

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

**Analytical results and sample locality map
of stream-sediment, heavy-mineral-concentrate, and rock samples
from the East Fork High Rock Canyon (CA-020-914/NV-020-006),
Little High Rock Canyon (CA-020-913/NV-020-008),
and High Rock Canyon (CA-020-913B) Wilderness Study Areas,
Humboldt and Washoe Counties, Nevada**

By

Betty Adrian*, Robert Turner*, David Fey*,
Mollie Malcolm*, Carol Gent*, and Tracy Delaney*

Open-File Report 88-56

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply any endorsement by the USGS.

*U.S. Geological Survey, DFC, Box 25046, MS 973, Denver, CO 80225

1988

CONTENTS

	Page
Studies Related to Wilderness.....	1
Introduction.....	1
Methods of Study.....	1
Sample Media.....	1
Sample Collection.....	3
Stream-sediment samples.....	3
Heavy-mineral-concentrate samples.....	3
Rock samples.....	3
Sample Preparation.....	3
Sample Analysis.....	4
Spectrographic method.....	4
Chemical methods.....	4
Rock Analysis Storage System (RASS).....	5
Description of Data Tables.....	5
Acknowledgments.....	5
References Cited.....	6

ILLUSTRATIONS

Figure 1. Location map of East Fork High Rock Canyon, Little High Rock Canyon, and High Rock Canyon Wilderness Study Areas, Humboldt and Washoe Counties, Nevada.....	2
Plate 1. Localities of stream-sediment, heavy-mineral-concentrate, and rock samples from the East Fork High Rock Canyon, Little High Rock Canyon, and High Rock Canyon Wilderness Study Areas, Humboldt and Washoe Counties, Nevada.....	in pocket

TABLES

Table 1. Limits of determination for spectrographic analysis of rocks and stream sediments.....	7
Table 2. Chemical methods used.....	8

CONTENTS--continued

Table 3A. Results of analyses of stream-sediment samples, East Fork High Rock Canyon Wilderness Study Area.....	9
B. Results of analyses of stream sediment samples, Little High Rock Canyon Wilderness Study Area.....	12
C. Results of analyses of stream sediment samples, High Rock Canyon Wilderness Study Area	15
Table 4A. Results of analyses of heavy-mineral-concentrate samples, East Fork High Rock Canyon Wilderness Study Area.....	18
B. Results of analyses of heavy-mineral-concentrate samples, Little High Rock Canyon Wilderness Study Area.....	27
C. Results of analyses of heavy-mineral-concentrate samples, High Rock Canyon Wilderness Study Area.....	33
Table 5A. Results of analyses of rock samples, East Fork High Rock Canyon Wilderness Study Area.....	37
B. Results of analyses of rock samples, Little High Rock Canyon Wilderness Study Area.....	40
C. Results of analyses of rock samples, High Rock Canyon Wilderness Study Area.....	41
Table 6A. Description of rock samples from East Fork High Rock Canyon Wilderness Study Area.....	42
B. Description of rock samples from Little High Rock Canyon Wilderness Study Area.....	43
C. Description of rock samples from High Rock Canyon Wilderness Study Area.....	44

STUDIES RELATED TO WILDERNESS

Bureau of Land Management Wilderness Study Areas

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and the U.S. Bureau of Mines to conduct mineral surveys on certain areas to determine their mineral values, if any. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of chemical analyses for a geochemical survey of the East Fork High Rock Canyon (CA-020-914/NV-020-006), Little High Rock Canyon (CA-020-913/NV-020-008), and High Rock Canyon (CA-020-913B) Wilderness Study Areas, Humboldt and Washoe Counties, Nevada.

INTRODUCTION

In the spring of 1985, the U.S. Geological Survey conducted a reconnaissance geochemical survey of East Fork High Rock Canyon (CA-020-914/NV-020-006), Little High Rock Canyon (CA-020-913/NV-020-008), and High Rock Canyon (CA-020-913B) Wilderness Study Areas, Humboldt and Washoe Counties, Nevada.

The Little High Rock Wilderness Study Area comprises about 17,320 acres (27 mi²) (72 km²) on the east side of Washoe County, Nevada, and lies about 45 mi (72 km) north of Gerlock, Nevada (see fig. 1). Access to the study area is provided on the south and west by State Highway 34 and on the north and east by foot trails.

The East Fork High Rock Canyon is comprised of 33,460 acres (52 mi²) (139 km²). The High Rock Canyon Wilderness Study Area is comprised of 11,980 acres (19 mi²) (48 km²). Both of these study areas are on the east side of Washoe County and the west side of Humboldt County, Nevada, and lie about 50 mi (80 km) north of Gerlock, Nevada (see fig. 1). Access to these study areas is provided on the west by State Highway 34 and on the south and east by foot trails.

These three study areas are covered by rocks of middle to late Miocene age. The rocks have been divided into two formations: the Canyon rhyolite, the older of the two, and the High Rock Sequence. The Canyon rhyolite is exposed mostly in the western part of the area and consists of flows, domes, and welded ash-flow tuffs of sodic rhyolites. The High Rock Sequence is found in the central and eastern part of the study area and is composed of an assemblage of rock types including diatomite, shale, mudstone, sandstone, sodic rhyolite ash-flow tuff, basalt, welded ash-flow tuff, and rhyolite flows (Bonham, 1969).

The topographic relief in the study area is about 1,500 ft (457 m), with a maximum elevation of 6,507 ft (1,983 m). The vicinity of the study areas is a high desert, and, has few perennial streams and little vegetation other than sagebrush. The ground surface has a moderate slope with only High Rock Canyon, Little High Rock Canyon, and McConnel Canyon deeply incised into the terrain.

METHODS OF STUDY

Sample Media

Analyses of the stream-sediment samples represent the chemistry of the rock material eroded from the drainage basin upstream from each sample site. Such information is useful in identifying those basins which contain concentrations of elements that may be related to mineral deposits.

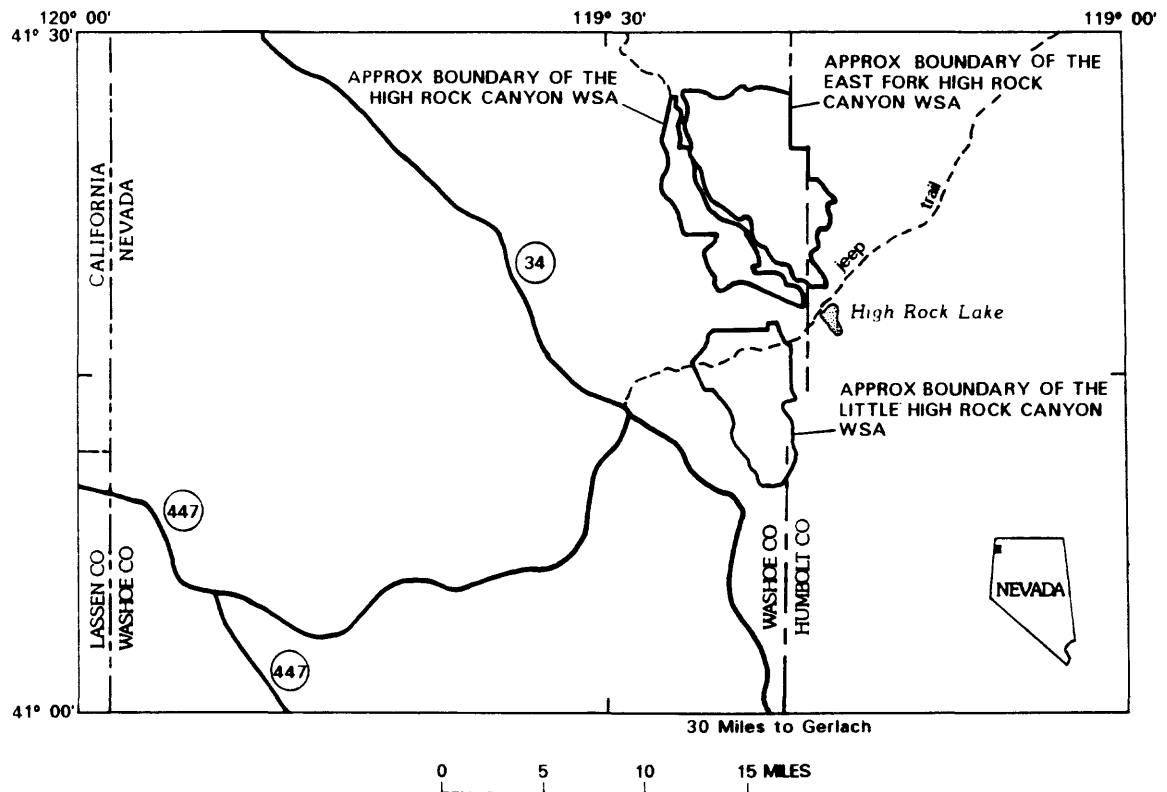


Figure 1. Location map of East Fork High Rock Canyon, Little High Rock Canyon, and High Rock Canyon Wilderness Study Areas, Humboldt and Washoe Counties, Nevada.

