E+05
24	S-SR	375	0	1	0	1	0	4	0	0.100000E+03	0.100000E+04
25	S-CC	33	0	21	0	1	0	326	0	0.500000E+01	0.700000E+02
26	S-SM	372	0	0	0	1	0	8	0	0.200000E+02	0.100000E+04
27	S-SR	35	0	42	0	2	0	252	0	0.100000E+03	0.500000E+04
28	S-V	368	0	11	0	1	0	353	0	0.100000E+02	0.150000E+04
29	S-V	20	0	27	0	1	0	1	0	0.500000E+02	0.500000E+02
30	S-Y	224	0	15	0	1	0	345	0	0.100000E+02	0.150000E+03
31	S-ZN	101	0	101	1	1	0	54	0	0.200000E+03	0.500000E+04
32	S-ZR	10	0	10	0	1	0	360	0	0.100000E+02	0.700000E+03
33	S-TH	378	0	0	0	3	0	0	0	0.999900E+35	-0.999900E+35
34	AA-2N-P	2	0	8	0	1	0	370	0	0.200000E+00	0.400000E+05
35		0	0	0	0	381	0	0	0	0.999900E+35	-0.999900E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

NO	COLUMN	MEAN	STD DEVIATION	VARIANCE	K1	K2	K3	G1	K4	G2
1	LATITUDE	0.67376820+02	0.14025900+00	0.19813760-01	0.16868700-03	0.16868700-03	0.16868700-03	0.60550190-01	-0.21975150-03	0.55978350+00
2	LONGITUDE	0.15207070+03	0.50823710+00	0.25801140+00	0.84688430-02	0.84688430-02	0.84688430-02	0.54719690-01	-0.64095190-01	0.10165850+01
3	S-E-X	0.47400800+01	0.38925650+01	0.15152060+02	0.95008770+02	0.95008770+02	0.95008770+02	0.16108540+01	0.75800480+03	0.33016310+01
4	S-Y-CZ	0.19243680+01	0.18695270+01	0.34951390+01	0.21638570+02	0.21638570+02	0.21638570+02	0.33115470+01	0.29060510+03	0.23788900+02
5	S-C-AZ	0.18152070+01	0.52992170+01	0.28081260+02	0.26151320+03	0.26151320+03	0.26151320+03	0.17573920+01	0.18032260+04	0.24084730+01
6	S-11Y	0.26766670+00	0.42114080+00	0.17752800+00	0.79358900+00	0.79358900+00	0.79358900+00	0.10609520+02	0.51733270+01	0.16414820+03
7	S-W-N	0.11549050+04	0.10583900+04	0.11201880+07	0.16504590+10	0.16504590+10	0.16504590+10	0.13924310+01	0.28928590+13	0.23097230+01
8	S-A-G	0.15660710+02	0.30342700+02	0.92094540+03	0.69946580+05	0.69946580+05	0.69946580+05	0.25072400+01	0.41983620+07	0.49500780+01
9	S-A-S	0.15070000+04	0.24634470+04	0.60685710+07	0.49962360+11	0.49962360+11	0.49962360+11	0.33420520+01	0.43674890+15	0.17859300+02
10	S-A-U	0.15000000+02	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35
11	S-B	0.74922890+02	0.13296290+03	0.17679130+05	0.23759740+08	0.23759740+08	0.23759740+08	0.10107650+02	0.41555380+11	0.13295530+03
12	S-QA	0.61689080+03	0.66241230+03	0.43879000+06	0.98759520+09	0.98759520+09	0.98759520+09	0.33977690+01	0.37113360+13	0.16670900+02
13	S-RE	0.26437500+01	0.12870000+02	0.16563930+03	0.32453920+05	0.32453920+05	0.32453920+05	0.15223770+02	0.64259570+07	0.23671300+03
14	S-RI	0.97142800+02	0.75213980+02	0.56571430+04	0.29985710+06	0.29985710+06	0.29985710+06	0.70472340+00	-0.36577140+08	0.11429190+01
15	S-RO	0.15000000+03	0.70710680+02	0.50000000+04	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35
16	S-CO	0.32095070+02	0.33167760+02	0.11001000+04	0.14324730+06	0.14324730+06	0.14324730+06	0.39258880+01	0.26228520+08	0.21672500+02
