UNITED STATES DEPARTMENT OF THE INTERIOR

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Analytical and Statistical Results for Stream Sediment, Panned Concentrate, Water, and Rock Samples Collected from the Whetstone Roadless Area, Pima and Cochise Counties, Arizona

By

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STUDIES RELATED TO WILDERNESS

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a geochemical survey of the Whetstone Roadless Area (03120) in the Coronado National Forest, Cochise and Pima Counties, Arizona. The Whetstone Roadless Area was classified as a further planning area during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979.

CONTENTS

ILLUSTRATIONS

TABLES

INTRODUCTION

The Whetstone Roadless Area (RARE II 03120), situated 9 mi southwest of Benson, Ariz., comprises 57 sq mi of mountainous terrain. The terrain is typical of the arid to semiarid mountains of the Southwestern United States.

A geochemical survey was undertaken in April 1981 by S. P. Marsh and R. S. Werschky. The purpose of the survey was to provide a geochemical data base that would aid in the preparation of the mineral-resource appraisal of the Whetstone Roadless Area. Data were obtained from analyses of 63 stream-sediment, 62 panned-concentrate, 21 water, and 19 rock samples. Analytical methods are listed in table 15. All sample localities were plotted on a 1:48,000-scale topographic base map (Plate 1). Samples were numbered consecutively with letter suffixes as follows: S, stream sediment; C, panned concentrate; W, water; and R, rock. All samples bearing the same number were collected at the same sample site unless shown otherwise on the map.

SAMPLE COLLECTION AND PREPARATION

Stream-sediment and panned concentrate samples were collected from first- and second-order stream drainages at a sample density of approximate 1 sample site per 1 sq mi. Only a few percent of the drainages contained flowing water. Samples from dry drainages were taken from what was presumed to be the most recently active channel. Stream-sediment samples were collected perpendicular to flow direction across the full width of the active steam channel in order to get an unbiased sample. Panned-concentrate samples were purposefully biased by collection from points of natural concentration of heavy minerals by stream processes. Stream sediments were sieved on site through a 2 mm stainless steel screen and placed in 11 x 15 cm cloth bags. Concentrate samples were sieved on site through a 2 mm stainless steel screen into a 35 cm diameter gold pan. When water was not available on site, the smaller than 2 mm material was placed in a cloth bag and transported to the nearest source of water to be panned. Samples were panned to approximately 1/100 of their original volumes and then placed in 9 x 24 cm paper bags. Samples were air dried.

Water samples were collected using acid-rinsed polyethylene bottles. At each site a 60 ml sample was filtered through a 0.45 µm filter and acidified with reagent-grade concentrated nitric acid to pH <2. An untreated 0.5 L sample was also taken at each site.

In addition to collection from known mineralized areas, representative rock samples were collected from suspected mineralized areas based on alteration, mineralogy, and structure.

Stream-sediment samples were sieved through a 177 µm (U S Standard Sieve #80) stainless steel sieve and the -177 µm fraction was pulverized for analysis. Panned concentrate samples were sieved through a 590 µm (U S Standard Sieve #30) stainless steel sieve and the +590 µm fraction was discarded. The -590 µm was further concentrated by flotation of the low density minerals (specific gravity <2.8) in bromoform. The remaining high density fraction was separated into 3 fractions based on degree of magnetism. The most magnetic fraction was separated by passing the sample through a Frantz Isodynamic Separator set at 0.6 amp. The intermediate fraction was separated by setting the electromagnet at 2.0 amps and passing the remaining sample through the separator. The nonmagnetic fraction at 2.0 amps was examined under a binocular microscope for mineralogy (table 9) and then hand ground to a powder for analysis. Rock samples were crushed and then pulverized for analysis. Water samples required no preparations other than those discussed in the field methods section.

ANALYTICAL METHODS

Following preparation, the stream sediment, panned concentrate, and rock samples were analyzed for 29 elements by a semiquantitative emission spectrographic method described by Grimes and Marranzino (1968). Spectrographic results were obtained by visual comparison of spectra derived from the unknown against spectra obtained from standards made from pure oxides or carbonates. Standard concentrations are geometrically spaced

over any given order of magnitude of concentration and are prepared in such a way that the range of concentrations normally found in naturally occurring samples are bracketted. When comparisons are made with sample films for semiquantitative use, reported values are rounded to 100, 50, 20, 10, and so forth. Those samples whose concentrations are estimated to fall between the above values are arbitrarily given values of 70, 30, 15, 7, and so forth (Grimes and Marranzino, 1968). The precision of the method is approximately plus or minus one reporting unit at the 83 percent confidence level and plus or minus two reporting units at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (magnesium, calcium, iron, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram).

Lower limits of detection are listed in table 15. The different detection limit for concentrate samples arises from dilution of samples in order to minimize spectra interference from cerium, titanium, zirconium, iron, and the rare earths. These elements are abundant in the common concentrate minerals monazite, zircon, rutile, sphene, and iron oxides.

Wet chemical analyses of cadmium, bismuth, antimony, arsenic, zinc, mercury, and uranium were performed on stream sediment samples. Zinc, mercury, and gold analyses were performed on rock samples. Table 15 lists all elements analyzed and methods used for analyses of the various sample media.

Water samples were analyzed for the ions and elements shown in table 15. When studying the water data the reader should keep in mind that high values may not exactly reflect the true character of the rocks through which the water has passed. Water can be a very powerful exploration tool but it is also extremely susceptible to contamination. Values for zinc, lead, copper, and nitrate are most likely to exhibit contamination. Galvanized pipes, bullets, and cattle are the most prevalent contaminating agents.

Analytical results, sample descriptions, and locations were entered into a computerized rock analysis storage system (RASS) (Van Trump and Miesch, 1977). Data entered RASS was then processed by statistical package STATPAC (Van Trump and Miesch, 1977) which produced the statistics found in tables 2–4, 6–8, and 11–13.

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Table 1. Analytical data for stream sediments from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
WS001	31 50 11	110 27 6	1.0	.5	1.5	.10	300	N	N	N	50	1,000
WS002	31 50 14	110 27 6	.5	.7	3.0	.10	150	N	N	N	50	100
WS003	31 50 8	110 27 4	1.0	.5	1.0	.15	700	N	N	N	50	1,500
WS004	31 50 39	110 27 30	.5	.3	2.0	.10	150	N	N	N	30	150
WS005	31 50 52	110 26 7	1.5	3.0	10.0	.20	300	N	N	N	70	200
WS006	31 51 9	110 26 17	2.0	3.0	15.0	.30	500	N	N	N	100	300
WS007	31 50 46	110 26 3	1.5	2.0	10.0	.30	300	N	N	N	100	200
WS008	31 51 1	110 26 12	2.0	5.0	20.0	.15	500	N	N	N	50	150
WS009	31 51 13	110 26 46	1.5	3.0	15.0	.20	500	N	N	N	50	200
WS010	31 51 19	110 27 59	1.0	3.0	10.0	.20	200	N	N	N	100	200
WS011	31 49 19	110 27 36	.7	.5	1.5	.10	700	N	N	N	30	1,000
WS012	31 49 17	110 27 35	1.5	1.0	5.0	.20	1,000	N	N	N	70	1,500
WS013	31 48 38	110 27 22	2.0	1.0	3.0	.30	1,000	N	N	N	70	1,500
WS014	31 48 2	110 26 27	1.0	.5	.5	.20	700	N	N	N	50	1,000
WS015	31 48 18	110 26 29	1.5	.5	1.0	.20	500	N	N	N	70	700
WS016	31 47 39	110 28 19	1.5	.7	.7	.20	700	N	N	N	50	1,000
WS017	31 47 35	110 27 39	2.0	.5	.5	.30	700	N	N	N	70	1,000
WS018	31 47 47	110 28 46	2.0	.7	1.5	.30	500	N	N	N	70	500
WS019	31 47 14	110 28 39	1.5	1.0	2.0	.30	300	N	N	N	70	700
WS020	31 46 30	110 27 39	2.0	.7	2.0	.50	300	N	N	N	70	1,000
WS021	31 45 48	110 28 11	1.5	1.0	3.0	.30	300	N	N	N	50	500
WS022	31 45 17	110 26 55	7.0	1.0	1.0	.50	1,000	N	N	N	50	500
WS023	31 48 35	110 23 45	1.5	2.0	10.0	.30	500	N	N	N	70	200
WS024	31 49 5	110 21 52	3.0	.5	.3	.50	500	N	N	N	100	500
WS025	31 47 59	110 21 51	2.0	2.0	7.0	.30	700	N	N	N	70	300
WS026	31 47 24	110 21 40	3.0	1.0	5.0	.70	1,000	N	N	N	30	300
WS027	31 46 45	110 23 30	1.5	2.0	10.0	.30	500	N	N	N	70	300
WS028	31 46 52	110 23 26	1.5	1.5	10.0	.30	500	N	N	N	70	300
WS029	31 45 49	110 22 45	2.0	2.0	10.0	.20	500	N	N	N	50	500
WS030	31 45 44	110 23 34	1.5	2.0	10.0	.20	500	N	N	N	70	300
WS031	31 45 44	110 24 40	2.0	2.0	10.0	.30	500	N	N	N	30	500
WS032	31 45 39	110 24 45	7.0	1.5	3.0	.50	1,000	N	N	N	50	500
WS033	31 44 34	110 26 51	7.0	.7	1.0	.50	700	N	N	N	50	500
WS034	31 44 40	110 25 16	2.0	.5	.5	.50	700	N	N	N	70	500
WS035	31 44 33	110 23 19	2.0	1.0	10.0	.20	700	N	N	N	20	500
WS036	31 49 38	110 21 41	2.0	.7	2.0	.30	700	N	N	N	100	500
WS037	31 49 56	110 21 24	2.0	.3	.2	.30	500	N	N	N	200	200
WS038	31 49 48	110 21 26	5.0	.7	1.5	.50	700	N	N	N	150	500
WS039	31 50 9	110 21 36	5.0	.5	.1	.30	500	N	N	N	500	500
WS040	31 50 18	110 21 19	3.0	.7	1.5	.30	1,000	N	N	N	150	500
WS041	31 50 57	110 23 7	3.0	.5	2.0	.50	700	N	N	N	100	300
WS042	31 50 56	110 23 19	2.0	.5	.5	.50	1,000	N	N	N	100	300
WS043	31 51 5	110 21 18	2.0	.5	.2	.30	500	N	N	N	70	500
WS044	31 51 31	110 21 11	3.0	.7	.5	.50	1,500	N	N	N	100	300
WS045	31 53 52	110 29 56	5.0	.5	.7	.70	1,500	N	N	N	150	300

Table 1. Analytical data for stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s
WS001	N	N	N	5	15	7	20	N	N	5	30	N	N
WS002	N	N	N	N	20	7	30	N	N	10	20	N	N
WS003	N	N	N	5	20	10	50	N	N	7	30	N	N
WS004	N	N	N	<5	20	7	50	N	N	7	15	N	N
WS005	N	N	N	7	100	20	70	N	N	30	50	N	N
WS006	N	N	N	10	100	15	70	N	N	30	30	N	N
WS007	N	N	N	7	100	20	50	N	N	30	30	N	N
WS008	N	N	N	7	70	15	50	N	N	20	30	N	N
WS009	N	N	N	7	100	20	50	N	N	30	30	N	N
WS010	N	N	N	5	50	15	50	N	N	15	20	N	N
WS011	N	N	N	<5	15	7	70	N	N	5	30	N	N
WS012	N	N	N	7	30	20	50	7	N	10	30	N	N
WS013	N	N	N	15	30	30	70	5	N	15	50	N	N
WS014	N	N	N	5	20	15	70	N	N	7	30	N	N
WS015	N	N	N	7	30	10	70	5	N	15	20	N	N
WS016	N	N	N	5	20	30	70	N	N	5	20	N	N
WS017	N	N	N	5	20	20	70	N	N	5	30	N	N
WS018	N	N	N	7	30	20	70	N	N	10	20	N	N
WS019	N	N	N	5	50	10	70	N	N	7	15	N	N
WS020	N	N	N	5	50	10	50	N	N	7	20	N	N
WS021	N	N	N	5	30	10	50	N	N	10	20	N	N
WS022	N	N	N	15	100	30	100	N	N	15	30	N	N
WS023	N	N	N	7	70	15	70	N	N	20	30	N	N
WS024	N	N	N	10	100	20	70	N	N	30	20	N	N
WS025	N	N	N	10	50	20	70	N	N	15	50	N	N
WS026	N	N	N	7	15	10	70	N	N	5	30	N	N
WS027	N	N	N	7	70	15	50	N	N	30	30	N	N
WS028	N	N	N	7	100	15	50	N	N	30	30	N	N
WS029	N	N	N	7	70	10	50	N	N	20	30	N	N
WS030	N	N	N	10	50	15	50	N	N	15	30	N	N
WS031	N	N	N	7	70	15	70	N	N	15	20	N	N
WS032	N	N	N	15	150	150	70	N	N	20	30	N	N
WS033	N	N	N	15	100	50	100	N	N	15	20	N	N
WS034	N	N	N	15	50	30	70	5	N	10	50	N	N
WS035	N	N	N	5	70	20	30	N	N	10	30	N	N
WS036	N	N	N	7	70	15	50	N	N	20	30	N	N
WS037	N	N	N	<5	50	10	30	N	<20	15	20	N	N
WS038	N	N	N	10	100	15	50	<5	20	30	20	N	N
WS039	<1	N	N	10	150	20	70	<5	<20	30	30	N	N
WS040	<1	N	N	7	50	70	50	<5	20	20	70	N	N
WS041	5	N	N	10	50	15	50	N	20	15	30	N	N
WS042	7	N	N	7	50	50	70	N	<20	10	30	N	N
WS043	N	N	N	10	50	15	50	N	<20	15	30	N	N
WS044	5	N	N	10	50	50	70	N	<20	10	30	N	N
WS045	5	N	N	10	70	50	100	N	20	10	50	N	N

Table 1. Analytical data for stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Cd-ppm aa	Bi-ppm aa	Sb-ppm aa	Zn-ppm aa	As-ppm aa	Hg-ppm inst	U-ppm FLOUR
WS001	150	30	N	20	N	N	N	N	N	35	5	.02	.50
WS002	100	20	N	10	N	N	N	N	N	35	5	.03	.35
WS003	150	50	N	20	N	N	N	N	N	40	<5	.03	.55
WS004	<100	30	N	10	N	N	.2	N	N	35	5	.04	.45
WS005	200	70	N	30	N	N	.6	N	1	75	5	.10	.60
WS006	200	70	N	50	N	N	.1	N	1	50	5	.07	.50
WS007	150	70	N	30	N	N	.3	N	1	50	5	.08	.40
WS008	100	70	N	30	N	N	.2	N	2	35	5	.10	.70
WS009	300	70	N	30	N	N	.5	N	1	65	5	.15	.75
WS010	100	50	N	20	N	N	N	N	2	40	5	.11	.45
WS011	100	30	N	20	N	N	.2	N	N	45	5	.05	.55
WS012	300	70	N	30	N	N	.2	N	N	55	10	.05	1.10
WS013	300	100	N	50	N	N	.3	N	N	85	10	.07	.70
WS014	150	70	N	30	N	N	N	N	N	50	10	.04	.50
WS015	100	100	N	30	N	N	.2	N	1	65	10	.05	.35
WS016	200	70	N	30	N	N	N	N	N	60	<5	.04	.45
WS017	200	70	N	30	N	N	N	N	N	60	5	.03	.45
WS018	200	50	N	30	N	N	--	--	--	55	--	.09	.65
WS019	100	50	N	20	N	N	N	N	N	35	N	.03	.45
WS020	<100	70	N	30	N	N	N	N	N	25	N	.02	.50
WS021	150	70	N	30	N	N	N	N	N	35	N	.02	.55
WS022	300	300	N	30	N	N	N	N	N	50	5	.04	1.10
WS023	200	50	N	30	N	N	N	N	N	45	<5	.04	.50
WS024	100	70	N	30	N	N	.2	N	N	60	<5	.06	.70
WS025	200	70	N	30	N	N	N	N	N	70	<5	.06	.25
WS026	200	70	N	50	N	N	N	N	N	65	N	.03	.25
WS027	300	50	N	20	N	N	.3	N	N	50	<5	.03	.50
WS028	200	70	N	20	N	N	.1	N	N	65	5	.04	.50
WS029	300	50	N	20	N	N	.2	N	N	40	5	.05	.65
WS030	200	50	N	20	N	N	.1	N	N	45	5	.04	.65
WS031	300	70	N	30	N	N	N	N	N	50	10	.04	.60
WS032	300	300	N	50	N	N	N	6	2	60	10	.06	1.50
WS033	200	300	N	30	N	N	N	2	N	45	5	.04	1.00
WS034	150	70	N	50	N	N	N	N	1	65	20	.05	1.10
WS035	300	100	N	20	N	N	N	2	1	45	10	.06	.35
WS036	100	70	N	30	N	N	N	2	N	50	<5	.26	.55
WS037	<100	50	N	30	N	N	N	2	N	40	N	2.50	.55
WS038	<100	70	N	50	N	N	N	2	N	55	N	.09	.60
WS039	<100	70	<50	70	N	N	N	4	N	50	N	.06	1.30
WS040	100	70	N	70	N	N	.3	4	N	70	<5	.08	.45
WS041	<100	70	N	100	N	N	N	2	N	55	<5	.03	4.50
WS042	100	50	N	100	N	N	.1	2	N	75	N	.06	14.00
WS043	<100	70	N	50	N	N	N	N	N	40	5	.05	2.10
WS044	<100	100	N	150	N	N	.2	2	N	90	<5	.05	4.00
WS045	<100	100	N	150	N	N	.1	6	N	85	N	.03	4.50

Table 1. Analytical data for stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
WS046	31 53 30	110 23 18	7.0	.5	.7	.70	1,500	N	N	N	200	300
WS047	31 53 11	110 23 58	15.0	.5	.5	.70	1,500	N	N	N	200	300
WS048	31 53 36	110 24 34	10.0	.3	.5	.70	1,500	N	N	N	150	300
WS049	31 53 24	110 25 29	3.0	.5	.5	.50	700	N	N	N	100	500
WS050	31 52 34	110 25 50	3.0	1.0	1.0	.50	1,500	N	N	N	70	500
WS051	31 53 3	110 28 2	2.0	2.0	10.0	.30	500	N	N	N	100	300
WS052	31 53 49	110 28 11	1.5	3.0	15.0	.20	700	N	N	N	50	300
WS053	31 53 51	110 27 33	2.0	2.0	1.0	.30	1,000	N	N	N	70	500
WS054	31 54 30	110 27 56	1.5	.5	1.0	.30	700	N	N	N	100	500
WS055	31 53 39	110 26 21	5.0	1.0	.7	.50	1,500	N	N	N	200	500
WS056	31 49 54	110 23 13	3.0	1.0	5.0	.50	1,000	N	N	N	100	700
WS057	31 50 1	110 23 15	3.0	1.0	1.5	.50	700	N	N	N	200	500
WS058	31 49 51	110 23 41	3.0	3.0	10.0	.30	700	N	N	N	70	500
WS059	31 49 55	110 23 40	5.0	2.0	3.0	.50	1,000	.5	N	N	100	700
WS060	31 49 51	110 22 43	3.0	.7	3.0	.50	700	N	N	N	100	500
WS063	31 49 41	110 22 6	3.0	.5	1.5	.30	500	N	N	N	100	500
WS064	31 49 47	110 22 16	3.0	.5	2.0	.30	700	N	N	N	100	500
WS065	31 49 38	110 21 41	2.0	.5	2.0	.30	500	N	N	N	70	500

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s
WS046	5	N	N	10	100	50	100	N	<20	10	30	N	N
WS047	5	N	N	15	200	50	100	N	30	15	70	N	N
WS048	5	N	N	10	100	30	100	N	30	10	30	N	N
WS049	7	N	N	7	50	20	70	N	20	10	50	N	N
WS050	10	N	N	15	50	50	100	N	20	15	70	N	N
WS051	N	N	N	10	150	10	70	N	N	50	20	N	N
WS052	N	N	N	10	70	15	70	N	N	20	30	N	N
WS053	N	N	N	10	70	20	70	N	N	20	30	N	N
WS054	5	N	N	5	15	15	70	5	20	5	30	N	N
WS055	7	N	N	10	50	50	100	N	30	10	50	N	N
WS056	N	N	N	15	70	20	100	N	N	20	50	N	N
WS057	N	N	N	15	150	20	70	N	N	30	30	N	N
WS058	N	N	N	10	100	15	70	N	N	20	30	N	N
WS059	N	N	N	10	50	50	70	5	<20	20	50	N	N
WS060	N	N	N	7	70	15	70	N	N	20	30	N	N
WS063	N	N	N	7	70	10	50	N	20	20	20	N	N
WS064	N	N	N	7	50	10	50	N	N	15	20	N	N
WS065	N	N	N	5	50	10	50	N	N	15	30	N	N

Table 1. Analytical data for stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Cd-ppm aa	Bi-ppm aa	Sb-ppm aa	Zn-ppm aa	As-ppm aa	Hg-ppm inst	U-ppm FLOUR
WS046	<100	100	N	150	N	N	.2	10	N	80	<5	.04	9.70
WS047	N	200	N	200	N	N	.4	10	N	85	N	.04	8.40
WS048	N	200	N	150	N	N	.1	4	N	70	N	.13	6.00
WS049	100	70	N	100	N	N	.1	2	N	65	<5	.05	6.00
WS050	<100	50	N	100	N	N	.3	2	N	100	<5	.07	4.20
WS051	300	70	N	30	N	N	N	N	N	55	N	.06	.60
WS052	150	50	N	50	N	N	.3	N	5	35	10	.07	.70
WS053	100	70	N	70	N	N	N	N	2	55	5	.06	.70
WS054	<100	50	N	70	N	N	N	<2	N	60	5	.02	3.00
WS055	<100	100	N	150	N	N	.2	6	N	85	5	.07	5.70
WS056	100	100	N	70	N	N	.1	N	N	70	<5	.08	.40
WS057	N	100	N	50	N	N	N	N	N	65	<5	.10	.70
WS058	150	70	N	50	N	N	N	N	N	60	<5	.05	.30
WS059	100	100	N	70	N	N	.1	N	N	80	5	.12	.40
WS060	100	70	N	50	N	N	N	2	N	55	N	.03	.65
WS063	<100	70	N	50	N	N	N	2	N	40	<5	.05	.85
WS064	<100	70	N	50	N	N	N	N	N	55	<5	.04	.75
WS065	<100	70	N	30	N	N	N	<2	N	50	<5	.04	.85

Table 2. Fisher-K statistics on analytical data from stream sediments from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	LATITUDE	0	0	0	0	0	0	63	0	31.742500	31.908334	1
2	LONGITUD	0	0	0	0	0	0	63	0	110.35306	110.49889	2
3	S-FE%	0	0	0	0	0	0	63	0	0.5000000	15.000000	3
4	S-MG%	0	0	0	0	0	0	63	0	0.3000000	5.0000000	4
5	S-CA%	0	0	0	0	0	0	63	0	0.1000000	20.000000	5
6	S-TI%	0	0	0	0	0	0	63	0	0.1000000	0.7000000	6
7	S-MN	0	0	0	0	0	0	63	0	150.00000	1500.0000	7
8	S-AG	62	0	0	0	0	0	1	0	0.5000000	0.5000000	8
9	S-AS	63	0	0	0	0	0	0	0			9
10	S-AU	63	0	0	0	0	0	0	0			10
11	S-B	0	0	0	0	0	0	63	0	20.000000	500.00000	11
12	S-BA	0	0	0	0	0	0	63	0	100.00000	1500.0000	12
13	S-BE	50	0	2	0	0	0	11	0	5.0000000	10.000000	13
14	S-BI	63	0	0	0	0	0	0	0			14
15	S-CD	63	0	0	0	0	0	0	0			15
16	S-CO	1	0	3	0	0	0	59	0	5.0000000	15.000000	16
17	S-CR	0	0	0	0	0	0	63	0	15.000000	200.00000	17
18	S-CU	0	0	0	0	0	0	63	0	7.0000000	150.00000	18
19	S-LA	0	0	0	0	0	0	63	0	20.000000	100.00000	19
20	S-MO	54	0	3	0	0	0	6	0	5.0000000	7.0000000	20
21	S-NB	45	0	7	0	0	0	11	0	20.000000	30.000000	21
22	S-NI	0	0	0	0	0	0	63	0	5.0000000	50.000000	22
23	S-PB	0	0	0	0	0	0	63	0	15.000000	70.000000	23
24	S-SB	63	0	0	0	0	0	0	0			24
25	S-SN	63	0	0	0	0	0	0	0			25
26	S-SR	3	0	16	0	0	0	44	0	100.00000	300.00000	26
27	S-V	0	0	0	0	0	0	63	0	20.000000	300.00000	27
28	S-W	62	0	1	0	0	0	0	0			28
29	S-Y	0	0	0	0	0	0	63	0	10.000000	200.00000	29
30	S-ZN	63	0	0	0	0	0	0	0			30
31	S-TH	63	0	0	0	0	0	0	0			31
32	AA-CD	34	0	0	0	1	0	28	0	0.1000000	0.6000000	32
33	AA-BI	40	0	2	0	1	0	20	0	2.0000000	10.000000	33
34	AA-SB	50	0	0	0	1	0	12	0	1.0000000	5.0000000	34
35	AA-ZN	0	0	0	0	0	0	63	0	25.000000	100.00000	35
36	AA-AS	13	0	19	0	1	0	30	0	5.0000000	20.000000	36
37	INST-HG	0	0	0	0	0	0	63	0	0.0200000	2.5000000	37
38	FLOUR-U	0	0	0	0	0	0	63	0	0.2500000	14.000000	38

Table 2. Fisher-K statistics on analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

NO	COLUMN	K1 MEAN	SQRT(K2) STD DEVIATION	K2 VARIANCE	K3	G1 SKEWNESS	K4	G2 KURTOSIS	NO
1	LATITUDE	31.826517	0.0435703	0.0018984	-9.32973270-06	-0.1127968	-2.28517350-06	-0.6340972	1
2	LONGITUD	110.41722	0.0413224	0.0017075	-2.56215310-06	-0.0363118	-3.94985800-06	-1.3546854	2
3	S-FE%	2.8523810	2.4060312	5.7889862	39.737053	2.8529351	353.92721	10.561094	3
4	S-MG%	1.1888889	0.9471708	0.8971326	1.4410236	1.6958448	2.5605379	3.1813973	4
5	S-CA%	4.1920635	4.7532095	22.593001	147.19889	1.3707040	549.92376	1.0773446	5
6	S-TI%	0.3507937	0.1622652	0.0263300	0.0024860	0.5818653	-2.70688720-04	-0.3904526	6
7	S-MN	712.69841	359.76787	129432.92	41751455.	0.8966119	5.22909720+09	0.3121312	7
8	S-AG	0.5000000							8
9	S-AS								9
10	S-AU								10
11	S-B	92.380952	68.620374	4708.7558	1202344.6	3.7210859	4.35764280+08	19.653473	11
12	S-BA	514.28571	316.02733	99873.272	51384292.	1.6280077	2.76649630+10	2.7735215	12
13	S-BE	6.0000000	1.6124515	2.6000000	7.3333333	1.7492078	20.600000	3.0473373	13
14	S-BI								14
15	S-CD								15
16	S-CO	8.7288136	3.2421284	10.511397	27.325817	0.8018304	-34.489460	-0.3121516	16
17	S-CR	65.714286	39.029116	1523.2719	65110.958	1.0951862	3448257.1	1.4860889	17
18	S-CU	23.857143	21.762543	473.60829	36708.771	3.5615652	3962962.1	17.667753	18
19	S-LA	64.920635	18.911766	357.65489	1734.9937	0.2565084	9566.7028	0.0747883	19
20	S-MO	5.3333333	0.8164966	0.6666667	1.3333333	2.4494897	2.6666667	6.0000000	20
21	S-NB	22.727273	4.6709937	21.818182	121.21212	1.1893734	-363.63636	-0.7638889	21
22	S-NI	16.349206	8.9174688	79.521249	798.81439	1.1264738	11894.035	1.8808874	22
23	S-PB	31.904762	12.776887	163.24885	3064.6767	1.4692966	53705.740	2.0152107	23
24	S-SB								24
25	S-SN								25
26	S-SR	179.54545	76.491512	5850.9514	239127.15	0.5343049	-37708562.	-1.1015063	26
27	S-V	83.015873	57.266635	3279.4675	544139.54	2.8973789	91937976.	8.5484678	27
28	S-W								28
29	S-Y	52.380952	41.258989	1702.3041	126504.27	1.8011482	8158623.9	2.8154161	29
30	S-ZN								30
31	S-TH								31
32	AA-CD	0.2214286	0.1257780	0.0158201	0.0027228	1.3683805	5.35124140-04	2.1381382	32
33	AA-BI	3.7000000	2.6177532	6.8526316	27.936842	1.5573680	74.707121	1.5909159	33
34	AA-SB	1.6666667	1.1547005	1.3333333	3.8303030	2.4878548	12.509091	7.0363636	34
35	AA-ZN	56.507937	16.205209	262.60881	2119.7695	0.4981094	-12633.201	-0.1831871	35
36	AA-AS	6.8333333	3.3433757	11.178161	88.936782	2.3797201	902.05939	7.2192888	36
37	INST-HG	0.0982540	0.3097738	0.0959598	0.2307039	7.7610560	0.5622383	61.057875	37
38	FLOUR-U	1.6444444	2.5560666	6.5334767	49.372734	2.9564508	414.06117	9.7000911	38

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

FREQUENCY TABLE FOR VARIABLE 3 (S-FE%)

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	0.20	0.20
-4.170E-01	-	-2.503E-01	2	2	3.17	3.17	0.82	1.71
-2.503E-01	-	-8.367E-02	1	3	1.59	4.76	2.79	1.15
-8.367E-02	-	8.300E-02	4	7	6.35	11.11	6.78	1.14
8.300E-02	-	2.497E-01	14	21	22.22	33.33	11.75	0.43
2.497E-01	-	4.163E-01	18	39	28.57	61.90	14.55	0.82
4.163E-01	-	5.830E-01	13	52	20.63	82.54	12.86	0.00
5.830E-01	-	7.497E-01	5	57	7.94	90.48	8.11	1.19
7.497E-01	-	9.163E-01	4	61	6.35	96.83	3.65	0.03
9.163E-01	-	1.083E+00	1	62	1.59	98.41	1.17	0.03
1.083E+00	-	1.250E+00	1	63	1.59	100.00	0.32	1.46
		G	0	63	0.00	100.00	0.20	0.20
		H	0	63				
		B	0	63				