Heavy-mineral-concentrate samples provide information about the chemistry of certain minerals in rock material eroded from the drainage basin upstream from each sample site. The selective concentration of minerals, many of which may be ore related, permits determination of some elements that are not easily detected in stream-sediment samples.

Analyses of unaltered or unmineralized rock samples provide background geochemical data for individual rock units. On the other hand, analyses of altered or mineralized rocks, where present, may provide useful geochemical information about the major- and trace-element assemblages associated with a mineralizing system.

Sample Collection

Stream-sediment samples and heavy-mineral-concentrate samples were collected at 46 sites in the East Fork High Rock Canyon area, 23 sites in the Little High Rock Canyon area, and 19 sites in the High Rock Canyon area (plate 1). Where suitable outcrop was available, rock samples were collected. Average sampling density was about one sample site per 0.96 mi² for the stream sediments and heavy-mineral concentrates. The area of the drainage basins sampled ranged from 0.5 mi² to 2 mi².

Stream-sediment samples

The stream-sediment samples consisted of active alluvium collected primarily from first-order (unbranched) and second-order (below the junction of two first-order) streams as shown on USGS topographic maps (scale = 1:48,000). Each sample was composited from several localities within an area that may extend 50 ft from the site plotted on the map.

Heavy-mineral-concentrate samples

Heavy-mineral-concentrate samples were collected from the same active alluvium as the stream-sediment samples. Each bulk sample was screened with a 2.0-mm (10-mesh) screen to remove the coarse material. The less than 2.0-mm fraction was panned until most of the quartz, feldspar, organic material, and clay-sized material were removed.

Rock samples

Rock samples of outcrops or exposures in the vicinity of the plotted site location were collected from unaltered, altered, and mineralized rocks. Descriptions of rock samples for the study areas are in table 6.

Sample Preparation

The stream-sediment samples were air dried, then sieved using 80-mesh (0.17-mm) stainless-steel sieves. The portion of the sediment passing through the sieve was saved for analysis.

After air drying, bromoform (specific gravity 2.8) was used to remove the remaining quartz and feldspar from the heavy-mineral-concentrate samples that had been panned in the field. Heavy-mineral concentrates for this study were prepared several different ways. Some of the samples were not magnetically separated--after bromoforming, the entire sample was hand ground for analysis. (These samples are referred to as "not magnetically separated.") Some of the

samples were separated into three fractions using a large electromagnet (in this case a modified Frantz Isodynamic Separator). The most magnetic material, primarily magnetite, was not analyzed. The second fraction, largely ferromagnesian silicates and iron oxides, was saved for analysis. The third fraction (the least magnetic material which may include the nonmagnetic ore minerals, zircon, sphene, etc.) was split using a Jones splitter. One split was hand ground for spectrographic analysis; the other split was saved for mineralogical analysis. When there was an insufficient amount of the nonmagnetic fraction for samples from the High Rock and Little High Rock Canyon WSA's, the slightly magnetic fraction was split, hand ground, and analyzed. These magnetic separates are the same separates that would be produced by using a Frantz Isodynamic Separator set at a slope of 15° and a tilt of 10° with a current of 0.2 ampere to remove the magnetite and ilmenite. A current of 0.6 ampere was then used to split the remainder of the sample into paramagnetic and nonmagnetic fractions. The third fraction of samples from the East High Rock Canyon WSA contained an insufficient amount to analyze; the second and third fractions, therefore, were combined, hand ground, and analyzed.

Rock samples were crushed and then pulverized to minus 0.15 mm with ceramic plates.

Sample Analysis

Spectrographic method

The stream-sediment, heavy-mineral-concentrate, and rock samples were analyzed for 31 elements using semiquantitative, direct-current arc emission spectrographic methods. The analyses for heavy-mineral-concentrate samples were performed by analysts in the Branch of Exploration Geochemistry using the method of Grimes and Marranzino (1968); analyses for stream-sediment and rock samples were performed by analysts in the Branch of Analytical Chemistry using a modified method of Myers and others (1961) by Crock and others (1987). The elements analyzed and their lower limits of determination are listed in table 1. For arsenic (As), gold (Au), cadmium (Cd), lanthanum (La), and thorium (Th), the lower limits of determination of the two analytical methods differ. The values in the parentheses are the limits of determination for Myers and others (1961). Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 1,000, 500, 200, 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 700, 300, 1,500, 70, 30, 15, and so forth. The precision of the analytical method is approximately plus or minus one reporting interval at the 83 percent confidence level and plus or minus two reporting intervals at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (iron, magnesium, calcium, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram). Analytical data for samples from the study areas are listed in tables 3, 4, and 5.

Chemical methods

Samples from this study area were also analyzed by atomic absorption (AA), inductively coupled plasma-atomic emission spectroscopy (ICP) and the Jerome Gold Film Mercury Detector (I). Rock samples were analyzed for gold (Au) and

mercury (Hg) using atomic absorption spectroscopy and for arsenic (As), antimony (Sb), zinc (Zn), bismuth (Bi) and cadmium (Cd) using inductively coupled plasma-atomic emission spectroscopy. Stream-sediment samples were analyzed for gold using atomic absorption spectroscopy and for arsenic, antimony, zinc, bismuth and cadmium using inductively coupled plasma-atomic emission spectroscopy. Concentrate samples were analyzed for mercury using the Jerome Gold Film Mercury Detector and for gold, arsenic, antimony, zinc, bismuth and cadmium using atomic absorption spectroscopy. See table 2 for a more detailed summary of these other chemical methods used.

Analytical results for stream-sediment, heavy-mineral-concentrate, and rock samples are listed in tables 3, 4, and 5, respectively.

ROCK ANALYSIS STORAGE SYSTEM

Upon completion of all analytical work, the analytical results were entered into a computer-based file called Rock Analysis Storage System (RASS). This data base contains both descriptive geological information and chemical analysis data. Any or all of this information may be retrieved and converted to a binary form (STATPAC) for computerized statistical analysis or publication (VanTrump and Miesch, 1977).

DESCRIPTION OF DATA TABLES

Tables 3-5 list the results of analyses for the samples of stream sediment, heavy-mineral concentrate, and rock, respectively. For the three tables, the data are arranged so that column 1 contains the USGS-assigned sample numbers. These numbers correspond to the numbers shown on the site location maps (plate 1). Columns in which the element headings show the letter "s" below the element symbol are emission spectrographic analyses; "aa" indicates atomic absorption analyses; "inst" indicates an instrumental technique; and "icp" indicates inductively coupled plasma-atomic emission spectroscopy. A letter "N" in the tables indicates that a given element was looked for but not detected at the lower limit of determination for that element shown in table 1. If an element was observed but was below the lowest reporting value, a "less than" symbol (<) was entered in the tables preceeding the lower limit of determination. If an element was observed but was above the highest reporting value, a "greater than" symbol (>) was entered in the tables preceeding the upper limit of determination. If an element was not looked for in a sample, two dashes (--) are entered in tables 3-5 in place of an analytical value. Because of the formatting used in the computer program that produced tables 3-5, some of the elements listed in these tables (Fe, Mg, Ca, and Ti) carry one or more insignificant digits to the right of the significant digits. The analysts did not determine these elements to the accuracy suggested by the extra zeros.

ACKNOWLEDGMENTS

A number of our colleagues also participated in the collection, preparation, and analyses of these samples: collection, Randy Baker, Kim Greene, and Judy Lewis; preparation, Robin Sanchez and F.W. Tippitt; and analyses, J.G. Crock, R.J. Fairfield, J.J. Jones, L.S. Laudon, Tom McCollom, Roosevelt Moore, Robin Sanchez, Cliff Taylor, and F.W. Tippitt.