17	S-CR	0.16715190+03	0.17117550+03	0.29307070+05	0.15401330+08	0.15401330+08	0.15401330+08	0.32790460+01	0.13971490+11	0.16273310+02
18	S-CU	0.30268880+03	0.14200310+04	0.20164890+07	0.28603840+11	0.28603840+11	0.28603840+11	0.99892070+01	0.49329470+15	0.12131520+03
19	S-LA	0.54271260+02	0.22972810+02	0.52775020+03	0.36408500+05	0.36408500+05	0.36408500+05	0.30030420+01	0.40287400+07	0.14464800+02
20	S-WO	0.13157890+02	0.16780800+02	0.13533630+04	0.11476790+06	0.11476790+06	0.11476790+06	0.23051510+01	0.98022070+07	0.53517470+01
21	S-NR	0.50000000+02	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35
22	S-UI	0.60891720+02	0.66360190+02	0.44036750+04	0.14578000+07	0.14578000+07	0.14578000+07	0.49885600+01	0.74069950+09	0.38195440+02
23	S-PB	0.87750000+02	0.58847730+03	0.34639550+06	0.32981940+10	0.32981940+10	0.32981940+10	0.16184040+02	0.32604560+14	0.27186890+03
24	S-SR	0.40000000+03	0.40824830+03	0.16666670+06	0.12000000+09	0.12000000+09	0.12000000+09	0.17436330+01	0.89666670+11	0.32280000+01
25	S-SC	0.20141100+02	0.14362930+02	0.20629390+03	0.44342560+04	0.44342560+04	0.44342560+04	0.14965500+01	0.90992520+05	0.21381250+01
26	S-SM	0.33875000+03	0.39509270+03	0.15609820+06	0.51131160+08	0.51131160+08	0.51131160+08	0.82906530+00	-0.30482230+11	0.12509810+01
27	S-SR	0.37678570+03	0.48356170+03	0.23381150+06	0.55398730+09	0.55398730+09	0.55398730+09	0.48994280+01	0.19483720+13	0.35634110+02
28	S-V	0.17025500+03	0.16266030+03	0.26461300+05	0.14038350+08	0.14038350+08	0.14038350+08	0.32660120+01	0.12011000+11	0.17153640+02
29	S-W	0.50000000+02	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35
30	S-Y	0.32913040+02	0.38719730+02	0.35042850+03	0.12579810+05	0.12579810+05	0.12579810+05	0.19176750+01	0.96210940+06	0.78347600+01
31	S-ZN	0.52777780+03	0.81250060+03	0.66015720+06	0.21444850+10	0.21444850+10	0.21444850+10	0.39950940+01	0.80221590+13	0.18407570+07
32	S-ZR	0.16661110+03	0.10674290+03	0.11394050+05	0.15341450+07	0.15341450+07	0.15341450+07	0.12613890+01	0.36186640+09	0.27871970+01
33	S-TH	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35
34	AA-ZN-P	0.18802760+03	0.20898920+04	0.43676470+07	0.17206840+12	0.17206840+12	0.17206840+12	0.18850810+02	0.68624140+16	0.35973430+03
35		0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35

Table 6. Simple linear correlation coefficients between logarithmic values of elemental concentrations in 380 of 536 rock samples from the Wiseman Quadrangle, Alaska. Upper half of table contains correlation coefficients, multiplied by 100; lower half shows number of pairs of values used to compute coefficients. Where number of pairs is less than 381, the bivariate-frequency distribution was censored because of limitations of analysis methods.

'****' indicates correlation coefficient not computed. Method of analysis indicated in the row and column headings: S = emission spectroscopy; AA = atomic-absorption spectrophotometry.

