UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ANALYSES OF ROCK AND STREAM-SEDIMENT SAMPLES FROM THE
CRAIG C-5 QUADRANGLE, ALASKA

By

Allen L. Clark, Henry C. Berg, Donald A. Grybeck,
A. Thomas Ovenshine, and Raymond Wehr

Open-file report

1970

This report is preliminary
and has not been edited or
reviewed for conformity with
Geological Survey standards

ANALYSES OF ROCK AND STREAM-SEDIMENT SAMPLES FROM THE

CRAIG C-5 QUADRANGLE, ALASKA

By

Allen L. Clark, Henry C. Berg, Donald A. Grybeck,
A. Thomas Ovenshine, and Raymond Wehr

INTRODUCTION

Analytical data for 21 rock and 6 stream-sediment samples from the Craig C-5, 1:63,360-scale quadrangle are presented in this report, together with a statistical treatment of the data. The samples were collected in 1969 as part of the Heavy Metals Program of the U.S. Geological Survey.

The most comprehensive discussion of the geology of the study area is a report by A. F. Buddington and Theodore Chapin (1929). Known metalliferous lodes of the area are described and additional references to specific areas are given by Berg and Cobb (1967). Additional data is given in reports by Condon (1961), Smith (1914), and Wright and Wright (1908). Supplemental publications are being prepared on the general geology and mineral occurrences of the study area.

Procedures and treatment of data

Standard procedures were followed in the collection and preparation of samples.

Rock samples are primarily grab samples from mineral occurrences and outcrops. They were chosen for analysis to provide data on background, because they were in the area of mineral occurrences or stream-sediment anomalies, because they were strongly iron stained, or contained visible sulfides.

Stream-sediment samples were generally collected from the active stream channel; where this was not possible, samples were collected from bank or terrace deposits adjacent to the channel.

Rock samples were crushed and pulverized and the minus 80 mesh fraction analyzed. Stream-sediment samples were dried, sieved, and the minus 80 mesh fraction analyzed. The minus 80 mesh fractions of the

samples were analyzed for 30 elements by the six-step semiquantitative spectrographic method and for gold by the atomic absorption method.^{1/}

. The spectrographic analyses were reported in percentage (pct) or parts per million (ppm) to the nearest number in the series 1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc. The precision of a reported value is approximately plus 100 percent or minus 50 percent. Analyses for gold by the atomic absorption method are accurate to $\pm$ 100 percent. Minimum limits of determination for each element are given on page 4. Semiquantitative spectrographic analyses were done by K. J. Curry and atomic absorption analyses were done by R. L. Miller, R. B. Tripp, H. D. King, and A. L. Meier.

Locations of the rock and stream-sediment samples are shown on Plate 1. Rock sample descriptions are given in table 1 and rock sample analyses are tabulated in table 2 and stream-sediment analyses are tabulated in table 3.

The results of the analyses of the rock and stream-sediment analyses have been processed by means of a computer program known as GEOSUM and are presented in tables 2 and 3. The GEOSUM program is designed primarily for summarizing and tabulating geochemical data--especially data from semiquantitative spectrographic analyses (commonly referred to as six-step spectrographic analyses) by the laboratories of the U.S. Geological Survey.

The program output consists of: (a) a tabulation of the data, (b) histograms and cumulative frequency distributions for all elements except tungsten, and (c) a statistical summary which includes geometric means and geometric deviations.

^{1/}Analyses for 29 elements by semiquantitative analyses and for gold by atomic absorption are given in the tables. Semiquantitative analyses for gold are omitted.

Table 1.--Description of rock, vein, and altered zone samples. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.

<u>Sample No.</u>	<u>Lab. No.</u>	<u>Sample Description</u>
1	ACE-672	Quartz monzonite
1	-673	Calcite vein
1	-674	Hornfelsed argillite
2	-669	Greenstone
2	-670	Andesite porphyry
3	-660	Pyritic andesite porphyry
3	-661	Pyritic andesite porphyry
3	-662	Pyritic andesite porphyry
3	-663	Pyritic andesite porphyry
4	-653	Pyritic andesite porphyry
4	-654	Pyritic andesite porphyry
4	-655	Pyritic andesite porphyry
4	-656	Pyritic andesite porphyry
4	-657	Pyritic andesite porphyry
4	-658	Pyritic andesite porphyry
4	-659	Pyritic andesite porphyry
5	ACL-343	Greenstone
6	-972	Graywacke
7	-489	Greenstone
8	-562	Greenstone
8	-563	Limestone

Explanation of Tables 2 and 3

Analytical results from rock and stream-sediment samples are given in Tables 2 and 3 as analytical values such as 7.0000 ppm, 10.0000 percent, etc., or as qualified values expressed as a letter. These letter codes are N = not detected, L = less than specified limit of detection, G = greater than value shown, B = no data, H = interference. The term T = trace, but does not occur in these data. Note that the right-most zero digits for each analytical value may or may not be significant. The specified limits of detection are as follows:

Specified limits of detection

FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM
0.05000	0.02000	0.05000	0.00200	20.00000	0.10000
AS PPM	AU PPM	B PPM	BA PPM	BE PPM	BI PPM
0.20000	0.02000	10.00000	20.00000	1.00000	10.00000
CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM
5.00000	5.00000	2.00000	20.00000	2.00000	10.00000
NI PPM	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM
2.00000	10.00000	0.50000	5.00000	10.00000	50.00000
V PPM	W PPM	Y PPM	ZN PPM	ZR PPM	
5.00000	50.00000	5.00000	25.00000	10.00000	

Semiquantitative spectrographic analyses by the U.S. Geological Survey are reported as geometric midpoints (1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc.) of geometric buckets having the boundaries 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, 0.083, etc. The frequency distributions and histograms are on logarithmic scales and are computed using these brackets as class intervals, for example:

Reported value (ppm)	Limits	
1.0	.83	1.2
1.5	1.2	1.8
2.0	1.8	2.6
3.0	2.6	3.8
5.0	3.8	5.6
7.0	5.6	8.3
10 0	8.3	12.0

On the histograms decimal numbers are shown as powers of 10, for example:

7.0E-01 means 7.0×10^{-1} or 0.7

7.0E 00 means 7.0×10^0 or 7.0

7.0E 01 means 7.0×10^1 or 70.0

7.0E 02 means 7.0×10^2 or 700.0

7.0E 03 means 7.0×10^3 or 7,000.0

The histograms are constructed of X's, each of which represents 1 percent of the total number (309) of samples.

The histograms and the statistics given below them are derived only from data values within the ranges of analytical determination ("analytical values"). The histograms are, therefore, incomplete, and the statistics are biased if data values qualified with N, L, C, T, or H codes are present. (See the histogram and statistics below it for tin, which are calculated from only one sample.) Statistical estimates that are unbiased in this regard are given at the end of Table 1. The geometric means is the antilogarithm of the arithmetic mean of the logs of the analyses and an estimate of "central tendency," or of a characteristic value; of a frequency distribution that is approximately symmetrical on a log scale, and is therefore useful for characterizing many geochemical distributions. The geometric mean is not an estimate of geochemical abundance. The geometric deviation is the antilogarithm of the standard deviation of the logs of the analyses. See USGS Professional Paper 574-B for further discussion and USGS Bulletin 1147E, p. 20-23, for further discussion and explanation of geometric deviation.

In the computations performed to produce the statistical summary at the end of Tables 2 and 3, all elements are ignored where one or more of the unqualified data values is less than the analytical limit of detection specified on input or where any data values are qualified with the G (greater than) code. Data values qualified with B or H are not used in the computations. Where none of the data values for an element are qualified the mean and deviation should be the same as those given in the preceding section. Where data are qualified with the codes N, L, or T, the estimates of geometric mean and deviation are based on a method by A. J. Cohen for treating censored distributions. The application of this method of geochemical problems is described in USGS Professional Paper 574-B. The estimates are unbiased in a strict sense only where the data are derived from a lognormal parent population, but experiments have shown that large departures from this requirement may not greatly invalidate the results. Acceptance and use of the estimates, however, is the responsibility of the individual.

Selected References

- Berg, H. C., and Cobb, E. H., 1967, Metalliferous lode deposits of Alaska: U.S. Geol. Survey Bull. 1246, p. 164-184.
- Buddington, A. F., and Chapin, Theodore, 1929, Geology and mineral deposits of southeastern Alaska: U.S. Geol. Survey Bull. 800, 398 p.
- Condon, W. H., 1961, Geology of the Craig quadrangle, Alaska: U.S. Geol. Survey Bull. 1108-B, 43 p.
- Miesch, A. T., 1963, Distribution of elements in Colorado Plateau uranium deposits--A preliminary report: U.S. Geol. Survey Bull. 1147-E, 57 p.
- _____, 1967, Methods of computation for estimating geochemical abundance: U.S. Geol. Survey Prof. Paper 574-B, 15 p.
- Smith, P. S., 1914, Lode mining in the Ketchikan region, Alaska in Mineral resources of Alaska: U.S. Geol. Survey Bull. 592, p. 75-84.
- Wright, F. E., and Wright, C. W., 1908, The Ketchikan and Wrangell mining districts, Alaska: U.S. Geol. Survey Bull. 347, 210 p.

