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Alaska Open-file Report 133A  
GEOCHEMICAL RECONNAISSANCE OF THE SOUTHWEST  
WISEMAN QUADRANGLE; SUMMARY OF DATA ON PAN-  
CONCENTRATE AND STREAM-SEDIMENT 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 647 stream-sediment samples and 156 non-magnetic heavy-mineral-pan-concentrate samples (called pan-concentrate samples below) collected during this study and earlier geochemical studies (Brosge and Reiser, 1970; Chipp, 1972; and Brosge, written commun., 1979) are presented in this report. The geochemical assays of 536 rock samples from the study area are reported in Alaska Open-file Report 133B.

Most samples were collected by the Alaska Division of Geological and Geophysical Surveys (DGGs) and analyzed in laboratories of the U.S. Geological Survey, Branch of Exploration Research (USGS), although some were analyzed by DGGs. 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 stream sediments and pan-concentrates are listed in tables 2 and 3, respectively. Statistical data from stream-sediment and pan-concentrate analyses are listed in tables 4-6 and 7-9, respectively.

## SAMPLING AND SAMPLE PREPARATION

Stream-sediment and pan-concentrate samples were collected from active parts of streams wherever possible; when necessary, some samples were collected from sediments directly adjacent to present stream channels. Pan concentrates were collected at about one-fourth of the stream-sediment-sample sites. These sites are usually at the confluence of a group of creeks from which stream-sediment samples were collected. At each sampling locality one pan was filled by wet-screening unsorted sediment through a steel, 2.0-mm sieve. The sample was mixed by hand and then a split of the minus-2.0-mm fraction was removed with a scoop and designated the 'stream sediment sample.' At pan-concentrate sites the remainder of the minus-2.0-mm fraction was panned on site to obtain a heavy-mineral or 'pan' concentrate. Stream-sediment and pan-concentrate samples were placed in metal-free paper envelopes or cloth bags and later were air dried.

Stream-sediment-sample weights ranged from 150 to 250 g. In the laboratory, samples were screened by shaking through a 0.2-mm stainless-steel sieve. The minus-0.2-mm fractions were placed in metal-free cardboard containers for subsequent analysis.

After panning, the pan-concentrate samples also weighed 150 to 250 g. In the laboratory they were passed through a 0.8-mm stainless-steel sieve. The minus-0.8-mm fraction was retained and separated with bromoform liquid into a light-mineral fraction, which was discarded, and a heavy-mineral fraction with a specific gravity greater than 2.86. A magnetic fraction consisting primarily of magnetite, hematite, and ilmenite was removed from the heavy-mineral fraction with a hand magnet and an isodynamic magnetic separator set at 0.2

amperes. The magnetic fraction was saved but not analyzed. The remaining heavy-mineral fraction was again run through the isodynamic magnetic separator at a setting of 0.6 amperes. The nonmagnetic fraction contained primarily zircon, apatite, and sulfides; it was labeled 'C-3' and was retained for spectrographic analysis. The intermediate fraction (magnetic susceptibility 0.2-0.6 amperes) was saved but not analyzed.

One group of pan-concentrate samples was mistakenly prepared and analyzed in the manner described for stream sediments. These samples (399, 401, 403, 405, 407, 409, 411, 413, 417, 419, 421, 423, 425, 438, 440, 443, 445, 447, 455, 460, 465, 476, and 480) are reported with the stream sediments in table 2 and distinguished on plate 1 by the symbol (+) preceding the sample number. Caution should be used in interpreting the analyses of these mishandled samples because they are not comparable to the other stream-sediment or pan-concentrate samples. Six of the sites from which the problem samples were obtained were later resampled. In addition, splits from all but two of the original samples were recovered, analyzed, and numbered 399c-480c; these results are listed with the pan concentrates in table 3.

Panning will concentrate dense detrital minerals and remove low density clay and carbonate minerals. Thus, pan-concentrate samples should yield higher values for elements in dense minerals (including metallic sulfides and oxides) and lower values for elements associated with low-density carbonate and clay minerals than will stream-sediment samples from the same site.

#### ANALYTICAL METHODS

The C-3 fraction of pan concentrates and the minus-0.3-mm fraction of stream sediments were analyzed by a six-step, DC-arc, semiquantitative emission-spectrographic method (indicated by S below) generally following that described by Grimes and Marranzino (1968) for the analysis of geologic material. Concentrations of the following 30 elements were determined by this method for all samples: 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. Concentrations of Ce, Ga, Yb, Pr, and Nd were determined by this method for pan-concentrate samples 652C-655C (Brosge and Reiser, 1970; Brosge, written commun., 1979); concentrations of Ga and Th were determined by emission spectroscopy for stream-sediment samples 651-657 and 481-650, respectively. Atomic-absorption spectrophotometry (indicated by AA below) was used to determine the concentrations of elements in stream-sediment samples as follows:

- 1) Zn in all samples except samples 651-660 and 665-667.
- 2) Ag, Au, Cu, Mo, Pb, Sb, U, Th, Zn for splits of 82 stream-sediment samples selected at about every fifth sample site.
- 3) Au, Cu, Pb, and Zn in samples 676-790.
- 4) Ag in samples 651-664.
- 5) Au in samples 651-664 and 668-675.
- 6) Sb in samples 661-665 and 668-675.

Results of these analyses are listed in tables 2 and 3.

#### STATISTICAL ANALYSIS

Data listed in tables 2 and 3 were entered in the USGS Rock Analyses Storage System (RASS). Data entered prior to December 5, 1979

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 rock samples is reported in Alaska Open-file Report 1338. 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	0.5 ppm	3 ppm
S-As	500 ppm	200 ppm	500 ppm
S-Au	10 ppm	10 ppm	20 ppm
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	10 ppm	10 ppm	20 ppm
S-Cd	20 ppm	20 ppm	50 ppm
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	5 ppm	10 ppm
S-Nb	20 ppm	30 ppm	48 ppm
S-Ni	180 ppm	100 ppm	130 ppm
S-Pb	135 ppm	75 ppm	500 ppm
S-Sb	100 ppm	100 ppm	200 ppm
S-Sc	51 ppm	40 ppm	100 ppm
S-Sn	10 ppm	10 ppm	70 ppm
S-Sr	1200 ppm	750 ppm	900 ppm
S-V	580 ppm	300 ppm	330 ppm
S-W	50 ppm	50 ppm	100 ppm
S-Y	70 ppm	88 ppm	320 ppm
S-Zn	500 ppm	200 ppm	900 ppm
S-Zr	390 ppm	350 ppm	1000 ppm
S-Th	100 ppm	100 ppm	200 ppm
AA-Ag	- - -	0.5 ppm	- - -
AA-Au	- - -	10 ppm	- - -
AA-Cu	- - -	90 ppm	- - -
AA-Mo	- - -	5 ppm	- - -
AA-Ni	- - -	115 ppm	- - -
AA-Pb	- - -	38 ppm	- - -
AA-Sb	- - -	100 ppm	- - -
AA-Th	- - -	45 ppm	- - -
AA-U	- - -	18 ppm	- - -
AA-Zn-A	- - -	150 ppm	- - -
AA-Zn-P	170 ppm	180 ppm	- - -

(stream-sediment samples 1-517 and pan-concentrate samples 1-152) were retrieved and analyzed statistically using the USGS STATPAC computer program. Results are presented in tables 1, 4-6 and 1, 7-9, respectively.

Ideally, statistical analyses are completed separately and systematically for each sample type and element and are based on the entire data set. Although the analyses presented here were done separately for the two sample types and for all elements, they are not based on the entire data set. Only 517 of 647 stream-sediment samples and 152 of 156 pan-concentrate samples were included because the other samples had not been entered into the RASS prior to December 1979. Most threshold values for anomalous concentrations were systematically chosen, as discussed below.

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 tables 2 and 3 and the element is listed next to the pertinent sample number on plate 1.

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 tables 4 and 7 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. Use of this report to define the background for local geochemical surveys requires consideration of the statistical data listed in tables 4-9.

Tables 4 and 7, the graphical statistical analyses of data on stream-sediment and pan-concentrate samples, respectively, report observed frequency, cumulative frequency, percent frequency, and percent-cumulative frequency for unqualified and qualified values<sup>1</sup> for 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 are included in the graphical analysis. Values for a normalized frequency distribution, geometric mean, geometric deviation,

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<sup>1</sup>Unqualified 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 lower and upper detection limits, respectively.

variance, and interpolated cumulative frequency are also reported in tables 4 and 7. The values shown in table 4 and the thresholds for stream-sediments samples in table 1 should be used with caution because analytical results for the mishandled samples mentioned above (p. 3) were included in their computation.

The cumulative-frequency curve is used as a guide to select the threshold value 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. However, the form of the cumulative-frequency curve for Fe and Cu in stream-sediment samples and Fe, Mn, Ba, La, and Zr in pan-concentrate samples 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 the samples falls below the detection limit, statistical analysis is not possible and the anomaly threshold is arbitrarily set at the detection limit for the method used (table 1).

Some threshold values determined by this method resulted in an excessive number of anomalies when applied to Chipp's (1972) stream-sediment-sample data. This is probably attributable to the subjectiveness of the semiquantitative method, the difference in laboratory facilities used to process samples, and the fact that Chipp's samples were not included in the statistical analysis. To eliminate this problem, thresholds applied to these samples (676-790) were arbitrarily adjusted to the following values: Mg = >2.0%, Fe = >10%, Ti = >2.0%, Cr = >500 ppm, Mo = >20 ppm, Nb = >50 ppm, Ni = >100 ppm, Sn = >10 ppm, and Pb = 50 ppm. Thresholds for other elements are listed in table 1.

Both AA and S were used to determine Zn in all samples; Cu, Mo, Ni, Pb, and Zn were determined with AA as well as S for 82 splits of stream-sediment samples. These duplicate analyses provide enough data for a statistical comparison of the two methods of analysis and the USGS and DGGS laboratories.

Inspection of the data on Zn, as determined by the USGS (table 2, AA-Zn-P, 647 samples) with those determined by the DGGS (table 2, AA-Zn-A, 82 samples), shows similar results. However, the AA-Zn-P values are systematically slightly lower, which is reflected in the mean values (72.9 for AA-Zn-P vs 84.0 for AA-Zn-A, tables 4 and 7). By contrast, the Zn-threshold value is significantly lower for AA-Zn-A than for AA-Zn-P, perhaps as a result of the limited sample set (table 1). In comparing the graphical analysis of AA determinations of Zn with S determinations of Zn, it becomes apparent that most samples with anomalously high Zn as determined by S also have anomalously high Zn as determined by AA (tables 2 and 3). No comparison of threshold values for AA-Zn with S-Zn is attempted because the thresholds were not selected by the same method.

A statistically significant data set is available for comparison of AA and S determinations of Cu, Ni, and Pb. Anomaly threshold values from AA determinations of these elements are 90, 115, and 38 ppm, respectively; those from S determinations are 95, 100, and 75 ppm. Cu and Ni show similar thresholds, but the threshold for Pb determined by S is significantly higher for unknown reasons.

Tables 5 and 8 summarize (for stream-sediment and pan-concentrate samples) the number and type of qualified values; the number of unqualified values; the maximum and minimum unqualified value; the mean, standard deviation, variance, skewness, and kurtosis of the unqualified values; and the number of pairs of values used to compute the correlation coefficients (see below).

Simple linear correlation coefficients among logarithmic values of elemental concentrations for stream-sediment and pan-concentrate samples are shown in the upper-left half of tables 6 and 9, respectively. When the number of pairs shown in the lower-left corner of the tables 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, a correlation coefficient was not computed if the number of pairs was less than three.

Correlation coefficients based on a statistically significant set of pairs (more than about 20) 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.

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#### REFERENCES CITED

- Brosge, W.P., and Reiser, H.N., 1970, Chemical analyses of stream sediment samples from the Chandalar and Eastern Wiseman Quadrangles, Alaska: U.S. Geological Survey Open-file report, 40 p., 1 pl.
- Chipp, E.R., 1972, Analyses of rock and stream sediment samples, Wild Lake area, Wiseman Quadrangle, arctic Alaska: Alaska Division of Geological Surveys Geochemical Report 25, scale 1:48,000, 2 sheets.
- 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. 538-551.

Table 2. Analytical results for 647 stream-sediment samples from the southwest Wiseman Quadrangle, Alaska.

The 23 mishandled pan-concentrate samples (p. 3) are also listed. 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 parts per million (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	2.0	20.0	1.0	5000	1.0	500	10	200	1500
Min	0.5	0.15	0.05	0.05	100	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	5.0	10	20	300	300	500	500	10	20	200
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	300	500	100	50	2000	500	50	200	1000	500
Min	10	100	5.0	10	10	100	50	10	200	7
	<u>S-Th</u>	<u>AA-Zn-P</u>								
Max	100	320								
Min	100	5.0								

For a few samples, analyst estimated quantitative values of Ti 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 651-790, the detection and 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 spectroscopy is indicated by 'S - element'; analysis by atomic absorption spectrophotometry is symbolized by 'AA-element.'

Table 2 (cont.)

sample	LATITUDE	LONGITUDE	S-FLX	S-MGX	S-CAZ	S-TTX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
1	67 24 25	152 49 24	1.5	1.00	10.00	.20	300	N	N	N	20	150
2	67 9 24	152 46 36	5.0	2.00	1.50	.50	300	N	N	N	30	700
3	67 9 25	152 46 39	2.0	1.00	.70	.30	300	N	N	N	20	700
4	67 11 6	152 51 36	5.0	1.00	.50	.50	300	N	N	N	50	1,000
5	67 11 5	152 54 42	3.0	.70	.30	.70	300	N	N	N	50	500
6	67 10 30	152 58 18	5.0	1.00	.30	1.00	500	N	N	N	50	300
7	67 11 41	152 48 12	2.0	.70	.30	.50	300	N	N	N	70	700
8	67 11 43	152 48 18	3.0	.70	.70	.50	300	N	N	N	70	700
9	67 11 11	152 45 6	5.0	1.00	1.00	.70	300	N	N	N	50	700
10	67 12 41	152 38 12	5.0	.70	.30	1.00	500	N	N	N	70	500
11	67 12 43	152 38 12	3.0	1.00	.50	.70	300	N	N	N	70	700
13	67 12 1	152 34 18	3.0	1.00	.70	.70	500	N	N	N	50	1,000
14	67 12 4	152 34 12	3.0	.70	.70	.70	300	N	N	N	70	1,000
15	67 10 40	152 35 18	3.0	1.00	1.00	.50	300	N	N	N	70	700
16	67 17 45	151 36 6	5.0	1.50	1.00	.70	300	N	N	N	70	1,000
17	67 17 48	151 36 0	3.0	1.00	2.00	.50	300	N	N	N	70	500
18	67 18 2	151 37 21	3.0	1.50	1.00	.50	300	N	N	N	100	700
19	67 18 3	151 37 27	5.0	1.50	1.00	.50	300	N	N	N	100	700
20	67 19 45	151 37 36	3.0	1.50	1.00	.70	700	N	N	N	70	300
21	67 19 30	151 43 6	3.0	1.00	.30	.70	1,000	N	N	N	50	300
22	67 19 33	151 43 0	3.0	1.50	.30	.70	700	N	N	N	70	300
23	67 19 2	151 41 15	5.0	1.50	.50	.70	700	N	N	N	100	300
24	67 19 5	151 41 18	3.0	1.00	.30	.70	700	N	N	N	50	200
25	67 19 8	151 41 9	5.0	1.00	.30	1.00	500	N	N	N	70	300
26	67 20 24	151 40 12	5.0	1.00	.30	1.00	300	N	N	N	70	500
27	67 18 3	151 33 48	3.0	1.00	1.50	.50	300	N	N	N	70	700
28	67 18 11	151 32 36	5.0	1.50	2.00	.70	300	N	N	N	100	700
29	67 16 48	151 38 18	3.0	1.00	2.00	.50	300	N	N	N	100	500
30	67 16 50	151 38 24	3.0	1.00	.70	.50	300	N	N	N	100	1,000
31	67 16 46	151 38 24	3.0	1.00	2.00	.50	300	N	N	N	100	500
32	67 15 24	151 36 48	5.0	1.00	1.00	.70	500	N	N	N	100	700
33	67 14 43	151 35 33	5.0	1.00	.70	.70	500	N	N	N	70	700
34	67 14 41	151 40 2	5.0	1.00	.50	.70	300	N	N	N	70	700
35	67 12 45	151 39 45	5.0	1.00	.20	.70	300	N	N	N	100	500
36	67 12 48	151 39 42	5.0	1.00	.20	.70	500	N	N	N	100	700
37	67 13 9	151 35 6	5.0	1.00	.20	.70	500	N	N	N	100	700
41	67 14 1	151 32 42	5.0	1.00	.20	.70	300	N	N	N	70	700
42	67 14 5	151 32 39	5.0	1.00	.30	.50	300	N	N	N	70	700
43	67 15 12	151 34 3	5.0	1.00	.70	.50	700	N	N	N	70	700
44	67 16 53	151 32 15	5.0	1.00	2.00	.50	300	N	N	N	100	500
45	67 15 18	151 29 54	2.0	.70	.50	.50	300	N	N	N	50	700
48	67 14 48	151 41 3	3.0	1.00	1.00	.50	300	N	N	N	100	700
50	67 17 54	151 2 12	3.0	1.00	5.00	.50	300	N	N	N	50	300
51	67 15 3	151 27 3	3.0	1.00	2.00	.50	300	N	N	N	150	500
53	67 17 55	151 27 6	5.0	1.00	2.00	.50	300	N	N	N	70	500

Analytical results for stream sediment samples Wisconsin quadrangle Alaska.

sample	S-PC	S-BI	S-CP	S-CU	AA-Cu	S-LA	S-MO	AA-Mo	S-NB	S-NI	AA-NI	S-PB	AA-Pb	S-SB	AA-SB
1	1.0	N	30	10	--	50	N	--	<20	20	--	30	--	N	--
2	1.0	N	150	20	--	100	N	--	<20	50	--	50	--	100	--
3	1.0	N	70	7	--	50	N	--	<20	20	--	10	--	N	--
4	1.0	N	150	20	--	50	N	--	<20	70	--	50	--	N	--
5	1.0	N	100	30	--	50	N	--	<20	50	--	30	--	N	--
6	1.0	N	150	50	--	50	N	--	<20	70	--	30	--	N	--
7	1.0	N	150	30	--	300	N	--	<20	70	--	50	--	N	--
8	1.0	N	150	50	--	50	N	--	<20	50	--	50	--	N	--
9	1.0	N	150	30	--	50	N	--	<20	50	--	30	--	N	--
10	1.0	N	150	50	--	50	N	--	<20	50	--	30	--	N	--
11	1.0	N	150	50	--	100	N	--	<20	70	--	70	--	N	--
13	1.0	N	150	50	--	100	N	--	<20	100	--	30	--	N	--
14	1.0	N	150	30	--	100	N	--	<20	100	--	30	--	N	--
15	1.0	N	150	30	--	50	N	--	<20	70	--	30	--	N	--
16	1.0	N	300	50	--	70	N	--	<20	100	--	100	--	N	--
17	1.0	N	150	50	--	50	N	--	<20	50	--	20	--	N	--
18	1.0	N	150	50	--	50	N	--	<20	50	--	30	--	N	--
19	1.0	N	200	50	--	70	N	--	<20	70	--	30	--	N	--
20	1.0	N	150	30	--	50	N	--	<20	50	--	20	--	N	--
21	1.0	N	100	50	--	50	N	--	<20	30	--	20	--	N	--
22	1.0	N	150	30	--	50	N	--	<20	30	--	30	--	N	--
23	1.0	N	150	50	--	50	N	--	<20	50	--	30	--	N	--
24	1.0	N	150	20	--	50	N	--	<20	50	--	10	--	N	--
25	1.0	N	150	30	--	50	N	--	<20	70	--	20	--	N	--
26	1.0	N	150	30	--	50	N	--	<20	50	--	70	--	N	--
27	1.0	N	200	30	--	50	N	--	<20	70	--	30	--	N	--
28	1.0	N	200	30	--	50	N	--	<20	70	--	50	--	N	--
29	1.0	N	150	30	--	50	N	--	<20	70	--	20	--	N	--
30	1.0	N	200	50	--	100	N	--	<20	100	--	30	--	N	--
31	1.0	N	100	30	--	50	N	--	<20	50	--	20	--	N	--
32	1.0	N	200	50	--	50	N	--	<20	70	--	30	--	N	--
33	1.0	N	200	70	--	100	N	--	<20	100	--	30	--	N	--
34	1.0	N	200	70	--	70	N	--	<20	70	--	50	--	N	--
35	1.0	N	200	50	--	70	N	--	<20	50	--	50	--	N	--
36	1.0	N	200	70	--	70	N	--	<20	100	--	50	--	N	--
37	1.0	N	200	70	--	50	N	--	<20	100	--	50	--	N	--
41	1.0	N	200	70	--	50	N	--	<20	100	--	50	--	N	--
42	1.0	N	150	100	--	100	N	--	<20	100	--	70	--	N	--
43	1.0	N	200	70	--	100	N	--	<20	150	--	50	--	N	--
44	1.0	N	150	50	--	50	N	--	<20	70	--	30	--	N	--
45	1.0	N	150	30	--	70	N	--	<20	50	--	50	--	N	--
48	1.0	N	150	50	--	50	N	0	<20	100	73	30	14	N	0
50	1.0	N	150	20	--	50	N	--	<20	50	--	20	--	N	--
51	1.0	N	100	30	30	50	N	0	<20	50	58	30	13	N	0
53	1.0	N	150	50	--	50	N	--	<20	50	--	70	--	N	--

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.

sample	S-SiC	S-SN	S-SH	AA-U	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-Th	AA-Zn-A	AA-Zn-P
1	5	N	200	--	CU	N	20	N	100	--	--	--	50
2	20	N	200	--	200	N	70	N	100	--	--	--	70
3	15	N	200	--	150	N	50	N	100	--	--	--	80
4	20	N	100	--	150	N	30	<200	100	--	--	--	110
5	15	N	100	--	150	N	20	<200	70	--	--	--	90
6	50	N	100	--	150	N	50	<200	200	--	--	--	75
7	20	N	100	--	150	N	150	<200	100	--	--	--	310
8	20	N	150	--	150	N	70	<200	100	--	--	--	100
9	20	N	100	--	200	N	50	<200	200	--	--	--	90
10	30	N	100	--	150	N	30	<200	150	--	--	--	60
11	30	N	100	--	200	N	70	200	100	--	--	--	320
13	20	N	150	--	200	N	50	<200	150	--	--	--	160
14	20	N	150	--	200	N	50	<200	150	--	--	--	160
15	20	N	100	--	200	N	30	N	150	--	--	--	110
16	30	N	100	--	200	N	30	N	100	--	--	--	100
17	20	N	100	--	200	N	20	N	100	--	--	--	75
18	20	N	100	--	200	N	30	<200	100	--	--	--	90
19	30	N	150	--	200	N	30	<200	100	--	--	--	95
20	30	N	100	--	150	N	50	N	200	--	--	--	55
21	20	N	100	--	150	N	20	N	100	--	--	--	75
22	20	N	100	--	150	N	30	N	100	--	--	--	70
23	30	N	100	--	200	N	30	N	100	--	--	--	70
24	20	N	100	--	150	N	30	N	100	--	--	--	55
25	30	N	100	--	150	N	50	N	100	--	--	--	55
26	30	N	100	--	150	N	30	<200	150	--	--	--	100
27	20	N	200	--	200	N	20	N	100	--	--	--	85
28	30	N	200	--	200	N	30	N	100	--	--	--	80
29	20	N	200	--	150	N	20	N	100	--	--	--	60
30	30	N	200	--	200	N	50	N	100	--	--	--	120
31	20	N	200	--	200	N	30	N	100	--	--	--	55
32	30	N	200	--	200	N	30	N	100	--	--	--	90
33	30	N	200	--	200	N	50	<200	150	--	--	--	160
34	20	N	200	--	200	N	70	<200	150	--	--	--	120
35	30	N	200	--	200	N	50	<200	150	--	--	--	130
36	50	N	200	--	200	N	50	<200	150	--	--	--	160
37	30	N	150	--	300	N	50	<200	200	--	--	--	120
41	30	N	150	--	200	N	30	<200	100	--	--	--	170
42	20	N	100	--	200	N	30	<200	100	--	--	--	160
43	30	N	100	--	200	N	50	<200	150	--	--	--	130
44	20	N	200	--	200	N	50	N	100	--	--	--	75
45	20	N	100	--	200	N	30	N	100	--	--	--	100
48	20	N	100	1.9	200	N	100	<200	100	7.0	--	121	95
50	20	N	100	--	200	N	20	N	70	--	--	--	55
51	20	N	100	1.9	200	N	20	N	70	5.8	--	95	75
53	20	N	100	--	200	N	20	N	100	--	--	--	95

Table 2 (cont.)

Table 2(cont.)

sample	LATITUDE	LONGITUDE	S-FEZ	S-MCZ	S-CAZ	S-TIZ	S-MN	S-AG	AA-Lg	S-AS	S-AU	AA-AU	S-B	S-BA
54	67 18 0	151 27 18	5.0	1.50	1.50	.50	300	N	--	N	N	--	100	700
55	67 22 20	151 33 0	2.0	2.00	7.00	.20	300	N	--	N	N	--	50	300
56	67 22 27	151 37 30	3.0	.70	.50	.70	300	N	--	N	N	--	50	300
57	67 22 19	151 37 48	3.0	.70	1.50	.50	300	N	--	N	N	--	50	300
58	67 22 15	151 37 24	3.0	1.50	3.00	.70	300	N	.00	N	N	.07	30	200
60	67 23 33	151 37 57	3.0	.50	.50	.70	300	N	--	N	N	--	50	200
61	67 23 31	151 38 27	3.0	.70	.50	.70	300	N	--	N	N	--	50	300
62	67 23 42	151 43 42	3.0	.70	.30	.50	300	N	--	N	N	--	70	500
63	67 22 8	151 46 6	3.0	.70	.50	.70	300	N	--	N	N	--	50	300
64	67 22 17	151 46 0	5.0	1.00	1.50	.50	500	N	--	N	N	--	70	500
65	67 20 30	151 46 48	2.0	1.00	3.00	.50	300	N	--	N	N	--	30	200
66	67 20 18	151 47 0	3.0	1.00	1.00	.50	1,000	N	--	N	N	--	70	200
67	67 21 9	151 50 3	3.0	.70	2.00	.70	300	1.0	--	N	N	--	50	200
68	67 17 47	151 2 12	3.0	1.00	.70	.50	300	N	--	N	N	--	50	1,000
69	67 21 7	151 50 21	3.0	1.50	3.00	.50	300	N	.00	N	N	.07	50	300
71	67 13 10	151 14 48	2.0	.70	.20	.50	300	N	--	N	N	--	70	700
72	67 13 20	151 15 0	3.0	1.00	.30	.50	300	N	--	N	N	--	70	700
73	67 12 6	151 15 0	3.0	1.00	.20	.70	300	N	--	N	N	--	100	1,000
74	67 12 2	151 15 6	2.0	1.00	.20	.50	300	N	--	N	N	--	70	700
75	67 10 51	151 15 27	3.0	.70	.10	.50	300	N	--	N	N	--	100	700
76	67 10 53	151 15 42	3.0	1.00	.20	.70	300	N	--	N	N	--	100	700
77	67 10 4	151 16 6	2.0	1.00	.10	.70	300	N	--	N	N	--	70	500
79	67 22 0	152 0 12	2.0	.70	3.00	.50	300	N	--	N	N	--	30	200
80	67 22 0	152 0 12	2.0	1.00	3.00	.50	300	N	--	N	N	--	50	300
81	67 22 0	152 0 12	2.0	1.00	3.00	.50	300	N	--	N	N	--	50	300
82	67 22 0	152 0 12	2.0	1.00	3.00	.50	300	N	--	N	N	--	30	200
83	67 22 0	152 0 12	3.0	1.00	3.00	.50	300	N	--	N	N	--	30	200
84	67 13 45	151 18 24	2.0	1.00	.50	.50	300	N	--	N	N	--	100	700
85	67 13 43	151 18 18	2.0	.70	.05	.50	300	N	--	N	N	--	70	700
86	67 28 54	151 8 12	2.0	1.00	1.00	.50	300	N	--	N	N	--	50	500
87	67 28 57	151 8 3	2.0	1.00	2.00	.50	300	N	--	N	N	--	70	500
88	67 28 48	151 7 54	2.0	.70	.50	.50	300	N	--	N	N	--	70	500
89	67 27 55	151 9 18	2.0	.70	.50	.50	300	N	--	N	N	--	70	500
90	67 27 34	151 7 6	2.0	.70	.20	.50	300	N	--	N	N	--	70	500
91	67 27 37	151 7 6	2.0	.70	.50	.50	300	N	--	N	N	--	70	500
92	67 25 52	151 8 54	2.0	.70	.50	.50	300	N	.00	N	N	.00	50	500
94	67 25 47	151 8 54	3.0	1.50	1.00	.50	500	N	.00	N	N	.07	50	300
96	67 25 4	151 9 48	2.0	1.00	.70	.50	300	N	--	N	N	--	50	500
97	67 17 18	151 18 3	3.0	.70	.70	.50	300	N	--	N	N	--	50	500
98	67 15 11	151 14 54	3.0	1.00	.20	.50	300	N	--	N	N	--	50	700
99	67 15 23	151 16 51	5.0	1.00	.20	.50	300	N	--	N	N	--	70	700
100	67 16 13	151 13 51	3.0	.70	.20	.50	300	N	--	N	N	--	70	500
101	67 16 5	151 14 0	3.0	1.00	.30	.50	500	N	--	N	N	--	100	700
102	67 16 19	151 13 57	3.0	1.00	.50	.50	300	N	.00	N	N	.00	100	700
104	67 17 40	151 10 47	3.0	1.00	1.50	.50	300	N	--	N	N	--	100	500

sample	S-BE	S-DJ	S-CD	S-CO	S-CR	S-CU	AA-Cu	S-LA	S-MO	AA-Mo	S-NB	S-NI	AA-NI	S-PB	AA-PIs	S-SB	AA-SB
54	1.0	N	N	50	200	70	--	70	N	--	<20	70	--	50	--	N	--
55	1.0	N	N	15	100	20	--	50	N	--	<20	30	--	70	--	N	--
56	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	30	--	N	--
57	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	30	--	N	--
58	1.0	N	N	20	100	20	27	70	N	0	<20	30	32	50	11	N	0
60	1.0	N	N	20	70	20	--	50	N	--	<20	30	--	20	--	N	--
61	1.0	N	N	20	100	70	--	50	N	--	<20	50	--	20	--	N	--
62	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	30	--	N	--
63	1.0	N	N	30	70	30	--	50	N	--	<20	30	--	20	--	N	--
64	1.0	N	N	30	100	30	--	50	N	--	<20	30	--	50	--	N	--
65	1.0	N	N	20	50	20	--	50	N	--	<20	20	--	30	--	N	--
66	1.0	N	N	20	100	20	--	50	N	--	<20	30	--	20	--	N	--
67	1.0	N	N	20	50	50	--	50	N	--	<20	20	--	100	--	N	--
68	1.0	N	N	30	150	50	--	50	N	--	<20	70	--	20	--	N	--
69	1.0	N	N	20	70	20	24	50	N	0	<20	30	17	30	16	N	0
71	1.0	N	N	50	150	30	--	70	N	--	<20	70	--	20	--	N	--
72	1.0	N	N	100	200	20	--	100	N	--	<20	100	--	70	--	N	--
73	1.0	N	N	50	300	20	--	50	N	--	<20	100	--	20	--	N	--
74	1.0	N	N	100	150	30	--	50	N	--	<20	100	--	20	--	N	--
75	1.0	N	N	100	150	20	--	50	N	--	<20	70	--	20	--	N	--
76	1.0	N	N	50	200	20	--	50	N	--	<20	70	--	30	--	N	--
77	1.0	N	N	50	150	15	--	50	N	--	<20	70	--	30	--	N	--
79	1.0	N	N	20	30	10	--	50	N	--	<20	30	--	<10	--	N	--
80	1.0	N	N	20	30	10	--	50	N	--	<20	30	--	10	--	N	--
81	1.0	N	N	20	30	30	--	50	N	--	<20	30	--	10	--	N	--
82	1.0	N	N	20	30	10	--	50	N	--	<20	20	--	10	--	N	--
83	1.0	N	N	20	50	10	--	50	N	--	<20	20	--	<10	--	N	--
84	1.0	N	N	100	150	50	--	50	N	--	<20	100	--	10	--	N	--
85	1.0	N	N	100	70	20	--	50	N	--	<20	50	--	10	--	N	--
86	1.0	N	N	30	70	30	--	50	N	--	<20	50	--	20	--	N	--
87	1.0	N	N	20	70	15	--	50	N	--	<20	50	--	20	--	N	--
88	1.0	N	N	30	70	10	--	50	N	--	<20	30	--	10	--	N	--
89	1.0	N	N	50	70	20	--	50	N	--	<20	70	--	20	--	N	--
90	1.0	N	N	50	150	20	--	50	N	--	<20	70	--	10	--	N	--
91	1.0	N	N	50	100	10	--	50	N	--	<20	50	--	10	--	N	--
92	1.0	N	N	30	70	30	16	100	N	0	<20	50	40	20	12	N	0
94	1.0	N	N	50	100	20	24	50	N	0	<20	50	28	10	28	N	0
96	1.0	N	N	30	70	15	--	50	N	--	<20	50	--	<10	--	N	--
97	1.0	N	N	20	70	20	--	50	N	--	<20	50	--	20	--	N	--
98	1.0	N	N	50	200	30	--	50	N	--	<20	70	--	100	--	N	--
99	1.0	N	N	50	200	50	--	50	N	--	<20	70	--	70	--	N	--
100	1.0	N	N	30	100	20	--	50	N	--	<20	70	--	20	--	N	--
101	1.0	N	N	50	150	50	--	50	N	--	<20	70	--	50	--	N	--
102	1.0	N	N	50	200	50	34	50	N	0	<20	70	77	70	5	N	0
104	1.0	N	N	50	200	50	--	50	N	--	<20	70	--	100	--	N	--

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-SC	S-SN	S-SR	AA-U	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Tb	S-TH	AA-Zn-A	AA-Zn-P
54	20	N	100	--	200	N	30	N	70	--	--	--	110
55	5	N	100	--	100	N	20	<200	70	--	--	--	100
56	20	N	100	--	100	N	20	N	200	--	--	--	75
57	20	N	100	--	100	N	20	N	200	--	--	--	60
58	20	N	100	1.5	150	N	20	N	100	8.3	--	65	75
60	20	N	100	--	150	N	20	N	300	--	--	--	45
61	20	N	100	--	150	N	20	N	200	--	--	--	65
62	20	N	100	--	150	N	30	N	300	--	--	--	85
63	20	N	100	--	150	N	30	N	300	--	--	--	100
64	20	N	100	--	150	N	20	N	200	--	--	--	--
65	15	N	100	--	100	N	20	N	150	--	--	--	50
66	15	N	100	--	100	N	20	N	100	--	--	--	45
67	20	N	100	--	100	N	20	N	300	--	--	--	60
68	20	N	100	--	200	N	30	N	200	--	--	--	75
69	20	N	150	0.9	100	N	30	N	100	5.5	--	57	50
71	20	N	150	--	100	N	20	N	100	--	--	--	160
72	20	N	150	--	100	N	20	<200	100	--	--	--	150
73	30	N	100	--	150	N	50	N	100	--	--	--	110
74	20	N	100	--	100	N	20	N	100	--	--	--	130
75	20	N	100	--	150	N	20	N	100	--	--	--	110
76	20	N	100	--	150	N	50	N	100	--	--	--	130
77	20	N	100	--	100	N	20	N	70	--	--	--	100
79	20	N	200	--	70	N	20	N	50	--	--	--	50
80	20	N	200	--	70	N	30	N	100	--	--	--	50
81	20	N	200	--	50	N	20	N	50	--	--	--	45
82	20	N	200	--	50	N	20	N	70	--	--	--	50
83	20	N	200	--	50	N	20	N	50	--	--	--	50
84	20	N	100	--	150	N	50	<200	100	--	--	--	160
85	20	N	100	--	100	N	20	N	70	--	--	--	110
86	20	N	100	--	100	N	20	N	70	--	--	--	75
87	20	N	200	--	100	N	20	N	70	--	--	--	60
88	20	N	100	--	70	N	20	N	100	--	--	--	55
89	20	N	200	--	100	N	20	N	70	--	--	--	100
90	20	N	200	--	150	N	20	N	70	--	--	--	90
91	20	N	200	--	150	N	20	N	70	--	--	--	90
92	20	N	150	1.9	100	N	20	N	70	6.0	--	98	70
94	20	N	100	1.0	100	N	20	N	50	4.5	--	72	50
96	20	N	100	--	100	N	20	N	100	--	--	--	75
97	20	N	200	--	150	N	20	<200	100	--	--	--	70
98	20	N	100	--	200	N	50	<200	70	--	--	--	140
99	30	N	100	--	200	N	30	<200	100	--	--	--	120
100	20	N	100	--	200	N	30	<200	100	--	--	--	100
101	20	N	100	--	200	N	30	<200	100	--	--	--	110
102	30	N	100	2.5	200	N	30	<200	150	7.3	--	127	100
104	30	N	300	--	200	N	30	N	100	--	--	--	70

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska,--continued

sample	LATITUDE	LONGITUDE	S-FF%	S-Mn%	S-CAZ	S-TLZ	S-MN	S-AG	S-AS	S-AU	S-B	S-RA
105	67 17 35	151 6 30	3.0	1.00	5.00	.30	300	1.0	N	N	.00 70	500
107	67 19 40	151 4 30	3.0	1.50	1.00	.50	500	N	N	N	100	1,000
108	67 19 38	151 4 48	3.0	1.50	2.00	.50	500	N	N	N	100	700
109	67 19 52	151 7 42	3.0	1.50	2.00	.50	300	N	N	N	100	700
110	67 19 54	151 9 6	3.0	1.50	3.00	.50	300	N	N	N	100	700
111	67 20 27	151 13 12	3.0	1.50	.70	.50	500	N	N	N	.06 30	300
113	67 20 33	151 13 24	5.0	1.50	2.00	.50	1,000	N	N	N	50	300
114	67 22 24	151 12 24	2.0	1.50	2.00	.50	300	N	N	N	70	300
115	67 24 25	151 10 42	5.0	1.50	.70	.50	500	N	N	N	70	500
116	67 24 53	151 3 51	3.0	1.00	.50	.50	300	N	N	N	70	300
117	67 24 55	151 3 48	2.0	.50	.30	.50	200	N	N	N	70	300
118	67 22 5	151 9 21	5.0	1.50	3.00	.50	700	N	N	N	.00 50	300
120	67 22 7	151 9 0	2.0	1.50	5.00	.30	300	N	N	N	50	300
121	67 21 53	151 8 51	5.0	1.00	.70	.50	1,000	N	N	N	50	300
122	67 21 39	151 4 12	5.0	1.50	1.00	.50	700	N	N	N	30	300
123	67 21 33	151 4 9	2.0	1.50	.50	.50	700	N	N	N	50	500
124	67 21 22	151 4 24	3.0	1.00	.70	.50	500	N	N	N	30	500
127	67 23 33	151 23 18	2.0	1.00	5.00	.50	300	N	N	N	50	500
128	67 23 30	151 23 30	2.0	1.00	3.00	.50	300	N	N	N	50	300
129	67 23 37	151 23 36	2.0	1.00	5.00	.50	300	N	N	N	30	300
131	67 23 54	151 18 54	2.0	1.00	2.00	.50	300	N	N	N	30	300
132	67 23 39	151 18 21	2.0	.50	.50	.50	200	N	N	N	50	300
133	67 23 40	151 18 12	2.0	.70	3.00	.50	300	N	N	N	30	300
134	67 23 42	151 18 12	2.0	1.00	5.00	.50	300	N	N	N	30	300
135	67 25 11	151 15 57	3.0	.70	.30	.70	300	N	N	N	50	500
136	67 25 10	151 15 79	5.0	1.00	.30	1.00	500	N	N	N	30	300
137	67 26 49	151 16 18	2.0	.30	.15	1.00	300	N	N	N	50	300
138	67 26 56	151 16 21	2.0	.30	.15	1.00	300	N	N	N	30	300
139	67 26 53	151 20 33	2.0	.30	.15	.50	300	N	N	N	30	300
141	67 27 59	151 19 36	2.0	.50	.15	.50	300	N	N	N	50	300
142	67 27 55	151 19 24	2.0	.50	.15	.50	200	N	N	N	50	300
143	67 29 13	151 16 21	2.0	.70	1.00	.50	300	N	N	N	50	300
144	67 29 17	151 16 23	3.0	1.00	1.00	.50	500	N	N	N	50	300
145	67 29 24	151 16 36	3.0	1.00	.50	.50	300	N	N	N	50	500
146	67 29 14	151 19 18	3.0	1.00	1.00	.50	300	N	N	N	50	300
148	67 31 31	151 16 48	3.0	1.00	.15	.50	300	N	N	N	70	500
149	67 31 28	151 15 48	3.0	.70	.15	.50	300	N	N	N	70	500
150	67 32 46	151 17 18	3.0	1.00	.10	.50	300	N	N	N	70	500
151	67 32 50	151 17 24	3.0	1.00	.10	.50	300	N	N	N	70	500
152	67 32 42	151 19 42	3.0	.50	.15	.50	300	N	N	N	50	300
153	67 32 38	151 20 0	3.0	.70	.10	.50	300	N	N	N	50	300
155	67 24 56	151 25 9	3.0	.70	1.00	.50	300	N	N	N	70	300
156	67 27 33	151 23 36	3.0	.70	.15	.50	300	N	N	N	50	300
157	67 28 15	151 23 57	3.0	.70	.70	.50	500	N	N	N	50	300
159	67 31 9	151 23 15	3.0	1.00	.70	.50	500	N	N	N	50	300

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-DE	S-BI	S-Ch	S-CO	S-CR	S-CU	AA-Cu	S-LA	S-MO	AA-Mo	S-NB	S-NI	AA-NI	S-PB	AA-Pb	AA-SB	AA-SB
105	1.0	N	N	30	100	20	28	50	N	0	<20	50	112	300	23	N	0
107	1.0	N	N	100	200	50	--	50	N	--	<20	100	--	20	--	N	--
108	1.0	N	N	50	200	50	--	50	N	--	<20	70	--	50	--	N	--
109	1.0	N	N	50	300	50	--	50	N	--	<20	70	--	100	--	N	--
110	1.0	N	N	50	200	50	--	50	N	--	<20	70	--	200	--	N	--
111	1.0	N	N	50	200	30	16	50	N	0	<20	50	32	20	9	N	0
113	1.0	N	N	50	200	50	--	50	N	--	<20	50	--	50	--	N	--
114	1.0	N	N	30	150	20	--	50	N	--	<20	50	--	50	--	N	--
115	1.0	N	N	30	150	30	--	50	N	--	<20	50	--	50	--	N	--
116	1.0	N	N	30	100	15	--	50	N	--	<20	30	--	10	--	N	--
117	1.0	N	N	10	50	7	--	50	N	--	<20	20	--	<10	--	N	--
118	1.0	N	N	30	100	30	22	50	N	0	<20	50	26	10	8	N	0
120	1.0	N	N	15	70	15	--	50	N	--	<20	20	--	20	--	500	--
121	1.0	N	N	50	100	20	--	50	N	--	<20	30	--	20	--	N	--
122	1.0	N	N	50	100	50	--	50	N	--	<20	20	--	15	--	N	--
123	1.0	N	N	50	150	50	--	50	N	--	<20	50	--	30	--	N	--
124	1.0	N	N	50	70	20	--	50	N	--	<20	70	--	20	--	N	--
127	1.0	N	N	20	70	20	--	50	N	--	<20	50	--	20	--	N	--
128	1.0	N	N	30	70	15	--	50	N	--	<20	50	--	20	--	N	--
129	1.0	N	N	20	30	15	26	50	N	0	<20	20	20	20	5	N	0
131	1.0	N	N	20	50	10	--	50	N	--	<20	30	--	20	--	N	--
132	1.0	N	N	20	50	7	--	50	N	--	<20	30	--	10	--	N	--
133	1.0	N	N	15	50	10	--	50	N	--	<20	20	--	20	--	N	--
134	1.0	N	N	15	20	10	--	50	N	--	<20	20	--	10	--	N	--
135	1.0	N	N	20	100	30	--	100	N	--	<20	50	--	20	--	N	--
136	1.0	N	N	50	70	50	--	50	N	--	<20	50	--	20	--	N	--
137	1.0	N	N	20	70	10	--	50	N	--	<20	50	--	10	--	N	--
138	1.0	N	N	20	50	20	--	50	N	--	<20	50	--	15	--	N	--
139	1.0	N	N	20	50	10	26	50	N	0	<20	50	34	15	8	N	0
141	1.0	N	N	20	70	15	--	50	N	--	<20	30	--	10	--	N	--
142	1.0	N	N	20	70	15	--	50	N	--	<20	30	--	10	--	N	--
143	1.0	N	N	15	70	15	--	50	N	--	<20	30	--	15	--	N	--
144	1.0	N	N	20	100	20	--	70	N	--	<20	30	--	50	--	N	--
145	1.0	N	N	20	100	20	--	100	N	--	<20	30	--	30	--	N	--
146	1.0	N	N	20	100	30	37	100	N	0	<20	30	46	15	17	N	0
148	1.5	N	N	50	150	30	--	100	N	--	<20	70	--	30	--	N	--
149	1.5	N	N	30	100	20	--	100	N	--	<20	30	--	20	--	N	--
150	1.5	N	N	30	150	20	--	100	N	--	<20	30	--	20	--	N	--
151	1.5	N	N	30	150	30	--	150	N	--	<20	50	--	30	--	N	--
152	1.5	N	N	30	150	20	--	100	N	--	<20	50	--	20	--	N	--
153	1.0	N	N	30	150	20	22	100	N	0	<20	50	70	20	12	N	0
155	1.0	N	N	20	50	10	--	50	N	--	<20	20	--	15	--	N	--
156	1.0	N	N	30	100	20	--	50	N	--	<20	50	--	15	--	N	--
157	1.0	N	N	20	100	20	19	70	N	0	<20	30	37	10	2	N	0
159	1.0	N	N	30	200	20	--	70	N	--	<20	50	--	15	--	N	--

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-SC	S-SH	S-SR	AA-II	S-V	S-W	S-Y	S-ZN	S-ZR	AA-TH	S-TH	AA-Zn-A	AA-ZN-P
105	20	N	200	3.1	150	N	20	N	70	6.5	--	78	100
107	20	N	200	--	200	N	50	<200	200	--	--	--	120
108	20	N	200	--	200	N	30	N	100	--	--	--	70
109	20	N	200	--	200	N	20	N	100	--	--	--	90
110	20	N	300	--	200	N	20	N	100	--	--	--	90
111	30	N	150	1.6	200	N	30	N	150	4.8	--	73	70
113	20	N	100	--	200	N	30	N	100	--	--	--	60
114	20	N	100	--	150	N	30	N	100	--	--	--	60
115	20	N	100	--	200	N	30	N	200	--	--	--	55
116	20	N	100	--	150	N	30	N	200	--	--	--	190
117	10	N	100	--	100	N	20	<200	150	--	--	--	90
118	20	N	100	1.5	150	N	20	N	150	5.8	--	63	50
120	10	N	100	--	100	N	15	N	100	--	--	--	40
121	30	N	100	--	200	N	30	N	100	--	--	--	70
122	30	N	150	--	200	N	20	N	100	--	--	--	55
123	30	N	100	--	200	N	30	N	100	--	--	--	80
124	20	N	100	--	150	N	20	<200	100	--	--	--	70
127	20	N	300	--	100	N	70	N	100	--	--	--	50
128	20	N	200	--	150	N	30	<200	150	--	--	--	50
129	10	N	300	1.0	100	N	30	N	70	6.5	--	56	35
131	10	N	200	--	100	N	20	N	100	--	--	--	40
132	10	N	<100	--	100	N	20	N	150	--	--	--	40
133	7	N	200	--	70	N	20	N	100	--	--	--	30
134	7	N	100	--	70	N	20	N	100	--	--	--	15
135	20	N	100	--	150	N	50	N	200	--	--	--	90
136	20	N	<100	--	150	N	50	N	100	--	--	--	70
137	10	N	100	--	150	N	30	N	100	--	--	--	65
138	10	N	100	--	150	N	100	N	70	--	--	--	55
139	10	N	100	1.7	150	N	20	N	70	6.0	--	75	55
141	15	N	100	--	150	N	50	N	100	--	--	--	70
142	15	N	100	--	150	N	50	N	100	--	--	--	90
143	10	N	200	--	150	N	20	N	70	--	--	--	80
144	15	N	100	--	150	N	50	N	200	--	--	--	60
145	15	N	100	--	200	N	50	N	100	--	--	--	90
146	15	N	150	2.6	150	N	50	N	200	11.5	--	89	80
148	20	N	100	--	150	N	50	N	200	--	--	--	100
149	15	N	100	--	150	N	30	N	150	--	--	--	100
150	20	N	100	--	150	N	50	<200	200	--	--	--	100
151	20	N	100	--	150	N	50	N	150	--	--	--	110
152	15	N	100	--	150	N	30	N	100	--	--	--	95
153	15	N	100	2.3	150	N	30	N	100	20.0	--	105	100
155	10	N	100	--	100	N	30	N	200	--	--	--	50
156	15	N	100	--	200	N	30	N	150	--	--	--	80
157	15	N	100	0.8	150	N	30	N	100	6.0	--	64	50
159	20	N	100	--	200	N	30	N	150	--	--	--	70

sample	LATITUDE	LONGITUDE	S-FRZ	S-VGZ	S-CAZ	S-TLZ	S-MN	S-AG	S-AS	S-AU	AA-AU	S-B	S-BA
160	67 24 45	151 32 6	3.0	1.00	1.00	.50	300	N	--	N	--	70	500
161	67 25 18	151 29 42	3.0	.70	.30	.50	300	N	.00	N	.00	30	300
163	67 26 6	151 32 30	2.0	.70	1.00	.50	500	N	--	N	--	50	300
164	67 24 33	151 39 36	5.0	1.00	.50	.50	300	N	--	N	--	100	500
165	67 24 29	151 39 30	5.0	1.00	.30	.50	300	N	--	N	--	100	500
166	67 25 57	151 37 6	3.0	.70	3.00	.50	300	N	.00	N	.00	30	300
168	67 25 59	151 37 33	3.0	1.00	15.00	.30	300	N	--	N	--	50	300
169	67 28 30	151 34 12	3.0	1.00	.50	.50	500	N	.00	N	.00	50	300
171	67 31 16	151 43 18	3.0	.70	.30	.50	500	N	--	N	--	50	300
172	67 31 12	151 43 24	5.0	1.00	.30	.50	500	N	--	N	--	50	300
173	67 30 45	151 41 36	3.0	.70	.30	.50	500	N	--	N	--	70	300
174	67 32 42	151 37 0	3.0	1.00	2.00	.50	300	N	--	N	--	50	300
175	67 32 42	151 36 48	3.0	1.00	2.00	.50	300	N	--	N	--	20	300
176	67 32 35	151 36 57	3.0	1.00	.50	.50	300	N	--	N	--	30	300
177	67 33 21	151 39 30	3.0	1.00	1.00	.50	500	N	--	N	--	50	500
178	67 33 26	151 39 48	3.0	1.00	1.00	.50	300	N	--	N	--	30	500
179	67 30 12	151 37 42	3.0	.70	1.50	.50	500	N	.00	N	.00	20	300
181	67 37 25	151 29 48	5.0	1.50	1.00	.50	500	N	--	N	--	50	700
182	67 37 21	151 29 54	3.0	1.00	1.50	.50	300	N	--	N	--	30	500
183	67 36 18	151 27 18	3.0	1.00	1.00	.50	300	N	.06	N	.06	50	1,000
185	67 34 24	151 37 42	5.0	1.00	1.50	.50	500	N	--	N	--	30	500
186	67 36 11	151 33 18	3.0	1.00	.70	.50	300	N	--	N	--	50	1,000
187	67 36 6	151 33 18	3.0	1.00	1.50	.50	300	N	--	N	--	50	1,000
188	67 35 17	151 30 3	3.0	1.00	1.50	.50	300	N	.00	N	.00	50	1,000
190	67 35 18	151 30 30	3.0	.70	1.00	.50	300	N	--	N	--	30	1,000
191	67 36 18	151 40 4	3.0	1.00	5.00	.50	300	N	--	N	--	50	700
192	67 36 21	151 40 4	3.0	.70	.30	.50	300	N	--	N	--	70	1,000
193	67 37 9	151 43 12	3.0	1.00	5.00	.50	500	N	.00	N	.00	30	1,000
195	67 23 29	151 51 54	3.0	1.00	2.00	.50	500	N	.00	N	.03	50	300
197	67 23 28	151 51 36	3.0	.70	1.50	.50	500	N	--	N	--	50	300
198	67 23 44	151 47 6	3.0	1.00	5.00	.70	200	N	--	N	--	50	300
199	67 23 48	151 47 6	3.0	.70	.30	.50	700	<.5	--	N	--	70	500
200	67 25 36	151 48 42	3.0	.70	.20	.70	300	N	--	N	--	70	300
201	67 27 18	151 41 57	3.0	1.00	5.00	.50	500	N	--	N	--	70	300
202	67 27 23	151 42 6	.5	1.50	20.00	.30	200	N	--	N	--	20	200
203	67 27 19	151 42 24	.7	1.00	5.00	.30	200	N	--	N	--	50	200
204	67 26 29	151 43 18	2.0	1.50	10.00	.50	300	N	--	N	--	50	200
205	67 26 14	151 43 9	3.0	1.00	.20	.70	500	N	--	N	--	70	300
206	67 25 0	151 43 6	3.0	1.50	.20	.70	500	N	--	N	--	70	300
207	67 24 54	151 43 12	3.0	1.50	.30	.70	300	N	--	N	--	70	300
208	67 30 48	151 32 0	3.0	1.00	.70	.50	300	N	--	N	--	70	300
209	67 31 9	151 32 0	3.0	1.00	1.00	.50	300	N	--	N	--	50	300
210	67 26 59	151 54 57	3.0	1.50	15.00	.50	300	N	--	N	--	50	1,500
211	67 26 57	151 55 15	.5	1.50	20.00	.20	300	N	--	N	--	10	100
212	67 27 9	151 51 24	3.0	1.50	3.00	.50	500	N	.00	N	.00	50	500

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman Quadrangle, Alaska -- continued

sample	S-DE	S-DI	S-CD	S-CD	S-ER	S-CU	AA-Cu	S-LA	S-MO	AA-Mo	S-NH	S-NI	AA-NI	S-PB	AA-PB	S-SB	AA-SB
160	1.0	N	N	30	100	50	--	50	N	--	<20	50	--	20	--	N	--
161	1.0	N	N	30	150	50	.25	50	N	0	<20	50	56	15	19	N	0
163	1.0	N	N	30	100	20	--	50	N	--	<20	30	--	10	--	N	--
164	1.0	N	N	50	200	100	--	70	N	--	<20	70	--	50	--	N	--
165	1.0	N	N	30	150	50	--	50	N	--	<20	50	--	50	--	N	--
166	<1.0	N	N	20	100	30	34	50	N	0	<20	30	40	20	10	N	0
168	<1.0	N	N	20	100	15	--	50	N	--	<20	30	--	30	--	N	--
169	1.0	N	N	50	150	10	15	70	N	0	<20	50	42	10	3	N	0
171	1.0	N	N	50	100	20	--	70	N	--	<20	50	--	10	--	N	--
172	1.0	N	N	50	200	20	--	70	N	--	<20	70	--	20	--	N	--
173	1.0	N	N	50	100	15	--	50	N	--	<20	50	--	10	--	N	--
174	1.0	N	N	50	100	50	--	50	N	--	<20	50	--	10	--	N	--
175	1.0	N	N	50	100	30	--	50	N	--	<20	50	--	10	--	N	--
176	1.0	N	N	50	100	20	--	50	N	--	<20	50	--	10	--	N	--
177	1.0	N	N	50	150	50	--	50	N	--	<20	70	--	20	--	N	--
178	1.0	N	N	50	150	20	--	50	N	--	<20	70	--	10	--	N	--
179	1.0	N	N	30	100	20	30	70	N	0	<20	50	30	10	5	N	0
181	1.0	N	N	100	200	50	--	50	N	--	<20	70	--	20	--	N	--
182	1.0	N	N	50	150	50	--	50	N	--	<20	50	--	10	--	N	--
183	1.0	N	N	50	150	30	47	50	N	6	<20	50	48	10	11	N	0
185	1.0	N	N	50	150	50	--	50	N	--	<20	50	--	10	--	N	--
186	1.0	N	N	50	150	50	--	50	N	--	<20	50	--	10	--	N	--
187	1.0	N	N	50	100	70	--	50	N	--	<20	70	--	10	--	N	--
188	1.0	N	N	50	100	30	70	50	N	0	<20	70	60	10	6	N	0
190	1.0	N	N	30	100	30	--	50	N	--	<20	50	--	10	--	N	--
191	1.0	N	N	50	150	50	--	50	N	--	<20	70	--	10	--	N	--
192	1.0	N	N	50	100	50	--	50	N	--	<20	70	--	10	--	N	--
193	1.0	N	N	50	100	50	78	50	N	2	<20	70	52	20	12	N	0
195	1.0	N	N	50	100	30	45	50	N	0	<20	50	50	10	16	N	0
197	1.0	N	N	50	100	100	--	50	N	--	<20	70	--	15	--	N	--
198	1.0	N	N	50	150	50	--	50	N	--	<20	50	--	20	--	N	--
199	5.0	N	N	50	100	50	--	100	N	--	<20	50	--	200	--	N	--
200	1.0	N	N	30	100	15	--	70	N	--	<20	50	--	10	--	N	--
201	1.0	N	N	30	20	20	--	50	N	--	<20	50	--	20	--	N	--
202	<1.0	N	N	<5	20	10	--	50	N	--	<20	<5	--	10	--	N	--
203	<1.0	N	N	<5	10	5	--	50	N	--	<20	<5	--	10	--	N	--
204	<1.0	N	N	20	100	15	--	50	N	--	<20	30	--	10	--	N	--
205	1.0	N	N	100	200	50	--	70	N	--	<20	100	--	30	--	N	--
206	1.0	N	N	50	200	50	--	50	N	--	<20	70	--	20	--	N	--
207	1.0	N	N	50	150	50	--	50	N	--	<20	70	--	20	--	N	--
208	<1.0	N	N	30	100	20	--	50	N	--	<20	50	--	10	--	N	--
209	<1.0	N	N	20	100	20	--	50	N	--	<20	50	--	20	--	N	--
210	<1.0	N	N	15	100	5	--	50	N	--	<20	20	--	30	--	N	--
211	<1.0	N	N	<5	20	<5	--	50	N	--	<20	<5	--	20	--	N	--
212	1.0	N	N	20	150	30	37	50	N	0	<20	50	80	10	16	N	0

Sample	S-SC	S-SN	S-SP	AM-U	S-V	S-W	S-Y	S-ZN	S-ZR	AM-Th	S-YH	AM-Zn-A	AA-ZN-P
160	15	N	100	--	200	N	30	N	150	--	--	--	80
161	15	N	200	1.6	150	N	30	N	150	7.0	--	85	85
163	15	N	200	--	100	N	20	N	100	--	--	--	55
164	20	N	200	--	150	N	50	N	150	--	--	--	120
165	20	N	200	--	200	N	30	N	300	--	--	--	85
166	15	N	300	1.9	150	N	20	N	100	8.8	--	87	75
168	15	N	200	--	100	N	20	N	100	--	--	--	50
169	20	N	150	1.4	150	N	30	N	150	8.0	--	70	45
171	20	N	150	--	150	N	30	N	150	--	--	--	70
172	20	N	150	--	150	N	30	N	150	--	--	--	65
173	15	N	100	--	150	N	30	N	150	--	--	--	45
174	20	N	200	--	150	N	20	N	70	--	--	--	65
175	20	N	200	--	150	N	20	N	70	--	--	--	70
176	20	N	150	--	150	N	20	N	100	--	--	--	70
177	20	N	150	--	200	N	20	N	150	--	--	--	80
178	20	N	150	--	200	N	20	N	100	--	--	--	65
179	15	N	200	1.8	150	N	30	N	70	6.3	--	78	60
181	30	N	200	--	200	N	30	N	100	--	--	--	95
182	30	N	200	--	300	N	20	200	70	--	--	--	220
183	20	N	200	2.8	300	N	30	<200	150	4.8	--	128	130
185	30	N	200	--	300	N	20	N	100	--	--	--	70
186	30	N	200	--	300	N	20	<200	100	--	--	--	100
187	20	N	200	--	300	N	20	<200	70	--	--	--	160
188	20	N	200	4.7	300	N	20	<200	50	5.5	--	158	130
190	20	N	200	--	300	N	30	<200	70	--	--	--	150
191	20	N	200	--	300	N	20	<200	70	--	--	--	130
192	15	N	<100	--	300	N	20	<200	100	--	--	--	160
193	15	N	200	2.8	300	N	20	<200	70	4.0	--	113	100
195	15	N	200	1.9	200	N	20	N	100	7.3	--	87	75
197	20	N	200	--	200	N	20	N	200	--	--	--	70
198	20	N	300	--	200	N	20	<200	100	--	--	--	100
199	15	N	100	--	150	N	20	300	300	--	--	--	280
200	20	N	100	--	150	N	20	<200	200	--	--	--	85
201	15	N	300	--	100	N	20	N	200	--	--	--	55
202	<5	N	1,000	--	20	N	10	N	100	--	--	--	25
203	<5	N	200	--	30	N	10	N	200	--	--	--	25
204	10	N	1,000	--	100	N	20	N	100	--	--	--	40
205	20	N	100	--	200	N	30	N	200	--	--	--	110
206	20	N	100	--	200	N	20	<200	200	--	--	--	130
207	20	N	100	--	200	N	50	N	200	--	--	--	110
208	20	N	100	--	200	N	30	N	200	--	--	--	75
209	20	N	100	--	200	N	20	N	200	--	--	--	75
210	7	N	200	--	70	N	20	N	150	--	--	--	70
211	N	N	1,000	--	10	N	10	N	50	--	--	--	35
212	15	N	200	3.9	200	N	20	N	100	8.8	--	136	100