	S-114	S-463	S-643	S-113	S-114	S-115	S-116	S-117	S-118	S-119	S-120	S-121	S-122	S-123	S-124	S-125	S-126	S-127	S-128	S-129	S-130	S-131	S-132	S-133	S-134	S-135	S-136	S-137	S-138	S-139	S-140	S-141	S-142	S-143	S-144	S-145	S-146	S-147	S-148	S-149	S-150	S-151	S-152	S-153	S-154	S-155	S-156	S-157	S-158	S-159	S-160	S-161	S-162	S-163	S-164	S-165	S-166	S-167	S-168	S-169	S-170	S-171	S-172	S-173	S-174	S-175	S-176	S-177	S-178	S-179	S-180	S-181	S-182	S-183	S-184	S-185	S-186	S-187	S-188	S-189	S-190	S-191	S-192	S-193	S-194	S-195	S-196	S-197	S-198	S-199	S-200	S-201	S-202	S-203	S-204	S-205	S-206	S-207	S-208	S-209	S-210	S-211	S-212	S-213	S-214	S-215	S-216	S-217	S-218	S-219	S-220	S-221	S-222	S-223	S-224	S-225	S-226	S-227	S-228	S-229	S-230	S-231	S-232	S-233	S-234	S-235	S-236	S-237	S-238	S-239	S-240	S-241	S-242	S-243	S-244	S-245	S-246	S-247	S-248	S-249	S-250	S-251	S-252	S-253	S-254	S-255	S-256	S-257	S-258	S-259	S-260	S-261	S-262	S-263	S-264	S-265	S-266	S-267	S-268	S-269	S-270	S-271	S-272	S-273	S-274	S-275	S-276	S-277	S-278	S-279	S-280	S-281	S-282	S-283	S-284	S-285	S-286	S-287	S-288	S-289	S-290	S-291	S-292	S-293	S-294	S-295	S-296	S-297	S-298	S-299	S-300	S-301	S-302	S-303	S-304	S-305	S-306	S-307	S-308	S-309	S-310	S-311	S-312	S-313	S-314	S-315	S-316	S-317	S-318	S-319	S-320	S-321	S-322	S-323	S-324	S-325	S-326	S-327	S-328	S-329	S-330	S-331	S-332	S-333	S-334	S-335	S-336	S-337	S-338	S-339	S-340	S-341	S-342	S-343	S-344	S-345	S-346	S-347	S-348	S-349	S-350	S-351	S-352	S-353	S-354	S-355	S-356	S-357	S-358	S-359	S-360	S-361	S-362	S-363	S-364	S-365	S-366	S-367	S-368	S-369	S-370	S-371	S-372	S-373	S-374	S-375	S-376	S-377	S-378	S-379	S-380	S-381	S-382	S-383	S-384	S-385	S-386	S-387	S-388	S-389	S-390	S-391	S-392	S-393	S-394	S-395	S-396	S-397	S-398	S-399	S-400	S-401	S-402	S-403	S-404	S-405	S-406	S-407	S-408	S-409	S-410	S-411	S-412	S-413	S-414	S-415	S-416	S-417	S-418	S-419	S-420	S-421	S-422	S-423	S-424	S-425	S-426	S-427	S-428	S-429	S-430	S-431	S-432	S-433	S-434	S-435	S-436	S-437	S-438	S-439	S-440	S-441	S-442	S-443	S-444	S-445	S-446	S-447	S-448	S-449	S-450	S-451	S-452	S-453	S-454	S-455	S-456	S-457	S-458	S-459	S-460	S-461	S-462	S-463	S-464	S-465	S-466	S-467	S-468	S-469	S-470	S-471	S-472	S-473	S-474	S-475	S-476	S-477	S-478	S-479	S-480	S-481	S-482	S-483	S-484	S-485	S-486	S-487	S-488	S-489	S-490	S-491	S-492	S-493	S-494	S-495	S-496	S-497	S-498	S-499	S-500	S-501	S-502	S-503	S-504	S-505	S-506	S-507	S-508	S-509	S-510	S-511	S-512	S-513	S-514	S-515	S-516	S-517	S-518	S-519	S-520	S-521	S-522	S-523	S-524	S-525	S-526	S-527	S-528	S-529	S-530	