TOTALS LESS H AND B 63

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

```
4.638E-01 XXX
6.808E-01 XX
9.992E-01 XXXXXX
1.467E+00 XXXXXXXXXXXXXXXXXXXXX
2.153E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+00 XXXXXXXXXXXXXXXXXXX
4.638E+00 XXXXXXXX
6.808E+00 XXXXXX
9.992E+00 XX
1.467E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-01
MAXIMUM ANTILOG = 1.50000E+01
GEOMETRIC MEAN = 2.26595E+00
GEOMETRIC DEVIATION = 1.91821E+00
VARIANCE OF LOGS = 8.00298E-02

25.00	1.871679E-01	1.538749E+00
50.00	3.468904E-01	2.222749E+00
75.00	5.221044E-01	3.327396E+00
90.00	7.396690E-01	5.491222E+00
95.00	8.684192E-01	7.386169E+00
98.00	1.039670E+00	1.095644E+01

PERCENT TABLE FOR VARIABLE 3 (S-FE%) 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

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 4 (S-MG%)

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	2.15	2.15
-5.840E-01 - -4.173E-01	3	3	4.76	4.76	4.28	0.38
-4.173E-01 - -2.507E-01	20	23	31.75	36.51	8.50	15.56
-2.507E-01 - -8.400E-02	10	33	15.87	52.38	12.51	0.50
-8.400E-02 - 8.267E-02	11	44	17.46	69.84	13.65	0.52
8.267E-02 - 2.493E-01	2	46	3.17	73.02	11.05	7.42
2.493E-01 - 4.160E-01	10	56	15.87	88.89	6.64	1.70
4.160E-01 - 5.827E-01	6	62	9.52	98.41	2.95	3.14
5.827E-01 - 7.493E-01	1	63	1.59	100.00	1.26	0.06
G	0	63	0.00	100.00	2.15	2.15
H	0	63				
B	0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 4 (S-MG%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E-01 XXXXX
4.634E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E-01 XXXXXXXXXXXXXXXX
9.985E-01 XXXXXXXXXXXXXXXXX
1.466E+00 XXX
2.151E+00 XXXXXXXXXXXXXXXX
3.157E+00 XXXXXXXXXX
4.634E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 3.00000E-01
MAXIMUM ANTILOG = 5.00000E+00
GEOMETRIC MEAN = 9.22265E-01
GEOMETRIC DEVIATION = 1.99987E+00
VARIANCE OF LOGS = 9.06025E-02

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE			
25.00	-3.110828E-01	4.885592E-01	90.00	4.354465E-01	2.725502E+00
50.00	-1.089990E-01	7.780383E-01	95.00	5.229466E-01	3.333855E+00
75.00	2.701684E-01	1.862809E+00	98.00	5.754468E-01	3.762242E+00

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 5 (S-CA%)

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	0.35	0.35
-1.084E+00	-9.173E-01	1	1	1.59	1.59	0.45	0.68
-9.173E-01	-7.507E-01	0	1	0.00	1.59	0.88	0.88
-7.507E-01	-5.840E-01	2	3	3.17	4.76	1.56	0.12
-5.840E-01	-4.173E-01	1	4	1.59	6.35	2.54	0.94
-4.173E-01	-2.507E-01	8	12	12.70	19.05	3.79	4.69
-2.507E-01	-8.400E-02	4	16	6.35	25.40	5.15	0.26
-8.400E-02	8.267E-02	7	23	11.11	36.51	6.40	0.06
8.267E-02	2.493E-01	7	30	11.11	47.62	7.27	0.01
2.493E-01	4.160E-01	7	37	11.11	58.73	7.55	0.04
4.160E-01	5.827E-01	6	43	9.52	68.25	7.16	0.19
5.827E-01	7.493E-01	3	46	4.76	73.02	6.20	1.65
7.493E-01	9.160E-01	1	47	1.59	74.60	4.91	3.11
9.160E-01	1.083E+00	12	59	19.05	93.65	3.55	20.10
1.083E+00	1.249E+00	3	62	4.76	98.41	2.35	0.18
1.249E+00	1.416E+00	1	63	1.59	100.00	2.90	1.24
G		0	63	0.00	100.00	0.35	0.35
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
9.985E-02 XX
1.466E-01
2.151E-01 XXX
3.157E-01 XX
4.634E-01 XXXXXXXXXXXX
6.802E-01 XXXXXX
9.985E-01 XXXXXXXXXX
1.466E+00 XXXXXXXXXX
2.151E+00 XXXXXXXXXX
3.157E+00 XXXXXXXXX
4.635E+00 XXXXX
6.803E+00 XX
9.985E+00 XXXXXXXXXXXXXXXXX
1.466E+01 XXXXX
2.151E+01 XX
```

GEOMETRIC DEVIATION = 3.57098E+00
VARIANCE OF LOGS = 3.05574E-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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-9.441469E-02	8.046098E-01
50.00	2.850503E-01	1.927748E+00
75.00	9.194762E-01	8.307612E+00
90.00	1.050726E+00	1.123897E+01
95.00	1.129893E+00	1.348631E+01
98.00	1.234894E+00	1.717487E+01

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E-01
MAXIMUM ANTILOG = 2.00000E+01
GEOMETRIC MEAN = 2.07903E+00

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 6 (S-TI%)

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	0.24	0.24
-1.084E+00	- -9.173E-01	4	4	6.35	6.35	1.56	3.79
-9.173E-01	- -7.507E-01	2	6	3.17	9.52	6.29	2.92
-7.507E-01	- -5.840E-01	11	17	17.46	26.98	14.40	0.80
-5.840E-01	- -4.173E-01	24	41	38.10	65.08	18.82	1.43
-4.173E-01	- -2.507E-01	17	58	26.98	92.06	14.04	0.62
-2.507E-01	- -8.400E-02	5	63	7.94	100.00	7.65	0.92
G		0	63	0.00	100.00	0.24	0.24
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
 9.985E-02 XXXXXX
 1.466E-01 XXX
 2.151E-01 XXXXXXXXXXXXXXXX
 3.157E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 4.634E-01 XXXXXXXXXXXXXXXXXXXXXXXXXX
 6.802E-01 XXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	1.00000E-01
MAXIMUM ANTILOG	=	7.00000E-01
GEOMETRIC MEAN	=	3.13036E-01
GEOMETRIC DEVIATION	=	1.64895E+00
VARIANCE OF LOGS	=	4.71796E-02

PERCENT TABLE FOR VARIABLE 6 (S-TI%) 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	-6.029384E-01	2.494948E-01
50.00	-4.833044E-01	3.286212E-01
75.00	-3.560574E-01	4.404967E-01
90.00	-2.634101E-01	5.452427E-01
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 7 (S-MN)

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	0.07	0.07
2.083E+00 -	2.250E+00	2	2	3.17	3.17	0.53	4.14
2.250E+00 -	2.416E+00	1	3	1.59	4.76	2.64	1.02
2.416E+00 -	2.583E+00	7	10	11.11	15.87	8.09	0.15
2.583E+00 -	2.750E+00	17	27	26.98	42.86	15.18	0.22
2.750E+00 -	2.916E+00	19	46	30.16	73.02	17.41	0.14
2.916E+00 -	3.083E+00	10	56	15.87	88.89	12.22	0.40
3.083E+00 -	3.250E+00	7	63	11.11	100.00	6.87	0.00
G		0	63	0.00	100.00	0.07	0.07
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
1.467E+02 XXX
2.153E+02 XX
3.160E+02 XXXXXXXXXX
4.638E+02 XXXXXXXXXXXXXXXXXXXXXXXXXX
6.808E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9.992E+02 XXXXXXXXXXXXXXX
1.467E+03 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.50000E+02
MAXIMUM ANTILOG      = 1.50000E+03
GEOMETRIC MEAN       = 6.25563E+02
GEOMETRIC DEVIATION  = 1.70901E+00
VARIANCE OF LOGS     = 5.41705E-02
```

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	2.639374E+00	4.358867E+02
50.00	2.789142E+00	6.153777E+02
75.00	2.937168E+00	8.653034E+02
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 11 (S-B)

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	0.23	0.23
1.250E+00 -	1.417E+00	1	1	1.59	1.59	1.25	0.05
1.417E+00 -	1.583E+00	4	5	6.35	7.94	4.71	0.11
1.583E+00 -	1.750E+00	13	18	20.63	28.57	11.16	0.30
1.750E+00 -	1.917E+00	19	37	30.16	58.73	16.63	0.34
1.917E+00 -	2.083E+00	16	53	25.40	84.13	15.57	0.01
2.083E+00 -	2.250E+00	4	57	6.35	90.48	9.16	2.91
2.250E+00 -	2.417E+00	5	62	7.94	98.41	3.39	0.77
2.417E+00 -	2.583E+00	0	62	0.00	98.41	0.79	0.79
2.583E+00 -	2.750E+00	1	63	1.59	100.00	0.13	6.12
G		0	63	0.00	100.00	0.23	0.23
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
2.154E+01 XX
3.162E+01 XXXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXXXXXXXXXXX
1.468E+02 XXXXXX
2.154E+02 XXXXXXXX
3.162E+02
4.642E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 5.00000E+02
GEOMETRIC MEAN = 7.81699E+01
GEOMETRIC DEVIATION = 1.73643E+00
VARIANCE OF LOGS = 5.74361E-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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.721155E+00	5.262048E+01
50.00	1.868422E+00	7.386221E+01
75.00	2.023439E+00	1.055453E+02
90.00	2.237502E+00	1.727834E+02
95.00	2.345002E+00	2.213106E+02
98.00	2.408002E+00	2.558600E+02

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 12 (S-BA)

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	0.11	0.11
1.916E+00 -	2.083E+00	1	1	1.59	1.59	0.66	0.17
2.083E+00 -	2.249E+00	2	3	3.17	4.76	2.84	0.25
2.249E+00 -	2.416E+00	6	9	9.52	14.29	7.87	0.45
2.416E+00 -	2.583E+00	15	24	23.81	38.10	14.15	0.05
2.583E+00 -	2.749E+00	26	50	41.27	79.37	16.47	5.51
2.749E+00 -	2.916E+00	4	54	6.35	85.71	12.43	5.72
2.916E+00 -	3.083E+00	6	60	9.52	95.24	6.08	0.00
3.083E+00 -	3.249E+00	3	63	4.76	100.00	2.38	0.16
G		0	63	0.00	100.00	0.11	0.11
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 12 (S-BA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+01 XX
1.466E+02 XXX
2.151E+02 XXXXXXXXXX
3.157E+02 XXXXXXXXXXXXXXXXXXXXXXX
4.634E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+02 XXXXXX
9.985E+02 XXXXXXXXXX
1.466E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+02
MAXIMUM ANTILOG      =  1.50000E+03
GEOMETRIC MEAN       =  4.37747E+02
GEOMETRIC DEVIATION  =  1.77176E+00
VARIANCE OF LOGS     =  6.17048E-02
```

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	2.491001E+00	3.097428E+02	90.00	2.991002E+00	9.794948E+02
50.00	2.630745E+00	4.273119E+02	95.00	3.078502E+00	1.198126E+03
75.00	2.731707E+00	5.391465E+02	98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

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		50	50	79.37	79.37		
L		2	52	3.17	82.54		
T		0	52	0.00	82.54	58.93	58.93
5.830E-01 -	7.497E-01	7	59	11.11	93.65	2.89	5.85
7.497E-01 -	9.163E-01	3	62	4.76	98.41	0.92	4.68
9.163E-01 -	1.083E+00	1	63	1.59	100.00	0.26	2.12
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
4.638E+00 XXXXXXXXXX
6.808E+00 XXXXX
9.992E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+00
MAXIMUM ANTILOG      = 1.00000E+01
GEOMETRIC MEAN       = 5.83700E+00
GEOMETRIC DEVIATION  = 1.26607E+00
VARIANCE OF LOGS     = 1.04976E-02
```

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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	7.968893E-01	6.264542E+00
98.00	9.018895E-01	7.977917E+00

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 16 (S-CO)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		1	1	1.59	1.59		
L		3	4	4.76	6.35		
T		0	4	0.00	6.35	1.48	1.48
5.830E-01 -	7.497E-01	12	16	19.05	25.40	9.45	0.69
7.497E-01 -	9.163E-01	20	36	31.75	57.14	23.22	0.45
9.163E-01 -	1.083E+00	18	54	28.57	85.71	21.00	0.43
1.083E+00 -	1.250E+00	9	63	14.29	100.00	7.85	0.17
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
4.638E+00 XXXXXXXXXXXXXXXXXX
6.808E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9.992E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+01 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+00
MAXIMUM ANTILOG      = 1.50000E+01
GEOMETRIC MEAN       = 8.18702E+00
GEOMETRIC DEVIATION  = 1.43030E+00
VARIANCE OF LOGS     = 2.41572E-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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	8.788339E-01	7.565435E+00
75.00	1.020501E+00	1.048337E+01
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 17 (S-CR)

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	0.60	0.60
1.083E+00 -	1.250E+00	4	4	6.35	6.35	1.94	2.20
1.250E+00 -	1.416E+00	6	10	9.52	15.87	5.33	0.08
1.416E+00 -	1.583E+00	5	15	7.94	23.81	10.39	2.80
1.583E+00 -	1.750E+00	18	33	28.57	52.38	14.32	0.94
1.750E+00 -	1.916E+00	13	46	20.63	73.02	13.97	0.07
1.916E+00 -	2.083E+00	12	58	19.05	92.06	9.64	0.58
2.083E+00 -	2.250E+00	4	62	6.35	98.41	4.71	0.11
2.250E+00 -	2.416E+00	1	63	1.59	100.00	2.10	0.58
G		0	63	0.00	100.00	0.60	0.60
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
1.467E+01 XXXXXX
2.153E+01 XXXXXXXXXX
3.160E+01 XXXXXXXX
4.638E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.808E+01 XXXXXXXXXXXXXXXXXXX
9.992E+01 XXXXXXXXXXXXXXXXXX
1.467E+02 XXXXXX
2.153E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E+01
MAXIMUM ANTILOG = 2.00000E+02
GEOMETRIC MEAN = 5.46522E+01
GEOMETRIC DEVIATION = 1.90205E+00
VARIANCE OF LOGS = 7.79655E-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	DATA VALUE	ANTI LOG OF VALUE			
25.00	1.589945E+00	3.889963E+01	90.00	2.064946E+00	1.161305E+02
50.00	1.735779E+00	5.442258E+01	95.00	2.160085E+00	1.445724E+02
75.00	1.933696E+00	8.584127E+01	98.00	2.238836E+00	1.733148E+02

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 18 (S-CU)

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	1.86	1.86
7.500E-01 -	9.167E-01	4	4	6.35	6.35	4.37	0.03
9.167E-01 -	1.083E+00	12	16	19.05	25.40	9.25	0.81
1.083E+00 -	1.250E+00	17	33	26.98	52.38	13.81	0.73
1.250E+00 -	1.417E+00	14	47	22.22	74.60	14.54	0.02
1.417E+00 -	1.583E+00	5	52	7.94	82.54	10.79	3.11
1.583E+00 -	1.750E+00	9	61	14.29	96.83	5.64	2.00
1.750E+00 -	1.917E+00	1	62	1.59	98.41	2.08	0.56
1.917E+00 -	2.083E+00	0	62	0.00	98.41	0.54	0.54
2.083E+00 -	2.250E+00	1	63	1.59	100.00	0.11	6.98
G		0	63	0.00	100.00	1.86	1.86
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
6.813E+00 XXXXXX
1.000E+01 XXXXXXXXXXXXXXXXXX
1.468E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
2.154E+01 XXXXXXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXX
4.642E+01 XXXXXXXXXXXXX
6.813E+01 XX
1.000E+02
1.468E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E+00
MAXIMUM ANTILOG = 1.50000E+02
GEOMETRIC MEAN = 1.88096E+01
GEOMETRIC DEVIATION = 1.89543E+00
VARIANCE OF LOGS = 7.71216E-02

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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.079862E+00	1.201882E+01
50.00	1.235295E+00	1.719076E+01
75.00	1.425001E+00	2.660733E+01
90.00	1.670372E+00	4.681362E+01
95.00	1.728706E+00	5.354336E+01
98.00	1.873336E+00	7.470257E+01

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 19 (S-LA)

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	0.00	0.00
1.250E+00 -	1.417E+00	1	1	1.59	1.59	0.21	3.00
1.417E+00 -	1.583E+00	3	4	4.76	6.35	3.93	0.22
1.583E+00 -	1.750E+00	21	25	33.33	39.68	19.79	0.07
1.750E+00 -	1.917E+00	29	54	46.03	85.71	27.41	0.09
1.917E+00 -	2.083E+00	9	63	14.29	100.00	11.65	0.60
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 19 (S-LA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01 XXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 2.00000E+01
MAXIMUM ANTILOG      = 1.00000E+02
GEOMETRIC MEAN       = 6.19953E+01
GEOMETRIC DEVIATION  = 1.37601E+00
VARIANCE OF LOGS     = 1.92155E-02
```

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.676588E+00	4.748847E+01
50.00	1.787357E+00	6.128545E+01
75.00	1.877875E+00	7.548746E+01
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 20 (S-MO)

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		54	54	85.71	85.71		
L		3	57	4.76	90.48		
T		0	57	0.00	90.48	0.00	0.00
5.830E-01 -	7.497E-01	5	62	7.94	98.41	62.73	53.13
7.497E-01 -	9.163E-01	1	63	1.59	100.00	0.27	1.96
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

4.638E+00 XXXXXXXX
6.808E+00 XX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
MAXIMUM ANTILOG = 7.00000E+00
GEOMETRIC MEAN = 5.28840E+00
GEOMETRIC DEVIATION = 1.14725E+00
VARIANCE OF LOGS = 3.55889E-03

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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 21 (S-NB)

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		45	45	71.43	71.43		
L		7	52	11.11	82.54		
T		0	52	0.00	82.54	3.65	3.65
1.250E+00 -	1.417E+00	8	60	12.70	95.24	59.20	44.28
1.417E+00 -	1.583E+00	3	63	4.76	100.00	0.14	56.95
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
 2.154E+01 XXXXXXXXXXXX
 3.162E+01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 3.00000E+01
GEOMETRIC MEAN = 2.23385E+01
GEOMETRIC DEVIATION = 1.20851E+00
VARIANCE OF LOGS = 6.76537E-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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 22 (S-NI)

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	0.62	0.62
5.830E-01 -	7.497E-01	6	6	9.52	9.52	2.51	4.84
7.497E-01 -	9.163E-01	5	11	7.94	17.46	7.46	0.81
9.163E-01 -	1.083E+00	13	24	20.63	38.10	14.07	0.08
1.083E+00 -	1.250E+00	15	39	23.81	61.90	16.88	0.21
1.250E+00 -	1.416E+00	13	52	20.63	82.54	12.87	0.00
1.416E+00 -	1.583E+00	10	62	15.87	98.41	6.24	2.27
1.583E+00 -	1.750E+00	1	63	1.59	100.00	2.35	0.77
G		0	63	0.00	100.00	0.62	0.62
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

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

```
4.638E+00 XXXXXXXXX
6.808E+00 XXXXXXXX
9.992E+00 XXXXXXXXXXXXXXXXXXXX
1.467E+01 XXXXXXXXXXXXXXXXXXXXXXX
2.153E+01 XXXXXXXXXXXXXXXXXXXX
3.160E+01 XXXXXXXXXXXXXXX
4.638E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+00
MAXIMUM ANTILOG      = 5.00000E+01
GEOMETRIC MEAN       = 1.41224E+01
GEOMETRIC DEVIATION  = 1.74918E+00
VARIANCE OF LOGS     = 5.89692E-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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	9.772316E-01	9.489243E+00
50.00	1.166335E+00	1.466677E+01
75.00	1.355437E+00	2.266927E+01
90.00	1.494668E+00	3.123694E+01
95.00	1.547169E+00	3.525077E+01
98.00	1.578669E+00	3.790257E+01

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 23 (S-PB)

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	0.37	0.37
1.083E+00 - 1.250E+00	2	2	3.17	3.17	4.27	1.20
1.250E+00 - 1.416E+00	15	17	23.81	26.98	17.62	0.39
1.416E+00 - 1.583E+00	34	51	53.97	80.95	25.44	2.88
1.583E+00 - 1.750E+00	9	60	14.29	95.24	12.90	1.18
1.750E+00 - 1.916E+00	3	63	4.76	100.00	2.42	0.14
G	0	63	0.00	100.00	0.37	0.37
H	0	63				
B	0	63				

TOTALS LESS H AND B 63

```
HISTOGRAM FOR VARIABLE  23 (S-PB     )
    MIDPOINTS ARE EXPRESSED AS ANTILOGS

     1.467E+01 XXX
     2.153E+01 XXXXXXXXXXXXXXXXXXXXXXXX
     3.160E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
     4.638E+01 XXXXXXXXXXXXXX
     6.808E+01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E+01
MAXIMUM ANTILOG = 7.00000E+01
GEOMETRIC MEAN = 2.98438E+01
GEOMETRIC DEVIATION = 1.42986E+00
VARIANCE OF LOGS = 2.41162E-02

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.402445E+00	2.526068E+01
50.00	1.487413E+00	3.071939E+01
75.00	1.564619E+00	3.669599E+01
90.00	1.688557E+00	4.881539E+01
95.00	1.746890E+00	5.583290E+01
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 26 (S-SR)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		3	3	4.76	4.76		
	L		16	19	25.40	30.16		
	T		0	19	0.00	30.16	6.34	6.34
1.916E+00	-	2.083E+00	15	34	23.81	53.97	16.06	0.07
2.083E+00	-	2.249E+00	8	42	12.70	66.67	21.98	8.89
2.249E+00	-	2.416E+00	11	53	17.46	84.13	13.94	0.62
2.416E+00	-	2.583E+00	10	63	15.87	100.00	4.68	6.05
	G		0	63	0.00	100.00	0.00	0.00
	H		0	63				
	B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 26 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+01 XXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02 XXXXXXXXXXXXX
2.151E+02 XXXXXXXXXXXXXXXXX
3.157E+02 XXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.00000E+02
MAXIMUM ANTILOG      = 3.00000E+02
GEOMETRIC MEAN       = 1.64328E+02
GEOMETRIC DEVIATION  = 1.53159E+00
VARIANCE OF LOGS     = 3.42777E-02
```

PERCENT TABLE FOR VARIABLE 26 (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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	2.328880E+00	2.132454E+02
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 27 (S-V)

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	0.14	0.14
1.250E+00	-	1.417E+00	1	1	1.59	1.59	1.08	0.01
1.417E+00	-	1.583E+00	3	4	4.76	6.35	5.02	0.82
1.583E+00	-	1.750E+00	13	17	20.63	26.98	13.07	0.00
1.750E+00	-	1.917E+00	31	48	49.21	76.19	19.02	7.54
1.917E+00	-	2.083E+00	10	58	15.87	92.06	15.51	1.96
2.083E+00	-	2.250E+00	0	58	0.00	92.06	7.08	7.08
2.250E+00	-	2.417E+00	2	60	3.17	95.24	1.81	0.02
2.417E+00	-	2.583E+00	3	63	4.76	100.00	0.28	26.60
	G		0	63	0.00	100.00	0.14	0.14
	H		0	63				
	B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 27 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01 XXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXX
1.468E+02
2.154E+02 XXX
3.162E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 3.00000E+02
GEOMETRIC MEAN = 7.21014E+01
GEOMETRIC DEVIATION = 1.63456E+00
VARIANCE OF LOGS = 4.55397E-02

PERCENT TABLE FOR VARIABLE 27 (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	1.733975E+00	5.419701E+01	90.00	2.061668E+00	1.152573E+02
50.00	1.827958E+00	6.729118E+01	95.00	2.391669E+00	2.464160E+02
75.00	1.912636E+00	8.177786E+01	98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 29 (S-Y)

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	0.49	0.49
9.160E-01	-	1.083E+00	2	2	3.17	3.17	1.57	0.12
1.083E+00	-	1.249E+00	0	2	0.00	3.17	4.40	4.40
1.249E+00	-	1.416E+00	10	12	15.87	19.05	8.94	0.13
1.416E+00	-	1.583E+00	22	34	34.92	53.97	13.17	5.93
1.583E+00	-	1.749E+00	13	47	20.63	74.60	14.06	0.08
1.749E+00	-	1.916E+00	6	53	9.52	84.13	10.88	2.19
1.916E+00	-	2.083E+00	4	57	6.35	90.48	6.10	0.72
2.083E+00	-	2.249E+00	5	62	7.94	98.41	2.48	2.56
2.249E+00	-	2.416E+00	1	63	1.59	100.00	0.91	0.01
	G		0	63	0.00	100.00	0.49	0.49
	H		0	63				
	B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 29 (S-Y)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXX
1.466E+01
2.151E+01 XXXXXXXXXXXXXXXX
3.157E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01 XXXXXXXXXXXXXXXXXXXX
6.802E+01 XXXXXXXXXX
9.985E+01 XXXXXX
1.466E+02 XXXXXXXX
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 = 4.13616E+01
GEOMETRIC DEVIATION = 1.94898E+00
VARIANCE OF LOGS = 8.39883E-02

PERCENT TABLE FOR VARIABLE 29 (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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE			
			50.00	1.563729E+00	3.662086E+01
			75.00	1.756279E+00	5.705313E+01
			90.00	2.070169E+00	1.175355E+02
25.00	1.444410E+00	2.782340E+01	95.00	2.177669E+00	1.505460E+02
			98.00	2.240669E+00	1.740481E+02

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 32 (AA-CD)

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	34	34	54.84	54.84		
	L	0	34	0.00	54.84		
	T	0	34	0.00	54.84	9.73	9.73
-1.084E+00	-9.173E-01	9	43	14.52	69.35	15.96	3.04
-9.173E-01	-7.507E-01	0	43	0.00	69.35	18.78	18.78
-7.507E-01	-5.840E-01	10	53	16.13	85.48	12.20	0.40
-5.840E-01	-4.173E-01	6	59	9.68	95.16	4.37	0.61
-4.173E-01	-2.507E-01	2	61	3.23	98.39	0.86	1.50
-2.507E-01	-8.400E-02	1	62	1.61	100.00	0.10	8.16
	G	0	62	0.00	100.00	0.00	0.00
	H	0	62				
	B	1	63				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 32 (AA-CD)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 9.985E-02 XXXXXXXXXXXXXX
 1.466E-01
 2.151E-01 XXXXXXXXXXXXXXX
 3.157E-01 XXXXXXXXXX
 4.634E-01 XXX
 6.802E-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E-01
MAXIMUM ANTILOG      =  6.00000E-01
GEOMETRIC MEAN       =  1.92312E-01
GEOMETRIC DEVIATION  =  1.71137E+00
VARIANCE OF LOGS     =  5.44492E-02
```

PERCENT TABLE FOR VARIABLE 32 (AA-CD) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,
THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	-8.006661E-01	1.582464E-01
90.00	-5.062211E-01	3.117302E-01
95.00	-4.201098E-01	3.800933E-01
98.00	-2.706650E-01	5.362101E-01

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 33 (AA-BI)

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		40	40	64.52	64.52		
L		2	42	3.23	67.74		
T		0	42	0.00	67.74	15.69	15.69
2.500E-01 -	4.167E-01	12	54	19.35	87.10	23.36	5.52
4.167E-01 -	5.833E-01	0	54	0.00	87.10	17.24	17.24
5.833E-01 -	7.500E-01	3	57	4.84	91.94	5.09	0.86
7.500E-01 -	9.167E-01	3	60	4.84	96.77	0.60	9.69
9.167E-01 -	1.083E+00	2	62	3.23	100.00	0.03	139.42
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		1	63				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 33 (AA-BI)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 2.154E+00 XXXXXXXXXXXXXXXXXX
 3.162E+00
 4.642E+00 XXXXX
 6.813E+00 XXXXX
 1.000E+01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+00
MAXIMUM ANTILOG = 1.00000E+01
GEOMETRIC MEAN = 3.07362E+00
GEOMETRIC DEVIATION = 1.79883E+00
VARIANCE OF LOGS = 6.50195E-02

PERCENT TABLE FOR VARIABLE 33 (AA-BI) 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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	6.166674E-01	4.136827E+00
95.00	8.555568E-01	7.170621E+00
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 34 (AA-SB)

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	50	50	80.65	80.65		
	L	0	50	0.00	80.65		
	T	0	50	0.00	80.65	9.74	9.74
-8.400E-02	- 8.267E-02	7	57	11.29	91.94	32.15	19.68
8.267E-02	- 2.493E-01	0	57	0.00	91.94	18.39	18.39
2.493E-01	- 4.160E-01	4	61	6.45	98.39	1.69	3.18
4.160E-01	- 5.827E-01	0	61	0.00	98.39	0.00	0.00
5.827E-01	- 7.493E-01	1	62	1.61	100.00	0.02	42.55
	G	0	62	0.00	100.00	0.00	0.00
	H	0	62				
	B	1	63				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 34 (AA-SB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E-01 XXXXXXXXXXX
1.466E+00
2.151E+00 XXXXXX
3.157E+00
4.634E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+00
MAXIMUM ANTILOG      =  5.00000E+00
GEOMETRIC MEAN       =  1.44076E+00
GEOMETRIC DEVIATION  =  1.67282E+00
VARIANCE OF LOGS     =  4.99293E-02
```

PERCENT TABLE FOR VARIABLE 34 (AA-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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	2.410007E-01	1.741810E+00
98.00	3.960010E-01	2.488863E+00

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 35 (AA-ZN)

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	0.00	0.00
1.250E+00 -	1.417E+00	1	1	1.59	1.59	0.37	1.08
1.417E+00 -	1.583E+00	7	8	11.11	12.70	6.92	0.00
1.583E+00 -	1.750E+00	28	36	44.44	57.14	27.31	0.02
1.750E+00 -	1.917E+00	21	57	33.33	90.48	23.72	0.31
1.917E+00 -	2.083E+00	6	63	9.52	100.00	4.68	0.37
G		0	63	0.00	100.00	0.00	0.00
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 35 (AA-ZN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01 XXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.50000E+01
MAXIMUM ANTILOG = 1.00000E+02
GEOMETRIC MEAN = 5.42484E+01
GEOMETRIC DEVIATION = 1.33723E+00
VARIANCE OF LOGS = 1.59281E-02

PERCENT TABLE FOR VARIABLE 35 (AA-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	1.629465E+00	4.260544E+01
50.00	1.723215E+00	5.287072E+01
75.00	1.839287E+00	6.906959E+01
90.00	1.914287E+00	8.208939E+01
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 36 (AA-AS)

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		13	13	20.97	20.97		
L		19	32	30.65	51.61		
T		0	32	0.00	51.61	5.75	5.75
5.830E-01 -	7.497E-01	21	53	33.87	85.48	25.68	0.85
7.497E-01 -	9.163E-01	0	53	0.00	85.48	25.17	25.17
9.163E-01 -	1.083E+00	8	61	12.90	98.39	5.18	1.53
1.083E+00 -	1.250E+00	0	61	0.00	98.39	0.21	0.21
1.250E+00 -	1.416E+00	1	62	1.61	100.00	0.00	607.29
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		1	63				

TOTALS LESS H AND B 62

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