TABLE 2. CRAIG C-5 ROCK SAMPLES

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
1	ACE672	15.0000	5.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
1	ACE673	2.0000	1.0000	20.0000	0.1000	5000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
1	ACE674	5.0000	1.5000	0.7000	0.5000	200.0000	0.0 N	0.0 N	0.0 N	30.0000	150.0000
2	ACE669	15.0000	7.0000	7.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
2	ACE670	15.0000	5.0000	3.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
3	ACE660	3.0000	1.5000	3.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
3	ACE661	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
3	ACE662	15.0000	5.0000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
3	ACE663	15.0000	5.0000	7.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
4	ACE653	10.0000	5.0000	3.0000	0.5000	1000.0000	0.7000	0.0 N	0.0 N	0.0 L	0.0 L
4	ACE654	10.0000	3.0000	5.0000	0.7000	2000.0000	0.7000	0.0 N	0.0 N	10.0000	150.0000
4	ACE655	10.0000	3.0000	7.0000	0.5000	5000.0000	1.0000	0.0 N	0.0 N	15.0000	150.0000
4	ACE656	7.0000	3.0000	3.0000	0.3000	1500.0000	0.7000	0.0 N	0.0 N	15.0000	150.0000
4	ACE657	15.0000	1.0000	3.0000	0.3000	1500.0000	30.0000	0.0 N	0.0 N	20.0000	150.0000
4	ACE658	15.0000	3.0000	7.0000	0.5000	3000.0000	1.0000	0.0 N	0.0 N	30.0000	150.0000
4	ACE659	15.0000	2.0000	5.0000	0.7000	5000.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
5	ACL343	15.0000	3.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
6	ACL972	3.0000	0.7000	0.7000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	2000.0000
7	ACL489	15.0000	5.0000	5.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 L	15.0000	150.0000
8	ACL562	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
8	ACL563	3.0000	2.0000	20.0000G	0.1500	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L

CRAIG C-5 ROCK SAMPLES

	SAMPLE	BE PPM	BI PPM	CD PPM	CG PPM	CR PPM	CU PPM	LA PPM	MG PPM	NB PPM	NI PPM
1	ACE672	0.0 N	0.0 N	0.0 N	50.0000	150.0000	70.0000	0.0 N	0.0 L	10.0000	30.0000
1	ACE673	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	10.0000	0.0 N	0.0 N	0.0 N	10.0000
1	ACE674	0.0 N	0.0 N	0.0 N	10.0000	15.0000	30.0000	0.0 N	1.5000	0.0 L	50.0000
2	ACE669	0.0 N	0.0 N	0.0 N	30.0000	70.0000	70.0000	0.0 N	0.0 L	10.0000	30.0000
2	ACE670	0.0 N	0.0 N	0.0 N	50.0000	0.0 L	200.0000	0.0 N	0.0 L	10.0000	20.0000
3	ACE660	0.0 L	0.0 N	0.0 N	10.0000	0.0 L	30.0000	30.0000	5.0000	0.0 L	10.0000
3	ACE661	0.0 N	0.0 N	0.0 N	50.0000	20.0000	20.0000	0.0 N	0.0 L	20.0000	30.0000
3	ACE662	0.0 N	0.0 N	0.0 N	30.0000	200.0000	70.0000	0.0 N	0.0 L	15.0000	50.0000
3	ACE663	0.0 N	0.0 N	0.0 N	30.0000	30.0000	70.0000	0.0 L	0.0 L	15.0000	30.0000
4	ACE653	0.0 N	0.0 N	0.0 N	15.0000	10.0000	500.0000	0.0 N	0.0 N	10.0000	15.0000
4	ACE654	0.0 L	0.0 N	0.0 N	15.0000	15.0000	30.0000	0.0 L	0.0 N	10.0000	20.0000
4	ACE655	0.0 L	0.0 N	0.0 N	20.0000	70.0000	500.0000	0.0 L	0.0 N	10.0000	30.0000
4	ACE656	0.0 L	0.0 N	0.0 N	20.0000	20.0000	500.0000	0.0 L	0.0 N	10.0000	20.0000
4	ACE657	0.0 L	0.0 N	0.0 N	15.0000	15.0000	50.0000	0.0 L	5.0000	15.0000	15.0000
4	ACE658	0.0 N	0.0 N	0.0 N	100.0000	150.0000	100.0000	0.0 N	5.0000	20.0000	50.0000
4	ACE659	0.0 N	0.0 N	0.0 N	50.0000	50.0000	1000.0000	30.0000	5.0000	20.0000	30.0000
5	ACL343	0.0 L	0.0 N	0.0 N	30.0000	20.0000	200.0000	0.0 N	5.0000	10.0000	30.0000
6	ACL972	1.0000	0.0 N	0.0 N	5.0000	0.0 L	30.0000	0.0 L	0.0 N	0.0 L	15.0000
7	ACL489	0.0 L	0.0 N	0.0 N	30.0000	150.0000	70.0000	0.0 L	0.0 L	10.0000	70.0000
8	ACL562	0.0 N	0.0 N	0.0 N	70.0000	50.0000	70.0000	0.0 N	0.0 L	10.0000	50.0000
8	ACL563	0.0 N	0.0 N	0.0 N	10.0000	100.0000	30.0000	0.0 N	0.0 N	0.0 L	20.0000

CRAIG C-5 ROCK SAMPLES

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
1	ACE672	0.0 L	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 L	30.0000
1	ACE673	10.0000	0.0 N	7.0000	0.0 N	1000.0000	30.0000	0.0 N	20.0000	0.0 N	30.0000
1	ACE674	20.0000	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	30.0000	0.0 L	100.0000
2	ACE669	0.0 N	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 L	50.0000
2	ACE670	0.0 N	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 L	30.0000
3	ACE660	10.0000	0.0 N	7.0000	0.0 N	200.0000	70.0000	0.0 N	20.0000	0.0 N	100.0000
3	ACE661	0.0 L	0.0 N	30.0000	0.0 N	300.0000	500.0000	0.0 N	20.0000	300.0000	50.0000
3	ACE662	20.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	0.0 L	50.0000
3	ACE663	0.0 L	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
4	ACE653	0.0 N	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 N	50.0000
4	ACE654	0.0 L	0.0 N	20.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
4	ACE655	30.0000	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 N	50.0000
4	ACE656	15.0000	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
4	ACE657	30.0000	0.0 N	15.0000	0.0 N	0.0 L	200.0000	0.0 N	10.0000	300.0000	50.0000
4	ACE658	200.0000	0.0 N	30.0000	0.0 N	0.0 N	300.0000	0.0 N	15.0000	700.0000	50.0000
4	ACE659	30.0000	0.0 N	30.0000	0.0 N	0.0 N	300.0000	0.0 N	30.0000	700.0000	70.0000
5	ACL343	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
6	ACL972	0.0 L	0.0 N	7.0000	0.0 N	100.0000	50.0000	0.0 N	20.0000	0.0 N	150.0000
7	ACL489	0.0 L	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	100.0000
8	ACL562	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 N	70.0000
8	ACL563	0.0 N	0.0 N	10.0000	0.0 N	150.0000	30.0000	0.0 N	10.0000	0.0 N	20.0000

CRAIG C-5 ROCK SAMPLES

	SAMPLE	AU PPM
1	ACE672	0.0200L
1	ACE673	0.0200L
1	ACE674	0.0200L
2	ACE669	0.0200L
2	ACE670	0.0200L
3	ACE660	0.0200L
3	ACE661	0.0200L
3	ACE662	0.0200L
3	ACE663	0.0200L
4	ACE653	0.0200L
4	ACE654	0.0200L
4	ACE655	0.0200L
4	ACE656	0.0200L
4	ACE657	0.1000
4	ACE658	0.0200
4	ACE659	0.0200L
5	ACL343	0.0200L
6	ACL972	0.0200L
7	ACL489	0.0200L
8	ACL562	0.0200L
8	ACL563	0.0200L

FREQUENCY TABLE FOR COLUMN 1 (FE PCT)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	0	0	0.0	0.0
1.2E-01	1.8E-01	0	0	0.0	0.0
1.8E-01	2.6E-01	0	0	0.0	0.0
2.6E-01	3.8E-01	0	0	0.0	0.0
3.8E-01	5.6E-01	0	0	0.0	0.0
5.6E-01	8.3E-01	0	0	0.0	0.0
8.3E-01	1.2E 00	0	0	0.0	0.0
1.2E 00	1.8E 00	0	0	0.0	0.0
1.8E 00	2.6E 00	1	1	4.76	4.76
2.6E 00	3.8E 00	3	4	14.29	19.05
3.8E 00	5.6E 00	1	5	4.76	23.81
5.6E 00	8.3E 00	1	6	4.76	28.57
8.3E 00	1.2E 01	3	9	14.29	42.86
1.2E 01	1.8E 01	12	21	57.14	100.00