Table 2 (cont.)

sample	LATITUDE	LONGITUDE	S-FRZ	S-WGT	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	AA-Au	S-B	S-BA
214	67 27 13	151 51 18	5.0	1.50	1.00	.70	500	N	N	N	--	--	500
215	67 28 0	151 53 30	2.0	1.50	20.00	.30	300	N	N	N	--	70	200
216	67 27 55	151 53 39	.5	1.50	<u>20.00</u>	.20	300	N	N	N	--	50	100
217	67 28 6	151 49 21	3.0	1.50	<u>10.00</u>	.50	300	N	N	N	--	30	200
218	67 28 51	151 48 24	2.0	1.50	3.00	.50	500	N	N	N	--	50	200
219	67 29 25	151 49 42	5.0	1.90	5.00	.30	<u>5.000</u>	N	N	N	--	50	<u>1.500</u>
220	67 22 0	152 0 12	5.0	1.50	1.00	.50	500	N	N	N	--	70	<u>300</u>
221	67 25 54	152 2 9	2.0	1.50	10.00	.50	500	N	N	N	.00	70	300
223	67 25 47	152 1 54	1.5	.70	5.00	.30	300	N	N	N	--	30	300
224	67 27 30	151 59 12	1.5	1.50	5.00	.30	300	N	N	N	--	50	200
225	67 28 8	151 59 21	1.5	1.00	10.00	.30	300	N	N	N	--	50	300
226	67 28 13	151 59 0	1.0	1.00	<u>20.00</u>	.15	300	N	N	N	--	10	200
227	67 28 43	151 58 57	2.0	1.00	<u>15.00</u>	.30	300	N	N	N	--	70	200
228	67 29 34	151 57 42	2.0	1.00	5.00	.30	300	N	N	N	--	100	200
229	67 29 32	151 57 27	2.0	1.50	10.00	.30	300	N	N	N	--	50	200
230	67 31 14	151 52 39	<u>2.0</u>	1.50	.50	.50	500	N	N	N	--	70	200
231	67 31 17	151 52 39	5.0	1.00	.50	.50	500	N	N	N	--	100	200
232	67 32 45	151 47 12	5.0	1.50	.50	.50	700	N	N	N	.05	50	300
234	67 32 39	151 51 57	7.0	1.50	1.50	.50	500	N	N	N	.05	70	200
236	67 32 51	151 59 15	<u>7.0</u>	1.50	.70	.70	700	N	N	N	--	100	200
237	67 31 42	151 59 0	<u>7.0</u>	1.50	.70	.70	700	N	N	N	--	100	200
238	67 30 42	152 2 18	<u>3.0</u>	1.50	10.00	.50	300	N	N	N	--	100	300
239	67 32 8	152 3 0	<u>10.0</u>	1.50	1.00	.70	500	N	N	N	--	150	700
240	67 32 4	152 2 54	<u>5.0</u>	1.50	5.00	.70	500	N	N	N	--	150	300
241	67 30 30	152 5 24	3.0	1.50	10.00	.50	500	N	N	N	.00	70	300
243	67 30 34	152 5 18	2.0	1.50	<u>20.00</u>	.30	300	N	N	N	--	50	300
244	67 29 27	152 5 18	3.0	1.50	<u>15.00</u>	.50	300	N	N	N	--	100	300
245	67 27 38	152 3 45	5.0	1.50	2.00	.70	500	N	N	N	--	100	500
246	67 31 24	152 9 27	3.0	1.50	10.00	.50	300	N	N	N	--	100	700
247	67 33 35	152 5 33	5.0	1.50	5.00	.70	300	N	N	N	--	200	700
248	67 34 25	152 10 36	<u>7.0</u>	1.50	3.00	.50	700	N	N	N	.00	50	300
250	67 28 56	152 17 39	5.0	<u>2.00</u>	10.00	.50	700	N	N	N	--	50	500
251	67 29 3	152 17 36	5.0	<u>2.00</u>	10.00	.50	700	N	N	N	--	100	<u>1.000</u>
252	67 28 51	152 17 48	2.0	1.00	7.00	.50	300	N	N	N	--	50	<u>300</u>
253	67 27 55	152 16 30	2.0	1.50	15.00	.50	300	N	N	N	--	50	300
254	67 25 58	152 16 39	2.0	1.50	10.00	.50	300	N	N	N	--	70	200
255	67 25 54	152 16 21	2.0	1.50	15.00	.50	300	N	N	N	--	50	200
256	67 27 22	152 18 57	2.0	.70	1.00	.70	200	N	N	N	--	100	300
257	67 27 17	152 19 6	2.0	1.00	7.00	.50	300	N	N	N	--	50	300
258	67 26 52	152 13 54	2.0	1.00	10.00	.70	300	N	N	N	--	50	300
259	67 26 37	152 13 54	2.0	1.50	15.00	.50	300	N	N	N	--	100	300
260	67 26 9	152 10 54	2.0	1.00	10.00	.50	300	N	N	N	--	70	300
261	67 24 20	152 10 39	2.0	1.50	5.00	.30	200	N	N	N	--	50	200
262	67 24 36	152 8 48	2.0	1.50	10.00	.50	300	N	N	N	--	50	200
263	67 25 2	152 6 24	2.0	1.50	10.00	.50	300	N	N	N	.00	50	500

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-RE	S-RI	S-CD	S-CD	S-CD	S-CH	AA-CH	S-LA	S-MO	AA-MO	S-NB	S-NI	S-PB	AA-PB	S-SB	AA-SB
214	1.0	N	N	200	30	50	--	50	N	--	<20	100	10	--	N	--
215	<1.0	N	N	70	15	5	--	50	N	--	<20	20	10	--	N	--
216	<1.0	N	N	20	10	<5	--	50	N	--	<20	10	10	--	N	--
217	<1.0	N	N	50	15	10	--	50	N	--	<20	20	10	--	N	--
218	<1.0	N	N	100	20	20	--	50	N	--	<20	30	10	--	N	--
219	2.0	N	N	20	<5	5	--	70	N	--	<20	10	200	--	N	--
220	1.0	N	N	100	20	20	--	200	N	--	<20	100	10	--	N	--
221	<1.0	N	N	50	10	20	11	50	N	0	<20	20	15	10	N	0
222	1.0	N	N	50	20	15	--	50	N	--	<20	30	20	--	N	--
223	1.0	N	N	50	20	15	--	50	N	--	<20	20	20	--	N	--
224	1.0	N	N	50	20	15	--	50	N	--	<20	20	20	--	N	--
225	1.0	N	N	50	<5	10	--	50	N	--	<20	10	20	--	N	--
226	<1.0	N	N	30	<5	<5	--	50	N	--	<20	<5	30	--	N	--
227	1.0	N	N	70	10	10	--	70	N	--	<20	20	20	--	N	--
228	1.0	N	N	70	10	10	--	70	N	--	<20	20	10	--	N	--
229	<1.0	N	N	70	10	10	--	50	N	--	<20	20	10	--	N	--
230	1.0	N	N	150	50	50	--	50	N	--	<20	100	10	--	N	--
231	1.0	N	N	150	50	30	--	70	N	--	<20	100	10	--	N	--
232	1.0	N	N	100	30	20	16	50	N	0	<20	50	20	12	N	0
233	1.0	N	N	150	50	50	31	100	N	0	<20	70	10	11	N	0
234	1.0	N	N	150	50	50	--	70	N	--	<20	70	10	--	N	--
235	1.0	N	N	150	50	50	--	70	N	--	<20	70	10	--	N	--
236	1.0	N	N	150	50	50	--	70	N	--	<20	70	10	--	N	--
237	1.0	N	N	150	50	30	--	100	N	--	<20	70	10	--	N	--
238	1.0	N	N	100	20	10	--	70	N	--	<20	20	10	--	N	--
239	1.0	N	N	150	30	20	--	70	N	--	<20	100	15	--	N	--
240	1.0	N	N	150	20	30	--	70	N	--	<20	100	15	--	N	--
241	1.0	N	N	100	15	10	16	50	N	0	<20	30	15	15	N	0
242	1.0	N	N	70	10	15	--	50	N	--	<20	10	20	--	N	--
243	1.0	N	N	70	10	10	--	50	N	--	<20	10	15	--	N	--
244	1.0	N	N	70	10	10	--	50	N	--	<20	20	15	--	N	--
245	1.0	N	N	150	50	50	--	50	N	--	<20	70	20	--	N	--
246	1.0	N	N	100	20	20	--	50	N	--	<20	30	30	--	N	--
247	1.0	N	N	100	20	50	--	70	N	--	<20	50	50	--	N	--
248	1.0	N	N	100	20	70	40	70	N	0	<20	50	10	24	N	0
249	1.0	N	N	100	15	20	--	50	N	--	<20	50	20	--	N	--
250	1.0	N	N	100	20	20	--	100	N	--	<20	50	20	--	N	--
251	<1.0	N	N	100	20	20	--	100	N	--	<20	50	20	--	N	--
252	1.0	N	N	50	20	70	--	50	N	--	<20	20	20	--	N	--
253	1.0	N	N	70	20	20	--	50	N	--	<20	20	50	--	N	--
254	1.0	N	N	50	15	10	--	50	N	--	<20	20	20	--	N	--
255	1.0	N	N	50	15	30	--	50	N	--	<20	15	20	--	N	--
256	1.0	N	N	50	15	10	--	100	N	--	<20	10	10	--	N	--
257	1.0	N	N	50	15	10	--	70	N	--	<20	15	20	--	N	--
258	1.0	N	N	50	15	10	--	50	N	--	<20	15	20	--	N	--
259	1.0	N	N	50	10	10	--	50	N	--	<20	10	30	--	N	--
260	1.0	N	N	50	15	20	--	50	N	--	<20	15	10	--	N	--
261	1.0	N	N	30	10	5	--	50	N	--	<20	10	10	--	N	--
262	1.0	N	N	50	10	10	--	70	N	0	<20	10	10	--	N	--
263	1.0	N	N	50	10	10	13	70	N	0	<20	10	20	9	N	0

sample	S-SC	S-SN	S-SR	AA-U	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A
214	20	N	150	--	300	N	50	N	500	--	--	100
215	5	N	1,000	--	50	N	15	N	100	--	--	30
216	N	N	500	--	10	N	10	N	50	--	--	30
217	10	N	1,000	--	100	N	20	N	150	--	--	30
218	10	N	300	--	150	N	20	N	300	--	--	40
219	10	N	300	--	50	N	100	N	150	--	--	30
220	15	N	100	--	200	N	50	N	300	--	--	50
221	10	N	200	1.0	100	N	20	N	200	0.0	38	20
223	7	N	200	--	70	N	20	N	100	--	--	45
224	7	N	200	--	70	N	20	N	100	--	--	45
225	<5	N	500	--	70	N	20	N	300	--	--	55
226	<5	N	2,000	--	30	N	10	N	100	--	--	35
227	10	N	500	--	100	N	20	N	200	--	--	45
228	10	N	200	--	100	N	20	N	500	--	--	45
229	5	N	1,000	--	50	N	30	N	200	--	--	30
230	20	N	100	--	200	N	20	N	500	--	--	60
231	20	N	100	--	200	N	30	N	300	--	--	50
232	20	N	100	2.7	200	N	20	N	200	8.8	73	50
234	20	N	100	2.0	200	N	50	N	300	9.0	78	65
236	20	N	100	--	200	N	50	N	300	--	--	65
237	20	N	100	--	200	N	50	N	300	--	--	70
238	10	N	300	--	100	N	30	N	300	--	--	50
239	20	N	150	--	300	N	30	N	500	--	--	80
240	20	N	300	--	200	N	30	N	300	--	--	80
241	10	N	500	2.3	100	N	30	N	200	2.8	61	55
243	5	N	1,000	--	50	N	20	N	200	--	--	45
244	10	N	500	--	70	N	20	N	300	--	--	65
245	20	N	300	--	300	N	30	N	300	--	--	110
246	10	N	500	--	100	N	30	N	300	--	--	75
247	20	N	200	--	150	N	30	N	500	--	--	90
248	20	N	200	1.7	200	N	20	N	200	7.8	102	110
250	15	N	200	--	200	N	20	N	200	--	--	65
251	15	N	200	--	200	N	30	N	300	--	--	<5
252	15	N	200	--	100	N	20	N	300	--	--	50
253	10	N	700	--	100	N	20	N	100	--	--	75
254	10	N	300	--	100	N	20	N	150	--	--	35
255	10	N	300	--	100	N	20	N	150	--	--	30
256	15	N	N	--	100	N	50	N	500	--	--	35
257	10	N	500	--	100	N	20	N	200	--	--	55
258	10	N	300	--	100	N	20	N	200	--	--	40
259	7	N	300	--	160	N	20	N	200	--	--	45
260	10	N	300	--	150	N	15	N	300	--	--	40
261	5	N	N	--	50	N	15	N	100	--	--	30
262	5	N	300	--	100	N	20	N	300	--	--	35
263	5	N	500	1.0	100	N	20	N	200	4.3	34	35

sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CAZ	S-TIZ	S-MN	S-AG	AA-Ag	S-AS	S-AU	AA-Au	S-B	S-BA
265	67 29 0	152 12 42	2.0	1.50	7.00	.30	500	N	--	N	N	--	50	500
266	67 31 19	152 12 24	5.0	1.50	7.00	.50	300	N	--	N	N	--	70	500
267	67 32 37	152 16 39	3.0	1.50	1.00	.70	500	N	.00	N	N	.00	70	500
268	67 32 50	152 16 6	5.0	1.50	2.00	.70	500	N	--	N	N	--	50	300
270	67 31 11	152 19 54	2.0	1.00	2.00	.50	300	N	--	N	N	--	70	500
271	67 31 12	152 20 12	5.0	1.50	2.00	.50	500	N	--	N	N	--	100	700
272	67 30 31	152 24 54	2.0	.50	3.00	.30	300	N	--	N	N	--	50	300
273	67 30 32	152 25 25	5.0	1.00	.20	.70	300	N	--	N	N	--	70	500
274	67 30 14	152 25 6	7.0	1.00	.50	.70	300	N	--	N	N	--	70	300
275	67 30 14	152 25 27	5.0	1.00	.70	.70	300	N	--	N	N	--	70	300
276	67 21 27	152 7 48	.5	1.00	10.00	.30	300	N	.00	N	N	.00	50	200
278	67 23 6	152 14 6	1.5	1.00	7.00	.50	300	N	--	N	N	--	70	300
279	67 23 13	152 14 3	2.0	1.00	7.00	.50	300	N	--	N	N	--	50	300
280	67 23 36	152 15 9	1.5	1.00	10.00	.30	300	N	--	N	N	--	50	300
281	67 23 36	152 15 18	1.0	1.00	10.00	.20	200	N	.00	N	N	.00	50	300
282	67 23 30	152 15 30	1.0	1.00	7.00	.20	300	N	--	N	N	--	50	200
283	67 20 50	152 11 51	1.0	1.00	10.00	.30	300	N	--	N	N	--	70	200
284	67 21 54	152 21 6	1.0	1.00	10.00	.30	300	N	--	N	N	--	30	300
285	67 20 33	152 22 6	.7	1.00	15.00	.20	300	N	--	N	N	--	30	300
286	67 23 29	152 20 30	.5	.70	20.00	.20	300	N	.00	N	N	.00	20	200
288	67 23 30	152 20 45	.5	.70	20.00	.15	300	N	--	N	N	--	30	200
289	67 23 22	152 20 30	1.0	1.00	10.00	.50	300	N	--	N	N	--	20	300
290	67 25 57	152 28 54	1.5	.70	10.00	.50	300	N	.00	N	N	.00	20	300
292	67 25 0	152 20 0	1.5	.70	2.00	.50	300	N	--	N	N	--	30	300
293	67 25 6	152 20 6	2.0	.70	.50	.50	300	N	--	N	N	--	70	300
294	67 24 42	152 23 30	1.5	.70	15.00	.50	300	N	.00	N	N	.00	30	200
296	67 24 43	152 23 30	2.0	1.50	5.00	.50	300	N	--	N	N	--	30	300
297	67 26 54	152 24 9	.5	.70	20.00	.20	200	N	--	N	N	--	10	100
298	67 28 0	152 23 48	2.0	.50	.50	.50	300	N	--	N	N	--	50	300
299	67 28 3	152 24 6	2.0	.70	2.00	.50	300	N	--	N	N	--	50	300
300	67 20 57	152 25 0	1.0	1.00	10.00	.50	300	N	--	N	N	--	50	300
301	67 21 30	152 27 18	1.5	1.00	7.00	.50	300	N	--	N	N	--	50	300
302	67 21 33	152 27 36	2.0	1.00	3.00	.50	500	N	--	N	N	--	70	500
303	67 22 58	152 27 42	1.0	1.00	15.00	.20	300	N	--	N	N	--	20	200
304	67 22 54	152 29 9	2.0	1.00	15.00	.20	300	N	--	N	N	--	50	200
305	67 22 46	152 28 48	2.0	.50	10.00	.50	300	N	.00	N	N	.00	20	200
307	67 22 37	152 29 24	2.0	.50	5.00	.20	300	N	--	N	N	--	50	200
308	67 22 0	152 31 42	3.0	1.00	5.00	.50	300	N	--	N	N	--	50	300
309	67 22 0	152 31 6	2.0	.70	.70	.70	300	N	--	N	N	--	70	300
310	67 22 24	152 35 42	1.5	.70	10.00	.50	300	N	--	N	N	--	50	500
311	67 22 35	152 35 42	1.5	1.00	15.00	.50	300	N	--	N	N	--	50	300
312	67 22 6	152 39 30	2.0	.50	.50	.70	300	N	--	500	N	--	50	300
313	67 20 55	152 36 51	3.0	.70	2.00	1.00	300	N	--	N	N	--	70	300
314	67 20 47	152 37 6	2.0	.70	5.00	.70	300	N	--	N	N	--	100	300
315	67 20 55	152 36 27	2.0	.70	7.00	.70	300	N	--	N	N	--	100	300

sample	S-Pb	S-Pb	S-Cd	S-Cr	S-Cu	AA-Cu	S-LA	S-Mo	AA-Mn	S-Ni	AA-Ni	S-Pb	AA-Pb	S-Sb	AA-Sb
265	1.0	N	20	50	20	--	50	N	--	20	--	20	--	N	--
266	1.0	N	20	100	20	--	50	N	--	50	--	20	--	N	--
267	1.0	N	23	100	15	--	50	N	--	50	--	20	--	N	--
268	1.0	N	50	100	50	43	100	N	0	100	48	20	20	N	0
270	1.0	N	20	50	20	--	50	N	--	30	--	10	--	N	--
271	1.0	N	20	50	30	--	50	N	--	50	--	20	--	N	--
272	1.0	N	20	50	15	--	50	N	--	30	--	20	--	N	--
273	1.5	N	30	150	30	--	100	N	--	50	--	20	--	N	--
274	1.5	N	50	150	70	--	150	N	--	70	--	20	--	N	--
275	1.5	N	30	100	30	--	100	N	--	50	--	10	--	N	--
276	<1.0	N	<5	10	<5	11	50	N	0	10	6	10	4	N	0
278	1.0	N	10	50	10	--	50	N	--	10	--	15	--	N	--
279	1.0	N	10	50	7	--	50	N	--	10	--	10	--	N	--
280	1.0	N	10	30	7	--	50	N	--	10	--	10	--	N	--
281	<1.0	N	10	30	5	14	50	N	0	10	15	10	38	N	0
282	<1.0	N	10	30	5	--	50	N	--	10	--	10	--	N	--
283	1.0	N	10	30	5	--	50	N	--	10	--	10	--	N	--
284	1.0	N	10	50	10	--	50	N	--	10	--	15	--	N	--
285	1.0	N	10	50	5	--	50	N	--	7	--	20	--	N	--
286	<1.0	N	<5	30	5	21	50	N	0	5	4	10	8	N	0
288	<1.0	N	<5	30	5	--	50	N	--	5	--	15	--	N	--
289	1.0	N	10	50	10	--	50	N	--	10	--	15	--	N	--
290	<1.0	N	10	50	5	12	50	N	0	10	15	20	16	N	0
292	1.0	N	20	50	20	--	50	N	--	20	--	30	--	N	--
293	1.5	N	20	70	20	--	50	N	--	20	--	20	--	N	--
294	<1.0	N	10	50	7	17	50	N	0	15	7	20	26	N	0
296	1.0	N	15	70	15	--	50	N	--	20	--	20	--	N	--
297	<1.0	N	<5	30	15	--	50	N	--	5	--	15	--	N	--
298	1.5	N	15	50	15	--	50	N	--	10	--	15	--	N	--
299	1.0	N	20	70	15	--	50	N	--	20	--	20	--	N	--
300	1.0	N	10	50	5	--	50	N	--	10	--	20	--	N	--
301	1.5	N	10	50	10	--	50	N	--	10	--	30	--	N	--
302	1.5	N	20	70	20	--	50	N	--	20	--	20	--	N	--
303	1.0	N	10	50	5	--	50	N	--	10	--	30	--	N	--
304	1.0	N	<5	50	10	--	50	N	--	15	--	20	--	N	--
305	1.0	N	15	50	10	41	50	N	0	15	9	20	17	N	0
307	1.0	N	15	50	20	--	50	N	--	30	--	20	--	N	--
308	1.5	N	20	100	20	--	50	N	--	30	--	30	--	N	--
309	2.0	N	30	70	30	--	50	N	--	30	--	30	--	N	--
310	1.0	N	20	70	15	--	50	N	--	20	--	20	--	N	--
311	1.0	N	20	50	10	--	50	N	--	20	--	20	--	N	--
312	1.5	N	30	70	15	--	50	N	--	30	--	30	--	N	--
313	1.5	N	30	70	15	--	50	N	--	30	--	20	--	N	--
314	1.0	N	50	70	20	--	70	N	--	30	--	50	--	N	--
315	1.0	N	30	70	20	--	100	N	--	30	--	30	--	N	--

sample	S-SC	S-SN	S-SR	AA-U	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A	AA-Zn-P
265	10	N	200	--	150	N	10	N	100	--	--	--	100
266	10	N	200	--	200	N	20	<200	300	--	--	--	55
267	15	N	150	--	150	N	20	<200	300	--	--	--	70
268	20	N	100	1.9	200	N	20	<200	300	13.8	--	118	110
270	10	N	200	--	100	N	20	<200	300	--	--	--	60
271	20	N	100	--	200	N	20	<200	300	--	--	--	90
272	10	N	200	--	150	N	20	<200	150	--	--	--	120
273	20	N	150	--	200	N	20	<200	200	--	--	--	130
274	30	N	150	--	300	N	50	<200	300	--	--	--	120
275	20	N	150	--	200	N	30	N	300	--	--	--	95
276	5	N	300	0.9	20	N	15	N	70	5.3	--	27	25
278	10	N	300	--	100	N	20	N	200	--	--	--	35
279	10	N	200	--	100	N	20	N	300	--	--	--	45
280	5	N	200	--	50	N	20	N	150	--	--	--	30
281	5	N	300	--	50	N	15	N	100	6.3	--	79	30
282	5	N	300	--	50	N	15	N	150	--	--	--	30
283	7	N	300	--	50	N	20	N	150	--	--	--	30
284	7	N	500	--	50	N	20	N	200	--	--	--	50
285	5	N	1,000	--	30	N	10	N	70	--	--	--	50
286	5	N	500	0.6	20	N	10	N	70	1.8	--	32	25
288	5	N	300	--	20	N	10	N	70	--	--	--	30
289	10	N	500	--	100	N	20	N	150	--	--	--	30
290	10	N	500	1.2	70	N	20	N	100	7.5	--	50	45
292	10	N	200	--	70	N	20	N	300	--	--	--	60
293	20	N	100	--	100	N	30	N	300	--	--	--	55
294	10	N	500	1.1	70	N	20	N	100	6.8	--	49	55
296	10	N	300	--	100	N	20	N	100	--	--	--	60
297	5	N	700	--	20	N	10	N	50	--	--	--	45
298	15	N	100	--	100	N	20	N	500	--	--	--	55
299	15	N	200	--	100	N	15	N	300	--	--	--	55
300	10	N	300	--	50	N	10	N	300	--	--	--	50
301	10	N	300	--	50	N	30	N	200	--	--	--	60
302	15	N	200	--	100	N	30	N	300	--	--	--	65
303	7	N	300	--	50	N	10	N	70	--	--	--	45
304	5	N	500	--	70	N	20	N	200	--	--	--	40
305	10	N	500	1.4	100	N	20	N	150	6.3	--	68	35
307	10	N	200	--	100	N	20	N	150	--	--	--	55
308	20	N	200	--	100	N	20	N	200	--	--	--	60
309	20	N	200	--	100	N	70	N	300	--	--	--	50
310	10	N	500	--	100	N	20	N	150	--	--	--	45
311	10	N	700	--	100	N	20	N	100	--	--	--	40
312	15	N	N	--	100	N	20	N	300	--	--	--	70
313	20	N	200	--	100	N	30	N	200	--	--	--	55
314	15	N	300	--	70	N	50	N	300	--	--	--	80
315	15	N	300	--	70	N	30	N	200	--	--	--	40

Table 2 (cont.)

Sample	Latitude	Longitude	S-FFZ	S-MGZ	S-CAZ	S-ILZ	S-MN	S-AG	AA-AI	S-AS	S-AU	AA-AII	S-B	S-BA
316	67 20 23	152 34 3	1.5	1.00	15.00	.30	300	N	--	N	N	--	50	200
317	67 20 3	152 32 30	1.5	1.00	20.00	.30	300	N	--	N	N	--	20	200
318	67 19 24	152 32 30	1.0	1.50	20.00	.30	300	N	--	N	N	--	10	100
319	67 19 18	152 30 0	1.0	1.00	20.00	.50	300	N	--	N	N	--	20	100
320	67 17 54	152 22 36	2.0	.70	10.00	.70	300	N	.00	N	N	.00	30	100
322	67 28 57	152 38 42	3.0	.70	2.00	.50	300	N	--	N	N	--	70	300
323	67 28 50	152 38 30	2.0	1.00	7.00	.30	300	N	--	N	N	--	70	300
324	67 28 49	152 38 6	5.0	1.00	1.00	.50	500	N	.00	N	N	.00	70	300
326	67 32 14	152 39 36	5.0	1.00	.50	.70	500	N	--	N	N	--	70	300
328	67 32 22	152 38 42	2.0	1.00	.50	.70	500	N	--	N	N	--	70	200
329	67 34 4	152 37 36	3.0	1.00	.30	.70	500	N	.00	N	N	.00	70	300
331	67 35 25	152 37 36	3.0	1.00	.30	.50	500	N	.00	N	N	.00	70	300
333	67 35 23	152 38 0	2.0	1.00	1.00	.50	500	N	.00	N	N	.00	70	300
335	67 32 55	152 52 33	3.0	1.00	.20	.50	300	N	--	N	N	--	70	300
336	67 32 56	152 58 0	5.0	1.00	.15	.70	500	N	--	N	N	--	100	300
337	67 32 45	152 58 9	3.0	1.00	.15	.70	300	N	--	N	N	--	70	300
338	67 31 33	152 58 3	3.0	1.50	.20	.50	300	N	--	N	N	--	50	500
339	67 31 38	152 58 6	5.0	1.00	.10	.70	300	N	--	N	N	--	70	500
340	67 30 38	152 54 30	5.0	1.00	.15	.70	300	N	--	N	N	--	70	500
341	67 30 35	152 54 3	5.0	1.00	.20	.70	300	N	--	N	N	--	70	300
342	67 30 42	152 53 48	5.0	1.00	.30	.70	300	N	--	N	N	--	70	300
343	67 29 2	152 49 54	2.0	.20	.20	.50	300	N	--	N	N	--	50	300
344	67 29 14	152 50 20	5.0	.50	.15	.70	300	N	--	N	N	--	70	300
345	67 29 5	152 50 12	2.0	.20	.15	.50	500	N	--	N	N	--	70	300
346	67 29 14	152 45 15	5.0	.70	.20	.50	300	N	--	N	N	--	100	300
347	67 31 36	152 48 0	5.0	.70	.20	.50	300	N	--	N	N	--	100	300
348	67 31 44	152 47 48	5.0	1.00	.20	.50	300	N	--	N	N	--	50	300
349	67 31 47	152 43 27	5.0	1.00	.30	.50	500	N	--	N	N	--	70	300
350	67 31 27	152 36 0	3.0	1.50	.70	.50	500	N	--	N	N	--	70	300
351	67 31 18	152 35 57	7.0	1.50	.50	.70	500	1.0	--	N	N	--	100	300
352	67 17 53	152 32 48	2.0	1.00	15.00	.50	300	N	--	N	N	--	50	150
353	67 17 27	152 33 0	5.0	1.00	10.00	.70	500	N	.00	N	N	.00	30	200
355	67 17 32	152 36 30	3.0	1.00	1.00	.50	700	N	--	N	N	--	70	500
356	67 17 41	152 36 33	5.0	1.00	.70	.50	500	N	--	N	N	--	100	200
357	67 16 39	152 35 36	1.0	1.50	10.00	.70	300	N	--	N	N	--	20	200
358	67 19 35	152 37 42	2.0	.70	2.00	.70	300	N	--	N	N	--	50	200
359	67 19 26	152 38 30	5.0	1.50	2.00	.70	300	N	--	N	N	--	100	200
360	67 15 30	152 30 36	7.0	1.50	.50	.70	1,000	N	--	N	N	--	100	200
361	67 15 32	152 33 54	5.0	1.50	.50	.70	1,000	N	--	N	N	--	100	200
362	67 14 36	152 33 27	5.0	1.00	.20	.70	500	N	--	N	N	--	50	200
363	67 14 36	152 33 15	5.0	1.00	.50	1.00	1,000	N	--	N	N	--	70	200
364	67 14 7	152 35 0	12.0	1.00	.30	1.00	700	N	--	N	N	--	100	300
365	67 13 42	152 37 6	5.0	1.00	.30	.70	300	N	--	N	N	--	70	500
366	67 13 37	152 38 12	10.0	1.50	.10	.50	200	N	--	N	N	--	100	500
367	67 13 41	152 39 48	10.0	1.50	.10	.50	200	N	--	N	N	--	100	500

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

Sample	S-Mg	S-Mn	S-Cd	S-Cr	S-Cu	As-Cu	S-LA	S-Mo	As-Mo	S-Ni	As-Ni	S-Pb	As-Pb	S-Sb	As-Sb
326	<1.0	15	50	50	7	--	50	N	--	20	--	50	--	N	--
327	<1.0	20	70	70	7	--	50	N	--	20	--	30	--	N	--
328	<1.0	10	50	50	5	--	50	N	--	7	--	50	--	N	--
329	<1.0	15	50	50	15	--	50	N	--	10	--	50	--	N	--
330	<1.0	15	50	50	50	26	50	N	0	20	11	50	17	N	0
331	2.0	30	200	200	50	--	100	N	--	70	--	30	--	N	--
332	1.0	20	100	100	<u>100</u>	--	100	N	--	50	--	30	--	N	--
333	2.0	30	200	200	70	42	200	N	0	70	59	50	12	N	0
334	1.5	50	200	200	<u>100</u>	--	<u>200</u>	N	--	70	--	20	--	N	--
335	1.0	30	100	100	15	--	50	N	--	30	--	10	--	N	--
336	2.0	50	200	200	70	25	70	N	0	100	27	20	7	N	0
337	2.0	30	150	150	30	46	50	N	0	<u>70</u>	58	10	8	N	0
338	1.0	50	100	100	30	29	50	N	0	50	47	10	23	N	0
339	1.5	50	150	150	70	--	100	N	--	70	--	20	--	N	--
340	1.5	50	150	150	50	--	100	N	--	70	--	20	--	N	--
341	2.0	50	150	150	50	--	100	N	--	70	--	20	--	N	--
342	2.0	50	150	150	50	--	100	N	--	70	--	30	--	N	--
343	2.0	50	200	200	50	--	50	N	--	70	--	50	--	N	--
344	2.0	50	300	300	50	--	150	N	--	<u>100</u>	--	50	--	N	--
345	2.0	70	<u>300</u>	<u>300</u>	50	--	<u>150</u>	N	--	<u>70</u>	--	50	--	N	--
346	1.5	50	150	150	50	--	100	N	--	<u>100</u>	--	20	--	N	--
347	2.0	50	200	200	50	--	150	N	--	70	--	50	--	N	--
348	2.0	70	150	150	50	--	50	N	--	50	--	20	--	N	--
349	2.0	70	200	200	<u>100</u>	--	150	N	--	70	--	50	--	N	--
350	2.0	50	200	200	<u>50</u>	--	<u>150</u>	N	--	70	--	20	--	N	--
351	2.0	70	<u>300</u>	<u>300</u>	70	--	<u>100</u>	N	--	<u>100</u>	--	30	--	N	--
352	1.0	15	50	50	5	--	50	N	--	20	--	30	--	N	--
353	1.0	20	150	150	50	27	50	N	0	20	22	30	22	N	0
354	1.5	30	150	150	30	--	50	N	--	50	--	20	--	N	--
355	1.5	50	150	150	30	--	50	N	--	50	--	30	--	N	--
356	1.5	15	50	50	15	--	50	N	--	10	--	50	--	N	--
357	1.0	20	50	50	15	--	50	N	--	10	--	50	--	N	--
358	1.5	20	50	50	15	--	50	N	--	10	--	20	--	N	--
359	1.5	50	200	200	<u>100</u>	--	50	N	--	50	--	20	--	N	--
360	1.5	<u>300</u>	<u>150</u>	<u>150</u>	<u>150</u>	--	150	N	--	<u>200</u>	--	20	--	N	--
361	1.5	<u>100</u>	150	150	<u>100</u>	--	<u>100</u>	N	--	<u>200</u>	--	20	--	N	--
362	1.5	<u>50</u>	100	100	50	--	50	N	--	<u>30</u>	--	10	--	N	--
363	1.5	50	150	150	70	--	50	N	--	30	--	20	--	N	--
364	1.5	50	200	200	<u>100</u>	--	50	N	--	20	--	30	--	N	--
365	1.5	30	200	200	50	--	50	N	--	30	--	30	--	N	--
366	1.5	30	200	200	<u>100</u>	--	50	N	--	30	--	50	--	N	--
367	1.5	20	200	200	<u>100</u>	--	50	N	--	20	--	50	--	N	--

## Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-SC	S-SN	S-SR	AA-U	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A	AA-Zn-P
316	5	N	500	--	50	N	20	N	200	--	--	--	40
317	10	N	500	--	50	N	20	N	70	--	--	--	40
318	5	N	500	--	30	N	10	N	70	--	--	--	55
319	10	N	300	--	30	N	15	N	100	--	--	--	55
320	15	N	300	0.8	50	N	20	N	100	6.3	--	48	45
322	20	N	300	--	200	N	30	N	150	--	--	--	100
323	20	N	500	--	100	N	20	N	150	--	--	--	80
324	30	N	200	2.4	200	N	30	<200	150	23.5	--	129	110
326	30	N	200	--	200	N	50	<200	150	--	--	--	120
328	20	N	100	--	100	N	30	N	150	--	--	--	65
329	30	N	100	--	200	N	30	<200	150	7.3	--	68	120
331	20	N	150	1.8	150	N	20	<200	100	12.0	--	126	100
333	20	N	150	4.9	150	N	20	N	100	8.0	--	102	85
335	30	N	100	--	150	N	30	<200	200	--	--	--	110
336	30	N	100	--	150	N	30	N	200	--	--	--	70
337	20	N	100	--	150	N	30	<200	200	--	--	--	110
338	20	N	200	--	150	N	20	N	200	--	--	--	120
339	30	N	200	--	200	N	50	<200	200	--	--	--	120
340	30	N	200	--	200	N	30	N	200	--	--	--	120
341	20	N	150	--	200	N	30	N	300	--	--	--	100
342	30	N	200	--	200	N	50	<200	200	--	--	--	130
343	20	N	150	--	100	N	30	N	150	--	--	--	25
344	20	N	150	--	150	N	30	<200	200	--	--	--	100
345	15	N	150	--	100	N	30	N	200	--	--	--	35
346	30	N	150	--	200	N	30	N	200	--	--	--	100
347	30	N	200	--	200	N	30	<200	300	--	--	--	110
348	30	N	150	--	200	N	30	<200	150	--	--	--	100
349	30	N	150	--	200	N	30	<200	150	--	--	--	120
350	30	N	150	--	200	N	30	<200	150	--	--	--	110
351	30	N	150	--	300	N	30	<200	200	--	--	--	130
352	10	N	300	--	50	N	15	N	300	--	--	--	50
353	15	N	300	1.5	150	N	20	<200	200	5.0	--	54	40
355	20	N	100	--	150	N	20	N	200	--	--	--	75
356	20	N	100	--	150	N	20	N	500	--	--	--	65
357	10	N	200	--	50	N	20	N	100	--	--	--	60
358	15	N	150	--	50	N	20	N	300	--	--	--	40
359	30	N	200	--	200	N	20	N	200	--	--	--	85
360	30	N	<100	--	200	N	200	<200	200	--	--	--	130
361	30	N	<100	--	200	N	100	<200	150	--	--	--	140
362	30	N	<100	--	150	N	30	N	200	--	--	--	50
363	50	N	<100	--	150	N	50	N	200	--	--	--	60
364	50	N	100	--	200	N	50	N	200	--	--	--	55
365	20	N	100	--	200	N	20	<200	200	--	--	--	65
366	50	N	150	--	300	N	30	N	200	--	--	--	65
367	50	N	150	--	300	N	30	N	200	--	--	--	70

sample	LATITUDE	LONGITUDE	S-FE	S-MG	S-PX	S-TIZ	S-MN	S-AG	AA-AR	S-AS	S-AU	AA-AU	S-B	S-BA
368	67 15 52	152 40 54	5.0	1.50	1.00	.70	1,000	N	.00	N	N	.00	100	300
370	67 16 42	152 45 24	3.0	1.50	2.00	.50	700	N	.00	N	N	.00	70	500
372	67 18 37	152 43 45	3.0	1.00	10.00	.70	500	N	.00	N	N	.00	50	300
374	67 16 50	152 45 36	2.0	1.50	5.00	.50	500	N	---	N	N	---	70	500
375	67 16 57	152 49 24	3.0	1.00	2.00	.50	1,000	N	---	N	N	---	100	500
376	67 17 5	152 49 18	3.0	1.00	5.00	.50	500	N	---	N	N	---	50	500
377	67 18 39	152 44 3	2.0	1.50	5.00	.50	500	N	---	N	N	---	30	300
378	67 22 43	152 48 18	1.0	.50	.50	.50	200	N	---	N	N	---	20	300
379	67 20 35	152 44 24	3.0	1.00	10.00	.50	500	N	.00	N	N	.00	50	300
381	67 22 44	152 48 30	2.0	1.00	7.00	.50	300	N	---	N	N	---	30	500
383	67 23 0	152 43 54	3.0	.70	1.00	.50	500	N	.00	200	N	.00	30	300
385	67 23 5	152 43 54	1.0	1.00	20.00	.30	200	N	.00	N	N	.00	30	300
387	67 23 36	152 43 12	2.0	.50	1.00	.70	300	N	---	N	N	---	50	300
388	67 23 42	152 43 30	1.0	.50	1.00	.50	300	N	---	N	N	---	50	300
389	67 24 33	152 43 12	.5	1.00	20.00	.20	200	N	---	N	N	---	20	200
390	67 24 33	152 43 24	3.0	1.00	.70	.50	300	N	---	N	N	---	70	300
391	67 25 52	152 44 39	.7	1.00	20.00	.20	200	N	---	N	N	---	20	200
392	67 25 57	152 44 48	.7	1.00	20.00	.20	200	N	---	N	N	---	20	100
393	67 25 48	152 45 0	2.0	.20	7.00	.30	100	N	---	N	---	---	10	100
394	67 26 57	152 42 6	2.0	1.50	5.00	.10	300	N	---	N	---	---	50	200
395	67 26 54	152 41 57	1.0	.50	20.00	.10	200	N	---	N	---	---	10	100
396	67 27 37	152 43 54	2.0	.50	20.00	.10	200	N	---	N	---	---	15	50
397	67 15 56	152 26 6	3.0	.50	2.00	.30	500	N	---	N	---	---	15	20
398	67 15 40	152 21 9	2.0	.50	5.00	.50	500	N	.00	N	---	.00	20	50
399	67 15 40	152 21 9	5.0	.30	5.00	.50	500	N	---	N	---	---	15	30
400	67 13 22	152 19 51	2.0	.20	3.00	.30	300	N	.00	N	---	.00	20	N
401	67 13 22	152 19 51	3.0	.50	5.00	.30	500	N	---	N	---	---	15	20
402	67 10 41	152 16 27	2.0	.50	.70	.1	700	N	.00	N	---	.00	30	150
403	67 10 11	152 16 27	5.0	.30	.50	.30	2,000	N	---	N	---	---	20	100
404	67 10 47	152 16 12	2.0	.20	.20	.20	200	N	.00	N	---	.00	50	100
405	67 10 47	152 16 12	5.0	.30	.30	.20	700	N	---	N	---	---	30	200
406	67 6 49	152 13 21	3.0	.20	2.00	.30	1,000	N	.00	N	---	.00	10	50
407	67 8 49	152 13 21	5.0	.30	2.00	.30	1,000	N	---	N	---	---	20	50
408	67 6 8	152 10 2	1.0	.20	.10	.10	150	N	.00	N	---	.00	15	150
409	67 6 8	152 10 2	5.0	.30	.30	.20	1,000	N	---	N	---	---	15	100
410	67 6 2	152 10 5	3.0	.50	1.50	.20	300	N	.00	N	---	.00	15	150
411	67 6 2	152 10 5	10.0	1.00	2.00	.50	3,000	N	---	N	---	---	20	70
412	67 9 36	152 24 54	5.0	.50	.20	.15	200	N	.73	N	---	.00	20	200
413	67 9 36	152 24 54	10.0	.30	.50	.30	1,500	N	---	N	---	---	20	150
414	67 12 25	152 25 45	2.0	1.00	.70	.10	300	N	---	N	---	---	15	500
415	67 12 31	152 25 54	5.0	.50	.30	.30	1,000	N	---	N	---	---	20	700
416	67 8 29	152 33 15	3.0	1.00	1.50	.15	500	N	.00	N	---	.00	20	700
417	67 8 29	152 33 15	5.0	1.00	.70	.20	1,000	N	---	N	---	---	20	200
418	67 5 5	152 43 42	3.0	.20	.70	.50	500	N	.00	N	---	.00	10	100
419	67 5 5	152 43 42	5.0	1.50	1.50	.30	1,000	N	---	N	---	---	15	500

Table 2 (cont.)

sample	S-UE	S-UI	S-CH	S-CO	S-CR	S-CU	AA-Cu	S-LA	S-MO	AM-Mn	S-NB	S-NI	AM-NI	S-PB	AM-Pb	S-SB	AM-Sb
368	1.0	N	N	150	100	50	112	50	N	0	<20	100	105	10	25	N	0
370	1.0	N	N	50	100	100	26	50	N	0	<20	50	22	20	16	N	0
372	<1.0	N	N	20	50	15	12	50	N	0	<20	20	10	20	24	N	0
374	1.0	N	N	30	150	20	--	50	N	--	<20	50	--	20	--	N	--
375	1.0	N	N	30	100	20	--	50	N	--	<20	50	--	15	--	N	--
376	1.0	N	N	30	100	10	--	50	N	--	<20	50	--	20	--	N	--
377	1.0	N	N	20	50	10	--	50	N	--	<20	20	--	10	--	N	--
378	1.0	N	N	10	30	7	--	50	N	--	<20	15	--	20	--	N	--
379	1.0	N	N	20	100	20	22	50	N	0	<20	20	16	30	28	N	0
381	1.0	N	N	20	100	10	--	50	N	--	<20	30	--	20	--	N	--
383	1.0	N	N	15	50	10	24	50	N	0	<20	20	15	30	42	N	0
385	<1.0	N	N	15	50	10	17	50	N	0	<20	20	6	30	17	N	0
387	1.5	N	N	50	50	20	--	50	N	--	<20	20	--	30	--	N	--
388	1.0	N	N	20	50	10	--	50	N	--	<20	20	--	20	--	N	--
389	<1.0	N	N	10	50	5	--	50	N	--	N	10	--	20	--	N	--
390	1.0	N	N	50	150	20	--	50	<5	--	<20	50	--	30	--	N	--
391	<1.0	N	N	<5	70	10	--	50	N	--	N	10	--	20	--	N	--
392	<1.0	N	N	<5	70	10	--	50	N	--	N	<5	--	20	--	N	--
393	N	N	N	N	20	7	--	20	N	--	N	5	--	20	--	N	--
394	N	N	N	10	50	30	--	20	N	--	N	15	--	100	--	N	--
395	N	N	N	N	20	15	--	20	N	--	N	5	--	70	--	N	--
396	N	N	N	5	30	10	--	50	N	--	N	10	--	30	--	N	--
397	N	N	N	5	50	5	--	20	N	--	20	15	--	10	--	N	--
398	N	N	N	7	70	10	12	20	N	0	20	20	15	10	34	N	0
399	N	N	N	10	150	15	--	20	N	--	20	20	--	15	--	N	--
400	N	N	N	N	20	10	15	20	N	0	N	10	9	10	14	N	0
401	N	N	N	10	200	10	--	20	N	--	20	20	--	10	--	N	--
402	N	N	N	5	50	10	28	100	N	0	N	20	37	10	28	N	0
403	N	N	N	10	200	50	--	N	<5	--	20	50	--	20	--	N	--
404	N	N	N	10	30	10	24	20	N	0	20	20	33	10	11	N	0
405	N	N	N	15	200	20	--	20	<5	--	20	50	--	10	--	N	--
406	N	N	N	5	30	5	15	N	N	0	20	10	22	N	16	N	0
407	N	N	N	10	150	15	--	N	<5	--	20	20	--	10	--	N	--
408	N	N	N	N	20	10	16	20	N	0	N	5	22	10	9	N	0
409	N	N	N	7	200	20	--	N	<5	--	20	20	--	10	--	N	--
410	N	N	N	10	50	10	10	N	N	0	20	50	20	20	8	N	0
411	N	N	N	15	200	15	--	N	<5	--	20	30	--	15	--	N	--
412	N	N	N	10	100	30	31	20	<5	15	20	100	47	15	11	N	0
413	N	N	N	15	200	50	--	N	<5	--	20	50	--	20	--	N	--
414	N	N	N	5	50	20	--	20	N	--	N	20	--	10	--	N	--
415	N	N	N	15	50	30	--	N	<5	--	20	50	--	15	--	N	--
416	N	N	N	7	100	10	29	N	<5	0	20	70	46	15	19	N	0
417	N	N	N	10	200	30	--	N	<5	--	20	50	--	20	--	N	--
418	N	N	N	5	20	10	24	N	N	0	20	15	25	N	11	N	0
419	N	N	N	10	150	15	--	N	<5	--	20	20	--	10	--	N	--

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-SC	S-SH	S-SR	AA-I	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A	AA-Zn-P
368	50	N	150	2.8	150	N	50	N	200	6.3	--	136	75
370	20	N	200	--	150	N	20	N	150	10.0	--	80	65
372	10	N	500	1.6	20	N	30	N	150	8.5	--	58	45
374	20	N	200	--	100	N	30	N	100	--	--	--	50
375	20	N	150	--	100	N	30	N	150	--	--	--	60
376	20	N	200	--	100	N	30	N	150	--	--	--	50
377	10	N	200	--	50	N	50	N	150	--	--	--	35
378	5	N	N	--	20	N	50	N	150	--	--	--	35
379	15	N	300	1.3	50	N	20	N	300	8.3	--	60	60
381	15	N	200	--	70	N	20	N	200	--	--	--	70
383	15	N	150	1.1	50	N	30	N	500	10.3	--	101	85
385	10	N	1,500	1.0	30	N	20	N	100	4.0	--	33	30
387	10	N	<100	--	30	N	30	N	300	--	--	--	80
388	10	N	100	--	50	N	20	N	300	--	--	--	35
389	5	N	1,500	--	20	N	10	N	50	--	--	--	25
390	15	N	100	--	100	N	30	N	300	--	--	--	50
391	5	N	1,500	--	20	N	10	N	50	--	--	--	25
392	5	N	2,000	--	20	N	10	N	50	--	--	--	25
393	N	N	1,000	--	15	N	N	N	100	--	--	--	80
394	10	N	200	--	30	N	10	N	50	--	--	--	290
395	N	N	2,000	--	10	N	20	N	30	--	--	--	110
396	N	N	1,200	--	30	N	10	N	50	--	--	--	20
397	10	N	<100	--	50	N	10	N	30	--	--	--	70
398	20	N	200	--	100	N	15	N	50	7.4	--	64	--
399	20	N	200	--	50	N	15	N	50	--	--	--	60
400	N	N	<100	0.9	30	N	N	N	50	5.3	--	53	50
401	20	N	150	--	70	N	15	N	50	--	--	--	80
402	20	N	<100	3.4	70	N	15	N	50	9.5	--	85	80
403	50	N	<100	--	70	N	20	N	70	--	--	--	100
404	10	N	<100	1.8	50	N	10	N	70	6.8	--	65	80
405	20	N	<100	--	50	N	20	N	70	--	--	--	100
406	20	N	100	1.6	50	N	15	N	70	6.8	--	58	60
407	30	N	<100	--	70	N	20	N	70	--	--	--	70
408	N	N	<100	1.6	20	N	10	N	50	5.3	--	65	70
409	30	N	<100	--	100	N	20	N	70	--	--	--	80
410	20	N	<100	0.2	50	N	10	N	50	5.5	--	55	70
411	50	N	<100	--	70	N	50	N	50	--	--	--	90
412	10	20	<100	--	70	N	10	N	50	14.0	--	121	110
413	50	N	<100	--	70	N	30	N	50	--	--	--	150
414	10	15	<100	--	70	N	10	N	30	--	--	--	190
415	30	N	<100	--	100	N	30	N	50	--	--	--	--
416	10	20	<100	3.8	100	N	N	200	50	8.3	--	116	120
417	20	N	<100	--	50	N	20	N	50	--	--	--	120
418	20	N	<100	1.3	70	N	15	N	50	8.3	--	66	70
419	20	N	<100	--	100	N	15	N	50	--	--	--	70

Sample	Latitude	Longitude	S-FEX	S-PCY	S-CAZ	S-ITZ	S-MN	S-AG	AA-AP	S-AS	S-AU	AA-AL	S-B	S-BA
420	67 7 12	152 42 39	3.0	.50	3.00	.20	500	N	.00	N	--	.00	15	100
421	67 7 12	152 42 39	20.0	.15	1.00	.70	2,000	1.0	--	N	--	--	20	N
422	67 8 6	152 40 12	3.0	.30	.30	.20	500	N	.00	N	--	.00	15	300
423	67 8 6	152 40 12	3.0	.20	.30	.10	1,000	N	--	N	--	--	15	50
424	67 13 5	152 43 39	2.0	.30	10.00	.20	200	N	.00	N	--	.00	10	50
425	67 13 5	152 43 39	5.0	1.00	7.00	.50	700	N	--	N	--	--	15	50
426	67 14 0	152 20 30	5.0	1.00	.20	.30	500	N	--	N	--	--	20	100
427	67 13 53	152 19 36	2.0	.50	.10	.10	200	N	--	N	--	--	30	100
428	67 13 18	152 20 30	2.0	1.00	.50	.10	1,000	N	--	N	--	--	20	200
429	67 12 36	152 19 18	5.0	2.00	1.00	.20	700	N	--	N	--	--	20	300
430	67 11 16	152 21 6	2.0	.20	.15	.05	500	N	--	N	--	--	30	50
431	67 10 13	152 15 54	3.0	1.50	.20	.10	200	N	--	N	--	--	15	200
432	67 8 9	152 29 33	3.0	1.00	.05	.20	200	N	--	N	--	--	20	300
433	67 9 15	152 18 36	3.0	.50	.20	.15	500	N	--	N	--	--	20	200
434	67 12 20	152 27 33	3.0	.50	.10	.20	1,500	N	--	N	--	--	15	50
435	67 11 27	152 31 6	5.0	.50	.20	.30	1,000	N	--	N	--	--	15	100
436	67 11 30	152 41 21	3.0	1.00	.50	.20	700	N	--	N	--	--	15	1,000
437	67 8 38	152 56 0	2.0	1.00	.20	.15	200	N	.00	N	--	.00	20	300
438	67 8 38	152 56 0	3.0	1.00	.70	.20	500	N	--	N	--	--	10	300
439	67 8 22	152 46 48	2.0	1.00	.50	.15	700	N	.00	N	--	.00	10	300
440	67 8 22	152 46 48	2.0	1.50	1.00	.20	2,000	N	--	N	--	--	20	300
441	67 15 45	152 26 21	3.0	1.00	.15	.20	1,000	N	--	N	--	--	20	50
442	67 12 30	152 42 48	5.0	.50	.70	.20	1,500	N	.00	N	--	.00	20	150
443	67 12 30	152 42 21	3.0	1.00	.05	.20	200	N	--	N	--	--	20	100
444	67 14 9	152 46 12	2.0	1.00	.05	.15	200	N	.00	N	--	.00	20	100
445	67 14 9	152 46 12	5.0	1.00	.10	.15	500	N	--	N	--	--	20	30
446	67 14 12	152 46 12	5.0	1.00	.50	.30	2,000	N	.00	N	--	.00	20	50
447	67 14 12	152 46 12	15.0	.50	2.00	.20	>5,000	1.0	--	N	--	--	20	N
448	67 13 5	152 47 54	3.0	.50	.10	.15	200	N	--	N	--	--	20	150
449	67 12 53	152 48 54	3.0	.50	.10	.15	200	N	--	N	--	--	20	150
450	67 12 55	152 48 42	5.0	1.00	.15	.10	700	N	--	N	--	--	15	100
451	67 12 32	152 51 36	5.0	1.00	.20	.10	500	N	--	N	--	--	15	500
452	67 12 33	152 51 45	5.0	1.00	.10	.15	300	N	--	N	--	--	20	150
453	67 19 17	152 13 33	2.0	.50	1.50	.15	200	N	--	N	--	--	15	200
454	67 19 22	152 13 33	5.0	1.50	1.50	.50	2,000	N	.00	N	--	.00	20	50
455	67 19 22	152 13 30	15.0	.50	1.00	.30	>5,000	1.0	--	500	--	--	30	20
456	67 16 19	152 13 21	3.0	1.00	10.00	.20	700	N	--	N	--	--	20	150
457	67 16 29	152 13 30	2.0	.50	.70	.20	300	N	--	N	--	--	15	100
458	67 16 10	152 10 18	2.0	.50	.10	.15	500	N	--	N	--	--	20	150
459	67 17 28	152 14 54	2.0	1.00	.70	.30	1,000	N	.00	N	--	.00	15	50
460	67 17 28	152 14 54	10.0	1.00	.30	.20	2,000	N	--	N	--	--	50	50
461	67 16 35	152 16 15	3.0	1.00	5.00	.15	500	N	--	N	--	--	20	70
462	67 16 24	152 16 24	5.0	1.50	.20	.20	1,500	N	--	N	--	--	30	50
463	67 14 23	152 15 33	3.0	1.00	.10	.20	300	N	--	N	--	--	30	50
464	67 14 47	152 50 54	2.0	.50	.20	.10	1,500	N	.00	N	--	.00	10	100

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-DE	S-DI	S-CN	S-CO	S-CR	S-CU	AA-Cu	S-LA	S-MO	AA-Mn	S-NB	S-NI	AA-Ni	S-PB	AA-Pb	S-Sg	AA-Sg
420	N	N	N	10	50	100	12	N	<5	0	N	20	15	20	13	N	0
421	N	N	N	20	200	15	---	N	10	---	20	20	---	N	---	N	---
422	N	N	N	5	100	15	10	20	N	0	N	30	27	20	6	N	0
423	N	N	N	5	70	15	---	20	N	---	N	10	---	20	---	N	---
424	N	N	N	5	15	<5	18	20	N	0	N	5	10	N	15	N	0
425	N	N	N	10	150	15	---	N	N	---	20	15	---	30	---	N	---
426	N	N	N	15	50	20	---	N	N	---	20	30	---	20	---	N	---
427	N	N	N	N	30	30	---	20	N	---	N	10	---	20	---	N	---
428	N	N	N	100	50	30	---	300	N	---	20	150	---	10	---	N	---
429	N	N	N	20	100	50	---	20	N	---	N	70	---	15	---	N	---
430	N	N	N	5	20	15	---	20	N	---	N	15	---	10	---	N	---
431	N	N	N	5	100	15	---	30	N	---	N	20	---	15	---	N	---
432	N	N	N	5	70	15	---	30	N	---	N	20	---	20	---	N	---
433	N	N	N	15	70	15	---	30	N	---	N	50	---	20	---	N	---
434	N	N	N	100	70	70	---	100	N	---	N	70	---	20	---	N	---
435	N	N	N	15	100	20	---	20	N	---	20	20	---	15	---	N	---
436	N	N	N	10	100	30	---	20	<5	---	20	50	---	15	---	N	---
437	N	N	N	7	100	15	44	20	<5	0	20	50	43	20	25	N	0
438	N	N	N	7	200	30	---	20	N	---	20	20	---	10	---	N	---
439	N	N	N	5	50	10	16	20	N	0	20	15	22	10	19	N	0
440	N	N	N	10	300	15	---	50	<5	---	20	20	---	20	---	N	---
441	N	N	N	30	50	30	---	50	N	---	20	50	---	10	---	N	---
442	N	N	N	10	200	20	39	20	<5	0	20	20	38	15	13	N	0
443	N	N	N	10	30	10	---	20	N	---	20	20	---	10	---	N	---
444	N	N	N	5	20	5	15	20	N	0	20	10	20	10	15	N	0
445	N	N	N	10	150	20	---	20	N	---	20	15	---	50	---	N	---
446	N	N	N	20	70	20	39	20	N	0	20	20	45	10	7	N	0
447	N	N	N	20	300	20	---	N	<5	---	N	20	---	N	---	N	---
448	N	N	N	5	50	50	---	20	N	---	N	15	---	15	---	N	---
449	N	N	N	N	50	50	---	20	N	---	N	10	---	20	---	N	---
450	N	N	N	N	30	30	---	20	N	---	N	5	---	10	---	N	---
451	N	N	N	20	50	50	---	30	N	---	N	70	---	15	---	N	---
452	N	N	N	5	50	70	---	N	N	---	N	10	---	20	---	N	---
453	N	N	N	5	30	10	---	20	N	---	20	15	---	30	---	N	---
454	N	N	N	15	30	10	23	N	N	0	20	20	31	10	35	N	0
455	N	N	N	15	150	50	---	N	<5	---	20	20	---	10	---	N	---
456	N	N	N	7	50	10	---	20	N	---	N	20	---	15	---	N	---
457	N	N	N	5	30	10	---	30	N	---	20	20	---	30	---	N	---
458	N	N	N	5	30	20	---	30	N	---	N	10	---	10	---	N	---
459	N	N	N	7	30	50	32	20	N	0	N	20	35	10	6	N	0
460	N	N	N	10	200	15	---	N	<5	---	N	30	---	30	---	N	---
461	N	N	N	7	50	10	---	20	N	---	N	20	---	20	---	N	---
462	N	N	N	15	50	30	---	20	N	---	N	20	---	15	---	N	---
463	N	N	N	N	50	20	---	30	N	---	20	10	---	10	---	N	---
464	N	N	N	10	20	10	25	20	N	0	N	20	26	10	14	N	0

sample	S-SC	S-SH	S-SR	AA-H	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A	AA-Zn-P
420	20	50	150	1.7	10	N	15	N	50	6.5	--	54	70
421	70	N	N	--	300	N	100	N	20	--	--	--	60
422	15	N	<100	--	50	N	15	N	30	9.0	--	106	130
423	70	N	N	--	20	N	20	N	20	--	--	--	10
424	10	N	1,000	1.2	20	N	10	N	20	7.0	--	40	50
425	15	N	200	--	30	N	20	N	30	--	--	--	70
426	20	N	<100	--	70	N	20	N	50	--	--	--	--
427	15	N	<100	--	50	N	10	N	50	--	--	--	90
428	15	N	<100	--	50	N	150	N	50	--	--	--	200
429	10	N	100	--	70	N	20	N	50	--	--	--	150
430	<5	N	<100	--	50	N	N	N	50	--	--	--	130
431	15	N	<100	--	70	N	100	N	50	--	--	--	150
432	10	N	<100	--	70	N	10	N	50	--	--	--	140
433	10	N	<100	--	50	N	10	N	30	--	--	--	200
434	10	10	<100	--	50	N	70	N	50	--	--	--	--
435	30	N	<100	--	70	N	20	N	70	--	--	--	100
436	30	N	100	--	100	N	15	N	50	--	--	--	120
437	20	N	<100	--	50	N	15	N	50	9.0	--	104	--
438	20	N	100	--	50	N	15	N	30	--	--	--	110
439	10	N	100	--	50	N	10	N	50	15.0	--	72	70
440	30	N	150	--	70	N	50	N	70	--	--	--	90
441	20	N	<100	--	50	N	30	N	50	--	--	--	110
442	30	N	<100	2.8	50	N	50	N	50	8.0	--	101	110
443	10	N	<100	--	30	N	15	N	50	--	--	--	120
444	10	N	<100	--	30	N	10	N	50	9.3	--	68	70
445	15	N	<100	--	<0	N	15	N	50	--	--	--	140
446	50	N	<100	--	50	N	50	N	50	12.0	--	88	90
447	100	N	<100	--	70	N	100	N	50	--	--	--	60
448	10	N	<100	--	70	N	10	N	50	--	--	--	90
449	15	N	<100	--	70	N	15	N	50	--	--	--	80
450	10	N	N	--	50	N	10	N	50	--	--	--	--
451	10	N	<100	--	70	N	20	N	50	--	--	--	160
452	10	N	<100	--	50	N	10	N	50	--	--	--	90
453	10	N	<100	--	30	N	15	N	70	--	--	--	80
454	20	N	<100	--	50	N	15	N	50	N/S	--	76	80
455	30	N	<100	--	100	N	30	N	30	--	--	--	90
456	10	N	200	--	50	N	10	N	50	--	--	--	70
457	10	N	<100	--	30	N	15	N	50	--	--	--	90
458	10	N	N	--	50	N	10	N	50	--	--	--	90
459	10	N	<100	1.2	30	N	10	N	50	7.0	--	84	70
460	20	N	<100	--	100	N	15	N	50	--	--	--	100
461	10	N	150	--	50	N	10	N	50	--	--	--	80
462	15	N	<100	--	50	N	15	N	50	--	--	--	110
463	15	N	<100	--	50	N	15	N	70	--	--	--	80
464	10	N	<100	1.1	30	N	15	N	50	7.3	--	60	70

Table 2 (cont.)

## Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	LATITUDE	LONGITUDE	S-Pb%	S-Mg%	S-Ca%	S-Ti%	S-Mn	AA-Ag		S-As	AA-Au		S-B	S-Ba
								S-Ag			S-Au			
465	67 14 47	152 59 54	3.0	1.00	.30	.20	1,000	N	---	N	--	---	20	100
466	67 15 5	152 57 7	2.0	.50	.50	.10	3,000	N	---	N	--	---	20	500
467	67 13 51	152 57 12	3.0	.50	.20	.07	1,500	N	---	N	--	---	15	100
468	67 13 45	152 56 20	2.0	.50	.10	.10	1,500	N	---	N	--	---	20	150
469	67 14 57	152 51 36	2.0	.20	.05	.10	200	N	---	N	--	---	20	20
470	67 14 50	152 57 6	3.0	.30	.15	.15	1,500	N	---	N	--	---	15	50
471	67 15 0	152 51 42	2.0	.20	.05	.10	300	N	---	N	--	---	20	30
472	67 11 45	152 13 54	1.5	.20	.15	.05	100	N	---	N	--	---	20	200
473	67 10 7	152 9 36	2.0	.50	.07	.10	200	N	---	N	--	---	20	200
474	67 10 7	152 9 24	2.0	.30	.05	.10	150	N	---	N	--	---	20	200
475	67 10 0	152 9 27	3.0	.50	.07	.10	200	N	.00	N	--	.00	15	200
476	67 10 0	152 9 27	5.0	.30	.07	.15	200	N	---	N	--	---	20	200
477	67 10 30	152 6 30	5.0	.50	.10	.10	200	N	---	N	--	---	30	200
478	67 10 35	152 6 30	3.0	.50	.05	.15	150	N	---	N	--	---	20	300
479	67 9 20	152 1 3	2.0	.30	.10	.05	100	N	---	N	--	---	15	150
480	67 9 20	152 1 3	2.0	.50	.10	.15	150	N	---	N	--	---	20	150
481	67 13 17	152 14 18	2.0	.50	.50	.20	300	N	---	N	--	---	50	700
482	67 15 57	152 7 0	3.0	.50	.07	.30	300	N	---	N	--	---	50	200
483	67 15 59	152 7 18	3.0	.50	.05	.30	300	N	---	N	--	---	50	200
484	67 15 55	152 7 30	3.0	.50	.07	.30	200	N	---	N	--	---	50	200
485	67 17 36	152 9 18	3.0	.50	.10	.30	700	N	---	N	--	---	50	200
486	67 17 33	152 9 30	3.0	.70	.10	.30	500	N	---	N	--	---	50	200
487	67 19 13	152 8 33	3.0	.50	.10	.20	500	N	---	N	--	---	50	200
488	67 19 24	152 8 24	2.0	.50	1.00	.20	500	N	---	N	--	---	50	200
489	67 17 11	152 5 3	3.0	.50	.10	.30	500	N	---	N	--	---	50	200
490	67 19 0	152 3 9	3.0	.50	.50	.30	700	N	.00	N	--	.00	50	150
492	67 19 51	152 3 12	2.0	.50	1.50	.20	500	N	---	N	--	---	30	200
493	67 17 19	152 2 45	2.0	.50	.10	.30	500	N	---	N	--	---	50	200
494	67 17 30	152 2 39	3.0	.50	.10	.20	700	N	---	N	--	---	30	150
495	67 16 10	152 1 24	5.0	.15	.10	.10	500	N	---	N	--	---	30	200
496	67 16 23	152 5 21	3.0	.50	.07	.30	500	N	---	N	--	---	50	200
497	67 13 50	152 4 39	2.0	.70	.70	.20	300	N	---	N	--	---	30	500
498	67 14 0	152 4 24	3.0	.70	.30	.30	1,000	N	.00	N	--	.00	50	300
500	67 13 58	152 4 15	3.0	.50	.20	.30	1,000	N	.00	N	--	.00	30	300
502	67 12 17	152 4 54	3.0	.70	.20	.20	1,000	N	---	N	--	---	50	1,000
503	67 12 18	152 4 42	2.0	.50	.20	.20	200	N	---	N	--	---	70	1,000
504	67 11 55	152 5 48	2.0	.70	.50	.20	500	N	---	N	--	---	70	500
505	67 11 56	152 5 39	3.0	.70	1.00	.20	500	N	---	N	--	---	70	700
506	67 11 8	152 8 39	3.0	.70	.07	.30	500	N	---	N	--	---	70	700
507	67 14 41	152 9 36	5.0	.50	.07	.30	500	N	---	N	--	---	50	200
508	67 14 45	152 10 0	3.0	.70	.20	.20	500	N	---	N	--	---	50	700
509	67 14 26	152 9 42	5.0	.70	.20	.30	1,000	N	---	N	--	---	50	500
510	67 14 20	152 9 48	3.0	.70	.20	.20	500	N	---	N	--	---	50	1,000
511	67 12 47	152 10 3	2.0	.20	.15	.20	300	N	---	N	--	---	70	1,500
512	67 13 1	152 10 6	2.0	.50	.20	.20	500	N	---	N	--	---	50	500

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-DE	S-NI	S-CD	S-LO	S-CR	S-CU	Al-Cu	S-LA	S-MO	Al-Mo	S-NB	S-NI	Al-Ni	S-Pb	Al-Pb	S-Sg	Al-Sg
465	N	N	N	12	200	10	--	20	N	--	N	30	--	10	--	N	--
466	N	N	N	5	30	20	--	20	N	--	20	20	--	10	--	N	--
467	N	N	N	30	50	50	--	70	N	--	20	50	--	15	--	N	--
468	N	N	N	<u>100</u>	30	<u>100</u>	--	50	N	--	20	70	--	10	--	N	--
469	N	N	N	5	30	10	--	20	N	--	20	10	--	10	--	N	--
470	N	N	N	30	50	30	--	30	N	--	20	50	--	10	--	N	--
471	N	N	N	5	30	10	--	30	N	--	20	10	--	10	--	N	--
472	N	N	N	5	50	20	--	20	N	--	20	30	--	20	--	N	--
473	N	N	N	10	70	20	--	20	N	--	20	50	--	20	--	N	--
474	N	N	N	10	50	30	--	4	N	--	20	30	--	20	--	N	--
475	N	N	N	15	70	20	87	N	N	0	20	50	60	20	31	N	0
476	N	N	N	15	<u>100</u>	30	--	N	<5	--	20	70	--	30	--	N	--
477	N	N	N	15	70	20	--	N	<5	--	20	<u>100</u>	--	15	--	N	--
478	N	N	N	20	70	20	--	70	N	--	20	30	--	15	--	N	--
479	N	N	N	5	50	15	25	20	N	0	20	20	44	10	27	N	0
480	N	N	N	15	200	15	--	N	<5	--	20	30	--	15	--	N	--
481	1.0	N	N	20	70	20	--	50	N	--	<20	50	--	20	--	N	--
482	1.0	N	N	10	70	30	--	50	N	--	<20	10	--	20	--	N	--
483	1.0	N	N	20	70	30	--	50	N	--	<20	20	--	20	--	N	--
484	1.0	N	N	10	70	30	--	50	N	--	<20	10	--	30	--	N	--
485	1.0	N	N	30	70	30	--	50	N	--	<20	30	--	20	--	N	--
486	1.0	N	N	20	100	30	--	50	N	--	<20	30	--	30	--	N	--
487	1.0	N	N	30	70	30	--	50	N	--	<20	30	--	20	--	N	--
488	1.0	N	N	10	30	20	--	50	N	--	<20	15	--	20	--	N	--
489	1.0	N	N	20	100	30	--	70	N	--	<20	20	--	20	--	N	--
490	1.0	N	N	15	30	30	23	50	N	0	<20	20	24	20	9	N	0
492	1.0	N	N	10	30	15	--	50	N	--	<20	20	--	20	--	N	--
493	1.0	N	N	20	70	30	--	70	N	--	<20	30	--	20	--	N	--
496	1.5	N	N	50	70	20	--	<u>100</u>	N	--	<20	50	--	20	--	N	--
495	1.0	N	N	20	20	20	--	<u>150</u>	N	--	<20	20	--	20	--	N	--
496	1.0	N	N	15	70	20	--	50	N	--	<20	20	--	20	--	N	--
497	1.0	N	N	15	70	20	--	50	N	--	<20	30	--	20	--	N	--
498	1.0	N	N	70	70	30	76	70	N	0	<20	50	110	20	22	N	0
500	1.0	N	N	50	70	30	62	70	N	0	<20	50	86	20	9	N	0
502	1.0	N	N	20	70	30	--	70	N	--	<20	50	--	20	--	N	--
503	1.0	N	N	10	50	15	--	50	N	--	<20	30	--	20	--	N	--
504	1.0	N	N	20	70	20	--	<u>100</u>	N	--	<20	50	--	30	--	N	--
505	1.0	N	N	20	70	30	--	70	N	--	<20	50	--	30	--	N	--
506	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	20	--	N	--
507	1.0	N	N	<u>10</u>	70	30	--	50	N	--	<20	10	--	20	--	N	--
508	1.5	N	N	30	100	50	--	70	N	--	<20	70	--	30	--	N	--
509	1.0	N	N	70	100	<u>150</u>	--	70	N	--	<20	70	--	30	--	N	--
510	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	20	--	N	--
511	1.0	N	N	15	70	20	--	50	N	--	<20	20	--	20	--	N	--
512	1.0	N	N	15	50	30	--	50	N	--	<20	30	--	30	--	N	--

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-SC	S-5"	S-SR	AA-II	S-V	S-W	S-Y	S-ZN	S-ZR	AA-Th	S-TH	AA-Zn-A	AA-ZN-P
465	10	N	<100	--	50	N	15	N	50	--	--	--	90
466	10	N	<100	--	50	N	15	N	50	--	--	--	60
467	20	N	<100	--	50	N	50	N	50	--	--	--	--
468	15	N	<100	--	50	N	50	N	70	--	--	--	140
469	10	N	<100	--	30	N	10	N	70	--	--	--	70
470	20	N	<100	--	50	N	20	N	50	--	--	--	90
471	10	N	<100	--	50	N	10	N	50	--	--	--	80
472	15	N	<100	--	70	N	10	N	70	--	--	--	80
473	15	N	<100	--	70	N	10	N	70	--	--	--	--
474	20	N	<100	--	70	N	15	N	70	--	--	--	--
475	20	N	<100	4.7	100	N	10	200	70	13.5	--	153	150
476	20	N	100	--	70	N	30	N	70	--	--	--	140
477	20	10	<100	--	70	N	15	200	70	--	--	--	160
478	20	10	<100	--	70	N	20	200	70	--	--	--	160
479	15	N	<100	--	50	N	20	200	50	8.7	--	122	110
480	20	N	<100	--	70	N	20	200	70	--	--	--	120
481	10	N	200	--	100	N	30	<200	100	--	N	--	90
482	15	N	100	--	100	N	20	N	100	--	N	--	50
483	15	N	100	--	100	N	30	N	100	--	N	--	65
484	15	N	<100	--	100	N	20	N	100	--	N	--	45
485	15	N	<100	--	70	N	30	N	200	--	N	--	55
486	15	N	<100	--	100	N	30	N	100	--	N	--	80
487	15	N	<100	--	100	N	20	N	100	--	N	--	75
488	7	N	200	--	70	N	20	N	200	--	N	--	70
489	20	N	100	--	100	N	50	N	150	--	N	--	70
490	10	N	<100	2.6	70	N	30	N	150	4.5	N	61	45
491	7	N	200	--	70	N	20	N	150	--	N	--	70
492	15	N	<100	--	100	N	30	N	150	--	N	--	70
493	10	N	<100	--	70	N	50	<200	100	--	N	--	130
494	10	N	<100	--	50	N	50	N	50	--	N	--	55
495	15	N	<100	--	70	N	20	N	150	--	N	--	50
496	15	N	<100	--	70	N	20	N	100	--	N	--	55
497	10	N	100	4.6	70	N	50	N	150	8.5	N	146	120
498	15	N	100	1.7	70	N	50	N	100	6.8	N	112	90
500	15	N	<100	--	100	N	30	<200	150	--	N	--	130
502	10	N	<100	--	70	N	30	<200	150	--	N	--	65
503	10	N	<100	--	70	N	50	<200	100	--	N	--	200
504	10	N	100	--	70	N	30	<200	100	--	N	--	95
505	15	N	100	--	70	N	20	<200	150	--	N	--	120
506	15	N	100	--	70	N	20	<200	150	--	N	--	50
507	15	N	<100	--	100	N	20	N	150	--	N	--	85
508	15	N	100	--	100	N	50	N	150	--	N	--	130
509	20	N	<100	--	100	N	70	N	150	--	N	--	100
510	15	N	<100	--	100	N	20	N	150	--	N	--	80
511	10	N	100	--	100	N	20	N	100	--	N	--	70
512	10	N	100	--	100	N	20	N	100	--	N	--	70

Table 2 (cont.)

sample	LATITUDE		LONGITUDE		S-FEZ	S-VGX	S-CAZ	S-TIZ	S-MN	S-AG	S-AS	S-AU	AA-AU	S-B	S-BA
513	67 12 47	152 1 3	5.0	.70	.10	.30	500	N	N	N	N	N	N	50	1,000
514	67 14 13	151 56 45	2.0	.50	.50	.20	500	N	N	N	N	N	N	50	500
515	67 15 3	151 54 24	2.0	.30	.20	.20	700	N	N	N	N	N	N	30	300
516	67 13 29	151 52 18	5.0	.50	.20	.20	1,500	N	N	N	N	N	N	70	1,000
517	67 10 35	151 44 51	3.0	.50	.07	.30	200	N	N	N	N	N	N	50	700
518	67 10 56	151 37 54	3.0	.50	.10	.30	500	N	N	N	N	N	N	50	700
519	67 10 36	151 35 27	3.0	.70	.07	.30	300	N	.00	N	N	N	.00	50	700
521	67 10 32	151 35 15	2.0	.70	.10	.20	200	N	N	N	N	N	N	70	500
522	67 9 31	151 48 18	3.0	.70	.20	.20	500	N	.00	N	N	N	.00	50	500
524	67 10 48	151 52 0	2.0	.50	.50	.20	500	N	N	N	N	N	N	70	500
525	67 19 25	151 57 18	2.0	.70	.30	.20	700	N	.00	N	N	N	.00	30	200
527	67 18 35	151 54 33	2.0	1.00	.20	.30	700	N	N	N	N	N	N	50	200
528	67 19 34	151 55 9	2.0	.70	.30	.20	700	N	N	N	N	N	N	20	200
529	67 19 18	151 53 6	3.0	.70	.20	.30	700	N	N	N	N	N	N	20	200
530	67 19 40	151 55 36	2.0	1.50	.20	.20	700	N	N	N	N	N	N	70	200
531	67 19 8	151 49 33	5.0	1.00	.20	.30	1,000	N	N	N	N	N	N	20	200
532	67 18 57	151 47 27	5.0	1.00	.20	.30	1,000	N	N	N	N	N	N	20	200
533	67 16 54	151 51 24	2.0	.30	.05	.20	200	N	N	N	N	N	N	20	300
534	67 16 50	151 51 18	3.0	.30	.20	.30	700	N	.00	N	N	N	.00	20	300
536	67 16 55	151 50 3	2.0	.30	.20	.20	500	N	N	N	N	N	N	20	500
537	67 17 6	151 48 42	2.0	.30	.70	.15	300	N	N	N	N	N	N	30	500
538	67 17 1	151 48 39	5.0	.50	.50	.30	1,500	N	N	N	N	N	N	30	200
539	67 15 55	151 46 42	3.0	.30	.20	.20	500	N	N	N	N	N	N	30	300
540	67 16 1	151 46 42	2.0	.30	.50	.20	300	N	N	N	N	N	N	50	200
541	67 15 1	151 42 57	2.0	.50	.20	.20	300	N	N	N	N	N	N	50	500
542	67 12 26	151 44 57	3.0	.50	.10	.20	300	N	N	N	N	N	N	50	700
543	67 12 20	151 45 0	3.0	.70	.30	.20	300	N	.00	N	N	N	.00	50	700
545	67 14 52	151 51 9	3.0	.50	.50	.20	500	N	.00	N	N	N	.00	50	300
547	67 14 14	151 50 36	3.0	.70	.50	.30	1,000	N	.00	N	N	N	.00	50	500
549	67 21 30	151 19 33	3.0	.70	1.00	.30	500	N	N	N	N	N	N	20	200
550	67 21 28	151 19 24	5.0	1.50	.70	.30	500	N	N	N	N	N	N	10	200
551	67 21 18	151 20 0	3.0	1.00	1.00	.30	500	N	N	N	N	N	N	15	150
552	67 21 19	151 20 18	5.0	1.50	.70	.30	500	N	N	N	N	N	N	15	150
553	67 20 27	151 19 42	3.0	.70	.20	.20	700	N	N	N	N	N	N	20	500
554	67 20 0	151 20 24	2.0	.70	.50	.20	300	N	N	N	N	N	N	50	1,000
555	67 19 54	151 21 27	3.0	.70	.15	.20	1,000	N	N	N	N	N	N	20	500
556	67 19 41	151 21 42	2.0	.50	.10	.20	500	N	N	N	N	N	N	50	1,000
557	67 26 48	152 37 0	1.0	.50	.50	.15	300	N	N	N	N	N	N	20	150
558	67 24 42	152 33 0	2.0	.50	3.00	.20	300	N	N	N	N	N	N	20	500
559	67 24 42	152 33 16	1.5	.50	5.00	.20	300	N	N	N	N	N	N	20	150
560	67 21 8	151 20 27	3.0	1.00	1.00	.20	500	N	N	N	N	N	N	20	200
561	67 20 42	151 20 6	3.0	1.00	1.00	.30	700	N	N	N	N	N	N	20	200
562	67 5 30	152 20 24	3.0	1.00	1.00	.30	700	N	N	N	N	N	N	20	500
603	67 37 6	151 54 30	5.0	1.50	5.00	.50	700	N	N	N	N	N	N	200	500
605	67 32 26	151 36 54	5.0	1.50	2.00	.50	1,000	N	N	N	N	N	N	100	300

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-RF	S-HF	S-CD	S-CO	S-CF	S-CU	AA-Cu	S-LA	S-MO	AA-Mo	S-HB	S-NI	AA-NI	S-PB	AA-Pb	S-SB	AA-Sb
513	1.0	N	N	20	100	20	--	70	N	--	<20	50	--	50	--	N	--
514	1.0	N	N	10	70	20	--	50	N	--	<20	20	--	70	--	N	--
515	1.0	N	N	10	50	15	--	50	N	--	<20	20	--	15	--	N	--
516	1.0	N	N	50	100	30	--	70	N	--	<20	70	--	50	--	N	--
517	1.0	N	N	20	100	30	--	50	N	--	<20	50	--	20	--	N	--
518	1.0	N	N	20	100	30	--	70	N	--	<20	50	--	20	--	N	--
519	1.0	N	N	20	100	20	50	50	N	0	<20	50	46	20	20	N	0
521	1.0	N	N	15	70	10	--	50	N	--	<20	30	--	15	--	N	--
522	1.0	N	N	20	70	20	19	50	N	0	<20	30	32	20	15	N	0
524	1.0	N	N	15	70	30	--	50	N	--	<20	30	--	30	--	N	--
525	1.0	N	N	15	50	20	20	50	N	0	<20	20	23	20	16	N	0
527	1.0	N	N	30	100	30	--	50	N	--	<20	50	--	20	--	N	--
528	1.0	N	N	20	70	15	--	50	N	--	<20	20	--	20	--	N	--
529	1.0	N	N	20	70	20	--	50	N	--	<20	30	--	20	--	N	--
530	1.0	N	N	10	50	20	--	50	N	--	<20	20	--	30	--	N	--
531	1.0	N	N	30	100	30	--	50	N	--	<20	50	--	20	--	N	--
532	1.0	N	N	50	100	50	--	50	N	--	<20	50	--	20	--	N	--
533	1.0	N	N	20	50	30	--	50	N	--	<20	20	--	20	--	N	--
534	1.0	N	N	20	70	20	25	70	N	0	<20	30	28	20	13	N	0
536	1.0	N	N	15	70	20	--	50	N	--	<20	30	--	20	--	N	--
537	1.0	N	N	15	50	20	--	50	N	--	<20	30	--	20	--	N	--
538	1.0	N	N	20	70	30	--	50	N	--	<20	20	--	10	--	N	--
539	1.0	N	N	15	70	30	--	50	N	--	<20	30	--	20	--	N	--
540	1.0	N	N	15	70	20	--	50	N	--	<20	30	--	20	--	N	--
541	1.0	N	N	15	70	30	--	50	N	--	<20	30	--	20	--	N	--
542	1.5	N	N	20	100	30	--	50	N	--	<20	30	--	20	--	N	--
543	1.5	N	N	20	70	30	31	50	N	0	<20	30	57	20	11	N	0
545	1.0	N	N	15	50	30	36	50	N	0	<20	30	45	20	9	N	0
547	1.0	N	N	20	70	15	15	50	N	0	<20	20	30	15	9	N	0
549	1.0	N	N	30	50	30	--	50	N	--	<20	20	--	10	--	N	--
550	1.0	N	N	30	50	50	--	50	N	--	<20	30	--	10	--	N	--
551	1.0	N	N	20	50	30	--	50	N	--	<20	20	--	10	--	N	--
552	1.0	N	N	30	70	50	--	50	N	--	<20	30	--	10	--	N	--
553	1.0	N	N	20	70	20	--	50	N	--	<20	30	--	20	--	N	--
554	1.0	N	N	15	70	20	--	50	N	--	<20	30	--	20	--	N	--
555	1.0	N	N	20	70	30	--	50	N	--	<20	30	--	20	--	N	--
556	1.5	N	N	15	70	15	--	50	N	--	<20	20	--	50	--	N	--
557	1.0	N	N	<5	30	10	--	50	N	--	<20	15	--	30	--	N	--
558	1.0	N	N	20	50	20	--	50	N	--	<20	30	--	30	--	N	--
559	1.0	N	N	<5	20	5	--	50	N	--	<20	10	--	30	--	N	--
560	1.0	N	N	20	50	50	--	50	N	--	<20	20	--	10	--	N	--
561	1.0	N	N	20	100	50	--	50	N	--	<20	20	--	10	--	N	--
562	1.0	N	N	20	100	30	--	50	N	--	<20	30	--	10	--	N	--
603	1.5	N	N	30	100	100	--	100	N	--	<20	70	--	50	--	N	--
605	1.0	N	N	30	100	100	--	70	N	--	<20	70	--	30	--	N	--

sample	LATITUDE	LONGITUDE	S-FEX	S-VGZ	S-CAZ	S-TIX	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
606	67 32 6	151 38 36	5.0	1.50	1.00	.50	700	N	N	N	100	500
608	67 37 18	151 54 12	5.0	1.50	5.00	.50	700	N	N	N	150	500
610	67 37 18	151 54 24	5.0	1.50	3.00	.50	700	N	N	N	200	500
612	67 26 30	151 34 12	7.0	1.50	1.50	.50	1,500	N	N	N	150	500
614	67 27 54	151 9 18	7.0	1.50	1.50	.50	1,000	N	N	N	200	500
616	67 27 54	151 9 30	5.0	1.00	1.00	.50	700	N	N	N	150	500
618	67 17 54	151 1 42	5.0	2.00	5.00	.50	1,000	N	N	N	200	500
620	67 18 0	151 1 42	5.0	1.50	1.50	.50	700	N	N	N	150	500
622	67 21 0	151 34 30	5.0	1.50	3.00	.70	700	N	N	N	200	500
624	67 20 54	151 34 36	5.0	2.00	2.00	1.00	3,000	N	N	N	150	500
626	67 19 6	152 6 12	5.0	1.50	1.50	.70	2,000	N	N	N	150	300
628	67 17 30	152 15 0	5.0	1.00	1.50	.70	2,000	N	N	N	200	300
630	67 17 30	152 14 54	7.0	2.00	1.50	.70	3,000	N	N	N	200	500
632	67 17 48	152 28 6	3.0	1.50	10.00	.50	1,000	N	N	N	100	200
634	67 17 42	152 28 18	5.0	1.50	7.00	.50	2,000	N	N	N	100	200
636	67 23 24	152 50 54	5.0	1.00	10.00	.70	2,000	N	N	N	100	500
638	67 29 6	152 29 30	7.0	2.00	.50	.70	1,000	N	N	N	150	500
640	67 29 6	152 29 18	7.0	2.00	.50	.70	1,000	N	N	N	150	500
642	67 33 6	152 21 24	5.0	1.50	.70	.50	2,000	N	N	N	150	500
646	67 34 18	152 26 48	7.0	1.50	.50	.70	2,000	N	N	N	150	500
648	67 33 24	152 29 12	7.0	1.50	.70	.70	2,000	N	N	N	150	500
650	67 33 18	152 29 6	5.0	2.00	5.00	.70	2,000	N	N	N	150	500

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-BE	S-BI	S-CP	S-CD	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB
606	1.0	N	N	20	100	50	70	N	<20	50	20	N
608	<u>2.0</u>	N	N	20	100	<u>100</u>	100	N	<20	70	50	N
610	<u>2.0</u>	N	N	30	100	70	100	N	<20	70	50	N
612	<u>1.5</u>	N	N	20	100	70	100	N	<20	50	20	N
614	<u>2.0</u>	N	N	30	100	70	100	N	<20	<u>100</u>	50	N
616	1.0	N	N	20	70	<u>100</u>	100	N	<20	50	20	N
618	1.0	N	N	20	70	<u>70</u>	70	N	<20	70	30	N
620	1.0	N	N	20	100	70	70	N	<20	70	20	N
622	1.0	N	N	20	70	70	70	N	<20	50	50	N
624	1.0	N	N	30	70	70	70	N	<20	50	<u>100</u>	N
626	1.0	N	N	50	70	<u>100</u>	70	N	<20	70	20	N
628	1.0	N	N	50	70	<u>50</u>	70	N	<20	70	20	N
630	1.0	N	N	50	100	70	70	N	<20	<u>100</u>	30	N
632	<1.0	N	N	10	50	30	70	N	<20	<u>15</u>	50	N
634	1.0	N	N	30	70	50	70	N	<20	70	20	N
636	<1.0	N	N	15	50	50	70	N	<20	20	<u>100</u>	N
638	1.5	N	N	50	150	<u>100</u>	100	N	<20	<u>100</u>	<u>30</u>	N
640	1.5	N	N	50	150	<u>100</u>	<u>200</u>	N	<20	<u>100</u>	30	N
642	<u>2.0</u>	N	N	30	70	<u>50</u>	<u>150</u>	N	<20	<u>70</u>	30	N
646	1.5	N	N	30	100	70	<u>150</u>	N	<20	<u>100</u>	30	N
648	1.5	N	N	30	150	70	100	N	<20	<u>100</u>	30	N
650	1.5	N	N	30	100	50	100	N	<20	<u>70</u>	30	N

sample	S-SC	S-SH	S-SR	S-V	S-W	S-Y	S-Zn	S-ZR	S-TH	AA-ZN-P
606	20	N	200	200	N	20	N	100	N	55
608	20	N	500	200	N	50	<200	200	N	75
610	20	N	300	200	N	50	<200	200	N	90
612	30	N	200	200	N	200	N	200	N	40
614	15	N	300	200	N	50	<200	150	N	90
616	20	N	100	150	N	20	N	200	N	60
618	15	N	300	150	N	50	<200	150	N	50
620	15	N	200	200	N	30	<200	100	N	65
622	20	N	200	150	N	30	<200	200	N	60
624	20	N	200	150	N	50	N	200	N	45
626	20	N	200	150	N	50	<200	200	N	45
628	20	N	200	150	N	50	<200	200	N	45
630	7	N	200	150	N	50	<200	150	N	55
632	20	N	500	50	N	20	<200	100	N	45
634	15	N	200	150	N	50	<200	200	N	45
636	15	N	300	50	N	50	<200	200	N	50
638	20	N	200	200	N	50	<200	200	N	95
640	20	N	200	200	N	70	<200	200	N	120
642	20	N	200	200	N	50	<200	200	N	120
646	20	N	200	200	N	50	<200	300	N	110
648	20	N	200	200	N	50	<200	300	N	100
650	20	N	200	200	N	50	<200	300	N	80

Table 2 (cont.)

Analytical results for stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-Sc	S-SH	S-SR	AA-II	S-V	S-W	S-Y	S-ZN	S-ZR	AA-TII	S-TH	AA-Zn-A	AA-Zn-P
513	15	N	<100	--	100	N	30	<200	150	--	N	--	170
514	10	N	<100	--	70	N	20	N	150	--	N	--	70
515	10	N	<100	--	70	N	20	N	100	--	N	--	65
516	15	N	<100	--	100	N	50	<200	150	--	N	--	140
517	15	N	<100	--	100	N	20	N	150	--	N	--	85
518	15	N	<100	--	100	N	50	N	150	--	N	--	110
519	15	N	<100	2.0	100	N	70	N	150	12.0	N	130	120
521	10	N	<100	--	70	N	15	N	100	--	N	--	65
522	15	N	<100	2.1	100	N	20	N	150	9.5	N	87	80
524	15	N	100	--	70	N	20	N	150	--	N	--	95
525	10	N	<100	0.8	70	N	10	N	100	5.0	N	73	55
527	15	N	<100	--	100	N	20	N	150	--	N	--	75
528	15	N	<100	--	70	N	15	N	100	--	N	--	65
529	15	N	<100	--	70	N	30	N	150	--	N	--	70
530	10	N	200	--	50	N	15	N	70	--	N	--	55
531	15	N	<100	--	100	N	20	N	150	--	N	--	65
532	20	N	<100	--	100	N	30	N	150	--	N	--	70
533	10	N	<100	--	70	N	20	N	100	--	N	--	60
534	20	N	<100	1.6	70	N	30	N	150	6.0	N	67	55
536	10	N	100	--	70	N	20	N	100	--	N	--	100
537	10	N	100	--	70	N	20	N	100	--	N	--	75
538	70	N	<100	--	70	N	70	N	150	--	N	--	55
539	15	N	150	--	70	N	20	N	100	--	N	--	90
540	10	N	150	--	70	N	20	N	100	--	N	--	55
541	10	N	<100	--	70	N	20	N	100	--	N	--	80
542	15	N	100	--	100	N	20	N	100	--	N	--	120
543	15	N	100	--	100	N	20	N	100	--	N	137	85
545	10	N	100	1.9	70	N	20	N	100	5.3	N	69	55
547	20	N	100	1.9	70	N	50	N	150	--	N	78	55
549	20	N	150	--	100	N	30	N	100	--	N	--	55
550	20	N	100	--	150	N	20	N	100	--	N	--	60
551	15	N	100	--	100	N	20	N	150	--	N	--	60
552	20	N	100	--	150	N	30	N	100	--	N	--	60
553	10	N	<100	--	70	N	20	N	100	--	N	--	65
554	10	N	100	--	100	N	30	<200	100	--	N	--	130
555	15	N	<100	--	70	N	20	N	100	--	N	--	85
556	10	N	<100	--	70	N	20	N	100	--	N	--	100
557	5	N	500	--	50	N	20	<u>1,000</u>	50	--	N	--	55
558	10	N	300	--	70	N	30	N	100	--	N	--	65
559	5	N	500	--	50	N	20	N	150	--	N	--	50
560	15	N	200	--	100	N	20	N	7	--	N	--	50
561	20	N	200	--	150	N	20	N	100	--	N	--	60
562	20	N	150	--	150	N	20	N	100	--	N	--	85
603	20	N	500	--	200	N	70	<200	200	--	N	--	95
605	30	N	500	--	200	N	50	N	200	--	N	--	50

Wiseman Quadrangle, unpublished stream-sediment analyses from Bill Brosgé

Sample	Latitude	Longitude	S-Fix%	S-HC%	S-CAZ	S-Ti%	S-IN	S-AG	AA-AG	S-AS
651	67 22 00	151 57 45	2.0	1.0	1.0	.3	500	N(5)	1.5	N(1000)
652	67 22 00	151 57 45	2.0	1.0	1.0	.3	500	N(5)	1.6	N(1000)
653	67 22 06	151 59 36	1.5	.7	5.0	.3	500	N(5)	1.3	N(1000)
654	67 21 54	151 56 21	-	-	-	-	-	N(5)	.9	-
655	67 21 42	151 57 20	1.5	.7	5.0	.3	500	N(5)	1.0	N(1000)
656	67 42 42	152 08 15	2.0	.5	7.0	.2	500	N(5)	1.2	N(1000)
657	67 19 30	151 57 00	2.0	.5	.2	.3	700	N(5)	.5	N(1000)
658	67 22 30	151 55 15	.7	3.0	15.0	.15	500	N(5)	1.6	N(1000)
659	67 16 24	151 23 00	1.5	.5	2.0	.2	500	N(5)	.8	N(1000)
660	67 25 24	151 55 00	2.0	.7	1.5	.3	500	N(5)	1.1	N(1000)
661	67 28 36	151 32 00	7	1.5	1.5	.7	1,000	N(1)	.5	N(500)
662	67 28 18	151 32 03	3	.5	1.5	.7	700	N(1)	.2	N(500)
663	67 29 48	151 29 48	3	1.0	5.0	.05	700	N(1)	.8	N(500)
664	67 37 21	152 28 00	3	.7	3.0	.5	700	N(1)	.8	N(500)
665	67 41 40	152 07 10	5	1	20	.2	500	N(1)	-	N(1000)
666	67 30 06	152 07 24	10	1.5	10	.3	700	N(1)	-	N(1000)
667	67 30 08	152 08 00	10	1.5	5.0	.5	1,000	N(1)	-	N(1000)
668	67 46 12	151 22 57	15	2	.7	>1	5,000	-	-	-
669	67 46 12	151 00 00	7	2	.5	1	1,500	-	-	-
670	67 42 57	151 00 40	15	2	.2	1	100	-	-	-
671	67 42 34	151 03 16	10	5	.5	1	2,000	-	-	-
672	67 43 17	151 04 32	7	2	.5	>1	2,000	-	-	-
673	67 44 52	151 09 27	10	2	2.0	>1	2,000	-	-	-
674	67 46 39	152 54 33	7	2	10	>1	1,000	-	-	-
675	67 37 21	152 28 00	10	2	10	1	1,000	-	-	-

Sample	AA-AS	S-AU	AA-AU	S-B	S-BA	S-BE	S-BI	S-CU	S-CO	S-CR
651	-	-	N(.0.1)	50	<u>1,000</u>	N(5)	-	-	20	200
652	-	-	N(.0.04)	50	<u>700</u>	N(5)	-	-	15	200
653	-	-	N(.0.04)	20	500	N(5)	-	-	5	50
654	-	-	N(.0.1)	-	-	-	-	-	-	-
655	-	-	N(.0.04)	30	300	N(5)	-	-	5	50
656	-	-	N(.0.1)	30	500	N(5)	-	-	7	70
657	-	-	N(.0.1)	30	500	N(5)	-	-	10	70
658	-	-	N(.0.1)	30	<u>1,000</u>	N(5)	-	-	N	30
659	-	-	N(.0.04)	30	<u>500</u>	N(5)	-	-	5	50
660	-	-	N(.0.1)	50	500	N(5)	-	-	15	100
661	N(10)	-	N(.0.02)	20	500	2	N	N	30	150
662	L(10)	-	N(.0.02)	20	300	2	N	N	20	70
663	L(10)	-	N(.0.02)	20	500	2	N	N	20	70
664	10	-	N(.0.02)	70	700	2	N	N	15	70
665	-	-	-	100	300	N	N(30)	N(50)	5	20
666	-	-	-	100	200	5	N(30)	N(50)	10	30
667	-	-	-	70	500	N	N(30)	N(50)	15	30
668	N(10)	-	N(.05)	200	<u>2,000</u>	5	N(20)	N(50)	50	300
669	L(10)	-	N(.05)	150	<u>1,500</u>	2	N(20)	N(50)	50	150
670	-	-	N(.05)	<u>200</u>	<u>1,500</u>	2	N(20)	N(50)	20	150
671	-	-	N(.05)	<u>200</u>	<u>2,000</u>	2	N(20)	N(50)	100	200
672	L(10)	-	N(.05)	150	<u>2,000</u>	2	N(20)	N(50)	50	150
673	10	-	N(.05)	150	<u>2,000</u>	2	N(20)	N(50)	50	200
674	L(10)	-	N(.05)	<u>200</u>	<u>1,500</u>	2	N(20)	N(50)	20	150
675	L(10)	-	N(.05)	<u>200</u>	<u>2,000</u>	2	N(20)	N(50)	20	200

Table 2 (cont.)

Sample	S-CU	INSTR HG	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	AA-SB	S-SC
651	30	--	N(50)	N	--	20	20	N(200)	--	20
652	30	--	N(50)	N	--	20	30	N(200)	--	20
653	20	--	N(50)	N	--	10	10	N(200)	--	10
654	--	--	--	--	--	--	--	--	--	--
655	15	--	N(50)	N	--	10	30	N(200)	--	10
656	20	--	N(50)	N	--	20	10	N(200)	--	15
657	20	--	N(50)	N	--	15	15	N(200)	--	15
658	10	--	N(50)	N	--	5	20	N(200)	--	N(10)
659	15	--	N(50)	N	--	15	10	N(200)	--	10
660	20	--	N(50)	N	--	20	10	N(200)	--	15
661	30	--	70	2	--	30	10	N	2	20
662	20	--	70	1	--	20	10	N	4	15
663	20	--	50	1	--	20	15	N	2	15
664	15	--	70	2	--	30	20	N	2	10
665	10	--	30	N(10)	N(50)	15	N	N(200)	--	10
666	10	--	100	N(10)	N(50)	15	N	N(200)	--	10
667	20	--	30	N(10)	N(50)	20	N	N(200)	--	15
668	50	.60	100	N(10)	N(50)	--	30	N(200)	3	50
669	100	.28	100	N(10)	N(50)	--	30	N(200)	5	20
670	200	.35	100	20	N(50)	20	30	N(200)	10	20
671	200	.30	100	15	N(50)	20	30	N(200)	10	20
672	100	.35	150	15	N(50)	10	30	N(200)	10	20
673	150	.30	150	15	N(50)	10	30	N(200)	10	30
674	20	.35	150	N(10)	N(50)	20	20	N(200)	3	30
675	50	.40	100	N(10)	N(50)	20	30	N(200)	3	30

Sample	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	AA-ZN-P	S-ZR	S-CA
651	N	200	150	N(100)	20	N	-	150	30
652	N	200	150	N(100)	20	N	-	100	50
653	N	200	70	N(100)	15	N	-	150	7
654	-	-	-	-	-	-	-	-	-
655	N	200	70	N(100)	15	N	-	150	10
656	N	200	100	N(100)	20	N	-	150	10
657	N	200	100	N(100)	20	N	-	150	15
658	N	70	70	N(100)	N	N	-	100	15
659	N	150	70	N(100)	15	N	-	100	10
660	N	150	150	N(100)	20	N	-	200	15
661	N	150	150	N	30	N	66	150	20
662	N	100	100	N	30	N	58	100	20
663	N	200	150	N	20	N	70	100	20
664	N	100	70	N	20	N	120	150	20
665	N	200	70	N(200)	30	N	-	200	10
666	N	200	100	N(200)	50	N	-	200	10
667	N	150	100	N(200)	50	N	-	300	10
668	N(20)	200	500	N(100)	70	N(500)	150	700	-
669	N(20)	200	500	N(100)	70	1,000	400	500	-
670	N(20)	200	500	N(100)	70	N(500)	320	500	-
671	N(20)	200	700	N(100)	70	2,000	1,000	500	-
672	N(20)	200	700	N(100)	70	2,000	800	1,000	-
673	N(20)	200	700	N(100)	70	2,000	920	700	-
674	N(20)	200	200	N(100)	70	N(500)	90	700	-
675	N(20)	200	300	N(100)	100	N(500)	140	700	-

## Wiseman Quadrangle, published stream-sediment analyses from Chipp, 1972

Sample	Latitude	Longitude	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
676	67 30 24	151 29 36	5	1	.2	1.0	1,000	N(0.1)	N(500)	N	20	200
677	67 30 27	151 30 07	5	1	.2	.5	1,000	N(0.1)	N(500)	N	50	500
678	67 30 36	151 30 48	2	1	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
679	67 30 45	151 31 55	2	.5	2	.5	500	N(0.1)	N(500)	N	20	500
680	67 31 03	151 32 16	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
681	67 31 06	151 31 03	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	500
682	67 31 15	151 30 24	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	500
683	67 31 28	151 29 44	5	1	2	1.0	1,000	N(0.1)	N(500)	N	20	500
684	67 31 36	151 29 10	5	1	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
685	67 31 42	151 29 22	5	1	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
686	67 32 08	151 28 33	5	.5	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
687	67 32 09	151 27 30	5	.5	1	1.0	<u>2,000</u>	N(0.1)	N(500)	N	20	500
688	67 31 40	151 31 42	5	2	.5	1.0	<u>1,000</u>	N(0.1)	N(500)	N	50	500
689	67 32 08	151 31 33	5	2	1	1.0	<u>2,000</u>	N(0.1)	N(500)	N	50	500
690	67 32 20	151 31 36	5	2	.5	1.0	<u>1,000</u>	N(0.1)	N(500)	N	50	500
691	67 32 28	151 31 30	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	500
692	67 32 48	151 31 06	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	<u>1,000</u>
693	67 32 52	151 30 27	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
694	67 32 58	151 30 36	5	2	2	.5	1,000	N(0.1)	N(500)	N	20	500
695	67 33 10	151 29 57	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
696	67 33 20	151 29 33	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	20	200
697	67 33 18	151 29 15	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	20	500
698	67 33 36	151 29 36	5	2	1	.5	500	N(0.1)	N(500)	N	20	<u>1,000</u>
699	67 33 30	151 29 21	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
700	67 33 27	151 28 57	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
701	67 33 15	151 28 18	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
702	67 33 12	151 27 58	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
703	67 33 14	151 27 34	5	2	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
704	67 33 50	151 31 10	5	2	2	.5	1,000	N(0.1)	N(500)	N	10	500
705	67 33 45	151 31 27	5	<u>5</u>	.5	1.0	1,000	N(0.1)	N(500)	N	20	200
706	67 33 57	151 31 30	5	2	1	1.0	1,000	N(0.1)	N(500)	N	20	500
707	67 33 45	151 31 51	10	2	1	1.0	1,000	N(0.1)	N(500)	N	20	200
708	67 33 47	151 32 12	10	<u>5</u>	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
709	67 34 08	151 31 54	<u>10</u>	<u>5</u>	1	1.0	1,000	N(0.1)	N(500)	N	20	500
710	67 34 12	151 31 48	2	.2	.5	.2	500	N(0.1)	N(500)	N	20	<u>1,000</u>

Sample	S-BE	S-BI	S-CU	S-CO	S-CR	S-CU	AA-CU	S-LA	S-MO	S-NB	S-NI	S-PB
676	1	N(5)	N(100)	20	500	20	20	50	20	20	100	20
677	N	N(5)	N(100)	20	<u>1,000</u>	20	20	50	20	10	100	20
678	1	N(5)	N(100)	20	200	10	15	50	5	20	20	10
679	N	N(5)	N(100)	10	200	20	40	50	N	10	20	10
680	1	N(5)	N(100)	20	500	20	25	50	10	20	50	20
681	1	N(5)	N(100)	20	500	20	20	50	5	20	20	20
682	1	N(5)	N(100)	20	500	20	20	100	20	20	100	20
683	1	N(5)	N(100)	20	500	20	20	100	10	20	50	20
684	1	N(5)	N(100)	20	500	20	20	100	20	20	50	20
685	1	N(5)	N(100)	20	<u>1,000</u>	20	25	100	20	20	100	20
686	1	N(5)	N(100)	20	500	20	20	100	10	20	50	20
687	N	N(5)	N(100)	20	500	20	25	50	10	20	50	20
688	1	N(5)	N(100)	20	500	20	35	50	20	20	100	20
689	1	N(5)	N(100)	20	500	50	60	50	10	20	100	<u>100</u>
690	1	N(5)	N(100)	20	200	20	35	50	10	20	50	20
691	N	N(5)	N(100)	20	500	50	35	20	10	20	50	20
692	N	N(5)	N(100)	20	200	50	30	50	10	20	20	20
693	1	N(5)	N(100)	20	500	10	15	50	10	20	50	20
694	N	N(5)	N(100)	20	200	20	35	20	10	20	50	20
695	1	N(5)	N(100)	50	500	20	20	100	20	20	100	20
696	N	N(5)	N(100)	20	500	10	10	20	5	20	50	10
697	1	N(5)	N(100)	20	500	20	25	50	10	20	50	10
698	N	N(5)	N(100)	20	500	50	40	20	10	20	50	10
699	1	N(5)	N(100)	20	200	20	30	50	5	20	50	20
700	1	N(5)	N(100)	20	200	20	30	50	5	20	20	10
701	1	N(5)	N(100)	20	200	10	25	50	5	20	20	20
702	1	N(5)	N(100)	20	500	20	30	50	10	20	50	20
703	1	N(5)	N(100)	20	500	10	20	100	10	20	50	20
704	N	N(5)	N(100)	20	100	50	30	20	5	20	20	10
705	N	N(5)	N(100)	20	500	20	25	20	5	20	20	20
706	N	N(5)	N(100)	20	500	50	30	20	20	20	50	20
707	N	N(5)	N(100)	20	500	20	20	20	20	20	50	20
708	1	N(5)	N(100)	20	500	50	45	20	5	20	50	20
709	N	N(5)	N(100)	20	<u>1,000</u>	<u>100</u>	60	20	20	20	100	20
710	N	N(5)	N(100)	10	500	20	40	50	10	10	50	10

Sample	AA-PB	S-SB	S-SC	S-SN	S-SK	S-V	S-W	S-Y	S-ZN	AA-ZN	S-ZR
676	10	100	20	N	100	100	N	20	100	40	200
677	10	50	20	N	100	100	N	50	100	50	200
678	10	50	20	N	100	100	N	20	100	50	200
679	10	N(50)	20	N	100	100	N	10	100	50	100
680	10	N(50)	20	N	100	100	N	100	100	65	200
681	10	N(50)	20	N	100	100	N	20	100	45	200
682	10	100	20	N	100	100	N	20	100	50	200
683	10	50	20	N	100	100	N	50	100	45	200
684	15	100	20	N	100	100	N	50	100	40	200
685	15	100	20	N	100	100	N	50	100	45	200
686	20	50	20	N	100	100	N	20	100	35	200
687	15	50	20	N	100	100	N	20	100	35	200
688	15	100	20	N	100	100	N	50	100	60	200
689	15	50	50	N	200	100	N	50	100	120	200
690	15	50	20	N	100	100	N	50	100	105	200
691	10	50	20	N	100	100	N	20	200	100	100
692	10	50	20	N	100	100	N	50	100	75	100
693	10	100	20	N	100	100	N	50	100	50	200
694	10	50	20	N	200	100	N	20	100	65	100
695	10	50	20	N	100	100	N	50	200	40	200
696	5	50	20	N	100	100	N	20	100	30	200
697	10	N(50)	20	N	100	100	N	50	100	75	200
698	10	N(50)	20	N	100	200	N	20	100	110	100
699	15	50	20	N	100	100	N	50	100	55	200
700	15	50	20	N	100	100	N	50	100	55	200
701	20	50	20	N	100	100	N	50	100	60	200
702	20	50	20	N	100	100	N	50	100	50	200
703	15	50	20	N	100	100	N	50	100	50	200
704	10	N(50)	20	N	200	100	N	20	200	60	100
705	10	50	20	N	100	100	N	20	100	55	200
706	10	50	20	N	100	100	N	20	100	60	100
707	10	50	20	N	100	100	N	50	100	40	200
708	15	N(50)	20	N	100	100	N	50	100	50	200
709	15	100	20	N	100	100	N	20	100	55	100
710	15	50	10	N	100	100	N	20	100	130	100

Table 2 (cont.)

Wiseman Quadrangle, published stream-sediment analyses from Chipp, 1972

Sample	Latitude	Longitude	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AC	S-AS	S-AU	S-B	S-BA
711	67 34 15	151 32 00	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	500
712	67 34 17	151 32 49	10	2	2	1.0	1,000	N(0.1)	N(500)	N	20	200
713	67 34 31	151 32 22	5	2	2	.5	1,000	N(0.1)	N(500)	N	20	<u>1,000</u>
714	67 33 05	151 32 42	10	<u>5</u>	2	1.0	1,000	N(0.1)	N(500)	N	50	<u>500</u>
715	67 32 53	151 32 12	5	2	2	.5	1,000	N(0.1)	N(500)	N	20	200
716	67 32 25	151 32 30	5	2	.5	.5	500	N(0.1)	N(500)	N	20	500
717	67 32 20	151 32 45	5	2	1	1.0	1,000	N(0.1)	N(500)	N	20	500
718	67 32 07	151 32 51	5	2	2	1.0	1,000	N(0.1)	N(500)	N	50	500
719	67 31 54	151 33 00	2	1	5	.5	1,000	N(0.1)	N(500)	N	20	500
720	67 31 36	151 33 18	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
721	67 31 24	151 33 06	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
722	67 31 17	151 33 41	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
723	67 31 08	151 34 11	2	.2	.5	.5	500	N(0.1)	N(500)	N	50	500
724	67 30 37	151 34 46	2	.5	.5	1.0	500	N(0.1)	N(500)	N	50	200
725	67 30 01	151 36 35	5	2	1	1.0	1,000	N(0.1)	N(500)	N	50	200
726	67 30 02	151 36 55	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	20	200
727	67 30 09	151 37 19	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	20	200
728	67 30 11	151 37 42	10	2	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
729	67 30 05	151 38 26	5	2	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
730	67 29 39	151 39 00	10	2	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
731	67 30 27	151 38 39	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
732	67 30 18	151 39 18	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
733	67 30 14	151 39 57	10	2	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
734	67 30 03	151 40 15	5	1	.2	1.0	1,000	N(0.1)	N(500)	N	100	100
735	67 29 50	151 40 48	5	1	.2	.5	500	N(0.1)	N(500)	N	50	200
736	67 30 33	151 39 47	10	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
737	67 30 33	151 38 12	5	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
738	67 30 58	151 38 30	2	1	2	.5	1,000	N(0.1)	N(500)	N	20	200
739	67 31 10	151 37 54	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	500
740	67 31 21	151 38 31	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	200
741	67 31 32	151 38 32	5	2	5	1.0	1,000	N(0.1)	N(500)	N	20	200
742	67 31 52	151 38 30	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	200
743	67 29 20	151 36 12	10	2	.2	1.0	<u>2,000</u>	N(0.1)	N(500)	N	20	200
744	67 29 03	151 36 15	5	1	.2	.5	<u>1,000</u>	N(0.1)	N(500)	N	10	200
745	67 28 36	151 36 24	10	2	.2	1.0	<u>5,000</u>	N(0.1)	N(500)	N	50	500

Sample	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	AA-CU	S-LA	S-MO	S-NB	S-NI	S-PB
711	N	N(5)	N(100)	20	200	50	40	20	5	20	20	20
712	N	N(5)	N(100)	20	200	20	40	20	5	20	20	20
713	N	N(5)	N(100)	20	500	100	60	20	10	20	50	50
714	N	N(5)	N(100)	50	500	100	85	20	10	20	50	20
715	N	N(5)	N(100)	20	200	20	30	20	5	10	50	10
716	N	N(5)	N(100)	20	500	20	20	20	20	20	50	10
717	1	N(5)	N(100)	20	500	20	35	20	5	20	50	20
718	N	N(5)	N(100)	20	500	50	40	20	10	20	50	20
719	N	N(5)	N(100)	20	200	50	35	50	10	10	50	10
720	2	N(5)	N(100)	20	500	20	20	100	20	20	50	20
721	2	N(5)	N(100)	20	500	20	25	100	20	20	100	20
722	2	N(5)	N(100)	20	500	20	20	100	10	20	50	20
723	2	N(5)	N(100)	20	200	20	40	50	5	10	20	10
724	1	N(5)	N(100)	10	500	20	20	200	5	10	20	10
725	1	N(5)	N(100)	20	500	20	20	50	20	20	50	20
726	N	N(5)	N(100)	20	500	50	30	50	20	20	50	20
727	N	N(5)	N(100)	20	500	20	15	50	10	20	50	20
728	1	N(5)	N(100)	50	500	20	15	50	10	50	50	20
729	N	N(5)	N(100)	50	200	20	15	50	10	50	20	20
730	N	N(5)	N(100)	50	500	20	15	50	20	50	50	10
731	N	N(5)	N(100)	20	500	20	20	50	10	20	50	10
732	1	N(5)	N(100)	50	500	20	20	50	20	50	50	20
733	N	N(5)	N(100)	50	1,000	20	20	50	20	50	100	20
734	1	N(5)	N(100)	20	1,000	20	15	50	10	20	100	10
735	N	N(5)	N(100)	20	200	20	15	20	5	20	50	10
736	N	N(5)	N(100)	50	500	20	20	100	10	20	50	10
737	N	N(5)	N(100)	50	500	100	30	20	10	20	50	50
738	N	N(5)	N(100)	20	500	20	30	50	10	20	20	10
739	2	N(5)	N(100)	20	500	50	40	100	10	20	50	20
740	N	N(5)	N(100)	20	100	20	30	50	N	20	50	10
741	N	N(5)	N(100)	20	200	20	30	20	5	20	20	10
742	N	N(5)	N(100)	20	500	20	30	50	10	20	50	10
743	N	N(5)	N(100)	20	500	20	25	50	10	20	50	10
744	N	N(5)	N(100)	20	500	20	35	50	10	20	50	10
745	1	N(5)	N(100)	50	500	20	20	50	10	20	50	20

Sample	AA-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	AA-ZN	S-ZR
711	10	N(50)	20	N	200	100	N	20	100	60	100
712	15	50	20	N	200	100	N	20	100	50	200
713	15	50	20	N	200	100	N	20	100	120	100
714	15	50	20	N	200	200	N	50	100	55	200
715	10	N(50)	20	N	100	100	N	20	100	35	100
716	5	50	20	N	100	100	N	20	100	35	200
717	10	N(50)	20	N	100	100	N	50	100	50	200
718	10	50	20	N	200	100	N	50	100	45	200
719	15	N(50)	10	N	200	100	N	20	100	90	100
720	15	100	20	N	100	100	N	50	100	65	200
721	20	50	20	N	100	100	N	50	100	75	200
722	15	50	20	N	100	100	N	50	100	70	200
723	25	N(50)	20	N	100	100	N	20	100	85	200
724	10	N(50)	20	N	100	100	N	50	100	45	200
725	10	50	20	N	100	100	N	50	100	35	200
726	10	50	20	N	100	100	N	20	100	50	200
727	10	50	20	N	100	100	N	20	100	30	200
728	10	50	20	10	100	100	N	50	100	30	200
729	10	N(50)	20	10	100	100	N	50	100	30	200
730	5	100	20	10	100	100	N	50	100	25	200
731	10	50	20	N	100	100	N	20	100	30	200
732	10	100	20	N	100	100	N	50	100	45	200
733	10	100	20	10	100	100	N	50	100	40	200
734	10	50	20	N	100	100	N	20	100	35	200
735	5	N(50)	20	N	100	100	N	20	100	30	200
736	10	50	20	N	100	100	N	50	100	20	200
737	10	50	20	N	100	100	N	50	100	35	200
738	10	N(50)	20	N	200	100	N	20	100	40	200
739	25	100	20	N	200	100	N	50	100	75	200
740	10	N(50)	20	N	200	100	N	20	100	40	100
741	10	50	20	N	200	100	N	20	100	40	100
742	10	50	20	N	200	100	N	20	100	45	200
743	10	50	20	N	100	100	N	50	100	25	200
744	10	50	20	N	100	100	N	20	100	25	100
745	10	50	20	10	200	100	N	50	100	20	200

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Sample	Latitude	Longitude	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
746	67 29 20	151 36 33	5	1	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
747	67 28 06	151 37 00	10	2	.2	1.0	1,000	N(0.1)	N(500)	N	20	500
748	67 27 58	151 27 04	10	2	2	1.0	1,000	N(0.1)	N(500)	N	50	500
749	67 28 11	151 38 18	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	200
750	67 28 24	151 39 18	10	2	2	1.0	1,000	N(0.1)	N(500)	N	50	200
751	67 28 22	151 39 44	10	2	2	1.0	1,000	N(0.1)	N(500)	N	50	200
752	67 52 29	151 39 48	10	2	1	1.0	1,000	N(0.1)	N(500)	N	20	500
753	67 27 47	151 38 24	10	2	1	1.0	2,000	N(0.1)	N(500)	N	100	200
754	67 27 39	151 39 21	5	2	1	1.0	1,000	N(0.1)	N(500)	N	100	500
755	67 27 03	151 36 33	2	2	10	.5	500	N(0.1)	N(500)	N	20	200
756	67 26 52	151 37 15	5	2	10	1.0	1,000	N(0.1)	N(500)	N	20	200
757	67 27 00	151 37 46	5	2	10	1.0	1,000	N(0.1)	N(500)	N	50	200
758	67 27 04	151 38 10	5	2	10	1.0	1,000	N(0.1)	N(500)	N	50	500
759	67 26 18	151 32 00	2	1	1	1.0	1,000	N(0.1)	N(500)	N	50	200
760	67 26 33	151 31 30	5	1	2	1.0	1,000	N(0.1)	N(500)	N	50	500
761	67 26 20	151 31 00	5	2	.2	1.0	1,000	N(0.1)	N(500)	N	50	500
762	67 26 42	151 31 15	5	1	5	1.0	1,000	N(0.1)	N(500)	N	50	200
763	67 26 47	151 31 42	5	2	1	1.0	1,000	N(0.1)	N(500)	N	50	200
764	67 26 50	151 31 00	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	200
765	67 26 53	151 30 18	5	1	.5	1.0	500	N(0.1)	N(500)	N	50	200
766	67 27 02	151 30 33	5	1	2	1.0	1,000	N(0.1)	N(500)	N	50	200
767	67 27 26	151 34 40	10	2	.5	1.0	500	N(0.1)	N(500)	N	50	200
768	67 27 22	151 33 46	10	2	1	1.0	1,000	N(0.1)	N(500)	N	100	500
769	67 27 24	151 33 18	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
770	67 27 42	151 34 33	10	2	.5	1.0	500	N(0.1)	N(500)	N	20	200
771	67 21 58	151 34 09	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
772	67 28 05	151 34 48	10	1	.5	1.0	1,000	N(0.1)	N(500)	N	20	200
773	67 28 28	151 34 00	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
774	67 28 28	151 33 46	10	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
775	67 28 30	151 32 15	10	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
776	67 28 19	151 32 03	10	2	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
777	67 28 04	151 31 03	10	2	1	1.0	1,000	N(0.1)	N(500)	N	50	200
778	67 28 39	151 32 00	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	500
779	67 28 48	151 31 42	10	2	.5	1.0	2,000	N(0.1)	N(500)	N	50	500
780	67 28 52	151 31 20	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200

Table 2 (cont.)

Sample	S-BE	S-BL	S-CD	S-CO	S-CK	S-CU	AA-CU	S-LA	S-MO	S-NB	S-NI	S-PB
746	1	N(5)	N(100)	50	500	100	105	20	10	20	50	20
747	1	N(5)	N(100)	50	500	50	45	20	10	20	50	20
748	1	N(5)	N(100)	50	500	20	30	50	10	20	50	20
749	1	N(5)	N(100)	20	500	20	25	50	10	20	50	20
750	1	N(5)	N(100)	20	500	20	30	50	10	20	50	20
751	N	N(5)	N(100)	50	500	20	30	50	10	20	50	20
752	1	N(5)	N(100)	50	500	20	30	50	10	20	50	20
753	N	N(5)	N(100)	20	1,000	50	35	50	10	20	50	10
754	1	N(5)	N(100)	20	500	20	35	50	10	20	50	20
755	N	N(5)	N(100)	10	200	10	15	50	5	20	20	10
756	N	N(5)	N(100)	20	500	20	15	50	10	20	50	20
757	N	N(5)	N(100)	20	200	10	15	50	5	20	20	20
758	N	N(5)	N(100)	20	500	20	25	50	20	20	100	20
759	1	N(5)	N(100)	20	500	20	20	50	20	20	50	20
760	1	N(5)	N(100)	20	200	20	25	50	5	20	100	20
761	1	N(5)	N(100)	20	500	50	25	50	10	20	100	20
762	N	N(5)	N(100)	20	200	20	35	50	5	20	50	20
763	1	N(5)	N(100)	20	500	20	25	50	10	20	50	20
764	1	N(5)	N(100)	20	500	20	20	50	10	20	50	50
765	1	N(5)	N(100)	20	100	20	20	50	N	20	20	20
766	N	N(5)	N(100)	20	500	20	25	50	10	20	100	20
767	N	N(5)	N(100)	20	200	20	15	50	5	20	50	20
768	1	N(5)	N(100)	50	500	20	20	100	10	50	50	20
769	1	N(5)	N(100)	50	1,000	20	20	50	20	50	100	20
770	1	N(5)	N(100)	50	500	20	25	50	10	50	50	20
771	1	N(5)	N(100)	50	500	10	5	100	10	50	50	20
772	N	N(5)	N(100)	20	200	20	20	50	5	20	50	10
773	1	N(5)	N(100)	20	500	20	20	100	10	20	50	10
774	1	N(5)	N(100)	20	500	20	15	100	10	20	50	10
775	1	N(5)	N(100)	20	500	20	15	100	10	20	50	10
776	N	N(5)	N(100)	20	500	20	15	50	10	20	50	10
777	N	N(5)	N(100)	20	500	20	15	50	10	20	20	10
778	1	N(5)	N(100)	20	500	20	20	50	10	20	50	10
779	1	N(5)	N(100)	50	500	50	55	50	10	50	50	20
780	1	N(5)	N(100)	20	500	20	20	50	10	20	50	20

Table 2 (cont.)