```
4.638E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.808E+00
9.992E+00 XXXXXXXXXXXX
1.467E+01
2.153E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+00
MAXIMUM ANTILOG = 2.00000E+01
GEOMETRIC MEAN = 6.29961E+00
GEOMETRIC DEVIATION = 1.46071E+00
VARIANCE OF LOGS = 2.70816E-02

PERCENT TABLE FOR VARIABLE 36 (AA-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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	8.663339E-01	7.350788E+00
95.00	9.955008E-01	9.896938E+00
98.00	1.073001E+00	1.183044E+01

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 37 (INST-HG)

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	3.48	3.48
-1.750E+00	-1.583E+00	4	4	6.35	6.35	5.73	0.52
-1.583E+00	-1.417E+00	9	13	14.29	20.63	10.01	0.10
-1.417E+00	-1.250E+00	23	36	36.51	57.14	13.12	7.45
-1.250E+00	-1.083E+00	16	52	25.40	82.54	12.89	0.75
-1.083E+00	-9.167E-01	7	59	11.11	93.65	9.49	0.66
-9.167E-01	-7.500E-01	2	61	3.17	96.83	5.25	2.01
-7.500E-01	-5.833E-01	1	62	1.59	98.41	2.17	0.63
-5.833E-01	-4.167E-01	0	62	0.00	98.41	0.67	0.67
-4.167E-01	-2.500E-01	0	62	0.00	98.41	0.16	0.16
-2.500E-01	-8.333E-02	0	62	0.00	98.41	0.03	0.03
-8.333E-02	8.334E-02	0	62	0.00	98.41	0.00	0.00
8.334E-02	2.500E-01	0	62	0.00	98.41	0.00	0.00
2.500E-01	4.167E-01	1	63	1.59	100.00	0.00	250.88
G		0	63	0.00	100.00	3.48	3.48
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 37 (INST-HG)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E-02 XXXXXX
3.162E-02 XXXXXXXXXXXXX
4.642E-02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E-02 XXXXXXXXXXXXXXXXXXXXXXXXX
1.000E-01 XXXXXXXXXXX
1.468E-01 XXX
2.154E-01 XX
3.162E-01
4.642E-01
6.813E-01
1.000E+00
1.468E+00
2.154E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E-02
MAXIMUM ANTILOG = 2.50000E+00
GEOMETRIC MEAN = 5.49273E-02
GEOMETRIC DEVIATION = 2.02707E+00
VARIANCE OF LOGS = 9.41682E-02

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

PERCENT TABLE FOR VARIABLE 37 (INST-HG) 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	-1.396738E+00	4.011082E-02
50.00	-1.282608E+00	5.216656E-02
75.00	-1.132811E+00	7.365271E-02
90.00	-9.714270E-01	1.068004E-01
95.00	-8.458315E-01	1.426161E-01
98.00	-6.266644E-01	2.362303E-01

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 38 (FLOUR-U)

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	3.16	3.16
-7.500E-01	-5.833E-01	2	2	3.17	3.17	3.52	0.66
-5.833E-01	-4.167E-01	4	6	6.35	9.52	5.73	0.52
-4.167E-01	-2.500E-01	21	27	33.33	42.86	7.99	21.17
-2.500E-01	-8.333E-02	16	43	25.40	68.25	9.55	4.35
-8.333E-02	8.333E-02	6	49	9.52	77.78	9.78	1.46
8.333E-02	2.500E-01	2	51	3.17	80.95	8.59	5.05
2.500E-01	4.167E-01	1	52	1.59	82.54	6.46	4.62
4.167E-01	5.833E-01	1	53	1.59	84.13	4.17	2.41
5.833E-01	7.500E-01	4	57	6.35	90.48	2.30	1.25
7.500E-01	9.167E-01	3	60	4.76	95.24	1.09	3.35
9.167E-01	1.083E+00	2	62	3.17	98.41	0.44	5.49
1.083E+00	1.250E+00	1	63	1.59	100.00	0.21	2.88
G		0	63	0.00	100.00	3.16	3.16
H		0	63				
B		0	63				

TOTALS LESS H AND B 63

HISTOGRAM FOR VARIABLE 38 (FLOUR-U)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E-01 XXX
3.162E-01 XXXXXX
4.642E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E-01 XXXXXXXXXXXXXXXXXXXXXXXX
1.000E+00 XXXXXXXXXX
1.468E+00 XXX
2.154E+00 XX
3.162E+00 XX
4.642E+00 XXXXXX
6.813E+00 XXXXX
1.000E+01 XXX
1.468E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.50000E-01
MAXIMUM ANTILOG = 1.40000E+01
GEOMETRIC MEAN = 8.76191E-01
GEOMETRIC DEVIATION = 2.63917E+00
VARIANCE OF LOGS = 1.77635E-01

PERCENT TABLE FOR VARIABLE 38 (FLOUR-U) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION,

Table 3. Frequency tables and histograms of analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-3.392849E-01	4.578414E-01
50.00	-2.031239E-01	6.264351E-01
75.00	3.472379E-02	1.083238E+00
90.00	7.375030E-01	5.463903E+00
95.00	9.083366E-01	8.097233E+00
98.00	1.061670E+00	1.152578E+01

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona.

ARRAY OF MEANS -

		1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1	LATITUDE	31.8265	31.8265	31.8265	31.8265	31.8265	31.8265	31.8265	31.8319	**********	**********
2	LONGITUD	110.4172	110.4172	110.4172	110.4172	110.4172	110.4172	110.4172	110.3944	**********	**********
3	S-FE%	2.8524	2.8524	2.8524	2.8524	2.8524	2.8524	2.8524	5.0000	**********	**********
4	S-MG%	1.1889	1.1889	1.1889	1.1889	1.1889	1.1889	1.1889	2.0000	**********	**********
5	S-CA%	4.1921	4.1921	4.1921	4.1921	4.1921	4.1921	4.1921	3.0000	**********	**********
6	S-TI%	0.3508	0.3508	0.3508	0.3508	0.3508	0.3508	0.3508	0.5000	**********	**********
7	S-MN	712.6984	712.6984	712.6984	712.6984	712.6984	712.6984	712.6984	1000.0000	**********	**********
8	S-AG	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	92.3810	92.3810	92.3810	92.3810	92.3810	92.3810	92.3810	100.0000	**********	**********
12	S-BA	514.2857	514.2857	514.2857	514.2857	514.2857	514.2857	514.2857	700.0000	**********	**********
13	S-BE	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	6.0000	**********	**********	**********
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	8.7288	8.7288	8.7288	8.7288	8.7288	8.7288	8.7288	10.0000	**********	**********
17	S-CR	65.7143	65.7143	65.7143	65.7143	65.7143	65.7143	65.7143	50.0000	**********	**********
18	S-CU	23.8571	23.8571	23.8571	23.8571	23.8571	23.8571	23.8571	50.0000	**********	**********
19	S-LA	64.9206	64.9206	64.9206	64.9206	64.9206	64.9206	64.9206	70.0000	**********	**********
20	S-MO	5.3333	5.3333	5.3333	5.3333	5.3333	5.3333	5.3333	5.0000	**********	**********
21	S-NB	22.7273	22.7273	22.7273	22.7273	22.7273	22.7273	22.7273	**********	**********	**********
22	S-NI	16.3492	16.3492	16.3492	16.3492	16.3492	16.3492	16.3492	20.0000	**********	**********
23	S-PB	31.9048	31.9048	31.9048	31.9048	31.9048	31.9048	31.9048	50.0000	**********	**********
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	179.5455	179.5455	179.5455	179.5455	179.5455	179.5455	179.5455	100.0000	**********	**********
27	S-V	83.0159	83.0159	83.0159	83.0159	83.0159	83.0159	83.0159	100.0000	**********	**********
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	52.3810	52.3810	52.3810	52.3810	52.3810	52.3810	52.3810	70.0000	**********	**********
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0.2214	0.2214	0.2214	0.2214	0.2214	0.2214	0.2214	0.1000	**********	**********
33	AA-BI	3.7000	3.7000	3.7000	3.7000	3.7000	3.7000	3.7000	**********	**********	**********
34	AA-SB	1.6667	1.6667	1.6667	1.6667	1.6667	1.6667	1.6667	**********	**********	**********
35	AA-ZN	56.5079	56.5079	56.5079	56.5079	56.5079	56.5079	56.5079	80.0000	**********	**********
36	AA-AS	6.8333	6.8333	6.8333	6.8333	6.8333	6.8333	6.8333	5.0000	**********	**********
37	INST-HG	0.0983	0.0983	0.0983	0.0983	0.0983	0.0983	0.0983	0.1200	**********	**********
38	FLOUR-U	1.6444	1.6444	1.6444	1.6444	1.6444	1.6444	1.6444	0.4000	**********	**********

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	31.8265	31.8265	31.8813	**********	**********	31.8260	31.8265	31.8265	31.8265	31.8203
2	LONGITUD	110.4172	110.4172	110.4166	**********	**********	110.4162	110.4172	110.4172	110.4172	110.4397
3	S-FE%	2.8524	2.8524	5.2273	**********	**********	2.9831	2.8524	2.8524	2.8524	2.2500
4	S-MG%	1.1889	1.1889	0.5909	**********	**********	1.2390	1.1889	1.1889	1.1889	0.9167
5	S-CA%	4.1921	4.1921	0.7818	**********	**********	4.3627	4.1921	4.1921	4.1921	2.2500
6	S-TI%	0.3508	0.3508	0.5545	**********	**********	0.3644	0.3508	0.3508	0.3508	0.3333
7	S-MN	712.6984	712.6984	1236.3636	**********	**********	735.5932	712.6984	712.6984	712.6984	816.6667
8	S-AG	0.5000	0.5000	**********	**********	**********	0.5000	0.5000	0.5000	0.5000	0.5000
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	92.3810	92.3810	133.6364	**********	**********	93.3898	92.3810	92.3810	92.3810	80.0000
12	S-BA	514.2857	514.2857	372.7273	**********	**********	524.5763	514.2857	514.2857	514.2857	900.0000
13	S-BE	6.0000	6.0000	6.0000	**********	**********	6.0000	6.0000	6.0000	6.0000	5.0000
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	8.7288	8.7288	9.9091	**********	**********	8.7288	8.7288	8.7288	8.7288	9.8333
17	S-CR	65.7143	65.7143	71.3636	**********	**********	68.3898	65.7143	65.7143	65.7143	34.1667
18	S-CU	23.8571	23.8571	39.0909	**********	**********	24.9492	23.8571	23.8571	23.8571	25.8333
19	S-LA	64.9206	64.9206	84.5455	**********	**********	66.2712	64.9206	64.9206	64.9206	66.6667
20	S-MO	5.3333	5.3333	5.0000	**********	**********	5.3333	5.3333	5.3333	5.3333	5.3333
21	S-NB	22.7273	22.7273	23.7500	**********	**********	22.7273	22.7273	22.7273	22.7273	20.0000
22	S-NI	16.3492	16.3492	10.9091	**********	**********	16.8305	16.3492	16.3492	16.3492	12.5000
23	S-PB	31.9048	31.9048	42.7273	**********	**********	32.6271	31.9048	31.9048	31.9048	38.3333
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	179.5455	179.5455	100.0000	**********	**********	183.3333	179.5455	179.5455	179.5455	190.0000
27	S-V	83.0159	83.0159	99.0909	**********	**********	86.4407	83.0159	83.0159	83.0159	81.6667
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	52.3810	52.3810	129.0909	**********	**********	54.7458	52.3810	52.3810	52.3810	50.0000
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0.2214	0.2214	0.1889	**********	**********	0.2231	0.2214	0.2214	0.2214	0.2000
33	AA-BI	3.7000	3.7000	4.6000	**********	**********	3.7895	3.7000	3.7000	3.7000	**********
34	AA-SB	1.6667	1.6667	**********	**********	**********	1.6667	1.6667	1.6667	1.6667	1.0000
35	AA-ZN	56.5079	56.5079	77.2727	**********	**********	57.7119	56.5079	56.5079	56.5079	68.3333
36	AA-AS	6.8333	6.8333	5.0000	**********	**********	7.0370	6.8333	6.8333	6.8333	10.0000
37	INST-HG	0.0983	0.0983	0.0536	**********	**********	0.0605	0.0983	0.0983	0.0983	0.0600
38	FLOUR-U	1.6444	1.6444	6.3636	**********	**********	1.7237	1.6444	1.6444	1.6444	1.1083

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	31.8720	31.8265	31.8265	**********	**********	31.8143	31.8265	**********	31.8265	**********
2	LONGITUD	110.4122	110.4172	110.4172	**********	**********	110.4245	110.4172	**********	110.4172	**********
3	S-FE%	5.1364	2.8524	2.8524	**********	**********	2.2659	2.8524	**********	2.8524	**********
4	S-MG%	0.6091	1.1889	1.1889	**********	**********	1.4523	1.1889	**********	1.1889	**********
5	S-CA%	1.0364	4.1921	4.1921	**********	**********	5.5341	4.1921	**********	4.1921	**********
6	S-TI%	0.5000	0.3508	0.3508	**********	**********	0.3091	0.3508	**********	0.3508	**********
7	S-MN	1072.7273	712.6984	712.6984	**********	**********	635.2273	712.6984	**********	712.6984	**********
8	S-AG	**********	0.5000	0.5000	**********	**********	0.5000	0.5000	**********	0.5000	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	133.6364	92.3810	92.3810	**********	**********	69.5455	92.3810	**********	92.3810	**********
12	S-BA	427.2727	514.2857	514.2857	**********	**********	551.1364	514.2857	**********	514.2857	**********
13	S-BE	6.1250	6.0000	6.0000	**********	**********	7.0000	6.0000	**********	6.0000	**********
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	9.6364	8.7288	8.7288	**********	**********	8.3571	8.7288	**********	8.7288	**********
17	S-CR	73.1818	65.7143	65.7143	**********	**********	61.7045	65.7143	**********	65.7143	**********
18	S-CU	34.0909	23.8571	23.8571	**********	**********	23.0909	23.8571	**********	23.8571	**********
19	S-LA	76.3636	64.9206	64.9206	**********	**********	63.1818	64.9206	**********	64.9206	**********
20	S-MO	5.0000	5.3333	5.3333	**********	**********	5.4000	5.3333	**********	5.3333	**********
21	S-NB	22.7273	22.7273	22.7273	**********	**********	20.0000	22.7273	**********	22.7273	**********
22	S-NI	14.5455	16.3492	16.3492	**********	**********	16.9545	16.3492	**********	16.3492	**********
23	S-PB	44.5455	31.9048	31.9048	**********	**********	31.4773	31.9048	**********	31.9048	**********
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	100.0000	179.5455	179.5455	**********	**********	179.5455	179.5455	**********	179.5455	**********
27	S-V	95.4545	83.0159	83.0159	**********	**********	81.5909	83.0159	**********	83.0159	**********
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	108.1818	52.3810	52.3810	**********	**********	37.7273	52.3810	**********	52.3810	**********
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0.2143	0.2214	0.2214	**********	**********	0.2250	0.2214	**********	0.2214	**********
33	AA-BI	4.0000	3.7000	3.7000	**********	**********	2.7500	3.7000	**********	3.7000	**********
34	AA-SB	**********	1.6667	1.6667	**********	**********	1.6667	1.6667	**********	1.6667	**********
35	AA-ZN	70.0000	56.5079	56.5079	**********	**********	54.4318	56.5079	**********	56.5079	**********
36	AA-AS	5.0000	6.8333	6.8333	**********	**********	7.1154	6.8333	**********	6.8333	**********
37	INST-HG	0.0600	0.0983	0.0983	**********	**********	0.0618	0.0983	**********	0.0983	**********
38	FLOUR-U	4.0182	1.6444	1.6444	**********	**********	1.0216	1.6444	**********	1.6444	**********

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		31	32	33	34	35	36	37	38
		S-TH	AA-CD	AA-BI	AA-SB	AA-ZN	AA-AS	INST-HG	FLOUR-U
1	LATITUDE	**********	31.8426	31.8427	31.8294	31.8265	31.8190	31.8265	31.8265
2	LONGITUD	**********	110.4187	110.3952	110.4374	110.4172	110.4337	110.4172	110.4172
3	S-FE%	**********	3.2036	4.7500	2.1250	2.8524	2.3067	2.8524	2.8524
4	S-MG%	**********	1.4107	0.6650	2.2917	1.1889	1.5233	1.1889	1.1889
5	S-CA%	**********	5.4607	1.5700	9.2083	4.1921	5.8133	4.1921	4.1921
6	S-TI%	**********	0.3696	0.4750	0.2708	0.3508	0.2750	0.3508	0.3508
7	S-MN	**********	844.6429	995.0000	558.3333	712.6984	626.6667	712.6984	712.6984
8	S-AG	**********	0.5000	**********	**********	0.5000	0.5000	0.5000	0.5000
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	**********	95.3571	139.5000	66.6667	92.3810	67.0000	92.3810	92.3810
12	S-BA	**********	475.0000	415.0000	354.1667	514.2857	543.3333	514.2857	514.2857
13	S-BE	**********	6.2222	6.1000	**********	6.0000	6.0000	6.0000	6.0000
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	**********	9.3846	9.8421	8.7500	8.7288	8.8148	8.7288	8.7288
17	S-CR	**********	69.4643	82.5000	80.0000	65.7143	59.5000	65.7143	65.7143
18	S-CU	**********	28.3571	39.5000	29.1667	23.8571	24.2667	23.8571	23.8571
19	S-LA	**********	70.3571	71.5000	60.0000	64.9206	62.0000	64.9206	64.9206
20	S-MO	**********	5.5000	**********	5.0000	5.3333	5.3333	5.3333	5.3333
21	S-NB	**********	24.2857	23.0000	**********	22.7273	25.0000	22.7273	22.7273
22	S-NI	**********	17.7500	15.7500	20.8333	16.3492	15.8000	16.3492	16.3492
23	S-PB	**********	38.0357	37.0000	31.6667	31.9048	31.1667	31.9048	31.9048
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	**********	175.0000	162.5000	179.1667	179.5455	194.2308	179.5455	179.5455
27	S-V	**********	80.7143	110.5000	90.8333	83.0159	89.0000	83.0159	83.0159
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	**********	68.9286	90.0000	38.3333	52.3810	38.3333	52.3810	52.3810
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	**********	0.2214	0.2000	0.3143	0.2214	0.2375	0.2214	0.2214
33	AA-BI	**********	4.8000	3.7000	4.0000	3.7000	4.0000	3.7000	3.7000
34	AA-SB	**********	1.7143	1.5000	1.6667	1.6667	1.6667	1.6667	1.6667
35	AA-ZN	**********	64.6429	65.0000	53.3333	56.5079	53.3333	56.5079	56.5079
36	AA-AS	**********	6.2500	7.5000	7.9167	6.8333	6.8333	6.8333	6.8333
37	INST-HG	**********	0.0668	0.1900	0.0800	0.0983	0.0600	0.0983	0.0983
38	FLOUR-U	**********	2.6268	3.7400	0.6750	1.6444	0.9467	1.6444	1.6444

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES -

	1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1 LATITUDE	0.002	0.002	0.002	0.002	0.002	0.002	0.002	**********	**********	**********
2 LONGITUD	0.002	0.002	0.002	0.002	0.002	0.002	0.002	**********	**********	**********
3 S-FE%	5.789	5.789	5.789	5.789	5.789	5.789	5.789	**********	**********	**********
4 S-MG%	0.897	0.897	0.897	0.897	0.897	0.897	0.897	**********	**********	**********
5 S-CA%	22.593	22.593	22.593	22.593	22.593	22.593	22.593	**********	**********	**********
6 S-TI%	0.026	0.026	0.026	0.026	0.026	0.026	0.026	**********	**********	**********
7 S-MN	129432.924	129432.924	129432.924	129432.924	129432.924	129432.924	129432.924	**********	**********	**********
8 S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9 S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10 S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11 S-B	4708.756	4708.756	4708.756	4708.756	4708.756	4708.756	4708.756	**********	**********	**********
12 S-BA	99873.272	99873.272	99873.272	99873.272	99873.272	99873.272	99873.272	**********	**********	**********
13 S-BE	2.600	2.600	2.600	2.600	2.600	2.600	2.600	**********	**********	**********
14 S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15 S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16 S-CO	10.511	10.511	10.511	10.511	10.511	10.511	10.511	**********	**********	**********
17 S-CR	1523.272	1523.272	1523.272	1523.272	1523.272	1523.272	1523.272	**********	**********	**********
18 S-CU	473.608	473.608	473.608	473.608	473.608	473.608	473.608	**********	**********	**********
19 S-LA	357.655	357.655	357.655	357.655	357.655	357.655	357.655	**********	**********	**********
20 S-MO	0.667	0.667	0.667	0.667	0.667	0.667	0.667	**********	**********	**********
21 S-NB	21.818	21.818	21.818	21.818	21.818	21.818	21.818	**********	**********	**********
22 S-NI	79.521	79.521	79.521	79.521	79.521	79.521	79.521	**********	**********	**********
23 S-PB	163.249	163.249	163.249	163.249	163.249	163.249	163.249	**********	**********	**********
24 S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25 S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26 S-SR	5850.951	5850.951	5850.951	5850.951	5850.951	5850.951	5850.951	**********	**********	**********
27 S-V	3279.467	3279.467	3279.467	3279.467	3279.467	3279.467	3279.467	**********	**********	**********
28 S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29 S-Y	1702.304	1702.304	1702.304	1702.304	1702.304	1702.304	1702.304	**********	**********	**********
30 S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31 S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32 AA-CD	0.016	0.016	0.016	0.016	0.016	0.016	0.016	**********	**********	**********
33 AA-BI	6.853	6.853	6.853	6.853	6.853	6.853	6.853	**********	**********	**********
34 AA-SB	1.333	1.333	1.333	1.333	1.333	1.333	1.333	**********	**********	**********
35 AA-ZN	262.609	262.609	262.609	262.609	262.609	262.609	262.609	**********	**********	**********
36 AA-AS	11.178	11.178	11.178	11.178	11.178	11.178	11.178	**********	**********	**********
37 INST-HG	0.096	0.096	0.096	0.096	0.096	0.096	0.096	**********	**********	**********
38 FLOUR-U	6.533	6.533	6.533	6.533	6.533	6.533	6.533	**********	**********	**********

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES - CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	0.002	0.002	0.000	**********	**********	0.002	0.002	0.002	0.002	0.003
2	LONGITUD	0.002	0.002	0.002	**********	**********	0.002	0.002	0.002	0.002	0.001
3	S-FE%	5.789	5.789	16.568	**********	**********	5.888	5.789	5.789	5.789	1.875
4	S-MG%	0.897	0.897	0.049	**********	**********	0.917	0.897	0.897	0.897	0.342
5	S-CA%	22.593	22.593	0.200	**********	**********	23.614	22.593	22.593	22.593	2.975
6	S-TI%	0.026	0.026	0.017	**********	**********	0.025	0.026	0.026	0.026	0.019
7	S-MN	129432.924	129432.924	140545.455	**********	**********	126125.073	129432.924	129432.924	129432.924	45666.667
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	4708.756	4708.756	2345.455	**********	**********	4667.621	4708.756	4708.756	4708.756	240.000
12	S-BA	99873.272	99873.272	10181.818	**********	**********	95635.593	99873.272	99873.272	99873.272	224000.000
13	S-BE	2.600	2.600	2.600	**********	**********	2.600	2.600	2.600	2.600	**********
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	10.511	10.511	9.291	**********	**********	10.511	10.511	10.511	10.511	18.567
17	S-CR	1523.272	1523.272	2410.455	**********	**********	1500.380	1523.272	1523.272	1523.272	184.167
18	S-CU	473.608	473.608	244.091	**********	**********	487.049	473.608	473.608	473.608	204.167
19	S-LA	357.655	357.655	347.273	**********	**********	334.132	357.655	357.655	357.655	66.667
20	S-MO	0.667	0.667	**********	**********	**********	0.667	0.667	0.667	0.667	0.667
21	S-NB	21.818	21.818	26.786	**********	**********	21.818	21.818	21.818	21.818	**********
22	S-NI	79.521	79.521	9.091	**********	**********	80.316	79.521	79.521	79.521	27.500
23	S-PB	163.249	163.249	261.818	**********	**********	164.100	163.249	163.249	163.249	176.667
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	5850.951	5850.951	0.000	**********	**********	5813.008	5850.951	5850.951	5850.951	10500.000
27	S-V	3279.467	3279.467	2929.091	**********	**********	3309.527	3279.467	3279.467	3279.467	456.667
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	1702.304	1702.304	1409.091	**********	**********	1725.365	1702.304	1702.304	1702.304	320.000
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0.016	0.016	0.011	**********	**********	0.017	0.016	0.016	0.016	0.007
33	AA-BI	6.853	6.853	10.711	**********	**********	7.064	6.853	6.853	6.853	**********
34	AA-SB	1.333	1.333	**********	**********	**********	1.333	1.333	1.333	1.333	0.000
35	AA-ZN	262.609	262.609	186.818	**********	**********	256.312	262.609	262.609	262.609	136.667
36	AA-AS	11.178	11.178	0.000	**********	**********	12.037	11.178	11.178	11.178	30.000
37	INST-HG	0.096	0.096	0.001	**********	**********	0.001	0.096	0.096	0.096	0.001
38	FLOUR-U	6.533	6.533	10.283	**********	**********	6.883	6.533	6.533	6.533	0.964

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES - CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	0.001	0.002	0.002	**********	**********	0.002	0.002	**********	0.002	**********
2	LONGITUD	0.002	0.002	0.002	**********	**********	0.001	0.002	**********	0.002	**********
3	S-FE%	15.705	5.789	5.789	**********	**********	2.304	5.789	**********	5.789	**********
4	S-MG%	0.049	0.897	0.897	**********	**********	1.038	0.897	**********	0.897	**********
5	S-CA%	0.267	22.593	22.593	**********	**********	26.262	22.593	**********	22.593	**********
6	S-TI%	0.024	0.026	0.026	**********	**********	0.019	0.026	**********	0.026	**********
7	S-MN	180181.818	129432.924	129432.924	**********	**********	62974.366	129432.924	**********	129432.924	**********
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	1845.455	4708.756	4708.756	**********	**********	669.556	4708.756	**********	4708.756	**********
12	S-BA	10181.818	99873.272	99873.272	**********	**********	125289.376	99873.272	**********	99873.272	**********
13	S-BE	3.268	2.600	2.600	**********	**********	0.000	2.600	**********	2.600	**********
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	10.055	10.511	10.511	**********	**********	10.333	10.511	**********	10.511	**********
17	S-CR	2361.364	1523.272	1523.272	**********	**********	1187.143	1523.272	**********	1523.272	**********
18	S-CU	419.091	473.608	473.608	**********	**********	549.108	473.608	**********	473.608	**********
19	S-LA	565.455	357.655	357.655	**********	**********	268.710	357.655	**********	357.655	**********
20	S-MO	**********	0.667	0.667	**********	**********	0.800	0.667	**********	0.667	**********
21	S-NB	21.818	21.818	21.818	**********	**********	0.000	21.818	**********	21.818	**********
22	S-NI	47.273	79.521	79.521	**********	**********	88.928	79.521	**********	79.521	**********
23	S-PB	387.273	163.249	163.249	**********	**********	128.581	163.249	**********	163.249	**********
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	0.000	5850.951	5850.951	**********	**********	5850.951	5850.951	**********	5850.951	**********
27	S-V	2927.273	3279.467	3279.467	**********	**********	3883.457	3279.467	**********	3279.467	**********
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	2356.364	1702.304	1702.304	**********	**********	422.622	1702.304	**********	1702.304	**********
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0.015	0.016	0.016	**********	**********	0.019	0.016	**********	0.016	**********
33	AA-BI	7.111	6.853	6.853	**********	**********	2.214	6.853	**********	6.853	**********
34	AA-SB	**********	1.333	1.333	**********	**********	1.333	1.333	**********	1.333	**********
35	AA-ZN	305.000	262.609	262.609	**********	**********	173.507	262.609	**********	262.609	**********
36	AA-AS	0.000	11.178	11.178	**********	**********	12.346	11.178	**********	11.178	**********
37	INST-HG	0.001	0.096	0.096	**********	**********	0.002	0.096	**********	0.096	**********
38	FLOUR-U	6.587	6.533	6.533	**********	**********	4.733	6.533	**********	6.533	**********

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES - CONT.