HISTOGRAM FOR COLUMN 1 (FE PCT)

2.0E 00 XXXXX
3.0E 00 XXXXXXXXXXXXXXXX
5.0E 00 XXXXX
7.0E 00 XXXXX
1.0E 01 XXXXXXXXXXXXXXXX
1.5E 01 XX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
21

MAXIMUM = 1.50000E 01

MINIMUM = 2.00000E 00

GEOMETRIC MEAN = 9.35252E 00

GEOMETRIC DEVIATION = 1.98673E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT	
LOWER -	UPPER				FREQ	CUM
1.8E-02 -	2.6E-02	0	0	0.0	0.0	
2.6E-02 -	3.8E-02	0	0	0.0	0.0	
3.8E-02 -	5.6E-02	0	0	0.0	0.0	
5.6E-02 -	8.3E-02	0	0	0.0	0.0	
8.3E-02 -	1.2E-01	0	0	0.0	0.0	
1.2E-01 -	1.8E-01	0	0	0.0	0.0	
1.8E-01 -	2.6E-01	0	0	0.0	0.0	
2.6E-01 -	3.8E-01	0	0	0.0	0.0	
3.8E-01 -	5.6E-01	0	0	0.0	0.0	
5.6E-01 -	8.3E-01	1	1	4.76	4.76	
8.3E-01 -	1.2E 00	2	3	9.52	14.29	
1.2E 00 -	1.8E 00	2	5	9.52	23.81	
1.8E 00 -	2.6E 00	2	7	9.52	33.33	
2.6E 00 -	3.8E 00	5	12	23.81	57.14	
3.8E 00 -	5.6E 00	8	20	38.10	95.24	
5.6E 00 -	8.3E 00	1	21	4.76	100.00	

HISTOGRAM FOR COLUMN 2 (MG PCT)

```

7.0E-01 XXXXX
1.0E 00 XXXXXXXXXXXX
1.5E 00 XXXXXXXXXXXX
2.0E 00 XXXXXXXXXXXX
3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E 00 XXXXX

```

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
21

MAXIMUM = 7.00000E 00

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 2.87197E 00

GEOMETRIC DEVIATION = 1.92562E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER -	UPPER				
3.8E-02 -	5.6E-02	0	0	0.0	0.0
5.6E-02 -	8.3E-02	0	0	0.0	0.0
8.3E-02 -	1.2E-01	0	0	0.0	0.0
1.2E-01 -	1.8E-01	0	0	0.0	0.0
1.8E-01 -	2.6E-01	0	0	0.0	0.0
2.6E-01 -	3.8E-01	0	0	0.0	0.0
3.8E-01 -	5.6E-01	0	0	0.0	0.0
5.6E-01 -	8.3E-01	2	2	9.52	9.52
8.3E-01 -	1.2E 00	0	2	0.0	9.52
1.2E 00 -	1.8E 00	0	2	0.0	9.52
1.8E 00 -	2.6E 00	0	2	0.0	9.52
2.6E 00 -	3.8E 00	6	8	28.57	38.10
3.8E 00 -	5.6E 00	6	14	28.57	66.67
5.6E 00 -	8.3E 00	5	19	23.81	90.48
8.3E 00 -	1.2E 01	0	19	0.0	90.48
1.2E 01 -	1.8E 01	0	19	0.0	90.48
1.8E 01 -	2.6E 01	1	20	4.76	95.24

HISTOGRAM FOR COLUMN 3 (CA PCT)

7.0E-01 XXXXXXXXXX
1.0E 00
1.5E 00
2.0E 00
3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E 01
1.5E 01
2.0E 01 XXXXX

N	L	H	B	T	G
0	0	0	0	0	1
0.0	0.0			0.0	4.76

ANALYTICAL
VALUES
20

MAXIMUM = 2.00000E 01

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 4.10830E 00

GEOMETRIC DEVIATION = 2.14114E 00

FREQUENCY TABLE FOR COLUMN 4 (T1 PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
1.8E-03	2.6E-03	0	0	0.0	0.0
2.6E-03	3.8E-03	0	0	0.0	0.0
3.8E-03	5.6E-03	0	0	0.0	0.0
5.6E-03	8.3E-03	0	0	0.0	0.0
8.3E-03	1.2E-02	0	0	0.0	0.0
1.2E-02	1.8E-02	0	0	0.0	0.0
1.8E-02	2.6E-02	0	0	0.0	0.0
2.6E-02	3.8E-02	0	0	0.0	0.0
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	1	1	4.76	4.76
1.2E-01	1.8E-01	1	2	4.76	9.52
1.8E-01	2.6E-01	0	2	0.0	9.52
2.6E-01	3.8E-01	5	7	23.81	33.33
3.8E-01	5.6E-01	6	13	28.57	61.90
5.6E-01	8.3E-01	8	21	38.10	100.00

HISTOGRAM FOR COLUMN 4 (T1 PCT)

1.0E-01 XXXXX
1.5E-01 XXXXX
2.0E-01
3.0E-01 XXXXXXXXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
21

MAXIMUM = 7.00000E-01

MINIMUM = 1.00000E-01

GEOMETRIC MEAN = 4.40184E-01

GEOMETRIC DEVIATION = 1.72214E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	0	0	0.0	0.0
8.3E 01	1.2E 02	0	0	0.0	0.0
1.2E 02	1.8E 02	0	0	0.0	0.0
1.8E 02	2.6E 02	1	1	4.76	4.76
2.6E 02	3.8E 02	0	1	0.0	4.76
3.8E 02	5.6E 02	0	1	0.0	4.76
5.6E 02	8.3E 02	1	2	4.76	9.52
8.3E 02	1.2E 03	3	5	14.29	23.81
1.2E 03	1.8E 03	8	13	38.10	61.90
1.8E 03	2.6E 03	4	17	19.05	80.95
2.6E 03	3.8E 03	1	18	4.76	85.71
3.8E 03	5.6E 03	3	21	14.29	100.00

HISTOGRAM FOR COLUMN 5 (MN PPM)

2.0E 02 XXXXX

3.0E 02

5.0E 02

7.0E 02 XXXXX

1.0E 03 XXXXXXXXXXXXXXX

1.5E 03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 03 XXXXXXXXXXXXXXXXXXXXXXX

3.0E 03 XXXXX

5.0E 03 XXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
21

MAXIMUM = 5.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 1.60816E 03

GEOMETRIC DEVIATION = 2.04211E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E-01	5.6E-01	0	0	0.0	0.0
5.6E-01	8.3E-01	3	3	14.29	14.29
8.3E-01	1.2E 00	2	5	9.52	23.81
1.2E 00	1.8E 00	0	5	0.0	23.81
1.8E 00	2.6E 00	0	5	0.0	23.81
2.6E 00	3.8E 00	0	5	0.0	23.81
3.8E 00	5.6E 00	0	5	0.0	23.81
5.6E 00	8.3E 00	0	5	0.0	23.81
8.3E 00	1.2E 01	0	5	0.0	23.81
1.2E 01	1.8E 01	0	5	0.0	23.81
1.8E 01	2.6E 01	0	5	0.0	23.81
2.6E 01	3.8E 01	1	6	4.76	28.57

HISTOGRAM FOR COLUMN 6 (AG PPM)

7.0E-01 XXXXXXXXXXXXX

1.0E 00 XXXXXXXXXXXXX

1.5E 00

2.0E 00

3.0E 00

5.0E 00

7.0E 00

1.0E 01

1.5E 01

2.0E 01

3.0E 01 XXXXX

N	L	H	B	T	G
15	0	0	0	0	0
71.43	0.0			0.0	0.0

ANALYTICAL
VALUES
6

MAXIMUM = 3.00000E 01

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 1.47481E 00

GEOMETRIC DEVIATION = 4.42030E 00

FREQUENCY TABLE FOR COLUMN 7 (AS PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
21

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 8 (AU PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

ANALYTICAL
VALUES

N	L	H	B	T	G
20	1	0	0	0	0
95.24	4.76			0.0	0.0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	4	4	19.05	19.05
1.2E 01 -	1.8E 01	7	11	33.33	52.38
1.8E 01 -	2.6E 01	2	13	9.52	61.90
2.6E 01 -	3.8E 01	2	15	9.52	71.43
3.8E 01 -	5.6E 01	1	16	4.76	76.19
5.6E 01 -	8.3E 01	2	18	9.52	85.71