S-531	S-532	S-533	S-534	S-535	S-536	S-537	S-538	S-539	S-540	S-541	S-542	S-543	S-544	S-545	S-546	S-547	S-548	S-549	S-550	S-551	S-552	S-553	S-554	S-555	S-556	S-557	S-558	S-559	S-560	S-561	S-562	S-563	S-564	S-565	S-566	S-567	S-568	S-569	S-570	S-571	S-572	S-573	S-574	S-575	S-576	S-577	S-578	S-579	S-580	S-581	S-582	S-583	S-584	S-585	S-586	S-587	S-588	S-589	S-590	S-591	S-592	S-593	S-594	S-595	S-596	S-597	S-598	S-599	S-600	S-601	S-602	S-603	S-604	S-605	S-606	S-607	S-608	S-609	S-610	S-611	S-612	S-613	S-614	S-615	S-616	S-617	S-618	S-619	S-620	S-621	S-622	S-623	S-624	S-625	S-626	S-627	S-628	S-629	S-630	S-631	S-632	S-633	S-634	S-635	S-636	S-637	S-638	S-639	S-640	S-641	S-642	S-643	S-644	S-645	S-646	S-647	S-648	S-649	S-650	S-651	S-652	S-653	S-654	S-655	S-656	S-657	S-658	S-659	S-660	S-661	S-662	S-663	S-664	S-665	S-666	S-667	S-668	S-669	S-670	S-671	S-672	S-673	S-674	S-675	S-676	S-677	S-678	S-679	S-680	S-681	S-682	S-683	S-684	S-685	S-686	S-687	S-688	S-689	S-690	S-691	S-692	S-693	S-694	S-695	S-696	S-697	S-698	S-699	S-700	S-701	S-702	S-703	S-704	S-705	S-706	S-707	S-708	S-709	S-710	S-711	S-712	S-713	S-714	S-715	S-716	S-717	S-718	S-719	S-720	S-721	S-722	S-723	S-724	S-725	S-726	S-727	S-728	S-729	S-730	S-731	S-732	S-733	S-734	S-735	S-736	S-737	S-738	S-739	S-740	S-741	S-742	S-743	S-744	S-745	S-746	S-747	S-748	S-749	S-750	S-751	S-752	S-753	S-754	S-755	S-756	S-757	S-758	S-759	S-760	S-761	S-762	S-763	S-764	S-765	S-766	S-767	S-768	S-769	S-770	S-771	S-772	S-773	S-774	S-775	S-776	S-777	S-778	S-779	S-780	S-781	S-782	S-783	S-784	S-785	S-786	S-787	S-788	S-789	S-790	S-791	S-792	S-793	S-794	S-795	S-796	S-797	S-798	S-799	S-800	S-801	S-802	S-803	S-804	S-805	S-806	S-807	S-808	S-809	S-810	S-811	S-812	S-813	S-814	S-815	S-816	S-817	S-818	S-819	S-820	S-821	S-822	S-823	S-824	S-825	S-826	S-827	S-828	S-829	S-830	S-831	S-832	S-833	S-834	S-835	S-836	S-837	S-838	S-839	S-840	S-841	S-842	S-843	S-844	S-845	S-846	S-847	S-848	S-849	S-850	S-851	S-852	S-853	S-854	S-855	S-856	S-857	S-858	S-859	S-860	S-861	S-862	S-863	S-864	S-865	S-866	S-867	S-868	S-869	S-870	S-871	S-872	S-873	S-874	S-875	S-876	S-877	S-878	S-879	S-880	S-881	S-882	S-883	S-884	S-885	S-886	S-887	S-888	S-889	S-890	S-891	S-892	S-893	S-894	S-895	S-896	S-897	S-898	S-899	S-900	S-901	S-902	S-903	S-904	S-905	S-906	S-907	S-908	S-909	S-910	S-911	S-912	S-913	S-914	S-915	S-916	S-917	S-918	S-919	S-920	S-921	S-922	S-923	S-924	S-925	S-926	S-927	S-928	S-929	S-930	S-931	S-932	S-933	S-934	S-935	S-936	S-937	S-938	S-939	S-940	S-941	S-942	S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