		31	32	33	34	35	36	37	38
		S-TH	AA-CD	AA-BI	AA-SB	AA-ZN	AA-AS	INST-HG	FLOUR-U
1	LATITUDE	**********	0.002	0.002	0.003	0.002	0.002	0.002	0.002
2	LONGITUD	**********	0.001	0.001	0.001	0.002	0.001	0.002	0.002
3	S-FE%	**********	9.505	10.513	2.460	5.789	3.504	5.789	5.789
4	S-MG%	**********	1.322	0.080	1.703	0.897	1.274	0.897	0.897
5	S-CA%	**********	34.125	4.643	42.612	22.593	32.308	22.593	22.593
6	S-TI%	**********	0.037	0.023	0.014	0.026	0.017	0.026	0.026
7	S-MN	**********	205062.831	164710.526	71742.424	129432.924	97712.644	129432.924	129432.924
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	**********	2366.534	10057.632	606.061	4708.756	1118.276	4708.756	4708.756
12	S-BA	**********	122500.000	11868.421	31571.970	99873.272	136160.920	99873.272	99873.272
13	S-BE	**********	2.944	2.767	**********	2.600	2.000	2.600	2.600
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	**********	7.926	9.918	11.477	10.511	12.234	10.511	10.511
17	S-CR	**********	1393.221	1756.579	1018.182	1523.272	1229.914	1523.272	1523.272
18	S-CU	**********	319.720	1020.789	1471.970	473.608	706.202	473.608	473.608
19	S-LA	**********	381.349	602.895	181.818	357.655	361.379	357.655	357.655
20	S-MO	**********	1.000	**********	0.000	0.667	0.667	0.667	0.667
21	S-NB	**********	28.571	23.333	**********	21.818	50.000	21.818	21.818
22	S-NI	**********	69.528	40.197	58.333	79.521	65.821	79.521	79.521
23	S-PB	**********	230.258	285.263	87.879	163.249	92.557	163.249	163.249
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	**********	6973.684	8392.857	6571.970	5850.951	6465.385	5850.951	5850.951
27	S-V	**********	1606.878	5920.789	4571.970	3279.467	5574.828	3279.467	3279.467
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	**********	2965.476	2810.526	233.333	1702.304	724.713	1702.304	1702.304
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	**********	0.016	0.011	0.031	0.016	0.020	0.016	0.016
33	AA-BI	**********	9.956	6.853	8.000	6.853	5.333	6.853	6.853
34	AA-SB	**********	2.238	0.500	1.333	1.333	1.333	1.333	1.333
35	AA-ZN	**********	336.905	328.947	169.697	262.609	221.264	262.609	262.609
36	AA-AS	**********	5.000	8.333	20.265	11.178	11.178	11.178	11.178
37	INST-HG	**********	0.001	0.298	0.001	0.096	0.001	0.096	0.096
38	FLOUR-U	**********	12.327	14.048	0.113	6.533	1.123	6.533	6.533

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -

	1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1 LATITUDE	0.0436	0.0874	0.1790	0.0426	-0.0648	0.1776	0.3591	**********	**********	**********
2 LONGITUD	63	0.0413	-0.1922	0.1452	0.0810	-0.2711	-0.1341	**********	**********	**********
3 S-FE%	63	63	2.4060	-0.2052	-0.2935	0.7202	0.6376	**********	**********	**********
4 S-MG%	63	63	63	0.9472	0.9009	-0.3127	-0.2590	**********	**********	**********
5 S-CA%	63	63	63	63	4.7532	-0.3874	-0.3658	**********	**********	**********
6 S-TI%	63	63	63	63	63	0.1623	0.6933	**********	**********	**********
7 S-MN	63	63	63	63	63	63	359.7679	**********	**********	**********
8 S-AG	1	1	1	1	1	1	1	**********	**********	**********
9 S-AS	0	0	0	0	0	0	0	0	**********	**********
10 S-AU	0	0	0	0	0	0	0	0	0	**********
11 S-B	63	63	63	63	63	63	63	1	0	0
12 S-BA	63	63	63	63	63	63	63	1	0	0
13 S-BE	11	11	11	11	11	11	11	0	0	0
14 S-BI	0	0	0	0	0	0	0	0	0	0
15 S-CD	0	0	0	0	0	0	0	0	0	0
16 S-CO	59	59	59	59	59	59	59	1	0	0
17 S-CR	63	63	63	63	63	63	63	1	0	0
18 S-CU	63	63	63	63	63	63	63	1	0	0
19 S-LA	63	63	63	63	63	63	63	1	0	0
20 S-MO	6	6	6	6	6	6	6	1	0	0
21 S-NB	11	11	11	11	11	11	11	0	0	0
22 S-NI	63	63	63	63	63	63	63	1	0	0
23 S-PB	63	63	63	63	63	63	63	1	0	0
24 S-SB	0	0	0	0	0	0	0	0	0	0
25 S-SN	0	0	0	0	0	0	0	0	0	0
26 S-SR	44	44	44	44	44	44	44	1	0	0
27 S-V	63	63	63	63	63	63	63	1	0	0
28 S-W	0	0	0	0	0	0	0	0	0	0
29 S-Y	63	63	63	63	63	63	63	1	0	0
30 S-ZN	0	0	0	0	0	0	0	0	0	0
31 S-TH	0	0	0	0	0	0	0	0	0	0
32 AA-CD	28	28	28	28	28	28	28	1	0	0
33 AA-BI	20	20	20	20	20	20	20	0	0	0
34 AA-SB	12	12	12	12	12	12	12	0	0	0
35 AA-ZN	63	63	63	63	63	63	63	1	0	0
36 AA-AS	30	30	30	30	30	30	30	1	0	0
37 INST-HG	63	63	63	63	63	63	63	1	0	0
38 FLOUR-U	63	63	63	63	63	63	63	1	0	0

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	0.3603	-0.2230	-0.1455	**********	**********	0.0432	0.1239	0.0134	0.2350	0.0103
2	LONGITUD	-0.3226	0.2848	0.1128	**********	**********	-0.1289	-0.2517	-0.0667	0.1542	0.3585
3	S-FE%	0.4220	-0.1600	-0.3428	**********	**********	0.5539	0.6276	0.5227	0.6036	-0.2683
4	S-MG%	-0.2239	-0.3284	0.7011	**********	**********	-0.0415	0.2350	-0.0672	-0.0914	0.0698
5	S-CA%	-0.2872	-0.3453	-0.0278	**********	**********	-0.1606	0.1985	-0.2168	-0.2409	0.7811
6	S-TI%	0.3279	-0.1960	-0.2877	**********	**********	0.5259	0.3902	0.4581	0.6531	-0.4781
7	S-MN	0.2503	0.0824	0.0496	**********	**********	0.5027	0.1688	0.5725	0.6852	0.4203
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	68.6204	-0.1503	-0.4098	**********	**********	0.2261	0.4685	0.1309	0.2232	-0.3162
12	S-BA	63	316.0273	0.6146	**********	**********	-0.1153	-0.3853	-0.0504	-0.0335	0.6211
13	S-BE	11	11	1.6125	**********	**********	0.2848	-0.2968	0.2382	0.1664	**********
14	S-BI	0	0	0	**********	**********	**********	**********	**********	**********	**********
15	S-CD	0	0	0	0	**********	**********	**********	**********	**********	**********
16	S-CO	59	59	11	0	0	3.2421	0.5195	0.4762	0.6052	-0.3221
17	S-CR	63	63	11	0	0	59	39.0291	0.3370	0.3251	-0.1504
18	S-CU	63	63	11	0	0	59	63	21.7625	0.4062	-0.2000
19	S-LA	63	63	11	0	0	59	63	63	18.9118	-1.0000
20	S-MO	6	6	1	0	0	6	6	6	6	0.8165
21	S-NB	11	11	8	0	0	11	11	11	11	1
22	S-NI	63	63	11	0	0	59	63	63	63	6
23	S-PB	63	63	11	0	0	59	63	63	63	6
24	S-SB	0	0	0	0	0	0	0	0	0	0
25	S-SN	0	0	0	0	0	0	0	0	0	0
26	S-SR	44	44	2	0	0	42	44	44	44	5
27	S-V	63	63	11	0	0	59	63	63	63	6
28	S-W	0	0	0	0	0	0	0	0	0	0
29	S-Y	63	63	11	0	0	59	63	63	63	6
30	S-ZN	0	0	0	0	0	0	0	0	0	0
31	S-TH	0	0	0	0	0	0	0	0	0	0
32	AA-CD	28	28	9	0	0	26	28	28	28	4
33	AA-BI	20	20	10	0	0	19	20	20	20	0
34	AA-SB	12	12	0	0	0	12	12	12	12	2
35	AA-ZN	63	63	11	0	0	59	63	63	63	6
36	AA-AS	30	30	2	0	0	27	30	30	30	6
37	INST-HG	63	63	11	0	0	59	63	63	63	6
38	FLOUR-U	63	63	11	0	0	59	63	63	63	6

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	0.4177	0.1108	0.2841	**********	**********	-0.4285	-0.2071	**********	0.5950	**********
2	LONGITUD	0.0543	-0.2606	-0.1260	**********	**********	0.0547	-0.0016	**********	-0.1521	**********
3	S-FE%	0.7882	0.0245	0.3503	**********	**********	0.1891	0.7355	**********	0.7005	**********
4	S-MG%	-0.0264	0.4620	0.0144	**********	**********	0.1424	-0.0939	**********	-0.2519	**********
5	S-CA%	-0.5843	0.4651	-0.0829	**********	**********	0.3071	-0.1877	**********	-0.3492	**********
6	S-TI%	0.5528	-0.0230	0.3416	**********	**********	-0.0422	0.4953	**********	0.7321	**********
7	S-MN	0.6465	-0.2163	0.5727	**********	**********	0.0687	0.4212	**********	0.8303	**********
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	0.7430	0.2633	0.1824	**********	**********	-0.4102	0.0503	**********	0.4685	**********
12	S-BA	-0.3858	-0.3649	0.0261	**********	**********	0.0825	-0.0265	**********	-0.1882	**********
13	S-BE	-0.2100	0.3085	0.5366	**********	**********	**********	-0.4584	**********	-0.3635	**********
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	0.4112	0.2417	0.4284	**********	**********	0.1841	0.5864	**********	0.3861	**********
17	S-CR	0.5747	0.6875	0.1379	**********	**********	0.3334	0.5038	**********	0.3019	**********
18	S-CU	0.2900	-0.0182	0.4096	**********	**********	0.1594	0.6218	**********	0.4525	**********
19	S-LA	0.6384	-0.0419	0.4011	**********	**********	-0.0118	0.5237	**********	0.6090	**********
20	S-MO	**********	-0.2335	-0.3071	**********	**********	0.6001	-0.2675	**********	-0.5477	**********
21	S-NB	4.6710	-0.2689	0.1780	**********	**********	**********	0.8453	**********	0.7738	**********
22	S-NI	11	8.9175	0.0011	**********	**********	0.2292	0.0279	**********	-0.1395	**********
23	S-PB	11	63	12.7769	**********	**********	-0.0984	0.1155	**********	0.5282	**********
24	S-SB	0	0	0	**********	**********	**********	**********	**********	**********	**********
25	S-SN	0	0	0	0	**********	**********	**********	**********	**********	**********
26	S-SR	2	44	44	0	0	76.4915	0.3339	**********	-0.3112	**********
27	S-V	11	63	63	0	0	44	57.2666	**********	0.2829	**********
28	S-W	0	0	0	0	0	0	0	**********	**********	**********
29	S-Y	11	63	63	0	0	44	63	0	41.2590	**********
30	S-ZN	0	0	0	0	0	0	0	0	0	**********
31	S-TH	0	0	0	0	0	0	0	0	0	0
32	AA-CD	7	28	28	0	0	20	28	0	28	0
33	AA-BI	10	20	20	0	0	8	20	0	20	0
34	AA-SB	0	12	12	0	0	12	12	0	12	0
35	AA-ZN	11	63	63	0	0	44	63	0	63	0
36	AA-AS	2	30	30	0	0	26	30	0	30	0
37	INST-HG	11	63	63	0	0	44	63	0	63	0
38	FLOUR-U	11	63	63	0	0	44	63	0	63	0

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 4. Correlation coefficients for analytical data from stream sediments from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		31 S-TH	32 AA-CD	33 AA-BI	34 AA-SB	35 AA-ZN	36 AA-AS	37 INST-HG	38 FLOUR-U
1	LATITUDE	**********	0.0923	0.3838	0.4612	0.3501	-0.3903	0.0414	0.4643
2	LONGITUD	**********	0.1419	0.2713	0.5317	-0.1589	-0.0479	-0.2061	-0.0968
3	S-FE%	**********	0.0074	0.7348	0.0502	0.4228	-0.0241	-0.0376	0.4917
4	S-MG%	**********	0.3057	0.0277	0.3117	-0.1297	-0.2173	-0.0851	-0.2792
5	S-CA%	**********	0.2447	-0.2051	0.2452	-0.2461	-0.1356	-0.0827	-0.3164
6	S-TI%	**********	-0.2633	0.5896	-0.1450	0.5792	0.2250	-0.0404	0.5629
7	S-MN	**********	-0.2060	0.6029	0.3037	0.7658	0.2156	-0.0688	0.5997
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	**********	-0.1042	0.3322	-0.2025	0.2484	-0.1804	0.2148	0.3012
12	S-BA	**********	-0.1052	-0.2787	-0.1255	-0.0358	0.2828	-0.1472	-0.1969
13	S-BE	**********	0.1536	-0.4205	**********	0.4537	**********	0.2473	0.0464
14	S-BI	**********	**********	**********	**********	**********	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	**********	-0.0251	0.3940	0.1627	0.4662	0.3017	0.1002	0.1812
17	S-CR	**********	0.3260	0.6116	-0.0493	0.1959	-0.0507	-0.0225	0.1750
18	S-CU	**********	0.0080	0.4386	0.0547	0.5039	0.1903	-0.0712	0.3737
19	S-LA	**********	-0.1239	0.5642	0.2335	0.6175	0.0760	-0.2339	0.4382
20	S-MO	**********	-0.0000	**********	**********	-0.5587	0.0000	-0.1464	-0.0042
21	S-NB	**********	0.1466	0.6901	**********	0.3678	**********	0.3983	0.6711
22	S-NI	**********	0.3832	-0.1760	-0.1203	0.0493	-0.2021	0.0226	-0.2267
23	S-PB	**********	0.2557	0.3833	-0.1960	0.6870	0.2528	-0.1020	0.3036
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	**********	**********	**********	**********	**********	**********	**********	**********
26	S-SR	**********	0.3791	0.4454	-0.2266	0.0574	0.1511	-0.1355	-0.1671
27	S-V	**********	-0.0105	0.3457	-0.0427	0.2157	0.0629	-0.0681	0.1698
28	S-W	**********	**********	**********	**********	**********	**********	**********	**********
29	S-Y	**********	-0.1155	0.6523	0.3264	0.6953	0.0351	-0.0664	0.7804
30	S-ZN	**********	**********	**********	**********	**********	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********
32	AA-CD	0	0.1258	0.4009	-0.1077	0.0997	0.0529	0.3017	-0.1703
33	AA-BI	0	10	2.6178	1.0000	0.4545	0.0000	-0.1708	0.4288
34	AA-SB	0	7	2	1.1547	-0.5842	0.0291	-0.0791	0.1757
35	AA-ZN	0	28	20	12	16.2052	0.1849	-0.1090	0.5074
36	AA-AS	0	16	4	12	30	3.3434	-0.1192	-0.0639
37	INST-HG	0	28	20	12	63	30	0.3098	-0.0600
38	FLOUR-U	0	28	20	12	63	30	63	2.5561

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 5. Analytical data from panned concentrates from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
WS001C	31 50 11	110 27 6	3.0	.70	2.0	2.0	1,000	N	N	N	300	>10,000
WS002C	31 50 14	110 27 6	7.0	.70	2.0	2.0	500	N	N	N	2,000	1,000
WS003C	31 50 8	110 27 4	20.0	.70	2.0	2.0	3,000	N	N	N	500	7,000
WS004C	31 50 39	110 27 30	1.0	.20	1.5	>2.0	200	N	N	N	1,000	700
WS005C	31 50 52	110 26 7	10.0	1.50	20.0	1.0	300	N	N	N	150	2,000
WS006C	31 51 9	110 26 17	3.0	1.00	>50.0	.7	700	N	N	N	100	1,000
WS007C	31 50 46	110 26 3	5.0	1.50	30.0	1.5	1,500	N	N	N	200	2,000
WS008C	31 51 1	110 26 12	2.0	2.00	50.0	1.0	500	N	N	N	100	2,000
WS009C	31 51 13	110 26 46	3.0	2.00	>50.0	2.0	500	N	N	N	100	700
WS010C	31 51 19	110 27 59	1.0	2.00	30.0	.7	300	N	N	N	100	2,000
WS011C	31 49 19	110 27 36	1.5	1.50	20.0	.7	1,500	N	N	N	200	5,000
WS012C	31 49 17	110 27 35	3.0	1.00	30.0	.5	2,000	N	N	N	150	10,000
WS013C	31 48 38	110 27 22	3.0	.70	10.0	.3	1,000	N	N	N	70	>10,000
WS014C	31 48 2	110 26 27	2.0	.50	15.0	>2.0	1,000	N	N	N	100	>10,000
WS015C	31 48 18	110 26 29	2.0	.50	30.0	2.0	1,500	N	N	N	100	10,000
WS016C	31 47 39	110 28 19	1.0	1.50	5.0	>2.0	500	N	N	N	150	10,000
WS017C	31 47 35	110 27 39	2.0	.10	2.0	2.0	1,500	N	N	N	100	5,000
WS018C	31 47 47	110 28 46	.5	.15	1.0	>2.0	200	N	N	N	150	>10,000
WS019C	31 47 14	110 28 39	.2	.20	1.5	>2.0	200	N	N	N	50	>10,000
WS020C	31 46 30	110 27 39	.2	.20	2.0	>2.0	200	N	N	N	50	>10,000
WS021C	31 45 48	110 28 11	.7	.70	5.0	>2.0	500	<1	N	N	100	>10,000
WS022C	31 45 17	110 26 55	.7	.50	7.0	>2.0	500	<1	N	N	100	1,000
WS023C	31 48 35	110 23 45	1.5	1.50	20.0	2.0	300	N	N	N	100	10,000
WS024C	31 49 5	110 21 52	.7	.20	1.0	>2.0	150	N	N	N	100	2,000
WS025C	31 47 59	110 21 51	1.0	1.50	10.0	>2.0	500	N	N	N	100	1,000
WS026C	31 47 24	110 21 40	.5	.30	10.0	>2.0	200	N	N	N	20	500
WS027C	31 46 45	110 23 30	3.0	2.00	20.0	2.0	1,000	N	N	N	100	2,000
WS028C	31 46 52	110 23 26	1.0	2.00	50.0	.5	300	N	N	N	100	500
WS029C	31 45 49	110 22 45	1.0	10.00	30.0	.3	500	N	N	N	150	500
WS030C	31 45 44	110 23 34	1.5	15.00	30.0	1.5	500	N	N	N	150	700
WS031C	31 45 44	110 24 40	1.5	10.00	20.0	1.5	700	N	N	N	50	300
WS032C	31 50 9	110 24 45	1.5	5.00	30.0	>2.0	500	<1	N	N	100	1,000
WS033C	31 44 34	110 26 51	.7	.20	1.5	>2.0	200	N	N	N	100	700
WS034C	31 44 40	110 25 16	.7	.10	1.0	>2.0	300	<1	N	N	150	300
WS035C	31 44 33	110 23 19	1.5	7.00	20.0	>2.0	1,000	N	N	N	200	200
WS036C	31 49 38	110 21 41	2.0	.70	15.0	>2.0	1,000	N	N	N	100	2,000
WS037C	31 49 56	110 21 24	3.0	.50	10.0	>2.0	1,000	N	N	N	500	700
WS038C	31 49 48	110 21 26	1.5	.20	20.0	>2.0	500	N	N	N	100	700
WS039C	31 50 9	110 21 36	3.0	.20	.5	2.0	300	N	N	N	500	500
WS040C	31 50 18	110 21 19	.7	.30	20.0	>2.0	2,000	N	N	N	100	1,000
WS041C	31 50 57	110 23 7	1.0	.30	15.0	>2.0	2,000	N	N	N	100	1,000
WS042C	31 50 56	110 23 19	10.0	.50	10.0	>2.0	5,000	N	N	N	500	10,000
WS043C	31 51 5	110 21 18	1.0	.20	10.0	>2.0	2,000	N	N	N	300	200
WS044C	31 51 31	110 21 11	.7	.20	5.0	>2.0	1,500	N	N	N	200	2,000
WS045C	31 53 52	110 29 56	1.0	.20	20.0	>2.0	3,000	N	N	N	150	200

Table 5. Analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s
WS001C	<5	30	N	10	50	700	500	10	150	N	300	<200	<20
WS002C	<5	N	N	10	70	30	100	30	<50	70	50	N	N
WS003C	N	N	N	70	70	150	>2,000	20	150	70	500	N	N
WS004C	N	N	N	<10	70	30	150	N	N	20	50	N	N
WS005C	N	N	N	20	200	20	200	10	N	70	100	N	N
WS006C	<5	N	N	20	100	15	300	N	N	20	70	N	N
WS007C	N	N	<50	30	100	20	500	10	N	30	100	N	N
WS008C	N	N	N	10	70	<10	500	N	N	20	30	N	N
WS009C	N	N	<50	10	150	30	150	N	<50	20	200	N	<20
WS010C	N	N	N	N	30	N	50	50	N	N	500	N	N
WS011C	<5	N	N	<10	50	N	200	N	<50	N	20	N	N
WS012C	5	<20	N	10	20	10	500	N	<50	N	20	N	N
WS013C	<5	N	N	10	20	10	50	N	N	N	20	N	N
WS014C	N	N	N	10	50	70	500	N	100	20	50	N	<20
WS015C	N	N	N	10	100	<10	300	N	<50	20	30	N	N
WS016C	N	N	N	10	70	N	500	N	100	N	50	N	20
WS017C	5	N	N	N	<20	<10	100	N	70	N	30	N	N
WS018C	N	N	N	N	20	N	500	N	50	N	20	N	N
WS019C	N	N	N	N	20	N	150	N	<50	N	100	N	70
WS020C	N	N	N	N	20	<10	150	N	<50	N	30	N	N
WS021C	N	N	N	10	50	10	100	N	70	N	70	N	20
WS022C	N	70	N	10	70	10	200	N	70	<10	7,000	N	50
WS023C	N	N	N	30	50	500	300	N	N	<10	2,000	N	N
WS024C	N	N	N	10	100	<10	150	N	100	N	30	N	20
WS025C	N	N	N	10	30	N	150	N	70	N	700	N	20
WS026C	N	N	N	10	N	N	50	N	50	20	20	N	50
WS027C	N	N	N	10	70	<10	500	<10	50	<10	30	N	N
WS028C	N	N	N	N	50	N	200	N	N	20	50	N	N
WS029C	N	N	N	N	100	N	50	N	N	10	N	N	N
WS030C	N	N	N	N	100	N	50	10	<50	10	30	N	N
WS031C	N	20	N	10	50	<10	50	N	<50	10	N	N	N
WS032C	N	150	N	10	70	300	200	30	50	<10	30	N	30
WS033C	N	1,500	N	N	20	20	150	500	70	<10	500	N	20
WS034C	N	N	N	N	50	<10	100	N	50	N	700	N	<20
WS035C	<5	N	N	10	70	<10	200	10	50	N	N	N	N
WS036C	5	1,000	N	15	100	10	200	N	100	N	100	N	N
WS037C	15	150	N	10	200	10	200	<10	100	20	30	N	N
WS038C	7	100	N	N	70	N	200	50	100	N	30	N	<20
WS039C	20	700	N	10	200	70	100	30	70	N	70	N	<20
WS040C	7	70	N	10	100	<10	200	N	100	20	50	N	<20
WS041C	10	500	N	<10	100	10	200	20	50	N	70	N	N
WS042C	7	30	N	20	100	20	300	N	100	20	50	N	20
WS043C	10	700	N	N	50	10	150	N	70	N	100	N	70
WS044C	10	200	N	10	150	200	500	15	150	N	70	N	<20
WS045C	5	N	N	10	70	10	300	N	70	N	30	N	N

Table 5. Analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s
WS001C	1,000	100	N	300	N	N
WS002C	200	150	N	500	N	N
WS003C	300	300	N	1,000	N	1,000
WS004C	N	100	N	700	N	N
WS005C	1,000	200	N	200	N	N
WS006C	700	100	N	500	N	N
WS007C	200	100	N	200	1,500	N
WS008C	700	100	N	700	N	N
WS009C	2,000	150	N	300	N	N
WS010C	5,000	50	N	200	N	N
WS011C	1,500	100	N	200	N	N
WS012C	5,000	200	N	200	N	N
WS013C	3,000	70	N	100	N	N
WS014C	5,000	150	N	300	N	N
WS015C	2,000	150	N	500	N	N
WS016C	200	200	N	500	N	N
WS017C	N	100	N	500	N	N
WS018C	3,000	70	N	300	N	N
WS019C	5,000	100	N	500	N	N
WS020C	3,000	100	N	500	N	N
WS021C	700	150	N	200	N	N
WS022C	200	200	N	300	N	N
WS023C	2,000	50	N	500	N	N
WS024C	200	100	200	200	N	N
WS025C	200	200	N	500	N	N
WS026C	N	300	N	500	N	N
WS027C	200	200	N	200	N	N
WS028C	3,000	70	N	100	N	N
WS029C	200	100	N	20	N	N
WS030C	200	150	<100	50	N	N
WS031C	2,000	150	<100	30	N	N
WS032C	200	200	<100	150	N	N
WS033C	500	200	700	100	N	N
WS034C	N	200	N	300	N	N
WS035C	200	200	N	200	N	N
WS036C	200	100	<100	500	N	N
WS037C	N	150	300	300	N	N
WS038C	200	150	2,000	300	N	N
WS039C	N	100	500	200	N	N
WS040C	N	100	500	1,000	N	N
WS041C	N	70	100	1,500	N	N
WS042C	N	150	N	1,500	700	N
WS043C	N	100	N	1,500	N	N
WS044C	N	100	200	700	N	N
WS045C	N	150	N	1,500	N	N

Table 5. Analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
WS046C	31 53 30	110 23 18	1.0	.10	20.0	>2.0	5,000	N	N	N	200	150
WS048C	31 53 36	110 24 34	.5	.15	5.0	1.5	1,500	N	N	N	70	300
WS049C	31 53 24	110 25 29	1.0	.10	7.0	2.0	2,000	N	N	N	100	2,000
WS050C	31 52 34	110 25 50	.7	.15	15.0	>2.0	5,000	N	N	N	100	100
WS051C	31 53 3	110 28 2	3.0	.20	15.0	>2.0	7,000	N	N	N	200	200
WS052C	31 53 49	110 28 11	3.0	.70	15.0	>2.0	1,000	N	N	N	100	3,000
WS053C	31 53 51	110 27 33	1.0	.50	10.0	>2.0	7,000	N	N	N	200	100
WS054C	31 54 30	110 27 56	2.0	.20	10.0	>2.0	500	N	N	N	70	5,000
WS055C	31 53 39	110 26 21	.7	.30	10.0	>2.0	5,000	N	N	N	200	100
WS056C	31 49 54	110 23 13	5.0	1.00	10.0	>2.0	500	N	N	N	100	>10,000
WS057C	31 50 1	110 23 15	3.0	1.00	5.0	>2.0	700	N	N	N	1,500	1,000
WS058C	31 49 51	110 23 41	5.0	1.50	30.0	.7	500	N	N	N	150	2,000
WS059C	31 49 55	110 23 40	7.0	1.50	20.0	>2.0	2,000	N	N	N	100	2,000
WS060C	31 49 51	110 22 43	3.0	.70	15.0	>2.0	500	N	N	N	200	500
WS063C	31 49 41	110 22 6	5.0	.50	5.0	>2.0	1,000	N	N	N	200	1,000
WS064C	31 49 47	110 22 16	10.0	.70	7.0	>2.0	1,000	N	N	N	300	500
WS065C	31 49 38	110 21 41	10.0	.50	5.0	>2.0	1,500	N	N	N	500	1,000

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s
WS046C	10	150	N	10	50	<10	300	N	50	N	70	N	N
WS048C	7	100	N	N	20	N	150	N	50	N	100	N	N
WS049C	7	500	N	20	30	<10	100	N	<10	N	70	N	N
WS050C	7	200	N	10	50	10	200	N	100	N	100	N	<20
WS051C	7	N	N	10	50	20	200	N	70	20	100	N	<20
WS052C	<5	N	N	15	100	<10	200	N	50	30	100	N	N
WS053C	5	N	N	15	150	15	500	N	70	30	200	N	20
WS054C	<5	N	N	20	100	20	200	N	70	20	200	N	N
WS055C	10	<20	N	15	100	10	300	N	50	N	50	N	<20
WS056C	N	N	N	20	100	50	300	150	50	30	70	N	N
WS057C	5	20	N	20	150	10	300	50	70	30	70	N	N
WS058C	<5	N	N	20	100	15	500	10	<50	70	700	N	N
WS059C	N	N	N	30	70	20	150	N	70	20	1,500	N	50
WS060C	N	50	N	15	70	<10	150	N	70	20	30	N	20
WS063C	5	30	N	10	100	15	150	20	100	N	100	N	20
WS064C	5	100	N	20	100	20	200	N	100	30	100	N	<20
WS065C	<5	200	N	20	150	20	300	20	200	30	150	N	<20

Table 5. Analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s
WS046C	N	50	N	1,500	N	N
WS048C	N	30	<100	700	N	N
WS049C	N	50	<100	1,000	N	N
WS050C	N	100	N	2,000	N	N
WS051C	N	70	N	3,000	N	N
WS052C	500	100	N	500	N	N
WS053C	N	70	N	3,000	N	N
WS054C	1,000	100	N	1,000	N	N
WS055C	N	70	N	3,000	N	N
WS056C	1,500	150	700	300	N	N
WS057C	N	100	500	1,500	N	N
WS058C	500	100	N	200	N	N
WS059C	200	150	N	500	N	N
WS060C	200	100	N	200	<500	N
WS063C	200	150	700	300	700	N
WS064C	200	200	<100	500	N	N
WS065C	200	150	700	1,000	N	N

Table 6. Fisher-K statistics on analytical data from panned concentrates from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	LATITUDE	0	0	0	0	0	0	62	0	31.742500	31.908333	1
2	LONGITUD	0	0	0	0	0	0	62	0	110.35310	110.49890	2
3	S-FE%	0	0	0	0	0	0	62	0	0.2000000	20.000000	3
4	S-MG%	0	0	0	0	0	0	62	0	0.1000000	15.000000	4
5	S-CA%	0	0	0	2	0	0	60	0	0.5000000	50.000000	5
6	S-TI%	0	0	0	38	0	0	24	0	0.3000000	2.0000000	6
7	S-MN	0	0	0	0	0	0	62	0	150.00000	7000.0000	7
8	S-AG	58	0	4	0	0	0	0	0			8
9	S-AS	62	0	0	0	0	0	0	0			9
10	S-AU	62	0	0	0	0	0	0	0			10
11	S-B	0	0	0	0	0	0	62	0	20.000000	2000.0000	11
12	S-BA	0	0	0	8	0	0	54	0	100.00000	10000.000	12
13	S-BE	30	0	10	0	0	0	22	0	5.0000000	20.000000	13
14	S-BI	37	0	2	0	0	0	23	0	20.000000	1500.0000	14
15	S-CD	60	0	2	0	0	0	0	0			15
16	S-CO	13	0	3	0	0	0	46	0	10.000000	70.000000	16
17	S-CR	1	0	1	0	0	0	60	0	20.000000	200.00000	17
18	S-CU	12	0	14	0	0	0	36	0	10.000000	700.00000	18
19	S-LA	0	0	0	1	0	0	61	0	50.000000	500.00000	19
20	S-MO	41	0	2	0	0	0	19	0	10.000000	500.00000	20
21	S-NB	10	0	11	0	0	0	41	0	50.000000	200.00000	21
22	S-NI	28	0	5	0	0	0	29	0	10.000000	70.000000	22
23	S-PB	3	0	0	0	0	0	59	0	20.000000	7000.0000	23
24	S-SB	61	0	1	0	0	0	0	0			24
25	S-SN	34	0	13	0	0	0	15	0	20.000000	70.000000	25
26	S-SR	20	0	0	0	0	0	42	0	200.00000	5000.0000	26
27	S-V	0	0	0	0	0	0	62	0	30.000000	300.00000	27
28	S-W	43	0	7	0	0	0	12	0	100.00000	2000.0000	28
29	S-Y	0	0	0	0	0	0	62	0	20.000000	3000.0000	29
30	S-ZN	58	0	1	0	0	0	3	0	700.00000	1500.0000	30
31	S-TH	61	0	0	0	0	0	1	0	1000.0000	1000.0000	31

Table 6. Fisher-K statistics on analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