HISTOGRAM FOR COLUMN 9 (B PPM)

1.0E 01 XXXXXXXXXXXXXXXXXXXX
 1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 2.0E 01 XXXXXXXXXX
 3.0E 01 XXXXXXXXXX
 5.0E 01 XXXXX
 7.0E 01 XXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
1	2	0	0	0	0	
4.76	9.52			0.0	0.0	18

MAXIMUM = 7.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.93941E 01

GEOMETRIC DEVIATION = 1.88147E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER -	UPPER				
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	0	0	0.0	0.0
3.8E 01 -	5.6E 01	0	0	0.0	0.0
5.6E 01 -	8.3E 01	0	0	0.0	0.0
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	10	10	47.62	47.62
1.8E 02 -	2.6E 02	0	10	0.0	47.62
2.6E 02 -	3.8E 02	7	17	33.33	80.95
3.8E 02 -	5.6E 02	0	17	0.0	80.95
5.6E 02 -	8.3E 02	0	17	0.0	80.95
8.3E 02 -	1.2E 03	0	17	0.0	80.95
1.2E 03 -	1.8E 03	1	18	4.76	85.71
1.8E 03 -	2.6E 03	1	19	4.76	90.48

HISTOGRAM FOR COLUMN 10 (BA PPM)

1.5E 02 XX

2.0E 02

3.0E 02 XX

5.0E 02

7.0E 02

1.0E 03

1.5E 03 XXXXX

2.0E 03 XXXXX

N	L	H	B	T	G
0	2	0	0	0	0
0.0	9.52			0.0	0.0

ANALYTICAL
VALUES
19

MAXIMUM = 2.00000E 03

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 2.50513E 02

GEOMETRIC DEVIATION = 2.13683E 00

FREQUENCY TABLE FOR COLUMN 11 (BE PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E-01	1.2E 00	1	1	4.76	4.76

HISTOGRAM FOR COLUMN 11 (BE PPM)

1.0E 00 XXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
13	7	0	0	0	0	1
61.90	33.33			0.0	0.0	

MAXIMUM = 1.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.00000E 00

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 12 (BI PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
21	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 13 (CO PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
21

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 14 (CO PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	1	1	4.76	4.76
5.6E 00	8.3E 00	0	1	0.0	4.76
8.3E 00	1.2E 01	3	4	14.29	19.05
1.2E 01	1.8E 01	3	7	14.29	33.33
1.8E 01	2.6E 01	2	9	9.52	42.86
2.6E 01	3.8E 01	5	14	23.81	66.67
3.8E 01	5.6E 01	4	18	19.05	85.71
5.6E 01	8.3E 01	1	19	4.76	90.48
8.3E 01	1.2E 02	1	20	4.76	95.24

HISTOGRAM FOR COLUMN 14 (CO PPM)

5.0E 00 XXXXX

7.0E 00

1.0E 01 XXXXXXXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXX

3.0E 01 XXXXXXXXXXXXXXXXXXXXXXX

5.0E 01 XXXXXXXXXXXXXXXXXXXXXXX

7.0E 01 XXXXX

1.0E 02 XXXXX

N	L	H	B	T	G
1	0	0	0	0	0
4.76	0.0			0.0	0.0

ANALYTICAL
VALUES
20

MAXIMUM = 1.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 2.47053E 01

GEOMETRIC DEVIATION = 2.14455E 00

FREQUENCY TABLE FOR COLUMN 15 (CR PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	1	1	4.76	4.76
1.2E 01	1.8E 01	4	5	19.05	23.81
1.8E 01	2.6E 01	3	8	14.29	38.10
2.6E 01	3.8E 01	1	9	4.76	42.86
3.8E 01	5.6E 01	2	11	9.52	52.38
5.6E 01	8.3E 01	2	13	9.52	61.90
8.3E 01	1.2E 02	1	14	4.76	66.67
1.2E 02	1.8E 02	3	17	14.29	80.95
1.8E 02	2.6E 02	1	18	4.76	85.71

HISTOGRAM FOR COLUMN 15 (CR PPM)

1.0E 01 XXXXX
1.5E 01 XXXXXXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXXXXXXXX
3.0E 01 XXXXX
5.0E 01 XXXXXXXXXX
7.0E 01 XXXXXXXXXX
1.0E 02 XXXXX
1.5E 02 XXXXXXXXXXXXXXXX
2.0E 02 XXXXX

25

N	L	H	B	T	G
0	3	0	0	0	0
0.0	14.29			0.0	0.0

ANALYTICAL
VALUES
18

MAXIMUM = 2.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 4.08526E 01

GEOMETRIC DEVIATION = 2.69295E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	1	1	4.76	4.76
1.2E 01	1.8E 01	0	1	0.0	4.76
1.8E 01	2.6E 01	1	2	4.76	9.52
2.6E 01	3.8E 01	5	7	23.81	33.33
3.8E 01	5.6E 01	1	8	4.76	38.10
5.6E 01	8.3E 01	6	14	28.57	66.67
8.3E 01	1.2E 02	1	15	4.76	71.43
1.2E 02	1.8E 02	0	15	0.0	71.43
1.8E 02	2.6E 02	2	17	9.52	80.95
2.6E 02	3.8E 02	0	17	0.0	80.95
3.8E 02	5.6E 02	3	20	14.29	95.24
5.6E 02	8.3E 02	0	20	0.0	95.24
8.3E 02	1.2E 03	1	21	4.76	100.00

HISTOGRAM FOR COLUMN 16 (CU PPM)

1.0E 01 XXXXX
1.5E 01
2.0E 01 XXXXX
3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
5.0E 01 XXXXX
7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
1.0E 02 XXXXX
1.5E 02
2.0E 02 XXXXXXXXXXXXX
3.0E 02
5.0E 02 XXXXXXXXXXXXXXXX
7.0E 02
1.0E 03 XXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
21

MAXIMUM = 1.00000E 03

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 8.16855E 01

GEOMETRIC DEVIATION = 3.37270E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	2	2	9.52	9.52

HISTOGRAM FOR COLUMN 17 (LA PPM)

3.0E 01 XXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
12	7	0	0	0	0	2
57.14	33.33			0.0	0.0	

MAXIMUM = 3.00000E 01

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 3.00000E 01

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER -	UPPER		CUM	FREQ	FREQ CUM
3.8E 00 -	5.6E 00	5	5	23.81	23.81

HISTOGRAM FOR COLUMN 18 (MO PPM)

5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
7	8	0	0	0	0	6
33.33	38.10			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 1.50000E 00

GEOMETRIC MEAN = 4.09094E 00

GEOMETRIC DEVIATION = 1.63480E 00

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	10	10	47.62	47.62
1.2E 01	1.8E 01	3	13	14.29	61.90
1.8E 01	2.6E 01	3	16	14.29	76.19

HISTOGRAM FOR COLUMN 19 (NB PPM)

1.0E 01 XX

1.5E 01 XXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
1	4	0	0	0	0	16
4.76	19.05			0.0	0.0	

MAXIMUM = 2.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.22873E 01

GEOMETRIC DEVIATION = 1.33553E 00

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	2	2	9.52	9.52
1.2E 01	1.8E 01	3	5	14.29	23.81
1.8E 01	2.6E 01	4	9	19.05	42.86
2.6E 01	3.8E 01	7	16	33.33	76.19
3.8E 01	5.6E 01	4	20	19.05	95.24
5.6E 01	8.3E 01	1	21	4.76	100.00

HISTOGRAM FOR COLUMN 20 (NI PPM)

1.0E 01 XXXXXXXXXX
1.5E 01 XXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXXXXXXXXXXXX
3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
7.0E 01 XXXXX

30

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
21

MAXIMUM = 7.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.59963E 01

GEOMETRIC DEVIATION = 1.71698E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	CUM
8.3E 00	1.2E 01	2	2	9.52	9.52
1.2E 01	1.8E 01	1	3	4.76	14.29
1.8E 01	2.6E 01	2	5	9.52	23.81
2.6E 01	3.8E 01	3	8	14.29	38.10
3.8E 01	5.6E 01	0	8	0.0	38.10
5.6E 01	8.3E 01	0	8	0.0	38.10
8.3E 01	1.2E 02	0	8	0.0	38.10
1.2E 02	1.8E 02	0	8	0.0	38.10
1.8E 02	2.6E 02	1	9	4.76	42.86

HISTOGRAM FOR COLUMN 21 (PB PPM)

1.0E 01 XXXXXXXXXXXX
 1.5E 01 XXXXX
 2.0E 01 XXXXXXXXXXXX
 3.0E 01 XXXXXXXXXXXXXXXX
 5.0E 01
 7.0E 01
 1.0E 02
 1.5E 02
 2.0E 02 XXXXX