REFERENCES CITED

- Bonham, Harold F., 1969, Geology and mineral deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 70, Reno, Nevada.
- Crock, J.G., Briggs, P.H., Jackson, L.L., and Lichte, F.E., 1987, Analytical methods for the analysis of stream sediments and rocks from wilderness study areas: U.S. Geological Survey Open-File Report 87-84, 35 p.
- Grimes, D.J., and Marranzino, A.P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.
- Koirtiyohann, S.R., and Khalil, Moheb, 1976, Variables in the determination of mercury by cold vapor atomic absorption: Analytical Chemistry, 48, p. 136-139.
- McNerney, J.J., Buseck, P.R., and Hanson, R.C., 1972, Mercury detection by means of thin gold films: Science, v. 178, p. 611-612.
- Motooka, J.M., and Grimes, D.J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analyses: U.S. Geological Survey Circular 738, 25 p.
- Myers, A.T., Havens, R.G., and Dunton, P.J., 1961, A spectrochemical method for the semiquantitative analyses of rocks, minerals, and ores: U.S. Geological Survey Bulletin 1084-I, p. 1207-1229.
- O'Leary, R.M., and Viets, J.G., 1986, Determination of antimony, arsenic, bismuth, cadmium, copper, lead, molybdenum, silver, and zinc in geologic materials by atomic absorption spectrometry using a hydrochloric acid-hydrogen peroxide digestion: Atomic Spectroscopy, 7, p. 4-8.
- Thompson, C.E., Nakagawa, H.M., and Van Sickle, G.H., 1968, Rapid analysis for gold in geologic materials, in Geological Survey research 1968: U.S. Geological Survey Professional Paper 600-B, p. B130-B132.
- VanTrump, George, Jr., and Miesch, A.T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.
- Vaughn, W.W., and McCarthy, J.H., Jr., 1964, An instrumental technique for the determination of submicrogram concentrations of mercury in soils, rocks, and gas, in Geological Survey research 1964: U.S. Geological Survey Professional Paper 501-D, p. D123-D127.

TABLE 1.--Limits of determination for the spectrographic analysis of rocks and stream sediments, based on a 10-mg sample

[The values shown are the lower limits of determination assigned by the Grimes and Marranzino method (1968), except for those values in parentheses, which are the lower values assigned by the Myers and others method (1961). The spectrographic limits of determination for heavy-mineral-concentrate samples are based on a 5-mg sample, and are therefore two reporting intervals higher than the limits given for rocks.]

Elements	Lower determination limit	Upper determination limit
Percent		
Iron (Fe)	0.05	20
Magnesium (Mg)	.02	10
Calcium (Ca)	.05	20
Titanium (Ti)	.002	1
Parts per million		
Manganese (Mn)	10	5,000
Silver (Ag)	0.5	5,000
Arsenic (As)	200 (700)	10,000
Gold (Au)	10 (15)	500
Boron (B)	10	2,000
Barium (Ba)	20	5,000
Beryllium (Be)	1	1,000
Bismuth (Bi)	10	1,000
Cadmium (Cd)	20 (30)	500
Cobalt (Co)	5	2,000
Chromium (Cr)	10	5,000
Copper (Cu)	5	20,000
Lanthanum (La)	20 (30)	1,000
Molybdenum (Mo)	5	2,000
Niobium (Nb)	20	2,000
Nickel (Ni)	5	5,000
Lead (Pb)	10	20,000
Antimony (Sb)	100	10,000
Scandium (Sc)	5	100
Tin (Sn)	10	1,000
Strontium (Sr)	100	5,000
Vanadium (V)	10	10,000
Tungsten (W)	50	10,000
Yttrium (Y)	10	2,000
Zinc (Zn)	200	10,000
Zirconium (Zr)	10	1,000
Thorium (Th)	100 (200)	2,000

TABLE 2.--Chemical methods used

[AA = atomic absorption; ICP = inductively coupled plasma spectroscopy; I = instrumental]

Element determined	Sample type	Method	Determination limit (micrograms/ gram or ppm)	Analyst	Reference
Gold (Au)	concentrates	AA	0.05	L.S. Laudon R.J. Fairfield Cliff Taylor	Thompson and others, 1968.
Gold (Au)	rocks and sediments	AA	.1	J.G. Crock Tom McCollom	<u>Modification of</u> Thompson and others, 1968, by Crock and others, 1987.
Mercury (Hg)	rocks and sediments	AA	.02	Carol Gent	Koirtz Johann and Khalil, 1976.
Mercury (Hg)	concentrates	I	.02	F.W. Tippitt L.S. Laudon R.J. Fairfield	<u>Modification</u> of McNerney and others, 1972, <u>and</u> Vaughn and McCarthy, 1964.
Arsenic (As)	concentrates	AA	10	L.S. Laudon R.J. Fairfield	O'Leary and Viets, 1986.
Antimony (Sb)		AA	2		
Zinc (Zn)		AA	5		
Bismuth (Bi)		AA	1		
Cadmium (Cd)		AA	.1		
Arsenic (As)	rocks and sediments	ICP	5	David Fey	Crock and others, 1987.
Antimony (Sb)		ICP	2		
Zinc (Zn)		ICP	2		
Bismuth (Bi)		ICP	2		
Cadmium (Cd)		ICP	.1		

TABLE 3A -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON/
WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA

[N, not detected; (, detected but below the limit of determination shown;), determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppt, s	Mg-ppt, s	Ca-ppt, s	Ti-pct, s	Mn-ppt, s	Ag-ppt, s	As-ppt, s	Au-ppt, s	B-ppt, s	Ba-ppt, s
85EH49S	41 22 8	119 22 15	3	.7	3.0	.5	2,000	N	N	N	10	3,000
85EH48S	41 22 4	119 20 29	5	1.0	3.0	.5	1,500	N	N	N	10	2,000
85EH47S	41 21 55	119 20 23	5	.7	3.0	.5	1,000	N	N	N	10	1,500
85EH08S	41 21 35	119 21 48	3	.7	2.0	.3	1,000	N	N	N	<10	700
85EH44S	41 20 35	119 21 10	3	.7	2.0	.3	700	N	N	N	10	700
85EH07S	41 22 1	119 20 31	7	.7	3.0	.7	1,500	N	N	N	10	2,000
85EH06S	41 21 21	119 20 41	5	.7	2.0	.3	1,500	N	N	N	10	1,500
85EH05S	41 20 58	119 21 32	5	.7	3.0	.5	700	N	N	N	10	700
85EH15S	41 22 8	119 17 28	5	.7	3.0	.5	1,000	N	N	N	10	1,500
85EH88S	41 21 29	119 18 20	3	.7	1.5	.3	1,500	N	N	N	10	1,500
85EH16S	41 21 19	119 18 15	5	.7	3.0	.5	1,500	N	N	N	10	2,000
85EH59S	41 20 29	119 18 55	5	.7	2.0	.3	1,000	1	N	N	10	2,000
85EH60S	41 20 26	119 17 55	5	.5	3.0	.5	1,000	N	N	N	10	1,000
85EH17S	41 20 7	119 17 50	5	.7	3.0	.5	1,000	N	N	N	10	1,500
85EH01S	41 19 58	119 20 15	7	1.0	3.0	.7	1,500	N	N	N	10	1,500
85EH02S	41 19 44	119 19 33	5	.7	2.0	.3	1,500	N	N	N	<10	3,000
85EH03S	41 19 46	119 19 29	5	.7	2.0	.5	1,500	N	N	N	<10	1,500
85EH41S	41 19 5	119 17 49	5	.7	3.0	.7	1,000	N	N	N	<10	1,500
85EH91S	41 22 49	119 17 8	5	.7	2.0	.5	1,000	N	N	N	<10	700
85EH64S	41 23 42	119 19 1	7	1.0	3.0	1.0	1,000	N	N	N	10	2,000
85EH21S	41 23 54	119 19 56	5	.7	3.0	1.0	1,000	N	N	N	10	2,000
85EH20S	41 25 21	119 19 7	7	1.0	3.0	1.0	1,500	N	N	N	10	3,000
85EH63S	41 26 36	119 19 49	7	1.5	3.0	>1.0	1,500	N	N	N	<10	1,000
85EH90S	41 26 12	119 20 49	3	.7	2.0	.7	1,000	N	N	N	10	3,000
85EH62S	41 26 36	119 20 52	7	1.0	3.0	1.0	1,000	N	N	N	10	700
85EH19S	41 26 55	119 20 52	5	.7	3.0	1.0	1,500	N	N	N	10	3,000
85EH89S	41 26 34	119 21 34	3	.7	2.0	.7	1,000	N	N	N	10	1,500
85EH61S	41 26 47	119 22 5	7	.7	3.0	1.0	1,000	N	N	N	15	1,000
85EH18S	41 26 56	119 22 19	7	1.0	3.0	.7	1,000	N	N	N	10	700
85EH87S	41 24 58	119 23 44	7	.7	3.0	.5	1,000	N	N	N	10	1,500
85EH14S	41 24 12	119 22 32	7	.7	3.0	.5	1,500	N	N	N	10	1,500
85EH58S	41 24 12	119 22 34	5	.7	2.0	.5	1,500	N	N	N	10	1,500
85EH10S	41 24 34	119 25 13	3	.5	2.0	.3	1,500	N	N	N	15	1,000
85EH54S	41 25 55	119 25 47	5	.7	3.0	.3	1,500	N	N	N	15	1,500
85EH13S	41 25 57	119 24 5	5	.7	3.0	.5	1,000	N	N	N	10	1,500
85EH57S	41 26 6	119 23 42	7	.7	3.0	.5	1,500	N	N	N	10	2,000
85EH86S	41 26 14	119 24 0	3	.7	3.0	.3	700	N	N	N	10	1,000
85EH56S	41 26 24	119 23 37	3	.7	3.0	.3	1,000	N	N	N	10	1,000
85EH12S	41 26 54	119 23 25	7	1.0	3.0	.7	1,000	N	N	N	10	1,500
85EH85S	41 27 28	119 24 26	5	.7	1.5	.7	700	N	N	N	<10	700
85EH11S	41 27 43	119 25 14	7	.3	1.5	.7	1,000	N	N	N	10	1,500