Sample	AA-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	AA-ZN	S-ZR
746	10	N(50)	20	N	200	100	N	20	100	40	200
747	10	50	20	10	200	100	N	50	100	40	200
748	15	50	20	10	200	100	N	50	100	30	200
749	10	N(50)	20	N	100	100	N	50	100	25	200
750	10	50	20	N	200	100	N	50	100	30	200
751	10	50	20	N	200	100	N	50	100	25	200
752	10	<u>100</u>	20	N	100	100	N	50	100	20	200
753	10	50	20	N	100	100	N	20	100	25	200
754	15	50	20	N	200	100	N	20	100	55	200
755	15	N(50)	10	N	500	50	N	20	100	25	100
756	15	50	10	N	500	50	N	20	100	25	100
757	15	N(50)	10	N	500	50	N	20	100	20	200
758	15	<u>100</u>	20	N	500	100	N	50	100	40	200
759	20	<u>100</u>	10	N	100	100	N	20	100	50	200
760	20	50	20	N	100	100	N	20	100	55	200
761	15	50	20	N	50	100	N	20	100	55	200
762	15	50	10	N	200	100	N	50	100	55	200
763	20	50	20	N	100	100	N	50	100	50	200
764	20	50	20	N	100	100	N	20	100	50	200
765	20	50	20	N	100	100	N	50	100	55	200
766	20	50	20	N	100	100	N	50	100	45	200
767	5	50	20	N	100	100	N	50	100	30	200
768	10	50	<u>50</u>	10	200	100	N	50	100	30	200
769	10	<u>100</u>	<u>20</u>	10	200	100	N	50	100	30	200
770	10	50	20	10	100	100	N	50	100	25	200
771	10	50	20	10	100	100	N	<u>100</u>	100	20	200
772	5	N(50)	20	10	100	100	N	<u>50</u>	100	20	200
773	10	50	20	10	100	100	N	50	100	30	200
774	10	50	20	10	100	100	N	50	100	25	200
775	10	50	20	10	100	100	N	50	100	25	200
776	5	N(50)	20	10	100	100	N	50	100	25	200
777	5	50	20	10	100	100	N	50	100	25	200
778	10	50	20	10	100	100	N	50	100	35	200
779	10	50	20	10	100	100	N	<u>100</u>	100	40	200
780	10	<u>100</u>	20	N	100	100	N	<u>50</u>	100	35	200

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Sample	Latitude	Longitude	S-Fe%	S-Mn%	S-Ca%	S-Ti%	S-Mn	S-Ac	S-As	S-Au	S-B	S-Ba
781	67 29 00	151 31 06	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
782	67 28 40	151 34 26	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	200
783	67 29 15	151 34 15	2	.2	.5	.2	500	N(0.1)	N(500)	N	20	200
784	67 29 45	151 34 03	5	1	.5	1.0	1,000	N(0.1)	N(500)	N	50	200
785	67 30 09	151 33 18	5	1	.5	.5	2,000	N(0.1)	N(500)	N	50	500
786	67 30 13	151 32 36	10	2	.5	1.0	2,000	N(0.1)	N(500)	N	50	500
787	67 30 15	151 32 10	5	2	2	1.0	1,000	N(0.1)	N(500)	N	20	200
788	67 30 09	151 32 12	5	1	1	1.0	500	N(0.1)	N(500)	N	20	200
789	67 30 34	151 32 40	5	1	1	1.0	1,000	N(0.1)	N(500)	N	50	200
790	67 30 20	151 32 48	5	2	1	1.0	2,000	N(0.1)	N(500)	N	20	500

Sample	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	AA-CU	S-LA	S-MO	S-NB	S-NI	S-PB
781	1	N(5)	N(100)	20	500	20	20	50	10	20	50	10
782	1	N(5)	N(100)	20	500	20	45	50	20	20	100	20
783	<u>2</u>	N(5)	N(100)	10	200	20	15	50	5	10	20	10
784	1	N(5)	N(100)	20	500	20	25	50	20	20	100	20
785	<u>2</u>	N(5)	N(100)	20	500	50	40	50	10	20	100	50
786	1	N(5)	N(100)	50	500	<u>100</u>	70	50	20	20	100	50
787	N	N(5)	N(100)	20	200	<u>50</u>	50	20	10	20	50	<u>20</u>
788	N	N(5)	N(100)	20	100	20	20	50	5	20	50	10
789	1	N(5)	N(100)	20	200	20	25	50	10	20	50	10
790	<u>2</u>	N(5)	N(100)	20	<u>1,000</u>	50	40	50	20	20	100	<u>50</u>

Table

Sample	AA-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	AA-ZN	S-ZR
781	10	50	20	N	100	100	N	50	100	40	200
782	30	100	20	N	100	100	N	50	100	70	200
783	10	N(50)	10	N	100	100	N	20	100	35	200
784	10	100	20	N	100	100	N	50	100	35	200
785	25	50	20	N	100	100	N	20	100	90	200
786	30	50	20	10	100	200	N	50	100	90	200
787	15	N(50)	20	N	100	100	N	20	100	55	200
788	10	50	10	N	100	100	N	20	100	35	200
789	10	50	10	N	100	100	N	20	100	40	200
790	0	100	20	10	100	100	N	50	100	60	200

Table 3. Analytical results for 156 pan concentrates 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, Ma, Ca, and Ti are reported in percent; all other elements are reported in ppm (parts per million). Data qualified (censored) codes, defined below, were used with some reported values. Approximate limits of determination for the 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	5.0	15	1	5000	15	7000	20	2000	5000*12
Min	1.0	0.07	0.05	0.2	100	1	500	20	20	50
	<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	3	30	50	200	700	5000	1000	20	70	150
Min	2	20	50	10	20	10	50	10	50	10
	<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	3000	200	100	300	1500	700	1500	500	2000	1000
Min	20	200	10	20	200	30	100	20	500	100
	<u>S-Th</u>									
Max	200									
Min	100									

For a few samples, analyst estimated quantitative values of Ti, Mn, 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 and in samples 652C-656C, 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 spectroscopy is indicated by 'S - element'; analysis by atomic absorption spectrophotometry is symbolized by 'AA-element.'

Table 3 (cont.)

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sample	LATITUDE	LONGITUDE	S-FEZ	S-MGZ	S-CAZ	S-T1Z	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
12	67 12 42	152 38 30	5	1.00	2.0	1.0	700	N	N	N	100	1,500
38	67 11 6	152 51 36	5	1.00	2.7	1.7	500	N	N	N	100	1,500
39	67 19 9	151 41 9	2	3.0	10.0	5.0	1,000	N	N	N	50	300
40	67 16 46	151 38 24	2	1.50	2.0	1.0	500	N	N	N	150	1,000
46	67 14 35	151 40 5	2	1.00	1.5	1.0	500	N	N	N	100	1,000
47	67 14 35	151 40 5	5	1.50	1.5	1.0	700	N	N	N	150	1,000
49	67 14 35	151 40 5	2	1.00	1.5	1.0	200	N	N	N	150	1,000
52	67 15 3	151 27 5	5	1.50	1.0	2.0	700	N	N	N	70	700
59	67 22 15	151 37 24	3	1.00	5.0	2.0	500	N	N	N	200	700
70	67 21 7	151 50 21	3	1.50	2.0	2.0	500	N	N	N	70	700
78	67 10 4	151 16 6	3	1.00	1.5	1.0	500	N	N	N	100	1,000
93	67 25 52	151 8 54	2	2.00	1.5	1.0	700	N	N	N	70	1,000
95	67 25 47	151 8 54	5	1.00	7.0	3.0	700	N	N	N	20	700
103	67 16 19	151 13 57	3	1.00	1.5	1.0	500	N	N	N	100	1,000
106	67 17 35	151 6 30	2	1.00	2.0	1.0	300	N	N	N	100	1,000
112	67 20 27	151 13 12	3	3.00	5.0	1.0	700	N	N	N	70	1,000
119	67 22 5	151 9 21	2	5.00	10.0	.5	500	N	N	N	20	500
130	67 23 37	151 23 36	3	5.00	10.0	1.0	700	N	N	N	50	700
140	67 26 53	151 20 33	5	1.50	.5	1.5	700	N	N	N	100	700
147	67 29 14	151 19 18	5	1.50	1.5	1.0	500	N	N	N	100	700
154	67 32 38	151 20 0	5	.70	.5	1.0	500	N	N	N	100	1,500
158	67 28 15	151 23 57	5	1.50	1.0	1.0	500	N	N	N	70	500
162	67 25 9	151 29 42	3	.70	.5	1.0	500	N	N	N	70	500
167	67 25 57	151 37 6	5	2.00	2.0	.7	500	N	N	N	50	1,000
170	67 28 30	151 34 12	3	2.00	1.0	.5	500	N	N	N	50	300
180	67 30 12	151 37 42	3	2.00	5.0	1.0	700	N	N	N	70	500
184	67 36 18	151 27 18	10	3.00	10.0	.3	500	<1	N	N	20	5,000
189	67 35 17	151 30 5	15	.20	2.0	.5	200	<1	N	N	20	20,000
194	67 37 9	151 43 12	>20	1.00	3.0	.2	100	N	500	N	30	20,000
196	67 23 29	151 51 54	3	1.50	1.5	1.0	500	N	N	N	50	700
213	67 27 9	151 51 24	5	2.00	3.0	.7	1,000	N	N	N	50	500
222	67 25 54	152 2 9	2	5.00	10.0	1.0	700	N	N	N	70	1,000
233	67 32 45	151 47 12	3	1.50	2.0	1.0	700	N	N	N	70	700
235	67 32 39	151 51 57	5	2.00	1.5	1.0	700	N	N	N	50	200
242	67 30 30	152 5 24	3	3.00	7.0	.3	500	N	N	N	50	15,000
249	67 34 25	152 10 36	3	1.50	2.0	.5	500	N	N	N	50	1,000
264	67 25 2	152 6 24	2	5.00	15.0	.7	700	N	N	N	50	1,500
269	67 32 50	152 16 6	10	2.00	5.0	1.0	500	2	N	N	100	2,000
277	67 21 27	152 7 48	2	5.00	15.0	.5	500	N	N	N	50	500
287	67 23 29	152 20 30	5	3.00	7.0	2.0	500	N	N	N	100	700
291	67 25 57	152 29 54	3	3.00	10.0	1.0	500	N	N	N	70	1,000
295	67 24 42	152 23 30	3	3.00	7.0	.7	500	N	N	N	70	1,000
306	67 22 46	152 28 43	2	3.00	7.0	2.0	500	N	N	N	70	1,500
321	67 17 54	152 22 36	3	2.00	7.0	3.0	700	N	N	N	70	700
325	67 28 49	152 38 6	3	.70	1.5	1.0	500	N	N	N	70	500

Table 3 (cont.)

sample	S-HF	S-YI	S-Cd	S-Cu	S-LA	S-MD	S-HU	S-HI	S-PB
12	2	N	N	30	50	N	<50	50	50
38	2	N	N	50	50	N	<50	100	30
39	<2	N	N	300	50	N	<50	20	50
40	3	N	N	20	100	N	<50	20	50
46	2	N	N	20	50	N	<50	20	30
47	2	N	N	50	70	N	<50	30	50
49	2	N	N	20	50	N	<50	20	70
52	2	N	N	100	70	N	<50	20	50
59	2	N	N	30	100	N	<50	20	50
70	<2	N	N	50	50	N	<50	15	50
78	2	N	N	20	100	N	<50	30	30
93	<2	N	N	200	100	N	<50	15	30
95	<2	N	N	150	50	N	<50	30	20
103	2	N	N	20	70	N	<50	30	50
106	2	N	N	20	100	N	<50	20	50
112	2	N	N	20	50	N	<50	20	30
119	<2	N	N	200	50	N	<50	10	20
130	<2	N	N	20	50	N	<50	20	20
140	2	N	N	50	100	20	<50	30	100
147	2	N	N	70	100	N	<50	30	70
154	2	N	N	50	>1,000	N	<50	30	30
158	2	N	N	10	100	N	<50	20	30
162	2	N	N	20	70	N	<50	20	50
167	2	N	N	300	50	N	<50	30	70
170	2	N	N	15	50	N	<50	20	30
180	2	N	N	100	70	N	<50	20	30
184	<2	N	N	1,000	70	<10	<50	150	70
189	<2	N	N	500	50	N	<50	100	50
194	<2	N	N	500	50	N	<50	150	70
196	2	N	N	100	50	N	<50	20	20
213	2	N	N	70	100	N	<50	30	20
222	<2	N	N	30	100	N	<50	10	<20
233	2	N	N	20	150	N	<50	20	100
235	<2	N	N	50	200	N	<50	20	20
242	<2	N	N	200	100	N	<50	20	150
249	2	N	N	300	200	N	<50	30	50
264	<2	N	N	15	70	N	<50	15	30
269	2	N	N	500	150	N	<50	100	200
277	<2	N	N	50	50	N	<50	10	20
287	2	N	N	70	100	N	<50	20	100
291	2	N	N	20	100	N	<50	15	50
295	2	N	N	20	100	N	<50	15	50
306	2	N	N	20	100	N	<50	10	100
321	2	N	N	200	150	N	<50	10	100
325	2	N	N	20	300	N	<50	30	30

Analytical results for heavy mineral concentrates from stream sediment samples, Wiseman quadrangle, Alaska.

sample	S-SR	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZH	S-ZR	S-TH
12	N	30	N	300	200	N	50	N	200	N
38	N	30	N	300	200	N	30	N	200	N
39	N	30	N	500	100	N	200	N	500	N
40	N	20	N	300	200	N	50	N	150	N
46	N	20	N	200	200	N	50	N	150	N
47	N	20	N	200	200	N	50	N	200	N
49	N	20	N	200	200	N	50	N	150	N
52	N	30	N	200	200	N	50	N	500	N
59	N	20	N	300	200	N	70	N	200	N
70	N	20	N	200	100	N	50	N	200	N
78	N	30	N	300	200	N	70	N	200	N
93	N	20	N	200	150	N	50	N	100	N
95	N	30	N	200	150	N	100	N	300	N
103	N	30	N	200	200	N	70	N	200	N
106	N	30	N	300	200	N	70	N	200	N
112	N	30	N	200	150	N	50	N	200	N
119	N	10	N	200	30	N	30	N	100	N
130	N	15	N	200	70	N	30	N	150	N
140	N	30	N	200	200	N	50	N	300	N
147	N	20	N	200	150	N	30	N	300	N
154	N	20	N	200	200	N	70	N	200	<200
158	N	20	N	200	100	N	50	N	150	N
162	N	20	N	200	150	N	30	N	150	N
167	N	20	N	200	100	N	50	N	150	N
170	N	20	N	200	100	N	50	N	150	N
180	N	30	N	500	150	N	70	N	200	N
184	N	15	N	500	150	N	50	<500	100	N
189	N	10	N	500	100	N	50	<500	100	N
194	N	<10	N	300	50	N	30	500	150	N
196	N	20	N	200	200	N	50	N	200	N
213	N	20	N	200	150	N	50	N	150	N
222	N	10	N	200	70	N	70	N	200	N
233	N	20	N	200	150	N	70	N	700	N
235	N	20	N	200	150	N	30	<500	150	N
242	N	10	N	200	50	N	20	<500	150	N
249	N	10	N	200	100	N	50	<500	300	N
264	N	10	N	200	50	N	30	N	200	N
269	N	20	N	200	100	N	50	<500	300	N
277	N	10	N	200	50	N	30	N	300	N
287	N	20	N	200	100	N	70	<500	500	N
291	N	20	N	200	100	N	70	N	500	N
295	N	15	N	200	70	N	50	1,000	200	N
306	N	20	N	300	70	N	50	N	300	N
321	N	30	N	200	70	100	100	<500	1,000	N
325	N	20	N	200	150	N	50	N	200	N

sample	LATITUDE	LONGITUDE	S-TFX	S-WGZ	S-CAZ	S-ILZ	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
327	67 32 14	152 32 36	3	.50	.7	1.0	300	N	N	N	70	500
330	67 34 4	152 37 36	5	2.00	5.0	3.0	700	N	N	N	100	500
332	67 35 25	152 37 36	2	.50	.7	1.0	500	N	N	N	100	500
334	67 35 29	152 38 0	5	1.00	.7	1.0	700	N	N	N	100	1,000
354	67 17 27	152 33 0	5	1.00	10.0	2.0	300	<1	N	N	30	1,000
369	67 15 52	152 40 54	2	2.00	7.0	2.0	700	N	N	N	30	500
371	67 16 42	152 45 24	3	3.00	7.0	2.0	700	N	N	N	50	1,500
373	67 18 37	152 43 45	2	2.00	3.0	3.0	500	N	N	N	50	500
380	67 20 35	152 44 24	5	2.00	2.0	3.0	700	N	N	N	50	1,500
382	67 22 44	152 48 30	2	3.00	10.0	1.5	700	N	N	N	50	1,500
384	67 23 0	152 43 54	3	1.00	1.0	3.0	500	<1	7,000	N	50	3,000
386	67 23 5	152 43 54	3	3.00	7.0	3.0	500	N	N	N	50	1,500
399C	67 15 40	152 21 9	15	.50	2.0	3.0	2,000	N	N	N	20	100
401C	67 13 22	152 19 51	10	1.50	2.0	3.0	10,000	N	N	N	150	100
403C	67 17 39	152 16 24	10	.70	1.0	.7	5,000	N	N	N	100	300
405C	67 10 47	152 16 12	15	.70	.7	.7	3,000	N	N	N	100	300
407C	67 8 49	152 13 21	20	.70	1.5	2.0	10,000	N	N	N	100	200
409C	67 6 8	152 10 2	20	1.00	1.5	1.0	10,000	N	N	N	100	300
411C	67 6 2	152 10 5	10	1.00	1.5	1.0	3,000	N	N	N	100	300
413C	67 9 36	152 24 54	10	1.00	1.0	.7	10,000	N	N	N	100	500
417C	67 8 29	152 33 15	20	1.00	2.0	1.0	15,000	N	N	N	100	100
419C	67 5 5	152 43 42	15	1.00	2.0	2.0	15,000	N	N	N	70	300
421C	67 7 12	152 42 39	>20	.50	1.0	1.5	7,000	N	N	N	100	100
423C	67 8 6	152 40 12	20	1.00	1.0	1.0	15,000	N	N	N	50	300
425C	67 13 5	152 43 39	20	.50	2.0	3.0	5,000	N	N	N	70	150
438C	67 8 38	152 56 0	15	.50	3.0	1.0	15,000	3	N	N	50	100
440C	67 8 22	152 46 48	10	1.00	1.5	.7	5,000	N	N	N	70	700
443C	67 12 30	152 42 48	20	1.00	1.0	.7	5,000	N	N	N	100	500
447C	67 14 12	152 46 12	20	.70	2.0	.5	15,000	N	N	N	50	100
455C	67 19 22	152 13 33	>20	.50	1.0	1.5	15,000	N	N	N	70	100
460C	67 17 28	152 14 54	20	.70	.5	.5	3,000	N	N	N	100	200
465C	67 14 47	152 59 54	20	.50	2.0	1.5	20,000	N	N	N	70	50
480C	67 9 20	152 1 3	15	1.50	2.0	1.0	2,000	N	N	N	50	200
491	67 19 0	152 3 12	3	2.00	7.0	3.0	700	N	N	N	100	300
499	67 14 0	152 4 26	3	1.00	5.0	3.0	1,000	N	N	N	200	500
501	67 13 58	152 4 15	20	2.00	1.5	1.0	5,000	N	N	N	50	300
520	67 10 36	151 35 27	3	1.00	.7	1.0	200	N	N	N	100	1,000
523	67 9 31	151 48 18	3	1.00	5.0	3.0	700	N	N	N	100	700
526	67 19 25	151 57 13	3	3.00	7.0	2.0	700	15	N	N	70	500
535	67 16 50	151 51 18	2	1.00	3.0	2.0	700	N	N	N	150	500
544	67 12 20	151 45 0	5	1.50	7.0	2.0	700	N	N	N	150	1,000
546	67 14 51	151 51 9	2	.50	2.0	2.0	200	N	N	N	300	500
548	67 14 13	151 50 36	2	1.00	7.0	3.0	700	N	N	N	150	700
563C	67 22 40	151 37 24	5	.50	2.0	5.0	500	N	N	N	100	500
564C	67 18 48	151 32 54	2	.70	7.0	2.0	300	N	N	N	1,000	700

Table 3(cont.)

Analytical results for heavy mineral concentrates from stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-NE	S-RI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB
327	2	N	N	15	200	30	150	N	<50	30	30
330	2	N	N	20	150	<u>1,500</u>	150	N	<50	50	50
332	2	N	N	15	200	50	150	N	<50	50	30
334	2	N	N	15	150	30	50	N	<50	50	20
354	<2	N	N	<u>150</u>	50	200	100	N	<50	20	<u>700</u>
369	<2	N	N	20	50	30	100	N	<50	20	30
371	<2	N	N	20	100	20	150	N	<50	15	30
373	2	N	N	10	100	20	150	N	50	10	30
380	2	N	N	15	150	30	50	N	<u>50</u>	30	50
382	2	N	N	10	100	20	50	N	<50	10	70
384	2	N	N	20	100	500	100	N	<50	20	300
386	2	N	N	10	100	300	100	N	<50	15	70
395C	N	N	N	20	200	50	100	N	<50	50	100
401C	N	N	N	50	200	50	100	N	<50	70	50
403C	<2	N	N	50	200	50	50	N	<50	100	<20
405C	<2	N	N	30	200	50	50	N	<50	100	<20
407C	<2	N	N	30	200	50	50	N	<50	50	<20
409C	<2	N	N	30	300	50	50	N	<50	50	<20
411C	<2	N	N	20	300	50	50	N	<50	50	20
413C	<2	N	N	50	<u>500</u>	100	50	N	<50	100	20
417C	<2	N	N	50	<u>500</u>	100	50	N	<50	70	<20
419C	<2	N	N	20	<u>500</u>	50	150	N	<50	50	<20
421C	<2	N	N	30	<u>500</u>	50	50	N	<50	70	<20
423C	<2	N	N	20	200	50	50	N	<50	50	<20
425C	N	N	N	20	200	50	50	N	<50	30	20
438C	N	N	N	30	200	<u>5,000</u>	50	N	<50	50	50
440C	<2	N	N	20	<u>500</u>	50	50	N	<50	50	30
443C	<2	N	N	50	<u>700</u>	100	50	N	<50	100	30
447C	<2	N	N	50	<u>500</u>	50	50	N	<50	30	<20
455C	N	N	N	50	<u>300</u>	70	50	N	<50	70	20
460C	<2	N	N	30	200	50	50	N	<50	70	50
465C	N	N	N	50	200	20	50	N	<50	50	30
480C	N	N	N	20	<u>500</u>	50	50	N	<50	100	30
491	<2	N	N	20	100	500	70	N	<50	15	70
499	2	N	N	<u>100</u>	150	150	100	N	<u>70</u>	100	50
501	<2	N	N	<u>100</u>	150	150	50	N	<50	150	50
520	2	N	N	10	300	20	50	N	<50	<u>30</u>	50
523	2	N	N	10	150	20	150	N	50	20	50
526	<2	N	N	20	150	<u>3,000</u>	70	N	<50	15	<u>200</u>
535	2	N	N	15	150	50	70	N	<50	20	<u>50</u>
544	2	N	N	20	200	500	200	N	<50	70	50
546	2	N	N	10	100	20	70	N	<50	20	30
548	<2	N	N	10	150	20	70	N	<50	20	50
563C	<2	N	N	50	150	300	200	N	<50	30	100
564C	<2	N	N	10	300	150	50	N	<50	50	70

Table 3 (cont.)

sample	S-Si	S-Sc	S-Sr	S-Sp	S-V	S-W	S-Y	S-Zn	S-Zr	S-Th
327	N	20	N	200	150	N	50	N	200	N
330	N	30	N	200	150	<100	70	N	200	N
332	N	20	N	200	150	N	50	N	200	N
334	N	20	N	200	150	N	50	N	200	N
354	N	15	N	200	50	1,500	50	<500	200	N
369	N	20	N	200	50	150	70	<500	150	N
371	N	20	N	200	70	N	70	N	150	N
373	N	20	70	200	70	100	70	N	200	N
380	N	20	N	200	100	N	70	N	300	N
382	N	15	70	200	70	N	70	<500	200	N
384	N	30	N	200	100	500	100	<500	>1,000	N
386	N	20	N	300	50	N	70	N	200	N
397C	N	20	N	200	200	N	50	<500	200	N
401C	N	70	N	200	200	N	150	<500	500	N
403C	N	70	N	<200	200	N	100	<500	300	N
405C	N	50	N	<200	200	N	100	<500	500	N
407C	N	50	N	<200	200	N	150	<500	200	N
409C	N	100	N	200	300	N	200	<500	200	N
411C	N	50	N	200	200	N	100	N	200	N
413C	N	70	N	<200	150	N	100	<500	200	N
417C	N	>100	N	<200	200	N	300	<500	200	N
419C	N	100	N	200	300	N	200	<500	1,000	N
421C	N	100	N	<200	700	N	200	N	200	N
423C	N	70	N	<200	200	N	150	<500	200	N
425C	N	30	N	200	200	N	100	<500	300	N
438C	N	100	100	200	300	N	300	<500	300	N
440C	N	50	N	200	200	N	100	<500	200	N
443C	N	50	N	200	200	N	100	<500	200	N
447C	N	>100	N	<200	150	N	200	<500	500	N
455C	N	70	N	<200	300	N	100	<500	200	N
460C	N	20	N	<200	200	N	30	<500	100	N
465C	N	>100	N	<200	200	N	200	<500	700	N
480C	N	50	N	200	300	N	200	500	300	N
491	N	20	N	200	100	N	100	N	500	N
497	N	30	N	300	200	N	200	<500	300	N
501	N	50	N	<200	150	N	200	<500	200	N
529	N	70	N	300	200	N	70	<500	200	N
523	N	70	N	300	200	N	200	<500	200	N
526	N	20	N	<200	100	N	70	700	200	N
535	N	20	N	300	150	N	70	N	200	N
544	N	70	N	500	200	N	150	N	150	N
546	N	20	N	300	200	N	70	N	300	N
548	N	20	N	300	200	N	100	N	150	N
563C	N	30	N	200	150	N	200	N	>1,000	N
564C	N	30	N	700	150	N	200	N	300	N

Analytical results for heavy mineral concentrations from stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	LATITUDE	LONGITUDE	S-FR%	S-MG%	S-CA%	S-TIX	S-MN	S-AG	S-AS	S-AU	S-R	S-BA
565C	67 12 23	151 20 43	3	.50	15.0	1.5	700	N	N	N	200	1,500
566C	67 11 8	151 8 27	3	1.00	15.0	5.0	700	N	N	N	100	3,000
567C	67 10 27	151 7 48	2	.50	5.0	5.0	500	N	N	N	70	1,500
568C	67 10 30	151 8 0	2	.50	5.0	3.0	500	N	N	N	200	1,000
569C	67 13 1	152 6 59	5	1.00	2.0	2.0	500	N	N	N	700	1,500
570C	67 11 47	152 14 11	2	.50	5.0	3.0	500	N	N	N	700	700
571C	67 11 43	152 14 6	3	.20	5.0	2.0	500	N	N	N	2,000	700
572C	67 10 46	152 16 12	5	.50	5.0	2.0	500	N	N	N	1,000	1,500
573C	67 10 37	152 16 25	2	.30	3.0	1.5	300	N	N	N	300	1,000
574C	67 9 47	152 21 25	2	.30	5.0	1.5	300	N	N	N	300	700
575C	67 9 53	151 41 47	2	.30	3.0	1.5	300	N	N	N	500	700
576C	67 13 14	151 41 47	5	.70	3.0	2.0	700	N	N	N	300	1,000
577C	67 13 17	151 41 54	5	.70	5.0	2.0	700	N	N	N	300	1,500
578C	67 9 10	152 24 5	2	.50	3.0	2.0	500	N	N	N	1,000	1,000
579C	67 12 26	152 25 48	2	.70	3.0	5.0	500	N	N	N	100	700
580C	67 12 27	152 25 41	3	1.00	10.0	3.0	500	N	N	N	200	1,500
581C	67 11 54	152 31 6	2	.50	3.0	2.0	200	N	N	N	150	500
582C	67 11 36	152 33 36	2	.30	7.0	3.0	700	N	N	N	200	1,000
583C	67 12 18	152 33 54	2	.30	5.0	2.0	300	N	N	N	150	1,000
584C	67 12 6	152 34 13	2	.50	7.0	3.0	1,000	N	N	N	200	1,500
585C	67 9 30	152 46 42	2	.50	3.0	2.0	300	N	N	N	300	1,500
586C	67 9 20	152 46 30	1	.30	3.0	2.0	300	N	N	N	200	1,000
587C	67 8 20	152 53 24	2	.50	5.0	2.0	1,000	N	N	N	300	3,000
588C	67 10 22	152 58 11	5	.50	2.0	5.0	300	N	N	N	300	1,000
589C	67 11 12	152 54 42	2	.30	3.0	2.0	300	N	N	N	200	700
590C	67 11 12	152 54 48	2	.30	2.0	2.0	300	N	N	N	100	500
591C	67 14 50	152 58 6	3	.30	2.0	3.0	1,000	N	N	N	100	1,000
592C	67 14 7	152 46 13	2	.50	3.0	3.0	700	N	N	N	100	500
593C	67 14 11	152 46 25	2	.20	.7	3.0	500	N	N	N	100	300
594C	67 12 30	152 38 43	2	.50	5.0	2.0	300	N	N	N	200	700
595C	67 12 27	152 38 42	2	.50	5.0	2.0	700	N	N	N	100	700
596C	67 14 2	152 37 7	2	.20	1.0	2.0	500	N	N	N	70	200
597C	67 13 30	152 50 6	3	1.50	5.0	5.0	300	N	N	N	200	300
598C	67 10 18	152 56 18	7	1.50	5.0	5.0	300	3	N	N	150	700
599C	67 10 30	152 55 42	5	1.50	5.0	5.0	500	2	N	N	300	1,500
600C	67 19 12	152 59 42	5	1.50	5.0	5.0	300	N	N	N	200	1,000
601C	67 20 30	152 54 42	3	2.00	10.0	5.0	1,000	2	N	N	200	5,000
602C	67 19 47	152 47 30	3	5.00	5.0	2.0	300	N	N	N	300	700
604C	67 32 36	151 36 54	2	.30	10.0	5.0	300	2	N	N	50	200
607C	67 32 6	151 38 36	2	.50	7.0	5.0	300	N	<500	N	50	2,000
609C	67 37 18	151 54 24	5	.30	2.0	3.0	300	N	N	N	100	1,500
611C	67 37 10	151 54 30	10	.50	1.0	3.0	300	N	N	N	200	2,000
613C	67 28 30	151 34 12	3	.50	3.0	2.0	300	N	N	N	100	300
615C	67 27 54	151 9 18	20	.07	1.0	.2	200	N	500	N	50	300
617C	67 27 54	151 9 30	7	1.00	5.0	1.5	300	N	N	N	200	1,500

Analytical results for heavy mineral concentrates from stream sediment samples, Wiseman quadrangle, Alaska.--continued

Table 3 (cont.)

sample	S-NF	S-NI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB
565C	<2	N	N	50	200	150	200	N	<50	100	150
566C	N	N	N	20	300	300	100	N	<50	50	100
567C	N	N	N	15	200	500	200	N	<50	20	100
568C	<2	N	N	15	200	300	100	N	<50	70	70
569C	2	N	N	15	300	200	100	N	<50	100	100
570C	2	N	N	70	200	100	150	N	<50	100	100
571C	<2	N	N	15	200	100	150	N	<50	50	100
572C	<2	N	N	50	200	700	150	N	<50	100	150
573C	<2	N	N	20	150	500	100	N	<50	50	70
574C	<2	N	N	<10	150	50	200	N	<50	20	100
575C	2	N	N	<10	150	50	50	N	<50	20	100
576C	2	N	N	50	500	200	200	N	<50	100	100
577C	2	N	N	50	300	200	200	N	<50	70	150
579C	<2	N	N	10	150	100	300	N	<50	30	100
579C	<2	N	N	30	150	200	70	N	<50	50	100
580C	<2	N	N	20	300	200	100	N	<50	50	150
581C	<2	N	N	20	150	150	50	N	<50	20	70
582C	<2	N	N	50	150	150	100	N	<50	100	70
583C	<2	N	N	10	150	100	50	N	<50	50	50
584C	<2	N	N	50	200	150	50	N	<50	100	100
585C	2	N	N	<10	150	100	100	N	<50	20	50
586C	<2	N	N	<10	100	20	200	N	<50	<10	20
587C	<2	N	N	10	150	200	200	N	<50	30	150
588C	<2	N	N	20	300	200	50	N	<50	70	100
589C	<2	N	N	50	100	100	50	N	<50	50	50
590C	<2	N	N	50	100	50	<50	N	<50	70	50
591C	<2	N	N	50	100	200	200	N	<50	20	20
592C	<2	N	N	70	70	100	50	N	<50	30	30
593C	<2	N	N	50	50	200	50	N	<50	20	20
594C	<2	N	N	<10	200	100	50	N	<50	20	150
595C	<2	N	N	50	200	100	50	N	<50	50	50
596C	<2	N	N	70	50	150	50	N	<50	20	<20
597C	<2	N	N	50	100	500	200	N	<50	30	20
598C	<2	N	N	50	150	500	150	N	<50	50	200
599C	<2	N	N	70	200	500	150	N	<50	50	200
600C	<2	N	N	50	150	700	200	N	<50	50	500
601C	<2	N	N	70	150	200	200	N	<50	50	500
602C	<2	N	N	20	150	300	300	N	<50	30	300
604C	<2	N	N	15	100	700	100	N	<50	<10	200
607C	<2	N	N	15	150	700	50	N	<50	<10	50
609C	<2	N	N	50	100	1,000	>1,000	N	<50	50	200
611C	<2	N	N	50	200	3,000	>1,000	N	<50	150	50
613C	<2	N	N	15	100	700	200	N	<50	20	50
615C	<2	N	N	100	20	700	100	N	<50	100	100
617C	<2	N	N	<30	100	500	300	N	<50	20	30

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Analytical results for heavy mineral concentrates from stream sediment samples, Wiseman quadrangle, Alaska.--continued

sample	S-Sb	S-Sc	S-Su	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr	S-Th
565c	N	20	N	<u>1,500</u>	150	N	<u>500</u>	N	500	N
566c	N	50	20	<u>1,500</u>	300	N	<u>500</u>	N	500	N
567c	N	50	20	300	200	N	300	N	<u>1,000</u>	N
568c	N	50	N	500	200	N	200	N	300	N
569c	N	30	N	500	200	N	200	N	500	N
570c	N	30	N	700	200	N	200	N	300	N
571c	N	50	N	700	300	N	200	N	700	N
572c	N	30	N	<u>1,000</u>	200	N	200	N	500	N
573c	N	20	N	<u>700</u>	200	N	150	N	300	N
574c	N	20	N	700	200	N	200	N	300	N
575c	N	30	N	700	200	N	200	N	300	N
576c	N	30	N	700	200	N	300	N	500	N
577c	N	30	N	700	200	N	200	N	500	N
578c	N	30	N	700	200	N	200	N	300	N
579c	N	50	N	500	200	N	200	N	300	N
580c	N	50	N	<u>1,000</u>	300	N	200	N	300	N
581c	N	20	N	<u>500</u>	200	N	50	N	300	N
582c	N	30	N	700	200	N	200	N	300	N
583c	N	20	N	500	200	N	100	N	200	N
584c	N	30	N	700	200	N	200	N	300	N
585c	N	30	N	700	200	N	200	N	<u>1,000</u>	N
586c	N	30	N	300	200	N	150	N	<u>1,000</u>	N
587c	N	30	N	500	200	N	200	N	300	N
588c	N	50	N	500	200	N	100	N	500	N
589c	N	20	N	500	200	N	100	N	500	N
590c	N	20	N	300	200	N	200	N	300	N
591c	N	20	N	200	150	N	200	N	500	N
592c	N	30	N	300	150	N	300	N	500	N
593c	N	20	N	200	100	N	150	N	500	N
594c	N	30	N	500	200	N	200	N	500	N
595c	N	30	N	500	200	N	200	N	300	N
596c	N	20	N	200	100	N	200	N	200	N
597c	N	30	N	200	100	N	300	N	300	N
598c	N	30	N	300	150	N	300	N	300	N
599c	N	50	N	300	200	N	200	N	700	N
600c	N	30	N	200	150	N	200	N	<500	N
601c	N	50	20	200	150	N	300	N	500	N
602c	N	20	N	200	150	N	200	N	500	N
604c	N	50	N	500	200	N	200	N	>1,000	N
607c	N	50	N	500	200	N	200	N	>1,000	N
609c	N	30	N	300	200	N	100	N	<u>1,000</u>	N
611c	N	30	N	300	200	N	150	N	<u>1,000</u>	N
613c	N	30	N	300	150	N	150	N	700	N
615c	N	<10	N	200	50	N	100	N	200	N
617c	N	20	N	200	100	N	150	N	700	N

Analytical results for heavy mineral concentrates from stream sediment samples, Wiseman quadrangle, Alaska.--continued

Table 3 (cont.)

sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
619C	67 17 54	151 1 42	2	.70	10.0	1.5	300	N	N	N	150	500
621C	67 18 0	151 1 48	2	.70	7.0	3.0	300	N	N	N	500	500
623C	67 21 0	151 34 30	5	1.50	5.0	5.0	500	N	1,000	N	200	500
625C	67 20 54	151 34 36	2	1.00	5.0	2.0	300	N	N	N	200	500
627C	67 19 6	152 6 12	3	1.00	10.0	5.0	1,000	N	N	N	150	500
627C	67 17 30	152 15 0	1	.30	5.0	5.0	300	N	N	N	150	200
631C	67 17 30	152 14 54	2	.70	7.0	2.0	300	N	N	N	150	300
633C	67 17 48	152 28 6	2	.70	10.0	3.0	300	N	N	N	150	1,000
635C	67 17 42	152 28 18	2	.70	10.0	5.0	500	N	N	N	70	300
637C	67 23 24	152 50 54	7	.70	7.0	2.0	300	15	1,000	N	70	5,000
637C	67 20 6	152 29 30	5	.30	5.0	1.5	200	N	N	N	70	300
641C	67 29 6	152 29 18	≥27	.30	2.0	.7	200	3	N	N	70	300
643C	67 33 6	152 21 24	3	.20	2.0	2.0	300	N	N	N	100	1,500
645C	67 33 0	152 21 18	2	.30	3.0	1.0	300	2	N	N	100	1,500
647C	67 34 18	152 26 48	2	.20	3.0	3.0	300	N	N	N	100	700
649C	67 33 24	152 29 12	7	.30	3.0	3.0	300	N	N	N	100	1,500
651C	67 33 18	152 29 6	3	.30	3.0	2.0	300	N	N	N	200	300

Wiseman Quadrangle unpublished heavy-mineral-pan-concentrate analyses from Bill Brosge (written comm., 1979)

Sample	LATITUDE	LONGITUDE	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	AA-AU	S-B	S-BA	S-BE
652C	67 45 50	150 56 50	7	1.5	2	1	1,500	N	N	N(0.03)	70	700	1
653C	67 37 20	151 01 35	7	1	1.5	1.5	2,000	N	N	0.2	70	1,000	1
654C	67 30 50	150 59 00	7	1.5	2	1	2,000	N	N	0.3	70	500	1
655C	67 41 40	151 00 44	7	1.5	1.5	.5	1,500	N	N	N(0.04)	50	500	1

Analytical results for heavy mineral concentrates from stream sediment samples, Wistman quadrangle, Alaska--continued

Table 3 (cont.)

sample	S-BE	S-BI	S-CD	S-CN	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB
619C	<2	N	N	10	150	70	70	N	<50	20	50
621C	<2	N	N	10	150	100	70	N	<50	30	50
623C	<2	N	N	57	100	500	100	N	50	20	500
625C	<2	N	N	70	70	500	70	N	<50	20	100
627C	N	N	N	50	70	300	100	N	20	30	100
629C	N	N	N	10	50	50	100	N	50	<10	30
631C	N	N	N	70	70	300	70	N	<50	20	20
633C	2	N	N	20	70	150	100	N	<50	10	200
635C	<2	N	N	20	70	500	100	N	50	10	150
637C	<2	30	N	70	50	700	100	N	<50	70	3,000
639C	<2	N	N	70	100	150	>1,000	N	<50	70	30
641C	2	N	N	200	150	500	200	N	<50	250	200
643C	<2	N	N	70	100	500	1,000	N	<50	30	100
645C	2	N	N	50	100	500	300	N	<50	50	150
647C	<2	N	N	15	100	150	300	N	<50	10	200
649C	<2	N	N	70	150	700	500	N	<50	30	150
651C	<2	N	N	20	100	300	200	N	<50	15	50

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ANALYTICAL RESULTS FOR HEAVY METAL CONCENTRATIONS FROM STREAM SEDIMENT SAMPLES, DISCOMAN QUADRANGLE, ALASKA--continued

Sample	S-SI	S-SC	S-SH	S-SR	S-V	S-W	S-Y	S-2N	S-2R	S-TM
617C	N	20	N	700	200	N	150	N	300	N
621C	N	30	N	700	500	N	150	N	200	N
623C	N	50	N	200	150	100	200	N	>1,000	N
625C	N	30	N	300	150	N	100	N	>1,000	N
627C	N	30	N	300	100	N	200	N	700	N
629C	N	30	N	200	150	N	150	N	700	N
631C	N	20	N	200	100	N	100	N	500	N
633C	N	30	N	300	70	100	100	N	>1,000	N
635C	N	30	N	300	100	100	100	N	>1,000	N
637C	N	20	N	700	70	100	100	N	700	N
639C	N	20	N	500	150	N	150	N	500	N
641C	N	10	N	200	100	N	100	N	200	N
643C	N	30	N	200	150	N	200	N	>1,000	N
645C	N	10	N	200	100	N	70	N	500	N
647C	N	30	N	200	150	N	200	N	>1,000	N
649C	N	30	N	300	150	N	200	N	>1,000	N
651C	N	20	N	200	100	N	150	N	>1,000	N
652C	20	200	N	150	15	N	100	N		
653C	20	150	N	300	30	N	300	N	1,000	200
654C	30	150	N	150	10	N	70	N	150	N
655C	20	150	N	50	5	N	15	N		

Table 4. Graphical analysis of analytical results for 517 of 647 stream-sediment 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 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. Only the statistics and graphs described in (1) and (2) are presented for AA-Ag, AA-Au, AA-Cu, AA-Mo, AA-Ni, AA-Pb, AA-Th, AA-U, and AA-Zn-A. 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.

FREQUENCY TABLE FOR VARIABLE 3 (S-FEX )

LOG LIMITS		OBS		CUM		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)**2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	PERCENT	PERCENT	(NORMAL DIST)			
N		0	0	0	0	0.00	0.00				
L		0	0	0	0	0.00	0.00				
7		0	0	0	0	0.00	0.00				
-4.170E-01	-2.503E-01	8	8	8	8	1.55	1.55	5.075E-01	1.525E+01		
-2.503E-01	-8.367E-02	4	12	12	12	0.77	2.32	4.220E+00	-3.272E+00		
-8.367E-02	8.300E-02	17	29	29	29	3.29	5.61	2.137E+01	-2.057E+01		
8.300E-02	2.497E-01	16	45	45	45	3.79	8.40	5.597E+01	-5.573E+01		
2.497E-01	4.163E-01	137	182	182	182	26.50	35.20	1.243E+02	-1.232E+02		
4.163E-01	5.830E-01	188	370	370	370	36.36	71.57	1.432E+02	-1.419E+02		
5.830E-01	7.497E-01	118	488	488	488	22.82	94.39	1.007E+02	-9.956E+01		
7.497E-01	9.163E-01	19	507	507	507	3.58	98.07	4.329E+01	-4.285E+01		
9.163E-01	1.083E+00	7	514	514	514	1.35	99.42	1.135E+01	-1.073E+01		
1.083E+00	1.250E+00	2	516	516	516	0.39	99.81	1.814E+00	-7.114E-01		
1.250E+00	1.416E+00	1	517	517	517	0.19	100.00	1.872E-01	5.154E+00		
G		0	517	517	517	0.00	100.00				
H		0	517	517	517	0.00	100.00				
B		0	517	517	517	0.00	100.00				
TOTALS LESS H AND B		517						5.170E+02		-4.881E+02	

HISTOGRAM FOR VARIABLE 3 (S-FEX )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

Concentration in percent	Frequency in percent, each X equal 1 percent of all samples
4.638E-01	XX
6.808E-01	X
9.992E-01	XXX
1.467E+00	XXX
2.153E+00	XXXXXXXXXXXXXXXXXXXXXXX
3.160E+00	XXXXXXXXXXXXXXXXXXXXXXX
4.638E+00	XXXXXXXXXXXXXXXXXXXXXXX
6.808E+00	XXXXX
9.992E+00	X
1.467E+01	
2.153E+01	

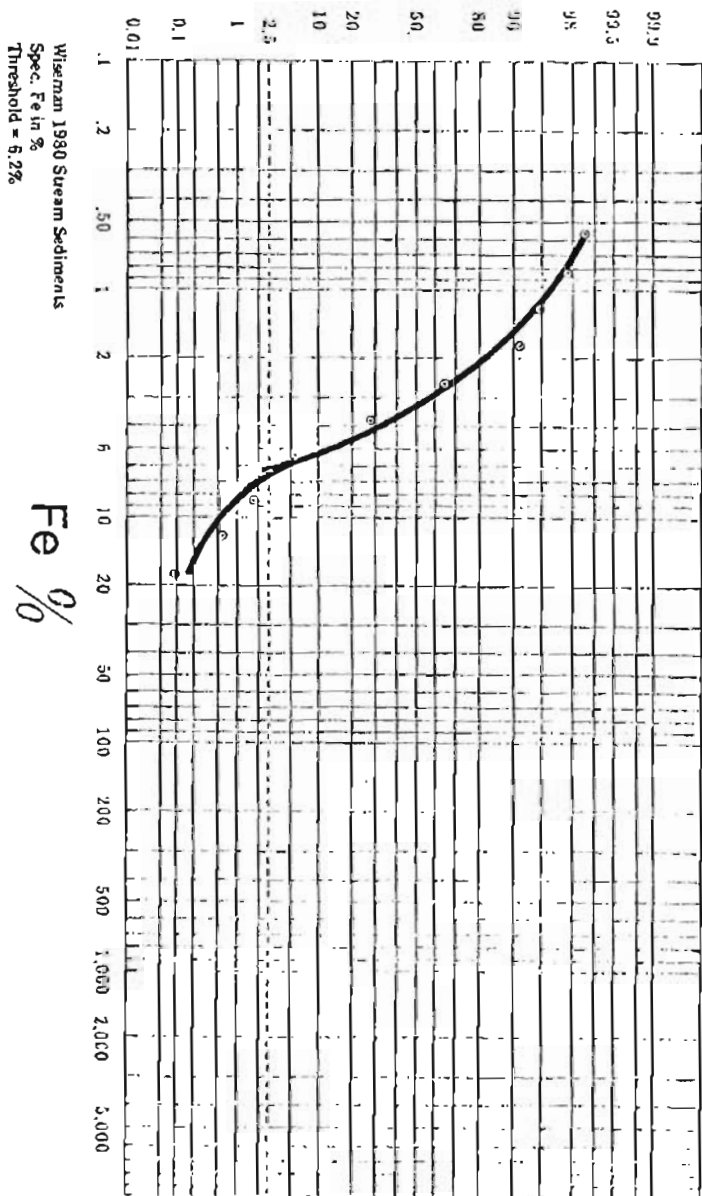
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-01  
 MAXIMUM ANTILOG = 2.00000E+01  
 GEOMETRIC MEAN = 2.91111E+01  
 GEOMETRIC DEVIATION = 1.70770E+02  
 VARIANCE OF LOGS = 5.40151E-02

IF SELECTED PERCENTILES FALL WITHIN DATA FITTED 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	0.352762E+00	0.224989E+01
50.00	0.484154E+00	0.304898E+01
75.00	0.608073E+00	0.405576E+01
90.00	0.717607E+00	0.521923E+01
95.00	0.777301E+00	0.598826E+01

# Cumulative frequency %



FREQUENCY TABLE FOR VARIABLE 4 (S-MGX )

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)**2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
-9.170E-01	-7.503E-01	0	0	0	0	0.00	0.00	0.00	0.00	4.763E-01	3.723E+00		
-7.503E-01	-5.837E-01	0	0	0	0	0.00	0.00	0.00	0.00	4.542E+00	-1.460E+00		
-5.837E-01	-4.170E-01	0	0	0	0	0.00	0.00	0.00	0.00	2.482E+01	-2.393E+01		
-4.170E-01	-2.503E-01	22	38	16	2	2.71	4.26	3.09	7.35	7.782E+01	-7.684E+01		
-2.503E-01	-8.367E-02	87	201	114	76	14.70	16.83	22.05	38.88	1.403E+02	-1.397E+02		
-8.367E-02	8.300E-02	200	401	38.68	20.31	38.68	20.31	77.56	77.56	1.456E+02	-1.442E+02		
8.300E-02	2.497E-01	105	506	20.31	2.13	20.31	2.13	92.87	92.87	8.695E+01	-8.574E+01		
2.497E-01	4.163E-01	11	517	2.13	0.00	2.13	0.00	100.00	100.00	3.646E+01	-3.615E+01		
G		0	517										
H		0	517										
B		0	517										
TOTALS	LESS H AND B	517								5.170E+02	-5.043E+02		

HISTOGRAM FOR VARIABLE 4 (S-MGX )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS  
Frequency in percent, each X equal 1 percent of all samples

Concentration in percent	
1.467E-01	XXX
2.153E-01	XXXX
3.160E-01	XXXXX
4.638E-01	XXXXXXXXXXXXXXXXXXXX
6.808E-01	XXXXXXXXXXXXXXXXXXXX
9.992E-01	XXXXXXXXXXXXXXXXXXXX
1.467E+00	XXXXXXXXXXXXXXXXXXXX
2.153E+00	XX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E-01  
 MAXIMUM ANTILOG = 2.00000E+00  
 GEOMETRIC MEAN = 8.46222E-01  
 GEOMETRIC DEVIATION = 1.65532E+00  
 VARIANCE OF LOGS = 4.79088E-02

PERCENT TABLE FOR VARIABLE 4 (S-MGX ) 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 DATA VALUE ANTI LOG OF VALUE  
 PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

-0.221117E+00  
-0.357482E-01  
0.719603E-01  
0.185056E+00  
0.226098E+00

0.001011E+00  
0.920983E+00  
0.118021E+01  
0.153132E+01  
0.168305E+01

Table 4 (cont.)

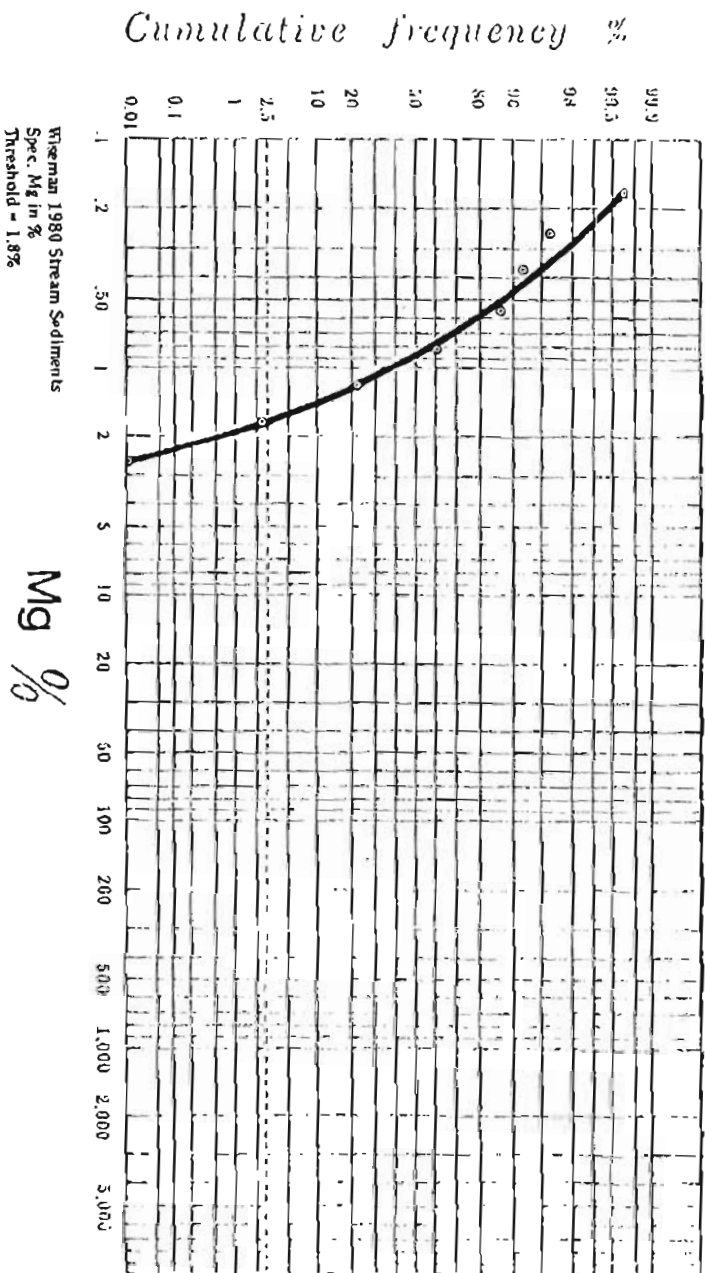


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 5 (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								
		N	0	0	0.00				
		L	0	0	0.00				
		T	0	0	0.00				
-1.417E+00	-1.250E+00	10	10	1.93	1.93	8.573E+00	-7.4707E+00		
-1.250E+00	-1.084E+00	10	20	1.93	3.87	1.311E+01	-1.734E+01		
-1.084E+00	-9.170E-01	34	54	6.58	10.44	1.890E+01	-1.710E+01		
-9.170E-01	-7.503E-01	21	75	4.36	14.81	2.570E+01	-2.488E+01		
-7.503E-01	-5.837E-01	55	130	10.64	25.45	3.297E+01	-3.130E+01		
-5.837E-01	-4.170E-01	42	172	8.12	33.27	3.989E+01	-3.884E+01		
-4.170E-01	-2.503E-01	57	229	11.03	44.29	4.553E+01	-4.428E+01		
-2.503E-01	-8.366E-02	37	266	7.16	51.45	4.902E+01	-4.826E+01		
-8.366E-02	8.300E-02	49	315	9.48	60.93	4.977E+01	-4.879E+01		
8.300E-02	2.497E-01	25	340	4.84	65.76	4.768E+01	-4.715E+01		
2.497E-01	4.163E-01	37	377	7.16	72.92	4.507E+01	-4.421E+01		
4.163E-01	5.830E-01	23	400	4.45	77.37	3.671E+01	-3.608E+01		
5.830E-01	7.497E-01	35	435	6.77	84.14	2.951E+01	-2.832E+01		
7.497E-01	9.163E-01	15	450	2.90	87.04	2.237E+01	-2.170E+01		
9.163E-01	1.083E+00	35	485	6.77	93.81	1.600E+01	-1.381E+01		
1.083E+00	1.250E+00	14	499	2.71	96.52	1.079E+01	-9.496E+00		
1.250E+00	1.416E+00	18	517	3.48	100.00	1.572E+01	-1.458E+01		
		G	0	517	100.00				
		H	0	517					
		B	0	517					
TOTALS LESS H AND B		517				5.053E+02	-4.865E+02		

HISTOGRAM FOR VARIABLE 5 (S-CAT )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in percent	
4.638E-02	XX
6.809E-02	XX
9.992E-02	XXXXXXXX
1.467E-01	XXXX
2.153E-01	XXXXXXXXXXXXXXXX
3.160E-01	XXXXXXXXXX
4.638E-01	XXXXXXXXXXXXXX
5.809E-01	XXXXXXXXXX
9.992E-01	XXXXXXXXXX
1.467E+00	XXXXXX
2.153E+00	XXXXXXXX
3.160E+00	XXXX
4.638E+00	XXXXXXXXXX
5.809E+00	XXX
9.992E+00	XXXXXXXXXX
1.467E+01	XXX
2.153E+01	XXX

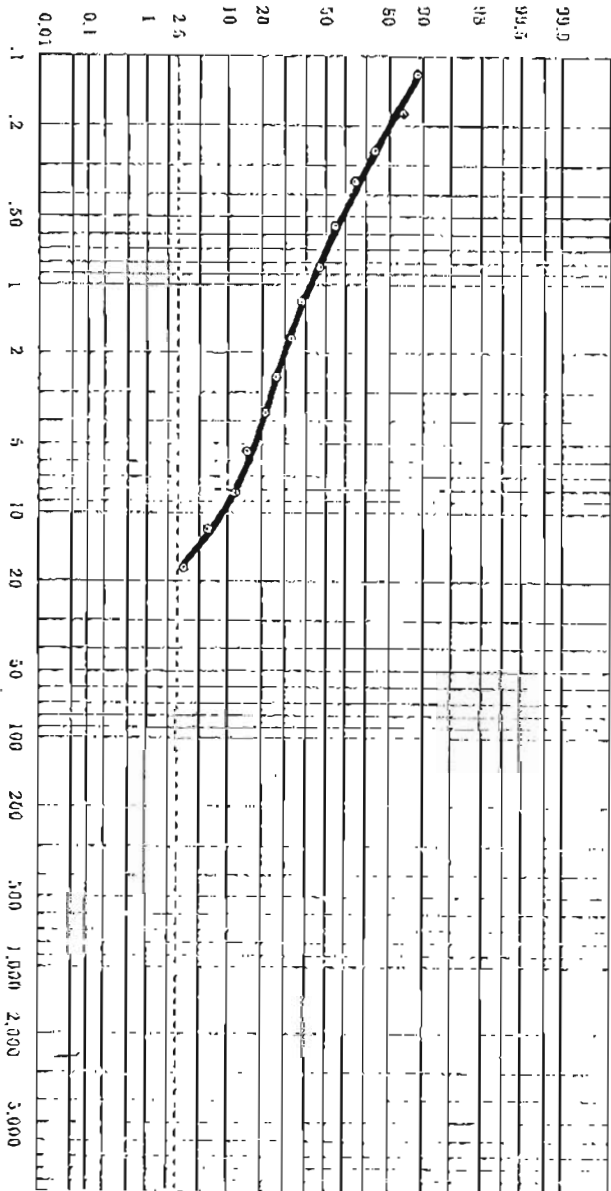
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-02  
 MAXIMUM ANTILOG = 2.00000E+01  
 GEOMETRIC MEAN = 9.12265E-01  
 GEOMETRIC DEVIATION = 4.87320E+00  
 VARIANCE OF LOGS = 4.73089E-01

PERCENT TABLE FOR VARIABLE 5 (S-Ca) 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 0.9999997E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-0.585938E+00	0.259655E+00
50.00	-0.117448E+00	0.763049E+00
75.00	0.494236E+00	0.312058E+01
90.00	0.989195E+00	0.975428E+01
95.00	0.115622E+01	0.143291E+02

Cumulative frequency %



Wisconsin 1980 Stream Sediments  
 Spec. Ca in %  
 Threshold = 20%

Ca %

DATE 121 5179

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 6 (S-TIX )										
LOG LIMITS		OBS FREQ	CUM		PERCENT		PERCENT		THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER		FREQ	FREQ	FREQ	FREQ	CUM FREQ			
		N	0	0	0.00		0.00			
		L	0	0	0.00		0.00			
		T	0	0	0.00		0.00			
-1.417E+00	-1.250E+00		3	3	0.58		0.58	1.851E-01		1.603E+01
-1.250E+00	-1.086E+00		1	4	0.19		0.77	1.653E+00		-1.048E+00
-1.086E+00	-9.170E-01		22	25	4.25		5.03	9.506E+00		-7.192E+00
-9.170E-01	-7.503E-01		20	45	3.87		8.90	3.521E+01		-3.464E+01
-7.503E-01	-5.837E-01		78	124	15.09		23.98	9.410E+01		-8.317E+01
-5.837E-01	-4.170E-01		73	197	14.12		38.10	1.296E+02		-1.290E+02
-4.170E-01	-2.503E-01		223	420	43.13		81.24	1.289E+02		-1.271E+02
-2.503E-01	-8.366E-02		86	506	16.53		97.87	8.271E+01		-8.167E+01
-8.366E-02	-R.300E-02		11	517	2.13		100.00	4.516E+01		-4.491E+01
		G	0	517	0.00		100.00			
		H	0	517						
		9	0	517						
		TOTALS LESS H AND R	517					5.170E+02		-4.928E+02