N L H B T G
 4 8 0 0 0 0
 19.05 38.10 0.0 0.0

ANALYTICAL
 VALUES
 9

MAXIMUM = 2.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.45504E 01

GEOMETRIC DEVIATION = 2.45627E 00

FREQUENCY TABLE FOR COLUMN 22 (SB PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
21

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 23 (SC PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	- 5.6E 00	0	0	0.0	0.0
5.6E 00	- 8.3E 00	3	3	14.29	14.29
8.3E 00	- 1.2E 01	1	4	4.76	19.05
1.2E 01	- 1.8E 01	1	5	4.76	23.81
1.8E 01	- 2.6E 01	4	9	19.05	42.86
2.6E 01	- 3.8E 01	12	21	57.14	100.00

HISTOGRAM FOR COLUMN 23 (SC PPM)

7.0E 00 XXXXXXXXXXXXXXXX

1.0E 01 XXXXX

1.5E 01 XXXXX

2.0E 01 XXXXXXXXXXXXXXXXXXXX

3.0E 01 XX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	21

MAXIMUM = 3.00000E 01

MINIMUM = 7.00000E 00

GEOMETRIC MEAN = 2.07124E 01

GEOMETRIC DEVIATION = 1.71484E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
21

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 25 (SR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	1	1	4.76	4.76
1.2E 02 -	1.8E 02	3	4	14.29	19.05
1.8E 02 -	2.6E 02	4	8	19.05	38.10
2.6E 02 -	3.8E 02	7	15	33.33	71.43
3.8E 02 -	5.6E 02	1	16	4.76	76.19
5.6E 02 -	8.3E 02	1	17	4.76	80.95
8.3E 02 -	1.2E 03	1	18	4.76	85.71

HISTOGRAM FOR COLUMN 25 (SR PPM)

1.0E 02 XXXXX
 1.5E 02 XXXXXXXXXXXXXXXX
 2.0E 02 XXXXXXXXXXXXXXXXXXXX
 3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 02 XXXXX
 7.0E 02 XXXXX
 1.0E 03 XXXXX

N L H B T G
 2 1 0 0 0 0
 9.52 4.76 0.0 0.0

ANALYTICAL
 VALUES
 18

MAXIMUM = 1.00000E 03
 MINIMUM = 1.00000E 02
 GEOMETRIC MEAN = 2.64925E 02
 GEOMETRIC DEVIATION = 1.76229E 00

FREQUENCY TABLE FOR COLUMN 26 (V PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	2	2	9.52	9.52
3.8E 01	5.6E 01	1	3	4.76	14.29
5.6E 01	8.3E 01	1	4	4.76	19.05
8.3E 01	1.2E 02	0	4	0.0	19.05
1.2E 02	1.8E 02	1	5	4.76	23.81
1.8E 02	2.6E 02	2	7	9.52	33.33
2.6E 02	3.8E 02	13	20	61.90	95.24
3.8E 02	5.6E 02	1	21	4.76	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

3.0E 01 XXXXXXXXXXXX

5.0E 01 XXXXX

7.0E 01 XXXXX

1.0E 02

1.5E 02 XXXXX

2.0E 02 XXXXXXXXXXXX

3.0E 02 XXX

5.0E 02 XXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
21

MAXIMUM = 5.00000E 02

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 1.96872E 02

GEOMETRIC DEVIATION = 2.25877E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	ANALYTICAL VALUES
LOWER	UPPER					
N	L	H	B	T	G	
21	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 28 (Y PPM)

LIMITS		FREQ		PERCENT	
LOWER -	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	2	2	9.52	9.52
1.2E 01 -	1.8E 01	5	7	23.81	33.33
1.8E 01 -	2.6E 01	11	18	52.38	85.71
2.6E 01 -	3.8E 01	3	21	14.29	100.00

HISTOGRAM FOR COLUMN 28 (Y PPM)

1.0E 01 XXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 01 XX

3.0E 01 XXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
21

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.85252E 01

GEOMETRIC DEVIATION = 1.34367E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
1.8E 02 -	2.6E 02	0	0	0.0	0.0
2.6E 02 -	3.8E 02	2	2	9.52	9.52
3.8E 02 -	5.6E 02	0	2	0.0	9.52
5.6E 02 -	8.3E 02	2	4	9.52	19.05

HISTOGRAM FOR COLUMN 29 (ZN PPM)

3.0E 02 XXXXXXXXXXXX

5.0E 02

7.0E 02 XXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
8	9	0	0	0	0	4
38.10	42.86			0.0	0.0	

MAXIMUM = 7.00000E 02

MINIMUM = 3.00000E 02

GEOMETRIC MEAN = 4.58256E 02

GEOMETRIC DEVIATION = 1.63096E 00

FREQUENCY TABLE FOR COLUMN 30 (IR PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	1	1	4.76	4.76
2.6E 01 -	3.8E 01	3	4	14.29	19.05
3.8E 01 -	5.6E 01	7	11	33.33	52.38
5.6E 01 -	8.3E 01	6	17	28.57	80.95
8.3E 01 -	1.2E 02	3	20	14.29	95.24
1.2E 02 -	1.8E 02	1	21	4.76	100.00

HISTOGRAM FOR COLUMN 30 (IR PPM)

2.0E 01 XXXXX
 3.0E 01 XXXXXXXXXXXXXXXX
 5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.0E 02 XXXXXXXXXXXXXXXX
 1.5E 02 XXXXX

N L H B T G
 0 0 0 0 0 0
 0.0 0.0 0.0 0.0

ANALYTICAL
 VALUES
 21

40

MAXIMUM = 1.50000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 5.69899E 01

GEOMETRIC DEVIATION = 1.61464E 00

FREQUENCY TABLE FOR COLUMN 31 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
1.8E-02	2.6E-02	1	1	4.76	4.76
2.6E-02	3.8E-02	0	1	0.0	4.76
3.8E-02	5.6E-02	0	1	0.0	4.76
5.6E-02	8.3E-02	0	1	0.0	4.76
8.3E-02	1.2E-01	1	2	4.76	9.52

HISTOGRAM FOR COLUMN 31 (AU PPM)

2.0E-02 xxxxx

3.0E-02

5.0E-02

7.0E-02

1.0E-01 xxxxx

N	L	H	B	T	G
0	19	0	0	0	0
0.0	90.48			0.0	0.0

ANALYTICAL
VALUES
2

MAXIMUM = 1.00000E-01

MINIMUM = 2.00000E-02

GEOMETRIC MEAN = 4.47215E-02

GEOMETRIC DEVIATION = 3.12066E 00

A470 STATISTICAL SUMMARY

DATE 4/20/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	0	21
MG PCT	0	0	0	0	0	0	21
CA PCT	0	0	0	0	0	1	20
TI PCT	0	0	0	0	0	0	21
MN PPM	0	0	0	0	0	0	21
AG PPM	15	0	0	0	0	0	6
AS PPM	21	0	0	0	0	0	0
AU PPM	20	1	0	0	0	0	0
B PPM	1	2	0	0	0	0	18
BA PPM	0	2	0	0	0	0	19
BE PPM	13	7	0	0	0	0	1
BI PPM	21	0	0	0	0	0	0
CD PPM	21	0	0	0	0	0	0
CO PPM	1	0	0	0	0	0	20
CR PPM	0	3	0	0	0	0	18
CU PPM	0	0	0	0	0	0	21
LA PPM	12	7	0	0	0	0	2
MO PPM	7	8	0	0	0	0	6
NB PPM	1	4	0	0	0	0	16
NI PPM	0	0	0	0	0	0	21
PB PPM	4	8	0	0	0	0	9
SB PPM	21	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	21
SN PPM	21	0	0	0	0	0	0
SR PPM	2	1	0	0	0	0	18
V PPM	0	0	0	0	0	0	21
W PPM	21	0	0	0	0	0	0
Y PPM	0	0	0	0	0	0	21
ZN PPM	8	9	0	0	0	0	4
ZR PPM	0	0	0	0	0	0	21
AU PPM	0	19	0	0	0	0	2