TABLE 3A -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON
WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--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	Se-ppm s	Sn-ppm s
85EH49S	1.5	N	N	15	70	20	50	N	(20)	10	15	N	20	N
85EH48S	1.5	N	N	15	30	15	N	N	(20)	15	15	N	20	N
85EH47S	1.5	N	N	15	70	20	N	N	(20)	10	15	N	15	N
85EH08S	1.5	N	N	10	70	15	30	N	(20)	10	15	N	15	N
85EH44S	1.5	N	N	10	70	20	N	N	(20)	10	15	N	10	N
85EH07S	1.5	N	N	15	50	20	N	N	(20)	15	15	N	30	N
85EH06S	1.5	N	N	15	70	30	N	N	(20)	15	15	N	15	N
85EH05S	2.0	N	N	7	50	10	50	N	(20)	5	15	N	15	N
85EH15S	1.0	N	N	7	50	15	70	N	(20)	7	15	N	20	N
85EH88S	1.5	N	N	10	30	15	N	N	(20)	10	15	N	15	N
85EH16S	1.0	N	N	15	70	15	30	N	(20)	15	15	N	20	N
85EH59S	1.5	N	N	10	50	15	30	N	(20)	10	15	N	30	N
85EH60S	1.5	N	N	15	30	15	50	N	(20)	7	15	N	15	N
85EH17S	1.5	N	N	15	70	15	30	N	(20)	15	15	N	15	N
85EH01S	1.5	N	N	15	70	20	N	N	(20)	15	15	N	20	N
85EH02S	1.5	N	N	7	30	15	N	(5)	(20)	10	15	N	20	N
85EH03S	1.0	N	N	10	100	15	30	(5)	(20)	15	15	N	20	N
85EH41S	1.5	N	N	10	30	15	30	(5)	(20)	15	15	N	20	N
85EH91S	1.0	N	N	10	30	10	30	(5)	(20)	7	15	N	15	N
85EH64S	1.0	N	N	15	50	15	(30)	(5)	(20)	15	15	N	20	N
85EH21S	1.0	N	N	10	70	15	50	(5)	(20)	15	15	N	20	N
85EH20S	1.0	N	N	15	70	10	N	(5)	(20)	15	15	N	30	N
85EH63S	1.0	N	N	15	30	10	30	(5)	(20)	10	15	N	30	N
85EH90S	1.0	N	N	10	30	15	30	(5)	(20)	10	15	N	20	N
85EH62S	1.0	N	N	15	50	15	50	(5)	(20)	10	15	N	30	N
85EH19S	1.0	N	N	15	100	10	30	(5)	(20)	15	15	N	20	N
85EH89S	1.5	N	N	15	50	15	30	(5)	(20)	15	15	N	15	N
85EH61S	1.5	N	N	15	70	70	50	(5)	(20)	15	500	N	30	N
85EH18S	3.0	N	N	15	70	50	N	5	(20)	15	150	N	20	N
85EH87S	1.5	N	N	15	30	30	30	(5)	(20)	15	70	N	20	N
85EH14S	1.5	N	N	15	30	30	30	(5)	(20)	15	50	N	30	N
85EH58S	1.5	N	N	10	30	30	N	(5)	(20)	10	30	N	20	N
85EH10S	1.5	N	N	7	30	30	30	(5)	(20)	7	30	N	15	N
85EH54S	1.5	N	N	15	70	30	30	N	(20)	15	20	N	20	N
85EH13S	1.5	N	N	15	50	30	30	(5)	(20)	15	15	N	20	N
85EH57S	1.5	N	N	15	50	30	30	(5)	(20)	15	15	N	30	N
85EH86S	1.5	N	N	10	30	30	30	(5)	(20)	7	20	N	15	N
85EH56S	1.5	N	N	10	30	30	30	(5)	(20)	10	15	N	15	N
85EH12S	1.5	N	N	15	30	30	50	(5)	(20)	15	20	N	30	N
85EH85S	1.5	N	N	10	50	15	50	(5)	(20)	7	15	N	15	N
85EH11S	1.5	N	N	7	30	15	30	(5)	(20)	7	15	N	30	N

TABLE 3A -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON
WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm aa	As-ppm icp	Bi-ppm icp	Cd-ppm icp	Sb-ppm icp	Zn-ppm icp
85EH49S	700	150	N	30	N	150	N	(.1	.04	13	(2	.3	(2	58
85EH48S	700	150	N	15	N	100	N	(.1	.02	7	(2	.4	(2	64
85EH47S	700	150	N	20	N	100	N	(.1	.03	(5	(2	.6	(2	53
85EH08S	500	70	N	80	N	100	N	(.1	.03	(5	(2	.9	(2	63
85EH44S	500	70	N	20	N	150	N	(.1	.04	(5	(2	.7	(2	54
85EH07S	700	150	N	20	N	150	N	(.1	.03	7	(2	1.1	(2	66
85EH06S	700	100	N	15	N	100	N	(.1	.03	(5	(2	.7	(2	55
85EH05S	500	150	N	30	N	150	N	(.1	.03	(5	(2	.8	(2	55
85EH15S	700	70	N	20	N	100	N	(.2	.03	(5	(2	.7	(2	48
85EH88S	500	70	N	20	N	100	N	(.1	.04	(5	(2	.6	(2	59
85EH16S	700	150	N	20	N	150	N	(.1	.04	(5	(2	.8	(2	53
85EH59S	700	150	N	20	N	100	N	(.2	.06	7	(2	.8	(2	66
85EH60S	700	150	N	30	N	150	N	(.1	.05	(5	(2	.6	(2	47
85EH17S	700	150	N	30	N	150	N	(.1	.05	(5	(2	.9	(2	60
85EH01S	700	150	N	20	N	150	N	(.1	.03	(5	(2	1.1	(2	63
85EH02S	500	70	N	30	N	100	N	(.1	.05	13	(2	1.3	(2	66
85EH03S	700	150	N	20	N	100	N	(.1	.06	8	(2	.9	(2	65
85EH41S	700	150	N	20	N	150	N	--	.04	(5	(2	.8	(2	63
85EH91S	700	150	N	20	N	100	N	(.1	.03	(5	(2	.9	(2	67
85EH64S	700	150	N	15	N	150	N	(.1	.03	(5	(2	.7	(2	56
85EH21S	700	150	N	20	N	150	N	(.1	.03	(5	(2	.8	(2	51
85EH20S	700	150	N	20	N	150	N	(.1	.02	(5	(2	.9	(2	54
85EH63S	500	200	N	20	N	150	N	(.1	.02	(5	(2	1.2	(2	86
85EH90S	500	150	N	20	N	100	N	(.1	.03	9	(2	.8	(2	61
85EH62S	700	200	N	30	N	150	N	(.1	.03	10	(2	1.8	(2	120
85EH19S	700	150	N	20	N	150	N	(.1	.03	(5	(2	.9	(2	63
85EH89S	500	150	N	20	N	150	N	(.1	.04	9	(2	.9	(2	58
85EH61S	700	150	N	30	N	200	N	(.1	.03	10	(2	.6	(2	60
85EH18S	700	150	N	30	N	150	N	(.1	.03	42	(2	1.4	7	74
85EH87S	700	150	N	30	N	150	N	(.1	.04	20	(2	.9	(2	56
85EH14S	700	150	N	30	N	150	N	(.1	.04	35	(2	.9	(2	50
85EH58S	500	100	N	20	N	150	N	(.2	.04	17	(2	.9	(2	58
85EH10S	500	70	N	20	N	150	N	(.1	.07	20	(2	1.2	(2	66
85EH54S	700	100	N	20	N	150	N	(.1	.06	8	(2	.8	(2	52
85EH13S	500	150	N	20	N	150	N	(.1	.04	6	(2	.6	(2	47
85EH57S	700	150	N	30	N	150	N	(.1	.06	7	(2	.7	(2	55
85EH86S	700	100	N	30	N	150	N	(.1	.04	(5	(2	.5	2	42
85EH56S	500	70	N	20	N	100	N	(.1	.04	15	(2	.7	(2	47
85EH12S	700	150	N	30	N	150	N	(.1	.03	15	(2	.9	(2	51
85EH85S	300	150	N	30	N	200	N	(.1	.02	13	(2	.6	(2	44
85EH11S	150	150	N	30	N	150	N	(.1	.02	8	2	.5	(2	40