-08-

HISTOGRAM FOR VARIABLE 6 (S-T17 )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

Concentration in percent	Frequency in percent, each X equal 1 percent of all samples
4.638E-02	X
5.808E-02	XXXX
9.992E-02	XXXX
1.467E-01	XXXX
2.153E-01	XXXXXXXXXXXXXXXXXX
3.160E-01	XXXXXXXXXXXXXXXXXX
4.638E-01	XXXXXXXXXXXXXXXXXX
5.808E-01	XXXXXXXXXXXXXXXXXX
9.992E-01	XXXXXXXXXXXXXXXXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```

MINIMUM ANTILOG = 5.00000E-02
MAXIMUM ANTILOG = 1.00000E+00
GEOMETRIC MEAN = 3.80974E-01
GEOMETRIC DEVIATION = 1.76659E+00
VARIANCE OF LOGS = 6.10764E-02

```

PERCENT TABLE FOR VARIABLE 6 (S-YTZ) 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

PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

-0.571679E+00  
-0.371034E+00  
-0.274434E+00  
-0.162540E+00  
-0.112443E+00

0.268115E+00  
0.425565E+00  
0.531577E+00  
0.697796E+00  
0.771893E+00

Cumulative frequency %

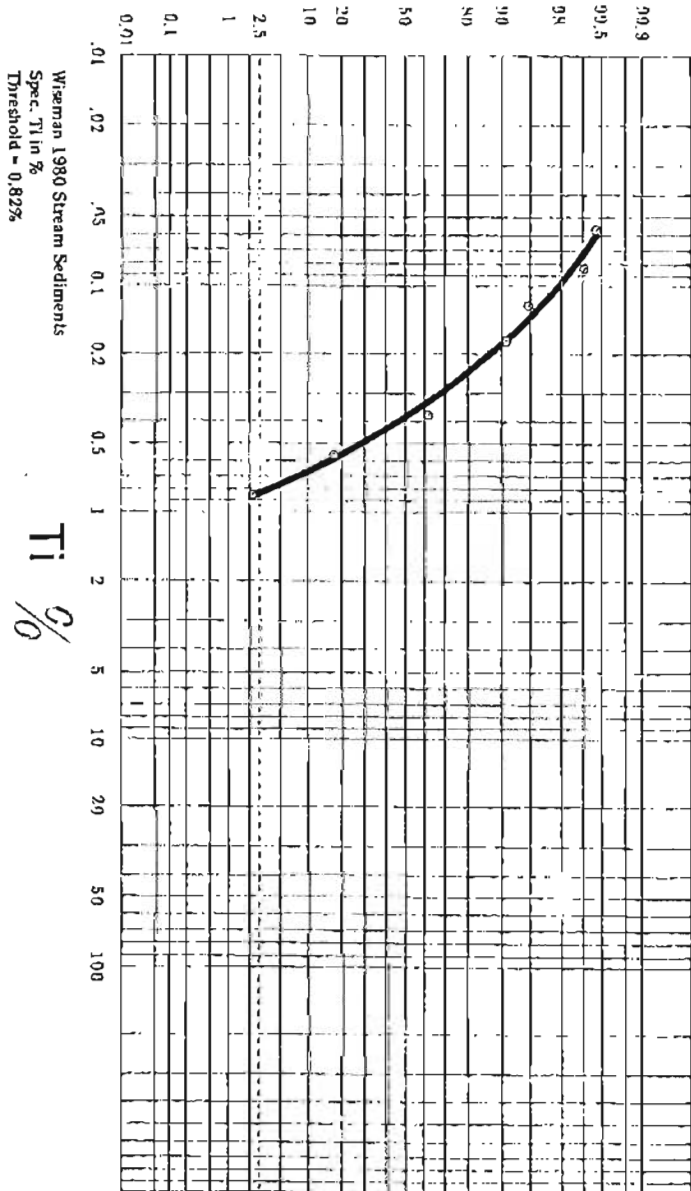


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 7 (S-MN)

LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER	UPPER									(NORMAL DIST)	
N		0	0	0	0	0.00	0.00	0.00	0.00	7.946E+00	-7.589E+00
L		0	0	0	0	0.00	0.00	0.00	0.00	2.869E+01	-2.855E+01
T		0	0	0	0	0.00	0.00	0.00	0.00	6.981E+01	-5.922E+01
1.916E+00	2.083E+00	3	3	3	3	0.58	0.58	0.58	0.58	1.148E+02	-1.127E+02
2.083E+00	2.249E+00	4	7	7	7	0.77	1.35	9.28	55.71	1.277E+02	-1.268E+02
2.249E+00	2.416E+00	41	49	289	49	7.93	78.14	87.04	9.506E+01	4.885E+01	-4.813E+01
2.416E+00	2.583E+00	240	289	404	289	46.42	78.14	87.04	9.506E+01	4.885E+01	-4.813E+01
2.583E+00	2.749E+00	116	404	466	404	8.90	93.94	95.94	1.679E+01	3.897E+00	-3.044E-01
2.749E+00	2.916E+00	46	450	496	450	6.77	98.65	99.42	6.107E-01	5.939E+00	1.434E+01
2.916E+00	3.083E+00	35	485	510	485	2.71	99.61	100.00	1.700E+00	5.308E-02	
3.083E+00	3.249E+00	14	510	514	510	0.77					
3.249E+00	3.416E+00	4	514	515	514	0.19					
3.416E+00	3.583E+00	1	515	517	515	0.39					
3.583E+00	3.749E+00	2	517	517	517						
G		0	517								
H		0									
9		0									
TOTALS	LESS H AND R		517							5.170E+02	-4.847E+02

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

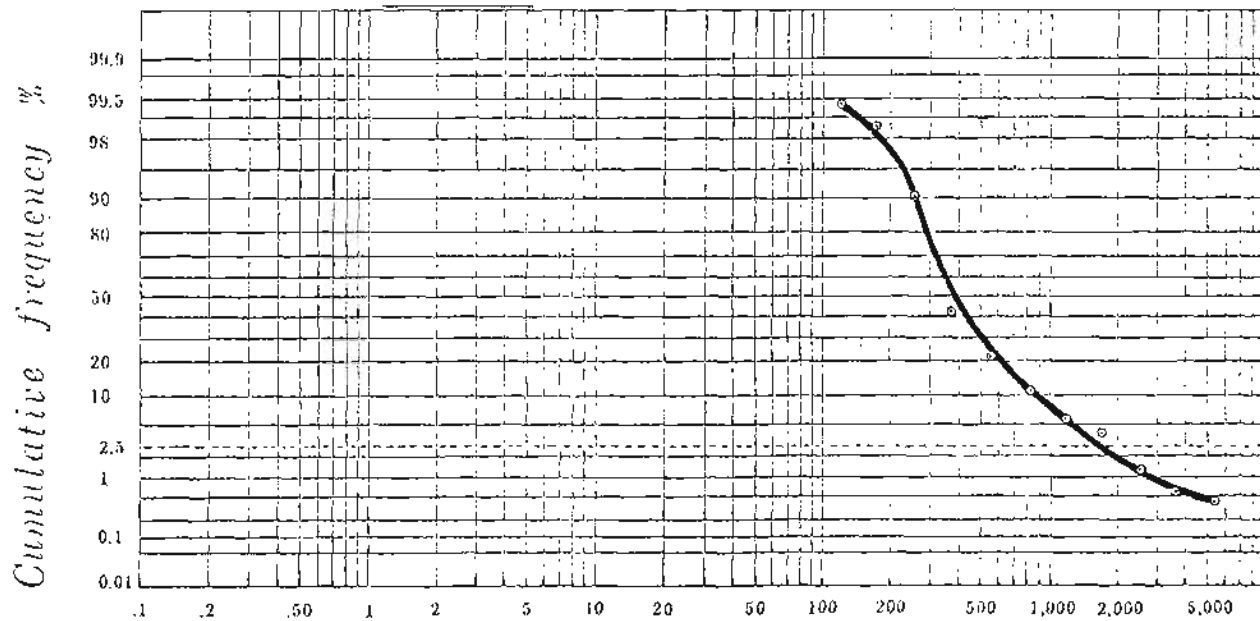
Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
9.995E+01	X
1.466E+02	XXXXXXX
2.4151E+02	XX
3.157E+02	XX
4.634E+02	XX
5.802E+02	XX
9.995E+02	XXXXXXXXXX
1.466E+03	XX
2.4151E+03	XXX
3.157E+03	X
4.635E+03	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02  
 MAXIMUM ANTILOG = 5.00000E+03  
 GEOMETRIC MEAN = 4.20556E+02  
 GEOMETRIC DEVIATION = 1.79398E+00  
 VARIANCE OF LOGS = 6.46232E-02

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	0.247242E+01	0.296773E+03
50.00	0.256218E+01	0.364907E+03
75.00	0.272599E+01	0.532093E+03
90.00	0.298886E+01	0.974674E+03
95.00	0.317585E+01	0.149917E+04



Wiseman 1980 Stream Sediments  
Spec. Mn in ppm  
Threshold = 1700 ppm

Mn ppm

Wiseman 1980 Stream Sediments  
Spec. Ag in ppm  
Threshold = Detection limit = 0.5 ppm

Ag ppm

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

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 9 (S-AS)									
LOG LIMITS		OBS		CUM		PERCENT		PERCENT	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ
N									
		514	514			99.42	99.42		
L									
		0	514			0.00	99.42		
T									
		0	514			0.00	99.42		
2.250E+00	2.417E+00	1	515			0.19	99.61		2.925E+04
2.417E+00	2.583E+00	0	515			0.00	99.61		0.000E+00
2.583E+00	2.750E+00	2	517			0.39	100.00		0.000E+00
		0	517			0.00	100.00		-5.034E+02
G									
		0	517			0.00	100.00		
H									
		0	517			0.00	100.00		
R									
		0	517			0.00	100.00		
TOTALS LESS H AND R		517				5.170E+02			2.925E+04

HISTOGRAM FOR VARIABLE 9 (S-AS)  
 WIDTHS ARE EXPRESSED AS ANTILOGS

2.154E+02  
 3.162E+02  
 4.642E+02

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+02  
 MAXIMUM ANTILOG = 5.00000E+02  
 GEOMETRIC MEAN = 3.68403E+02  
 GEOMETRIC DEVIATION = 1.69727E+00  
 VARIANCE OF LOGS = 5.27853E-02

AS

Wiseman 1980 Stream Sediments  
 Spec. As in ppm  
 Threshold = Detection limit = 200 ppm

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

PERCENT TABLE FOR VARIABLE 9 (S-AS)  
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.999991F 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100002E+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

Wiseman 1980 Stream Sediments  
 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.

Table 4 (cont.)

## FREQUENCY TABLE FOR VARIABLE 11 (S-B )

LOG LIMITS		OBS FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER							(NORMAL DIST)	
N									
		0	0	0.00	0.00	0.00	0.00	9.005E+00	-7.450E+00
L									
		0	0	0.00	0.00	0.00	0.00	2.816E+01	-2.716E+01
T									
0.160E-01	1.093E+00	14	14	2.71	2.71	2.71	2.71	6.325E+01	-5.207E+01
1.093E+00	1.249E+00	28	42	5.42	8.12	8.12	8.12	1.021E+02	-1.016E+02
1.249E+00	1.416E+00	75	117	14.51	22.63	22.63	22.63	1.185E+02	-1.172E+02
1.416E+00	1.583E+00	56	173	10.83	33.46	33.46	33.46	9.982E+01	-9.773E+01
1.583E+00	1.749E+00	155	328	29.98	63.44	63.44	63.44	5.923E+01	-5.824E+01
1.749E+00	1.916E+00	107	435	20.70	84.14	84.14	84.14	2.552E+01	-2.493E+01
1.916E+00	2.083E+00	59	494	11.41	95.55	95.55	95.55	9.967E+00	-9.164E+00
2.083E+00	2.249E+00	15	509	2.90	98.45	98.45	98.45		
2.249E+00	2.416E+00	8	517	1.55	100.00	100.00	100.00		
G		0	517	0.00					
H		0	517						
B		0	517						
TOTALS LESS H AND B		517						5.145E+02	-5.055E+02

HISTOGRAM FOR VARIABLE 11 (S-B )  
HIDPOINTS ARE EXPRESSED AS ANTILOGS

Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
9.995E+00	XXX
1.466E+01	XXXXX
2.151E+01	XXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
9.985E+01	XXXXXXXXXXXXXX
1.466E+02	XXX
2.151E+02	XX

## THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 2.00000E+02  
 GEOMETRIC MEAN = 4.54696E+01  
 GEOMETRIC DEVIATION = 1.93178E+00  
 VARIANCE OF LOGS = 8.17716E-02

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 DATA VALUE ANTILOG OF VALUE

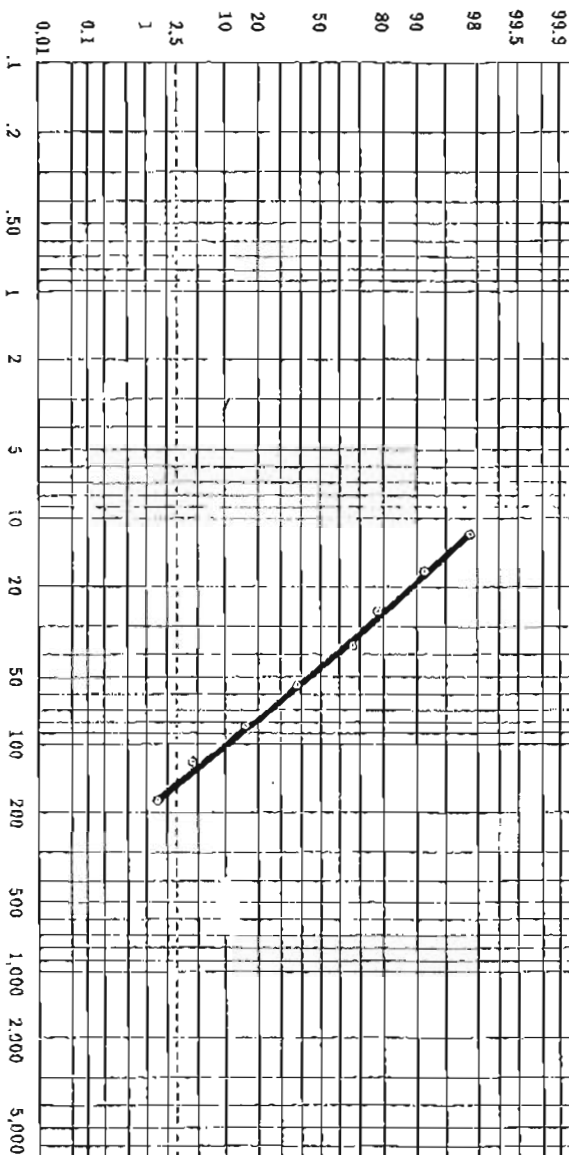
PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

0.145246E+01  
0.157450E+01  
0.184240E+01  
0.200760E+01  
0.207462E+01

0.283439E+02  
0.472720E+02  
0.695671E+02  
0.100368E+03  
0.118746E+03

Cumulative frequency %



Wiseman 1980 Stream Sediments  
Spec. B in ppm  
Threshold = 160 ppm

B ppm

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 12 (S-RA)								THEOR FREQ (NORMAL DIST)		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	CUM PERCENT	THEOR FREQ	CUM FREQ				
LOWER	UPPER										
N	L	3	3	0.58	0.58	7.801E-02	7.801E-02				1.081E+02
L	T	0	3	0.00	0.58	3.954E-01	3.954E-01				1.731E+01
1.250E+00	1.417E+00	7	10	1.35	1.93	1.794E+00	1.794E+00				-1.218E-01
1.417E+00	1.583E+00	3	13	0.58	2.51	5.400E+00	5.400E+00				-3.744E+00
1.583E+00	1.750E+00	17	30	3.29	5.80	1.795E+01	1.795E+01				-1.784E+01
1.750E+00	1.917E+00	2	32	0.39	6.19	3.960E+01	3.960E+01				-3.999E+01
1.917E+00	2.083E+00	24	56	4.64	10.83	6.869E+01	6.869E+01				-5.839E+01
2.083E+00	2.250E+00	21	77	4.06	14.89	9.372E+01	9.372E+01				-9.272E+01
2.250E+00	2.417E+00	93	170	17.99	32.88	1.006E+02	1.006E+02				-9.495E+01
2.417E+00	2.583E+00	162	332	31.33	64.22	8.487E+01	8.487E+01				-8.363E+01
2.583E+00	2.750E+00	105	437	20.31	84.53	5.634E+01	5.634E+01				-5.539E+01
2.750E+00	2.917E+00	53	490	10.25	94.78	2.941E+01	2.941E+01				-2.859E+01
2.917E+00	3.083E+00	24	514	4.64	99.42	1.719E+01	1.719E+01				-1.702E+01
3.083E+00	3.250E+00	3	517	0.58	100.00						
G	H	0	517	0.00	100.00						
H		0	517								
TOTALS LESS H AND B		517				5.170E+02					-3.800E+02

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HISTOGRAM FOR VARIABLE 12 (S-RA)  
MIDPOINTS ARE EXPRESSED AS ANTILOGS  
Frequency in Percent, each X equal 1 percent of all samples

2.154E+01	X
3.162E+01	X
4.642E+01	XXX
6.813E+01	XXXXX
1.000E+02	XXXXX
1.469E+02	XXXXX
2.154E+02	XXXXXXXXXXXXXXXXXXXXX
3.162E+02	XXXXXXXXXXXXXXXXXXXXX
4.642E+02	XXXXXXXXXXXXXXXXXXXXX
6.813E+02	XXXXXXXXXXXXX
1.000E+03	XXXXX
1.469E+03	X

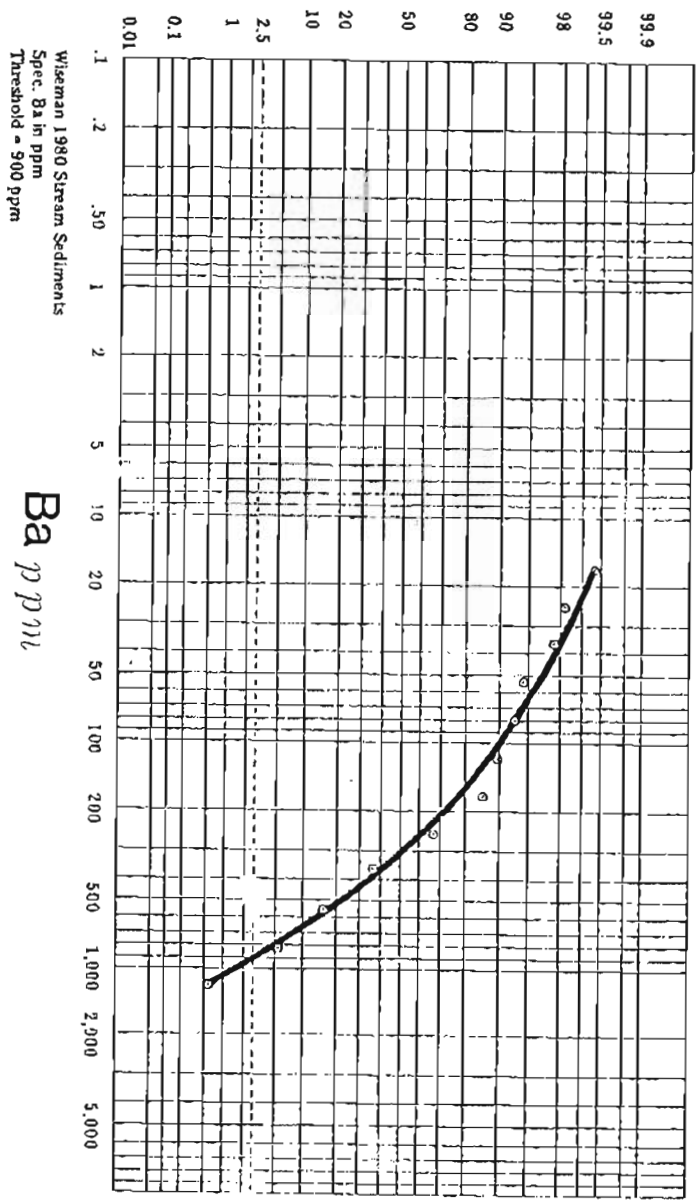
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 1.50000E+03  
 GEOMETRIC MEAN = 2.96750E+02  
 GEOMETRIC DEVIATION = 2.11643E+01  
 VARIANCE OF LOGS = 1.06018E-01

PERCENT TABLE FOR VARIABLE 12 (S-BA) 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	0.234364E+01	0.220618E+03
50.00	0.250772E+01	0.371808E+03
75.00	0.267183E+01	0.469708E+03
90.00	0.283900E+01	0.690235E+03
95.00	0.292466E+01	0.840729E+03

Cumulative frequency %



FREQUENCY TABLE FOR VARIABLE 13 (S-BE )

-3.115E+02

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

Beppin

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

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

DATE 12/ 5/79

FREQUENCY TABLE FOR VARIABLE 16 (S-CD )

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)					
5.830E-01	7.497E-01	8	8	1.55	1.55	7.133E+00	3.988E+01						
7.497E-01	9.163E-01	16	24	3.09	4.64	7.133E+00	3.988E+01						
9.163E-01	1.083E+00	0	24	0.00	4.64	1.485E+01	-1.323E+01						
1.083E+00	1.250E+00	62	86	4.64	9.28	3.345E+01	-3.322E+01						
1.250E+00	1.416E+00	58	144	11.99	21.27	6.008E+01	-5.905E+01						
1.416E+00	1.583E+00	117	262	22.63	43.90	8.601E+01	-8.533E+01						
1.583E+00	1.750E+00	79	341	35.28	79.18	9.814E+01	-9.695E+01						
1.750E+00	1.916E+00	107	448	71.95	151.13	8.927E+01	-8.838E+01						
1.916E+00	2.083E+00	16	464	20.70	92.65	6.472E+01	-6.307E+01						
2.083E+00	2.250E+00	17	481	3.09	95.74	3.741E+01	-3.698E+01						
2.250E+00	2.416E+00	3	515	3.29	99.03	1.723E+01	-1.624E+01						
2.416E+00	2.583E+00	0	515	0.58	99.61	6.326E+00	-5.852E+00						
		2	517	0.00	99.61	1.851E+00	-1.851E+00						
		0	517	0.39	100.00	5.250E-01	3.284E+00						
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
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		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
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		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								
		0	517	0.00	100.00								

PERCENT TABLE FOR VARIABLE 16 (S-CO ) 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	0.111533E+01	0.130415E+02
50.00	0.136719E+01	0.232911E+02
75.00	0.160753E+01	0.405074E+02
90.00	0.172833E+01	0.534970E+02
95.00	0.187623E+01	0.752024E+02

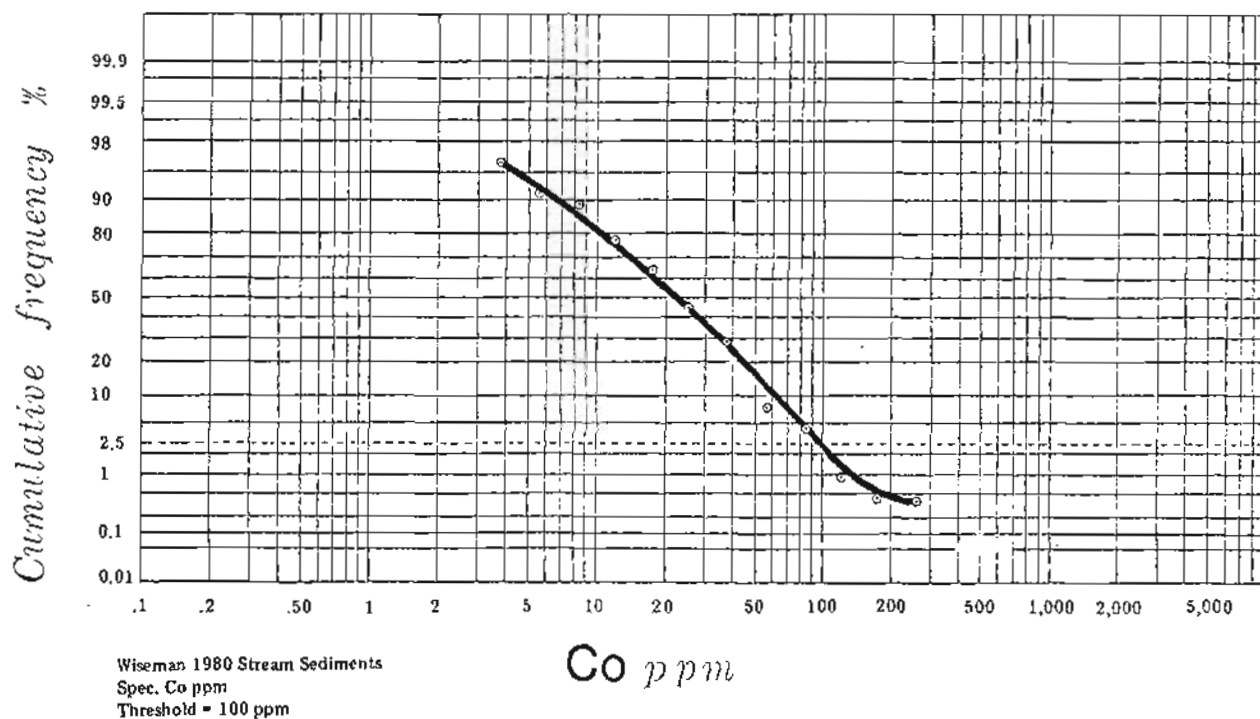


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 17 (S-CR )

LOG LIMITS		OBS		PERCENT		PERCENT		THEOR FREQ	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	CUM FREQ	CUM FREQ	(NORMAL DIST)	
		N	0	0	0	0.00	0.00		
		L	0	0	0.00	0.00	0.00		
		T	0	0	0.00	0.00	0.00		
9.150E+01	1.083E+00	2	2	0.39	0.39	0.39	0.39	4.471E-01	4.026E+00
1.083E+00	1.249E+00	1	3	0.19	0.58	0.58	0.58	2.828E+00	-2.475E+00
1.249E+00	1.416E+00	15	18	2.90	3.48	3.48	3.48	1.241E+01	-1.121E+01
1.416E+00	1.583E+00	35	53	6.77	10.25	10.25	10.25	3.782E+01	-3.690E+01
1.583E+00	1.749E+00	99	152	19.15	29.40	29.40	29.40	8.002E+01	-7.878E+01
1.749E+00	1.916E+00	95	247	18.38	47.78	47.78	47.78	1.176E+02	-1.168E+02
1.916E+00	2.083E+00	114	361	22.05	69.83	69.83	69.83	1.201E+02	-1.192E+02
2.083E+00	2.249E+00	87	448	16.83	86.65	86.65	86.65	8.523E+01	-8.421E+01
2.249E+00	2.416E+00	60	508	11.51	98.26	98.26	98.26	4.201E+01	-4.059E+01
2.416E+00	2.583E+00	9	517	1.74	100.00	100.00	100.00	1.844E+01	-1.795E+01
		G	0	517	0.00				
		H	0	517					
		B	0	517					
TOTALS LESS H AND B		517						5.169E+02	-5.041E+02

SELECTED  
PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

## DATA VALUE

0.171104E+01  
0.193291E+01  
0.213391E+01  
0.229739E+01  
0.236920E+01

## ANTI LOG OF VALUE

0.514085E+02  
0.856673E+02  
0.135118E+03  
0.198331E+03  
0.233990E+03

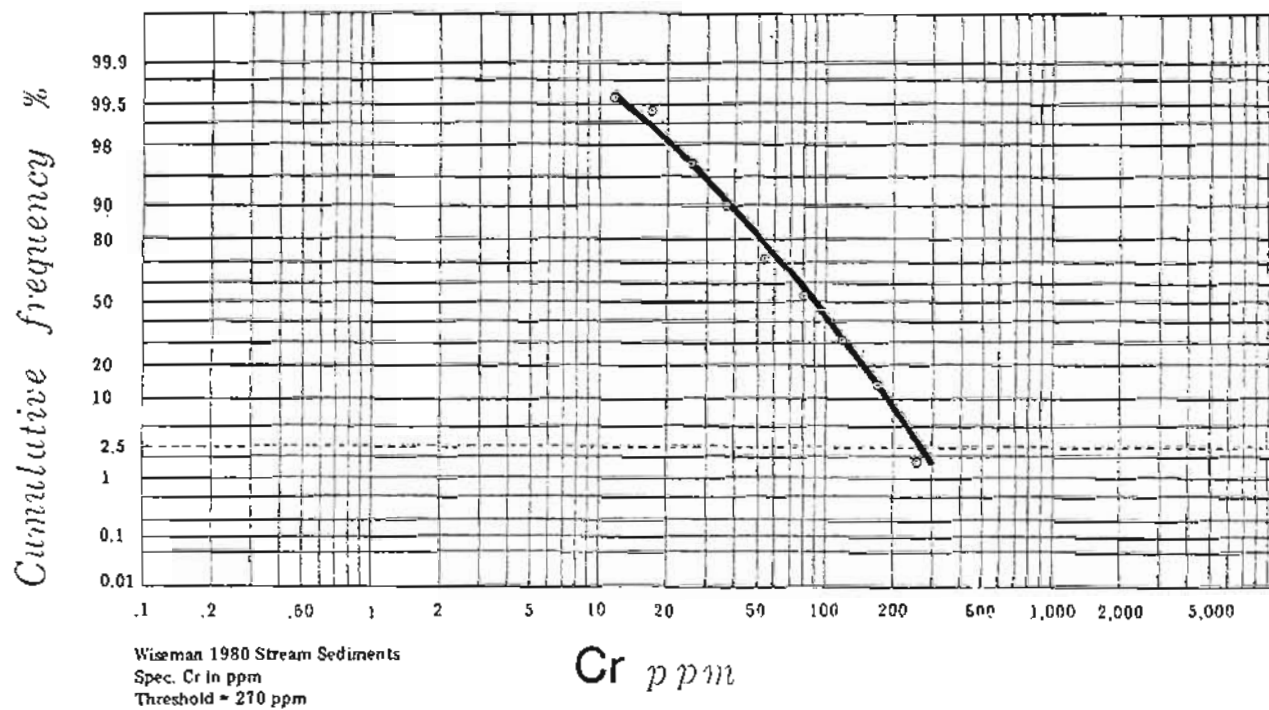


Table 4 (cont.)

-76-

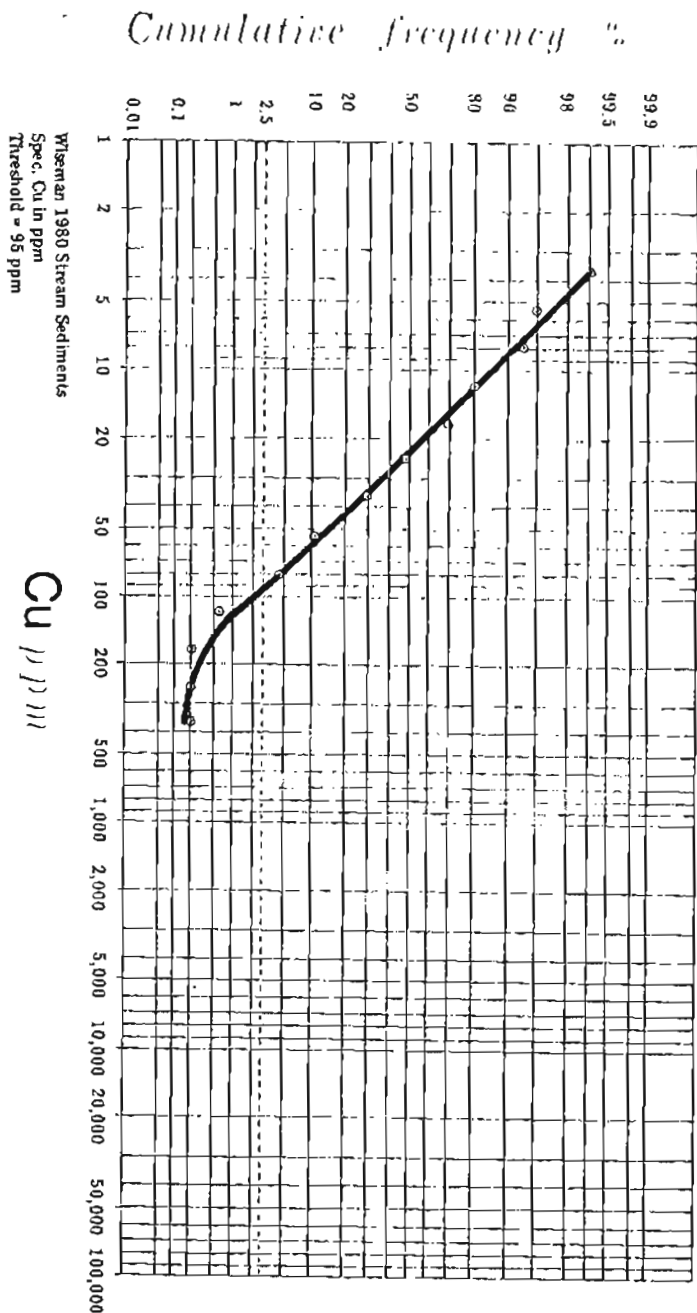
Frequency in percent, each X equal 1 percent of all samples

Concentration in ppm	Frequency In percent, each X equals 1 percent
4.638E+00	XXXX
5.808E+00	XX
9.992E+00	XXXXXXXXXXXXXXXX
1.467E+01	XXXXXXXXXX
2.153E+01	XXXXXXXXXXXXXXXX
3.163E+01	XXXXXXXXXXXXXXXX
4.638E+01	XXXXXXXXXXXXXXXX
5.808E+01	XXXXXX
9.992E+01	XXXX
1.467E+02	
2.153E+02	
3.160E+02	
4.638E+02	

MINIMUM ANTILOG	=	5.00000E+00
MAXIMUM ANTILOG	=	5.00000E+02
GEOMETRIC MEAN	=	2.37899E+01
GEOMETRIC DEVIATION	=	2.10790E+01
VARIANCE OF LOGS	=	1.04882E-01

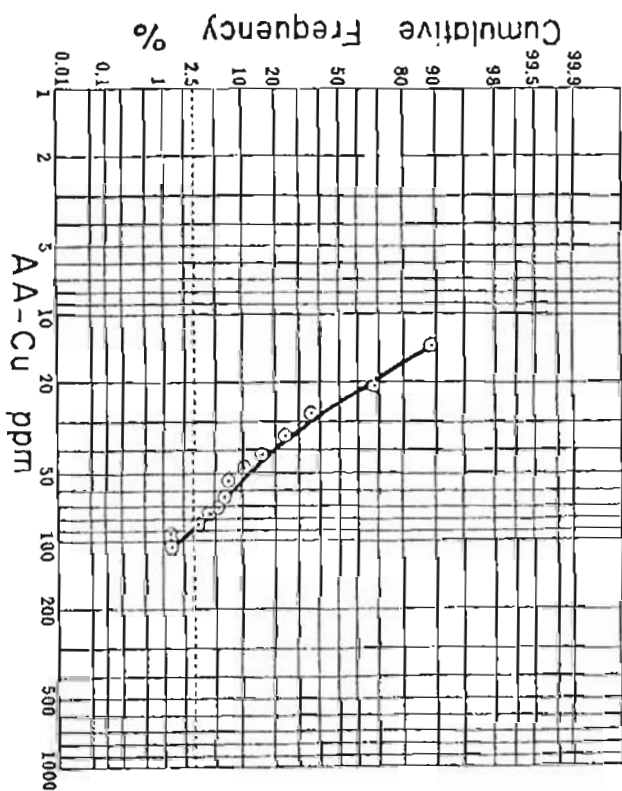
PERCENT TABLE FOR VARIABLE TR (S-CU) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE  
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.115476E+01	0.142911E+02
50.00	0.140167E+01	0.252159E+02
75.00	0.161481E+01	0.411919E+02
90.00	0.176245E+01	0.578691E+02
95.00	0.190606E+01	0.805486E+02



HISTOGRAM OF VARIABLE	AA-Cu	SYMBOL	COUNT	MEAN	STDEV	FREQUENCY	PERCENTAGE
INTERVAL				30.114	15.902	INT. CUM.	INT. CUM.
NAME							
14.000	XXXXXX		8			8	11.4
21.000	XXXXXX		12			22	20.0
28.000	XXXXXX		9			31	31.4
35.000	XXXXXX		6			37	42.9
42.000	XXXXXX		4			41	54.3
49.000	XXXXXX		1			42	65.7
56.000	XXXX		1			43	77.1
63.000	XXXX		1			44	88.6
70.000	XXXX		1			45	100.0
77.000	XXXX		1			46	100.0
84.000	XXXX		1			47	100.0
91.000	XXXX		1			48	100.0
98.000	XXXX		1			49	100.0
105.000	XXXX		1			50	100.0
112.000	XXXX		1			51	100.0
119.000	XXXX		1			52	100.0
126.000	XXXX		1			53	100.0

Wiseman 1980 Stream Sediments  
AA-Cu in ppm  
Threshold = 90 ppm



## FREQUENCY TABLE FOR VARIABLE 19 (S-LA )

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	26	26	5.03	5.03		
		L	0	26	0.00	5.03		
		T	0	26	0.00	5.03	8.475E+00	3.624E+01
1.250E+00	-	1.417E+00	43	69	8.32	13.35	3.651E+01	-3.533E+01
1.417E+00	-	1.583E+00	10	79	1.93	15.28	9.956E+01	-9.946E+01
1.583E+00	-	1.750E+00	309	388	59.77	75.05	1.532E+02	-1.511E+02
1.750E+00	-	1.917E+00	60	448	11.61	86.65	1.330E+02	-1.326E+02
1.917E+00	-	2.083E+00	49	497	9.48	96.13	6.521E+01	-6.446E+01
2.083E+00	-	2.250E+00	12	509	2.32	98.45	1.802E+01	-1.735E+01
2.250E+00	-	2.417E+00	5	514	0.97	99.42	2.802E+00	-1.017E+00
2.417E+00	-	2.583E+00	2	516	0.39	99.81	2.445E-01	7.935E+00
2.583E+00	-	2.750E+00	1	517	0.19	100.00	1.228E-02	8.142E+01
		G	0	517	0.00	100.00		
		H	0	517				
		B	0	517				
TOTALS LESS H AND B			517				5.170E+02	-3.757E+02

## HISTOGRAM FOR VARIABLE 19 (S-LA )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	2.154E+01	XXXXXXXX
	3.162E+01	XX
	4.642E+01	XX
	6.813E+01	XXXXXXXXXXXX
	1.007E+02	XXXXXXXXXX
	1.468E+02	XX
	2.154E+02	X
	3.162E+02	
	4.642E+02	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 5.00000E+02  
 GEOMETRIC MEAN = 5.37648E+01  
 GEOMETRIC DEVIATION = 1.57913E+00  
 VARIANCE OF LOGS = 3.93694E-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 DATA VALUE ANTI LOG OF VALUE

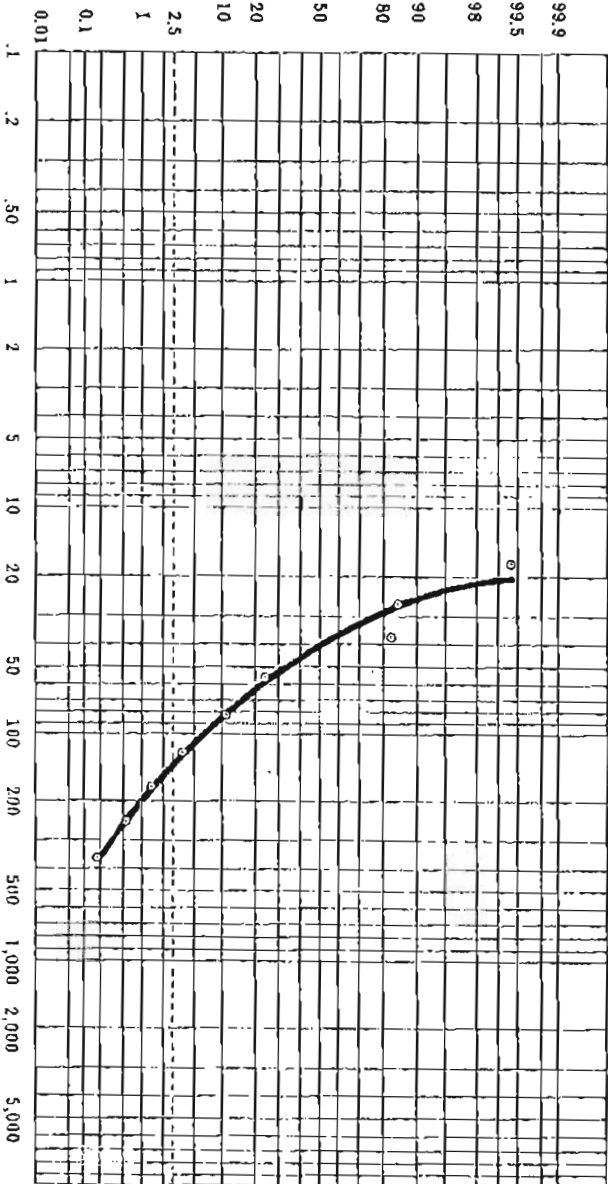
PERCENTILE

25.01  
50.00  
75.00  
90.00  
95.00

0.161044E+01  
0.168015E+01  
0.174987E+01  
0.197551E+01  
0.206344E+01

0.4077791E+02  
0.478793E+02  
0.562169E+02  
0.945174E+02  
0.115728E+03

Cumulative frequency %



Wiseman 1980 Stream Sediments  
Spec. Pb in ppm  
Threshold = 140 ppm

Pb ppm

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 20 (S-MO )									
LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ	
LOWER	UPPER								
N									
		493	493			95.36		95.36	
L									
		22	515			4.26		99.61	
T									
		0	515			0.00		99.61	
						0.19		99.81	
5.830E-01	7.497E-01	1	516			0.20		99.81	
7.497E-01	9.163E-01	0	516			0.19		100.00	
9.163E-01	1.083E+00	1	517			0.19		100.00	
G									
		0	517			0.00		100.00	
H									
		0	517						
TOTALS LESS H AND G									
			517						
						5.170E+02			
									-4.914E+02

HISTOGRAM FOR VARIABLE 20 (S-MO )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

4.638E+00  
6.808E+00  
9.992E+00

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THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00  
MAXIMUM ANTILOG = 1.00000E+01  
GEOMETRIC MEAN = 7.07107E+00  
GEOMETRIC DEVIATION = 1.63253E+00  
VARIANCE OF LOGS = 4.53095E-02

Mo

Wiseman 1980 Stream Sediments  
Spec. Mo in ppm  
Threshold = Detection limit = 5 ppm

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

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 0.9999991E 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

Nb

Wiseman 1980 Stream Sediments  
Spec. Nb in ppm  
Threshold = 30 ppm

Not enough unqualified values above detection limit  
to determine threshold graphically so threshold set  
above detection limit at 30 ppm.

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 22 (S-NI )

LOG LIMITS		OBS FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER	UPPER							(NORMAL DIST)	
N		0	0	0.00	0.00			8.009E-01	2.202E+01
L		5	5	0.97	0.97			3.054E+00	-4.349E-01
		0	5	0.00	0.97			1.062E+01	-1.043E+01
5.830E-01	7.497E-01	8	13	1.55	2.51			2.823E+01	-2.664E+01
7.497E-01	9.163E-01	2	15	0.39	2.90			5.709E+01	-5.482E+01
9.163E-01	1.083E+00	45	60	8.70	11.61			8.937E+01	-1.056E+02
1.083E+00	1.250E+00	20	80	3.87	15.47			6.755E+01	-3.505E+01
1.250E+00	1.416E+00	99	179	19.15	34.62			1.469E+01	-1.456E+01
1.416E+00	1.583E+00	86	265	16.53	51.26			9.908E+00	-5.370E+00
1.583E+00	1.750E+00	128	393	26.76	76.02				
1.750E+00	1.916E+00	85	478	16.44	92.46				
1.916E+00	2.083E+00	35	513	6.77	99.23				
2.083E+00	2.250E+00	2	515	0.39	99.61				
2.250E+00	2.416E+00	2	517	0.39	100.00				
		G	0	0.00	100.00				
		H	0	0					
		9	0	0					
			517						
TOTALS LESS H AND 9		517						5.170E+02	-4.835E+02

HISTOGRAM FOR VARIABLE 22 (S-NI )  
 MIDPOINTS ARE EXPRESSED AS ANTILOGS  
 Frequency in percent, each X equal 1 percent of all samples

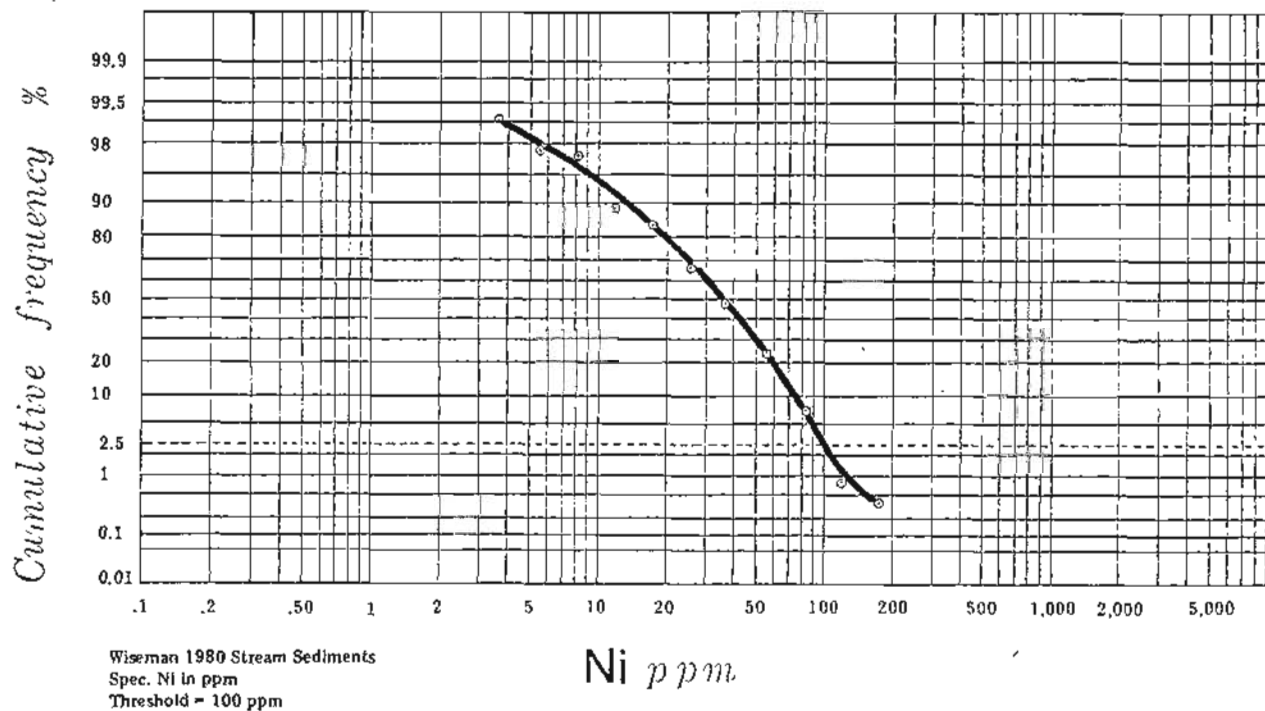
Concentration in ppm	
4.638E+00	XX
5.808E+00	XXXXXXXXXX
9.992E+00	XXXXXX
1.467E+01	XXXX
2.153E+01	XXXXXXXXXXXXXXXXXXXX
3.160E+01	XXXXXXXXXXXXXXXXXXXX
4.638E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.808E+01	XXXXXXXXXXXXXXXXXXXX
9.992E+01	XXXXXX
1.467E+02	XXXXXX
2.153E+02	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00  
 MAXIMUM ANTILOG = 2.00000E+02  
 GEOMETRIC MEAN = 3.41190E+01  
 GEOMETRIC DEVIATION = 2.03842E+00  
 VARIANCE OF LOGS = 9.56632E-02

IF SELECTED PERCENTILES FALL WITHIN DATA FITTER 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	0.133258E+01	0.215070E+02
50.00	0.157041E+01	0.371882E+02
75.00	0.174283E+01	0.553137E+02
90.00	0.189143E+01	0.778814E+02
95.00	0.197896E+01	0.952698E+02



HISTOGRAM OF VARIABLE	AA-NI	SYMBOL	COUNT	MEAN	ST. DEV.
INTERVAL		X	70	37.829	24.078
NAME					
14.000	XXXXXX				
21.000	XXXXXXXXXX				
28.000	XXXXXXXXXX				
35.000	XXXXXXXXXX				
42.000	XXXXXXXXXX				
49.000	XXXXXXXXXX				
56.000	XXXXXX				
63.000	XXXXXX				
70.000	XXXXXX				
77.000	XXXXXX				
84.000	XXXXXX				
91.000	XXXXXX				
98.000	XXXXXX				
105.000	XXXXXX				
112.000	XXXXXX				
119.000	XXXXXX				
126.000	XXXXXX				

FREQUENCY	PERCENTAGE
INT.	INT.
7	10.0
13	18.6
17	24.3
30	42.9
39	55.7
45	64.3
57	81.4
62	88.6
65	92.9
66	94.3
67	95.7
68	97.1
70	100.0
70	100.0

Wiseman 1980 Stream Sediments  
AA-Ni in ppm  
Threshold = 115 ppm

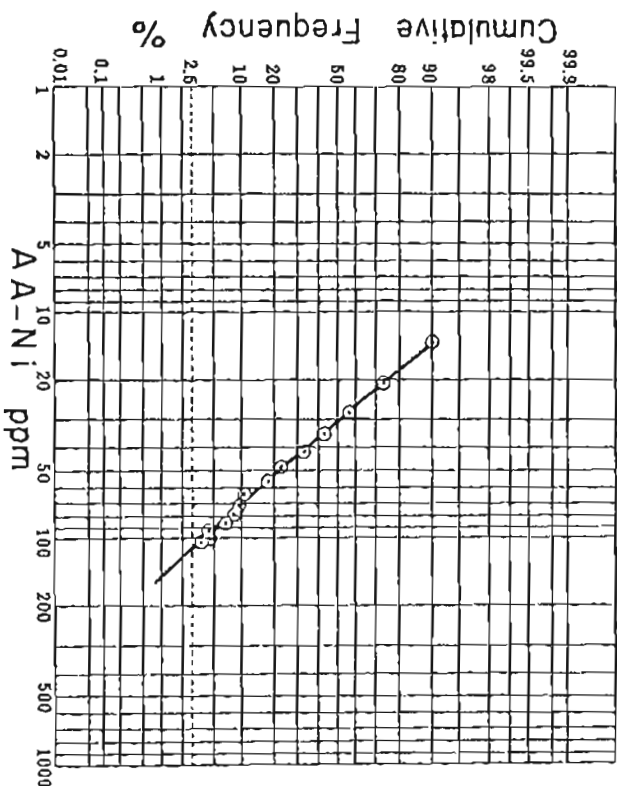


Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 23 (S-PR )									
LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ	
LOWER	UPPER								
N		5	5			0.97		0.97	
L		4	9			0.77		1.74	
T		0	9			0.00		1.74	
9.160E-01	1.083E+00	122	131			23.60		25.34	3.216E+01
1.083E+00	1.249E+00	43	174			8.32		33.66	6.492E+01
1.249E+00	1.416E+00	187	361			36.17		69.81	1.132E+02
1.416E+00	1.583E+00	86	447			16.51		86.46	1.313E+02
1.583E+00	1.749E+00	49	496			9.48		95.94	1.012E+02
1.749E+00	1.916E+00	9	505			1.74		97.68	5.185E+01
1.916E+00	2.083E+00	8	513			1.55		99.23	1.765E+01
2.083E+00	2.249E+00	0	513			0.00		99.23	3.498E+00
2.249E+00	2.416E+00	3	516			0.58		99.81	5.981E-01
2.416E+00	2.583E+00	1	517			0.19		100.00	0.000E+00
G		0	517			0.00		100.00	6.355E-02
H		0	517						
A		0	517						
TOTALS LESS H AND A		517							5.170E+02
									-4.444E+02

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HISTOGRAM FOR VARIABLE 23 (S-PR )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS  
Frequency in percent, each X equal 1 percent of all samples

9.985E+00	XXXXXXXXXXXXXXXXXXXXX
1.466E+01	XXXXXXXXXX
2.151E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXX
6.802E+01	XX
9.985E+01	XX
1.466E+02	
2.151E+02	X
3.157E+02	

Concentration in ppm

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTLOG = 1.00000E+01  
 MAXIMUM ANTLOG = 3.00000E+02  
 GEOMETRIC MEAN = 2.06643E+01  
 GEOMETRIC DEVIATION = 1.79949E+00  
 VARIANCE OF LOGS = 6.51014E-02

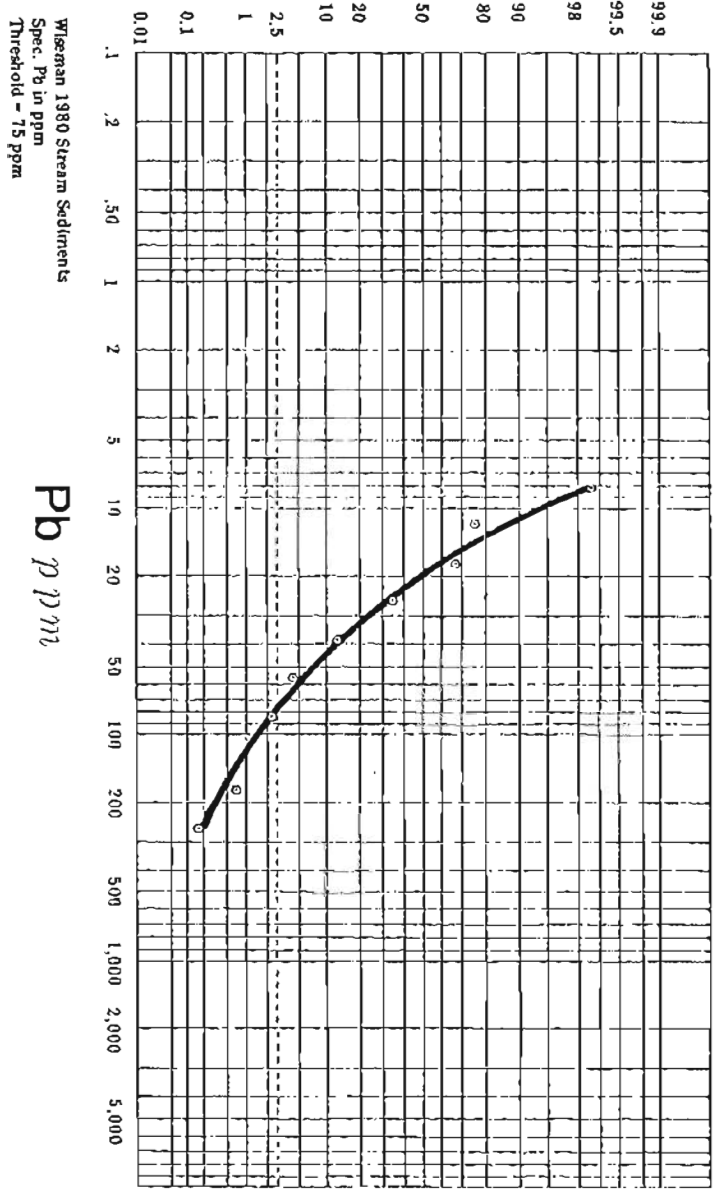
PERCENT TABLE FOR VARIABLE 23 (S-PR ) BY LINEARINTERPOLATION FROM FREQUENCY TABLE  
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED  
PERCENTILES

25.00	0.100000E+36	0.100000E+36
50.00	0.132465E+01	0.211177E+02
75.00	0.146784E+01	0.293658E+02
90.00	0.164291E+01	0.441482E+02
95.00	0.173284E+01	0.540553E+02

DATA VALUE      ANT LOG OF VALUE

Cumulative frequency %



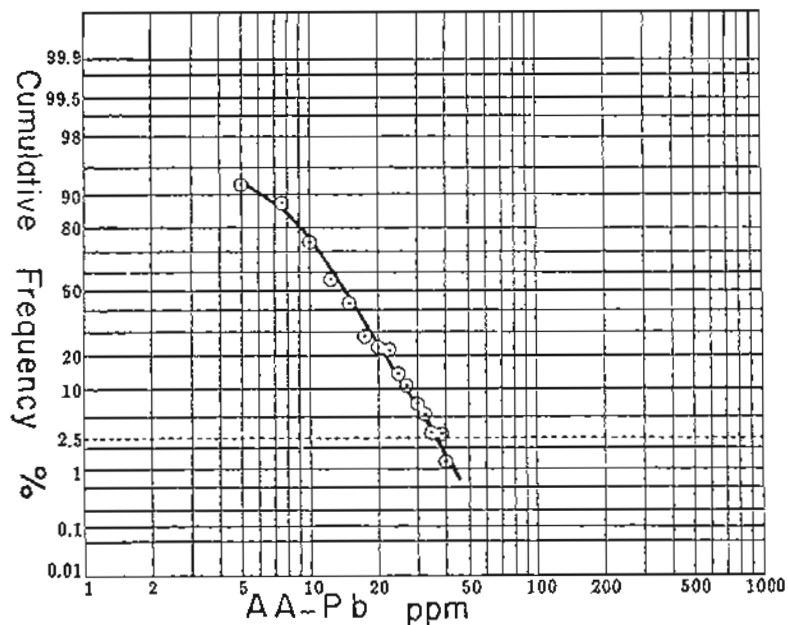
## HISTOGRAM OF VARIABLE AA-Pb

INTERVAL NAME	SYMBOL X	COUNT 70	MEAN 15.786	ST-DEV. 8.577	FREQUENCY		PERCENTAGE	
					INT.	CUM.	INT.	CUM.
5.0000	+	6			6	6	8.6	8.6
7.5000	+	3			3	9	4.3	12.9
10.000	+	9			9	18	12.9	25.7
12.500	+	12			12	30	17.1	42.9
15.000	+	9			9	39	12.9	55.7
17.500	+	11			11	50	15.7	71.4
20.000	+	3			3	53	4.3	75.7
22.500	+	2			2	55	2.9	78.6
25.000	+	5			5	60	7.1	85.7
27.500	+	2			2	62	2.9	88.6
30.000	+	3			3	65	4.3	92.9
32.500	+	1			1	66	1.4	94.3
35.000	+	2			2	68	2.9	97.1
37.500	+	0			0	68	0.	97.1
40.000	+	1			1	69	1.4	98.6
42.500	+	1			1	70	1.4	100.0
45.000	+	0			0	70	0.	100.0

Wiseman 1980 Stream Sediments

AA-Pb in ppm

Threshold = 38 ppm



## FREQUENCY TABLE FOR VARIABLE 24 (S-SB )

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	515	515	99.61	99.61		
	L	0	515	0.00	99.61		
	T	0	515	0.00	99.61	1.420E+00	1.857E+05
1.916E+00	2.083E+00	1	516	0.19	99.81	5.135E+02	-5.135E+02
2.083E+00	2.249E+00	0	516	0.00	99.81	0.000E+00	0.000E+00
2.249E+00	2.416E+00	0	516	0.00	99.81	0.000E+00	0.000E+00
2.416E+00	2.583E+00	0	516	0.00	99.81	0.000E+00	0.000E+00
2.583E+00	2.749E+00	1	517	0.19	100.00	2.110E+00	-1.637E+00
	G	0	517	0.00	100.00		
	H	0	517				
	R	0	517				
TOTALS LESS H AND R		517				5.170E+02	1.852E+05

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

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

## THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02  
MAXIMUM ANTILOG = 5.00000E+02  
GEOMETRIC MEAN = 2.23607E+02  
GEOMETRIC DEVIATION = 3.12066E+00  
VARIANCE OF LOGS = 2.44279E-01

PERCENT TABLE FOR VARIABLE 24 (S-SB ) 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 0.9999997E 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

Sb

Wiseman 1980 Stream Sediments  
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.

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 25 (S-SC )

LOG LIMITS		OBS FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
LOWER	UPPER								
5.930E-01	7.497E-01	7	7	1.35	1.35	1.35	1.624E+00	5.629E+01	
7.497E-01	9.163E-01	5	12	0.97	2.32	2.32	1.052E+01	-9.147E+00	
9.163E-01	1.083E+00	0	12	0.00	2.32	2.32	4.341E+01	-4.341E+01	
1.083E+00	1.250E+00	25	37	4.84	7.16	7.16	1.051E+02	-1.041E+02	
1.250E+00	1.416E+00	107	156	20.70	30.17	30.17	1.494E+02	-1.497E+02	
1.416E+00	1.583E+00	97	253	18.76	48.94	48.94	1.248E+02	-1.233E+02	
1.583E+00	1.750E+00	192	445	37.14	86.07	86.07	6.125E+01	-6.031E+01	
1.750E+00	1.916E+00	59	503	11.22	97.29	97.29	1.745E+01	-1.702E+01	
1.916E+00	2.083E+00	11	514	2.13	99.42	99.42	2.979E+00	-2.308E+00	
		2	516	0.39	99.81	99.81	3.117E-01	2.896E+00	
		1	517	0.19	100.00	100.00			
		0	517	0.00	100.00	100.00			
		0	517						
		9	517						
TOTALS LESS H AND B		517					5.170E+02	-4.378E+02	

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

Concentration	Frequency in percent, each X equal 1 percent of all samples
4.638E+00	XXXXX
4.808E+00	XX
9.992E+00	XXXXXXXXXXXXXXXXXXXXXXX
1.467E+01	XXXXXXXXXXXXXXXXXXXXXX
2.153E+01	XXXXXXXXXXXXXXXXXXXXXXX
3.160E+01	XXXXXXXXXXXXXXX
4.638E+01	XX
6.808E+01	
9.992E+01	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00  
 MAXIMUM ANTILOG = 1.00000E+02  
 GEOMETRIC MEAN = 1.60340E+01  
 GEOMETRIC DEVIATION = 1.63076E+00  
 VARIANCE OF LOGS = 4.51092E-02

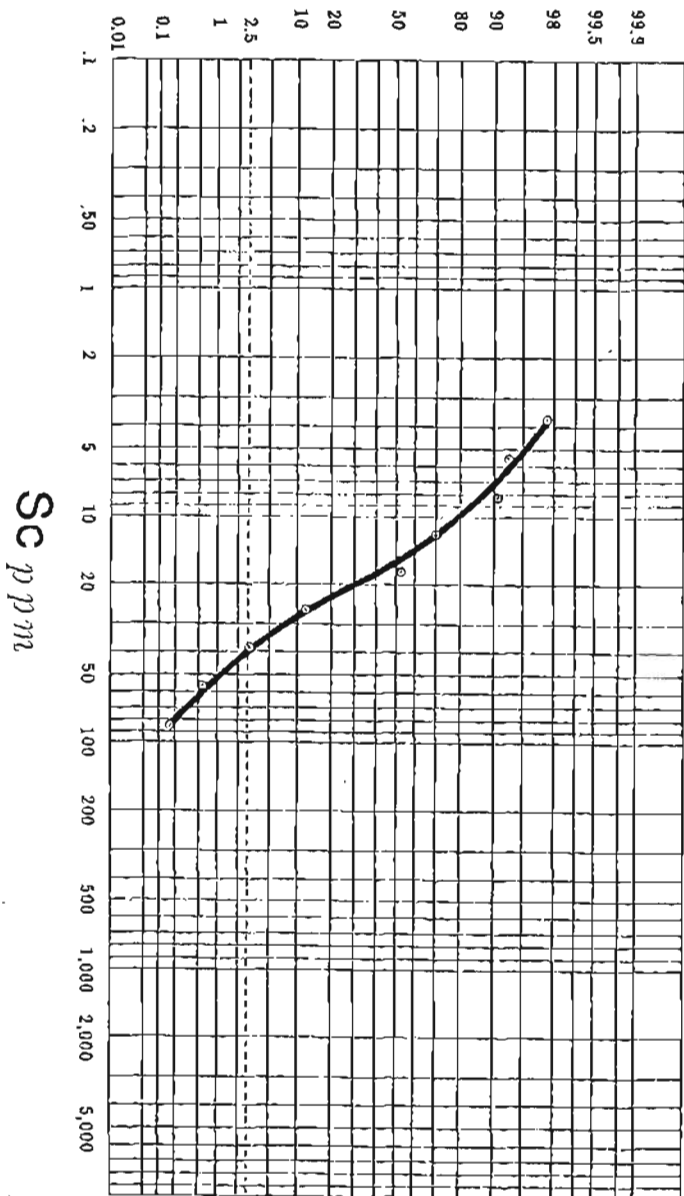
PERCENT TABLE FOR VARIABLE 25 (S-SC ) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE  
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED DATA VALUE ANTI LOG OF VALUE

PERCENTILE  
 25.00  
 50.00  
 75.00  
 90.00  
 95.00

0.104133E+01  
 0.125444E+01  
 0.136644E+01  
 0.147457E+01  
 0.154895E+01  
 0.109985E+02  
 0.179656E+02  
 0.232616E+02  
 0.298310E+02  
 0.353957E+02

Cumulative frequency %



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		511	511	98.84	98.84		
L		0	511	0.00	98.84		
7		0	511	0.00	98.84	4.674E+00	5.485E+04
9.150E-01	1.083E+00	2	513	0.39	99.23	5.046E+02	-5.046E+02
1.083E+00	1.249E+00	1	514	0.19	99.42	0.000E+00	0.000E+00
1.249E+00	1.416E+00	2	516	0.39	99.81	0.000E+00	0.000E+00
1.416E+00	1.583E+00	0	516	0.00	99.81	0.000E+00	0.000E+00
1.583E+00	1.749E+00	1	517	0.19	100.00	7.714E+00	-7.584E+00
6		0	517	0.00	100.00		
8		0	517				
9		0	517				
TOTALS LESS H AND B		517				5.170E+02	5.434E+04

HISTOGRAM FOR VARIABLE 26 (S-SN )  
\*10POINTS ARE EXPRESSED AS ANTILOGS

9.985E+00  
1.466E+01  
2.151E+01  
3.157E+01  
4.634E+01

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
MAXIMUM ANTILOG = 5.00000E+01  
GEOMETRIC MEAN = 1.76273E+01  
GEOMETRIC DEVIATION = 1.81834E+00  
VARIANCE OF LOGS = 6.74315E-02

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 0.9999991E 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

Table 4 (cont.)

FREQUENCY TABLE FOR VARIABLE 27 (S-SR )									
LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ	
LOWER	UPPER								
1.916E+00	2.083E+00	8	8	1.55	1.55	21.28	22.92	7.488E+01	2.494E+01
2.083E+00	2.249E+00	110	118	0.00	22.92	0.00	22.92	9.587E+01	-9.432E+01
2.249E+00	2.416E+00	0	118	28.53	51.45	8.90	60.35	1.248E+02	-1.248E+02
2.416E+00	2.583E+00	46	312	4.27	82.59	22.24	82.59	1.120E+02	-1.109E+02
2.583E+00	2.749E+00	115	427	7.93	90.52	7.93	90.52	6.927E+01	-5.868E+01
2.749E+00	2.916E+00	27	495	5.22	95.74	5.22	95.74	2.954E+01	-2.862E+01
2.916E+00	3.083E+00	5	500	0.97	96.71	0.97	96.71	8.677E+00	-8.101E+00
3.083E+00	3.249E+00	11	511	2.13	98.84	2.13	98.84	1.755E+00	-4.511E+00
3.249E+00	3.416E+00	3	514	0.58	99.42	0.58	99.42	2.444E-01	1.203E+01
		3	517	0.58	100.00	0.58	100.00	2.502E-02	1.199E+02
		0	517	0.00	100.00	0.00	100.00		
		G	0						
		H	0						
		H	517						
			0						
			517						
TOTALS LESS H AND R			517					5.170E+02	-2.738E+02

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## HISTOGRAM FOR VARIABLE 27 (S-SR )

MINPOINTS ARE EXPRESSED AS ANTILOGS

Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
9.985E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02	XXXXXXXXXX
2.151E+02	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+02	XXXXXXXXXX
4.614E+02	XXXXXX
6.802E+02	X
9.985E+02	XX
1.466E+03	X
2.151E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02  
 MAXIMUM ANTILOG = 2.00000E+03  
 GEOMETRIC MEAN = 1.82043E+02  
 GEOMETRIC DEVIATION = 1.90464E+00  
 VARIANCE OF LOGS = 7.822950E-02

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 0.9999997E 50

SELECTED DATA VALUE ANTI LOG OF VALUE

RECEIVED

DATA VALUE AND LOG OF VALUE

PERCENTILE

25.00  
50.00  
75.00  
92.00  
95.00

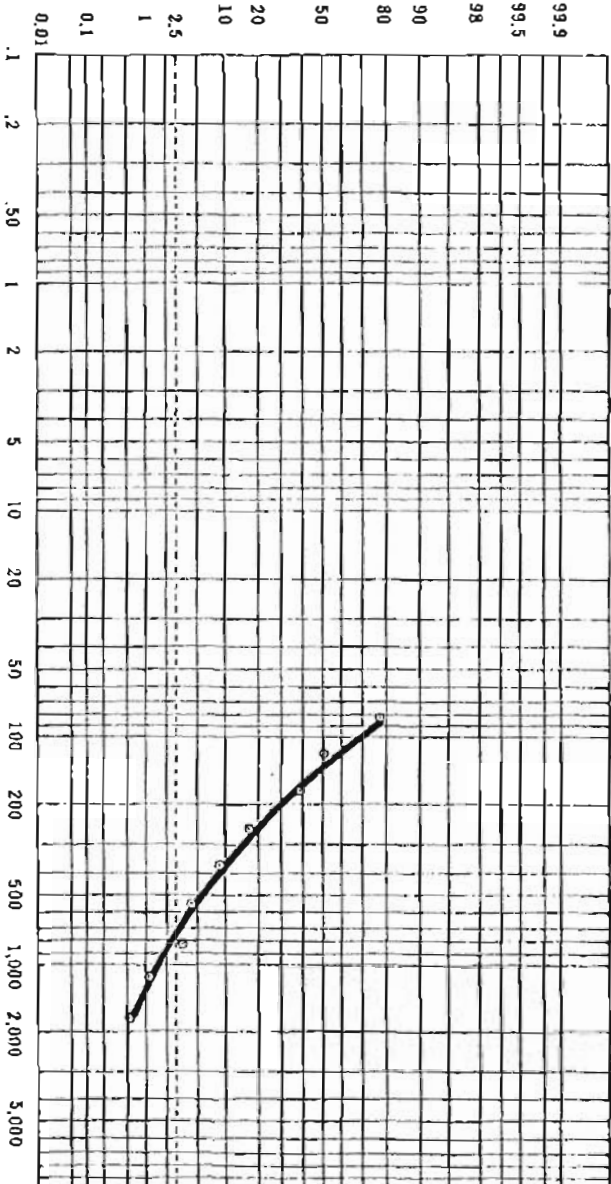
0.100000E+36  
0.100000E+36  
0.235912E+01  
0.257159E+01  
0.272557E+01

0.100000E+36  
0.100000E+36  
0.228621E+03  
0.372986E+03  
0.531581E+03

Cumulative frequency %

Wiseman 1980 Stream Sediments  
Spec. Sr in ppm  
Threshold = 750 ppm

Sr ppm



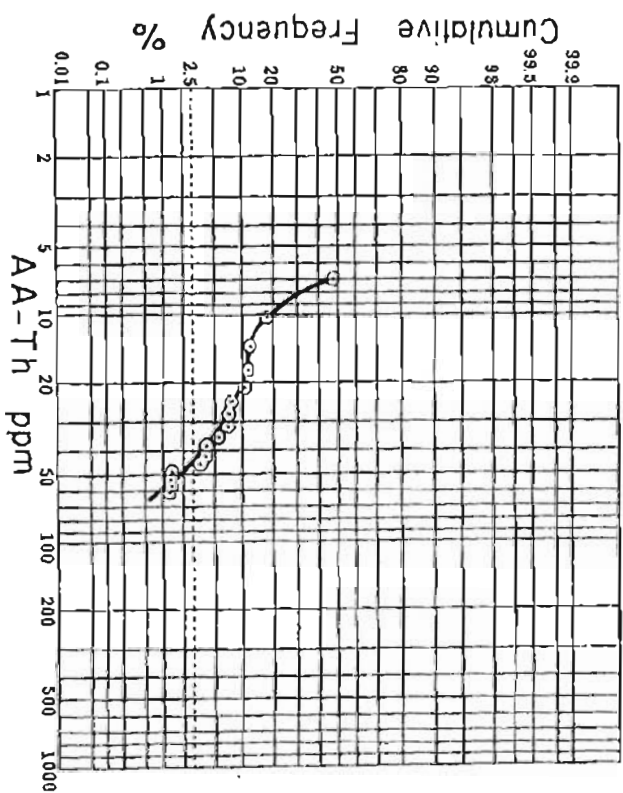
Th

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

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

HISTOGRAM OF VARIABLE	AA-Th	SYMBOL	COUNT	MEAN	ST. DEV.	FREQUENCY	PERCENTAGE
INTERVAL						INT.	INT.
NAME						CUM.	CUM.
7.0000	XXXXXX	X	69	10.687	10.398	34	49.3
10.500	XXXXXX					22	31.9
14.000	XXXXXX					4	5.8
17.500	XXXX					0	0.0
21.000	X					0	0.0
24.500	XXX					0	0.0
28.000						0	0.0
31.500						0	0.0
35.000	X					0	0.0
38.500	X					0	0.0
42.000	X					0	0.0
45.500	X					0	0.0
49.000	X					0	0.0
52.500	X					0	0.0
56.000	X					0	0.0
59.500	X					0	0.0
63.000						0	0.0

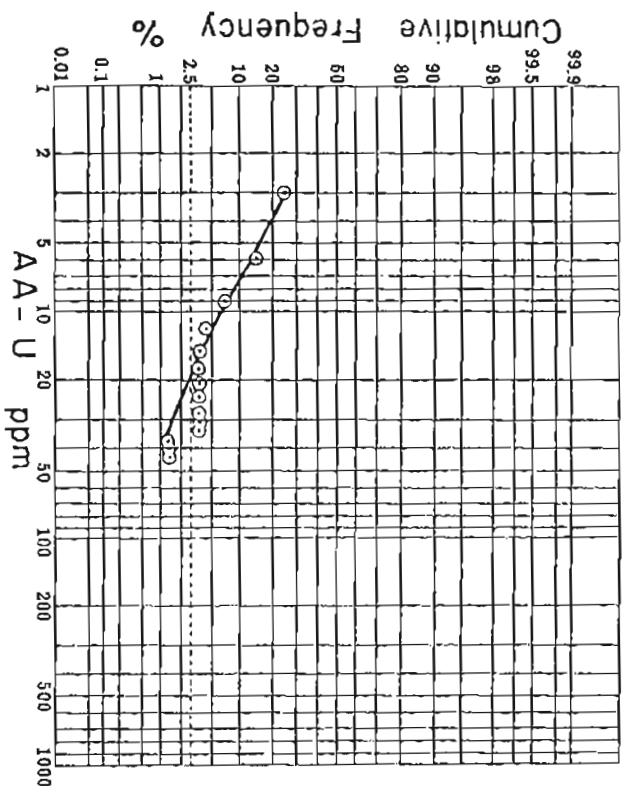
Wiseman 1980 Stream Sediments  
 AA-Th in ppm  
 Threshold = 45 ppm



# HISTOGRAM OF VARIABLE AA-U

INTERVAL	NAME	SYMBOL	COUNT	MEAN	ST. DEV.	FREQUENCY	PERCENTAGE
3.0000	XXXXXX	X	70	3.949	11.874	52	74.3
6.0000	XXXXXX					52	74.3
9.0000	XXXXXX					45	65.6
12.000	XXXXXX					67	97.1
15.000	XXXXXX					68	97.1
18.000	XXXXXX					68	97.1
21.000	XXXXXX					68	97.1
24.000	XXXXXX					68	97.1
27.000	XXXXXX					68	97.1
30.000	XXXXXX					68	97.1
33.000	XXXXXX					68	97.1
36.000	XXXXXX					68	97.1
39.000	XXXXXX					68	97.1
42.000	XXXXXX					68	97.1
45.000	XXXXXX					68	97.1
48.000	XXXXXX					68	97.1
51.000	XXXXXX					68	97.1

Wiseman 1980 Stream Sediments  
AA-U in ppm  
Threshold = 18 ppm



## FREQUENCY TABLE FOR VARIABLE 28 (S-V )

LOG LIMITS		Obs	Cum	PERCENT	PERCENT	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER	UPPER	FREQ	FREQ	FREQ	CUM FREQ		
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00		
9.160E-01	1.083E+00	3	3	0.58	0.58	2.387E-01	1.233E+01
1.083E+00	1.249E+00	1	4	0.19	0.77	1.570E+00	-9.334E-01
1.249E+00	1.416E+00	13	17	2.51	3.29	7.358E+00	-5.591E+00
1.416E+00	1.583E+00	19	36	3.58	6.96	2.456E+01	-2.379E+01
1.583E+00	1.749E+00	68	104	13.15	20.12	5.844E+01	-5.728E+01
1.749E+00	1.916E+00	77	181	14.89	35.01	9.912E+01	-9.834E+01
1.916E+00	2.083E+00	109	290	21.08	56.09	1.199E+02	-1.190E+02
2.083E+00	2.249E+00	96	386	18.57	74.66	1.034E+02	-1.025E+02
2.249E+00	2.416E+00	110	496	21.28	95.94	6.357E+01	-6.184E+01
2.416E+00	2.583E+00	20	516	3.87	99.81	2.787E+01	-2.715E+01
2.583E+00	2.749E+00	1	517	0.19	100.00	1.099E+01	-1.090E+01
	G	0	517	0.00	100.00		
	H	0	517				
	B	0	517				
TOTALS LESS H AND B		517				5.170E+02	-4.949E+02

## HISTOGRAM FOR VARIABLE 28 (S-V )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	X
9.985E+00	X
1.466E+01	XXX
2.151E+01	XXXX
3.157E+01	XXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXX
5.802E+01	XXXXXXXXXXXXXXXX
9.985E+01	XXXXXXXXXXXXXXXX
1.466E+02	XXXXXXXXXXXXXXXX
2.151E+02	XXXXXXXXXXXXXXXX
3.157E+02	XXXX
4.635E+02	

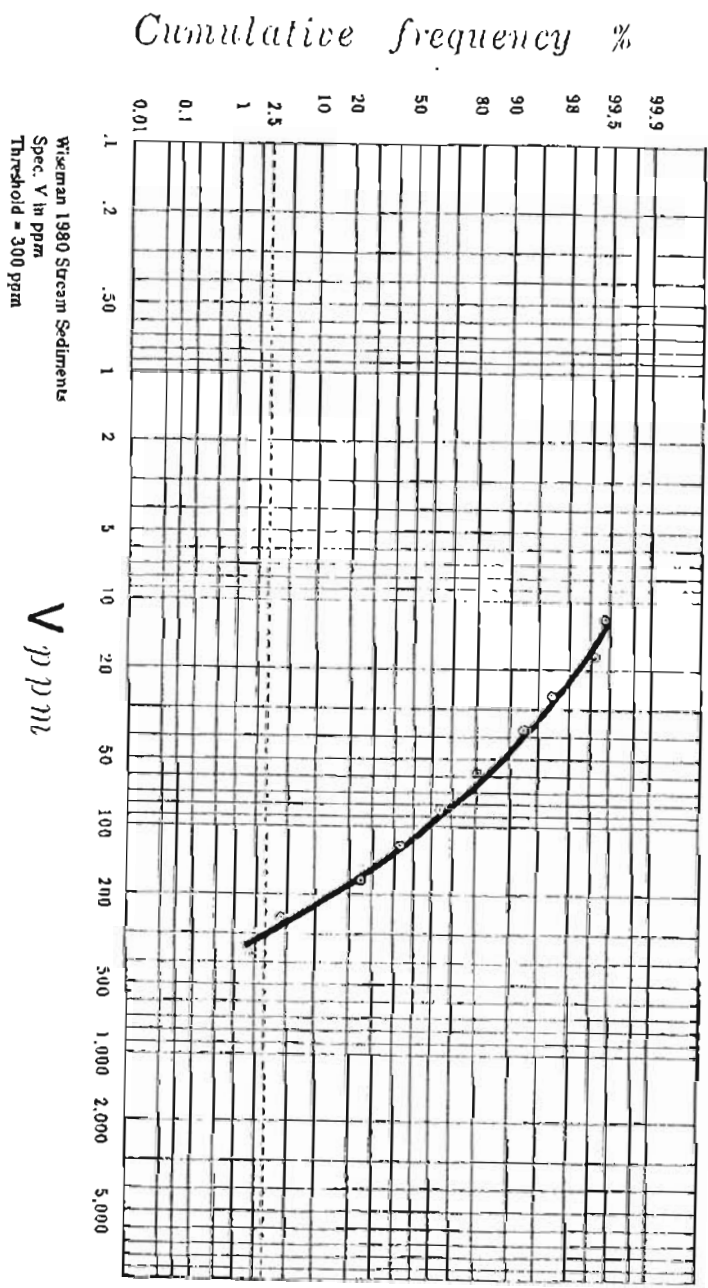
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 5.00000E+02  
 GEOMETRIC MEAN = 1.02260E+02  
 GEOMETRIC DEVIATION = 1.91633E+00  
 VARIANCE OF LOGS = 7.97898E-02

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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.180399E+01	0.636779E+02
50.00	0.203450E+01	0.108269E+03
75.00	0.225199E+01	0.178644E+03
90.00	0.236949E+01	0.234147E+03
95.00	0.240865E+01	0.256244E+03



W

Wiseman 1980 Stream Sediments  
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.

FREQUENCY TABLE FOR VARIABLE 30 (S-Y)

LOS LIMITS	LOS	PERCENT	PERCENT	THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOADER	UPPER	FREQ	FREQ	(NORMAL DIST)	
N		5	0.97	0.97	
L		0	0.00	0.97	
T		5	0.00	0.97	
9.150E+01	1.083E+00	42	8.12	9.452E+01	1.952E+00
1.093E+02	1.249E+00	39	7.54	8.956E+01	-3.351E+01
1.249E+02	1.416E+00	201	38.88	1.407E+02	-8.922E+01
1.416E+00	1.583E+00	128	24.76	1.355E+02	-1.395E+02
1.583E+01	1.749E+00	78	15.09	1.335E+02	-1.325E+02
1.749E+02	1.916E+00	12	2.32	7.656E+01	-7.554E+01
1.916E+01	2.083E+00	8	1.55	2.653E+01	-2.608E+01
2.083E+00	2.249E+00	2	0.39	5.547E+00	-4.105E+00
2.249E+00	2.416E+00	2	0.39	6.990E-01	2.162E+00
		2	0.39	5.547E-02	3.600E+01
G		0	0.00	100.00	
H		0	0.00		
R		0	0.00		
		517			
		517			
TOTALS	LESS H AND R	517		5.170E+02	-4.509E+02

HISTOGRAM FOR VARIABLE 30 (S-Y )  
 10POINTS ARE EXPRESSED AS ANTILOGS

Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
9.985E+00	XXXXXXXXXX
1.466E+01	XXXXXXXXXX
2.151E+01	XXXXXXXXXX
3.157E+01	XXXXXXXXXX
4.634E+01	XXXXXXXXXX
5.802E+01	XXXXXX
9.985E+01	XX
1.466E+02	XX
2.151E+02	

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNEQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG = 1.0000E+01
MAXIMUM ANTILOG = 2.0000E+01
GEOMETRIC MEAN = 2.52617E+01
GEOMETRIC DEVIATION = 1.68871E+00
VARIANCE OF LOGS = 5.17814E-02
```