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	9.352515	1.99	21 SAMPLES AND 21 ANALYTICAL VALUES.
MG PCT	2.871970	1.93	21 SAMPLES AND 21 ANALYTICAL VALUES.
CA PCT	*****	*****	1 GREATER THAN VALUES. NO COMPUTATIONS.
TI PCT	0.440184	1.72	21 SAMPLES AND 21 ANALYTICAL VALUES.
MN PPM	1608.153809	2.04	21 SAMPLES AND 21 ANALYTICAL VALUES.
AG PPM	*****	*****	15 NOT DETECTED, LESS THAN, OR TRACE VALUES. 6 REPORTED VALUES. NO COMPUTATIONS.
AS PPM	*****	*****	21 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
AU PPM	*****	*****	21 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
B PPM	16.196915	2.10	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 18 REPORTED VALUES.
BA PPM	186.899277	3.20	2 NOT DETECTED, LESS THAN, OR TRACE VALUES. 19 REPORTED VALUES.
BE PPM	*****	*****	20 NOT DETECTED, LESS THAN, OR TRACE VALUES. 1 REPORTED VALUES. NO COMPUTATIONS.
BI PPM	*****	*****	21 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
CD PPM	*****	*****	21 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
CO PPM	22.255066	2.41	1 NOT DETECTED, LESS THAN, OR TRACE VALUES. 20 REPORTED VALUES.
CR PPM	26.531906	4.12	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 18 REPORTED VALUES.
CU PPM	81.685287	3.37	21 SAMPLES AND 21 ANALYTICAL VALUES.
LA PPM	*****	0	19 NOT DETECTED, LESS THAN, OR TRACE VALUES. 2 REPORTED VALUES. NO COMPUTATIONS.
MO PPM	*****	*****	1 VALUES LESS THAN SPECIFIED LIMIT OF DETECTION. NO COMPUTATIONS.
NB PPM	10.586212	1.46	5 NOT DETECTED, LESS THAN, OR TRACE VALUES. 16 REPORTED VALUES.
NI PPM	25.996185	1.72	21 SAMPLES AND 21 ANALYTICAL VALUES.
PB PPM	6.157529	4.58	12 NOT DETECTED, LESS THAN, OR TRACE VALUES. 9 REPORTED VALUES.

SB PPM	*****	*****
SC PPM	20.712387	1.71
SN PPM	*****	*****
SR PPM	212.840744	2.14
V PPM	196.871613	2.26
W PPM	*****	*****
Y PPM	18.525192	1.34
ZN PPM	46.326370	4.72
ZR PPM	56.989746	1.61
AU PPM	*****	*****

21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 SAMPLES AND 21 ANALYTICAL VALUES.
21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	3 NOT DETECTED, LESS THAN, OR TRACE VALUES.
21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 SAMPLES AND 21 ANALYTICAL VALUES.
21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 NOT DETECTED, LESS THAN, OR TRACE VALUES.
21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 SAMPLES AND 21 ANALYTICAL VALUES.
17 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 NOT DETECTED, LESS THAN, OR TRACE VALUES.
21 NOT DETECTED, LESS THAN, OR TRACE VALUES.	21 SAMPLES AND 21 ANALYTICAL VALUES.
19 NOT DETECTED, LESS THAN, OR TRACE VALUES.	

0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
18 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.
4 REPORTED VALUES.
2 REPORTED VALUES. NO COMPUTATIONS.

TABLE 3. CRAIG C-5 STREAM SEDIMENTS

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
9	ACL304	3.0000	1.0000	0.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
10	ACL303	3.0000	1.5000	1.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
11	ACL337	7.0000	1.5000	0.7000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
12	ACL306	5.0000	1.5000	1.0000	0.5000	1500.0000	0.7000	0.0 N	0.0 N	150.0000	1000.0000
13	ACL305	5.0000	1.0000	0.7000	0.3000	1500.0000	0.0 L	0.0 N	0.0 N	100.0000	1000.0000
14	ACE680	15.0000	3.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000

CRAIG C-5 STREAM SEDIMENTS

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
9	ACL304	0.0 L	0.0 N	0.0 N	15.0000	20.0000	30.0000	0.0 N	0.0 N	0.0 L	15.0000
10	ACL303	0.0 L	0.0 N	0.0 N	10.0000	20.0000	500.0000	0.0 L	0.0 N	0.0 L	15.0000
11	ACL337	0.0 L	0.0 N	0.0 N	20.0000	70.0000	70.0000	0.0 N	0.0 L	10.0000	30.0000
12	ACL306	1.0000	0.0 N	0.0 N	20.0000	150.0000	70.0000	0.0 L	0.0 L	10.0000	50.0000
13	ACL305	1.0000	0.0 N	0.0 N	20.0000	100.0000	150.0000	0.0 L	0.0 L	0.0 L	30.0000
14	ACE680	0.0 N	0.0 N	0.0 N	50.0000	150.0000	70.0000	0.0 L	0.0 L	10.0000	70.0000

CRAIG C-5 STREAM SEDIMENTS

	SAMPLE	PR PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
9	ACL304	30.0000	0.0 N	10.0000	15.0000	300.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
10	ACL303	70.0000	0.0 N	15.0000	150.0000	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
11	ACL337	30.0000	0.0 N	15.0000	30.0000	300.0000	300.0000	0.0 N	15.0000	0.0 L	70.0000
12	ACL306	70.0000	0.0 N	15.0000	30.0000	300.0000	200.0000	0.0 N	15.0000	200.0000	70.0000
13	ACL305	70.0000	0.0 N	15.0000	30.0000	300.0000	150.0000	0.0 N	15.0000	200.0000	70.0000
14	ACE680	10.0000	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000

CRAIG C-5 STREAM SEDIMENTS

	SAMPLE	AU PPM
9	ACL304	0.0400L
10	ACL303	0.0200L
11	ACL337	0.0200L
12	ACL306	0.0200L
13	ACL305	0.0200L
14	ACE680	0.0200L

FREQUENCY TABLE FOR COLUMN 1 (FE PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	0	0	0.0	0.0
1.2E-01	1.8E-01	0	0	0.0	0.0
1.8E-01	2.6E-01	0	0	0.0	0.0
2.6E-01	3.8E-01	0	0	0.0	0.0
3.8E-01	5.6E-01	0	0	0.0	0.0
5.6E-01	8.3E-01	0	0	0.0	0.0
8.3E-01	1.2E 00	0	0	0.0	0.0
1.2E 00	1.8E 00	0	0	0.0	0.0
1.8E 00	2.6E 00	0	0	0.0	0.0
2.6E 00	3.8E 00	2	2	33.33	33.33
3.8E 00	5.6E 00	2	4	33.33	66.67
5.6E 00	8.3E 00	1	5	16.67	83.33
8.3E 00	1.2E 01	0	5	0.0	83.33
1.2E 01	1.8E 01	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 1 (FE PCT)

3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

7.0E 00 XXXXXXXXXXXXXXXXXXXXXXX

1.0E 01

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXX

87

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
6

MAXIMUM = 1.50000E 01

MINIMUM = 3.00000E 00

GEOMETRIC MEAN = 5.35667E 00

GEOMETRIC DEVIATION = 1.82623E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
1.8E-02	2.6E-02	0	0	0.0	0.0
2.6E-02	3.8E-02	0	0	0.0	0.0
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	0	0	0.0	0.0
1.2E-01	1.8E-01	0	0	0.0	0.0
1.8E-01	2.6E-01	0	0	0.0	0.0
2.6E-01	3.8E-01	0	0	0.0	0.0
3.8E-01	5.6E-01	0	0	0.0	0.0
5.6E-01	8.3E-01	0	0	0.0	0.0
8.3E-01	1.2E 00	2	2	33.33	33.33
1.2E 00	1.8E 00	3	5	50.00	83.33
1.8E 00	2.6E 00	0	5	0.0	83.33
2.6E 00	3.8E 00	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 2 (MG PCT)

1.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.5E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 2.0E 00
 3.0E 00 XXXXXXXXXXXXXXXXXX

67

N L H B T G
 0 0 0 0 0 0
 0.0 0.0 0.0 0.0

ANALYTICAL
 VALUES
 6

MAXIMUM = 3.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.47084E 00

GEOMETRIC DEVIATION = 1.49441E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS		FREQ		PERCENT	
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	0	0	0.0	0.0
1.2E-01	1.8E-01	0	0	0.0	0.0
1.8E-01	2.6E-01	0	0	0.0	0.0
2.6E-01	3.8E-01	0	0	0.0	0.0
3.8E-01	5.6E-01	1	1	16.67	16.67
5.6E-01	8.3E-01	2	3	33.33	50.00
8.3E-01	1.2E 00	2	5	33.33	83.33
1.2E 00	1.8E 00	0	5	0.0	83.33
1.8E 00	2.6E 00	0	5	0.0	83.33
2.6E 00	3.8E 00	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 3 (CA PCT)

5.0E-01 XXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E 00
2.0E 00
3.0E 00 XXXXXXXXXXXXXXXXXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
6