TABLE 3B -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA

[N, not detected; (<, detected but below the limit of determination shown; >), determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppt. s	Mg-pct. s	Ca-ppt. s	Ti-ppt. s	Mn-ppt. s	Ag-ppt. s	As-ppt. s	Au-ppt. s	B-ppt. s	Ba-ppt. s
85LH21S	41 15 55	119 22 21	2.0	.5	2.0	.2	700	N	N	N	20	700
85LH03S	41 15 30	119 21 24	3.0	.7	3.0	.3	700	N	N	N	10	1,000
85LH09S	41 16 30	119 21 23	3.0	.7	3.0	.3	1,000	N	N	N	10	1,000
85LH49S	41 16 56	119 21 18	3.0	.5	3.0	.3	1,000	N	N	N	20	700
85LH04S	41 15 40	119 20 10	3.0	.7	3.0	.3	700	N	N	N	10	1,500
85LH22S	41 15 12	119 20 8	3.0	.7	3.0	.3	700	N	N	N	15	700
85LH05S	41 15 38	119 20 9	5.0	.5	3.0	.3	1,500	N	N	N	<10	1,500
85LH42S	41 15 56	119 22 9	3.0	.7	2.0	.3	500	N	N	N	20	700
85LH40S	41 15 28	119 21 10	3.0	.5	2.0	.3	500	N	N	N	20	700
85LH41S	41 15 28	119 21 6	3.0	.3	2.0	.3	300	N	N	N	15	700
85LH20S	41 16 20	119 20 1	3.0	.5	1.5	.3	700	N	N	N	15	700
85LH01S	41 16 2	119 19 48	3.0	.5	1.5	.3	700	N	N	N	15	700
85LH44S	41 14 30	119 22 1	3.0	.7	3.0	.5	1,000	N	N	N	15	700
85LH26S	41 11 30	119 21 8	3.0	.5	1.5	.3	500	N	N	N	30	700
85LH46S	41 11 37	119 20 12	7.0	1.5	3.0	.7	700	N	N	N	<10	700
85LH25S	41 10 33	119 19 56	5.0	.7	3.0	.5	1,000	N	N	N	10	700
85LH07S	41 10 56	119 19 9	5.0	1.0	3.0	.5	700	N	N	N	10	700
85LH24S	41 12 7	119 19 31	2.0	.2	1.5	.2	300	N	N	N	50	500
85LH08S	41 13 46	119 21 20	5.0	.7	2.0	.5	500	N	N	N	30	700
85LH48S	41 13 55	119 21 50	7.0	.7	1.5	>1.0	1,500	N	N	N	10	700
85LH47S	41 13 58	119 21 47	7.0	.7	2.0	.7	1,000	N	N	N	<10	700
85LH45S	41 12 34	119 19 21	1.5	.1	1.5	.3	500	N	N	N	20	300
85LH06S	41 13 39	119 19 54	3.0	.5	3.0	.3	700	N	N	N	15	700
85LH43S	41 14 2	119 19 11	3.0	.7	2.0	.3	700	N	N	N	20	700
85LH23S	41 14 39	119 18 28	7.0	.7	2.0	1.0	700	N	N	N	<10	700

TABLE 3B -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Ba-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	Sc-ppm s	Sn-ppm s
85LH21S	1.5	N	N	7	30	15	70	N	<20	7	30	N	10	N
85LH03S	1.5	N	N	15	100	20	30	N	<20	15	20	N	15	N
85LH09S	1.5	N	N	15	50	20	30	N	<20	15	15	N	15	N
85LH49S	1.5	N	N	15	50	20	30	N	<20	15	15	N	15	N
85LH04S	1.0	N	N	15	50	20	30	N	<20	15	15	N	15	N
85LH22S	1.5	N	N	15	50	20	30	N	<20	15	20	N	15	N
85LH05S	1.0	N	N	15	70	30	30	N	<20	15	15	N	15	N
85LH42S	1.5	N	N	7	30	20	50	N	<20	10	15	N	15	N
85LH40S	1.5	N	N	7	30	15	50	N	<20	10	15	N	15	N
85LH41S	1.5	N	N	<5	30	10	50	N	<20	<5	15	N	10	N
85LH20S	1.5	N	N	<5	15	10	50	N	<20	<5	15	N	15	N
85LH01S	1.0	N	N	15	70	20	30	N	<20	15	15	N	15	N
85LH44S	1.0	N	N	20	150	20	30	N	<20	15	15	N	15	N
85LH26S	1.5	N	N	15	70	30	30	N	<20	20	15	N	10	N
85LH46S	1.5	N	N	20	300	30	N	N	<20	70	15	N	30	N
85LH25S	1.5	N	N	15	70	20	70	N	<20	15	15	N	15	N
85LH07S	1.5	N	N	15	150	30	100	N	<20	30	15	N	20	N
85LH24S	3.0	N	N	7	20	7	150	N	<20	5	20	N	7	N
85LH08S	1.5	N	N	15	50	15	30	N	<20	15	15	N	15	N
85LH48S	1.5	N	N	15	30	20	100	N	<20	15	15	N	20	N
85LH47S	1.5	N	N	15	70	15	70	N	N	10	15	N	15	N
85LH45S	2.0	N	N	7	15	7	200	N	<20	<5	15	N	7	N
85LH06S	1.5	N	N	15	70	20	50	N	<20	15	15	N	15	N
85LH43S	2.0	N	N	15	30	15	50	N	<20	10	15	N	15	N
85LH23S	1.5	N	N	15	70	20	<30	N	<20	5	15	N	15	N

TABLE 3B -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm aa	As-ppm icp	Bi-ppm icp	Cd-ppm icp	Sb-ppm icp	Zn-ppm icp
85LH21S	500	70	N	50	N	150	N	<.1	.04	<5	<2	.6	<2	49
85LH03S	700	150	N	20	N	150	N	<.1	.04	9	<2	.8	<2	49
85LH09S	700	150	N	20	N	150	N	<.1	.02	7	<2	.8	<2	46
85LH49S	700	150	N	20	N	150	N	<.2	.03	6	<2	.7	<2	46
85LH04S	700	150	N	20	N	150	N	<.1	.05	21	<2	1.0	<2	61
85LH22S	500	100	N	30	N	150	N	<.1	.06	31	<2	1.2	<2	63
85LH05S	700	150	N	20	N	100	N	<.1	.04	24	<2	1.1	<2	57
85LH42S	500	70	N	30	N	150	N	<.1	.05	10	<2	.8	<2	47
85LH40S	300	70	N	30	N	150	N	<.2	-	<5	<2	.5	<2	40
85LH41S	300	70	N	30	N	150	N	<.1	.03	<5	<2	.4	<2	35
85LH20S	300	50	N	50	N	200	N	-	.03	<5	<2	1.3	<2	71
85LH01S	700	100	N	20	N	150	N	<.2	.06	<5	<2	1.0	<2	64
85LH44S	700	150	N	20	N	150	N	<.1	.06	<5	3	.8	<2	41
85LH26S	500	70	N	20	N	150	N	-	.07	7	<2	.8	<2	58
85LH46S	1,000	150	N	15	N	150	N	<.1	.07	<5	<2	1.1	<2	69
85LH25S	700	150	N	30	N	200	N	<.1	.09	<5	<2	<.1	<2	64
85LH07S	700	150	N	30	N	150	N	<.1	.03	<5	2	.3	<2	67
85LH24S	300	50	N	50	N	150	N	<.2	.02	<5	<2	.2	<2	21
85LH08S	700	150	N	50	N	200	N	<.1	.02	<5	<2	.6	<2	44
85LH48S	500	300	N	50	N	200	N	<.1	.03	<5	<2	1.5	<2	130
85LH47S	300	150	N	50	N	200	N	<.1	.04	<5	3	1.3	<2	80
85LH45S	300	30	N	50	N	300	N	<.1	.02	<5	<2	.3	<2	22
85LH06S	700	150	N	50	N	150	N	-	.02	<5	<2	.7	<2	46
85LH43S	500	100	N	50	N	150	N	<.1	.04	<5	<2	.9	<2	71
85LH23S	500	200	N	30	N	150	N	<.1	.02	<5	3	2.9	<2	130