PERCENT TABLE FOR VARIABLE 30 (S-Y ) BY LINEARINTERPOLATION 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 30

SELECTED	DATA VALUE	ANTI LOG OF VALUE
1	1.0000	1.0000
2	1.0500	1.0500
3	1.1000	1.1000
4	1.1500	1.1500
5	1.2000	1.2000
6	1.2500	1.2500
7	1.3000	1.3000
8	1.3500	1.3500
9	1.4000	1.4000
10	1.4500	1.4500
11	1.5000	1.5000
12	1.5500	1.5500
13	1.6000	1.6000
14	1.6500	1.6500
15	1.7000	1.7000
16	1.7500	1.7500
17	1.8000	1.8000
18	1.8500	1.8500
19	1.9000	1.9000
20	1.9500	1.9500
21	2.0000	2.0000
22	2.0500	2.0500
23	2.1000	2.1000
24	2.1500	2.1500
25	2.2000	2.2000
26	2.2500	2.2500
27	2.3000	2.3000
28	2.3500	2.3500
29	2.4000	2.4000
30	2.4500	2.4500
31	2.5000	2.5000
32	2.5500	2.5500
33	2.6000	2.6000
34	2.6500	2.6500
35	2.7000	2.7000
36	2.7500	2.7500
37	2.8000	2.8000
38	2.8500	2.8500
39	2.9000	2.9000
40	2.9500	2.9500
41	3.0000	3.0000
42	3.0500	3.0500
43	3.1000	3.1000
44	3.1500	3.1500
45	3.2000	3.2000
46	3.2500	3.2500
47	3.3000	3.3000
48	3.3500	3.3500
49	3.4000	3.4000
50	3.4500	3.4500
51	3.5000	3.5000
52	3.5500	3.5500
53	3.6000	3.6000
54	3.6500	3.6500
55	3.7000	3.7000
56	3.7500	3.7500
57	3.8000	3.8000
58	3.8500	3.8500
59	3.9000	3.9000
60	3.9500	3.9500
61	4.0000	4.0000
62	4.0500	4.0500
63	4.1000	4.1000
64	4.1500	4.1500
65	4.2000	4.2000
66	4.2500	4.2500
67	4.3000	4.3000
68	4.3500	4.3500
69	4.4000	4.4000
70	4.4500	4.4500
71	4.5000	4.5000
72	4.5500	4.5500
73	4.6000	4.6000
74	4.6500	4.6500
75	4.7000	4.7000
76	4.7500	4.7500
77	4.8000	4.8000
78	4.8500	4.8500
79	4.9000	4.9000
80	4.9500	4.9500
81	5.0000	5.0000
82	5.0500	5.0500
83	5.1000	5.1000
84	5.1500	5.1500
85	5.2000	5.2000
86	5.2500	5.2500
87	5.3000	5.3000
88	5.3500	5.3500
89	5.4000	5.4000
90	5.4500	5.4500
91	5.5000	5.5000
92	5.5500	5.5500
93	5.6000	5.6000
94	5.6500	5.6500
95	5.7000	5.7000
96	5.7500	5.7500
97	5.8000	5.8000
98	5.8500	5.8500
99	5.9000	5.9000
100	5.9500	5.9500
101	6.0000	6.0000
102	6.0500	6.0500
103	6.1000	6.1000
104	6.1500	6.1500

SELECTED

DATA VALUE

ANTI LOG OF VALUE

PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

0.128520E+01  
0.139237E+01  
0.154719E+01  
0.169015E+01  
0.174538E+01

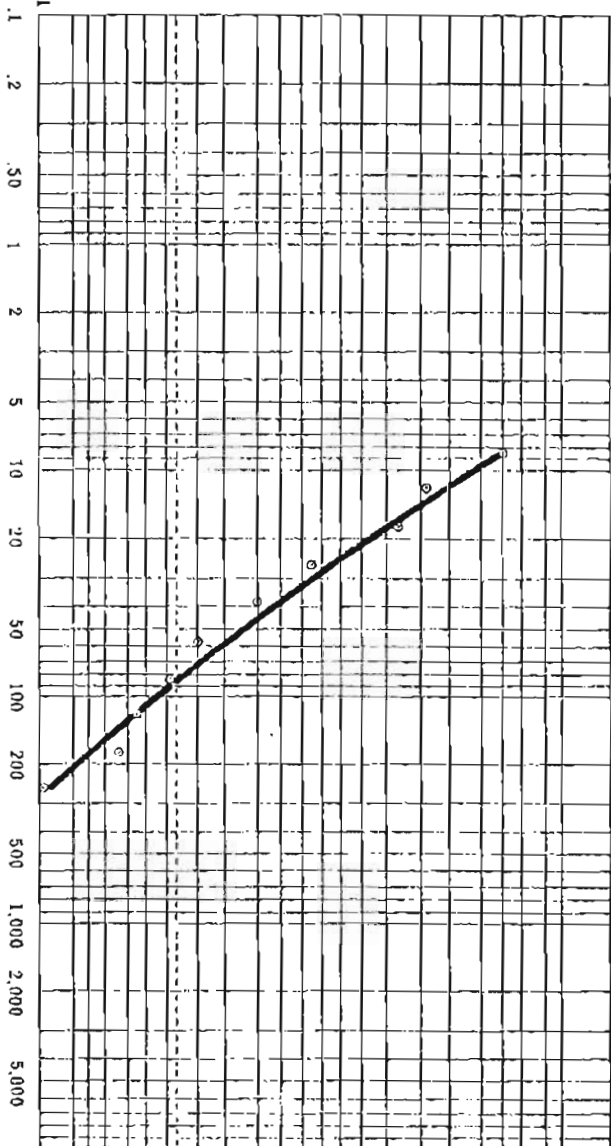
0.192840E+02  
0.246814E+02  
0.352522E+02  
0.489944E+02  
0.556393E+02

Table 4 (cont.)

-117-

Cumulative frequency %

99.9  
99.5  
98  
90  
80  
50  
20  
10  
2.5  
1  
0.1  
0.01



Wiseman 1980 Stream Sediments  
Spec. Y in ppm  
Threshold = 88 ppm

Y 77 77 77

FREQUENCY TABLE FOR VARIABLE 31 (S-ZN )

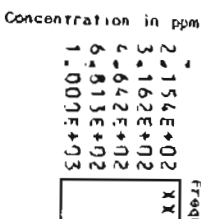
LOG LIMITS		OBS		CUM		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
N		406	406	79.53	78.53						
L		100	506	19.34	97.87						
T		0	506	0.00	97.87						
2.2577E+00	2.417E+00	9	515	1.74	99.61			2.476E+01		9.354E+03	
2.417E+00	2.583E+00	1	516	0.19	99.81			4.922E+02		-4.921E+02	
2.583E+00	2.750E+00	0	516	0.00	99.81			0.000E+00		0.000E+00	
2.750E+00	2.917E+00	0	516	0.00	99.81			0.000E+00		0.000E+00	
2.917E+00	3.083E+00	1	517	0.19	100.00			0.000E+00		0.000E+00	
G		0	517	0.00	100.00			9.233E-02		1.206E+01	
H		0	517								
R		0	517								

TOTALS LESS H AND R 517

8.874E+03

HISTOGRAM FOR VARIABLE 31 (S-ZN )

POINTS 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 = 2.00000E+02  
MAXIMUM ANTILOG = 1.00000E+03  
GEOMETRIC MEAN = 2.40204E+02  
GEOMETRIC DEVIATION = 1.62975E+00  
VARIANCE OF LOGS = 4.49956E-02

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 0.9999991E 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

Zn

Wise man 1980 Stream Sediments

Spec. Zn in ppm

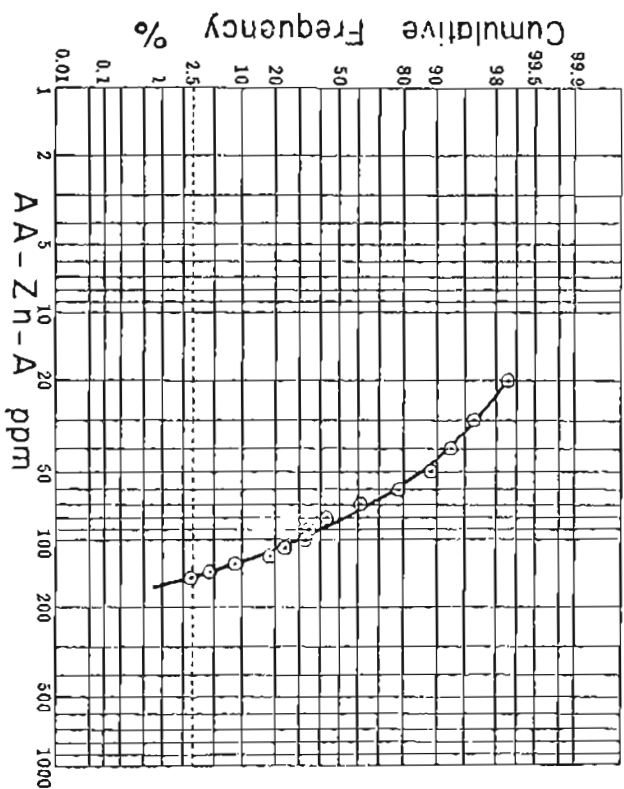
Threshold - Detection limit = 200 ppm

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

HISTOGRAM OF VARIABLE										MA-ZH-A	SYMBOL	COUNT	MEAN	ST.DEV.			
INTERVAL	NAME	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
20.000	X																
30.000	X																
40.000	XXX																
50.000	XXX																
60.000	XXXXXXXXXX																
70.000	XXXXXXXXXX																
80.000	XXXXXXXXXX																
90.000	XXXXXXXXXX																
100.000	XXXXXX																
110.000	XXXXXX																
120.000	XXXXXX																
130.000	XXXXXX																
140.000	XXXXXX																
150.000	XXXX																
160.000	XX																
170.000	XX																
180.000																	

FREQUENCY	PERCENTAGE
INT.	CUM.
1	1.4
1	2.9
3	7.1
3	11.4
3	14.3
8	18.6
15	24.0
28	40.0
39	55.7
11	67.3
6	77.1
2	81.4
6	91.4
4	95.7
1	97.1
1	98.6
1	99.0
1	100.0

Wiseman 1980 Stream Sediments  
AA-Zn-A in ppm  
Threshold = 150 ppm



FREQUENCY TABLE FOR VARIABLE 32 (5-7D)

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		0	0	0.00	0.00		
T		0	0	0.00	0.00		
7.500E-01	9.167E-01	1	1	0.19	0.19	0.000E+00	0.000E+00
9.167E-01	1.083E+00	0	1	0.00	0.19	5.482E-02	-5.482E-02
1.083E+00	1.250E+00	0	1	0.00	0.19	4.842E-01	-4.842E-01
1.250E+00	1.417E+00	3	4	0.58	0.19	3.139E+00	-2.183E+00
1.417E+00	1.583E+00	8	12	1.55	2.32	1.390E+01	-1.332E+01
1.583E+00	1.750E+00	69	81	13.35	15.67	4.274E+01	-4.040E+01
1.750E+00	1.917E+00	56	137	10.83	26.50	8.697E+01	-8.633E+01
1.917E+00	2.083E+00	141	278	27.27	53.77	1.230E+02	-1.219E+02
2.083E+00	2.250E+00	93	371	17.99	71.76	1.191E+02	-1.193E+02
2.250E+00	2.417E+00	88	459	17.02	89.78	7.893E+01	-7.772E+01
2.417E+00	2.583E+00	49	508	9.48	98.24	3.569E+01	-3.432E+01
2.583E+00	2.750E+00	9	517	1.74	100.00	1.376E+01	-1.310E+01
G		0	517	0.00			
H		0	517				
R		0	517		100.00		

TOTALS LESS H AND R	517	5.170E+02	-5.091E+02
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HISTOGRAM FOR VARIABLE 32 (S-ZR )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	
6.813E+00	
1.000E+01	
1.459E+01	X
2.154E+01	
3.162E+01	XX
4.642E+01	XXXXXXXXXXXX
5.813E+01	XXXXXXXXXXXX
1.009E+02	XXXXXXXXXXXX
1.469E+02	XXXXXXXXXXXX
2.154E+02	XXXXXXXXXXXX
3.162E+02	XXXXXXXXXX
4.642E+02	XX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

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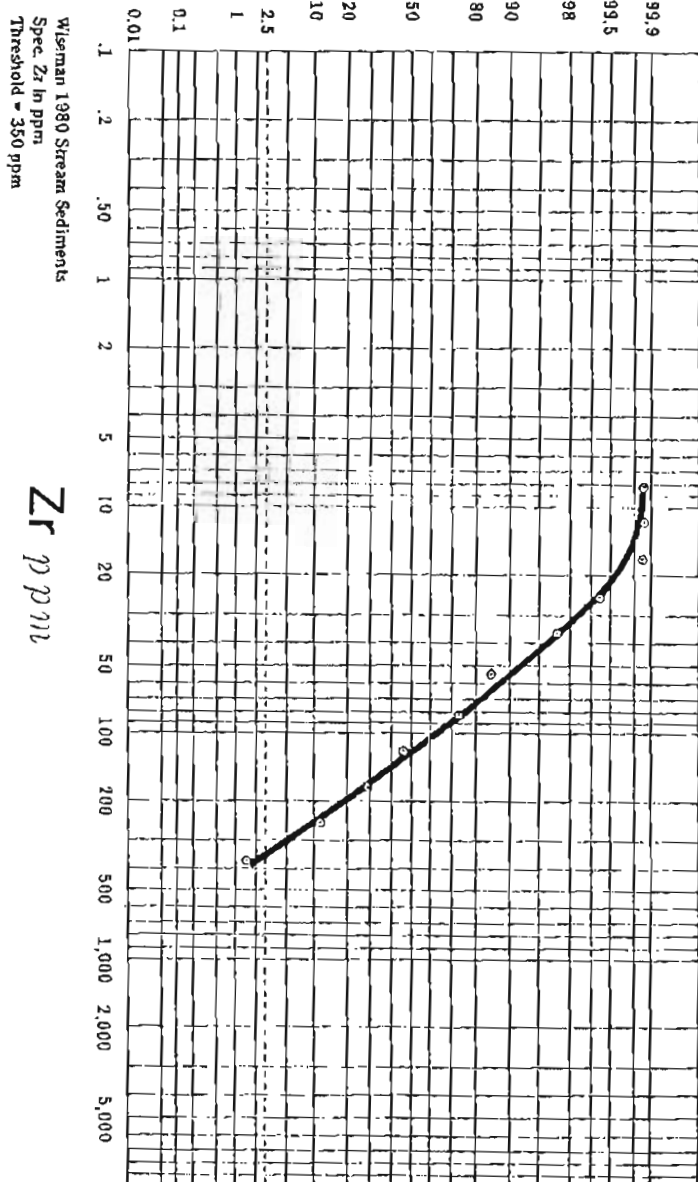
MINIMUM ANTILOG = 7.0000E+03
MAXIMUM ANTILOG = 5.0000E+02
GEOMETRIC MEAN = 1.17421E+02
GEOMETRIC DEVIATION = 1.48537E+00
VARIANCE OF LOGS = 7.08004E-02

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PERCENT TABLE FOR VARIABLE 32 (S-7R) 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	0.189360E+01	0.782715E+02
50.00	0.206029E+01	0.114891E+03
75.00	0.228173E+01	0.191305E+03
90.00	0.243810E+01	0.274220E+03
95.00	0.252602E+01	0.335756E+03

Cumulative frequency %



## FREQUENCY TABLE FOR VARIABLE 36 (AA-2N-P)

LOG LIMITS		OAS		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
N											
L											
T											
1.083E+00	1.250E+00	1	0	0.00	0.00	0.00	3.456E-02	2.697E+01			
1.253E+00	1.416E+00	1	1	0.20	0.20	0.20	6.557E-01	9.694E-01			
1.416E+00	1.583E+00	0	1	0.00	0.20	0.20	6.727E+00	-5.537E+00			
1.583E+00	1.750E+00	28	38	5.52	1.97	2.50	3.644E+01	-3.568E+01			
1.750E+00	1.916E+00	119	157	23.47	30.97	61.14	1.046E+02	-1.035E+02			
1.916E+00	2.083E+00	153	310	30.18	89.15	1.594E+02	1.594E+02	-1.585E+02			
2.083E+00	2.250E+00	142	452	28.01	89.15	1.292E+02	1.292E+02	-1.281E+02			
2.250E+00	2.416E+00	45	477	8.38	98.03	5.560E+01	5.560E+01	-5.479E+01			
2.416E+00	2.583E+00	6	503	1.18	99.21	1.269E+01	1.269E+01	-1.227E+01			
		4	507	0.79	100.00	1.632E+00	1.632E+00	8.184E-01			
		0	507	0.00	100.00						
		0	507	0.00	100.00						
		10	517								
TOTALS LESS H AND B											
			507				5.070E+02	-4.696E+02			

HISTOGRAM FOR VARIABLE 36 (AA-2N-P)  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

1.467E+01	XX
2.153E+01	XX
3.160E+01	XXXXXX
4.638E+01	XXXXXXXXXXXXXXXXXXXXXX
6.808E+01	XXXXXXXXXXXXXXXXXXXXXX
9.992E+01	XXXXXXXXXXXXXXXXXXXXXX
1.467E+02	XXXXXXXXXX
2.153E+02	X
3.160E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNEQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E+01  
 MAXIMUM ANTILOG = 3.20000E+02  
 GEOMETRIC MEAN = 7.29649E+01  
 GEOMETRIC DEVIATION = 1.57552E+00  
 VARIANCE OF LOGS = 3.89762E-02

PERCENT TABLE FOR VARIABLE 36 (AA-2N-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 0.99999991E 50

SELECTED DATA VALUE ANTILOG OF VALUE

PERCENTILE

25.00	0.170730E+01	0.509684E+02
50.00	0.185479E+01	0.715794E+02
75.00	0.199879E+01	0.997214E+02
90.00	0.209893E+01	0.125582E+03
95.00	0.219282E+01	0.155890E+03

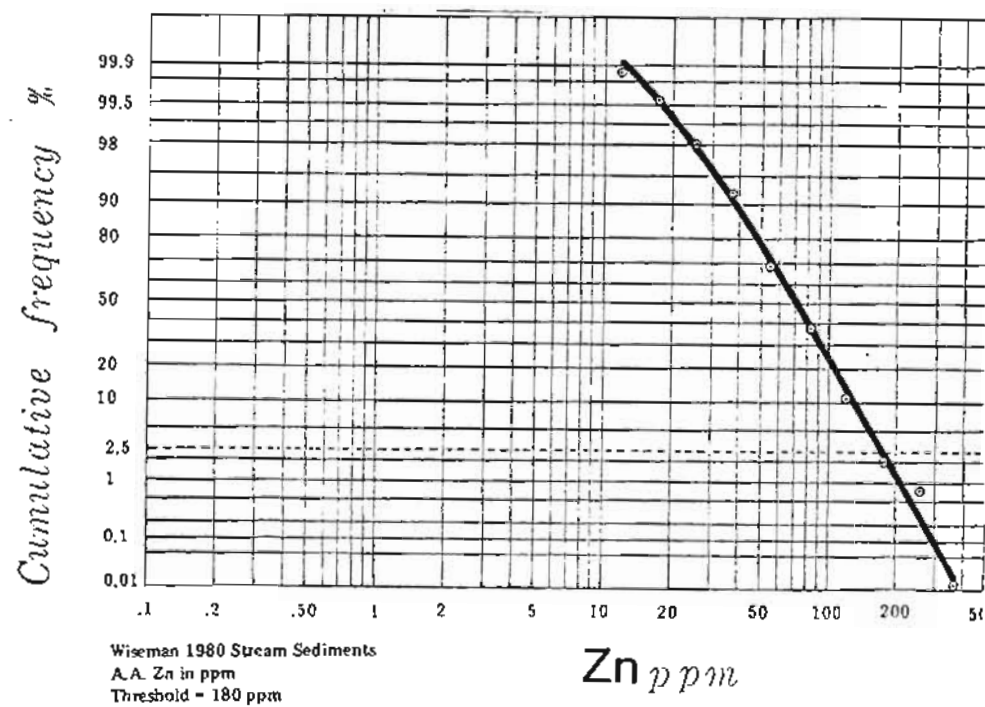


Table 5. Statistical summary of analytical results for 517 of 647 stream sediment samples from the southwest Wisconsin Quadrangle, Alaska. The number of samples for which qualified values are available are listed under the following codes: N = not detected, H = severe interference problem, L = detected 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, and other K-moment statistics are listed.

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER VALUES	MINIMUM	MAXIMUM
1	LATITUDE	0	0	0	0	0	0	517	0	0.6708472E+02	0.6762361E+02
2	LONGITUDE	0	0	0	0	0	0	517	0	0.1510283E+03	0.1564302E+03
3	S-FEX	0	0	0	0	0	0	517	0	0.5000000E+00	0.5000000E+00
4	S-MGX	0	0	0	0	0	0	517	0	0.1500000E+00	0.1500000E+00
5	S-CAX	0	0	0	0	0	0	517	0	0.5000000E+00	0.5000000E+00
6	S-TLY	0	0	0	0	0	0	517	0	0.5000000E+00	0.5000000E+00
7	S-MN	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
8	S-AG	0	0	0	0	0	0	517	0	0.2000000E+01	0.2000000E+01
9	S-AS	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
10	S-AU	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
11	S-9	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
12	S-BA	0	0	0	0	0	0	517	0	0.2000000E+02	0.2000000E+02
13	S-9E	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
14	S-AT	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
15	S-CD	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
16	S-CO	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
17	S-CR	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
18	S-CU	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
19	S-CA	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
20	S-MO	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
21	S-NB	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
22	S-NI	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
23	S-PB	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
24	S-SC	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
25	S-SC	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
26	S-SN	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
27	S-SR	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
28	S-V	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
29	S-W	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
30	S-Y	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
31	S-ZN	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
32	S-ZR	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01
33	S-YH	0	0	0	0	0	0	517	0	0.5000000E+01	0.5000000E+01
34	AA-ZN-P	0	0	0	0	0	0	517	0	0.1000000E+01	0.1000000E+01

Table 5 (cont.)

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY									
NO COLUMN	K1	K2	K3	G1	K4	G2			
	MEAN	STD DEVIATION	VARIANCE						
1 LATITUDE	0.67354990+02	0.12656990+00	0.16019930-01	0.11554490-03	0.56984360-01	-0.23793900-03			
2 LONGITUDE	0.15205860+03	0.56117250+00	0.31691460+00	0.14133240+00	0.70974700+00	-0.57316230+00			
3 E-EEZ	0.13439070+01	0.19424940+01	0.37733280+01	0.20233390+02	0.27603770+01	0.21931710+03			
4 S-VGZ	0.94410060+00	0.40263070+00	0.16711140+00	0.20333340-01	0.31153700+00	-0.90281690-02			
5 S-CAZ	0.29308510+01	0.47244930+01	0.22322720+02	0.23842000+03	0.22605910+01	0.22819620+04			
6 S-TIX	0.43640330+00	0.20078000+00	0.40337260-01	0.16660410-02	0.20583760+00	-0.39661860-03			
7 S-MN	0.52000000+03	0.46761670+03	0.21866540+04	0.40327770+09	0.39439750+01	-0.11046720+13			
8 S-AG	0.10000000+01	0.00000000+00	0.00000000+00	0.00000000+00	0.00000000+00	0.00000000+00			
9 S-AS	0.40000000+03	0.17320510+03	0.30000000+05	-0.90000000+07	-0.17320510+01	0.99900000+35			
10 S-AU	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35			
11 S-B	0.55570600+02	0.35515490+02	0.12613500+04	0.67499770+05	0.15063760+01	0.53722740+07			
12 S-9A	0.37367700+03	0.24290380+03	0.59002240+05	0.19364260+08	0.13509240+01	0.87846100+10			
13 S-BE	0.11237240+01	0.35258410+03	0.11061720+00	0.19236140+00	0.52289380+01	0.58557480+00			
14 S-RI	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35			
15 S-CO	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35			
16 S-CO	0.31634890+02	0.28802820+02	0.82060220+03	0.19772490+06	0.41829000+01	0.21410500+08			
17 S-CR	0.10084440+03	0.59079810+02	0.34904240+04	0.19772490+06	0.95883540+00	0.81910020+07			
18 S-CU	0.32333980+02	0.31147710+02	0.98701700+03	0.22066240+06	0.71152280+01	0.93624490+08			
19 S-LA	0.60305500+02	0.37716830+02	0.14225600+04	0.27565600+06	0.51379040+01	0.90799860+08			
20 S-MO	0.75000000+01	0.35355340+01	0.12500000+02	0.99900000+35	0.99900000+35	0.99900000+35			
21 S-N9	0.20000000+02	0.00000000+00	0.00000000+00	0.00000000+00	0.00000000+00	0.00000000+00			
22 S-MI	0.42800780+02	0.27973350+02	0.78250820+03	0.28773060+05	0.13146470+01	0.21513000+07			
23 S-PA	0.25521650+02	0.24316570+02	0.59129540+03	0.83098770+05	0.56326500+01	0.14434520+08			
24 S-SB	0.30000000+03	0.28284270+03	0.80000000+05	0.99900000+35	0.99900000+35	0.99900000+35			
25 S-SC	0.18027720+02	0.95445500+01	0.91098440+02	0.23160640+04	0.26636930+01	0.12310080+06			
26 S-SN	0.20833330+02	0.14972200+02	0.22416670+03	0.66208330+04	0.19726780+01	0.21260420+06			
27 S-SR	0.23934840+03	0.25996340+03	0.67580980+05	0.70102280+08	0.39902070+01	0.89491080+11			
28 S-V	0.12275630+03	0.69319350+02	0.48050340+04	0.28032620+06	0.84162590+00	0.28298290+08			
29 S-Y	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35			
30 S-Y	0.29501950+02	0.20831450+02	0.43394910+03	0.33557230+05	0.37121700+01	0.41142240+07			
31 S-ZN	0.28181820+03	0.24007570+03	0.57636360+05	0.445472730+08	0.32284760+01	0.35005450+11			
32 S-ZR	0.14028430+03	0.87641880+02	0.76810990+04	0.10498180+07	0.15594770+01	0.19869320+09			
33 S-TH	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35	0.99900000+35			
34 AA-ZN-P	0.80909090+02	0.39414420+02	0.15535280+04	0.11608210+06	0.18957730+01	0.17009820+08			



Table 7. Graphical analysis of analytical results for 152 of 156 pan-concentrate samples from the southwest Wiseman Quadrangle, Alaska. The table 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 determined to fall within certain logarithmically expressed concentration intervals for a log-normal distribution (theor. freq.); 2) histogram and cumulative-frequency curve drawn from data in (1) above; 3) threshold value used to distinguish samples with anomalously high concentrations; 4) highest and lowest unqualified concentrations detected (maximum and minimum antilog); 5) geometric mean, deviation, and variance of samples detected in unqualified concentrations; and 6) interpolated elemental concentrations higher than 25 percent, 50 percent, 90 percent, 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, Mn, 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 the caption for table 2. Analyst's estimates for Ti concentrations greater than the detection limit are noted and are used to construct the graphs for Ti.

## FREQUENCY TABLE FOR VARIABLE 3 (S-FEX )

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		0	0	0.00	0.00		
T		0	0	0.00	0.00		
-8.400E-02	8.267E-02	2	2	1.32	1.32	6.133E+00	-5.807E+00
8.267E-02	2.493E-01	0	2	0.00	1.32	1.305E+01	-1.305E+01
2.493E-01	4.160E-01	50	52	32.89	34.21	2.179E+01	-1.950E+01
4.160E-01	5.827E-01	38	90	25.00	59.21	2.855E+01	-2.722E+01
5.827E-01	7.493E-01	29	119	19.08	78.29	2.933E+01	-2.835E+01
7.493E-01	9.160E-01	4	123	2.63	80.92	2.365E+01	-2.349E+01
9.160E-01	1.083E+00	8	131	5.26	86.18	1.496E+01	-1.442E+01
1.083E+00	1.249E+00	6	137	3.95	90.13	7.419E+00	-6.611E+00
1.249E+00	1.416E+00	11	148	7.24	97.37	4.025E+00	-1.293E+00
G		4	152	2.63	100.00	3.092E+00	2.669E-01
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.520E+02	-1.395E+02

## HISTOGRAM FOR VARIABLE 3 (S-FEX )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

9.985E-01	X
1.466E+00	
2.151E+00	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+00	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+00	XXXXXXXXXXXXXXXXXXXX
6.802E+00	XXX
9.985E+00	XXXXX
1.466E+01	XXXXX
2.151E+01	XXXXXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+00  
 MAXIMUM ANTILOG = 2.00000E+01  
 GEOMETRIC MEAN = 3.82328E+00  
 GEOMETRIC DEVIATION = 2.09244E+00  
 VARIANCE OF LOGS = 1.01488E-01

PERCENT TABLE FOR VARIABLE 3 (S-FEX ) 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                      DATA VALUE                      ANTI LOG OF VALUE

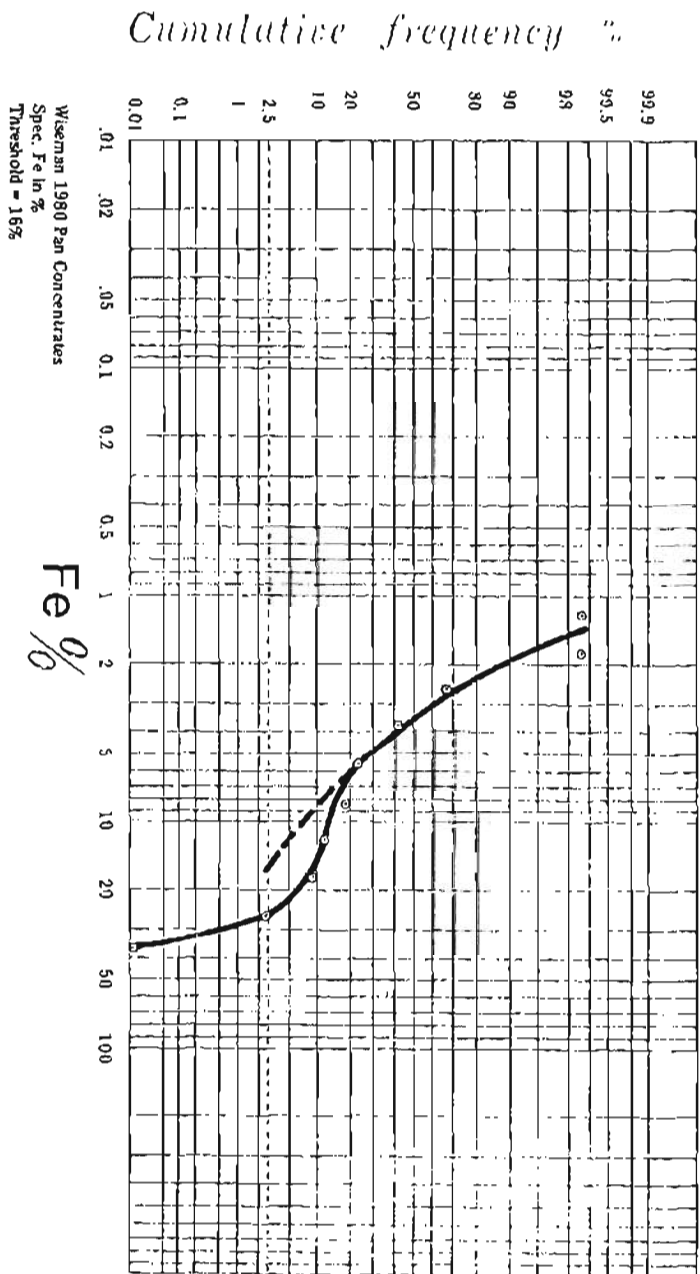
PERCENTILE

25<sup>th</sup> 0.00  
50<sup>th</sup> 0.00  
75<sup>th</sup> 0.00  
90<sup>th</sup> 0.00  
95<sup>th</sup> 0.00

0.322667E+00  
0.521264E+00  
0.720599E+00  
0.124378E+01  
0.136146E+01

0.210217E+01  
0.332097E+01  
0.525532E+01  
0.175299E+02  
0.229857E+02

Table 7 (cont.)



## FREQUENCY TABLE FOR VARIABLE 4 (S-MGX )

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		0	0	0.00	0.00		
T		0	0	0.00	0.00		
-1.250E+00	-1.083E+00	1	1	0.66	0.66	1.998E-01	4.905E+00
-1.083E+00	-9.167E-01	0	1	0.00	0.66	7.897E-01	-7.897E-01
-9.167E-01	-7.500E-01	0	1	0.00	0.66	2.499E+00	-2.499E+00
-7.500E-01	-5.833E-01	5	6	3.29	3.95	6.330E+00	-5.541E+00
-5.833E-01	-4.167E-01	18	24	11.84	15.79	1.284E+01	-1.144E+01
-4.167E-01	-2.500E-01	27	51	17.75	33.55	2.086E+01	-1.956E+01
-2.500E-01	-8.333E-02	19	70	12.50	46.05	2.713E+01	-2.643E+01
-8.333E-02	8.334E-02	32	102	21.05	67.11	2.826E+01	-2.713E+01
8.334E-02	2.500E-01	18	120	11.84	78.95	2.358E+01	-2.282E+01
2.500E-01	4.167E-01	15	135	9.87	88.82	1.575E+01	-1.480E+01
4.167E-01	5.833E-01	11	146	7.24	96.05	8.427E+00	-7.122E+00
5.833E-01	7.500E-01	6	152	3.95	100.00	5.278E+00	-4.142E+00
G		0	152	0.00	100.00		
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.520E+02	-1.375E+02

## HISTOGRAM FOR VARIABLE 4 (S-MGX )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

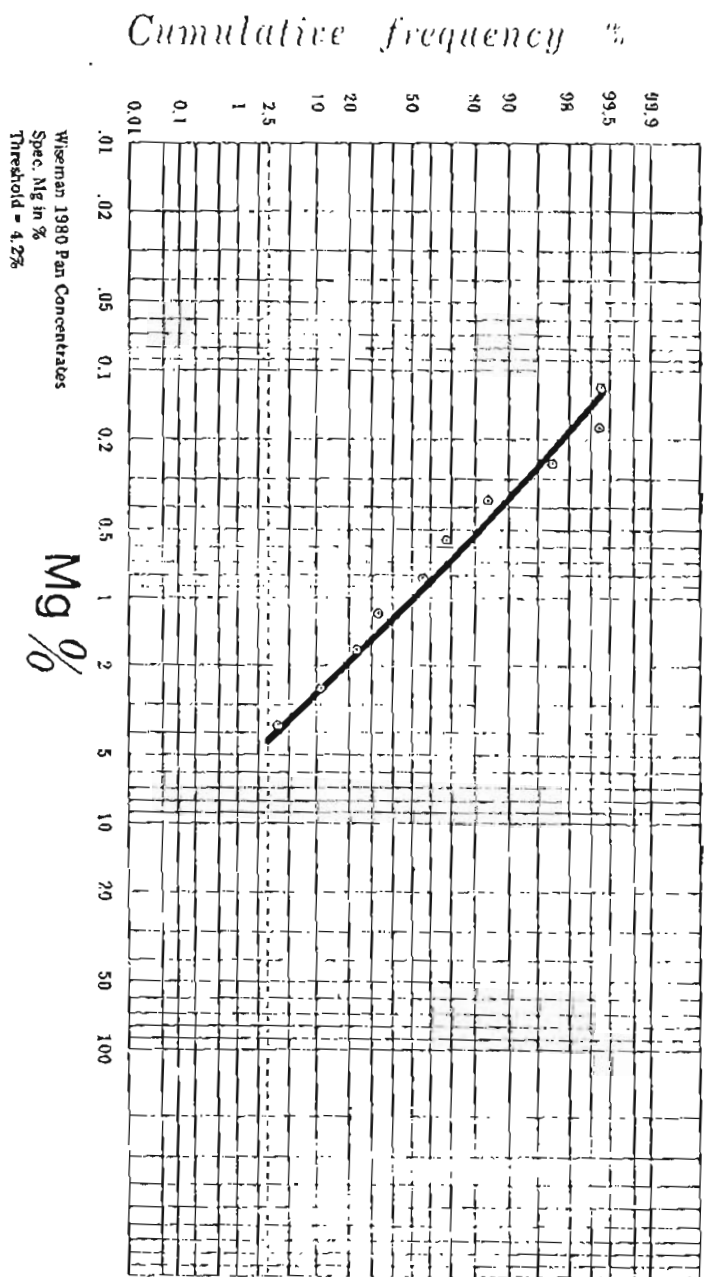
6.813E-02	X
1.000E-01	
1.468E-01	
2.154E-01	XXX
3.162E-01	XXXXXXXXXXXX
4.642E-01	XXXXXXXXXXXXXXXXXXXX
6.813E-01	XXXXXXXXXXXX
1.000E+00	XXXXXXXXXXXXXXXXXXXX
1.468E+00	XXXXXXXXXXXX
2.154E+00	XXXXXXXXXXXX
3.162E+00	XXXXXXX
4.642E+00	XXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E-02  
 MAXIMUM ANTILOG = 5.00000E+00  
 GEOMETRIC MEAN = 8.85796E-01  
 GEOMETRIC DEVIATION = 2.24039E+00  
 VARIANCE OF LOGS = 1.22727E-01

PERCENT TABLE FOR VARIABLE 4 (S-MG) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE  
IF SELECTION PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.0000001E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-0.330245E+00	0.467471E+00
50.00	-0.520809E-01	0.88991E+00
75.00	0.194447E+00	0.156476E+01
90.00	0.443943E+00	0.277935E+01
95.00	0.559095E+00	0.362322E+01



## FREQUENCY TABLE FOR VARIABLE 5 (S-CAX )

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		0	0	0.00	0.00		
T		0	0	0.00	0.00		
-4.170E-01	-2.503E-01	4	4	2.63	2.63	2.379E+00	-6.974E-01
-2.503E-01	-8.367E-02	7	11	4.61	7.24	5.794E+00	-4.586E+00
-8.367E-02	8.300E-02	13	24	8.55	15.79	1.154E+01	-1.041E+01
8.300E-02	2.497E-01	15	39	9.87	25.66	1.878E+01	-1.798E+01
2.497E-01	4.163E-01	26	65	17.11	42.76	2.500E+01	-2.396E+01
4.163E-01	5.830E-01	20	85	13.16	55.92	2.720E+01	-2.646E+01
5.830E-01	7.497E-01	28	113	18.42	74.34	2.419E+01	-2.304E+01
7.497E-01	9.163E-01	20	133	13.16	87.50	1.750E+01	-1.646E+01
9.163E-01	1.083E+00	15	148	9.87	97.37	1.046E+01	-9.029E+00
1.083E+00	1.250E+00	4	152	2.63	100.00	7.983E+00	-7.482E+00
G		0	152	0.00	100.00		
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.509E+02	-1.401E+02

HISTOGRAM FOR VARIABLE 5 (S-CAX )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

4.638E-01	XXX
6.808E-01	XXXXX
9.992E-01	XXXXXXXXXX
1.467E+00	XXXXXXXXXX
2.153E+00	XXXXXXXXXXXXXXXXXX
3.160E+00	XXXXXXXXXXXXXXXXXX
4.638E+00	XXXXXXXXXXXXXXXXXX
6.808E+00	XXXXXXXXXXXXXX
9.992E+00	XXXXXXXXXX
1.467E+01	XXX

## THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

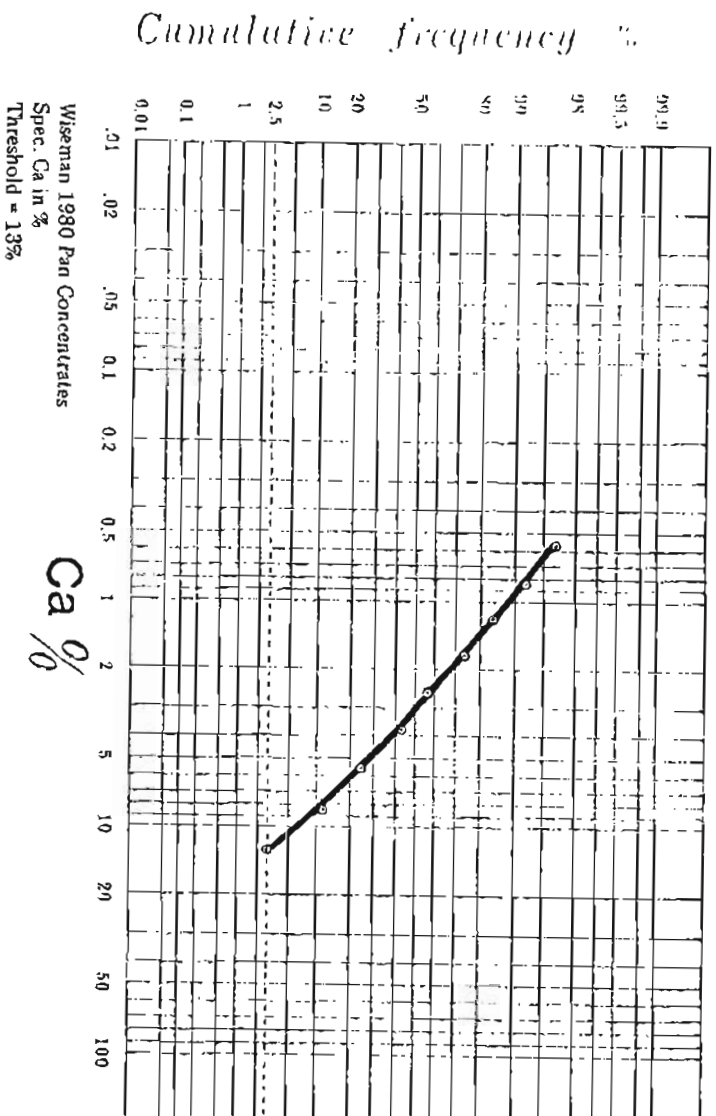
MINIMUM ANTILOG = 5.00000E-01  
 MAXIMUM ANTILOG = 1.50000E+01  
 GEOMETRIC MEAN = 3.06325E+00  
 GEOMETRIC DEVIATION = 2.33458E+00  
 VARIANCE OF LOGS = 1.35577E-01

PERCENT TABLE FOR VARIABLE 5 (S-CAX ) 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	0.238557E+00	0.173204E+01
50.00	0.508002E+00	0.322108E+01
75.00	0.758002E+00	0.572799E+01
90.00	0.958558E+00	0.908988E+01
95.00	0.104300E+01	0.110409E+02



## FREQUENCY TABLE FOR VARIABLE 6 (S-TIX )

LOG LIMITS		OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
LOWER	UPPER				
N		0	0	0.00	0.00
L		0	0	0.00	0.00
T		0	0	0.00	0.00
-7.500E-01	-5.833E-01	2	2	1.32	1.32
-5.833E-01	-4.167E-01	2	4	1.32	2.63
-4.167E-01	-2.500E-01	7	11	4.51	7.24
-2.500E-01	-8.333E-02	11	22	7.24	14.47
-8.333E-02	8.333E-02	35	57	23.03	37.50
8.333E-02	2.500E-01	18	75	11.88	49.38
2.500E-01	4.167E-01	37	112	24.42	73.80
4.167E-01	5.833E-01	23	135	15.18	88.78
5.833E-01	7.500E-01	17	152	11.22	100.00
TOTALS LESS H AND R		152	0		

THEOR FREQ  
(NORMAL DIST) (THEOR FREQ - OBS FREQ)\*\*2/THEOR FREQ

0.000E+00	0.000E+00
1.301E-01	1.525E+01
5.035E+00	-4.875E+00
4.891E+01	-4.858E+01
9.693E+01	-9.657E+01
0.000E+00	-1.271E+02

1.520E+02

-1.349E+02

## HISTOGRAM FOR VARIABLE 6 (S-TIX )

MIDPOINTS ARE EXPRESSED AS ANTILOGS	
Frequency in percent, each X equal 1 percent of all samples	
2.154E-01	X
3.162E-01	X
4.642E-01	XXXXX
6.813E-01	XXXXXXX
1.000E+00	XXXXXXXXXXXXXXXXXXXXXXXXXXXX

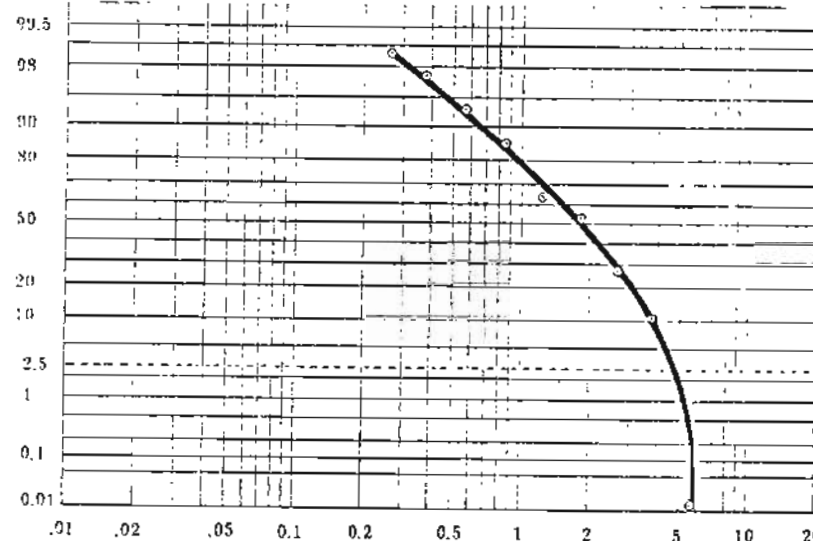
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	2.00000E-01
MAXIMUM ANTILOG	=	1.00000E+00
GEOMETRIC MEAN	=	7.76723E-01
GEOMETRIC DEVIATION	=	1.49989E+00
VARIANCE OF LOGS	=	3.09970E-02

PERCENT TABLE FOR VARIABLE 6 (S-TIX ) 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	-0.714137E-02	0.983691E+00
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

Cumulative frequency



Wiseman 1980 Pan Concentrates  
Spec. Ti in %  
Threshold = 4.8%

Ti %

Table 7 (cont.)