NO	COLUMN	K1	SQRT(K2)	K2	K3	G1	K4	G2	NO
		MEAN	STD DEVIATION	VARIANCE		SKEWNESS		KURTOSIS	
1	LATITUDE	31.826767	0.0424459	0.0018017	-9.6810674D-06	-0.1265944	-1.5592517D-06	-0.4803649	1
2	LONGITUD	110.41751	0.0415950	0.0017301	-4.0514616D-06	-0.0562973	-4.1071964D-06	-1.3720811	2
3	S-FE%	2.7854839	3.3435451	11.179294	111.10136	2.9723355	1412.3060	11.300562	3
4	S-MG%	1.4153226	2.6369473	6.9534909	66.769385	3.6414390	681.71564	14.099298	4
5	S-CA%	13.983333	11.494275	132.11836	1727.5862	1.1376141	24719.178	1.4161448	5
6	S-TI%	1.3500000	0.6560753	0.4304348	-0.0933439	-0.3305406	-0.2972897	-1.6045938	6
7	S-MN	1375.0000	1591.7500	2533663.0	8.9109309D+09	2.2095229	2.9303444D+13	4.5647736	7
8	S-AG								8
9	S-AS								9
10	S-AU								10
11	S-B	227.90323	324.53819	105325.04	1.3706336D+08	4.0098113	1.9794122D+11	17.843210	11
12	S-BA	2154.6296	2885.3283	8325119.7	4.8077054D+10	2.0014840	2.0117878D+14	2.9026936	12
13	S-BE	7.9090909	3.7277478	13.896104	103.06494	1.9896256	885.84005	4.5874274	13
14	S-BI	285.65217	374.56431	140298.42	1.0792513D+08	2.0537304	8.3276645D+10	4.2307530	14
15	S-CD								15
16	S-CO	15.326087	10.132575	102.66908	3946.0968	3.7932216	197263.45	18.714028	16
17	S-CR	79.833333	44.966717	2022.0056	85400.049	0.9392573	3361087.0	0.8220818	17
18	S-CU	69.166667	145.50160	21170.714	10337142.	3.3558087	5.1880580D+09	11.575341	18
19	S-LA	236.06557	143.50701	20594.262	2458860.1	0.8319830	-1.6924500D+08	-0.3990464	19
20	S-MO	55.000000	112.45987	12647.222	5473303.9	3.8481930	2.4809556D+09	15.510603	20
21	S-NB	81.219512	33.778330	1140.9756	61498.780	1.5957026	3893584.8	2.9908657	21
22	S-NI	28.275862	17.942162	321.92118	10118.227	1.7517820	207293.80	2.0002635	22
23	S-PB	300.67797	951.90710	906127.12	5.4759402D+09	6.3485567	3.6123424D+13	43.995743	23
24	S-SB								24
25	S-SN	33.333333	19.148542	366.66667	7509.1575	1.0695081	-52783.883	-0.3926074	25
26	S-SR	1273.8095	1517.2278	2301980.3	5.2204315D+09	1.4946999	6.4187218D+12	1.2112823	26
27	S-V	128.54839	56.997175	3248.6779	159712.43	0.8625390	9435948.0	0.8940714	27
28	S-W	591.66667	494.43877	244469.70	2.7624394D+08	2.2853631	3.9671621D+11	6.6378874	28
29	S-Y	657.25806	696.74929	485459.57	7.0725401D+08	2.0909604	1.0335171D+12	4.3854236	29
30	S-ZN	966.66667	461.88022	213333.33	1.7066667D+08	1.7320508			30
31	S-TH	1000.0000							31

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona.
[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

FREQUENCY TABLE FOR VARIABLE 3 (S-FE%)

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	0.52	0.52
-7.500E-01	-5.833E-01	2	2	3.23	3.23	0.93	1.22
-5.833E-01	-4.167E-01	0	2	0.00	3.23	2.05	2.05
-4.167E-01	-2.500E-01	3	5	4.84	8.06	3.85	0.19
-2.500E-01	-8.333E-02	9	14	14.52	22.58	6.15	1.32
-8.333E-02	8.333E-02	12	26	19.35	41.94	8.38	1.56
8.333E-02	2.500E-01	7	33	11.29	53.23	9.73	0.77
2.500E-01	4.167E-01	6	39	9.68	62.90	9.64	1.37
4.167E-01	5.833E-01	12	51	19.35	82.26	8.13	1.84
5.833E-01	7.500E-01	4	55	6.45	88.71	5.85	0.59
7.500E-01	9.167E-01	2	57	3.23	91.94	3.59	0.70
9.167E-01	1.083E+00	4	61	6.45	98.39	1.88	2.40
1.083E+00	1.250E+00	0	61	0.00	98.39	0.84	0.84
1.250E+00	1.417E+00	1	62	1.61	100.00	0.46	0.64
	G	0	62	0.00	100.00	0.52	0.52
	H	0	62				
	B	0	62				

TOTALS LESS H AND B 62

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

```
2.154E-01 XXX
3.162E-01
4.642E-01 XXXXX
6.813E-01 XXXXXXXXXXXXXXX
1.000E+00 XXXXXXXXXXXXXXXXXXX
1.468E+00 XXXXXXXXXXX
2.154E+00 XXXXXXXXXX
3.162E+00 XXXXXXXXXXXXXXXXXXX
4.642E+00 XXXXXX
6.813E+00 XXX
1.000E+01 XXXXXX
1.468E+01
2.154E+01 XX
```

PERCENT TABLE FOR VARIABLE 3 (S-FE%) 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	-6.249863E-02	8.659671E-01
50.00	2.023829E-01	1.593613E+00
75.00	5.208359E-01	3.317690E+00
90.00	8.166698E-01	6.556466E+00
95.00	9.958368E-01	9.904597E+00
98.00	1.073337E+00	1.183960E+01

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E-01
MAXIMUM ANTILOG      =  2.00000E+01
GEOMETRIC MEAN       =  1.73627E+00
GEOMETRIC DEVIATION  =  2.59628E+00
VARIANCE OF LOGS     =  1.71687E-01
```

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 4 (S-MG%)

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	2.88	2.88
-1.084E+00	-9.173E-01	4	4	6.45	6.45	2.52	0.88
-9.173E-01	-7.507E-01	3	7	4.84	11.29	3.88	0.20
-7.507E-01	-5.840E-01	12	19	19.35	30.65	5.40	8.08
-5.840E-01	-4.173E-01	4	23	6.45	37.10	6.78	1.14
-4.173E-01	-2.507E-01	8	31	12.90	50.00	7.69	0.01
-2.507E-01	-8.400E-02	9	40	14.52	64.52	7.88	0.16
-8.400E-02	8.267E-02	4	44	6.45	70.97	7.28	1.48
8.267E-02	2.493E-01	8	52	12.90	83.87	6.08	0.60
2.493E-01	4.160E-01	5	57	8.06	91.94	4.59	0.04
4.160E-01	5.827E-01	0	57	0.00	91.94	3.12	3.12
5.827E-01	7.493E-01	1	58	1.61	93.55	1.92	0.44
7.493E-01	9.160E-01	1	59	1.61	95.16	1.06	0.00
9.160E-01	1.083E+00	2	61	3.23	98.39	0.53	4.04
1.083E+00	1.249E+00	1	62	1.61	100.00	0.39	0.94
	G	0	62	0.00	100.00	2.88	2.88
	H	0	62				
	B	0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 4 (S-MG%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E-02 XXXXXX
1.466E-01 XXXXX
2.151E-01 XXXXXXXXXXXXXXXXXX
3.157E-01 XXXXXX
4.634E-01 XXXXXXXXXXXX
6.802E-01 XXXXXXXXXXXXXX
9.985E-01 XXXXXX
1.466E+00 XXXXXXXXXXXX
2.151E+00 XXXXXXXX
3.157E+00
4.635E+00 XX
6.803E+00 XX
9.985E+00 XXX
1.466E+01 XX
```

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-6.326102E-01	2.330182E-01
50.00	-2.506650E-01	5.614809E-01
75.00	1.347524E-01	1.363805E+00
90.00	3.760029E-01	2.376856E+00
95.00	8.993373E-01	7.931171E+00
98.00	1.062671E+00	1.155237E+01

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.00000E-01
MAXIMUM ANTILOG      = 1.50000E+01
GEOMETRIC MEAN       = 6.14328E-01
GEOMETRIC DEVIATION  = 3.30535E+00
VARIANCE OF LOGS     = 2.69587E-01
```

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 5 (S-CA%)

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	0.15	0.15
-4.170E-01	-2.503E-01	1	1	1.61	1.61	0.26	2.15
-2.503E-01	-8.367E-02	0	1	0.00	1.61	0.59	0.59
-8.367E-02	8.300E-02	3	4	4.84	6.45	1.21	2.66
8.300E-02	2.497E-01	3	7	4.84	11.29	2.21	0.28
2.497E-01	4.163E-01	5	12	8.06	19.35	3.61	0.53
4.163E-01	5.830E-01	0	12	0.00	19.35	5.27	5.27
5.830E-01	7.497E-01	7	19	11.29	30.65	6.87	0.00
7.497E-01	9.163E-01	3	22	4.84	35.48	8.00	3.12
9.163E-01	1.083E+00	10	32	16.13	51.61	8.31	0.34
1.083E+00	1.250E+00	7	39	11.29	62.90	7.71	0.07
1.250E+00	1.416E+00	11	50	17.74	80.65	6.39	3.33
1.416E+00	1.583E+00	8	58	12.90	93.55	4.73	2.27
1.583E+00	1.750E+00	2	60	3.23	96.77	6.69	3.29
G		2	62	3.23	100.00	0.15	22.98
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
4.638E-01 XX
6.808E-01
9.992E-01 XXXXX
1.467E+00 XXXXX
2.153E+00 XXXXXXXX
3.160E+00
4.638E+00 XXXXXXXXXX
6.808E+00 XXXXX
9.992E+00 XXXXXXXXXXXXXXX
1.467E+01 XXXXXXXXXX
2.153E+01 XXXXXXXXXXXXXXXXX
3.160E+01 XXXXXXXXXXXX
4.638E+01 XXX
```

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 0.9999991E 50

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	5.830020E-01	3.828265E+00
50.00	1.066336E+00	1.165028E+01
75.00	1.363307E+00	2.308376E+01
90.00	1.537171E+00	3.444852E+01
95.00	1.658004E+00	4.549924E+01
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E-01
MAXIMUM ANTILOG      = 5.00000E+01
GEOMETRIC MEAN       = 8.68497E+00
GEOMETRIC DEVIATION  = 3.03698E+00
VARIANCE OF LOGS     = 2.32750E-01
```

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 6 (S-TI%)

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	0.00	0.00
-5.840E-01	-4.173E-01	2	2	3.23	3.23	0.08	49.38
-4.173E-01	-2.507E-01	2	4	3.23	6.45	0.76	2.05
-2.507E-01	-8.400E-02	4	8	6.45	12.90	4.10	0.00
-8.400E-02	8.267E-02	2	10	3.23	16.13	11.99	8.32
8.267E-02	2.493E-01	4	14	6.45	22.58	19.00	11.84
2.493E-01	4.160E-01	10	24	16.13	38.71	26.08	9.91
G		38	62	61.29	100.00	0.00	350623.19
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
3.157E-01 xxx
4.634E-01 xxx
6.802E-01 xxxxxx
9.985E-01 xxx
1.466E+00 xxxxxx
2.151E+00 xxxxxxxxxxxxxxx
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 3.00000E-01
MAXIMUM ANTILOG      = 2.00000E+00
GEOMETRIC MEAN       = 1.14895E+00
GEOMETRIC DEVIATION  = 1.89310E+00
VARIANCE OF LOGS     = 7.68249E-02
```

PERCENT TABLE FOR VARIABLE 6 (S-TI%) 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	2.743350E-01	1.880767E+00
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 7 (S-MN)

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	1.45	1.45
2.083E+00	-	2.250E+00	1	1	1.61	1.61	1.98	0.49
2.250E+00	-	2.416E+00	6	7	9.68	11.29	3.69	1.45
2.416E+00	-	2.583E+00	6	13	9.68	20.97	5.88	0.00
2.583E+00	-	2.750E+00	15	28	24.19	45.16	8.05	6.00
2.750E+00	-	2.916E+00	3	31	4.84	50.00	9.45	4.41
2.916E+00	-	3.083E+00	10	41	16.13	66.13	9.53	0.02
3.083E+00	-	3.250E+00	7	48	11.29	77.42	8.24	0.19
3.250E+00	-	3.416E+00	6	54	9.68	87.10	6.12	0.00
3.416E+00	-	3.583E+00	2	56	3.23	90.32	3.89	0.92
3.583E+00	-	3.750E+00	4	60	6.45	96.77	2.13	1.65
3.750E+00	-	3.916E+00	2	62	3.23	100.00	1.59	0.10
	G		0	62	0.00	100.00	1.45	1.45
	H		0	62				
	B		0	62				

TOTALS LESS H AND B 62

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

```
1.467E+02 XX
2.153E+02 XXXXXXXXXX
3.160E+02 XXXXXXXXXX
4.638E+02 XXXXXXXXXXXXXXXXXXXXXXXX
6.808E+02 XXXXX
9.992E+02 XXXXXXXXXXXXXXXX
1.467E+03 XXXXXXXXXX
2.153E+03 XXXXXXXXXX
3.160E+03 XXX
4.638E+03 XXXXXX
6.808E+03 XXX
```

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	2.610779E+00	4.081115E+02
50.00	2.916335E+00	8.247741E+02
75.00	3.213955E+00	1.636646E+03
90.00	3.566336E+00	3.684142E+03
95.00	3.703837E+00	5.056344E+03
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E+02
MAXIMUM ANTILOG = 7.00000E+03
GEOMETRIC MEAN = 8.41207E+02
GEOMETRIC DEVIATION = 2.65041E+00
VARIANCE OF LOGS = 1.79194E-01

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

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 11 (S-B)

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	0.23	0.23
1.250E+00 -	1.417E+00	1	1	1.61	1.61	0.64	0.20
1.417E+00 -	1.583E+00	0	1	0.00	1.61	1.81	1.81
1.583E+00 -	1.750E+00	3	4	4.84	6.45	4.07	0.28
1.750E+00 -	1.917E+00	3	7	4.84	11.29	7.29	2.52
1.917E+00 -	2.083E+00	25	32	40.32	51.61	10.39	20.52
2.083E+00 -	2.250E+00	9	41	14.52	66.13	11.80	0.67
2.250E+00 -	2.417E+00	10	51	16.13	82.26	10.67	0.04
2.417E+00 -	2.583E+00	3	54	4.84	87.10	7.68	2.85
2.583E+00 -	2.750E+00	5	59	8.06	95.16	4.40	0.08
2.750E+00 -	2.917E+00	0	59	0.00	95.16	2.01	2.01
2.917E+00 -	3.083E+00	1	60	1.61	96.77	0.73	0.10
3.083E+00 -	3.250E+00	1	61	1.61	98.39	0.21	2.95
3.250E+00 -	3.417E+00	1	62	1.61	100.00	0.06	15.04
G		0	62	0.00	100.00	0.23	0.23
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
2.154E+01 XX
3.162E+01
4.642E+01 XXXXX
6.813E+01 XXXXX
1.000E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.468E+02 XXXXXXXXXXXXXX
2.154E+02 XXXXXXXXXXXXXXX
3.162E+02 XXXXX
4.642E+02 XXXXXXXX
6.813E+02
1.000E+03 XX
1.468E+03 XX
2.154E+03 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	2.00000E+01
MAXIMUM ANTILOG	=	2.00000E+03
GEOMETRIC MEAN	=	1.50078E+02
GEOMETRIC DEVIATION	=	2.21688E+00
VARIANCE OF LOGS	=	1.19538E-01

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.973335E+00	9.404480E+01
50.00	2.076668E+00	1.193077E+02
75.00	2.341669E+00	2.196185E+02
90.00	2.643336E+00	4.398819E+02
95.00	2.746670E+00	5.580456E+02
98.00	3.210004E+00	1.621825E+03

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 12 (S-BA)

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	1.32	1.32
1.916E+00 -	2.083E+00	3	3	4.84	4.84	1.15	2.96
2.083E+00 -	2.249E+00	1	4	1.61	6.45	1.86	0.40
2.249E+00 -	2.416E+00	4	8	6.45	12.90	2.79	0.52
2.416E+00 -	2.583E+00	3	11	4.84	17.74	3.88	0.20
2.583E+00 -	2.749E+00	6	17	9.68	27.42	5.00	0.20
2.749E+00 -	2.916E+00	6	23	9.68	37.10	5.97	0.00
2.916E+00 -	3.083E+00	10	33	16.13	53.23	6.61	1.74
3.083E+00 -	3.249E+00	0	33	0.00	53.23	6.79	6.79
3.249E+00 -	3.416E+00	11	44	17.74	70.97	6.47	3.17
3.416E+00 -	3.583E+00	1	45	1.61	72.58	5.71	3.89
3.583E+00 -	3.749E+00	3	48	4.84	77.42	4.68	0.60
3.749E+00 -	3.916E+00	1	49	1.61	79.03	3.55	1.84
3.916E+00 -	4.083E+00	5	54	8.06	87.10	6.21	0.24
G		8	62	12.90	100.00	1.32	33.83
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 12 (S-BA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+01 XXXXX
1.466E+02 XX
2.151E+02 XXXXXX
3.157E+02 XXXXX
4.634E+02 XXXXXXXXXX
6.802E+02 XXXXXXXXXX
9.985E+02 XXXXXXXXXXXXXXXX
1.466E+03
2.151E+03 XXXXXXXXXXXXXXXXXX
3.157E+03 XX
4.635E+03 XXXXX
6.803E+03 XX
9.985E+03 XXXXXXXX
```

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	2.707668E+00	5.101152E+02
50.00	3.049336E+00	1.120303E+03
75.00	3.666003E+00	4.634506E+03
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.00000E+02
MAXIMUM ANTILOG      = 1.00000E+04
GEOMETRIC MEAN       = 1.03499E+03
GEOMETRIC DEVIATION  = 3.47831E+00
VARIANCE OF LOGS     = 2.93080E-01
```

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

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		30	30	48.39	48.39		
L		10	40	16.13	64.52		
T		0	40	0.00	64.52	7.09	7.09
5.830E-01 -	7.497E-01	8	48	12.90	77.42	23.72	10.42
7.497E-01 -	9.163E-01	7	55	11.29	88.71	23.91	11.96
9.163E-01 -	1.083E+00	5	60	8.06	96.77	6.75	0.45
1.083E+00 -	1.250E+00	1	61	1.61	98.39	0.52	0.44
1.250E+00 -	1.416E+00	1	62	1.61	100.00	0.01	91.81
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
4.638E+00 XXXXXXXXXXXX
6.808E+00 XXXXXXXXXX
9.992E+00 XXXXXXXX
1.467E+01 XX
2.153E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+00
MAXIMUM ANTILOG      = 2.00000E+01
GEOMETRIC MEAN       = 7.29348E+00
GEOMETRIC DEVIATION  = 1.47640E+00
VARIANCE OF LOGS     = 2.86301E-02
```

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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	9.430007E-01	8.770023E+00
95.00	1.046334E+00	1.112588E+01
98.00	1.209668E+00	1.620571E+01

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 14 (S-BI)

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		37	37	59.68	59.68		
L		2	39	3.23	62.90		
T		0	39	0.00	62.90	15.23	15.23
1.250E+00 -	1.417E+00	2	41	3.23	66.13	6.82	3.41
1.417E+00 -	1.583E+00	3	44	4.84	70.97	7.66	2.84
1.583E+00 -	1.750E+00	1	45	1.61	72.58	7.79	5.92
1.750E+00 -	1.917E+00	2	47	3.23	75.81	7.16	3.72
1.917E+00 -	2.083E+00	3	50	4.84	80.65	5.96	1.47
2.083E+00 -	2.250E+00	3	53	4.84	85.48	4.48	0.49
2.250E+00 -	2.417E+00	3	56	4.84	90.32	3.05	0.00
2.417E+00 -	2.583E+00	0	56	0.00	90.32	1.88	1.88
2.583E+00 -	2.750E+00	2	58	3.23	93.55	1.05	0.87
2.750E+00 -	2.917E+00	2	60	3.23	96.77	0.53	4.13
2.917E+00 -	3.083E+00	1	61	1.61	98.39	0.24	2.41
3.083E+00 -	3.250E+00	1	62	1.61	100.00	0.15	4.69
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 14 (S-BI)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXX
3.162E+01 XXXXX
4.642E+01 XX
6.813E+01 XXX
1.000E+02 XXXXX
1.468E+02 XXXXX
2.154E+02 XXXXX
3.162E+02
4.642E+02 XXX
6.813E+02 XXX
1.000E+03 XX
1.468E+03 XX
```

THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 2.00000E+01
MAXIMUM ANTILOG      = 1.50000E+03
GEOMETRIC MEAN       = 1.36639E+02
GEOMETRIC DEVIATION  = 3.55211E+00
VARIANCE OF LOGS     = 3.03035E-01
```

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.875001E+00	7.498963E+01
90.00	2.405558E+00	2.544239E+02
95.00	2.825003E+00	6.683488E+02
98.00	3.043337E+00	1.104936E+03

PERCENT TABLE FOR VARIABLE 14 (S-BI) BY LINEAR INTERPOLATION FROM FREQUENCY TABLE
IF SELECTED PERCENTILES FALL WITHIN DATA EITHER ABOVE OR BELOW THE LIMITS OF DETECTION.

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 16 (S-CO)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		13	13	20.97	20.97		
L		3	16	4.84	25.81		
T		0	16	0.00	25.81	9.03	9.03
9.160E-01 -	1.083E+00	27	43	43.55	69.35	19.58	2.81
1.083E+00 -	1.249E+00	5	48	8.06	77.42	21.33	12.50
1.249E+00 -	1.416E+00	10	58	16.13	93.55	9.92	0.00
1.416E+00 -	1.583E+00	3	61	4.84	98.39	1.96	0.55
1.583E+00 -	1.749E+00	0	61	0.00	98.39	0.16	0.16
1.749E+00 -	1.916E+00	1	62	1.61	100.00	0.01	171.04
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
9.985E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+01 XXXXXXXX
2.151E+01 XXXXXXXXXXXXXXXX
3.157E+01 XXXXX
4.634E+01
6.802E+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 7.00000E+01
GEOMETRIC MEAN = 1.36166E+01
GEOMETRIC DEVIATION = 1.55028E+00
VARIANCE OF LOGS = 3.62559E-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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.199334E+00	1.582464E+01
90.00	1.379334E+00	2.395159E+01
95.00	1.466001E+00	2.924160E+01
98.00	1.569335E+00	3.709665E+01

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 17 (S-CR)

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		1	1	1.61	1.61		
	L		1	2	1.61	3.23		
	T		0	2	0.00	3.23	1.43	1.43
1.250E+00	-	1.417E+00	7	9	11.29	14.52	3.56	3.32
1.417E+00	-	1.583E+00	3	12	4.84	19.35	7.97	3.10
1.583E+00	-	1.750E+00	12	24	19.35	38.71	12.70	0.04
1.750E+00	-	1.917E+00	13	37	20.97	59.68	14.39	0.13
1.917E+00	-	2.083E+00	17	54	27.42	87.10	11.60	2.51
2.083E+00	-	2.250E+00	5	59	8.06	95.16	6.66	0.41
2.250E+00	-	2.417E+00	3	62	4.84	100.00	3.69	0.13
	G		0	62	0.00	100.00	0.00	0.00
	H		0	62				
	B		0	62				

TOTALS LESS H AND B 62

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

```
2.154E+01 XXXXXXXXXX
3.162E+01 XXXXX
4.642E+01 XXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXXXXXXXXXXXXX
1.468E+02 XXXXXXXX
2.154E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 2.00000E+02
GEOMETRIC MEAN = 6.73391E+01
GEOMETRIC DEVIATION = 1.86151E+00
VARIANCE OF LOGS = 7.28279E-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	DATA VALUE	ANTI LOG OF VALUE
25.00	1.631945E+00	4.284945E+01
50.00	1.839745E+00	6.914245E+01
75.00	2.009805E+00	1.022835E+02
90.00	2.143335E+00	1.391026E+02
95.00	2.246669E+00	1.764691E+02
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 18 (S-CU)

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	19.35	19.35		
L		14	26	22.58	41.94		
T		0	26	0.00	41.94	14.28	14.28
9.160E-01 -	1.083E+00	12	38	19.35	61.29	8.11	1.86
1.083E+00 -	1.249E+00	4	42	6.45	67.74	9.28	3.00
1.249E+00 -	1.416E+00	9	51	14.52	82.26	9.18	0.00
1.416E+00 -	1.583E+00	3	54	4.84	87.10	7.87	3.01
1.583E+00 -	1.749E+00	1	55	1.61	88.71	5.83	4.01
1.749E+00 -	1.916E+00	2	57	3.23	91.94	3.74	0.81
1.916E+00 -	2.083E+00	0	57	0.00	91.94	2.08	2.08
2.083E+00 -	2.249E+00	1	58	1.61	93.55	1.00	0.00
2.249E+00 -	2.416E+00	1	59	1.61	95.16	0.42	0.82
2.416E+00 -	2.583E+00	1	60	1.61	96.77	0.15	4.83
2.583E+00 -	2.749E+00	1	61	1.61	98.39	0.05	19.49
2.749E+00 -	2.916E+00	1	62	1.61	100.00	0.02	59.64
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
9.985E+00 XXXXXXXXXXXXXXXXXX
1.466E+01 XXXXXX
2.151E+01 XXXXXXXXXXXXXX
3.157E+01 XXXXX
4.634E+01 XX
6.802E+01 XXX
9.985E+01
1.466E+02 XX
2.151E+02 XX
3.157E+02 XX
4.635E+02 XX
6.803E+02 XX
```

THE DATA VALUE ON THE TABLE IS GIVEN AS 0.9999991E 50

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 7.00000E+02
GEOMETRIC MEAN = 2.56587E+01
GEOMETRIC DEVIATION = 3.22667E+00
VARIANCE OF LOGS = 2.58831E-01

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.332668E+00	2.151134E+01
90.00	1.816002E+00	6.546389E+01
95.00	2.399336E+00	2.508051E+02
98.00	2.709337E+00	5.120790E+02

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,

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 19 (S-LA)

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	0.65	0.65
1.583E+00 -	1.750E+00	6	6	9.68	9.68	1.70	10.88
1.750E+00 -	1.916E+00	0	6	0.00	9.68	4.29	4.29
1.916E+00 -	2.083E+00	6	12	9.68	19.35	8.19	0.59
2.083E+00 -	2.250E+00	12	24	19.35	38.71	11.85	0.00
2.250E+00 -	2.416E+00	16	40	25.81	64.52	12.98	0.70
2.416E+00 -	2.583E+00	10	50	16.13	80.65	10.78	0.06
2.583E+00 -	2.750E+00	11	61	17.74	98.39	11.56	0.03
G		1	62	1.61	100.00	0.65	0.19
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 19 (S-LA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXXXXXXXXX
6.808E+01
9.992E+01 XXXXXXXXXX
1.467E+02 XXXXXXXXXXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+02 XXXXXXXXXXXXXXX
4.638E+02 XXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+01
MAXIMUM ANTILOG      = 5.00000E+02
GEOMETRIC MEAN       = 1.94201E+02
GEOMETRIC DEVIATION  = 1.93717E+00
VARIANCE OF LOGS     = 8.24653E-02
```

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	2.131612E+00	1.353980E+02
50.00	2.322585E+00	2.101768E+02
75.00	2.524669E+00	3.347099E+02
90.00	2.670881E+00	4.686849E+02
95.00	2.717851E+00	5.222167E+02
98.00	2.746033E+00	5.572276E+02

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 20 (S-MO)

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		41	41	66.13	66.13		
L		2	43	3.23	69.35		
T		0	43	0.00	69.35	15.44	15.44
9.160E-01 -	1.083E+00	6	49	9.68	79.03	12.14	3.11
1.083E+00 -	1.249E+00	1	50	1.61	80.65	13.06	11.14
1.249E+00 -	1.416E+00	4	54	6.45	87.10	10.58	4.09
1.416E+00 -	1.583E+00	3	57	4.84	91.94	6.46	1.85
1.583E+00 -	1.749E+00	3	60	4.84	96.77	2.97	0.00
1.749E+00 -	1.916E+00	0	60	0.00	96.77	1.03	1.03
1.916E+00 -	2.083E+00	0	60	0.00	96.77	0.27	0.27
2.083E+00 -	2.249E+00	1	61	1.61	98.39	0.05	17.14
2.249E+00 -	2.416E+00	0	61	0.00	98.39	0.01	0.01
2.416E+00 -	2.583E+00	0	61	0.00	98.39	0.00	0.00
2.583E+00 -	2.749E+00	1	62	1.61	100.00	0.00	1068.63
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
9.985E+00 XXXXXXXXXX
1.466E+01 XX
2.151E+01 XXXXXX
3.157E+01 XXXXX
4.634E+01 XXXXX
6.802E+01
9.985E+01
1.466E+02 XX
2.151E+02
3.157E+02
4.635E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 5.00000E+02
GEOMETRIC MEAN = 2.56839E+01
GEOMETRIC DEVIATION = 2.80964E+00
VARIANCE OF LOGS = 2.01288E-01

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.516001E+00	3.280962E+01
95.00	1.688224E+00	4.877797E+01
98.00	2.129336E+00	1.346901E+02

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

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 21 (S-NB)

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	10	10	16.13	16.13		
	L	11	21	17.74	33.87		
	T	0	21	0.00	33.87	7.08	7.08
1.583E+00 -	1.750E+00	12	33	19.35	53.23	16.42	1.19
1.750E+00 -	1.916E+00	14	47	22.58	75.81	21.26	2.48
1.916E+00 -	2.083E+00	11	58	17.74	93.55	12.98	0.30
2.083E+00 -	2.250E+00	3	61	4.84	98.39	3.73	0.14
2.250E+00 -	2.416E+00	1	62	1.61	100.00	0.53	0.41
	G	0	62	0.00	100.00	0.00	0.00
	H	0	62				
	B	0	62				

TOTALS LESS H AND B 62

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

```
4.638E+01 XXXXXXXXXXXXXXXXXX
6.808E+01 XXXXXXXXXXXXXXXXXXXXX
9.992E+01 XXXXXXXXXXXXXXXXX
1.467E+02 XXXXX
2.153E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01
MAXIMUM ANTILOG = 2.00000E+02
GEOMETRIC MEAN = 7.57229E+01
GEOMETRIC DEVIATION = 1.44152E+00
VARIANCE OF LOGS = 2.52242E-02

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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.910382E+00	8.135451E+01
90.00	2.049668E+00	1.121160E+02
95.00	2.133001E+00	1.358317E+02
98.00	2.236335E+00	1.723196E+02

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 22 (S-NI)

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		28	28	45.16	45.16		
	L		5	33	8.06	53.23		
	T		0	33	0.00	53.23	8.87	8.87
9.160E-01	-	1.083E+00	3	36	4.84	58.06	12.58	7.29
1.083E+00	-	1.249E+00	0	36	0.00	58.06	16.24	16.24
1.249E+00	-	1.416E+00	15	51	24.19	82.26	13.61	0.14
1.416E+00	-	1.583E+00	7	58	11.29	93.55	7.40	0.02
1.583E+00	-	1.749E+00	0	58	0.00	93.55	2.61	2.61
1.749E+00	-	1.916E+00	4	62	6.45	100.00	0.69	15.78
	G		0	62	0.00	100.00	0.00	0.00
	H		0	62				
	B		0	62				

TOTALS LESS H AND B 62

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