TABLE 3C -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA

[N, not detected; (, detected but below the limit of determination shown;), determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppt, %	Mg-ppt, %	Ca-ppt, %	Ti-ppt, %	Mn-ppt, %	Ag-ppt, %	As-ppt, %	Au-ppt, %	B-ppt, %	Ba-ppt, %
85HR14S	41 20 19	119 22 52	3	.7	2.0	.3	1,000	N	N	N	10	1,500
85HR01S	41 18 4	119 18 22	3	.7	2.0	.3	1,500	N	N	N	10	2,000
85HR02S	41 30 25	119 21 28	3	.7	3.0	.3	1,000	N	N	N	<10	700
85HR03S	41 30 8	119 22 28	3	.7	3.0	.3	1,000	N	N	N	10	1,000
85HR04S	41 21 46	119 22 12	5	.5	3.0	.7	1,500	N	N	N	10	2,000
85HR05S	41 21 52	119 22 4	5	.7	3.0	.5	1,500	N	N	N	10	3,000
85HR07S	41 20 0	119 23 58	5	.5	1.5	.5	1,000	N	N	N	15	1,000
85HR08S	41 21 58	119 21 38	5	.7	3.0	.7	1,500	N	N	N	10	3,000
85HR09S	41 22 46	119 24 47	5	.7	2.0	.7	1,500	N	N	N	10	700
85HR10S	41 23 11	119 24 43	3	.5	3.0	.3	1,000	N	N	N	10	1,500
85HR11S	41 23 56	119 25 8	5	.7	2.0	.7	1,500	N	N	N	10	700
85HR12S	41 24 30	119 25 22	5	.3	3.0	.3	1,500	N	N	N	10	2,000
85HR13S	41 25 42	119 25 58	5	.7	3.0	.5	1,000	N	N	N	10	2,000
85HR40S	41 19 56	119 20 40	5	.7	3.0	.5	2,000	N	N	N	<10	3,000
85HR42S	41 19 10	119 20 11	3	.7	3.0	.3	1,000	N	N	N	10	1,000
85HR43S	41 19 16	119 20 12	5	.7	2.0	.5	1,500	N	N	N	<10	1,500
85HR45S	41 20 31	11 22 4	7	.7	1.5	1.0	1,000	N	N	N	10	300
85HR46S	41 20 55	119 21 47	3	.7	2.0	.5	700	N	N	N	10	500
85HR50S	41 20 42	119 23 41	5	.7	3.0	.5	1,000	N	N	N	10	2,000
85HR51S	41 22 19	119 20 58	7	.7	3.0	.7	1,000	N	N	N	10	1,500
85HR52S	41 22 36	119 25 41	5	.7	2.0	.5	700	N	N	N	10	700
85HR53S	41 24 13	119 26 28	5	.7	3.0	.7	1,500	N	N	N	15	700
85HR55S	41 26 26	119 26 10	3	.3	1.5	.3	700	N	N	N	10	700

TABLE 3C -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA--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	Se-ppm s	Sn-ppm s
85HR14S	1.5	N	N	7	30	20	50	N	<20	10	15	N	20	N
85HR01S	1.5	N	N	7	20	20	30	N	<20	10	15	N	20	N
85HR02S	2.0	N	N	15	30	20	30	N	<20	10	15	N	10	N
85HR03S	1.5	N	N	15	50	15	30	N	<20	15	15	N	15	N
85HR04S	1.5	N	N	15	50	30	50	N	<20	15	15	N	15	N
85HR05S	1.5	N	N	15	30	30	30	N	<20	15	15	N	20	N
85HR07S	1.5	N	N	15	30	30	30	N	<20	15	15	N	15	N
85HR08S	1.5	N	N	15	30	30	30	N	<20	15	15	N	30	N
85HR09S	1.5	N	N	7	30	20	30	N	<20	10	15	N	15	N
85HR10S	1.5	N	N	7	30	20	30	N	<20	7	15	N	15	N
85HR11S	1.5	N	N	7	30	15	30	<5	<20	7	15	N	20	N
85HR12S	1.5	N	N	15	30	20	30	<5	<20	15	15	N	20	N
85HR13S	1.5	N	N	15	50	20	30	N	<20	15	15	N	20	N
85HR40S	1.5	N	N	15	30	15	30	N	<20	15	15	N	20	N
85HR42S	1.5	N	N	10	30	30	30	N	<20	15	15	N	15	N
85HR43S	1.5	N	N	15	30	20	30	N	<20	15	15	N	15	N
85HR45S	1.5	N	N	10	50	15	50	<5	<20	10	15	N	10	N
85HR46S	1.5	N	N	7	50	10	30	<5	<20	7	15	N	10	N
85HR50S	1.5	N	N	10	30	100	50	N	<20	15	15	N	20	N
85HR51S	1.5	N	N	15	30	50	N	N	<20	15	15	N	20	N
85HR52S	1.5	N	N	7	20	15	30	N	<20	5	15	N	15	N
85HR53S	1.5	N	N	15	30	20	50	N	<20	15	15	N	15	N
85HR55S	1.5	N	N	10	30	20	50	N	<20	10	15	N	15	N

TABLE 3C -- RESULTS OF ANALYSES OF STREAM-SEDIMENT SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm aa	As-ppm icp	Bi-ppm icp	Cd-ppm icp	Sb-ppm icp	Zn-ppm icp
85HR14S	500	70	N	30	N	150	N	<.1	.03	7	<2	.7	<2	53
85HR01S	500	70	N	30	N	100	N	<.1	.14	7	<2	1.4	<2	70
85HR02S	700	70	N	30	N	150	N	<.1	.04	13	<2	1.3	<2	57
85HR03S	700	100	N	30	N	150	N	--	.04	<5	<2	.9	<2	43
85HR04S	700	150	N	30	N	150	N	<.1	.06	<5	<2	1.5	<2	56
85HR05S	700	150	N	30	N	150	N	<.1	.07	8	<2	1.3	<2	64
85HR07S	500	150	N	30	N	150	N	<.1	.03	8	<2	1.1	<2	63
85HR08S	700	150	N	30	N	150	N	<.1	.04	7	<2	1.2	<2	58
85HR09S	300	100	N	30	N	150	N	<.1	.05	10	<2	1.3	<2	83
85HR10S	700	70	N	30	N	150	N	<.1	.10	<5	<2	.7	<2	45
85HR11S	300	100	N	30	N	150	N	<.1	.03	9	<2	1.3	<2	59
85HR12S	700	100	N	30	N	150	N	<.1	.03	13	<2	1.1	<2	47
85HR13S	500	150	N	20	N	100	N	<.1	.04	11	<2	1.1	<2	57
85HR40S	700	150	N	30	N	100	N	<.1	.07	10	<2	1.4	3	59
85HR42S	700	100	N	20	N	150	N	--	.06	6	<2	1.2	<2	54
85HR43S	700	150	N	30	N	100	N	<.2	.06	6	<2	1.4	<2	60
85HR45S	300	150	N	30	N	200	N	<.1	.03	6	<2	1.1	<2	71
85HR46S	300	100	N	30	N	150	N	<.1	.03	<5	<2	.9	<2	49
85HR50S	500	100	N	30	N	150	N	<.1	.06	<5	<2	.9	<2	63
85HR51S	700	150	N	30	N	150	N	<.1	.02	6	<2	1.3	<2	66
85HR52S	300	70	N	30	N	150	N	<.1	.04	10	<2	1.2	<2	69
85HR53S	700	100	N	50	N	300	N	<.1	.04	<5	<2	1.1	<2	52
85HR55S	500	70	N	30	N	150	N	<.1	.05	10	<2	.8	<2	52