FREQUENCY TABLE FOR VARIABLE 7 (S-MN )									
LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ	
LOWER	UPPER								
THEOR FREQ. (NORMAL DIST)									
(THEOR FREQ - OBS FREQ)*2/THEOR FREQ									
1.916E+00	2.083E+00	0	0	0.00	0.00	0.00	0.00	3.139E+00	-2.820E+00
2.083E+00	2.249E+00	0	0	0.00	0.00	0.00	0.00	4.865E+00	-6.865E+00
2.249E+00	2.416E+00	0	0	0.00	0.00	0.00	0.00	1.253E+01	-1.189E+01
2.416E+00	2.583E+00	8	9	0.66	0.66	5.92	5.92	1.908E+01	-1.719E+01
2.583E+00	2.749E+00	36	45	23.68	29.61	28.95	58.55	2.425E+01	-2.244E+01
2.749E+00	2.916E+00	44	89	28.95	80.26	5.26	85.53	2.572E+01	-2.444E+01
2.916E+00	3.083E+00	33	122	21.71	85.53	0.00	85.53	2.277E+01	-2.277E+01
3.083E+00	3.249E+00	8	130	5.26	85.53	1.32	86.84	1.682E+01	-1.682E+01
3.249E+00	3.416E+00	2	132	1.32	86.84	1.97	88.82	1.037E+01	-1.017E+01
3.416E+00	3.583E+00	3	135	1.97	88.82	3.29	92.11	5.332E+00	-4.770E+00
3.583E+00	3.749E+00	5	140	3.29	92.11	7.89	100.00	3.430E+00	-1.972E+00
		12	152		100.00			1.707E+00	6.205E+01
		0	152						
		0	152						
TOTAL LESS H AND B		152		1.520E+02		-7.974E+01			

HISTOGRAM FOR VARIABLE 7 (S-MN )

WIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	
9.985E+01	X
1.466E+02	XXXXX
2.151E+02	XXXXXXXXXXXXXXX
3.157E+02	XXXXXXXXXXXXXXX
4.636E+02	XXXXXXXXXXXXXXX
6.802E+02	XXXXXXXXXXXXXXX
9.985E+02	XXXXX
1.466E+03	
2.151E+03	X
3.157E+03	XX
4.635E+03	XXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

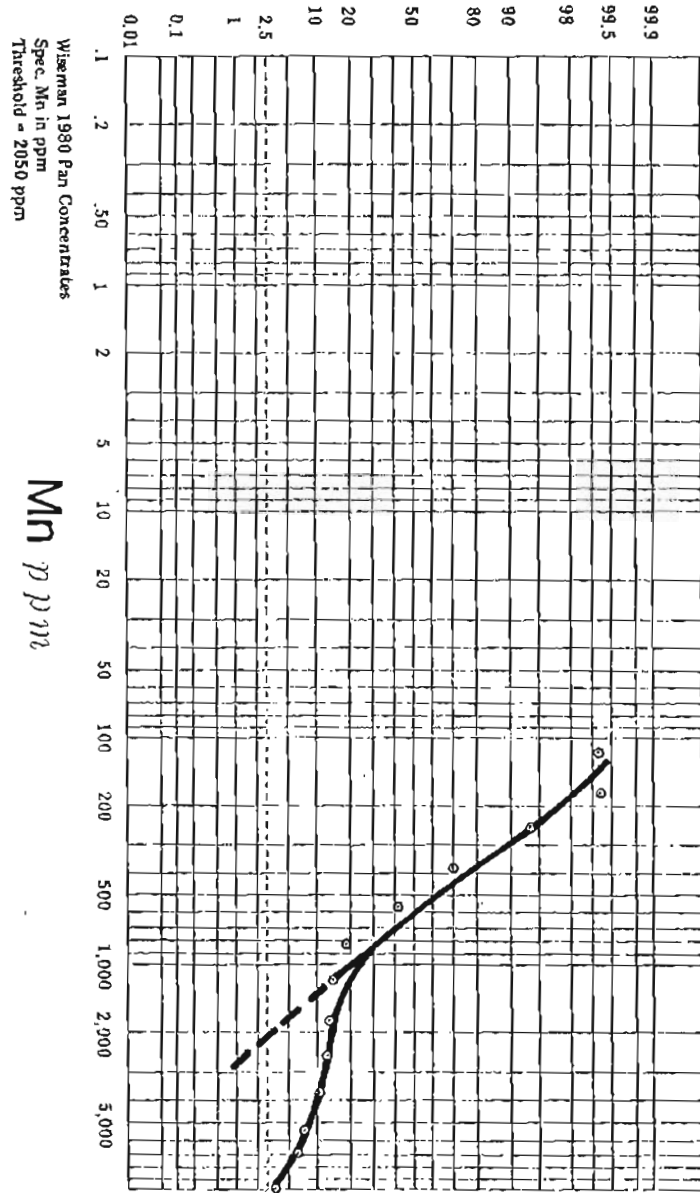
MINIMUM ANTILOG = 1.00000E+02  
 MAXIMUM ANTILOG = 5.00000E+03  
 GEOMETRIC MEAN = 5.33122E+02  
 GEOMETRIC DEVIATION = 1.98864E+00  
 VARIANCE OF LOGS = 8.91361E-02

PERCENT TABLE FOR VARIABLE 7 (S-MN ) BY LINEARINTERPOLATION 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	0.255026E+01	0.355026E+03
50.00	0.270009E+01	0.501294E+03
75.00	0.287560E+01	0.750927E+03
90.00	0.364267E+01	0.439208E+04
95.00	0.100000E+34	0.100000E+34

Cumulative frequency %



Wiseman 1980 Fan Concentrates  
Spec. Mn in ppm  
Threshold = 2050 ppm

Mn ppm

FREQUENCY TABLE FOR VARIABLE R (S-AG )

LOG LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)*42/THEOR FREQ
N	138	138	90.79	90.79		
L	4	142	2.63	93.42		
T	0	142	0.00	93.42	1.391E+02	6.211E-02
2.500E-01 - 4.167E-01	5	147	3.29	96.71	1.180E+01	-1.138E+01
4.167E-01 - 5.833E-01	3	150	1.97	98.68	1.101E+00	1.625E+00
5.833E-01 - 7.500E-01	0	150	0.00	98.68	0.000E+00	0.000E+00
7.500E-01 - 9.167E-01	0	150	0.00	98.68	0.000E+00	0.000E+00
9.167E-01 - 1.083E+00	0	150	0.00	98.68	0.000E+00	0.000E+00
1.083E+00 - 1.250E+00	2	152	1.32	100.00	3.596E-02	5.559E+01
G	0	152	0.00	100.00		
H	0	152				
B	0	152				
TOTALS LESS H AND B	152				1.520E+02	4.589E+01

HISTOGRAM FOR VARIABLE R (S-AG )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

2.154E+00	XXX
3.162E+00	XX
4.642E+00	
6.813E+00	
1.007E+01	
1.468E+01	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	2.00000E+00
MAXIMUM ANTILOG	=	1.50000E+01
GEOMETRIC MEAN	=	3.37963E+00
GEOMETRIC DEVIATION	=	2.24108E+00
VARIANCE OF LOGS	=	1.22820E-01

PERCENT TABLE FOR VARIABLE R (S-AG ) 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

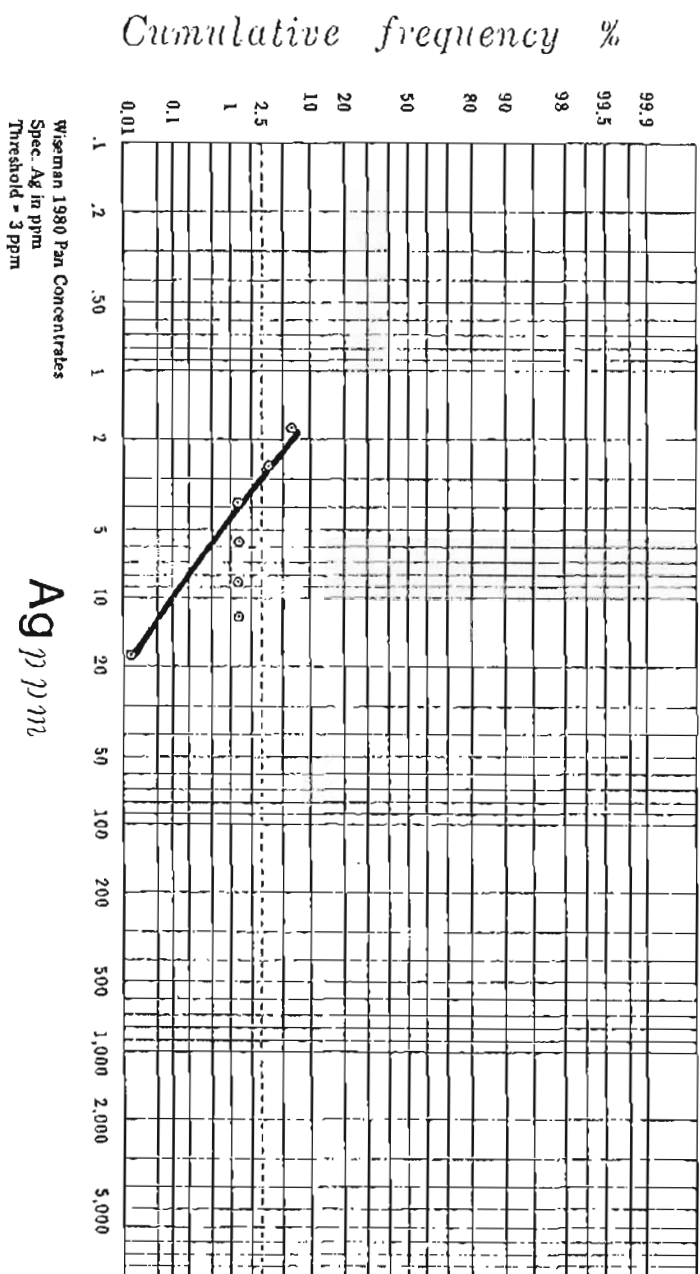


Table 7 (cont.)

FREQUENCY TABLE FOR VARIABLE 9 (S-AS)									
LOG LIMITS		OBS		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)			
N		145	145	96.35	96.35				
L		1	147	0.66	96.71	1.447E+01		1.164E+03	
T		0	147	0.00	96.71	8.446E+01		-8.446E+01	
2.581E+00	2.750E+00	2	149	1.32	98.03	4.973E+01		-4.973E+01	
2.757E+00	2.914E+00	0	149	1.32	98.03	2.816E+00		-2.816E+00	
2.916E+00	3.083E+00	2	151	1.32	99.34	0.000E+00		0.000E+00	
3.083E+00	3.250E+00	0	151	0.00	99.34	0.000E+00		0.000E+00	
3.250E+00	3.416E+00	0	151	0.00	99.34	0.000E+00		0.000E+00	
3.416E+00	3.583E+00	0	151	0.00	99.34	0.000E+00		0.000E+00	
3.583E+00	3.750E+00	0	151	0.00	99.34	0.000E+00		0.000E+00	
3.750E+00	3.916E+00	1	152	0.66	100.00	1.241E-02		8.058E+01	
G		0	152	0.00	100.00				
H		0	152						
B		0	152						
TOTALS LESS H AND B		152				1.520E+02		1.108E+03	

HISTOGRAM FOR VARIABLE 9 (S-AS)  
 MIDPOINTS ARE EXPRESSED AS ANTILOGS  
 Frequency in percent, each X equal 1 percent of all samples

Concentration in ppm	X
4.618E+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

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+02  
 MAXIMUM ANTILOG = 7.00000E+03  
 GEOMETRIC MEAN = 1.11843E+03  
 GEOMETRIC DEVIATION = 2.95124E+00  
 VARIANCE OF LOGS = 2.20904E-01

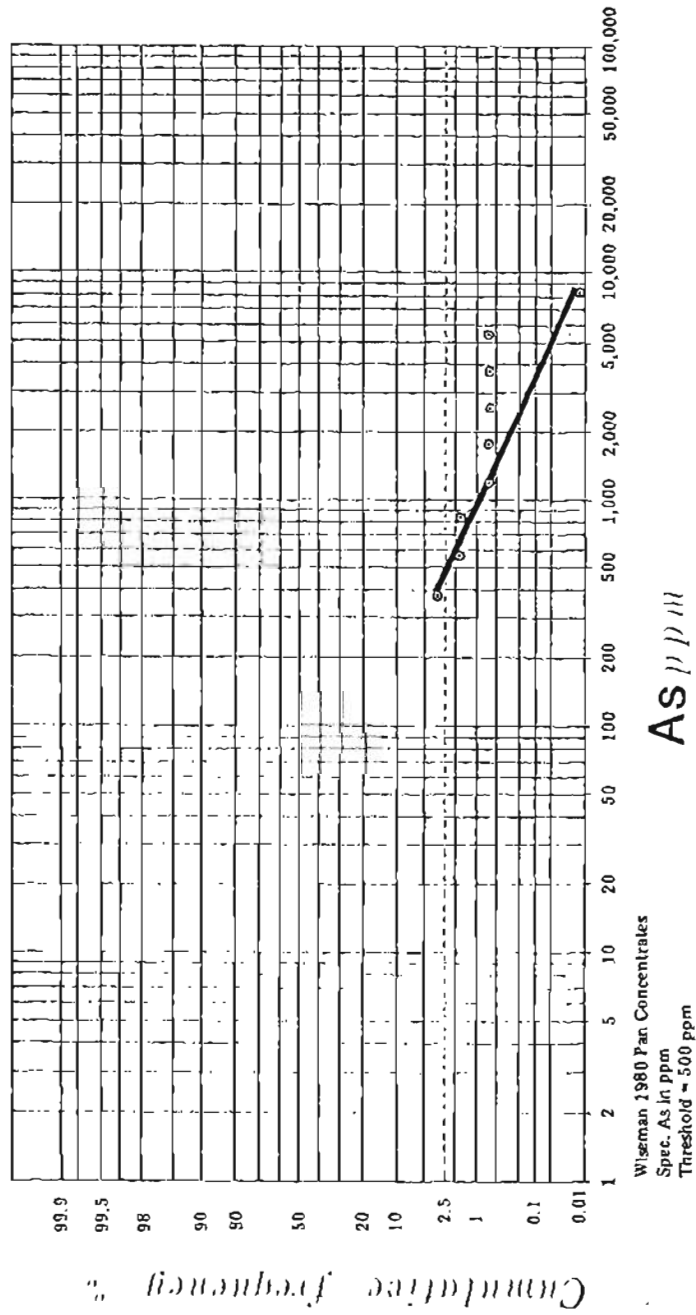
PERCENT TABLE FOR VARIABLE 9 (S-AS) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE  
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999999E 50

SELECTED PERCENTILE DATA VALUE ANTILOG OF VALUE

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

Table 7 (cont.)



FREQUENCY TABLE FOR VARIABLE 11 (S-A)

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
1.250E+00	1.417E+00	0	0	0	0	0.00	0.00	3.952E+00	-2.700E+00				
1.417E+00	1.583E+00	0	0	0	0	0.00	0.00	9.290E+00	-8.957E+00				
1.583E+00	1.750E+00	0	0	0	0	0.00	0.00	1.720E+01	-1.575E+01				
1.750E+00	1.917E+00	25	33	16.45	21.71	1.97	5.26	2.522E+01	-2.415E+01				
1.917E+00	2.083E+00	27	60	17.76	39.47	1.97	56.45	2.927E+01	-2.787E+01				
2.083E+00	2.250E+00	41	101	26.97	76.42	9.87	76.42	2.688E+01	-2.633E+01				
2.250E+00	2.417E+00	15	116	9.87	86.16	1.84	86.16	1.954E+01	-1.862E+01				
2.417E+00	2.583E+00	18	134	6.58	94.74	1.124E+01	94.74	1.124E+01	-1.035E+01				
2.583E+00	2.750E+00	10	146	1.32	96.05	5.112E+00	-4.721E+00	5.112E+00	-7.537E-01				
2.750E+00	2.917E+00	2	148	1.32	97.37	1.840E+00	5.241E-01	1.840E+00	-1.181E-01				
2.917E+00	3.083E+00	3	151	1.97	99.34	5.241E-01	1.181E-01	5.241E-01	4.101E+01				
3.083E+00	3.250E+00	0	151	0.00	100.00	0.00	100.00	2.437E-02					
3.250E+00	3.417E+00	1	152	0.56	100.00	0.00	100.00						
		G	0	152									
		H	0	152									
		R	0	152									
TOTALS	LESS H AND R	152						1.502E+02	-9.410E+01				

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HISTOGRAM FOR VARIABLE 11 (S-A)

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

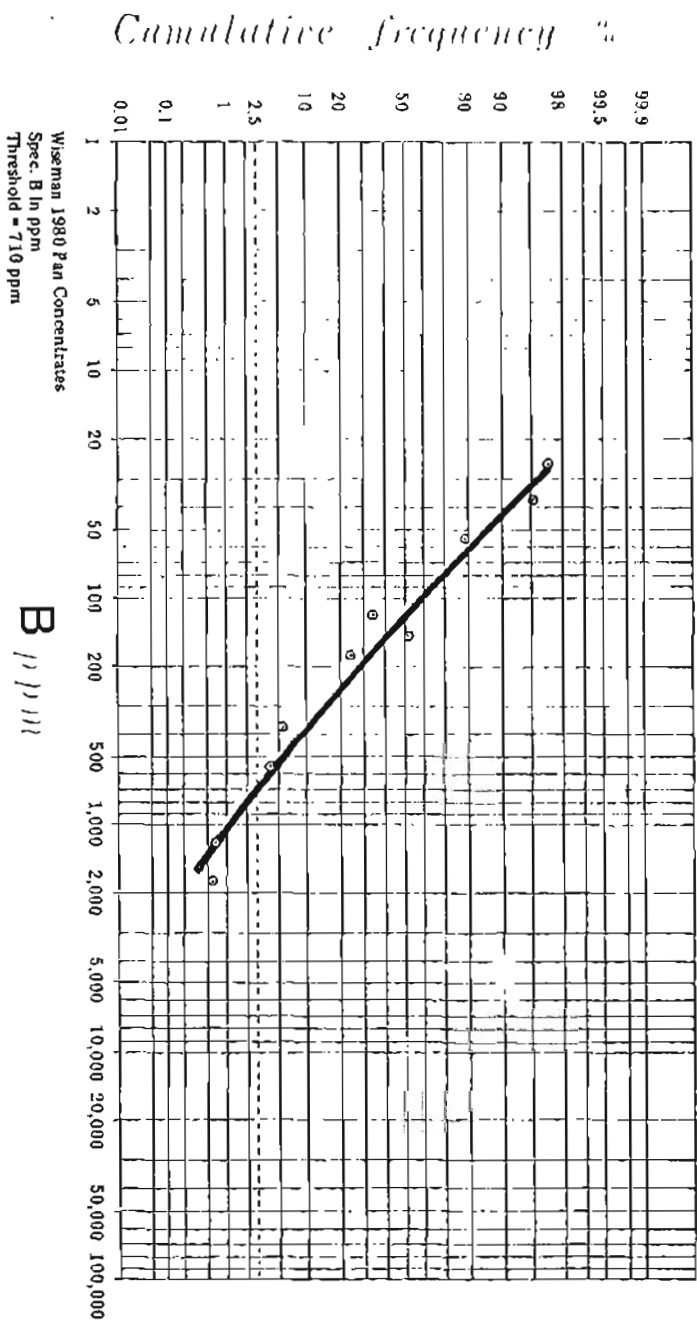
Concentration	
2.154E+01	XXX
3.162E+01	XX
4.642E+01	XXXXXXXXXXXXXXXXXX
6.813E+01	XXXXXXXXXXXXXXXXXX
1.003E+02	XXXXXXXXXXXXXXXXXX
1.468E+02	XXXXXXXXXXXX
2.154E+02	XXXXXXXXXXXX
3.162E+02	XXXXXX
4.642E+02	X
6.813E+02	X
1.003E+03	XX
1.468E+03	
2.154E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.0000E+01  
 MAXIMUM ANTILOG = 2.0000E+03  
 GEOMETRIC MEAN = 1.05363E+02  
 GEOMETRIC DEVIATION = 2.19332E+01  
 VARIANCE OF LOGS = 1.16351E-01

PERCENT TABLE FOR VARIABLE 11 (S-R) 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	0.178087E+01	0.603761E+02
50.00	0.198171E+01	0.958758E+02
75.00	0.222778E+01	0.168958E+03
90.00	0.246334E+01	0.290627E+03
95.00	0.261667E+01	0.413685E+03



## FREQUENCY TABLE FOR VARIABLE 12 (S-9A )

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	0	0	0.00	0.00		
L	0	0	0.00	0.00		
T	0	0	0.00	0.00		
1.583E+00 - 1.750E+00	1	1	0.66	0.66	2.365E-01	3.992E+00
1.750E+00 - 1.916E+00	0	1	0.00	0.66	8.293E-01	-8.293E-01
1.916E+00 - 2.083E+00	7	8	4.61	5.26	2.397E+00	5.237E-01
2.083E+00 - 2.250E+00	1	9	0.66	5.92	5.710E+00	-5.535E+00
2.250E+00 - 2.416E+00	7	16	4.61	10.53	1.121E+01	-1.059E+01
2.416E+00 - 2.583E+00	19	35	12.50	23.03	1.815E+01	-1.710E+01
2.583E+00 - 2.750E+00	27	62	17.76	40.79	2.422E+01	-2.311E+01
2.750E+00 - 2.916E+00	26	88	17.11	57.89	2.655E+01	-2.567E+01
2.916E+00 - 3.083E+00	29	117	19.08	76.97	2.417E+01	-2.297E+01
3.083E+00 - 3.250E+00	23	140	15.13	92.11	1.807E+01	-1.680E+01
3.250E+00 - 3.416E+00	3	143	1.97	94.08	1.114E+01	-1.087E+01
3.416E+00 - 3.583E+00	3	146	1.97	96.05	5.659E+00	-5.129E+00
3.583E+00 - 3.750E+00	2	148	1.32	97.37	3.489E+00	-2.915E+00
G	4	152	2.63	100.00	6.834E-02	2.262E+02
H	0	152				
R	0	152				
TOTALS LESS H AND R	152				1.520E+02	3.920E+01

## HISTOGRAM FOR VARIABLE 12 (S-9A )

\* ENDPOINTS ARE EXPRESSED AS ANTILOGS

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

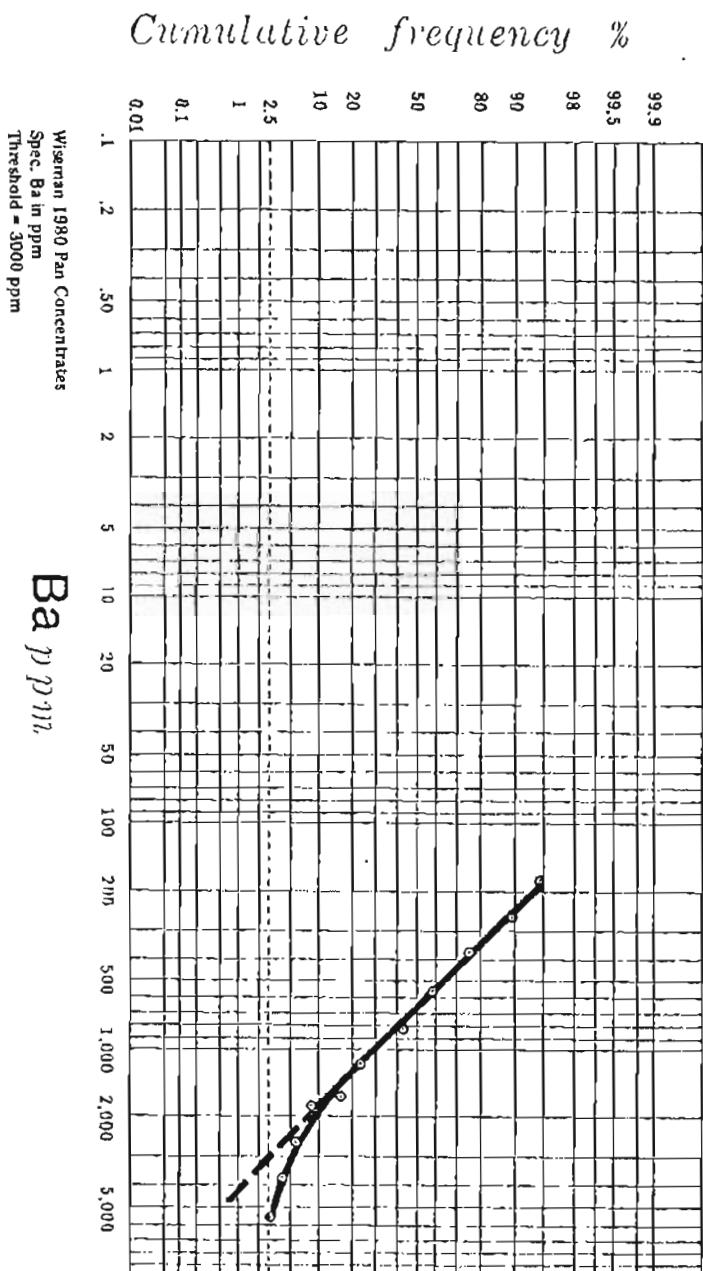
4.638E+01	X
6.808E+01	
9.992E+01	XXXXX
1.467E+02	X
2.153E+02	XXXXX
3.167E+02	XXXXXXXXXXXXX
4.638E+02	XXXXXXXXXXXXXXXXX
6.808E+02	XXXXXXXXXXXXXXXXX
9.992E+02	XXXXXXXXXXXXXXXXX
1.467E+03	XXXXXXXXXXXXXXXXX
2.153E+03	XX
3.167E+03	XX
4.638E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01  
 MAXIMUM ANTILOG = 5.00000E+03  
 GEOMETRIC MEAN = 6.43596E+02  
 GEOMETRIC DEVIATION = 2.25240E+00  
 VARIANCE OF LOGS = 1.24359E-01

PERCENT TABLE FOR VARIABLE 12 (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	AVT LOG OF VALUE
25.00	0.260152E+01	0.399503E+03
50.00	0.283941E+01	0.690896E+03
75.00	0.306576E+01	0.116349E+04
90.00	0.322648E+01	0.168454E+04
95.00	0.349411E+01	0.311972E+04



FREQUENCY TABLE FOR VARIABLE 13 (S-BE )

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	12	12	7.89	7.89		
L	85	97	55.92	63.82		
T	0	97	0.00	63.82	1.964E-02	4.790E+05
2.500E-01 - 4.167E-01	54	151	35.53	99.34	0.000E+00	0.000E+00
4.167E-01 - 5.833E-01	1	152	0.66	100.00	1.520E+02	-1.520E+02
G	0	152	0.00	100.00		
H	0	152				
R	0	152				
TOTALS LESS H AND R	152				1.520E+02	

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

Conc. in ppm	2.154E+00	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	3.162E+00	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+00  
MAXIMUM ANTILOG = 3.00000E+00  
GEOMETRIC MEAN = 2.01480E+00  
GEOMETRIC DEVIATION = 1.05619E+00  
VARIANCE OF LOGS = 5.63782E-04

PERCENT TABLE FOR VARIABLE 13 (S-BE ) 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

Bi

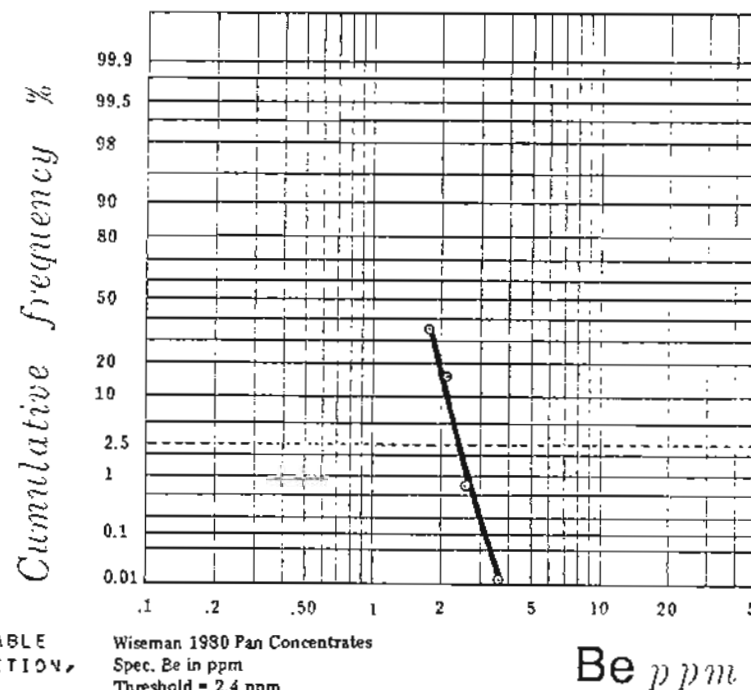
Wiseman 1980 Pan concentrates  
Spec. Bi in ppm  
Threshold = 20 ppm

Not enough unqualified values above the detection limit to determine threshold graphically so threshold set at the detection limit = 20 ppm.

Cd

Wiseman 1980 Pan concentrates  
Spec. Cd in ppm  
Threshold = Detection limit = 50 ppm

Not enough unqualified values above the detection limit to determine the threshold graphically so threshold set at detection limit = 50 ppm.



## FREQUENCY TABLE FOR VARIABLE 16 (S-CO )

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	0.00	1.090E+00	3.190E+00		
		L	5	5	1.29	3.29	3.29	1.351E+01	-1.396E+01		
		T	0	5	0.00	15.79	19.08	2.509E+01	-2.369E+01		
9.160E-01	1.083E+00		24	29	15.79	23.03	42.11	3.104E+01	-2.907E+01		
1.083E+00	1.249E+00		35	64	23.03	20.39	62.50	2.937E+01	-1.989E+01		
1.249E+00	1.416E+00		31	95	20.39	5.92	68.42	2.125E+01	-1.083E+01		
1.416E+00	1.583E+00		9	104	5.92	7.24	94.74	1.176E+01	-3.697E-01		
1.583E+00	1.749E+00		29	133	19.08	87.50	99.34	4.978E+00	1.617E+00		
1.749E+00	1.916E+00		11	144	7.24	99.34	100.00	4.858E-01	1.573E+00		
1.916E+00	2.083E+00		5	149	3.29	99.34	100.00				
2.083E+00	2.249E+00		2	151	1.32	100.00	100.00				
2.249E+00	2.416E+00		1	152	0.66	100.00	100.00				
		G	0	152	0.00	100.00	100.00				
		H	0	152							
		B	0	152							
TOTALS LESS M AND R			152					1.520E+02	-1.271E+02		

HISTOGRAM FOR VARIABLE 16 (S-CO )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	
9.085E+00	XXXXXXXXXXXXXXXXXXXX
1.466E+01	XXXXXXXXXXXXXXXXXXXX
2.151E+01	XXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXX
6.802E+01	XXXXXXXXXX
9.985E+01	XXX
1.466E+02	X
2.151E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 2.00000E+02  
 GEOMETRIC MEAN = 2.48094E+01  
 GEOMETRIC DEVIATION = 2.06789E+00  
 VARIANCE OF LOGS = 9.95579E-02

PERCENT TABLE FOR VARIABLE 16 (S-CO ) 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 DATA VALUE ANTI LOG OF VALUE

PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

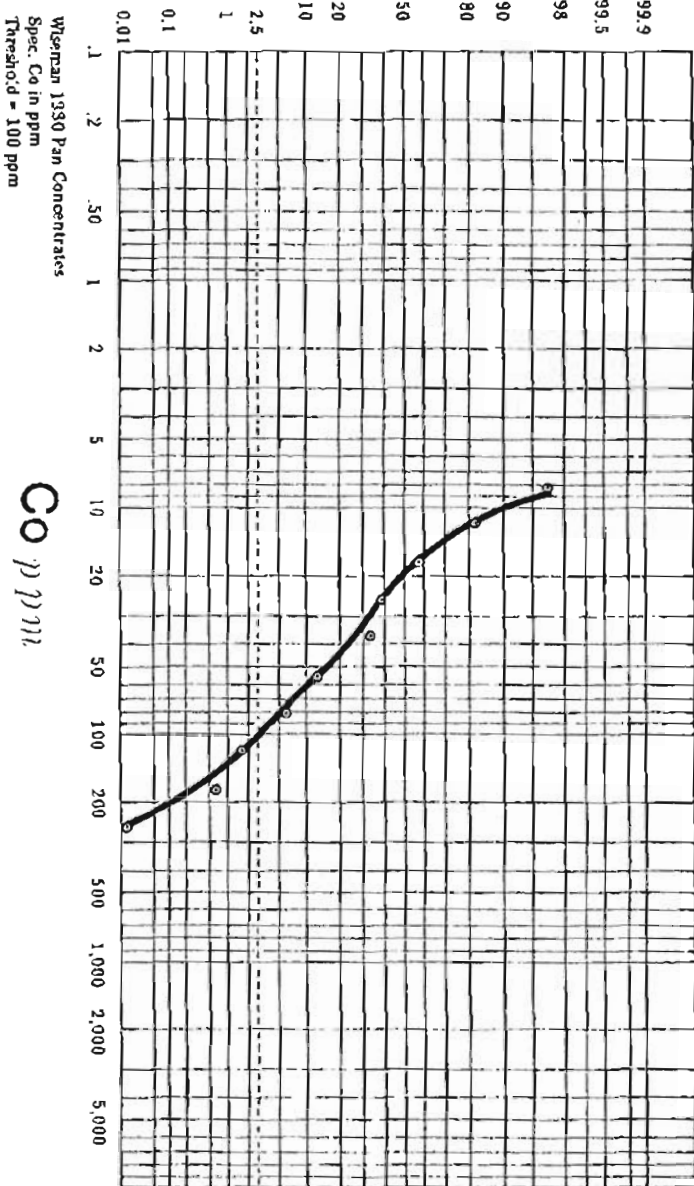
0.117552E+01  
0.131385E+01  
0.164014E+01  
0.180691E+01  
0.192934E+01

0.117551E+02  
0.205992E+02  
0.476554E+02  
0.641078E+02  
0.849835E+02

Table 7 (cont.)

-147-

Cumulative frequency %



## FREQUENCY TABLE FOR VARIABLE 17 (S-CR )

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		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00		
1.250E+00	1.417E+00	3	3	1.97	1.97	3.805E-01	7.505E+00
1.417E+00	1.583E+00	0	3	0.00	1.97	2.080E+00	-2.080E+00
1.583E+00	1.750E+00	8	11	5.26	7.24	7.698E+00	-6.659E+00
1.750E+00	1.917E+00	11	22	7.24	14.47	1.929E+01	-1.872E+01
1.917E+00	2.083E+00	39	61	25.66	40.13	3.275E+01	-3.156E+01
2.083E+00	2.250E+00	39	100	25.66	65.79	3.768E+01	-3.665E+01
2.250E+00	2.417E+00	33	133	21.71	87.50	2.938E+01	-2.826E+01
2.417E+00	2.583E+00	10	143	6.58	94.08	1.553E+01	-1.488E+01
2.583E+00	2.750E+00	8	151	5.26	99.34	5.558E+00	-4.119E+00
2.750E+00	2.917E+00	1	152	0.66	100.00	1.594E+00	-9.673E-01
G		0	152	0.00	100.00		
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.519E+02	-1.364E+02

## HISTOGRAM FOR VARIABLE 17 (S-CR )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

2.154E+01	XX
3.162E+01	
4.642E+01	XXXXX
6.813E+01	XXXXXXX
1.000E+02	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.468E+02	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.154E+02	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.162E+02	XXXXXXX
4.642E+02	XXXXX
6.813E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 7.00000E+02  
 GEOMETRIC MEAN = 1.39131E+02  
 GEOMETRIC DEVIATION = 1.83137E+00  
 VARIANCE OF LOGS = 6.90511E-02

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 0.9999991E 50

SELECTED  
PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

DATA VALUE

0.198504E+01  
0.214744E+01  
0.232071E+01  
0.248000E+01  
0.261250E+01

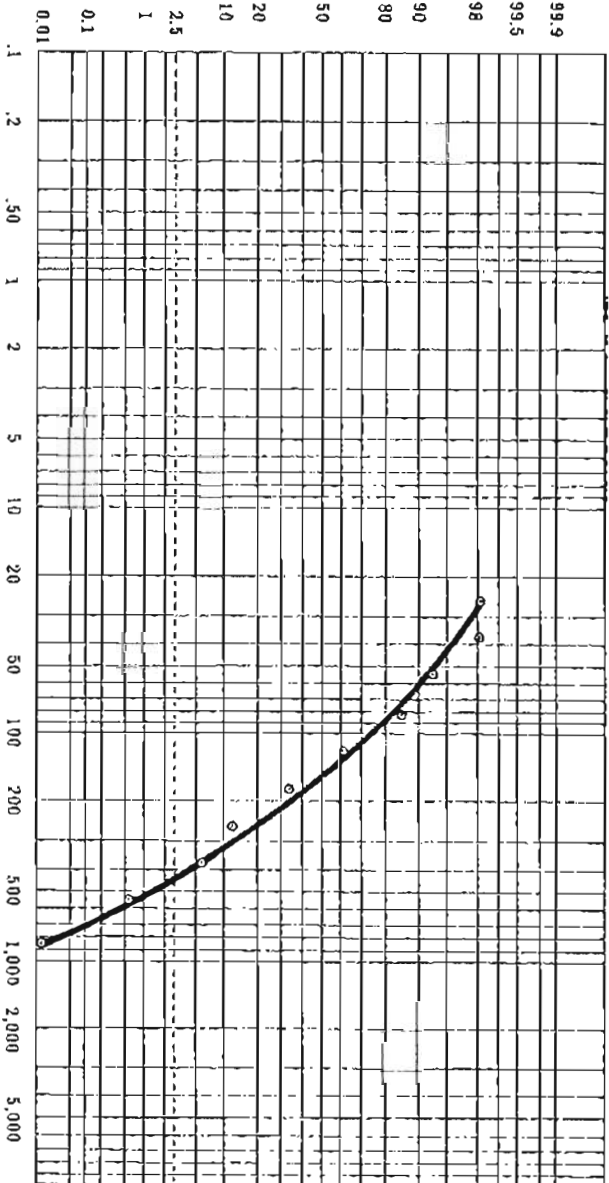
ANTI LOG OF VALUE

0.956160E+02  
0.140423E+03  
0.209271E+03  
0.301992E+03  
0.409735E+03

Table 7 (cont.)

-149-

Cumulative frequency %



Wieman 1880 Pen Concentrates  
Spec. Cr in ppm  
Threshold = 450 ppm

Cr ppm

FREQUENCY TABLE FOR VARIABLE 18 (S-CU )

LOG LIMITS		OBS		PERCENT		THEOR FREQ (NORMAL DIST)	(THEOR FREQ) * 2 / THEOR FREQ
LOWER	UPPER	FREQ	CUM FREQ	FREQ	CUM FREQ		
N		0	0	0.00	0.00		
C		0	0	0.00	0.00		
T		0	0	0.00	0.00		
9.160E+01	1.083E+00	1	1	1.52	1.97	3.129E+00	-2.809E+00
1.083E+01	1.249E+00	2	3	1.52	1.97	5.219E+00	-4.836E+00
1.249E+00	1.416E+00	23	26	15.413	12.411	7.971E+00	-5.086E+00
1.416E+00	1.583E+00	7	33	4.61	21.871	1.115E+01	-1.052E+01
1.583E+00	1.749E+00	28	61	18.42	40.413	1.427E+01	-1.231E+01
1.749E+00	1.916E+00	5	66	3.29	43.442	1.672E+01	-1.642E+01
1.916E+00	2.083E+00	16	82	10.53	53.95	1.794E+01	-1.705E+01
2.083E+00	2.249E+00	12	94	7.89	61.84	1.763E+01	-1.695E+01
2.249E+00	2.416E+00	15	109	9.87	71.71	1.585E+01	-1.491E+01
2.416E+00	2.583E+00	11	120	7.24	78.95	1.305E+01	-1.221E+01
2.583E+00	2.749E+00	18	138	11.84	90.79	9.841E+00	-8.012E+00
2.749E+00	2.916E+00	8	146	5.26	96.05	6.792E+00	-5.614E+00
2.916E+00	3.083E+00	2	148	1.32	97.37	4.292E+00	-3.826E+00
3.083E+00	3.249E+00	1	149	0.56	98.03	2.483E+00	-2.080E+00
3.249E+00	3.416E+00	0	149	0.00	98.03	1.315E+00	-1.315E+00
3.416E+00	3.583E+00	2	151	1.32	99.34	6.376E-01	2.499E+00
3.583E+00	3.749E+00	1	152	0.56	100.00	4.617E-01	1.704E+00
G		0	152	0.00	100.00		
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.488E+02	-1.297E+02

HISTOGRAM FOR VARIABLE 18 (S-CU )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS  
Frequency in percent, each X equal 1 percent of all samples

Concentration in ppm	
9.985E+00	X
1.466E+01	X
2.151E+01	XXXXXXXXXXXXXX
3.157E+01	XXXXX
4.434E+01	XXXXXXXXXXXXXXXXXX
6.802E+01	XXX
9.985E+01	XXXXXXXXXXXXXX
1.466E+02	XXXXXXXXXX
2.151E+02	XXXXXXXXXXXX
3.157E+02	XXXXXXXXXX
4.434E+02	XXXXXXXXXXXXXX
6.802E+02	XXXXXX
9.985E+02	X
1.466E+03	X
2.151E+03	X
3.157E+03	X
4.434E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 5.00000E+03  
 GEOMETRIC MEAN = 1.11966E+02  
 GEOMETRIC DEVIATION = 3.62200E+00  
 VARIANCE OF LOGS = 3.12423E-01

PERCENT TABLE FOR VARIABLE 18 (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 0.999999E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.161243E+01	0.409666E+02
50.00	0.202017E+01	0.104754E+03
75.00	0.249176E+01	0.310285E+03
90.00	0.273823E+01	0.547301E+03
95.00	0.288267E+01	0.763257E+03

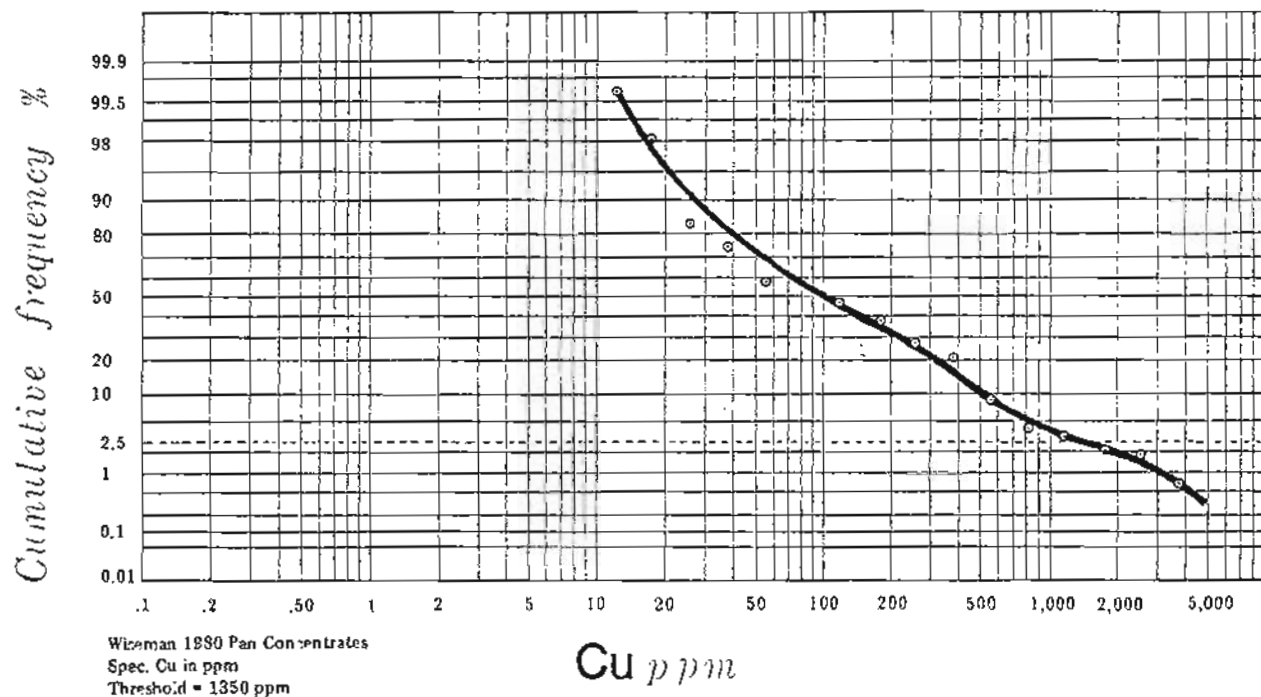


Table 7 (cont.)

FREQUENCY TABLE FOR VARIABLE 19 (S-LA )

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	0	0.00	0.00	0.00	0.00	1.463E+01	1.463E+01	1.270E+01	
L		1	1	1	1	0.56	0.56	0.56	0.56	1.899E+01	1.899E+01	-1.614E+01	
T		0	0	0	0	0.00	0.00	0.00	0.00	2.821E+01	2.821E+01	-2.761E+01	
1.583E+00 - 1.750E+00		52	53	53	53	34.21	34.21	34.21	34.21	3.192E+01	3.192E+01	-3.076E+01	
1.750E+00 - 1.916E+00		17	70	70	70	11.18	11.18	46.05	46.05	2.737E+01	2.737E+01	-2.683E+01	
1.916E+00 - 2.083E+00		37	107	107	107	24.34	24.34	70.39	70.39	1.779E+01	1.779E+01	-1.683E+01	
2.083E+00 - 2.250E+00		15	122	122	122	9.87	9.87	80.26	80.26	8.760E+00	8.760E+00	-8.075E+00	
2.250E+00 - 2.416E+00		17	139	139	139	11.18	11.18	91.45	91.45	3.268E+00	3.268E+00	-2.962E+00	
2.416E+00 - 2.583E+00		6	145	145	145	3.95	3.95	95.39	95.39	9.236E-01	9.236E-01	1.590E-01	
2.583E+00 - 2.750E+00		1	146	146	146	0.56	0.56	96.05	96.05	2.341E-01	2.341E-01	4.038E+00	
2.750E+00 - 2.916E+00		1	147	147	147	0.66	0.66	96.71	96.71	-1.907E-06	-1.907E-06	-8.389E+06	
2.916E+00 - 3.083E+00		4	152	152	152	2.63	2.63	97.37	97.37				
G		0	152	152	152			100.00	100.00				
H		0	152	152	152								
A		0	152	152	152								
TOTALS LESS H AND A			152							1.520E+02		-8.389E+06	

HISTOGRAM FOR VARIABLE 19 (S-LA )

MINPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration	ppm
4.638E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.808E+01	XXXXXXXXXXXX
9.992E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+02	XXXXXXXXXXXX
2.153E+02	XXXXXXXXXXXX
3.163E+02	XXXX
4.638E+02	X
5.808E+02	X
9.992E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01  
 MAXIMUM ANTILOG = 1.00000E+03  
 GEOMETRIC MEAN = 9.22915E+01  
 GEOMETRIC DEVIATION = 1.85514E+00  
 VARIANCE OF LOGS = 7.20263E-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 0.999991E 50

SELECTED DATA VALUE ANTI LOG OF VALUE

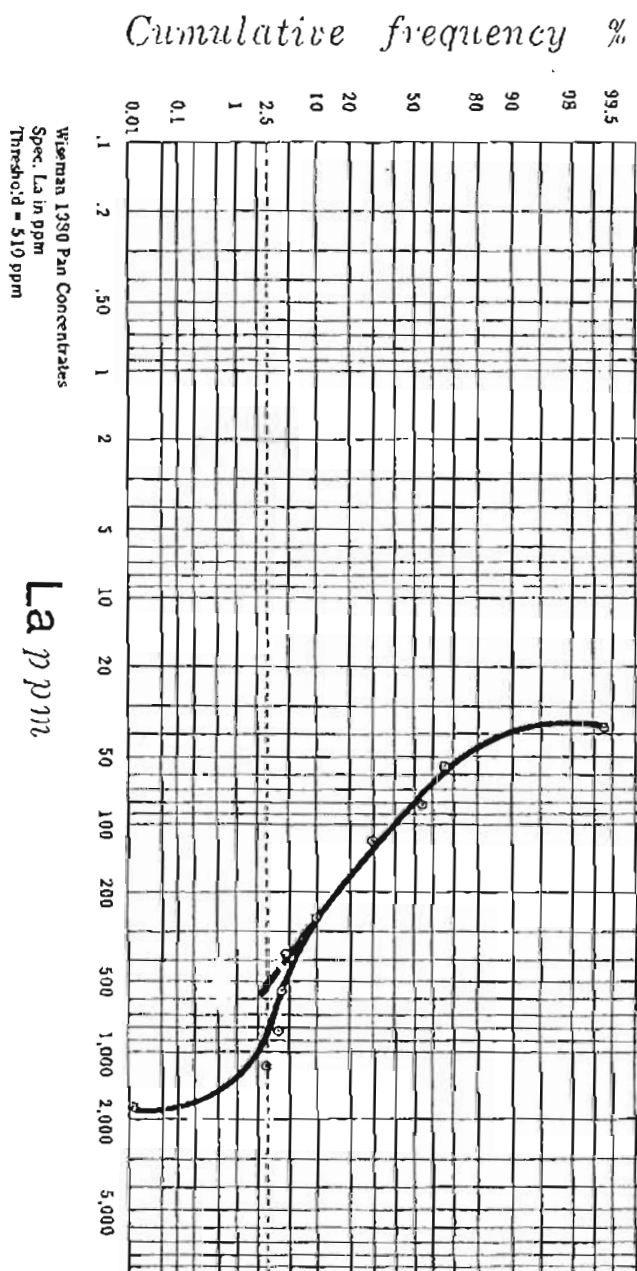
PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

0.100000E+36  
0.194334E+01  
0.216078E+01  
0.239477E+01  
0.256634E+01

0.100000E+36  
0.877779E+02  
0.144803E+03  
0.248180E+03  
0.368413E+03

Table 7 (cont.)



Mo

Wiseman 1380 Pan concentrates  
Spec. Mo in ppm  
Threshold = Detection limit = 10 ppm

Not enough unqualified values above the detection limit to determine threshold. Graphically so threshold set at detection limit = 10 ppm.

FREQUENCY TABLE FOR VARIABLE 21 (S-NB )

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ		
N		0	143	0	143	0.00	94.08	0.00	94.08	2.823E+01	0.000E+00
L		143	143	143	143	94.08	0.00	94.08	94.08	-1.517E+02	-1.517E+02
T		0	143	0	143	0.00	94.08	0.00	94.08	7.460E+00	7.460E+00
1.583E+02	1.750E+00	7	150	7	150	4.61	98.68	100.00	100.00		
1.750E+02	1.916E+00	2	152	2	152	1.32	100.00	100.00	100.00		
G		0	152	0	152	0.00	100.00	100.00	100.00		
H		0	152	0	152						
R		0	152	0	152						
TOTALS LESS H AND R			152								

HISTOGRAM FOR VARIABLE 21 (S-NB )  
MIDPOINTS ARE EXPRESSED AS ANTILOGS

Conc. in ppm  
4.638E+01  
5.808E+01  
XXXXX  
X

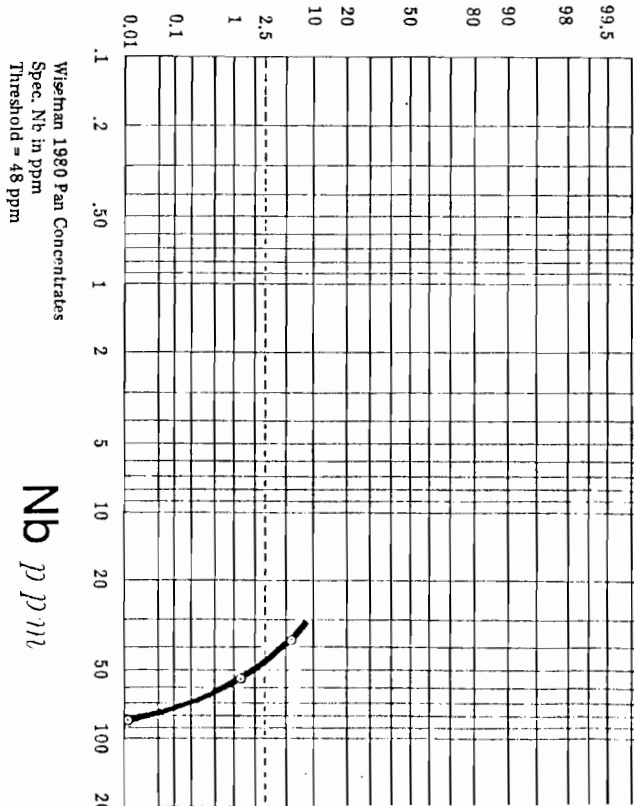
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01  
MAXIMUM ANTILOG = 7.00000E+01  
GEOMETRIC MEAN = 5.3819E+01  
GEOMETRIC DEVIATION = 1.15994E+00  
VARIANCE OF LOGS = 4.1519E-03

PERCENT TABLE FOR VARIABLE 21 (S-NB ) 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

Cumulative frequency %



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		0	0	0.00	0.00		
L		4	4	2.63	2.63		
T		0	4	0.00	2.63	4.384E+00	3.360E-02
9.160E-01	1.083E+00	10	14	6.58	9.21	8.548E+00	-7.378E+00
1.083E+00	1.249E+00	10	24	6.58	15.79	1.731E+01	-1.673E+01
1.249E+00	1.416E+00	40	64	26.32	42.11	2.674E+01	-2.525E+01
1.416E+00	1.583E+00	27	91	17.75	59.87	3.151E+01	-3.065E+01
1.583E+00	1.749E+00	27	118	17.76	77.63	2.832E+01	-2.736E+01
1.749E+00	1.916E+00	12	130	7.89	85.53	1.941E+01	-1.880E+01
1.916E+00	2.083E+00	17	147	11.18	96.71	1.015E+01	-8.476E+00
2.083E+00	2.249E+00	5	152	3.29	100.00	5.622E+00	-4.733E+00
G		0	152	0.00	100.00		
H		0	152				
9		0	152				
TOTALS LESS H AND B		152				1.520E+02	-1.393E+02

HISTOGRAM FOR VARIABLE 22 (S-NI )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

9.985E+00	XXXXXXX
1.466E+01	XXXXXXX
2.151E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXX
6.802E+01	XXXXXXX
9.985E+01	XXXXXXXXXXX
1.466E+02	XXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 1.50000E+02  
 GEOMETRIC MEAN = 3.39574E+01  
 GEOMETRIC DEVIATION = 2.03720E+00  
 VARIANCE OF LOGS = 9.55015E-02

PERCENT TABLE FOR VARIABLE 22 (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 0.9999991E 50

SELECTED DATA VALUE ANTI LOG OF VALUE  
 PERCENTILE

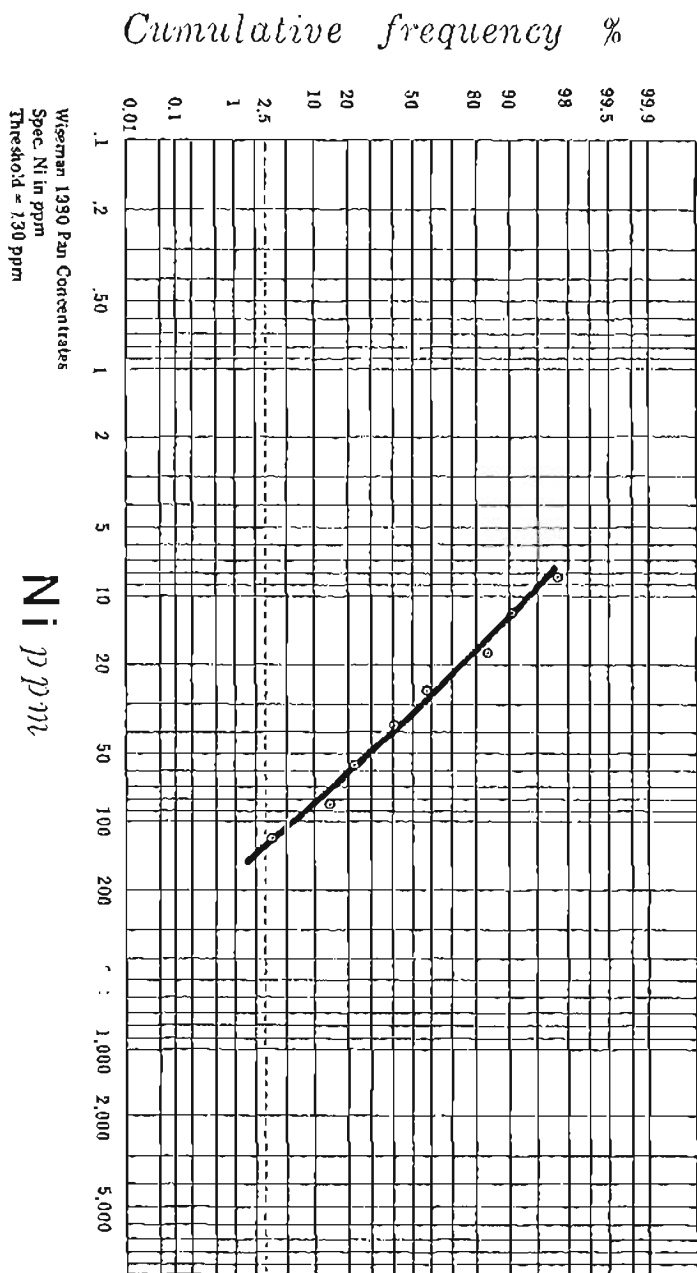
25.00  
50.00  
75.00  
90.00  
95.00

0.140757E+01  
0.149008E+01  
0.172464E+01  
0.198267E+01  
0.205719E+01

0.203889E+02  
0.309083E+02  
0.530449E+02  
0.960879E+02  
0.114072E+03

Table 7 (cont.)