```
 9.985E+00 XXXXX
 1.466E+01
 2.151E+01 XXXXXXXXXXXXXXXXXXXXXXX
 3.157E+01 XXXXXXXXXXX
 4.634E+01
 6.802E+01 XXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.00000E+01
MAXIMUM ANTILOG      = 7.00000E+01
GEOMETRIC MEAN       = 2.44027E+01
GEOMETRIC DEVIATION  = 1.69071E+00
VARIANCE OF LOGS     = 5.20154E-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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.316001E+00	2.070145E+01
90.00	1.530287E+00	3.390681E+01
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 23 (S-PB)

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		3	3	4.84	4.84		
	L		0	3	0.00	4.84		
	T		0	3	0.00	4.84	6.93	6.93
1.250E+00	-	1.417E+00	5	8	8.06	12.90	4.27	0.12
1.417E+00	-	1.583E+00	12	20	19.35	32.26	5.62	7.23
1.583E+00	-	1.750E+00	8	28	12.90	45.16	6.76	0.23
1.750E+00	-	1.917E+00	9	37	14.52	59.68	7.41	0.34
1.917E+00	-	2.083E+00	11	48	17.74	77.42	7.41	1.74
2.083E+00	-	2.250E+00	1	49	1.61	79.03	6.76	4.91
2.250E+00	-	2.417E+00	3	52	4.84	83.87	5.63	1.23
2.417E+00	-	2.583E+00	1	53	1.61	85.48	4.27	2.51
2.583E+00	-	2.750E+00	3	56	4.84	90.32	2.96	0.00
2.750E+00	-	2.917E+00	3	59	4.84	95.16	1.87	0.68
2.917E+00	-	3.083E+00	0	59	0.00	95.16	1.08	1.08
3.083E+00	-	3.250E+00	1	60	1.61	96.77	0.57	0.33
3.250E+00	-	3.417E+00	1	61	1.61	98.39	0.27	1.95
3.417E+00	-	3.583E+00	0	61	0.00	98.39	0.12	0.12
3.583E+00	-	3.750E+00	0	61	0.00	98.39	0.05	0.05
3.750E+00	-	3.917E+00	1	62	1.61	100.00	0.03	37.24
	G		0	62	0.00	100.00	0.00	0.00
	H		0	62				
	B		0	62				

TOTALS LESS H AND B 62

MAXIMUM ANTILOG = 7.00000E+03
GEOMETRIC MEAN = 8.87398E+01
GEOMETRIC DEVIATION = 3.49440E+00
VARIANCE OF LOGS = 2.95254E-01

HISTOGRAM FOR VARIABLE 23 (S-PB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXXXXX
3.162E+01 XXXXXXXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXXXX
1.468E+02 XX
2.154E+02 XXXXX
3.162E+02 XX
4.642E+02 XXXXX
6.813E+02 XXXXX
1.000E+03
1.468E+03 XX
2.154E+03 XX
3.162E+03
4.642E+03
6.813E+03 XX
```

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

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	1.520834E+00	3.317675E+01
50.00	1.805557E+00	6.390821E+01
75.00	2.060608E+00	1.149761E+02
90.00	2.738892E+00	5.481405E+02
95.00	2.911114E+00	8.149190E+02
98.00	3.376671E+00	2.380515E+03

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 25 (S-SN)

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		34	34	54.84	54.84		
L		13	47	20.97	75.81		
T		0	47	0.00	75.81	14.85	14.85
1.250E+00 -	1.417E+00	9	56	14.52	90.32	30.01	14.71
1.417E+00 -	1.583E+00	1	57	1.61	91.94	15.34	13.40
1.583E+00 -	1.750E+00	3	60	4.84	96.77	1.76	0.88
1.750E+00 -	1.917E+00	2	62	3.23	100.00	0.04	88.60
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
2.154E+01 XXXXXXXXXXXXXXX
3.162E+01 XX
4.642E+01 XXXXX
6.813E+01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 7.00000E+01
GEOMETRIC MEAN = 2.91675E+01
GEOMETRIC DEVIATION = 1.67053E+00
VARIANCE OF LOGS = 4.96642E-02

PERCENT TABLE FOR VARIABLE 25 (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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	1.688890E+00	4.685283E+01
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 26 (S-SR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		20	20	32.26	32.26		
L		0	20	0.00	32.26		
T		0	20	0.00	32.26	13.07	13.07
2.250E+00 -	2.417E+00	18	38	29.03	61.29	6.89	17.89
2.417E+00 -	2.583E+00	1	39	1.61	62.90	8.06	6.18
2.583E+00 -	2.750E+00	3	42	4.84	67.74	8.40	3.47
2.750E+00 -	2.917E+00	3	45	4.84	72.58	7.79	2.95
2.917E+00 -	3.083E+00	3	48	4.84	77.42	6.44	1.84
3.083E+00 -	3.250E+00	2	50	3.23	80.65	4.74	1.59
3.250E+00 -	3.417E+00	4	54	6.45	87.10	3.11	0.25
3.417E+00 -	3.583E+00	4	58	6.45	93.55	1.82	2.61
3.583E+00 -	3.750E+00	4	62	6.45	100.00	1.67	3.26
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 26 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.162E+02 XX
4.642E+02 XXXXX
6.813E+02 XXXXX
1.000E+03 XXXXX
1.468E+03 XXX
2.154E+03 XXXXXX
3.162E+03 XXXXXX
4.642E+03 XXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+02
MAXIMUM ANTILOG = 5.00000E+03
GEOMETRIC MEAN = 6.37513E+02
GEOMETRIC DEVIATION = 3.31288E+00
VARIANCE OF LOGS = 2.70614E-01

PERCENT TABLE FOR VARIABLE 26 (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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	3.000001E+00	1.000003E+03
90.00	3.491669E+00	3.102195E+03
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 27 (S-V)

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	0.04	0.04
1.416E+00 -	1.583E+00	1	1	1.61	1.61	0.46	0.65
1.583E+00 -	1.749E+00	4	5	6.45	8.06	3.04	0.30
1.749E+00 -	1.916E+00	7	12	11.29	19.35	10.54	1.19
1.916E+00 -	2.083E+00	22	34	35.48	54.84	18.97	0.48
2.083E+00 -	2.249E+00	15	49	24.19	79.03	17.78	0.43
2.249E+00 -	2.416E+00	11	60	17.74	96.77	8.67	0.63
2.416E+00 -	2.583E+00	2	62	3.23	100.00	2.51	0.10
G		0	62	0.00	100.00	0.04	0.04
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 27 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E+01 XX
4.634E+01 XXXXXX
6.802E+01 XXXXXXXXXX
9.985E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02 XXXXXXXXXXXXXXXXXXXXXX
2.151E+02 XXXXXXXXXXXXXXXXX
3.157E+02 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 3.00000E+01
MAXIMUM ANTILOG = 3.00000E+02
GEOMETRIC MEAN = 1.16428E+02
GEOMETRIC DEVIATION = 1.58646E+00
VARIANCE OF LOGS = 4.01720E-02

PERCENT TABLE FOR VARIABLE 27 (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	1.942516E+00	8.760244E+01
50.00	2.059941E+00	1.147997E+02
75.00	2.221557E+00	1.665548E+02
90.00	2.352365E+00	2.250948E+02
95.00	2.399335E+00	2.508045E+02
98.00	1.000000E+35	1.000000E+35

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 28 (S-W)

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		43	43	69.35	69.35		
L		7	50	11.29	80.65		
T		0	50	0.00	80.65	14.88	14.88
1.916E+00 -	2.083E+00	1	51	1.61	82.26	12.48	10.56
2.083E+00 -	2.249E+00	0	51	0.00	82.26	13.53	13.53
2.249E+00 -	2.416E+00	2	53	3.23	85.48	10.82	7.19
2.416E+00 -	2.583E+00	1	54	1.61	87.10	6.38	4.54
2.583E+00 -	2.749E+00	3	57	4.84	91.94	2.78	0.02
2.749E+00 -	2.916E+00	4	61	6.45	98.39	0.89	10.86
2.916E+00 -	3.083E+00	0	61	0.00	98.39	0.21	0.21
3.083E+00 -	3.249E+00	0	61	0.00	98.39	0.04	0.04
3.249E+00 -	3.416E+00	1	62	1.61	100.00	0.01	190.28
G		0	62	0.00	100.00	0.00	0.00
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

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

```
9.985E+01 XX
1.466E+02
2.151E+02 XXX
3.157E+02 XX
4.634E+02 XXXXX
6.802E+02 XXXXXX
9.985E+02
1.466E+03
2.151E+03 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02
MAXIMUM ANTILOG = 2.00000E+03
GEOMETRIC MEAN = 4.51640E+02
GEOMETRIC DEVIATION = 2.19272E+00
VARIANCE OF LOGS = 1.16269E-01

PERCENT TABLE FOR VARIABLE 28 (S-W) 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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	2.682668E+00	4.815797E+02
95.00	2.828502E+00	6.737547E+02
98.00	2.906002E+00	8.053821E+02

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 29 (S-Y)

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	0.07	0.07
1.250E+00 -	1.417E+00	1	1	1.61	1.61	0.16	4.39
1.417E+00 -	1.583E+00	1	2	1.61	3.23	0.43	0.76
1.583E+00 -	1.750E+00	1	3	1.61	4.84	1.00	0.00
1.750E+00 -	1.917E+00	0	3	0.00	4.84	2.04	2.04
1.917E+00 -	2.083E+00	3	6	4.84	9.68	3.62	0.11
2.083E+00 -	2.250E+00	1	7	1.61	11.29	5.60	3.78
2.250E+00 -	2.417E+00	12	19	19.35	30.65	7.56	2.61
2.417E+00 -	2.583E+00	10	29	16.13	46.77	8.88	0.14
2.583E+00 -	2.750E+00	14	43	22.58	69.35	9.10	2.64
2.750E+00 -	2.917E+00	4	47	6.45	75.81	8.13	2.10
2.917E+00 -	3.083E+00	5	52	8.06	83.87	6.33	0.28
3.083E+00 -	3.250E+00	6	58	9.68	93.55	4.29	0.68
3.250E+00 -	3.417E+00	1	59	1.61	95.16	2.54	0.93
3.417E+00 -	3.583E+00	3	62	4.84	100.00	2.24	0.26
G		0	62	0.00	100.00	0.07	0.07
H		0	62				
B		0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 29 (S-Y)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01 XX
4.642E+01 XX
6.813E+01
1.000E+02 XXXXX
1.468E+02 XX
2.154E+02 XXXXXXXXXXXXXXXXXX
3.162E+02 XXXXXXXXXXXXXXX
4.642E+02 XXXXXXXXXXXXXXXXXXXXXXX
6.813E+02 XXXXXX
1.000E+03 XXXXXXXX
1.468E+03 XXXXXXXXXX
2.154E+03 XX
3.162E+03 XXXXX
```

PERCENT TABLE FOR VARIABLE 29 (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 PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	2.368058E+00	2.333769E+02
50.00	2.607146E+00	4.047115E+02
75.00	2.895837E+00	7.867498E+02
90.00	3.188893E+00	1.544873E+03
95.00	3.400004E+00	2.511911E+03
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 3.00000E+03
GEOMETRIC MEAN = 4.09986E+02
GEOMETRIC DEVIATION = 2.80052E+00
VARIANCE OF LOGS = 2.00023E-01

Table 7. Frequency tables and histograms of analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 30 (S-ZN)

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	58	58	93.55	93.55		
	L	1	59	1.61	95.16		
	T	0	59	0.00	95.16	44.80	44.80
2.750E+00 -	2.917E+00	2	61	3.23	98.39	17.14	13.38
2.917E+00 -	3.083E+00	0	61	0.00	98.39	0.00	0.00
3.083E+00 -	3.250E+00	1	62	1.61	100.00	0.05	17.13
	G	0	62	0.00	100.00	0.00	0.00
	H	0	62				
	B	0	62				

TOTALS LESS H AND B 62

HISTOGRAM FOR VARIABLE 30 (S-ZN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
6.813E+02 XXX
1.000E+03
1.468E+03 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 7.00000E+02
MAXIMUM ANTILOG      = 1.50000E+03
GEOMETRIC MEAN       = 9.02462E+02
GEOMETRIC DEVIATION  = 1.55274E+00
VARIANCE OF LOGS     = 3.65187E-02
```

PERCENT TABLE FOR VARIABLE 30 (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	1.000000E+35	1.000000E+35
50.00	1.000000E+35	1.000000E+35
75.00	1.000000E+35	1.000000E+35
90.00	1.000000E+35	1.000000E+35
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona.

ARRAY OF MEANS -

	1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1 LATITUDE	31.8268	31.8268	31.8268	31.8268	31.8259	31.8240	31.8268	**********	**********	**********
2 LONGITUD	110.4175	110.4175	110.4175	110.4175	110.4167	110.4266	110.4175	**********	**********	**********
3 S-FE%	2.7855	2.7855	2.7855	2.7855	2.7783	3.5208	2.7855	**********	**********	**********
4 S-MG%	1.4153	1.4153	1.4153	1.4153	1.4125	2.4313	1.4153	**********	**********	**********
5 S-CA%	13.9833	13.9833	13.9833	13.9833	13.9833	20.0227	13.9833	**********	**********	**********
6 S-TI%	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	1.3500	**********	**********	**********
7 S-MN	1375.0000	1375.0000	1375.0000	1375.0000	1400.8333	975.0000	1375.0000	**********	**********	**********
8 S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9 S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10 S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11 S-B	227.9032	227.9032	227.9032	227.9032	232.1667	235.0000	227.9032	**********	**********	**********
12 S-BA	2154.6296	2154.6296	2154.6296	2154.6296	2204.8077	3022.7273	2154.6296	**********	**********	**********
13 S-BE	7.9091	7.9091	7.9091	7.9091	7.9091	8.8000	7.9091	**********	**********	**********
14 S-BI	285.6522	285.6522	285.6522	285.6522	285.6522	270.0000	285.6522	**********	**********	**********
15 S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16 S-CO	15.3261	15.3261	15.3261	15.3261	15.3409	18.2353	15.3261	**********	**********	**********
17 S-CR	79.8333	79.8333	79.8333	79.8333	78.2759	78.2609	79.8333	**********	**********	**********
18 S-CU	69.1667	69.1667	69.1667	69.1667	71.9118	130.8333	69.1667	**********	**********	**********
19 S-LA	236.0656	236.0656	236.0656	236.0656	236.4407	236.9565	236.0656	**********	**********	**********
20 S-MO	55.0000	55.0000	55.0000	55.0000	55.0000	20.0000	55.0000	**********	**********	**********
21 S-NB	81.2195	81.2195	81.2195	81.2195	81.2195	90.0000	81.2195	**********	**********	**********
22 S-NI	28.2759	28.2759	28.2759	28.2759	28.8889	33.8462	28.2759	**********	**********	**********
23 S-PB	300.6780	300.6780	300.6780	300.6780	306.4912	228.1818	300.6780	**********	**********	**********
24 S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25 S-SN	33.3333	33.3333	33.3333	33.3333	33.3333	**********	33.3333	**********	**********	**********
26 S-SR	1273.8095	1273.8095	1273.8095	1273.8095	1270.0000	1535.0000	1273.8095	**********	**********	**********
27 S-V	128.5484	128.5484	128.5484	128.5484	128.6667	119.5833	128.5484	**********	**********	**********
28 S-W	591.6667	591.6667	591.6667	591.6667	591.6667	500.0000	591.6667	**********	**********	**********
29 S-Y	657.2581	657.2581	657.2581	657.2581	665.8333	350.0000	657.2581	**********	**********	**********
30 S-ZN	966.6667	966.6667	966.6667	966.6667	966.6667	1500.0000	966.6667	**********	**********	**********
31 S-TH	1000.0000	1000.0000	1000.0000	1000.0000	1000.0000	1000.0000	1000.0000	**********	**********	**********

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	31.8268	31.8307	31.8547	31.8350	**********	31.8341	31.8279	31.8380	31.8266	31.8246
2	LONGITUD	110.4175	110.4123	110.4017	110.3897	**********	110.4149	110.4177	110.4190	110.4170	110.4045
3	S-FE%	2.7855	2.9278	2.4909	2.8043	**********	3.4217	2.8367	3.8667	2.5033	4.4947
4	S-MG%	1.4153	1.5481	0.3682	1.0174	**********	1.2011	1.4558	0.8125	1.4270	2.0895
5	S-CA%	13.9833	15.2404	11.6591	10.8696	**********	14.0568	14.2586	11.8676	14.1864	13.8421
6	S-TI%	1.3500	1.3682	1.6000	1.8000	**********	1.4824	1.3217	1.3917	1.3217	1.4889
7	S-MN	1375.0000	1493.5165	2590.9091	1582.6037	**********	1594.5652	1392.5000	1700.0000	1348.3607	910.5263
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	227.9032	244.6296	266.8182	270.4348	**********	244.7826	233.5000	309.4444	223.4426	376.3158
12	S-BA	2154.6296	2154.6296	1761.3636	1256.8182	**********	2408.5366	2131.7308	2151.6129	2063.2075	1517.6471
13	S-BE	7.9091	7.9091	7.9091	8.5625	**********	7.9412	8.0476	8.1875	7.9091	9.5000
14	S-BI	285.6522	297.2727	284.3750	285.6522	**********	203.8889	285.6522	348.7500	285.6522	343.0000
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	15.3261	15.7317	13.2353	13.3333	**********	15.3261	15.4444	17.0313	14.1111	19.2857
17	S-CR	79.8333	85.7692	93.3333	89.1304	**********	89.3333	79.8333	93.0556	80.0000	100.0000
18	S-CU	69.1667	53.2258	28.1250	89.6875	**********	75.6250	69.1667	69.1667	66.8571	108.6667
19	S-LA	236.0656	229.2453	243.1818	217.3913	**********	263.3333	241.5254	261.4286	236.0656	250.0000
20	S-MO	55.0000	52.0588	30.8333	74.5000	**********	29.6429	55.0000	61.6667	56.9444	55.0000
21	S-NB	81.2195	80.8333	82.0000	91.4286	**********	85.4545	82.3077	89.2308	79.5000	96.9231
22	S-NI	28.2759	28.5185	24.2857	22.5000	**********	30.4000	28.5714	33.6842	26.7857	45.5556
23	S-PB	300.6780	334.9020	73.1818	417.7273	**********	350.2273	310.3509	414.4444	297.2414	191.1111
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	33.3333	31.5385	32.5000	32.8571	**********	28.3333	32.1429	33.3333	33.3333	23.3333
26	S-SR	1273.8095	920.5882	1160.0000	463.6364	**********	996.8750	1273.8095	1130.4348	1297.5610	760.0000
27	S-V	128.5484	131.1111	107.2727	121.7391	**********	136.5217	126.1667	131.9444	125.7377	143.1579
28	S-W	591.6667	581.8182	600.0000	620.0000	**********	477.7778	591.6667	488.8889	591.6667	677.7778
29	S-Y	657.2581	708.3333	1190.9091	742.6087	**********	723.4783	662.5000	820.8333	651.6393	468.4211
30	S-ZN	966.6667	966.6667	700.0000	700.0000	**********	966.6667	966.6667	966.6667	966.6667	1100.0000
31	S-TH	1000.0000	1000.0000	**********	**********	**********	1000.0000	1000.0000	1000.0000	**********	1000.0000

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	31.8305	31.8329	31.8304	**********	31.8116	31.8146	31.8268	31.8271	31.8268	31.8410
2	LONGITUD	110.4091	110.4140	110.4188	**********	110.4108	110.4220	110.4175	110.3736	110.4175	110.3970
3	S-FE%	2.8854	4.3517	2.8593	**********	2.2667	3.2667	2.7855	2.6583	2.7855	6.6667
4	S-MG%	0.7963	1.9897	1.0297	**********	0.9333	1.9560	1.4153	0.4250	1.4153	0.8333
5	S-CA%	10.3659	17.5000	13.4912	**********	9.4000	16.1750	13.9833	8.1667	13.9833	15.0000
6	S-TI%	1.9167	1.2846	1.3909	**********	**********	1.2450	1.3500	2.0000	1.3500	1.5000
7	S-MN	1696.3415	1451.7241	1407.6271	**********	1383.3333	786.9048	1375.0000	945.8333	1375.0000	2500.0000
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	218.5366	322.0690	232.7119	**********	154.6667	189.0476	227.9032	333.3333	227.9032	300.0000
12	S-BA	1776.3889	2070.3704	2261.7647	**********	2307.6923	2655.8824	2154.6296	1054.5455	2154.6296	4333.3333
13	S-BE	8.1000	7.2857	7.9091	**********	6.7500	5.4000	7.9091	9.8750	7.9091	6.0000
14	S-BI	288.0952	80.0000	297.7273	**********	361.4286	295.4545	285.6522	347.0000	285.6522	30.0000
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	15.0000	18.2000	15.5682	**********	13.3333	16.4063	15.3261	13.3333	15.3261	20.0000
17	S-CR	84.3590	100.7143	80.1754	**********	69.2857	73.8095	79.8333	120.0000	79.8333	100.0000
18	S-CU	69.6154	30.7895	69.1667	**********	46.6667	89.7826	69.1667	45.0000	69.1667	18.3333
19	S-LA	246.2500	242.8571	243.1034	**********	203.3333	243.9024	236.0656	229.1667	236.0656	316.6667
20	S-MO	71.1538	34.4444	57.5000	**********	183.3333	62.0000	55.0000	95.0000	55.0000	15.0000
21	S-NB	81.2195	88.7500	82.0000	**********	75.7143	86.5217	81.2195	96.6667	81.2195	100.0000
22	S-NI	26.8750	28.2759	29.6296	**********	22.0000	30.4762	28.2759	26.0000	28.2759	25.0000
23	S-PB	339.2500	171.4815	300.6780	**********	698.6667	402.8205	300.6780	103.3333	300.6780	83.3333
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	30.7143	32.0000	33.3333	**********	33.3333	30.9091	33.3333	20.0000	33.3333	20.0000
26	S-SR	708.6957	1038.0952	1310.2564	**********	709.0909	1273.8095	1273.8095	466.6667	1273.8095	200.0000
27	S-V	137.3171	136.5517	127.4576	**********	158.0000	138.3333	128.5484	126.6667	128.5484	133.3333
28	S-W	591.6667	540.0000	591.6667	**********	533.3333	833.3333	591.6667	591.6667	591.6667	700.0000
29	S-Y	818.2927	693.1034	686.4407	**********	663.3333	353.5714	657.2581	616.6667	657.2581	666.6667
30	S-ZN	700.0000	1100.0000	966.6667	**********	700.0000	1100.0000	966.6667	700.0000	966.6667	966.6667
31	S-TH	1000.0000	1000.0000	1000.0000	**********	**********	1000.0000	1000.0000	**********	1000.0000	**********

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF MEANS - CONT.

		31 S-TH
1	LATITUDE	31.8356
2	LONGITUD	110.4511
3	S-FE%	20.0000
4	S-MG%	0.7000
5	S-CA%	2.0000
6	S-TI%	2.0000
7	S-MN	3000.0000
8	S-AG	**********
9	S-AS	**********
10	S-AU	**********
11	S-B	500.0000
12	S-BA	7000.0000
13	S-BE	**********
14	S-BI	**********
15	S-CD	**********
16	S-CO	70.0000
17	S-CR	70.0000
18	S-CU	150.0000
19	S-LA	**********
20	S-MO	20.0000
21	S-NB	150.0000
22	S-NI	70.0000
23	S-PB	500.0000
24	S-SB	**********
25	S-SN	**********
26	S-SR	300.0000
27	S-V	300.0000
28	S-W	**********
29	S-Y	1000.0000
30	S-ZN	**********
31	S-TH	1000.0000

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES -

		1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1	LATITUDE	0.002	0.002	0.002	0.002	0.002	0.001	0.002	**********	**********	**********
2	LONGITUD	0.002	0.002	0.002	0.002	0.002	0.001	0.002	**********	**********	**********
3	S-FE%	11.179	11.179	11.179	11.179	11.557	16.945	11.179	**********	**********	**********
4	S-MG%	6.953	6.953	6.953	6.953	7.180	13.856	6.953	**********	**********	**********
5	S-CA%	132.118	132.118	132.118	132.118	132.118	222.392	132.118	**********	**********	**********
6	S-TI%	0.430	0.430	0.430	0.430	0.431	0.430	0.430	**********	**********	**********
7	S-MN	2533668.033	2533668.033	2533668.033	2533668.033	2598177.260	494130.435	2533668.033	**********	**********	**********
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	105325.040	105325.040	105325.040	105325.040	108322.345	155191.304	105325.040	**********	**********	**********
12	S-BA	8325119.672	8325119.672	8325119.672	8325119.672	8581398.002	**********	8325119.672	**********	**********	**********
13	S-BE	13.896	13.896	13.896	13.896	13.896	40.200	13.896	**********	**********	**********
14	S-BI	140298.419	140298.419	140298.419	140298.419	140298.419	96700.000	140298.419	**********	**********	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	102.669	102.669	102.669	102.669	106.276	227.941	102.669	**********	**********	**********
17	S-CR	2022.006	2022.006	2022.006	2022.006	1996.975	2578.656	2022.006	**********	**********	**********
18	S-CU	21170.714	21170.714	21170.714	21170.714	22310.628	51385.606	21170.714	**********	**********	**********
19	S-LA	20594.262	20594.262	20594.262	20594.262	21106.078	31640.316	20594.262	**********	**********	**********
20	S-MO	12647.222	12647.222	12647.222	12647.222	12647.222	200.000	12647.222	**********	**********	**********
21	S-NB	1140.976	1140.976	1140.976	1140.976	1140.976	2240.000	1140.976	**********	**********	**********
22	S-NI	321.921	321.921	321.921	321.921	341.026	658.974	321.921	**********	**********	**********
23	S-PB	906127.119	906127.119	906127.119	906127.119	937323.183	191901.299	906127.119	**********	**********	**********
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	366.667	366.667	366.667	366.667	366.667	**********	366.667	**********	**********	**********
26	S-SR	2301980.256	2301980.256	2301980.256	2301980.256	2398051.282	2244500.000	2301980.256	**********	**********	**********
27	S-V	3248.678	3248.678	3248.678	3248.678	3337.175	3804.167	3248.678	**********	**********	**********
28	S-W	244469.697	244469.697	244469.697	244469.697	244469.697	**********	244469.697	**********	**********	**********
29	S-Y	485459.572	485459.572	485459.572	485459.572	499258.616	78860.870	485459.572	**********	**********	**********
30	S-ZN	213333.333	213333.333	213333.333	213333.333	213333.333	**********	213333.333	**********	**********	**********
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES - CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	0.002	0.002	0.001	0.002	**********	0.002	0.002	0.001	0.002	0.001
2	LONGITUD	0.002	0.002	0.002	0.001	**********	0.002	0.002	0.002	0.002	0.001
3	S-FE%	11.179	12.307	7.236	9.390	**********	13.469	11.457	16.149	6.346	22.452
4	S-MG%	6.953	7.851	0.075	4.811	**********	3.252	7.137	0.748	7.061	12.834
5	S-CA%	132.118	137.015	52.938	57.323	**********	103.863	133.879	78.065	131.878	138.835
6	S-TI%	0.430	0.398	0.425	0.075	**********	0.404	0.430	0.484	0.430	0.316
7	S-MN	2533668.033	2786796.820	4328484.848	2147865.613	**********	3085358.696	2595578.390	3429714.286	2531163.934	516549.708
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	105325.040	118134.766	93984.632	95240.711	**********	124421.063	107853.644	165502.540	105826.284	260380.117
12	S-BA	8325119.672	8325119.672	8309031.385	4129594.156	**********	9909987.805	8438630.279	8836580.645	8025206.821	2350294.118
13	S-BE	13.896	13.896	13.896	16.396	**********	17.059	14.148	18.296	13.896	31.500
14	S-BI	140298.419	143725.541	89879.583	140298.419	**********	70883.987	140298.419	181131.667	140298.419	214245.556
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	102.669	111.951	18.566	20.588	**********	102.669	104.343	135.257	35.556	253.297
17	S-CR	2022.006	1962.142	2803.333	2662.846	**********	2042.727	2022.006	2393.254	2055.172	2544.444
18	S-CU	21170.714	10925.914	2319.583	33248.229	**********	23506.048	21170.714	21170.714	21595.714	33994.524
19	S-LA	20594.262	18310.958	15070.346	12183.794	**********	21409.091	20357.978	18983.193	20594.262	24411.765
20	S-MO	12647.222	13528.309	244.167	22535.833	**********	1332.555	12647.222	15920.238	13315.114	12647.222
21	S-NB	1140.976	1099.286	648.421	1442.857	**********	1263.068	1170.850	1375.385	1045.897	2506.410
22	S-NI	321.921	343.875	28.571	50.000	**********	337.333	331.217	391.228	267.063	577.778
23	S-PB	906127.119	1041105.490	1575.108	2172456.494	**********	1196699.947	935678.446	1440551.111	921315.064	44398.693
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	366.667	297.436	625.000	390.476	**********	178.788	371.978	350.000	366.667	33.333
26	S-SR	2301980.256	1605320.856	4608000.000	320545.455	**********	1648699.597	2301980.256	2035849.802	2335243.902	1535428.571
27	S-V	3248.678	3530.818	2135.065	2496.838	**********	3383.188	2840.989	2793.254	2804.863	3500.585
28	S-W	244469.697	267636.364	357142.857	279555.556	**********	41944.444	244469.697	56111.111	244469.697	296944.444
29	S-Y	485459.572	535708.491	827532.468	345892.885	**********	571467.633	501049.576	696767.857	491560.601	205891.813
30	S-ZN	213333.333	213333.333	0.000	0.000	**********	213333.333	213333.333	213333.333	213333.333	320000.000
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF VARIANCES - CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	0.002	0.001	0.002	**********	0.002	0.001	0.002	0.001	0.002	0.000
2	LONGITUD	0.002	0.001	0.002	**********	0.002	0.002	0.002	0.001	0.002	0.001
3	S-FE%	14.114	18.288	11.640	**********	8.174	13.777	11.179	7.652	11.179	8.333
4	S-MG%	1.669	12.087	4.083	**********	1.494	9.396	6.953	0.088	6.953	0.333
5	S-CA%	51.500	170.788	133.076	**********	59.221	165.520	132.118	48.015	132.118	175.000
6	S-TI%	0.042	0.385	0.416	**********	**********	0.442	0.430	**********	0.430	**********
7	S-MN	3377048.780	3343300.493	2640156.341	**********	3995595.238	347934.088	2533668.033	446117.424	2533668.033	4750000.000
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	60052.805	203202.709	110085.622	**********	14040.952	91555.168	105325.040	164242.424	105325.040	30000.000
12	S-BA	6436069.444	7523703.704	8612958.824	**********	**********	9523146.168	8325119.672	248727.273	8325119.672	**********
13	S-BE	14.832	12.571	13.896	**********	5.583	0.800	13.896	27.554	13.896	2.000
14	S-BI	148496.190	4342.857	143466.017	**********	309547.619	238187.273	140298.419	211623.333	140298.419	0.000
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	121.875	153.917	106.065	**********	37.879	137.475	102.669	25.000	102.669	100.000
17	S-CR	1935.762	1680.952	2105.326	**********	1268.681	1507.085	2022.006	2727.273	2022.006	0.000
18	S-CU	21321.846	1036.842	21170.714	**********	9043.750	30921.542	21170.714	3812.500	21170.714	8.333
19	S-LA	17870.192	21058.201	20390.200	**********	17309.524	23399.390	20594.262	11571.970	20594.262	30833.333
20	S-MO	17956.974	2052.778	13265.441	**********	75233.333	15960.000	12647.222	24825.000	12647.222	50.000
21	S-NB	1140.976	1558.333	1144.615	**********	303.297	1460.079	1140.976	1824.242	1140.976	0.000
22	S-NI	156.250	321.921	319.088	**********	20.000	424.762	321.921	30.000	321.921	50.000
23	S-PB	1242401.987	93197.721	906127.119	**********	3196498.095	1340752.362	906127.119	16733.333	906127.119	833.333
24	S-SB	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
25	S-SN	284.066	270.000	366.667	**********	366.667	309.091	366.667	0.000	366.667	0.000
26	S-SR	1283102.767	1475476.190	2407786.775	**********	2052909.091	2301980.256	2301980.256	270666.667	2301980.256	0.000
27	S-V	3745.122	3266.256	3305.494	**********	3602.857	2828.862	3248.678	1351.515	3248.678	833.333
28	S-W	244469.697	28000.000	244469.697	**********	83333.333	366666.667	244469.697	244469.697	244469.697	**********
29	S-Y	627719.512	565443.596	492312.975	**********	605880.952	59896.690	485459.572	261515.152	485459.572	523333.333
30	S-ZN	0.000	320000.000	213333.333	**********	0.000	320000.000	213333.333	**********	213333.333	213333.333
31	S-TH	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

ARRAY OF VARIANCES - CONT.