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Li-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	K-ppm s	Ba-ppm s
85EH84H	41 26 34	119 25 37	.7	.15	.5	.2	100	N	N	N	20	200
NON-MAGNETIC FRACTION												
85EH80H	41 22 13	119 21 30	10.0	1.50	1.5	1.0	>5,000	N	<200	N	10	>5,000
85EH81H	41 23 44	119 24 48	7.0	1.50	.7	.5	>5,000	N	500	N	10	1,000
85EH82H	41 24 42	119 25 5	5.0	2.00	1.0	.2	>5,000	N	700	N	15	1,500
85EH83H	41 25 18	119 25 35	10.0	3.00	1.5	>1.0	>5,000	N	300	N	<10	1,500
85EH84H	41 26 34	119 25 37	10.0	2.00	1.0	>1.0	5,000	N	200	N	10	1,000
SLIGHTLY MAGNETIC FRACTION												
85EH01S	41 19 58	119 20 15	5.0	.50	.7	.5	5,000	N	N	N	10	5,000
85EH02S	41 19 44	119 19 33	7.0	.50	.7	.3	5,000	N	N	N	10	2,000
85EH03S	41 19 46	119 19 29	7.0	1.50	.7	.5	3,000	N	N	N	10	2,000
85EH05S	41 20 58	119 21 32	5.0	1.00	1.0	.7	1,000	N	N	N	20	200
85EH06S	41 21 21	119 20 41	3.0	.70	.7	.7	5,000	N	N	N	20	2,000
85EH07S	41 22 1	119 20 31	10.0	1.00	.7	1.0	>5,000	N	N	N	10	5,000
85EH08S	41 21 35	119 21 48	5.0	1.00	1.0	1.0	5,000	N	N	N	15	1,000
85EH10S	41 24 34	119 25 13	7.0	1.00	.7	.5	5,000	N	N	N	15	1,500
85EH11S	41 27 43	119 25 14	15.0	1.00	.7	1.0	2,000	N	N	N	10	1,000
85EH12S	41 26 54	119 23 25	10.0	1.50	2.0	1.0	1,000	N	N	N	10	1,500
85EH13S	41 25 57	119 24 5	7.0	1.00	1.0	.7	5,000	N	N	N	10	2,000
85EH14S	41 24 12	119 22 32	10.0	1.50	1.0	1.0	2,000	N	N	N	15	2,000
85EH15S	41 22 8	119 17 28	5.0	.70	.7	.7	3,000	N	N	N	15	1,500
85EH16S	41 21 19	119 18 15	5.0	.50	.5	.5	5,000	N	N	N	10	2,000
85EH17S	41 20 7	119 17 50	5.0	1.50	1.0	.5	3,000	N	N	N	10	1,500
85EH18S	41 26 56	119 22 19	10.0	2.00	2.0	>1.0	5,000	N	N	N	<10	500
85EH19S	41 26 55	119 20 52	7.0	1.00	1.5	>1.0	3,000	N	N	N	<10	5,000
85EH20S	41 25 21	119 19 7	5.0	.70	1.0	1.0	5,000	N	N	N	10	5,000
85EH21S	41 23 54	119 19 56	5.0	.70	1.0	>1.0	5,000	N	N	N	<10	5,000
85EH41S	41 19 5	119 17 49	7.0	1.00	.7	1.0	5,000	N	N	N	10	1,500
85EH44S	41 20 35	119 21 10	3.0	.70	.5	.7	5,000	N	N	N	50	500
85EH47S	41 21 55	119 20 23	5.0	1.00	1.0	1.0	5,000	N	N	N	10	2,000
85EH48S	41 22 4	119 20 29	7.0	.70	1.0	1.0	>5,000	N	N	N	10	5,000
85EH49S	41 22 4	119 22 15	7.0	1.00	1.0	1.0	>5,000	N	N	N	10	5,000
85EH54S	41 25 55	119 25 47	7.0	1.00	1.0	.7	2,000	N	N	N	10	2,000
85EH56S	41 26 24	119 23 37	7.0	1.50	1.5	.5	1,000	N	N	N	15	1,500
85EH57S	41 26 6	119 23 42	7.0	1.50	1.0	1.0	3,000	N	N	N	10	5,000
85EH58S	41 24 12	119 22 34	7.0	1.00	1.0	>1.0	5,000	N	N	N	10	5,000
85EH59S	41 20 29	119 18 55	10.0	1.50	1.0	1.0	2,000	N	N	N	10	700
85EH60S	41 20 26	119 17 55	5.0	1.00	.7	.5	2,000	N	N	N	15	700

NOT MAGNETICALLY SEPARATED

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON,
WILDERNESS STUDY AREA, WASHOE AND HUMBOLDT COUNTIES, NEVADA--Continued

Sample	de-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	Po-ppm S	St-ppm S	Sc-ppm S	Sn-ppm S
85EH84H	N	N	N	<10	<20	N	N	N	N	<10	N	N	<10	N
NON-MAGNETIC FRACTION--Continued														
85EH80H	3.0	N	N	15	50	10	50	10	<20	20	20	N	30	N
85EH81H	2.0	N	N	15	50	10	50	10	N	20	<10	N	30	N
85EH82H	1.5	N	N	7	20	15	50	7	N	15	20	N	15	N
85EH83H	2.0	N	N	30	150	20	50	7	<20	30	10	N	50	N
85EH84H	2.0	N	N	20	150	7	50	5	<20	30	<10	N	50	N
NOT MAGNETICALLY SEPARATED--Continued														
85EH01S	1.0	N	N	7	10	7	50	N	N	15	15	N	20	N
85EH02S	1.0	N	N	7	10	5	50	N	N	10	15	N	15	N
85EH03S	<1.0	N	N	10	20	15	50	N	N	20	20	N	20	N
85EH05S	1.5	N	N	7	20	<5	100	N	<20	5	15	N	20	N
85EH06S	1.0	N	N	10	15	10	70	N	N	15	30	N	20	N
85EH07S	<1.0	N	N	15	20	15	70	N	N	15	20	N	30	N
85EH08S	1.5	N	N	7	100	7	70	N	<20	10	20	N	15	N
85EH10S	1.5	N	N	10	10	10	50	10	N	7	15	N	15	N
85EH11S	N	N	N	15	30	10	N	N	<20	20	10	N	20	N
85EH12S	<1.0	N	N	10	20	10	<20	<5	N	15	15	N	15	N
85EH13S	1.0	N	N	15	10	15	50	N	N	15	30	N	15	N
85EH14S	1.0	N	N	15	20	15	50	7	N	15	20	N	20	N
85EH15S	<1.0	N	N	7	20	5	50	N	N	10	20	N	15	N
85EH16S	<1.0	N	N	7	10	5	50	N	N	5	20	N	20	N
85EH17S	<1.0	N	N	20	30	20	50	N	N	30	15	N	15	N
85EH18S	1.5	N	N	30	150	20	N	10	<20	30	15	N	50	N
85EH19S	<1.0	N	N	10	20	10	50	N	N	15	20	N	20	N
85EH20S	1.0	N	N	20	15	10	70	N	N	15	20	N	20	N
85EH21S	1.0	N	N	10	150	7	50	N	N	10	20	N	20	N
85EH41S	<1.0	N	N	10	10	7	50	N	N	10	20	N	20	N
85EH44S	1.5	N	N	7	15	7	50	N	<20	10	20	N	10	N
85EH47S	1.0	N	N	20	50	10	70	N	N	15	20	N	20	N
85EH48S	1.5	N	N	15	30	10	50	N	N	15	15	N	30	N
85EH49S	1.5	N	N	10	20	7	50	<5	N	15	15	N	30	N
85EH54S	1.0	N	N	10	10	10	50	N	N	15	20	N	15	N
85EH56S	<1.0	N	N	10	15	15	50	<5	N	10	15	N	15	N
85EH57S	<1.0	N	N	10	10	10	50	N	N	15	15	N	20	N
85EH58S	1.0	N	N	10	20	7	50	N	N	10	15	N	20	N
85EH59S	N	N	N	10	70	15	N	N	N	15	20	N	15	N
85EH60S	<1.0	N	N	10	15	10	<20	N	N	10	15	N	10	N