MAXIMUM = 3.00000E 00

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 9.49980E-01

GEOMETRIC DEVIATION = 1.86014E 00

FREQUENCY TABLE FOR COLUMN 4 (TI PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
1.8E-03	2.6E-03	0	0	0.0	0.0
2.6E-03	3.8E-03	0	0	0.0	0.0
3.8E-03	5.6E-03	0	0	0.0	0.0
5.6E-03	8.3E-03	0	0	0.0	0.0
8.3E-03	1.2E-02	0	0	0.0	0.0
1.2E-02	1.8E-02	0	0	0.0	0.0
1.8E-02	2.6E-02	0	0	0.0	0.0
2.6E-02	3.8E-02	0	0	0.0	0.0
3.8E-02	5.6E-02	0	0	0.0	0.0
5.6E-02	8.3E-02	0	0	0.0	0.0
8.3E-02	1.2E-01	0	0	0.0	0.0
1.2E-01	1.8E-01	0	0	0.0	0.0
1.8E-01	2.6E-01	1	1	16.67	16.67
2.6E-01	3.8E-01	2	3	33.33	50.00
3.8E-01	5.6E-01	2	5	33.33	83.33
5.6E-01	8.3E-01	0	5	0.0	83.33
8.3E-01	1.2E 00	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 4 (TI PCT)

2.0E-01 XXXXXXXXXXXXXXXXXXXX
3.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01
1.0E 00 XXXXXXXXXXXXXXXXXXXX

51

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
6

MAXIMUM = 1.00000E 00

MINIMUM = 2.00000E-01

GEOMETRIC MEAN = 4.06321E-01

GEOMETRIC DEVIATION = 1.75557E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	CUM
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	0	0	0.0	0.0
8.3E 01	1.2E 02	0	0	0.0	0.0
1.2E 02	1.8E 02	0	0	0.0	0.0
1.8E 02	2.6E 02	0	0	0.0	0.0
2.6E 02	3.8E 02	0	0	0.0	0.0
3.8E 02	5.6E 02	0	0	0.0	0.0
5.6E 02	8.3E 02	1	1	16.67	16.67
8.3E 02	1.2E 03	0	1	0.0	16.67
1.2E 03	1.8E 03	4	5	66.67	83.33
1.8E 03	2.6E 03	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 5 (MN PPM)

7.0E 02 XXXXXXXXXXXXXXXXXXXX

1.0E 03

1.5E 03 XX

2.0E 03 XXXXXXXXXXXXXXXXXXXX

ANALYTICAL
VALUES
6

N L H B T G
0 0 0 0 0 0
0.0 0.0 0 0 0.0 0.0

MAXIMUM = 2.00000E 03

MINIMUM = 7.00000E 02

GEOMETRIC MEAN = 1.38594E 03

GEOMETRIC DEVIATION = 1.42472E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E-01	5.6E-01	0	0	0.0	0.0
5.6E-01	8.3E-01	1	1	16.67	16.67

HISTOGRAM FOR COLUMN 6 (AG PPM)

7.0E-01 XXXXXXXXXXXXXXXXX

N	L	H	8	T	G	ANALYTICAL VALUES
4	1	0	0	0	0	1
66.67	16.67			0.0	0.0	

MAXIMUM = 7.00000E-01

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 7.00000E-01

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 7 (AS PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

ANALYTICAL
VALUES

N
6

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 8 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
6	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	PERCENT FREQ CUM
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	1	1	16.67	16.67
1.8E 01	2.6E 01	0	1	0.0	16.67
2.6E 01	3.8E 01	2	3	33.33	50.00
3.8E 01	5.6E 01	0	3	0.0	50.00
5.6E 01	8.3E 01	0	3	0.0	50.00
8.3E 01	1.2E 02	2	5	33.33	83.33
1.2E 02	1.8E 02	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 9 (B PPM)

1.5E 01 XXXXXXXXXXXXXXXXXXXX
 2.0E 01
 3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 01
 7.0E 01
 1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.5E 02 XXXXXXXXXXXXXXXXXXXX

56

N 0 0.0
 L 0 0.0
 H 0
 B 0
 T 0 0.0
 G 0 0.0

ANALYTICAL
VALUES
6

MAXIMUM = 1.50000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 5.22079E 01

GEOMETRIC DEVIATION = 2.48091E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	0	0	0.0	0.0
8.3E 01	1.2E 02	0	0	0.0	0.0
1.2E 02	1.8E 02	1	1	16.67	16.67
1.8E 02	2.6E 02	0	1	0.0	16.67
2.6E 02	3.8E 02	0	1	0.0	16.67
3.8E 02	5.6E 02	1	2	16.67	33.33
5.6E 02	8.3E 02	2	4	33.33	66.67
8.3E 02	1.2E 03	2	6	33.33	100.00

HISTOGRAM FOR COLUMN 10 (BA PPM)

1.5E 02 XXXXXXXXXXXXXXXXXXXX

2.0E 02

3.0E 02

5.0E 02 XXXXXXXXXXXXXXXXXXXX

7.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.0E 03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

57

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
6

MAXIMUM = 1.00000E 03

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 5.76598E 02

GEOMETRIC DEVIATION = 2.03242E 00

FREQUENCY TABLE FOR COLUMN 11 (BE PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E-01	1.2E 00	2	2	33.33	33.33

HISTOGRAM FOR COLUMN 11 (BE PPM)

1.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
1	3	0	0	0	0	2
16.67	50.00			0.0	0.0	

MAXIMUM = 1.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.00000E 00

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 12 (BI PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
6

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 13 (CD PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
6

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 14 (CO PPM)

LIMITS		FREQ		PERCENT	
LOWER	UPPER		CUM	FREQ	CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	1	1	16.67	16.67
1.2E 01	1.8E 01	1	2	16.67	33.33
1.8E 01	2.6E 01	3	5	50.00	83.33
2.6E 01	3.8E 01	0	5	0.0	83.33
3.8E 01	5.6E 01	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 14 (CO PPM)

```

1.0E 01 XXXXXXXXXXXXXXXXXXXX
1.5E 01 XXXXXXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E 01
5.0E 01 XXXXXXXXXXXXXXXXXXXX

```

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
6

19

MAXIMUM = 5.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.97859E 01

GEOMETRIC DEVIATION = 1.69817E 00

FREQUENCY TABLE FOR COLUMN 15 (CR PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	2	2	33.33	33.33
2.6E 01	3.8E 01	0	2	0.0	33.33
3.8E 01	5.6E 01	0	2	0.0	33.33
5.6E 01	8.3E 01	1	3	16.67	50.00
8.3E 01	1.2E 02	1	4	16.67	66.67
1.2E 02	1.8E 02	2	6	33.33	100.00

HISTOGRAM FOR COLUMN 15 (CR PPM)

2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 01

5.0E 01

7.0E 01 XXXXXXXXXXXXXXXXX

1.0E 02 XXXXXXXXXXXXXXXXX

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
6

62

MAXIMUM = 1.50000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 6.30796E 01

GEOMETRIC DEVIATION = 2.54493E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS		FREQ		PERCENT	
LOWER	UPPER	FREQ	CUM	FREQ	CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	1	1	16.67	16.67
3.8E 01	5.6E 01	0	1	0.0	16.67
5.6E 01	8.3E 01	3	4	50.00	66.67
8.3E 01	1.2E 02	0	4	0.0	66.67
1.2E 02	1.8E 02	1	5	16.67	83.33
1.8E 02	2.6E 02	0	5	0.0	83.33
2.6E 02	3.8E 02	0	5	0.0	83.33
3.8E 02	5.6E 02	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 16 (CU PPM)

3.0E 01 XXXXXXXXXXXXXXXXXXXX
5.0E 01
7.0E 01 XX
1.0E 02
1.5E 02 XXXXXXXXXXXXXXXXXXXX
2.0E 02
3.0E 02
5.0E 02 XXXXXXXXXXXXXXXXXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
6

MAXIMUM = 5.00000E 02

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 9.57733E 01

GEOMETRIC DEVIATION = 2.60260E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
2	4	0	0	0	0
33.33	66.67			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
2	4	0	0	0	0
33.33	66.67			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	3	3	50.00	50.00

HISTOGRAM FOR COLUMN 19 (NB PPM)

1.0E 01 XX

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	3
0.0	50.00			0.0	0.0	

MAXIMUM = 1.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 9.99998E 00

GEOMETRIC DEVIATION = 1.00225E 00

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	PERCENT FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	2	2	33.33	33.33
1.8E 01	2.6E 01	0	2	0.0	33.33
2.6E 01	3.8E 01	2	4	33.33	66.67
3.8E 01	5.6E 01	1	5	16.67	83.33
5.6E 01	8.3E 01	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 20 (NI PPM)

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 2.0E 01
 3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 01 XXXXXXXXXXXXXXXX
 7.0E 01 XXXXXXXXXXXXXXXX

N L H B T G
 0 0 0 0 0 0
 0.0 0.0 0.0 0.0

ANALYTICAL
 VALUES
 6

MAXIMUM = 7.00000E 01

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 2.98594E 01

GEOMETRIC DEVIATION = 1.86421E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER -	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	1	1	16.67	16.67
1.2E 01 -	1.8E 01	0	1	0.0	16.67
1.8E 01 -	2.6E 01	0	1	0.0	16.67
2.6E 01 -	3.8E 01	2	3	33.33	50.00
3.8E 01 -	5.6E 01	0	3	0.0	50.00
5.6E 01 -	8.3E 01	3	6	50.00	100.00