		31 S-TH			
1	LATITUDE	**********	16	S-CO	**********
2	LONGITUD	**********	17	S-CR	**********
3	S-FE%	**********	18	S-CU	**********
4	S-MG%	**********	19	S-LA	**********
5	S-CA%	**********	20	S-MO	**********
6	S-TI%	**********	21	S-NB	**********
7	S-MN	**********	22	S-NI	**********
8	S-AG	**********	23	S-PB	**********
9	S-AS	**********	24	S-SB	**********
10	S-AU	**********	25	S-SN	**********
11	S-B	**********	26	S-SR	**********
12	S-BA	**********	27	S-V	**********
13	S-BE	**********	28	S-W	**********
14	S-BI	**********	29	S-Y	**********
15	S-CD	**********	30	S-ZN	**********
			31	S-TH	**********

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -

		1 LATITUDE	2 LONGITUD	3 S-FE%	4 S-MG%	5 S-CA%	6 S-TI%	7 S-MN	8 S-AG	9 S-AS	10 S-AU
1	LATITUDE	0.0424	0.0974	0.1296	-0.4057	0.0084	0.1352	0.5410	**********	**********	**********
2	LONGITUD	62	0.0416	-0.0682	-0.1374	-0.0721	-0.0489	0.1207	**********	**********	**********
3	S-FE%	62	62	3.3435	-0.0731	-0.0987	0.1968	0.1234	**********	**********	**********
4	S-MG%	62	62	62	2.6369	0.4236	-0.1671	-0.1883	**********	**********	**********
5	S-CA%	60	60	60	60	11.4943	-0.5747	-0.0057	**********	**********	**********
6	S-TI%	24	24	24	24	22	0.6561	0.2272	**********	**********	**********
7	S-MN	62	62	62	62	60	24	1591.7500	**********	**********	**********
8	S-AG	0	0	0	0	0	0	0	**********	**********	**********
9	S-AS	0	0	0	0	0	0	0	0	**********	**********
10	S-AU	0	0	0	0	0	0	0	0	0	**********
11	S-B	62	62	62	62	60	24	62	0	0	0
12	S-BA	54	54	54	54	52	22	54	0	0	0
13	S-BE	22	22	22	22	22	5	22	0	0	0
14	S-BI	23	23	23	23	23	5	23	0	0	0
15	S-CD	0	0	0	0	0	0	0	0	0	0
16	S-CO	46	46	46	46	44	17	46	0	0	0
17	S-CR	60	60	60	60	58	23	60	0	0	0
18	S-CU	36	36	36	36	34	12	36	0	0	0
19	S-LA	61	61	61	61	59	23	61	0	0	0
20	S-MO	19	19	19	19	19	9	19	0	0	0
21	S-NB	41	41	41	41	41	8	41	0	0	0
22	S-NI	29	29	29	29	27	13	29	0	0	0
23	S-PB	59	59	59	59	57	22	59	0	0	0
24	S-SB	0	0	0	0	0	0	0	0	0	0
25	S-SN	15	15	15	15	15	0	15	0	0	0
26	S-SR	42	42	42	42	40	20	42	0	0	0
27	S-V	62	62	62	62	60	24	62	0	0	0
28	S-W	12	12	12	12	12	1	12	0	0	0
29	S-Y	62	62	62	62	60	24	62	0	0	0
30	S-ZN	3	3	3	3	3	1	3	0	0	0
31	S-TH	1	1	1	1	1	1	1	0	0	0

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		11 S-B	12 S-BA	13 S-BE	14 S-BI	15 S-CD	16 S-CO	17 S-CR	18 S-CU	19 S-LA	20 S-MO
1	LATITUDE	0.1087	-0.0546	0.0037	-0.2555	**********	0.1263	0.2434	-0.0741	0.1991	-0.5092
2	LONGITUD	-0.0254	0.2794	-0.4123	0.0783	**********	0.0530	-0.3873	-0.0013	0.1454	0.2344
3	S-FE%	0.3118	0.2568	-0.1312	-0.2531	**********	0.7590	0.2977	-0.0340	0.1011	-0.2071
4	S-MG%	-0.0922	-0.1216	-0.3194	-0.2062	**********	-0.0824	0.0258	0.2949	-0.2309	-0.1767
5	S-CA%	-0.2837	0.0597	-0.2716	-0.2398	**********	-0.0926	-0.0383	-0.0244	0.1759	-0.2748
6	S-TI%	0.2888	0.1543	0.3992	0.6165	**********	0.1724	0.1950	0.4921	0.0142	-0.0943
7	S-MN	-0.0109	0.0053	-0.1708	-0.1801	**********	0.0809	0.0337	-0.1671	0.2136	-0.3038
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-B	324.5382	-0.0548	0.1152	-0.1788	**********	0.1040	0.2426	-0.0674	-0.0361	-0.1208
12	S-BA	54	2885.3283	-0.2321	-0.0996	**********	0.3059	-0.1187	0.4290	0.3633	-0.1522
13	S-BE	22	22	3.7277	0.3043	**********	-0.3398	0.5314	0.3125	-0.2199	-0.2452
14	S-BI	23	22	16	374.5643	**********	0.0739	-0.1216	-0.2423	-0.2718	0.8697
15	S-CD	0	0	0	0	**********	**********	**********	**********	**********	**********
16	S-CO	46	41	17	18	0	10.1326	0.0302	0.0879	0.1051	-0.0071
17	S-CR	60	52	21	23	0	45	44.9667	-0.1793	0.0933	-0.3912
18	S-CU	36	31	16	16	0	32	36	145.5016	0.3051	-0.1721
19	S-LA	61	53	22	23	0	45	59	35	143.5070	-0.1852
20	S-MO	19	17	6	10	0	14	19	15	18	112.4599
21	S-NP	41	36	20	21	0	33	39	26	40	13
22	S-NI	29	27	7	8	0	25	28	19	28	9
23	S-PB	59	51	22	22	0	44	57	36	58	18
24	S-SP	0	0	0	0	0	0	0	0	0	0
25	S-SN	15	13	4	7	0	12	14	9	15	3
26	S-SR	42	34	5	11	0	32	42	23	41	15
27	S-V	62	54	22	23	0	46	60	36	61	19
28	S-W	12	11	8	10	0	9	12	9	12	9
29	S-Y	62	54	22	23	0	46	60	36	61	19
30	S-ZN	3	3	2	2	0	3	3	3	3	2
31	S-TH	1	1	0	0	0	1	1	1	0	1

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		21 S-NB	22 S-NI	23 S-PB	24 S-SB	25 S-SN	26 S-SR	27 S-V	28 S-W	29 S-Y	30 S-ZN
1	LATITUDE	0.0448	0.2336	-0.2782	**********	-0.0668	-0.0501	-0.4452	-0.1804	0.6102	0.3887
2	LONGITUD	-0.1887	0.2179	0.0599	**********	-0.0226	0.4757	-0.0813	-0.0215	0.1170	0.9538
3	S-FE%	0.5100	0.6449	-0.0312	**********	-0.1727	-0.2689	0.4235	0.1214	-0.0002	-0.5000
4	S-MG%	-0.1964	-0.3140	-0.0262	**********	-0.1455	-0.1516	0.1298	-0.0420	-0.3006	1.0000
5	S-CA%	-0.2938	-0.2359	-0.0533	**********	0.0509	0.1075	-0.1003	0.4117	-0.1417	0.9820
6	S-TI%	0.4140	0.1872	0.1679	**********	**********	-0.3791	0.2165	**********	0.4687	**********
7	S-MN	0.0142	-0.0200	-0.0988	**********	-0.1505	-0.0771	-0.2148	-0.3153	0.8691	-0.3974
8	S-AG	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
9	S-AS	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	S-AU	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	S-P	0.2482	0.3895	-0.0850	**********	-0.1836	-0.2034	0.0333	-0.1210	0.1288	-0.5000
12	S-BA	0.2806	0.1397	0.0249	**********	-0.3087	0.3700	0.1518	-0.4260	-0.1108	-0.4096
13	S-BE	-0.0773	-0.6030	-0.1718	**********	0.9169	-0.2500	-0.1701	-0.2915	-0.1435	**********
14	S-BI	-0.1805	0.4292	-0.0922	**********	0.0920	-0.1255	0.0271	-0.0961	-0.0850	**********
15	S-CD	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
16	S-CO	0.3106	0.4696	0.0710	**********	0.2946	-0.1775	0.2169	0.5697	0.0573	0.8660
17	S-CR	0.2938	0.1900	-0.0824	**********	-0.3783	-0.4790	0.0924	-0.3802	0.0994	**********
18	S-CU	0.3622	0.3572	0.0729	**********	-0.0843	0.0253	-0.0901	-0.3461	-0.1900	0.5000
19	S-LA	0.2931	0.2398	-0.0473	**********	-0.3308	0.0876	-0.0430	-0.1488	0.1692	0.9042
20	S-MO	-0.2584	-0.2551	0.3077	**********	-0.4841	0.0389	0.2071	0.0706	-0.1862	-1.0000
21	S-NB	33.7783	0.4239	-0.0532	**********	-0.4343	-0.0684	0.1214	0.0545	-0.0443	**********
22	S-NI	16	17.9422	0.2152	**********	-0.4082	-0.2524	0.3284	0.7638	-0.0062	1.0000
23	S-PB	40	27	951.9071	**********	0.2632	-0.1282	0.1591	0.0445	-0.0984	0.5000
24	S-SB	0	0	0	**********	**********	**********	**********	**********	**********	**********
25	S-SN	14	5	15	0	19.1485	0.7102	-0.0062	**********	0.0375	**********
26	S-SR	23	21	39	0	11	1517.2278	-0.3327	-0.1354	-0.1381	**********
27	S-V	41	29	59	0	15	42	56.9972	0.4885	-0.2924	-1.0000
28	S-W	12	5	12	0	3	6	12	494.4388	-0.2942	**********
29	S-Y	41	29	59	0	15	42	62	12	696.7493	-0.5587
30	S-ZN	2	2	3	0	2	2	3	1	3	461.8802
31	S-TH	1	1	1	0	0	1	1	0	1	0

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 8. Correlation coefficients for analytical data from panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

		31
		S-TH
1	LATITUDE	**********
2	LONGITUD	**********
3	S-FE%	**********
4	S-MG%	**********
5	S-CA%	**********
6	S-TI%	**********
7	S-MN	**********
8	S-AG	**********
9	S-AS	**********
10	S-AU	**********
11	S-B	**********
12	S-BA	**********
13	S-BE	**********
14	S-BI	**********
15	S-CD	**********
16	S-CO	**********
17	S-CR	**********
18	S-CU	**********
19	S-LA	**********
20	S-MO	**********
21	S-NB	**********
22	S-NI	**********
23	S-PB	**********
24	S-SB	**********
25	S-SN	**********
26	S-SR	**********
27	S-V	**********
28	S-W	**********
29	S-Y	**********
30	S-ZN	**********
31	S-TH	**********

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 9. Mineralogy of the nonmagnetic fraction of panned concentrates from the Whetstone Roadless Area, Arizona.

The following qualifiers are used in reporting mineralogical data from panned concentrates: --, mineral not observed; 1, mineral present but not abundant; 2, mineral abundant but <5% of sample; 3, mineral abundant, >5% but ≤15% of sample; 4, mineral very abundant, >15% but ≤50% of sample; 5, mineral is dominant, >50% of sample; 6, mineral present, but small sample size prohibits statistically significant percentage determinations.

Sample	Latitude	Longitude	CHALCOPY	PYRITE	HEMATITE	CINNABAR	FLUORITE	SCHEELITE	RUTILE	BARITE	ZIRCON
WS002C	31 50 14	110 27 6	--	--	--	--	2	--	1	--	4
WS004C	31 50 39	110 27 30	1	--	--	1	--	--	--	3	4
WS005C	31 50 52	110 26 7	--	--	--	--	--	--	1	4	4
WS006C	31 51 9	110 26 17	--	--	--	1	--	--	--	2	3
WS007C	31 50 46	110 26 3	--	--	--	--	--	--	--	6	6
WS008C	31 51 1	110 26 12	--	--	1	--	1	--	1	3	2
WS009C	31 51 13	110 26 46	1	--	--	1	--	--	1	3	4
WS010C	31 51 19	110 27 59	1	--	--	--	--	1	--	--	3
WS011C	31 49 19	110 27 36	--	--	--	--	--	--	1	4	4
WS012C	31 49 17	110 27 35	--	--	--	6	--	--	--	6	6
WS013C	31 48 38	110 27 22	--	3	1	--	--	--	--	3	--
WS015C	31 48 18	110 26 29	--	--	1	--	--	--	--	3	4
WS016C	31 47 39	110 28 19	--	--	1	--	1	--	1	--	4
WS017C	31 47 35	110 27 39	--	--	--	--	--	--	--	4	4
WS018C	31 47 47	110 28 46	--	--	1	--	--	--	--	4	4
WS019C	31 47 14	110 28 39	--	--	--	--	--	--	--	4	4
WS020C	31 46 30	110 27 38	--	--	--	--	--	--	--	4	4
WS021C	31 45 48	110 28 11	--	1	--	--	--	--	1	3	4
WS022C	31 45 17	110 26 55	1	--	--	--	--	--	2	3	4
WS023C	31 48 35	110 23 45	--	--	6	--	--	--	--	6	6
WS024C	31 49 5	110 21 52	--	--	--	1	--	--	--	3	4
WS025C	31 47 59	110 21 51	--	--	--	--	--	--	--	5	3
WS026C	31 47 24	110 21 40	--	--	--	--	--	1	--	3	3
WS027C	31 46 45	110 23 30	3	--	1	--	1	--	1	3	3
WS028C	31 46 52	110 23 26	--	1	1	--	1	--	1	3	4
WS029C	31 45 49	110 22 45	--	1	--	--	--	2	--	4	1
WS030C	31 45 44	110 23 34	--	--	1	--	1	2	--	1	1
WS031C	31 45 44	110 24 40	--	1	1	--	--	--	--	--	3
WS032C	31 50 9	110 24 45	--	--	--	--	--	2	1	4	4
WS033C	31 44 34	110 26 51	--	--	--	--	--	2	1	3	4
WS034C	31 44 40	110 25 16	--	--	--	--	1	--	1	3	4
WS035C	31 44 33	110 23 19	--	--	--	--	--	2	2	4	--
WS036C	31 49 38	110 21 41	1	--	--	4	--	1	--	3	3
WS037C	31 49 56	110 21 24	--	--	--	2	--	--	--	4	3
WS038C	31 49 48	110 21 26	--	--	--	1	--	1	--	4	4
WS039C	31 50 9	110 21 36	--	--	--	--	--	1	2	2	3
WS040C	31 50 18	110 21 19	--	--	--	1	1	--	1	3	4
WS042C	31 50 56	110 23 19	1	--	--	--	--	--	1	3	4
WS043C	31 51 5	110 21 18	--	--	--	--	--	--	1	--	4
WS044C	31 51 31	110 21 11	1	--	1	--	1	1	1	2	4
WS045C	31 53 52	110 29 56	--	--	--	--	1	--	--	4	4
WS046C	31 53 30	110 23 18	--	--	--	--	--	--	--	4	4
WS048C	31 53 36	110 24 34	--	--	--	--	--	1	1	4	4
WS049C	31 53 24	110 25 29	--	--	--	--	1	--	--	4	4
WS050C	31 52 34	110 25 50	--	--	--	--	--	--	--	4	4

Table 9. Mineralogy of the nonmagnetic fraction of panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	APATITE	SPHENE	ANDALUSITE	SILLIMANIT	AMPH/PYROX
WS002C	4	--	--	--	1
WS004C	--	--	--	--	--
WS005C	--	--	--	--	1
WS006C	5	1	--	1	3
WS007C	6	--	--	--	6
WS008C	5	2	--	--	--
WS009C	3	3	--	--	--
WS010C	--	--	--	--	--
WS011C	--	--	--	--	3
WS012C	--	6	6	--	--
WS013C	--	--	1	1	2
WS015C	3	1	3	--	1
WS016C	3	2	--	--	--
WS017C	--	3	--	--	--
WS018C	--	1	--	--	1
WS019C	--	--	--	1	1
WS020C	2	--	--	3	--
WS021C	1	--	--	--	1
WS022C	--	4	2	--	1
WS023C	--	--	--	--	6
WS024C	--	--	--	--	--
WS025C	3	1	--	--	1
WS026C	3	4	--	--	--
WS027C	2	3	1	3	1
WS028C	4	3	--	--	--
WS029C	--	1	4	3	--
WS030C	--	1	4	--	1
WS031C	--	1	4	3	--
WS032C	3	4	--	--	1
WS033C	--	4	3	--	3
WS034C	--	--	--	--	--
WS035C	3	4	3	2	--
WS036C	4	1	--	--	--
WS037C	--	--	1	--	1
WS038C	4	--	--	--	--
WS039C	--	--	5	--	--
WS040C	4	1	--	--	--
WS042C	--	--	--	--	1
WS043C	4	3	1	--	--
WS044C	2	--	--	--	--
WS045C	3	--	--	--	--
WS046C	--	--	1	--	1
WS048C	3	3	--	--	--
WS049C	3	--	--	--	--
WS050C	3	--	--	--	1

Table 9. Mineralogy of the nonmagnetic fraction of panned concentrates from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Latitude	Longitude	CHALCOPY	PYRITE	HEMATITE	CINNABAR	FLUORITE	SCHEELITE	RUTILE	BARITE	ZIRCON
WS051C	31 53 3	110 28 2	--	--	--	--	--	--	--	4	4
WS052C	31 53 49	110 28 11	--	--	--	--	--	--	--	3	3
WS053C	31 53 51	110 27 33	1	--	--	--	1	--	1	4	4
WS054C	31 54 30	110 27 56	1	--	1	--	1	--	1	4	3
WS055C	31 53 39	110 26 21	--	--	1	--	--	--	--	4	4
WS056C	31 49 54	110 23 13	--	--	--	--	--	--	--	4	3
WS057C	31 50 1	110 23 15	--	--	--	--	--	1	--	4	3
WS058C	31 49 51	110 23 41	--	1	--	--	--	--	--	4	3
WS059C	31 49 55	110 23 40	--	--	1	--	--	--	1	4	3
WS060C	31 49 51	110 22 43	--	--	--	--	--	1	--	4	3
WS063C	31 49 41	110 22 6	--	--	1	--	1	1	1	3	3
WS064C	31 49 47	110 22 16	--	--	3	--	--	--	--	4	3
WS065C	31 49 38	110 21 41	--	--	--	--	--	--	--	3	4

Sample	APATITE	SPHENE	ANDALUSITE	SILLIMANIT	AMPH/PYROX
WS051C	3	--	--	--	2
WS052C	3	1	--	--	2
WS053C	--	--	--	--	1
WS054C	--	--	--	--	4
WS055C	2	--	--	--	--
WS056C	--	--	--	--	3
WS057C	--	--	3	--	3
WS058C	--	1	--	--	4
WS059C	--	--	--	--	3
WS060C	--	--	1	--	1
WS063C	--	--	--	--	1
WS064C	3	1	--	--	3
WS065C	3	4	--	--	3

Table 10. Analytical data from waters from the Whetstone Roadless Area, Arizona.

Sample	Latitude	Longitude	Cu-ppb	U-ppb	Mo-ppb	Pb-ppb	Zn-ppb	SO4-- ppm	NO3- ppm	F- ppm	Cl- ppm
WS008W	31 51 1	110 26 27	12.0	4.40	1.1	3.9	710	35.16	31.64	.24	8.95
WS016W	31 47 54	110 27 26	5.9	2.00	3.7	.5	70	31.22	38.91	.45	12.09
WS020W	31 46 30	110 27 39	6.2	3.80	1.6	.5	250	102.75	>100.00	.54	14.29
WS023W	31 48 36	110 23 41	6.4	1.20	.6	.4	50	34.69	47.95	.30	8.01
WS028W	31 46 57	110 23 49	6.7	.14	.6	1.0	360	2.54	177.57	.59	1.78
WS033W	31 44 35	110 27 7	7.8	7.40	4.9	.8	320	97.44	6.73	.23	20.82
WS034W	31 44 39	110 25 39	3.0	1.50	3.8	.2	30	36.98	26.67	.21	9.16
WS035W	31 44 36	110 24 55	14.8	1.20	4.0	2.9	390	31.23	6.93	.50	9.32
WS037W	31 50 4	110 21 27	7.1	7.20	10.4	.7	10	48.46	3.45	.53	8.26
WS041W	31 50 57	110 23 7	2.8	20.00	3.0	.1	70	7.73	40.25	1.15	7.62
WS043W	31 51 3	110 21 24	3.5	20.00	2.6	.8	30	52.46	4.79	3.78	32.66
WS044W	31 52 23	110 22 24	2.1	92.00	4.3	.4	120	53.26	32.13	1.54	18.48
WS047W	31 53 15	110 23 55	3.0	8.00	2.8	.2	120	36.53	4.74	1.90	22.52
WS049W	31 51 31	110 25 28	9.4	38.00	5.0	.6	50	58.59	10.54	1.34	20.35
WS050W	31 52 42	110 27 1	3.8	28.00	3.2	.4	30	23.70	1.17	.73	9.13
WS051W	31 53 3	110 28 2	2.9	5.00	2.5	.3	70	25.50	4.74	.20	4.73
WS052W	31 53 2	110 28 5	2.8	1.40	22.0	.1	30	26.26	.63	2.47	43.72
WS054W	31 53 59	110 26 41	5.4	.92	30.5	.6	330	29.32	4.13	2.69	32.70
WS055W	31 53 4	110 53 16	4.1	480.00	27.0	.8	290	70.55	2.57	2.80	5.79
WS062W	31 50 12	110 21 52	63.0	.36	65.5	1.3	50	462.04	4.00	1.08	42.62
WS067W	31 46 23	110 25 24	67.0	22.00	590.0	.3	130	9.38	3.30	2.45	4.97

Table 11. Fisher-K statistics on analytical data from waters from the Whetstone Roadless Area, Arizona.

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	LATITUDE	0	0	0	0	0	0	21	0	31.743056	31.899722	1
2	LONGITUD	0	0	0	0	0	0	21	0	110.35667	110.88778	2
3	AA-CU	0	0	0	0	0	0	21	0	2.1000000	67.000000	3
4	INST-U	0	0	0	0	0	0	21	0	0.1400000	480.00000	4
5	AA-MO	0	0	0	0	0	0	21	0	0.6000000	590.00000	5
6	AA-PB	0	0	0	0	0	0	21	0	0.1000000	3.9000000	6
7	AA-ZN	0	0	0	0	0	0	21	0	10.000000	710.00000	7
8	SO4--	0	0	0	0	0	0	21	0	2.5400000	462.04000	8
9	NO3-	0	0	0	1	0	0	20	0	0.6300000	177.57000	9
10	F	0	0	0	0	0	0	21	0	0.2000000	3.7800000	10
11	CL	0	0	0	0	0	0	21	0	1.7800000	43.720000	11

NO	COLUMN	K1 MEAN	SQRT(K2) STD DEVIATION	K2 VARIANCE	K3	G1 SKEWNESS	K4	G2 KURTOSIS	NO
1	LATITUDE	31.830503	0.0527324	0.0027807	-7.0492770D-05	-0.4807416	-9.1177063D-06	-1.1791665	1
2	LONGITUD	110.44033	0.1088197	0.0118417	0.0048248	3.7441460	0.0022269	15.881083	2
3	AA-CU	11.414286	18.114781	328.14529	16741.585	2.8164193	748593.06	6.9520591	3
4	INST-U	35.453333	103.97638	10811.088	4837678.9	4.3037879	2.2295450D+09	19.075565	4
5	AA-MO	37.576190	127.50422	16257.325	9281611.3	4.4776459	5.3645481D+09	20.297146	5
6	AA-PB	0.8000000	0.9289779	0.8630000	2.0753526	2.5886641	5.0074114	6.7234423	6
7	AA-ZN	167.14286	177.28911	31431.429	9201356.4	1.6512228	2.9561375D+09	2.9922397	7
8	SO4--	60.751905	95.493589	9119.0255	3535713.3	4.0602651	1.4624416D+09	17.586591	8
9	NO3-	22.642000	39.598231	1568.0199	214250.70	3.4506020	33074032.	13.451911	9
10	F	1.2247619	1.0588608	1.1211862	1.1669057	0.9829222	-0.0609449	-0.0484822	10
11	CL	16.093809	12.409104	153.98586	2179.1506	1.1404230	7282.3146	0.3071197	11

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona.