-156-



## FREQUENCY TABLE FOR VARIABLE 23 (S-PR )

LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ (NORMAL DIST)	THEOR FREQ - OBS FREQ
LOWER	UPPER										
N		0	0			0.00		0.00		1.486E+01	1.005E+00
L		11	11			7.26		7.26		1.370E+01	-1.266E+01
T		0	11			0.00		7.26		1.958E+01	-1.830E+01
1.250E+00 -	1.417E+00	17	28			11.18		18.42		2.373E+01	-2.217E+01
1.417E+00 -	1.583E+00	25	53			16.45		34.87		2.439E+01	-2.385E+01
1.583E+00 -	1.750E+00	37	90			24.34		59.21		2.126E+01	-2.018E+01
1.750E+00 -	1.917E+00	13	103			8.55		67.76		1.572E+01	-1.508E+01
1.917E+00 -	2.083E+00	23	126			15.13		82.89		9.856E+00	-9.349E+00
2.083E+00 -	2.250E+00	10	136			6.58		89.47		5.242E+00	-4.850E+00
2.250E+00 -	2.417E+00	5	141			3.29		92.76		2.364E+00	-1.095E+00
2.417E+00 -	2.583E+00	2	143			1.32		94.08		9.042E-01	-4.625E+00
2.583E+00 -	2.750E+00	3	146			1.97		96.05		2.933E-01	-2.933E-01
2.750E+00 -	2.917E+00	5	151			3.29		99.34		8.068E-02	-1.882E-02
2.917E+00 -	3.083E+00	0	151			0.00		99.34		4.447E-03	2.749E+02
3.083E+00 -	3.250E+00	0	151			0.00		99.34			
3.250E+00 -	3.417E+00	0	151			0.00		99.34			
3.417E+00 -	3.583E+00	1	152			0.66		100.00			
G		0	152			0.00		100.00			
H		0	152								
B		0	152								
TOTALS LESS H AND B		152								1.520E+02	1.027E+02

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HISTOGRAM FOR VARIABLE 23 (S-PR )  
WIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	
2.154E+01	XXXXXXXXXX
3.162E+01	XXXXXXXXXX
4.642E+01	XXXXXXXXXX
5.813E+01	XXXXXXXXXX
1.000E+02	XXXXXXXXXX
1.469E+02	XXXXXXX
2.154E+02	XXX
3.162E+02	X
4.642E+02	XX
5.813E+02	XXX
1.000E+03	
1.469E+03	
2.154E+03	
3.162E+03	X

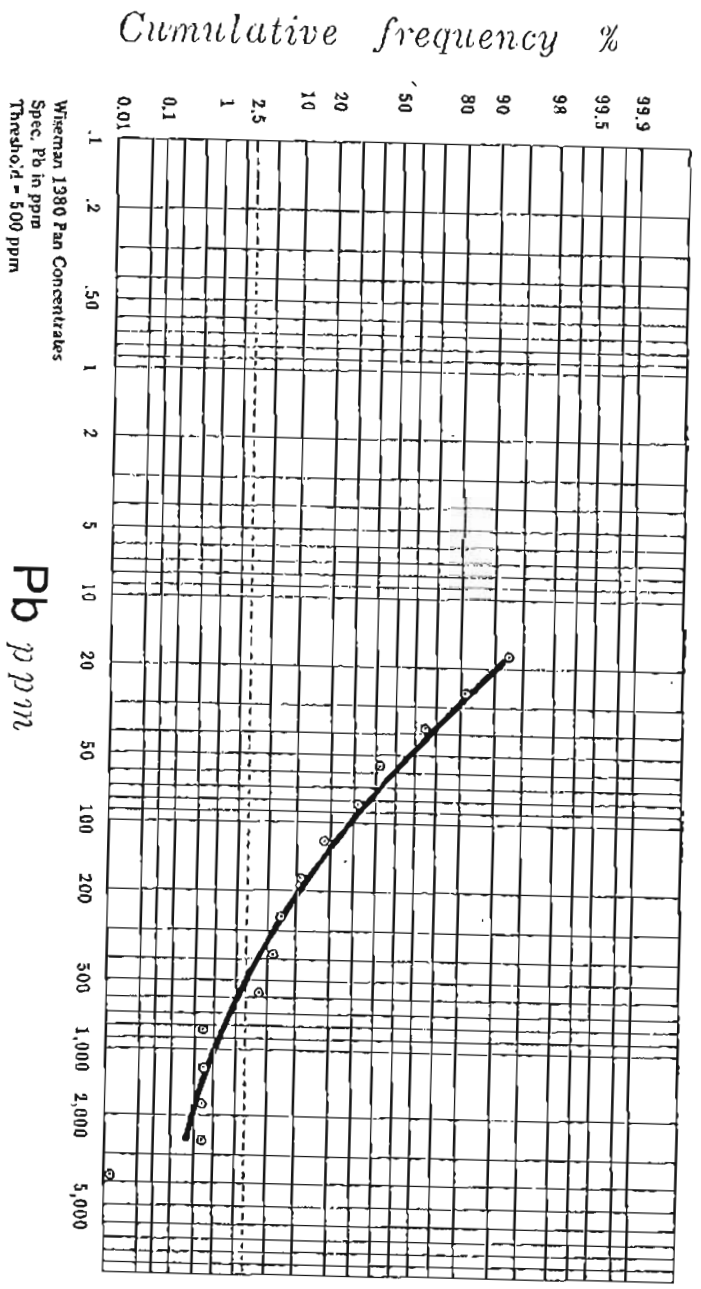
THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 3.00000E+03  
 GEOMETRIC MEAN = 6.53115E+01  
 GEOMETRIC DEVIATION = 2.51272E+00

VARIANCE OF LOGS = 1.60115E-01

PERCENT TABLE FOR VARIABLE 23 (S-PB) ) 9Y 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	0.148333E+01	0.704322E+02
50.00	0.168694E+01	0.486339E+02
75.00	0.199638E+01	0.991695E+02
90.00	0.227657E+01	0.189090E+03
95.00	0.266111E+01	0.458262E+03



Sb

Wiseman 1380 Pan concentrates  
 Spec. Sb in ppm  
 Threshold = Detection limit = 200 ppm

Not enough unqualified values above detection limit  
 to determine threshold graphically so threshold set at  
 detection limit = 200 ppm.

FREQUENCY TABLE FOR VARIABLE 25 (S-SC )

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
N		0	0	0	0	0.00	0.00			1.950E+00	1.287E-03		
L		2	2	2	2	1.32	1.32			7.752E+00	-6.591E+00		
T		0	2	0	0	0.00	1.32			2.182E+01	-2.159E+01		
9.150E-01	1.083E+00	9	11	5	16	5.92	7.24			3.797E+01	-3.655E+01		
1.383E+00	1.249E+00	5	16	11	27	3.29	10.53			4.084E+01	-3.967E+01		
1.249E+00	1.416E+00	54	70	48	118	35.53	46.05			2.717E+01	-2.647E+01		
1.416E+00	1.583E+00	48	118	118	166	31.58	77.63			1.117E+01	-1.045E+01		
1.583E+00	1.749E+00	19	137	137	156	12.50	90.13			3.326E+00	-2.123E+00		
1.749E+00	1.916E+00	8	145	145	152	5.26	95.39			-1.907E-06	-4.719E+06		
1.916E+00	2.083E+00	4	149	149	152	2.63	100.00						
G		3	152	152	152	1.97							
H		0	152	152	152								
I		0	152	152	152								
TOTALS	LESS H AND R		152							1.520E+02	-4.719E+06		

HISTOGRAM FOR VARIABLE 25 (S-SC )  
WIDPOINTS ARE EXPRESSED AS ANTILOGS

Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
9.985E+00	XXXXXX
1.455E+01	XXXX
2.151E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+01	XXXXX
9.985E+01	XXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01  
 MAXIMUM ANTILOG = 1.00000E+02  
 GEOMETRIC MEAN = 2.72843E+01  
 GEOMETRIC DEVIATION = 1.65794E+00  
 VARIANCE OF LOGS = 4.82100E-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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.131724E+01	0.207604E+02
50.00	0.143683E+01	0.273423E+02

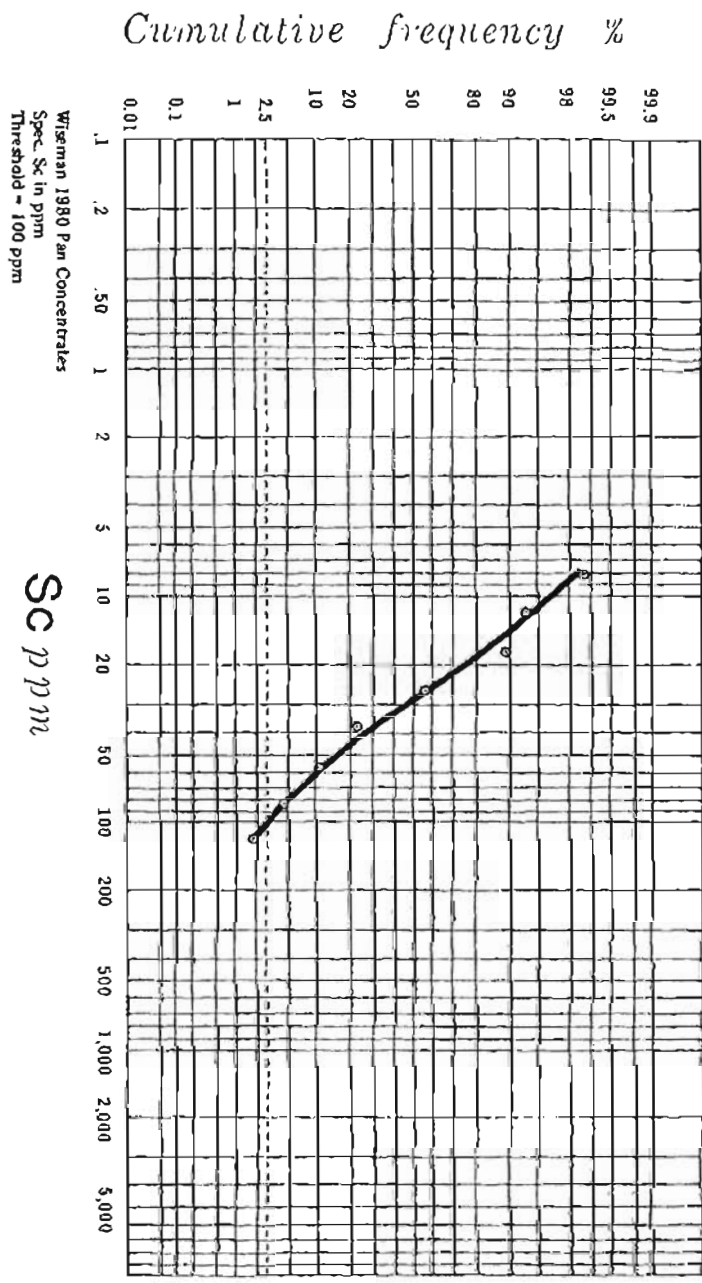
75.00  
90.00  
95.00

0.156878E+01  
0.176758E+01  
0.190350E+01

0.370492E+02  
0.559217E+02  
0.800759E+02

Table 7 (cont.)

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Sc ppm

## FREQUENCY TABLE FOR VARIABLE 26 (S-SN )

LOG LIMITS		OBS		CUM		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)**2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
N		143	143	94.08	94.08	94.08	94.08	4.613E+01	2.034E+02				
L		0	143	0.00	94.08	94.08	94.08	6.082E+01	-6.078E+01				
T		0	143	0.00	94.08	94.08	94.08	3.645E+01	-3.645E+01				
1.250E+01	1.417E+00	3	146	0.00	96.05	96.05	96.05	7.956E+00	-7.956E+00				
1.417E+00	1.583E+00	0	146	0.00	96.05	96.05	96.05	6.246E-01	2.578E+00				
1.583E+00	1.750E+00	0	146	0.00	98.68	98.68	98.68	0.000E+00	3.030E+00				
1.750E+00	1.917E+00	2	148	1.32	97.37	97.37	97.37	0.000E+00	0.000E+00				
1.917E+00	2.083E+00	2	150	1.32	98.68	98.68	98.68	0.000E+00	0.000E+00				
2.083E+00	2.250E+00	0	150	0.00	99.36	99.36	99.36	1.753E-02	5.703E+01				
2.250E+00	2.417E+00	1	151	0.66	100.00	100.00	100.00						
2.417E+00	2.583E+00	1	152	0.66	100.00	100.00	100.00						
		G	0	152									
		H	0	152									
		I	0	152									
TOTALS	LESS H AND I		152					1.520E+02	1.578E+02				

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Table 7 (cont.)

## HISTOGRAM FOR VARIABLE 26 (S-SN )

MINPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	
2.154E+01	XX
3.162E+01	XX
4.642E+01	X
5.813E+01	X
1.000E+02	X
1.469E+02	X
2.154E+02	X
3.162E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 3.00000E+02  
 GEOMETRIC MEAN = 6.59248E+01  
 GEOMETRIC DEVIATION = 2.74381E+00  
 VARIANCE OF LOGS = 1.92155E-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 DATA VALUE ANTI LOG OF VALUE  
 PERCENTILE

25.00  
57.00  
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

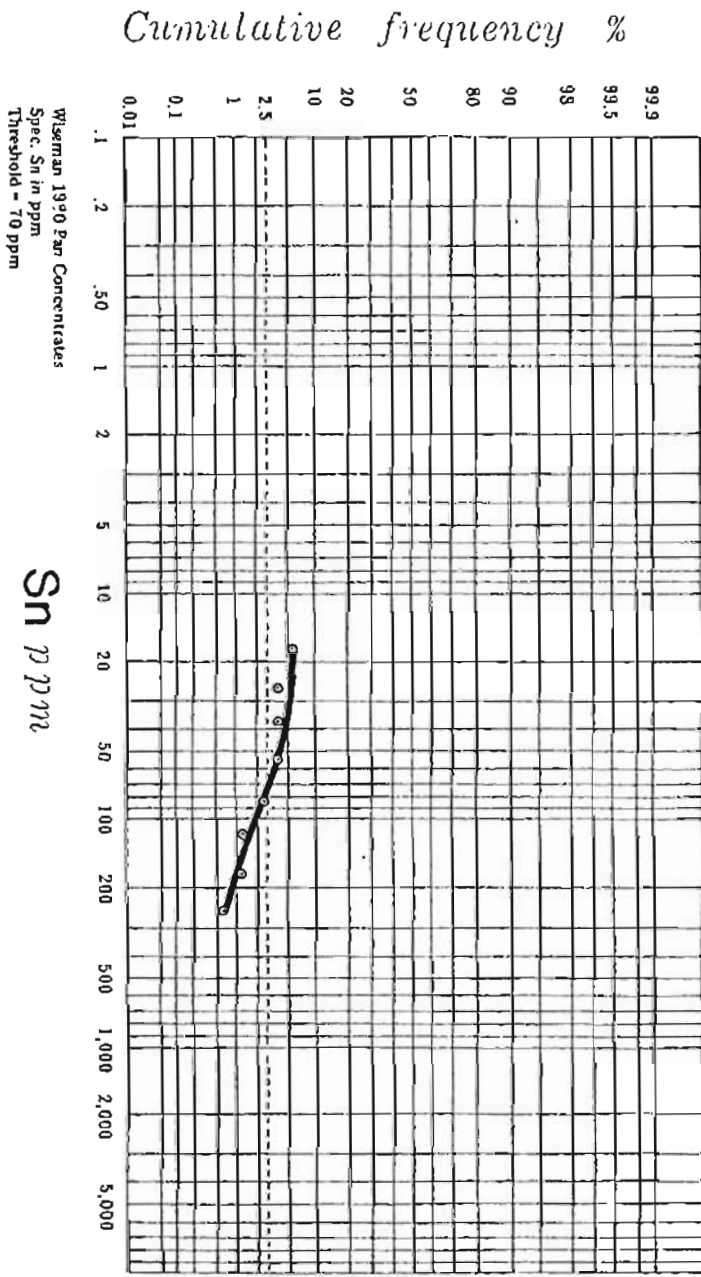


Table 7 (cont.)

FREQUENCY TABLE FOR VARIABLE 27 (S-SR)									
LOG LIMITS		OBS		CUM		PERCENT		THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	CUM FREQ	CUM FREQ	(NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
2.250E+00	2.417E+00	0	0	0.00	0.00	0.00	0.00	2.582E+01	6.365E+00
2.417E+00	2.583E+00	13	13	8.55	8.55	8.55	8.55	3.915E+01	-3.729E+01
2.583E+00	2.750E+00	29	115	19.08	75.66	75.66	75.66	4.478E+01	-4.413E+01
2.750E+00	2.917E+00	18	133	11.94	87.50	87.50	87.50	2.906E+01	-2.844E+01
2.917E+00	3.083E+00	15	148	9.87	97.37	97.37	97.37	1.069E+01	-9.284E+00
3.083E+00	3.250E+00	2	150	1.32	98.69	98.69	98.69	2.225E+00	-1.326E+00
		2	152	1.32	100.00	100.00	100.00	2.796E+01	3.874E+00
		0	152	0.00	100.00	100.00	100.00		
		G	0	152					
		H	0	152					
		R	0	152					
TOTALS LESS H AND R		152						1.520E+02	-1.072E+02

HISTOGRAM FOR VARIABLE 27 (S-SR)

MIDPOINTS ARE EXPRESSED AS ANTILOGS

Concentration	Frequency in percent, each X equal 1 percent of all samples
2.154E+02	XX
3.162E+02	XX
4.642E+02	XX
6.813E+02	XXXXXXXXXXXX
1.000E+03	X
1.469E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNEQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+02  
 MAXIMUM ANTILOG = 1.50000E+03  
 GEOMETRIC MEAN = 2.95570E+02  
 GEOMETRIC DEVIATION = 1.66082E+00  
 VARIANCE OF LOGS = 4.85427E-02

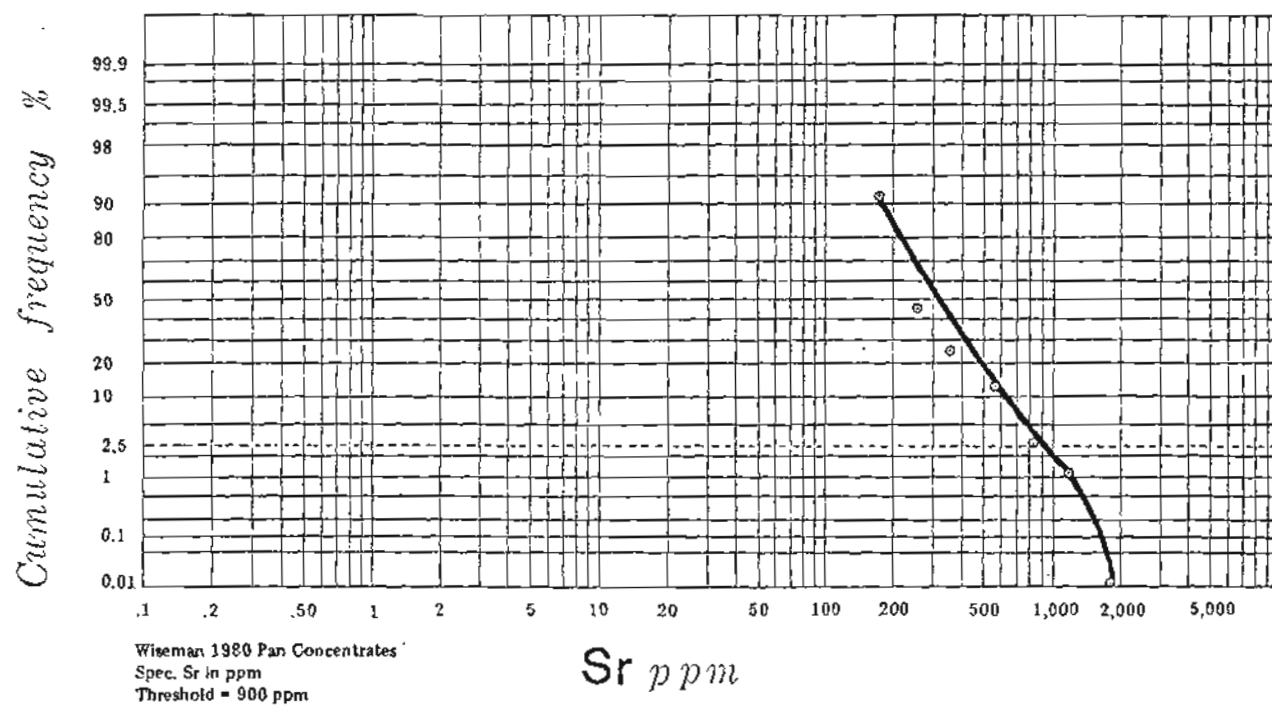
PERCENT TABLE FOR VARIABLE 27 (S-SR) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE  
 IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,  
 THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	0.100000E+36	0.100000E+36
50.00	0.100000E+36	0.100000E+36
75.00	0.257759E+01	0.257759E+01
90.00	0.279222E+01	0.279222E+01

95.00

0.287667E+01

0.752780E+03



Th

Wiseman 1980 Pan concentrates  
Spec. Th in ppm  
Threshold = Detection limit = 200 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	CUM	PERCENT	PERCENT	THEOR FREQ	THEOR FREQ - OBS FREQ
LOWER	UPPER	FREQ	FREQ	FREQ	CUM FREQ	(NORMAL DIST)	(THEOR FREQ - OBS FREQ)*2/THEOR FREQ
N		0	0	0.00	0.00	3.155E-01	2.854E+00
L		0	0	0.00	0.00	2.793E+00	7.204E-02
Y		0	0	0.00	0.00	1.330E+01	-1.255E+01
1.415E+00	1.583E+00	1	1	0.66	0.66	3.420E+01	-3.349E+01
1.593E+00	1.749E+00	8	9	5.25	5.92	4.752E+01	-4.677E+01
1.749E+00	1.916E+00	10	19	6.58	12.50	5.571E+01	-3.400E+01
1.915E+00	2.083E+00	24	43	15.79	28.29	6.453E+01	-1.394E+01
2.083E+00	2.249E+00	35	79	23.68	51.97	7.188E+00	-3.188E+00
2.249E+00	2.416E+00	62	141	40.79	92.76	4.012E-01	2.092E+00
2.415E+00	2.583E+00	10	151	6.58	99.34		
2.583E+00	2.749E+00	0	151	0.00	100.00		
2.749E+00	2.916E+00	1	152	0.66	100.00		
		G	0	0.00	100.00		
		H	0	0.00			
		9	152				
TOTALS LESS H AND 9		152				1.520E+02	-1.38E+02

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

Concentration in ppm	Frequency in percent, each X equal 1 percent of all samples
3.157E+01	X
4.634E+01	XXXXX
4.802E+01	XXXXXXXX
9.985E+01	XXXXXXXXXXXXXXXXXXXX
1.446E+02	XXXXXXXXXXXXXXXXXXXXX
2.151E+02	XXXXXXXXXXXXXXXXXXXXX
3.157E+02	XXXXXXXX
4.634E+02	
5.803E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 3.00000E+01  
 MAXIMUM ANTILOG = 7.00000E+02  
 GEOMETRIC MEAN = 1.48583E+02  
 GEOMETRIC DEVIATION = 1.61056E+00  
 VARIANCE OF LOGS = 4.28389E-02

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 0.9999991E 50

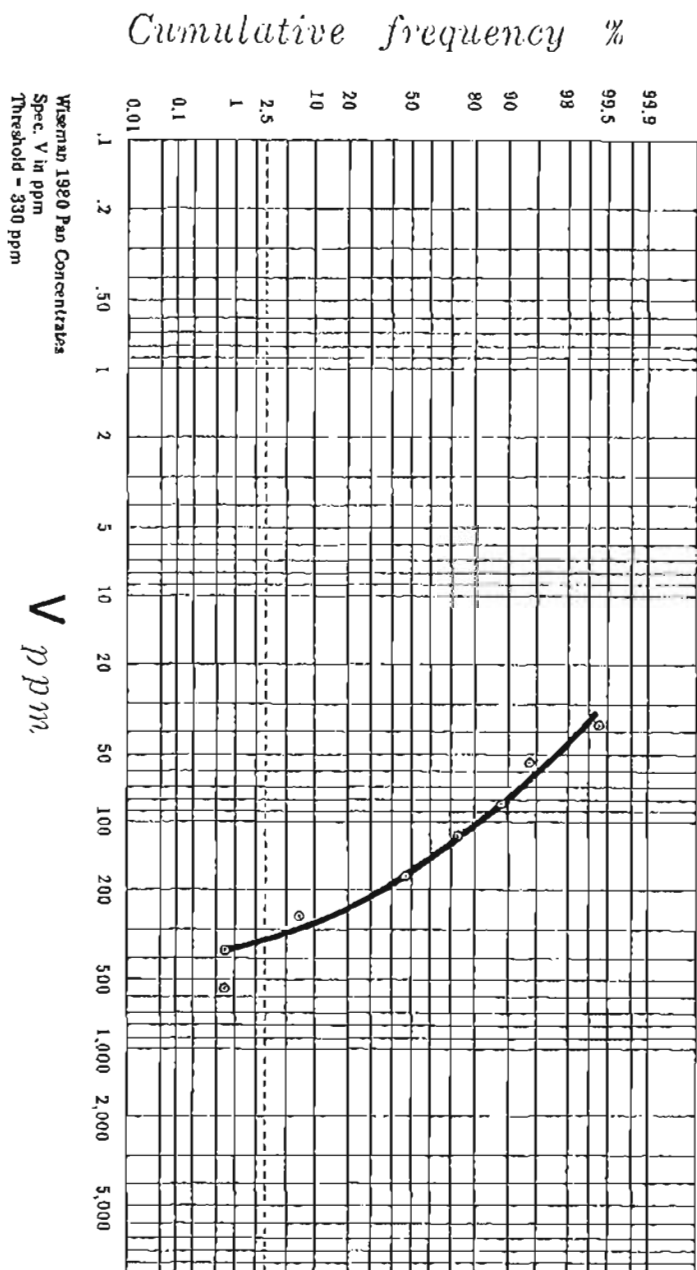
SELECTED DATA VALUE ANTILOG OF VALUE

PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

0.204795E+01  
0.223545E+01  
0.234342E+01  
0.240471E+01  
0.247267E+01

0.111672E+03  
0.171067E+03  
0.220506E+03  
0.253929E+03  
0.296949E+03



FREQUENCY TABLE FOR VARIABLE 29 (S-M )

LOG LIMITS		OBS FREQ		CUM FREQ		PERCENT FREQ		PERCENT CUM FREQ		THEOR FREQ	(THEOR FREQ - OBS FREQ)**2/(THEOR FREQ)	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)		
N		142	142			93.42	93.42			2.900E+01	4.481E+02	
L		1	143			0.64	94.06			8.235E+01	-3.228E+01	
T		0	143			0.00	94.06			3.803E+01	-3.803E+01	
1.914E+00	2.083E+00	6	149			3.95	98.01			2.585E+00	-2.585E+00	
2.183E+00	2.269E+00	1	150			0.55	98.56			0.000E+00	0.000E+00	
2.269E+00	2.416E+00	0	150			0.00	98.56			0.000E+00	0.000E+00	
2.416E+00	2.583E+00	0	150			0.00	98.56			0.000E+00	0.000E+00	
2.583E+00	2.749E+00	1	151			0.55	99.11			0.000E+00	0.000E+00	
2.749E+00	2.916E+00	0	151			0.00	99.11			0.000E+00	0.000E+00	
2.916E+00	3.083E+00	0	151			0.00	99.11			0.000E+00	0.000E+00	
3.083E+00	3.269E+00	1	152			0.66	100.00			2.309E-02	4.328E+01	
G		0	152			0.00	100.00					
H		0	152									
R		0	152									
TOTALS LESS H AND R			152							1.520E+02	3.695E+02	

HISTOGRAM FOR VARIABLE 29 (S-M )  
 10 POINTS ARE EXPRESSED AS ANTILOGS  
 Frequency in percent, each X equal 1 percent of all samples

Concentration	X
1.4665E+01	X
1.4665E+02	X
2.151E+02	X
3.157E+02	X
4.634E+02	X
6.802E+02	X
9.983E+02	X
1.4665E+03	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02  
 MAXIMUM ANTILOG = 1.50000E+03  
 GEOMETRIC MEAN = 1.69007E+02  
 GEOMETRIC DEVIATION = 2.65197E+00  
 VARIANCE OF LOGS = 1.79411E-01

PERCENT TABLE FOR VARIABLE 29 (S-M ) 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 DATA VALUE ANTILOG OF VALUE  
 PERCENTILE

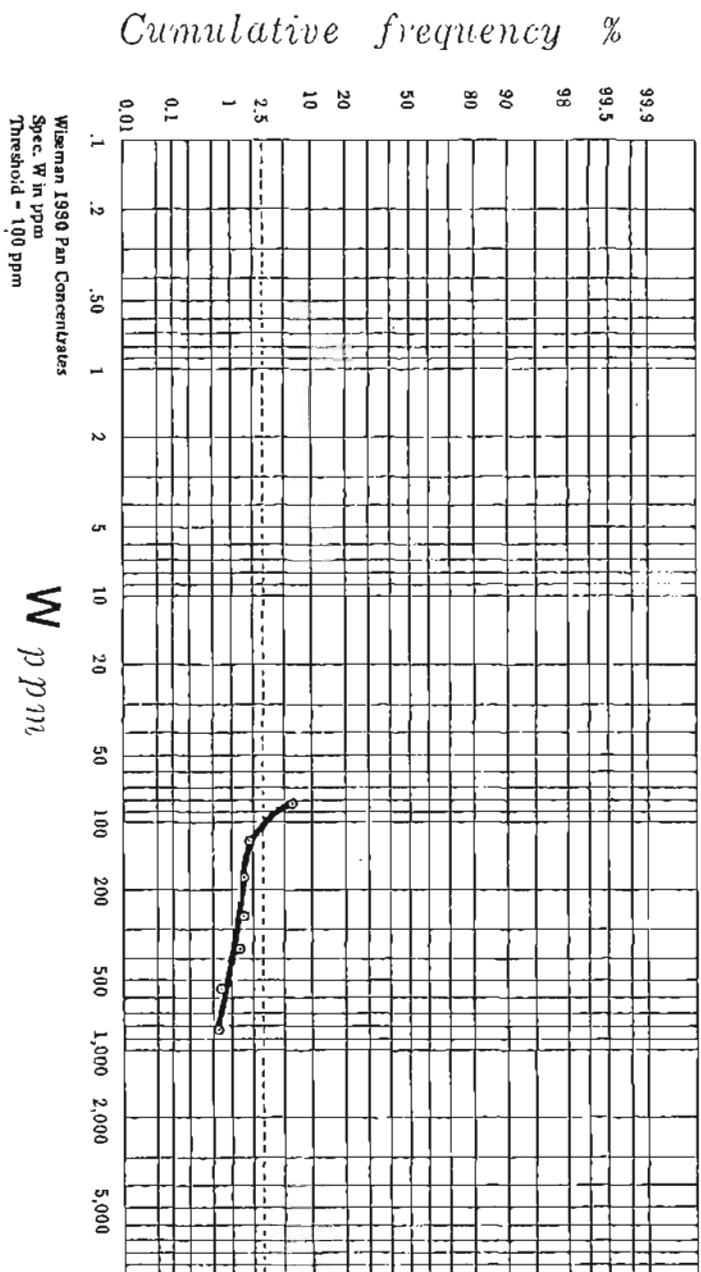
25.00  
50.00  
75.00  
90.00  
95.00

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

Table 7 (cont.)

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## FREQUENCY TABLE FOR VARIABLE 30 (S-Y )

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		0	0	0.00	0.00		
T		0	0	0.00	0.00		
1.250E+00	1.417E+00	1	1	0.66	0.66	2.518E+00	-2.121E+00
1.417E+00	1.583E+00	10	11	6.58	7.24	7.626E+00	-6.315E+00
1.583E+00	1.750E+00	28	39	18.42	25.66	1.699E+01	-1.534E+01
1.750E+00	1.917E+00	22	61	14.47	40.13	2.793E+01	-2.704E+01
1.917E+00	2.083E+00	24	85	15.79	55.92	3.354E+01	-3.283E+01
2.083E+00	2.250E+00	15	100	9.87	65.79	2.974E+01	-2.923E+01
2.250E+00	2.417E+00	42	142	27.63	93.42	1.940E+01	-1.723E+01
2.417E+00	2.583E+00	8	150	5.26	98.68	9.305E+00	-8.445E+00
2.583E+00	2.750E+00	2	152	1.32	100.00	4.322E+00	-3.859E+00
G		0	152	0.00	100.00		
H		0	152				
B		0	152				
TOTALS LESS H AND B		152				1.513E+02	-1.424E+02

## HISTOGRAM FOR VARIABLE 30 (S-Y )

MIDPOINTS ARE EXPRESSED AS ANTILOGS

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

Concentration in ppm	2.154E+01	X
	3.162E+01	XXXXXXXX
	4.642E+01	XXXXXXXXXXXXXXXXXXXX
	6.813E+01	XXXXXXXXXXXXXXXXXXXX
	1.000E+02	XXXXXXXXXXXXXXXXXXXX
	1.468E+02	XXXXXXXXXXXX
	2.154E+02	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
	3.162E+02	XXXXXX
	4.642E+02	X

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01  
 MAXIMUM ANTILOG = 5.00000E+02  
 GEOMETRIC MEAN = 1.04230E+02  
 GEOMETRIC DEVIATION = 1.98094E+00  
 VARIANCE OF LOGS = 8.81330E-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 0.9999991E 50

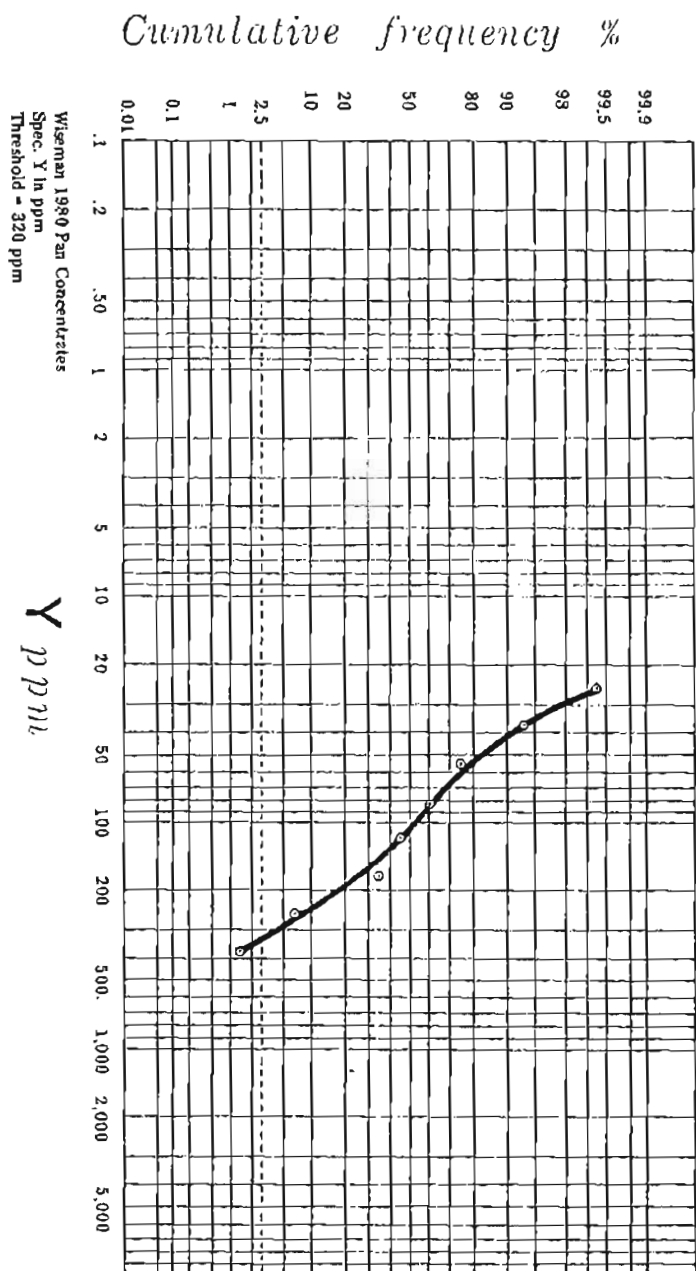
SELECTED	DATA VALUE	ANTI LOG OF VALUE
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PERCENTILE

25.00  
50.00  
75.00  
90.00  
95.00

0.174405E+01  
0.202083E+01  
0.230554E+01  
0.259603E+01  
0.26657E+01

0.554689E+02  
0.104914E+03  
0.202094E+03  
0.248905E+03  
0.292866E+03



3 FREQUENCY TABLE FOR VARIABLE 31 (S-2N )

LOG LIMITS		OBS		PERCENT		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)**2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	CUM FREQ	CUM FREQ	(NORMAL DIST)			
N											
L											
T											
2.583E+00	2.750E+00	108	108	71.05	71.05			8.841E+00		2.066E+03	
2.750E+00	2.915E+00	36	144	23.58	94.63			9.319E+01		-2.316E+01	
2.915E+00	3.083E+00	0	144	0.00	94.63			4.891E+01		-4.891E+01	
3.083E+00	3.250E+00	1	148	0.56	95.19			0.000E+00		0.000E+00	
3.250E+00	3.416E+00	1	149	0.56	95.75			0.000E+00		0.000E+00	
3.416E+00	3.583E+00	2	150	1.32	97.07			1.065E+00		9.140E-01	
3.583E+00	3.750E+00	0	152	0.00	100.00						
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FREQUENCY TABLE FOR VARIABLE 32 (S-20 )

LOG LIMITS		OBS		PERCENT		THEOR FREQ		(THEOR FREQ - OBS FREQ)*2/THEOR FREQ	
LOWER	UPPER	FREQ	FREQ	FREQ	FREQ	(NORMAL DIST)			
Y		0	0	0.00	0.00	7.275E+00	-5.588E+00		
L		0	0	0.00	0.00	1.765E+01	-1.674E+01		
T		0	0	0.00	0.00	3.007E+01	-2.857E+01		
1	2.083E+00	5	5	3.29	3.29	3.601E+01	-3.510E+01		
2	2.093E+01	16	21	10.53	13.82	3.007E+01	-2.857E+01		
3	2.249E+01	45	66	29.51	43.42	3.601E+01	-3.510E+01		
4	2.416E+01	33	99	21.71	65.13	3.601E+01	-3.510E+01		
5	2.583E+01	25	124	16.45	81.58	3.601E+01	-3.510E+01		
6	2.749E+01	9	133	5.92	87.50	3.601E+01	-3.510E+01		
7	2.916E+01	8	141	5.26	92.76	3.601E+01	-3.510E+01		
8	3.083E+01	11	152	7.26	100.00	3.601E+01	-3.510E+01		
9		11	152						
TOTALS	LESS H AND R	152				1.520E+02	-1.162E+02		

HISTOGRAM FOR VARIABLE 32 (S-20 )

WIDPOINTS ARE EXPRESSED AS ANTILOGS

Frequency in percent, each X equal 1 percent of all samples	
Wid	0.095E+01 XXX
1	1.465E+02 XXXXXXXXXXXXX
2	2.151E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	3.157E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4	4.636E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	6.502E+02 XXXXX
6	9.095E+02 XXXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02  
 MAXIMUM ANTILOG = 1.00000E+03  
 GEOMETRIC MEAN = 2.89057E+02  
 GEOMETRIC DEVIATION = 1.7685E+01  
 VARIANCE OF LOGS = 6.11502E-02

PERCENT TABLE FOR VARIABLE 32 (S-20 ) 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 DATA VALUE ANT LOG OF VALUE  
 PERCENTILE

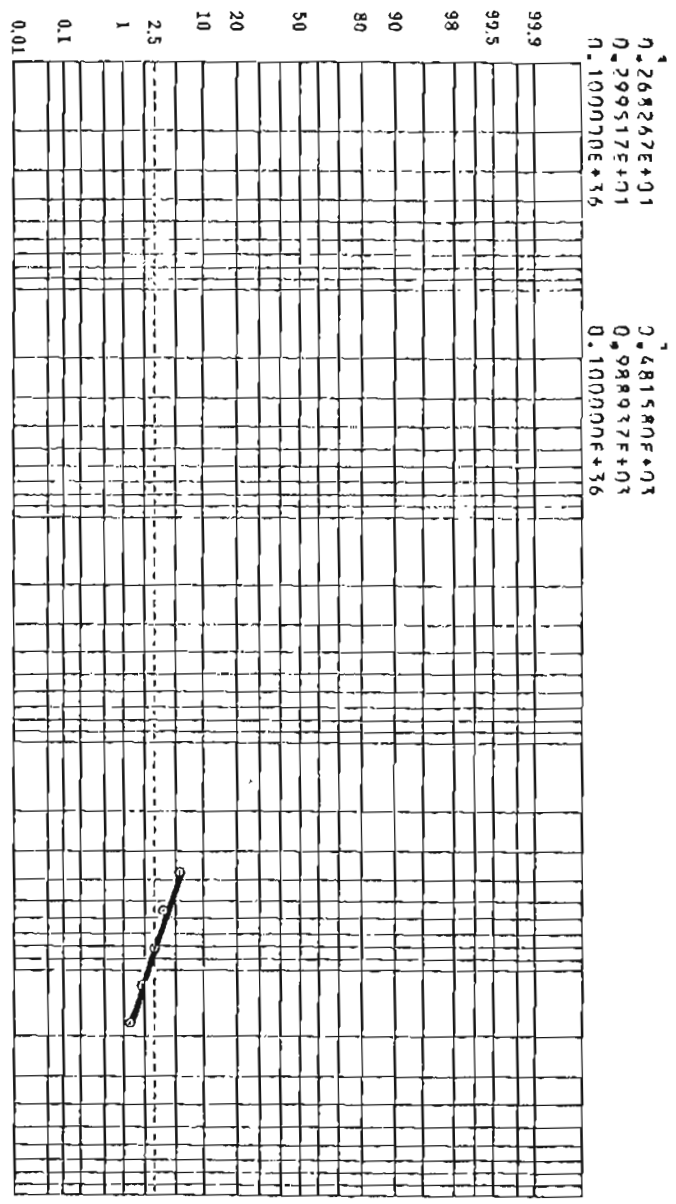
25.00 0.231230E+01 0.205257E+01  
 50.00 0.246651E+01 0.292756E+01

75.03  
97.07  
95.03

Table 7 (cont.)

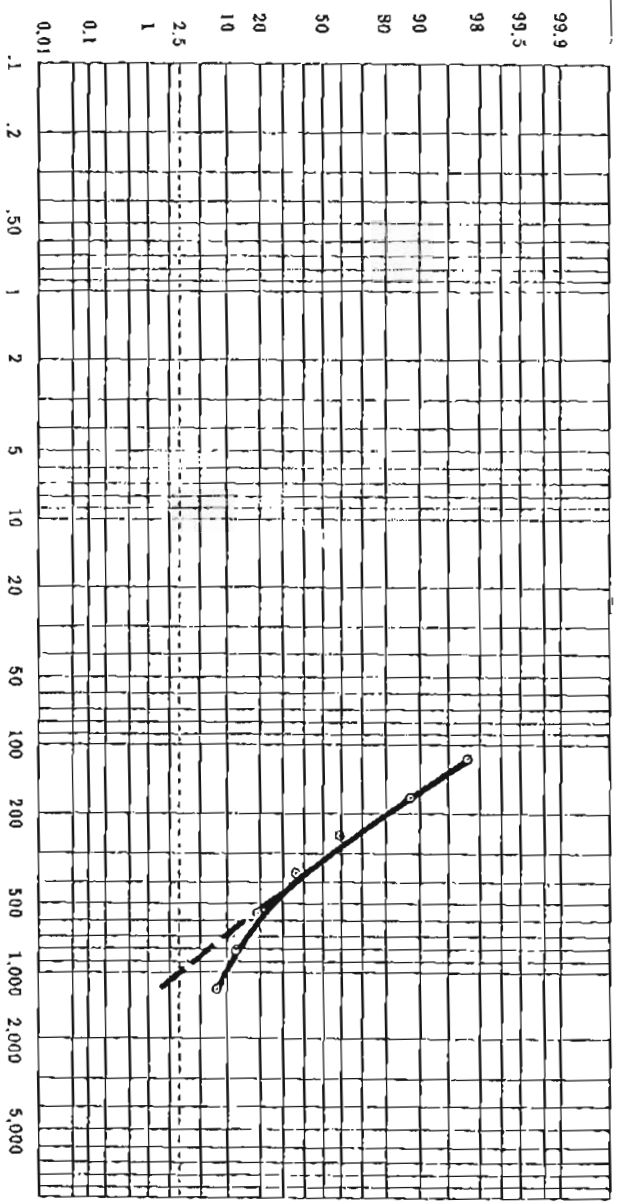
-173-

Cumulative frequency %



Zn ppm

Cumulative frequency %



Zr ppm

Table 8. Statistical summary of analytical results for 152 of 156 pan-concentrate samples from the southwest Wiseman Quadrangle, Alaska. The number of samples for which qualified values are available are listed under the following codes: N = not detected, H = severe interference problem, G = greater than upper limit for 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	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM
1	LATITUDE	0	0	0	0	0	0	152	0	0.6708472E+02	0.6762167E+02
2	LONGITUDE	0	0	0	0	0	0	152	0	0.1510283E+03	0.1529983E+03
3	S-FEX	0	0	0	0	0	0	148	0	0.1000000E+01	0.2000000E+02
4	S-WGX	0	0	0	0	0	0	152	0	0.7000000E-01	0.5000000E+01
5	S-CAX	0	0	0	0	0	0	152	0	0.5000000E+00	0.1500000E+02
6	S-TIX	0	0	0	0	0	0	57	0	0.2000000E+00	0.1000000E+01
7	S-MN	0	0	0	12	0	0	140	0	0.1000000E+03	0.5000000E+04
8	S-AG	138	0	4	0	0	0	10	0	0.2000000E+01	0.1500000E+02
9	S-AS	146	0	1	0	0	0	5	0	0.5000000E+03	0.7000000E+04
10	S-AU	152	0	0	0	0	0	0	0	0.9999000E+35	-0.9999000E+35
11	S-B	0	0	0	0	0	0	152	0	0.9999000E+35	0.2000000E+04
12	S-PA	0	0	0	0	0	0	148	0	0.2000000E+02	0.5000000E+04
13	S-BF	12	0	0	0	0	0	55	0	0.5000000E+02	0.3000000E+01
14	S-RI	150	0	85	0	0	0	1	0	0.3000000E+01	0.3000000E+02
15	S-CD	152	0	0	0	0	0	0	0	0.9999000E+35	-0.9999000E+35
16	S-CO	0	0	5	0	0	0	147	0	0.1000000E+02	0.2000000E+03
17	S-CR	0	0	0	0	0	0	152	0	0.2000000E+02	0.7000000E+03
18	S-CU	0	0	0	0	0	0	152	0	0.1000000E+02	0.5000000E+04
19	S-LA	0	0	1	4	0	0	147	0	0.5000000E+02	0.1000000E+02
20	S-MO	150	0	1	0	0	0	9	0	0.2000000E+02	0.2000000E+02
21	S-MB	0	0	143	0	0	0	0	0	0.5000000E+02	0.7000000E+02
22	S-NI	0	0	4	0	0	0	148	0	0.1000000E+02	0.1500000E+03
23	S-PB	0	0	11	0	0	0	141	0	0.2000000E+02	0.3000000E+04
24	S-SB	152	0	0	0	0	0	0	0	0.9999000E+35	-0.9999000E+35
25	S-SC	0	0	0	3	0	0	0	0	0.1000000E+02	0.1000000E+03
26	S-SN	143	0	0	0	0	0	9	0	0.2000000E+02	0.3000000E+03
27	S-SR	0	0	0	0	0	0	139	0	0.2000000E+03	0.1500000E+04
28	S-V	0	0	0	0	0	0	152	0	0.1000000E+03	0.1500000E+04
29	S-W	142	0	1	0	0	0	9	0	0.2000000E+02	0.5000000E+03
30	S-Y	0	0	0	0	0	0	152	0	0.5000000E+03	0.2000000E+04
31	S-ZN	108	0	36	0	0	0	8	0	0.5000000E+03	0.1000000E+04
32	S-ZR	0	0	0	11	0	0	141	0	0.1000000E+03	0.1000000E+04
33	S-TH	151	0	1	0	0	0	0	0	0.9999000E+35	-0.9999000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY									
NO	COLUMN	K1	MEAN	STD DEVIATION	VARIANCE	K2	K3	G1	K4
SURTICK2)									
1	LATITUDE	0.67320900+02	0.14076500+00	0.19814780-01	0.14294350-02	0.14294350+00	0.32711550-03	0.12454350+00	0.32711550-03
2	LONGITUDE	0.15214590+03	0.55405200+00	0.30697370+00	-0.55565010-01	-0.32670040+00	-0.98522550-01	-0.32670040+00	-0.98522550-01
3	S-FEET	0.52635140+01	0.51605010+01	0.26630870+02	0.27085440+03	0.19709540+01	0.10671360+04	0.19709540+01	0.10671360+04
4	S-MET	0.10721110+01	0.11404220+01	0.11404220+01	0.24176430+01	0.19615830+01	0.54069690+01	0.19615830+01	0.54069690+01
5	S-CAY	0.42394740+01	0.33397790+01	0.11147440+02	0.44856350+02	0.12052060+01	0.14600040+03	0.12052060+01	0.14600040+03
6	S-TIX	0.82807020+00	0.24337640+03	0.59197990-01	-0.16339510-01	-0.11335140+01	0.65530880-03	0.12992480+00	0.12992480+00
7	S-MN	0.74000000+03	0.93714710+03	0.87824600+06	0.30562200+10	0.37254470+01	0.10648070+14	0.13905120+02	0.13905120+02
8	S-AG	0.49000000+01	0.53427000+01	0.28544440+02	0.26860000+03	0.17468350+01	0.10924490+04	0.13607820+01	0.13607820+01
9	S-AS	0.20000000+04	0.28762430+04	0.78750000+07	0.48437500+11	0.21919250+01	0.30028130+15	0.48420260+01	0.48420260+01
10	S-AU	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35
11	S-R	0.15578950+03	0.22074390+03	0.48727850+05	0.55430300+08	0.52659970+01	0.84429100+11	0.35558030+02	0.35558030+02
12	S-RA	0.86621420+03	0.73882900+03	0.54609580+06	0.11702070+10	0.28997420+01	0.37766490+13	0.12663940+02	0.12663940+02
13	S-RE	0.20181820+01	0.13484000+00	0.13181820-01	0.18181820-01	0.74161980+01	0.18181820-01	0.55009000+02	0.55009000+02
14	S-91	0.30000000+02	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35
15	S-CD	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35
16	S-CD	0.33163270+02	0.29897550+02	0.85386360+03	0.65519960+05	0.24516970+01	0.66983360+07	0.83834820+01	0.83834820+01
17	S-CR	0.16631580+03	0.11063140+03	0.12239320+05	0.28925660+07	0.21352770+01	0.83760420+09	0.55014510+01	0.55014510+01
18	S-CU	0.27144740+03	0.55552990+03	0.30861350+05	0.99895800+09	0.58267760+01	0.39407520+13	0.41375090+02	0.41375090+02
19	S-LA	0.11659860+03	0.11354500+03	0.12892460+05	0.67368110+07	0.46225360+01	0.68806080+10	0.29363120+02	0.29363120+02
20	S-WO	0.20000000+02	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35
21	S-NR	0.54444440+02	0.88191710+01	0.77777780+02	0.11111110+04	0.16193480+01	0.44444440+04	0.73469390+00	0.73469390+00
22	S-N1	0.43918920+02	0.33692990+02	0.11352180+04	0.54711520+05	0.14304080+01	0.20149180+07	0.15635040+01	0.15635040+01
23	S-PR	0.12234040+03	0.28170560+03	0.79358050+05	0.18032350+09	0.30750890+01	0.49661480+12	0.78856520+02	0.78856520+02
24	S-SB	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35
25	S-SC	0.31258500+02	0.18485870+02	0.34172720+03	0.11835430+05	0.18735480+01	0.44692860+06	0.38271900+01	0.38271900+01
26	S-SN	0.10000000+03	0.94207220+02	0.88750000+04	0.11908930+07	0.14243610+01	0.12863390+09	0.16331230+01	0.16331230+01
27	S-SR	0.16467110+03	0.23222770+03	0.53929730+05	0.30742620+08	0.24547010+01	0.23073300+11	0.79332880+01	0.79332880+01
28	S-V	0.16467110+03	0.75825850+02	0.57495600+04	0.10155850+07	0.23295090+01	0.50877380+09	0.15390600+02	0.15390600+02
29	S-W	0.30555560+03	0.46666670+03	0.21777780+06	0.25507640+09	0.26180590+01	0.33181320+12	0.69962690+01	0.69962690+01
30	S-Y	0.12967110+03	0.85696810+02	0.73436000+04	0.83994800+06	0.13347160+01	0.16528620+09	0.30649170+01	0.30649170+01
31	S-ZN	0.10875000+04	0.55778310+03	0.43267860+06	0.17573210+09	0.61745190+00	-0.30170180+12	-0.16115620+01	-0.16115620+01
32	S-ZR	0.34468090+03	0.22501600+03	0.50632220+05	0.17521830+08	0.15379380+01	0.47723840+10	0.18615790+01	0.18615790+01
33	S-TM	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35	0.99990000+35

Table 8 (cont.)

Table 9. Simple linear correlation coefficients between logarithmic values of element concentrations in 152 pan-concentrate 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 152, the bivariate-frequency distribution was censored because of limitations of analysis method.

'\*\*\*\*' indicates correlation coefficient not computed. Method of analysis indicated in row and column headings: S = emission spectroscopy.

S-FEL	S-MG1	S-CAL	S-TIL	S-MM	S-AC	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD	S-CD	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-Y	S-T	S-ZN	S-ZR	S-TM			
S-FEL	3	-39	-23	50	9	-84	****	-25	-37	-16	****	****	39	35	10	-18	****	21	55	1	****	37	15	-21	19	29	3	10	-6	****	S-FEL		
S-MG1	148	XX	27	12	25	25	40	****	-26	19	5	****	****	-30	0	-23	-13	****	9	-33	-5	****	-19	-1	-35	-36	-12	-44	-42	-29	****	S-MG1	
S-CAL	148	152	XX	-18	-14	18	-32	****	9	28	-2	****	****	0	-26	26	18	****	43	-25	32	****	-17	-16	37	-32	-17	23	-8	20	****	S-CAL	
S-TIL	55	57	57	XX	20	-57	****	****	57	6	9	****	****	-43	53	-45	12	****	****	-28	-24	****	35	****	-22	56	****	22	99	22	****	S-TIL	
S-MM	138	140	140	51	XX	3	71	****	-15	-20	0	****	****	0	42	-21	-23	****	73	15	-22	****	29	-55	-16	16	-23	0	5	-12	****	S-MM	
S-AC	9	10	10	4	9	XX	****	****	-35	-28	0	****	****	-18	-46	46	-49	****	****	-34	60	****	-22	66	66	-50	****	-30	11	-2	****	S-AC	
S-AS	4	5	5	2	5	1	XX	****	7	100	****	****	****	-97	76	-38	42	****	****	-75	27	****	-6	****	-19	54	100	30	100	98	****	S-AS	
S-AU	0	0	0	0	0	0	0	XX	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	S-AU	
S-B	148	152	152	57	140	10	5	0	XX	21	8	****	****	-3	34	8	26	****	41	18	23	****	23	-16	53	45	-57	47	23	38	****	S-B	
S-BA	145	148	148	54	136	9	3	0	148	XX	4	****	****	-11	-9	13	28	****	-6	-6	32	****	-22	-56	28	-11	60	-5	0	3	****	S-BA	
S-BE	54	55	55	31	55	3	1	0	55	55	XX	****	****	-12	1	-12	1	****	0	-6	-2	****	-5	0	5	11	0	-8	****	-14	****	S-BE	
S-BI	1	1	1	0	1	1	1	0	1	0	0	XX	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	S-BI
S-CD	0	0	0	0	0	0	0	0	0	0	0	0	XX	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	S-CD
S-CD	143	147	147	57	135	10	5	0	147	143	53	1	0	XX	-8	45	5	****	78	57	26	****	10	-14	7	-1	56	34	2	20	****	S-CD	
S-CR	148	152	152	57	140	10	5	0	152	148	55	1	0	147	XX	-16	-6	****	7	36	-5	****	62	-68	23	70	-27	32	12	10	****	S-CR	
S-CU	148	152	152	57	140	10	5	0	152	148	55	1	0	147	132	XX	28	****	39	28	48	****	11	-2	22	-5	10	37	1	31	****	S-CU	
S-LA	143	147	147	56	135	10	5	0	147	143	54	1	0	142	147	147	XX	****	-12	-9	31	****	-10	-35	-1	-7	-30	25	28	33	****	S-LA	
S-MO	1	1	1	0	1	0	0	0	1	1	1	0	0	1	1	1	1	XX	****	****	****	****	****	****	****	****	****	****	****	****	****	****	S-MO
S-NB	9	9	9	0	9	0	1	0	9	9	4	0	0	8	9	9	9	0	XX	75	6	****	-8	****	48	10	****	48	****	1	****	S-NB	
S-NI	144	148	148	57	136	9	5	0	148	144	55	1	0	144	148	148	143	1	7	XX	8	****	38	-38	38	44	16	29	4	5	****	S-NI	
S-PB	138	141	141	50	136	10	5	0	141	137	55	1	0	136	141	141	136	1	9	137	XX	****	8	17	26	-6	20	29	30	30	****	S-PB	
S-SB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	XX	****	****	****	****	****	****	****	****	****	****	S-SB
S-SC	144	147	147	53	138	10	3	0	147	144	55	1	0	142	147	147	142	1	9	143	138	0	XX	-31	21	65	-46	56	-25	23	****	S-SC	
S-SN	9	9	9	1	8	3	1	0	9	8	4	1	0	9	9	9	9	0	1	9	9	0	9	XX	-29	-61	0	-67	100	4	****	S-SN	
S-SR	137	139	139	49	135	9	5	0	139	135	55	1	0	134	139	139	134	1	9	135	135	0	137	9	XX	39	-32	50	39	24	****	S-SR	
S-V	148	152	152	57	140	10	5	0	152	148	55	1	0	147	152	152	147	1	9	148	141	0	147	9	139	XX	-32	45	8	17	****	S-V	
S-Y	9	9	9	0	9	1	3	0	9	8	4	1	0	9	9	9	9	0	3	9	9	0	9	4	9	9	XX	-54	****	-47	****	S-Y	
S-T	148	152	152	57	140	10	5	0	152	148	55	1	0	147	152	152	147	1	9	148	141	0	147	9	139	152	9	XX	-5	54	****	S-T	
S-ZN	7	8	8	3	8	6	2	0	8	6	2	1	0	8	8	8	8	0	0	8	8	0	7	2	7	8	1	8	XX	81	****	S-ZN	
S-ZR	137	141	141	57	129	9	3	0	141	137	53	1	0	136	141	141	136	1	8	139	130	0	136	8	128	141	6	141	8	XX	****	S-ZR	
S-TM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	XX	S-TM
S-FEL	S-MG1	S-CAL	S-TIL	S-MM	S-AC	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD	S-CD	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-Y	S-T	S-ZN	S-ZR	S-TM	XX		