HISTOGRAM FOR COLUMN 21 (PB PPM)

1.0E 01 XXXXXXXXXXXXXXXXXXXX

1.5E 01

2.0E 01

3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

5.0E 01

7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	6
0.0	0.0			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 3.81582E 01

GEOMETRIC DEVIATION = 2.17350E 00

FREQUENCY TABLE FOR COLUMN 22 (SB PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
6

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 23 (SC PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	1	1	16.67	16.67
1.2E 01	1.8E 01	4	5	66.67	83.33
1.8E 01	2.6E 01	0	5	0.0	83.33
2.6E 01	3.8E 01	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 23 (SC PPM)

1.0E 01 XXXXXXXXXXXXXXXXX

1.5E 01 XXX

2.0E 01

3.0E 01 XXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
6

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.57367E 01

GEOMETRIC DEVIATION = 1.42656E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	1	1	16.67	16.67
1.8E 01	2.6E 01	0	1	0.0	16.67
2.6E 01	3.8E 01	3	4	50.00	66.67
3.8E 01	5.6E 01	0	4	0.0	66.67
5.6E 01	8.3E 01	0	4	0.0	66.67
8.3E 01	1.2E 02	0	4	0.0	66.67
1.2E 02	1.8E 02	1	5	16.67	83.33

HISTOGRAM FOR COLUMN 24 (SN PPM)

1.5E 01 XXXXXXXXXXXXXXXXXXXX
 2.0E 01
 3.0E 01 XX
 5.0E 01
 7.0E 01
 1.0E 02
 1.5E 02 XXXXXXXXXXXXXXXXXXXX

N L H B T G
 1 0 0 0 0 0
 16.67 0.0 0.0 0.0

ANALYTICAL
 VALUES
 5

MAXIMUM = 1.50000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 3.60336E 01

GEOMETRIC DEVIATION = 2.34405E 00

FREQUENCY TABLE FOR COLUMN 25 (SR PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	0	0	0.0	0.0
1.8E 02 -	2.6E 02	0	0	0.0	0.0
2.6E 02 -	3.8E 02	6	6	100.00	100.00

HISTOGRAM FOR COLUMN 25 (SR PPM)

3.0E 02 XXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	6
0.0	0.0			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 3.00000E 02

GEOMETRIC MEAN = 2.99999E 02

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 26 (V PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	FREQ CUM
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	0	0	0.0	0.0
3.8E 01 -	5.6E 01	0	0	0.0	0.0
5.6E 01 -	8.3E 01	0	0	0.0	0.0
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	3	3	50.00	50.00
1.8E 02 -	2.6E 02	1	4	16.67	66.67
2.6E 02 -	3.8E 02	2	6	33.33	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

1.5E 02 XX

2.0E 02 XXXXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	6
0.0	0.0			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 1.98270E 02

GEOMETRIC DEVIATION = 1.40433E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
6

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 28 (Y PPM)

LIMITS		FREQ		PERCENT	
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	1	1	16.67	16.67
1.2E 01	1.8E 01	4	5	66.67	83.33
1.8E 01	2.6E 01	0	5	0.0	83.33
2.6E 01	3.8E 01	1	6	16.67	100.00

HISTOGRAM FOR COLUMN 28 (Y PPM)

1.0E 01 XXXXXXXXXXXXXXXXXX

1.5E 01 XX

2.0E 01

3.0E 01 XXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	6

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.57367E 01

GEOMETRIC DEVIATION = 1.42656E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER -	UPPER		CUM	FREQ	FREQ CUM
1.8E 02 -	2.6E 02	2	2	33.33	33.33

HISTOGRAM FOR COLUMN 29 (ZN PPM)

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
2	2	0	0	0	0	2
33.33	33.33			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 2.00000E 02

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 30 (ZR PPM)

LIMITS		FREQ		PERCENT	
LOWER	UPPER		CUM	FREQ	CUM
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	6	6	100.00	100.00

HISTOGRAM FOR COLUMN 30 (ZR PPM)

7.0E 01 XXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	6
0.0	0.0			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 7.00000E 01

GEOMETRIC MEAN = 6.99999E 01

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 31 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	VALUES
0	6	0	0	0	0	0
0.0	*****			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

A470 STATISTICAL SUMMARY

DATE 4/20/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	0	6
MG PCT	0	0	0	0	0	0	6
CA PCT	0	0	0	0	0	0	6
TI PCT	0	0	0	0	0	0	6
MN PPM	0	0	0	0	0	0	6
AG PPM	4	1	0	0	0	0	1
AS PPM	6	0	0	0	0	0	0
AU PPM	6	0	0	0	0	0	0
B PPM	0	0	0	0	0	0	6
BA PPM	0	0	0	0	0	0	6
BE PPM	1	3	0	0	0	0	2
BI PPM	6	0	0	0	0	0	0
CD PPM	6	0	0	0	0	0	0
CO PPM	0	0	0	0	0	0	6
CR PPM	0	0	0	0	0	0	6
CU PPM	0	0	0	0	0	0	6
LA PPM	2	4	0	0	0	0	0
MO PPM	2	4	0	0	0	0	0
NB PPM	0	3	0	0	0	0	3
NI PPM	0	0	0	0	0	0	6
PB PPM	0	0	0	0	0	0	6
SB PPM	6	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	6
SN PPM	1	0	0	0	0	0	5
SR PPM	0	0	0	0	0	0	6
V PPM	0	0	0	0	0	0	6
W PPM	6	0	0	0	0	0	0
Y PPM	0	0	0	0	0	0	6
ZN PPM	2	2	0	0	0	0	2
ZR PPM	0	0	0	0	0	0	6
AU PPM	0	6	0	0	0	0	0

79

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS	
FE PCT	5.356662	1.83	6 SAMPLES AND	6 ANALYTICAL VALUES.
MG PCT	1.470840	1.49	6 SAMPLES AND	6 ANALYTICAL VALUES.
CA PCT	0.949980	1.86	6 SAMPLES AND	6 ANALYTICAL VALUES.
TI PCT	0.406321	1.76	6 SAMPLES AND	6 ANALYTICAL VALUES.
MN PPM	1385.941162	1.42	6 SAMPLES AND	6 ANALYTICAL VALUES.
AG PPM	83951616	37376	5 NOT DETECTED, LESS THAN, OR TRACE VALUES.	1 REPORTED VALUES. NO COMPUTATIONS.
AS PPM	83951616	37376	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
AU PPM	83951616	37376	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
B PPM	52.207840	2.48	6 SAMPLES AND	6 ANALYTICAL VALUES.
BA PPM	576.596924	2.03	6 SAMPLES AND	6 ANALYTICAL VALUES.
BE PPM	0.762811	1.26	4 NOT DETECTED, LESS THAN, OR TRACE VALUES.	2 REPORTED VALUES.
BI PPM	*****	*****	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
CD PPM	*****	*****	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
CO PPM	19.785889	1.70	6 SAMPLES AND	6 ANALYTICAL VALUES.
CR PPM	63.079498	2.54	6 SAMPLES AND	6 ANALYTICAL VALUES.
CU PPM	95.773132	2.60	6 SAMPLES AND	6 ANALYTICAL VALUES.
LA PPM	*****	*****	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
MO PPM	*****	*****	6 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
NB PPM	8.516521	1.19	3 NOT DETECTED, LESS THAN, OR TRACE VALUES.	3 REPORTED VALUES.
NI PPM	29.859314	1.86	6 SAMPLES AND	6 ANALYTICAL VALUES.
PB PPM	38.158127	2.17	6 SAMPLES AND	6 ANALYTICAL VALUES.

SB PPM	*****	*****
SC PPM	15.736613	1.43
SN PPM	25.573700	3.03
SR PPM	299.998047	1.00
V PPM	198.269470	1.40
W PPM	*****	*****
Y PPM	15.736613	1.43
ZN PPM	169.442886	1.15
ZR PPM	69.999664	1.00
AU PPM	*****	*****

6 NOT DETECTED, LESS THAN, OR TRACE VALUES.
6 SAMPLES AND 6 ANALYTICAL VALUES.
1 NOT DETECTED, LESS THAN, OR TRACE VALUES.
6 SAMPLES AND 6 ANALYTICAL VALUES.
6 SAMPLES AND 6 ANALYTICAL VALUES.
6 NOT DETECTED, LESS THAN, OR TRACE VALUES.
6 SAMPLES AND 6 ANALYTICAL VALUES.
4 NOT DETECTED, LESS THAN, OR TRACE VALUES.
6 SAMPLES AND 6 ANALYTICAL VALUES.
6 NOT DETECTED, LESS THAN, OR TRACE VALUES.

0 REPORTED VALUES. NO COMPUTATIONS.
5 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.
2 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.