FREQUENCY TABLE FOR VARIABLE 3 (AA-CU)

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	1.78	1.78
2.500E-01 -	4.167E-01	1	1	4.76	4.76	1.76	0.33
4.167E-01 -	5.833E-01	7	8	33.33	38.10	2.60	7.48
5.833E-01 -	7.500E-01	2	10	9.52	47.62	3.24	0.48
7.500E-01 -	9.167E-01	6	16	28.57	76.19	3.42	1.94
9.167E-01 -	1.083E+00	2	18	9.52	85.71	3.06	0.37
1.083E+00 -	1.250E+00	1	19	4.76	90.48	2.31	0.74
1.250E+00 -	1.417E+00	0	19	0.00	90.48	1.47	1.47
1.417E+00 -	1.583E+00	0	19	0.00	90.48	0.79	0.79
1.583E+00 -	1.750E+00	0	19	0.00	90.48	0.36	0.36
1.750E+00 -	1.917E+00	2	21	9.52	100.00	0.20	16.05
G		0	21	0.00	100.00	1.78	1.78
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 3 (AA-CU)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+00 XXXXX
3.162E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.642E+00 XXXXXXXXXX
6.813E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+01 XXXXXXXXXX
1.468E+01 XXXXX
2.154E+01
3.162E+01
4.642E+01
6.813E+01 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.10000E+00
MAXIMUM ANTILOG = 6.70000E+01
GEOMETRIC MEAN = 6.37148E+00
GEOMETRIC DEVIATION = 2.53438E+00
VARIANCE OF LOGS = 1.63112E-01

PERCENT TABLE FOR VARIABLE 3 (AA-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	5.178577E-01	3.295017E+00
50.00	7.638899E-01	5.806172E+00
75.00	9.097235E-01	8.123132E+00
90.00	1.233335E+00	1.711336E+01
95.00	1.000000E+35	1.000000E+35

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 4 (INST-U)

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	0.48	0.48
-9.170E-01	-7.503E-01	1	1	4.76	4.76	0.28	1.86
-7.503E-01	-5.837E-01	0	1	0.00	4.76	0.40	0.40
-5.837E-01	-4.170E-01	1	2	4.76	9.52	0.55	0.37
-4.170E-01	-2.503E-01	0	2	0.00	9.52	0.73	0.73
-2.503E-01	-8.367E-02	0	2	0.00	9.52	0.92	0.92
-8.367E-02	8.300E-02	3	5	14.29	23.81	1.12	3.13
8.300E-02	2.497E-01	2	7	9.52	33.33	1.32	0.35
2.497E-01	4.163E-01	1	8	4.76	38.10	1.48	0.16
4.163E-01	5.830E-01	1	9	4.76	42.86	1.61	0.23
5.830E-01	7.497E-01	2	11	9.52	52.38	1.67	0.07
7.497E-01	9.163E-01	3	14	14.29	66.67	1.67	1.07
9.163E-01	1.083E+00	0	14	0.00	66.67	1.60	1.60
1.083E+00	1.250E+00	0	14	0.00	66.67	1.47	1.47
1.250E+00	1.416E+00	3	17	14.29	80.95	1.30	2.20
1.416E+00	1.583E+00	2	19	9.52	90.48	1.11	0.71
1.583E+00	1.750E+00	0	19	0.00	90.48	0.91	0.91
1.750E+00	1.916E+00	0	19	0.00	90.48	0.71	0.71
1.916E+00	2.083E+00	1	20	4.76	95.24	0.54	0.40
2.083E+00	2.250E+00	0	20	0.00	95.24	0.39	0.39
2.250E+00	2.416E+00	0	20	0.00	95.24	0.27	0.27
2.416E+00	2.583E+00	0	20	0.00	95.24	0.18	0.18
2.583E+00	2.750E+00	1	21	4.76	100.00	0.28	1.81
G		0	21	0.00	100.00	0.48	0.48
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 4 (INST-U)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
1.467E-01 XXXXX
2.153E-01
3.160E-01 XXXXX
4.638E-01
6.808E-01
9.992E-01 XXXXXXXXXXXXX
1.467E+00 XXXXXXXXXX
2.153E+00 XXXXX
3.160E+00 XXXXX
4.638E+00 XXXXXXXXXX
6.808E+00 XXXXXXXXXXXXX
9.992E+00
1.467E+01
2.153E+01 XXXXXXXXXXXXX
3.160E+01 XXXXXXXXXX
4.638E+01
```

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

```
6.808E+01
9.992E+01 XXXXX
1.467E+02
2.153E+02
3.160E+02
4.638E+02 XXXXX


THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG      =  1.40000E-01
MAXIMUM ANTILOG      =  4.80000E+02
GEOMETRIC MEAN       =  5.54148E+00
GEOMETRIC DEVIATION  =  6.78903E+00
VARIANCE OF LOGS     =  6.91904E-01


PERCENT TABLE FOR VARIABLE   4 (INST-U  ) 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                  1.038354E-01        1.270093E+00
    50.00                  7.080032E-01        5.105088E+00
    75.00                  1.208004E+00        1.614374E+01
    90.00                  1.574672E+00        3.755534E+01
    95.00                  2.058006E+00        1.142894E+02
    98.00                  1.000000E+35        1.000000E+35
```

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 5 (AA-MO)

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	1.64	1.64
-2.500E-01	-	-8.333E-02	2	2	9.52	9.52	0.86	1.53
-8.333E-02	-	8.333E-02	1	3	4.76	14.29	1.13	0.02
8.333E-02	-	2.500E-01	1	4	4.76	19.05	1.41	0.12
2.500E-01	-	4.167E-01	2	6	9.52	28.57	1.67	0.07
4.167E-01	-	5.833E-01	5	11	23.81	52.38	1.86	5.29
5.833E-01	-	7.500E-01	4	15	19.05	71.43	1.97	2.10
7.500E-01	-	9.167E-01	0	15	0.00	71.43	1.96	1.96
9.167E-01	-	1.083E+00	1	16	4.76	76.19	1.86	0.39
1.083E+00	-	1.250E+00	0	16	0.00	76.19	1.66	1.66
1.250E+00	-	1.417E+00	1	17	4.76	80.95	1.40	0.11
1.417E+00	-	1.583E+00	2	19	9.52	90.48	1.12	0.69
1.583E+00	-	1.750E+00	0	19	0.00	90.48	0.85	0.85
1.750E+00	-	1.917E+00	1	20	4.76	95.24	0.60	0.26
1.917E+00	-	2.083E+00	0	20	0.00	95.24	0.41	0.41
2.083E+00	-	2.250E+00	0	20	0.00	95.24	0.26	0.26
2.250E+00	-	2.417E+00	0	20	0.00	95.24	0.16	0.16
2.417E+00	-	2.583E+00	0	20	0.00	95.24	0.09	0.09
2.583E+00	-	2.750E+00	0	20	0.00	95.24	0.05	0.05
2.750E+00	-	2.917E+00	1	21	4.76	100.00	0.05	19.65
	G		0	21	0.00	100.00	1.64	1.64
	H		0	21				
	B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 5 (AA-MO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
6.813E-01 XXXXXXXXXX
1.000E+00 XXXXX
1.468E+00 XXXXX
2.154E+00 XXXXXXXXXX
3.162E+00 XXXXXXXXXXXXXXXXXXXXXXXXX
4.642E+00 XXXXXXXXXXXXXXXXXX
6.813E+00
1.000E+01 XXXXX
1.468E+01
2.154E+01 XXXXX
3.162E+01 XXXXXXXXXX
4.642E+01
6.813E+01 XXXXX
1.000E+02
1.468E+02
2.154E+02
3.162E+02
4.642E+02
6.813E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	6.00000E-01
MAXIMUM ANTILOG	=	5.90000E+02
GEOMETRIC MEAN	=	5.57984E+00
GEOMETRIC DEVIATION	=	5.05368E+00
VARIANCE OF LOGS	=	4.95064E-01

PERCENT TABLE FOR VARIABLE 5 (AA-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	3.541679E-01	2.260309E+00
50.00	5.666683E-01	3.686959E+00
75.00	1.000002E+00	1.000006E+01
90.00	1.575004E+00	3.758406E+01
95.00	1.900004E+00	7.943361E+01
98.00	1.000000E+35	1.000000E+35

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 6 (AA-PB)

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	0.48	0.48
-1.084E+00	-9.173E-01	2	2	9.52	9.52	0.72	2.31
-9.173E-01	-7.507E-01	0	2	0.00	9.52	1.37	1.37
-7.507E-01	-5.840E-01	2	4	9.52	19.05	2.20	0.02
-5.840E-01	-4.173E-01	2	6	9.52	28.57	2.99	0.33
-4.173E-01	-2.507E-01	5	11	23.81	52.38	3.43	0.72
-2.507E-01	-8.400E-02	6	17	28.57	80.95	3.32	2.17
-8.400E-02	8.267E-02	1	18	4.76	85.71	2.70	1.07
8.267E-02	2.493E-01	1	19	4.76	90.48	1.86	0.40
2.493E-01	4.160E-01	0	19	0.00	90.48	1.08	1.08
4.160E-01	5.827E-01	1	20	4.76	95.24	0.53	0.42
5.827E-01	7.493E-01	1	21	4.76	100.00	0.32	1.43
G		0	21	0.00	100.00	0.48	0.48
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 6 (AA-PB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E-02 XXXXXXXXXX
1.466E-01
2.151E-01 XXXXXXXXXX
3.157E-01 XXXXXXXXXX
4.634E-01 XXXXXXXXXXXXXXXXXXXXXXXX
6.802E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
9.985E-01 XXXXX
1.466E+00 XXXXX
2.151E+00
3.157E+00 XXXXX
4.635E+00 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	= 1.00000E-01
MAXIMUM ANTILOG	= 3.90000E+00
GEOMETRIC MEAN	= 5.20138E-01
GEOMETRIC DEVIATION	= 2.51717E+00
VARIANCE OF LOGS	= 1.60731E-01

SELECTED PERCENTILE	DATA VALUE	ANTI LOG OF VALUE
25.00	-4.798321E-01	3.312591E-01
50.00	-2.673317E-01	5.403415E-01
75.00	-1.187203E-01	7.608161E-01
90.00	2.326693E-01	1.708714E+00
95.00	5.660033E-01	3.681318E+00
98.00	1.000000E+35	1.000000E+35

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

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 7 (AA-ZN)

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	0.29	0.29
9.160E-01	-	1.083E+00	1	1	4.76	4.76	0.37	1.05
1.083E+00	-	1.249E+00	0	1	0.00	4.76	0.70	0.70
1.249E+00	-	1.416E+00	0	1	0.00	4.76	1.17	1.17
1.416E+00	-	1.583E+00	4	5	19.05	23.81	1.74	2.93
1.583E+00	-	1.749E+00	3	8	14.29	38.10	2.31	0.21
1.749E+00	-	1.916E+00	3	11	14.29	52.38	2.72	0.03
1.916E+00	-	2.083E+00	2	13	9.52	61.90	2.85	0.26
2.083E+00	-	2.249E+00	1	14	4.76	66.67	2.67	1.04
2.249E+00	-	2.416E+00	1	15	4.76	71.43	2.22	0.67
2.416E+00	-	2.583E+00	4	19	19.05	90.48	1.64	3.38
2.583E+00	-	2.749E+00	1	20	4.76	95.24	1.08	0.01
2.749E+00	-	2.916E+00	1	21	4.76	100.00	1.22	0.04
	G		0	21	0.00	100.00	0.29	0.29
	H		0	21				
	B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 7 (AA-ZN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXX
1.466E+01
2.151E+01
3.157E+01 XXXXXXXXXXXXXXXXXX
4.634E+01 XXXXXXXXXXXXX
6.802E+01 XXXXXXXXXXXXX
9.985E+01 XXXXXXXXXX
1.466E+02 XXXXX
2.151E+02 XXXXX
3.157E+02 XXXXXXXXXXXXXXXXXX
4.635E+02 XXXXX
6.803E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 7.10000E+02
GEOMETRIC MEAN = 9.67177E+01
GEOMETRIC DEVIATION = 3.06715E+00
VARIANCE OF LOGS = 2.36912E-01

PERCENT TABLE FOR VARIABLE 7 (AA-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	1.596557E+00	3.949635E+01
50.00	1.888224E+00	7.730795E+01
75.00	2.447253E+00	2.800613E+02
90.00	2.578503E+00	3.788814E+02
95.00	2.741004E+00	5.508123E+02
98.00	1.000000E+35	1.000000E+35

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 8 (SO4--)

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	0.04	0.04
2.500E-01 -	4.167E-01	1	1	4.76	4.76	0.08	10.32
4.167E-01 -	5.833E-01	0	1	0.00	4.76	0.21	0.21
5.833E-01 -	7.500E-01	0	1	0.00	4.76	0.46	0.46
7.500E-01 -	9.167E-01	1	2	4.76	9.52	0.88	0.02
9.167E-01 -	1.083E+00	1	3	4.76	14.29	1.47	0.15
1.083E+00 -	1.250E+00	0	3	0.00	14.29	2.16	2.16
1.250E+00 -	1.417E+00	2	5	9.52	23.81	2.76	0.21
1.417E+00 -	1.583E+00	8	13	38.10	61.90	3.07	7.89
1.583E+00 -	1.750E+00	3	16	14.29	76.19	2.99	0.00
1.750E+00 -	1.917E+00	2	18	9.52	85.71	2.54	0.12
1.917E+00 -	2.083E+00	2	20	9.52	95.24	1.88	0.01
2.083E+00 -	2.250E+00	0	20	0.00	95.24	1.22	1.22
2.250E+00 -	2.417E+00	0	20	0.00	95.24	0.69	0.69
2.417E+00 -	2.583E+00	0	20	0.00	95.24	0.34	0.34
2.583E+00 -	2.750E+00	1	21	4.76	100.00	0.22	2.69
G		0	21	0.00	100.00	0.04	0.04
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 8 (SO4--)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+00 XXXXX
3.162E+00
4.642E+00
6.813E+00 XXXXX
1.000E+01 XXXXX
1.468E+01
2.154E+01 XXXXXXXXXX
3.162E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXX
6.813E+01 XXXXXXXXXX
1.000E+02 XXXXXXXXXX
1.468E+02
2.154E+02
3.162E+02
4.642E+02 XXXXX
```

GEOMETRIC DEVIATION = 2.81057E+00
VARIANCE OF LOGS = 2.01417E-01

PERCENT TABLE FOR VARIABLE 8 (SO4--) 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	1.421877E+00	2.641663E+01
50.00	1.531253E+00	3.398228E+01
75.00	1.736114E+00	5.446457E+01
90.00	1.991670E+00	9.810026E+01
95.00	2.079170E+00	1.199970E+02
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.54000E+00
MAXIMUM ANTILOG = 4.62040E+02
GEOMETRIC MEAN = 3.54890E+01

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 9 (NO3-)

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	0.55	0.55
-2.500E-01	-8.333E-02	1	1	4.76	4.76	0.43	0.77
-8.333E-02	8.333E-02	1	2	4.76	9.52	0.66	0.18
8.333E-02	2.500E-01	0	2	0.00	9.52	0.95	0.95
2.500E-01	4.167E-01	1	3	4.76	14.29	1.28	0.06
4.167E-01	5.833E-01	2	5	9.52	23.81	1.62	0.09
5.833E-01	7.500E-01	5	10	23.81	47.62	1.91	4.99
7.500E-01	9.167E-01	2	12	9.52	57.14	2.11	0.01
9.167E-01	1.083E+00	1	13	4.76	61.90	2.17	0.63
1.083E+00	1.250E+00	0	13	0.00	61.90	2.10	2.10
1.250E+00	1.417E+00	0	13	0.00	61.90	1.89	1.89
1.417E+00	1.583E+00	3	16	14.29	76.19	1.59	1.25
1.583E+00	1.750E+00	3	19	14.29	90.48	1.25	2.44
1.750E+00	1.917E+00	0	19	0.00	90.48	0.92	0.92
1.917E+00	2.083E+00	0	19	0.00	90.48	0.63	0.63
2.083E+00	2.250E+00	1	20	4.76	95.24	0.93	0.01
G		1	21	4.76	100.00	0.55	0.37
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 9 (NO3-)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
6.813E-01 XXXXX
1.000E+00 XXXXX
1.468E+00
2.154E+00 XXXXX
3.162E+00 XXXXXXXXXX
4.642E+00 XXXXXXXXXXXXXXXXXXXXXXXX
6.813E+00 XXXXXXXXXX
1.000E+01 XXXXX
1.468E+01
2.154E+01
3.162E+01 XXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXX
6.813E+01
1.000E+02
1.468E+02 XXXXX
```

GEOMETRIC DEVIATION = 4.10065E+00
VARIANCE OF LOGS = 3.75588E-01

PERCENT TABLE FOR VARIABLE 9 (NO3-) 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	5.916683E-01	3.905425E+00
50.00	7.916687E-01	6.189688E+00
75.00	1.541670E+00	3.480729E+01
90.00	1.744448E+00	5.551987E+01
95.00	2.225005E+00	1.678823E+02
98.00	1.000000E+35	1.000000E+35

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 6.30000E-01
MAXIMUM ANTILOG = 1.77570E+02
GEOMETRIC MEAN = 8.74323E+00

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 10 (F)

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	1.15	1.15
-7.500E-01	-5.833E-01	4	4	19.05	19.05	1.27	5.87
-5.833E-01	-4.167E-01	1	5	4.76	23.81	2.04	0.53
-4.167E-01	-2.500E-01	4	9	19.05	42.86	2.80	0.51
-2.500E-01	-8.333E-02	2	11	9.52	52.38	3.28	0.50
-8.333E-02	8.333E-02	2	13	9.52	61.90	3.27	0.49
8.333E-02	2.500E-01	2	15	9.52	71.43	2.79	0.22
2.500E-01	4.167E-01	3	18	14.29	85.71	2.02	0.47
4.167E-01	5.833E-01	3	21	14.29	100.00	2.38	0.16
G		0	21	0.00	100.00	1.15	1.15
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 10 (F)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E-01 XXXXXXXXXXXXXXXXXX
3.162E-01 XXXXX
4.642E-01 XXXXXXXXXXXXXXXXXX
6.813E-01 XXXXXXXXXX
1.000E+00 XXXXXXXXXX
1.468E+00 XXXXXXXXXX
2.154E+00 XXXXXXXXXXXXXX
3.162E+00 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E-01
MAXIMUM ANTILOG = 3.78000E+00
GEOMETRIC MEAN = 8.21711E-01
GEOMETRIC DEVIATION = 2.60123E+00
VARIANCE OF LOGS = 1.72374E-01

PERCENT TABLE FOR VARIABLE 10 (F) 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	-4.062493E-01	3.924196E-01	90.00	1.000000E+35	1.000000E+35
50.00	-1.249988E-01	7.498964E-01	95.00	1.000000E+35	1.000000E+35
75.00	2.916687E-01	1.957351E+00	98.00	1.000000E+35	1.000000E+35

Table 12. Frequency tables and histograms of analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

FREQUENCY TABLE FOR VARIABLE 11 (CL)

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	0.19	0.19
2.500E-01 -	4.167E-01	1	1	4.76	4.76	0.43	0.77
4.167E-01 -	5.833E-01	0	1	0.00	4.76	1.03	1.03
5.833E-01 -	7.500E-01	2	3	9.52	14.29	1.99	0.00
7.500E-01 -	9.167E-01	3	6	14.29	28.57	3.08	0.00
9.167E-01 -	1.083E+00	6	12	28.57	57.14	3.83	1.23
1.083E+00 -	1.250E+00	1	13	4.76	61.90	3.82	2.09
1.250E+00 -	1.417E+00	4	17	19.05	80.95	3.06	0.29
1.417E+00 -	1.583E+00	2	19	9.52	90.48	1.96	0.00
1.583E+00 -	1.750E+00	2	21	9.52	100.00	1.61	0.09
G		0	21	0.00	100.00	0.19	0.19
H		0	21				
B		0	21				

TOTALS LESS H AND B 21

HISTOGRAM FOR VARIABLE 11 (CL)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+00 XXXXX
3.162E+00
4.642E+00 XXXXXXXXXX
6.813E+00 XXXXXXXXXXXXX
1.000E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
1.468E+01 XXXXX
2.154E+01 XXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXXXX
4.642E+01 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.78000E+00
MAXIMUM ANTILOG = 4.37200E+01
GEOMETRIC MEAN = 1.20664E+01
GEOMETRIC DEVIATION = 2.24663E+00
VARIANCE OF LOGS = 1.23575E-01

PERCENT TABLE FOR VARIABLE 11 (CL) 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	8.750013E-01	7.498964E+00
50.00	1.041668E+00	1.100698E+01
75.00	1.364586E+00	2.315184E+01
90.00	1.575003E+00	3.758397E+01
95.00	1.000000E+35	1.000000E+35
98.00	1.000000E+35	1.000000E+35

Table 13. Correlation coefficjents for analytical data from waters from the Whetstone Roadless Area, Arizona.

ARRAY OF MEANS -

	1 LATITUDE	2 LONGITUD	3 AA-CU	4 INST-U	5 AA-MO	6 AA-PB	7 AA-ZN	8 SO4--	9 NO3-	10 F
1 LATITUDE	31.8305	31.8305	31.8305	31.8305	31.8305	31.8305	31.8305	31.8305	31.8333	31.8305
2 LONGITUD	110.4403	110.4403	110.4403	110.4403	110.4403	110.4403	110.4403	110.4403	110.4393	110.4403
3 AA-CU	11.4143	11.4143	11.4143	11.4143	11.4143	11.4143	11.4143	11.4143	11.6750	11.4143
4 INST-U	35.4533	35.4533	35.4533	35.4533	35.4533	35.4533	35.4533	35.4533	37.0360	35.4533
5 AA-MO	37.5762	37.5762	37.5762	37.5762	37.5762	37.5762	37.5762	37.5762	39.3750	37.5762
6 AA-PB	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8150	0.8000
7 AA-ZN	167.1429	167.1429	167.1429	167.1429	167.1429	167.1429	167.1429	167.1429	163.0000	167.1429
8 SO4--	60.7519	60.7519	60.7519	60.7519	60.7519	60.7519	60.7519	60.7519	58.6520	60.7519
9 NO3-	22.6420	22.6420	22.6420	22.6420	22.6420	22.6420	22.6420	22.6420	22.6420	22.6420
10 F	1.2248	1.2248	1.2248	1.2248	1.2248	1.2248	1.2248	1.2248	1.2590	1.2248
11 CL	16.0938	16.0938	16.0938	16.0938	16.0938	16.0938	16.0938	16.0938	16.1840	16.0938

ARRAY OF MEANS - CONT.

	11 CL
1 LATITUDE	31.8305
2 LONGITUD	110.4403
3 AA-CU	11.4143
4 INST-U	35.4533
5 AA-MO	37.5762
6 AA-PB	0.8000
7 AA-ZN	167.1429
8 SO4--	60.7519
9 NO3-	22.6420
10 F	1.2248
11 CL	16.0938

ARRAY OF VARIANCES -

	1 LATITUDE	2 LONGITUD	3 AA-CU	4 INST-U	5 AA-MO	6 AA-PB	7 AA-ZN	8 SO4--	9 NO3-	10 F
1 LATITUDE	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2 LONGITUD	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012
3 AA-CU	328.145	328.145	328.145	328.145	328.145	328.145	328.145	328.145	343.914	328.145
4 INST-U	10811.088	10811.088	10811.088	10811.088	10811.088	10811.088	10811.088	10811.088	11324.723	10811.088
5 AA-MO	16257.325	16257.325	16257.325	16257.325	16257.325	16257.325	16257.325	16257.325	17041.447	16257.325
6 AA-PB	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.863	0.903	0.863
7 AA-ZN	31431.429	31431.429	31431.429	31431.429	31431.429	31431.429	31431.429	31431.429	32706.316	31431.429
8 SO4--	9119.026	9119.026	9119.026	9119.026	9119.026	9119.026	9119.026	9119.026	9501.499	9119.026
9 NO3-	1568.020	1568.020	1568.020	1568.020	1568.020	1568.020	1568.020	1568.020	1568.020	1568.020
10 F	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.154	1.121
11 CL	153.986	153.986	153.986	153.986	153.986	153.986	153.986	153.986	161.911	153.986

ARRAY OF VARIANCES - CONT.

	11 CL
1 LATITUDE	0.003
2 LONGITUD	0.012
3 AA-CU	328.145
4 INST-U	10811.088
5 AA-MO	16257.325
6 AA-PB	0.863
7 AA-ZN	31431.429
8 SO4--	9119.026
9 NO3-	1568.020
10 F	1.121
11 CL	153.986

Table 13. Correlation coefficients for analytical data from waters from the Whetstone Roadless Area, Arizona. (Continued)

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -

	1 LATITUDE	2 LONGITUD	3 AA-CU	4 INST-U	5 AA-MO	6 AA-PB	7 AA-ZN	8 SO4--	9 NO3-	10 F
1 LATITUDE	0.0527	0.2025	-0.2451	0.2675	-0.2168	-0.1845	-0.1687	-0.0182	-0.2907	0.4805
2 LONGITUD	21	0.1088	-0.1518	0.9035	-0.0139	-0.0051	0.2320	-0.0765	-0.1626	0.2439
3 AA-CU	21	21	18.1148	-0.1055	0.7647	0.1380	-0.0281	0.5780	-0.1495	0.1074
4 INST-U	21	21	21	103.9764	-0.0037	-0.0396	0.1149	0.0015	-0.1335	0.3774
5 AA-MO	21	21	21	21	127.5042	-0.1207	-0.0590	-0.0257	-0.1481	0.2997
6 AA-PB	21	21	21	21	21	0.9290	0.7905	0.1203	0.0621	-0.2469
7 AA-ZN	21	21	21	21	21	21	177.2891	-0.1159	0.2530	-0.1594
8 SO4--	21	21	21	21	21	21	21	95.4936	-0.2002	-0.0388
9 NO3-	20	20	20	20	20	20	20	20	39.5982	-0.2998
10 F	21	21	21	21	21	21	21	21	20	1.0589
11 CL	21	21	21	21	21	21	21	21	20	21

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS -CONT.

	11 CL
1 LATITUDE	0.3347
2 LONGITUD	-0.2052
3 AA-CU	0.1517
4 INST-U	-0.1892
5 AA-MO	-0.1303
6 AA-PB	-0.1059
7 AA-ZN	-0.2138
8 SO4--	0.5203
9 NO3-	-0.3783
10 F	0.4920
11 CL	12.4091

NOTE: THE DIAGONAL OF THE CORR MATRIX CONTAINS THE STD DEV OF THE VARIABLE FOR ONLY THE VALID PAIRS.

Table 14. Analytical data from rocks from the Whetstone Roadless Area, Arizona.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
WS003R	31 50 8	110 27 4	.30	.10	.15	.030	300	N	N	N	30	1,500
WS006R	31 51 9	110 26 17	1.50	1.50	20.00	.070	300	N	N	N	50	<20
WS020R	31 47 17	110 29 50	.30	1.00	2.00	.200	200	50.0	N	N	70	1,500
WS021R	31 46 4	110 27 53	.50	1.00	.15	.200	200	70.0	N	N	70	1,500
WS027R	31 46 45	110 23 26	1.00	.70	>20.00	.030	150	N	N	N	<10	<20
WS032R	31 46 6	110 25 43	2.00	1.00	1.50	.300	500	2.0	N	N	15	1,000
WS032RA	31 46 6	110 25 43	7.00	.50	.15	.150	150	50.0	N	N	30	1,500
WS037R	31 49 54	110 22 9	1.50	.30	3.00	.300	200	1.0	N	N	20	300
WS055R	31 53 6	110 23 26	1.00	.50	.50	.300	700	N	N	N	30	300
WS055RA	31 53 6	110 23 26	.50	.15	.10	.070	200	N	N	N	30	300
WS055RB	31 53 6	110 23 26	1.00	.70	.70	.200	1,000	N	N	N	20	500
WS061R	31 51 0	110 21 41	.50	.10	<.05	.100	50	N	N	N	30	150
WS061RA	31 51 0	110 21 41	.70	.15	.05	.100	50	N	N	N	50	200
WS062R	31 50 12	110 21 52	.30	.30	.30	.100	500	1.0	N	N	30	100
WS064R	31 49 42	110 22 9	1.00	.30	.20	.070	500	N	N	N	30	200
WS066R	31 43 16	110 24 33	<.05	.50	20.00	.015	30	N	N	N	<10	<20
WS067R	31 46 22	110 25 42	>20.00	7.00	.07	.015	5,000	100.0	N	N	150	<20
WS067RA	31 46 22	110 25 42	20.00	10.00	.20	.007	5,000	70.0	N	N	500	N
WS067RB	31 46 22	110 25 42	20.00	.15	20.00	.005	3,000	70.0	<200	N	<10	N

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sn-ppm s
WS003R	<1	N	N	<5	N	N	30	N	N	<5	20	N	N
WS006R	N	N	N	5	100	7	30	N	N	30	20	N	N
WS020R	N	N	N	5	30	>20,000	30	N	N	5	20	N	N
WS021R	N	N	N	10	20	>20,000	70	N	N	<5	20	N	N
WS027R	N	N	N	N	100	70	20	N	N	20	15	N	N
WS032R	N	N	N	10	70	2,000	50	15	N	15	20	N	N
WS032RA	N	700	N	5	20	10,000	30	150	N	5	200	<100	N
WS037R	7	N	N	5	70	50	50	50	N	15	30	N	N
WS055R	5	N	N	<5	N	10	70	N	<20	<5	30	N	N
WS055RA	<1	N	N	<5	N	7	20	N	N	<5	30	N	N
WS055RB	5	<10	N	<5	N	10	70	N	N	<5	30	N	N
WS061R	N	N	N	<5	N	<5	70	N	N	<5	<10	N	N
WS061RA	N	N	N	<5	N	5	70	N	N	<5	<10	N	N
WS062R	5	30	N	N	N	10	20	<5	20	<5	100	N	N
WS064R	<1	N	N	10	15	15	50	N	N	20	10	N	N
WS066R	N	N	N	N	N	N	30	N	N	<5	N	N	N
WS067R	N	150	N	100	10	20,000	<20	N	N	15	150	N	N
WS067RA	N	<10	N	70	15	>20,000	<20	15	N	10	70	N	30
WS067RB	N	150	N	7	<10	20,000	N	10	N	<5	20	N	70

Table 14. Analytical data from rocks from the Whetstone Roadless Area, Arizona. (Continued)

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Th-ppm s	Zn-ppm aa	Au-ppm aa	Hg-ppm inst
WS003R	200	<10	N	20	N	N	25	.05	.02
WS006R	300	50	N	30	N	N	65	N	.03
WS020R	150	100	N	30	N	N	25	.05	.08
WS021R	<100	50	N	30	N	N	20	.05	.03
WS027R	200	200	N	30	N	N	45	N	.03
WS032R	700	100	N	20	N	N	85	N	.02
WS032RA	150	30	<50	<10	N	N	65	.15	.26
WS037R	<100	100	<50	30	N	N	55	.05	.06
WS055R	<100	20	N	50	N	N	80	N	.02
WS055RA	<100	<10	N	20	N	N	5	N	.02
WS055RB	100	20	N	50	<200	N	70	N	.02
WS061R	N	15	N	10	N	N	<5	N	.01
WS061RA	N	20	N	15	N	N	5	N	.01
WS062R	N	10	N	15	N	N	35	N	.01
WS064R	<100	10	N	20	N	N	45	N	.02
WS066R	1,500	<10	N	<10	N	N	5	N	.04
WS067R	N	30	N	<10	3,000	N	2,700	.75	.04
WS067RA	N	20	<50	<10	3,000	N	2,700	.10	.03
WS067RB	<100	50	100	<10	300	N	320	.35	.11

Table 15.—Summary of analytical methods used on samples from the Whetstone Roadless Area, Arizona

Column Designation	Lower Limit of Detection				Reference
	Sed.	Conc.	Rock	Water	
D.C. arc/spectrographic analysis by D. E. Detra					
Fe-pct-s	0.05	0.10	0.05	—	Grimes and Marranzino (1968)
Mg-pct-s	0.02	0.05	0.02	—	——Do.——
Ca-pct-s	0.05	0.10	0.05	—	——Do.——
Ti-pct-s	0.002	0.005	0.002	—	——Do.——
Mn-ppm-s	10	20	10	—	——Do.——
Ag-ppm-s	0.50	1.0	0.50	—	——Do.——
As-ppm-s	200	500	200	—	——Do.——
Au-ppm-s	10	20	10	—	——Do.——
B-ppm-s	10	20	10	—	——Do.——
Ba-ppm-s	20	50	20	—	——Do.——
Be-ppm-s	1	5	1	—	——Do.——
Bi-ppm-s	10	20	10	—	——Do.——
Cd-ppm-s	20	50	20	—	——Do.——
Co-ppm-s	5	10	5	—	——Do.——
Cr-ppm-s	10	20	10	—	——Do.——
Cu-ppm-s	5	10	5	—	——Do.——
La-ppm-s	20	50	20	—	——Do.——
Mo-ppm-s	5	10	5	—	——Do.——
Nb-ppm-s	20	50	20	—	——Do.——
Ni-ppm-s	5	10	5	—	——Do.——
Pb-ppm-s	10	20	10	—	——Do.——
Sb-ppm-s	100	200	100	—	——Do.——
Sn-ppm-s	10	20	10	—	——Do.——
Sr-ppm-s	100	200	100	—	——Do.——
V-ppm-s	10	20	10	—	——Do.——
W-ppm-s	50	100	50	—	——Do.——
Y-ppm-s	10	20	10	—	——Do.——
Zn-ppm-s	200	500	200	—	——Do.——
Th-ppm-s	100	200	100	—	——Do.——
Atomic Absbrption Spectrometry Cd, Bi, Sb, and As analyzed by L. S. Sheriock; Zn, Hg, Zu analyzed by A. L. Meier					
Cd-ppm-aa	0.1	—	—	—	modified from Viets (1978)
Bi-ppm-aa	2	—	—	—	——Do.——
Sb-ppm-aa	1	—	—	—	——Do.——
Zn-ppm-aa	5	—	5	—	——Do.——
As-ppm-aa	5	—	—	—	——Do.——
Hg-ppm-inst	0.02	—	0.02	—	modified from Vaughn and McCarthy (1964)
Au-ppm-aa	—	—	.05	—	Thompson and others (1968)
Atomic Absorption Spectrophotometry analyzed by W. H. Ficklin					
Cu-ppb	—	—	—	1 ppb	Perkin-Elmer Corp. (1976)
U-ppb	—	—	—	0.02 ppb	——Do.——
Mo-ppb	—	—	—	1 ppb	——Do.——
Pb-ppb	—	—	—	1 ppb	——Do.——
Zn-ppb	—	—	—	1 ppb	——Do.——
Ion Chromatography Analyzed by W. H. Ficklin					
$SO_4^{=}$-ppm	—	—	—	0.1 ppm	Smee and Hall (1978)
NO_3^{-}-ppm	—	—	—	0.1 ppm	——Do.——
F^{-}-ppm	—	—	—	0.01 ppm	——Do.——
Cl^{-}-ppm	—	—	—	0.01 ppm	——Do.——
Fluorimetric Analyzed by A. L. Gruzensky and D. K. Kelley					
U-ppm-fluor	0.02	—	—	—	Cantanni and others (1956)