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm inst	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
85EH84H	200	20	N	50	N	>2,000	N	--	--	--	--	--	--	--
NON-MAGNETIC FRACTION--Continued														
85EH80H	200	200	70	50	N	70	N	--	--	--	--	--	--	--
85EH81H	100	150	N	20	N	50	N	--	--	--	--	--	--	--
85EH82H	100	70	N	20	N	30	N	--	--	--	--	--	--	--
85EH83H	<100	150	N	30	N	300	N	--	--	--	--	--	--	--
85EH84H	<100	150	N	30	N	70	N	--	--	--	--	--	--	--
SLIGHTLY MAGNETIC FRACTION--Continued														
85EH01S	150	30	N	30	N	70	N	N	N	N	N	.4	N	75
85EH02S	150	30	N	30	N	70	N	N	.02	10	N	.4	N	95
85EH03S	200	50	N	30	N	100	N	N	.02	<10	N	.3	N	90
85EH05S	150	100	N	50	N	150	N	N	.02	N	N	.1	N	75
85EH06S	200	70	N	30	N	150	N	N	.02	N	N	.2	2	95
85EH07S	300	200	N	30	N	100	N	N	N	10	N	.4	N	150
85EH08S	150	100	N	70	N	150	N	N	N	90	N	.3	N	90
85EH10S	200	100	N	50	N	150	N	N	.02	N	N	.9	N	75
85EH11S	100	200	N	30	N	100	N	N	N	N	N	.1	N	75
85EH12S	300	100	N	30	N	70	N	N	N	10	N	.2	N	70
85EH13S	300	50	N	30	N	70	N	N	N	20	N	.4	N	65
85EH14S	500	150	N	50	N	70	N	N	.02	90	N	.3	N	100
85EH15S	150	50	N	30	N	100	N	N	N	N	N	.2	N	65
85EH16S	200	50	N	30	N	100	N	N	N	N	N	.2	N	80
85EH17S	200	100	N	30	N	70	N	N	N	N	N	.2	N	65
85EH18S	300	200	N	50	N	150	N	N	N	100	N	.2	12	140
85EH19S	300	70	N	30	N	100	N	N	N	N	N	.2	N	90
85EH20S	300	100	N	50	N	100	N	N	N	N	N	.2	N	80
85EH21S	300	100	N	30	N	70	N	N	N	<10	N	.2	N	75
85EH41S	200	100	N	50	N	150	N	N	.02	<10	N	.2	N	90
85EH44S	100	100	N	50	N	150	N	N	.02	N	N	.4	N	80
85EH47S	200	100	N	50	N	70	N	N	N	N	N	.3	N	85
85EH48S	200	150	N	50	N	150	N	N	N	10	N	.5	N	120
85EH49S	300	150	N	30	N	150	N	N	.02	20	N	.6	N	110
85EH54S	300	70	N	30	N	100	N	N	N	20	N	.3	N	70
85EH56S	300	50	N	50	N	100	N	N	N	10	N	.2	N	50
85EH57S	300	50	N	30	N	150	N	N	N	10	N	.3	2	65
85EH58S	300	100	N	50	N	100	N	N	.02	20	N	.3	N	95
85EH59S	300	150	N	20	N	50	N	N	N	10	N	.4	N	100
85EH60S	200	70	N	30	N	100	N	N	.02	N	N	.3	N	170

NOT MAGNETICALLY SEPARATED--Continued

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Latitude	Longitude	Fe-pct. %	Mg-pct. %	Ca-pct. %	Ti-pct. %	Mn-ppm S	Ag-ppm S	As-ppm S	Au-ppm S	B-ppm S	Isa-ppm S
NOT MAGNETICALLY SEPARATED--Continued												
85EH61S	41 26 47	119 22 5	10.0	1.50	1.5	>1.0	3,000	N	N	N	10	1,500
85EH62S	41 26 36	119 20 52	20.0	2.00	1.5	>1.0	3,000	N	N	N	10	700
85EH63S	41 26 36	119 17 49	10.0	2.00	2.0	>1.0	5,000	N	N	N	<10	1,500
85EH64S	41 23 42	119 19 1	7.0	1.00	1.0	1.0	5,000	N	N	N	10	5,000
85EH60H	41 22 13	119 21 30	10.0	.70	.7	.7	5,000	N	N	N	10	3,000
85EH81H	41 23 44	119 24 46	5.0	.50	.5	.5	2,000	N	N	N	15	1,500
85EH82H	41 24 42	119 25 5	5.0	.50	.7	.5	2,000	N	N	N	30	1,500
85EH83H	41 25 18	119 25 35	7.0	1.50	1.0	1.0	3,000	N	N	N	50	2,000
85EH84H	41 26 34	119 25 37	5.0	.70	.7	1.0	2,000	N	N	N	20	2,000
85EH85S	41 27 28	119 24 26	10.0	2.00	1.5	1.0	2,000	N	N	N	10	1,000
85EH86S	41 26 14	119 24 0	7.0	1.50	1.5	.7	3,000	N	N	N	15	1,500
85EH87S	41 24 58	119 23 44	5.0	.70	.7	.7	2,000	N	N	N	10	2,000
85EH88S	41 21 29	119 18 20	5.0	1.00	.7	1.0	5,000	N	N	N	15	1,500
85EH89S	41 26 34	119 21 34	7.0	1.50	2.0	>1.0	2,000	N	N	N	10	1,500
85EH90S	41 26 12	119 20 49	7.0	1.00	1.0	>1.0	3,000	N	N	N	10	3,000
85EH91S	41 22 49	119 17 8	15.0	1.50	1.0	1.0	2,000	N	N	N	10	700
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION												
85EH01H	41 19 58	119 20 15	20.0	3.00	1.0	>2.0	>10,000	N	N	N	20	5,000
85EH02H	41 19 44	119 19 33	20.0	3.00	2.0	.5	>10,000	N	<500	N	20	>10,000
85EH03H	41 19 46	119 19 29	15.0	3.00	1.5	>2.0	>10,000	N	N	N	20	10,000
85EH05H	41 20 58	119 21 32	15.0	7.00	10.0	>2.0	5,000	N	N	N	30	300
85EH06H	41 21 21	119 20 41	20.0	5.00	5.0	.3	>10,000	N	N	N	30	10,000
85EH07H	41 22 1	119 20 41	15.0	7.00	7.0	1.0	>10,000	N	N	N	20	2,000
85EH08H	41 21 35	119 21 48	10.0	7.00	7.0	.5	>10,000	N	N	N	30	7,000
85EH10H	41 24 42	119 25 13	30.0	7.00	3.0	2.0	>10,000	N	1,000	N	20	1,500
85EH11H	41 27 43	119 25 14	10.0	7.00	5.0	>2.0	10,000	N	N	N	20	700
85EH12H	41 26 54	119 23 25	15.0	10.00	5.0	>2.0	10,000	N	N	N	20	500
85EH13H	41 25 57	119 24 5	15.0	10.00	5.0	>2.0	10,000	N	N	N	20	700
85EH14H	41 24 12	119 22 32	15.0	7.00	5.0	>2.0	10,000	N	700	N	20	700
85EH15H	41 22 8	119 17 28	20.0	7.00	10.0	>2.0	>10,000	N	N	N	20	6,000
85EH16H	41 21 19	119 18 15	20.0	10.00	5.0	>2.0	>10,000	N	N	N	30	3,000
85EH17H	41 20 7	119 17 50	30.0	7.00	5.0	>2.0	10,000	N	N	N	20	1,500
85EH18H	41 26 56	119 22 19	20.0	7.00	7.0	>2.0	7,000	N	<500	N	20	1,000
85EH19H	41 26 55	119 20 52	20.0	7.00	5.0	>2.0	>10,000	N	N	N	20	2,000
85EH20H	41 25 21	119 19 7	20.0	15.00	7.0	>2.0	>10,000	N	N	N	20	3,000
85EH21H	41 23 54	119 19 56	30.0	5.00	1.0	>2.0	10,000	N	N	N	20	5,000
85EH41H	41 19 5	117 17 49	30.0	5.00	5.0	>2.0	>10,000	N	N	N	20	7,000
85EH44H	41 20 35	119 21 10	30.0	10.00	5.0	2.0	>10,000	N	N	N	20	5,000
85EH47H	41 21 55	119 20 23	10.0	10.00	5.0	.7	>10,000	N	N	N	20	2,000
85EH48H	41 22 4	119 20 29	15.0	7.00	5.0	.5	>10,000	N	N	N	20	10,000
85EH49H	41 22 8	119 22 15	15.0	7.00	5.0	.5	>10,000	N	N	N	20	3,000
85EH54H	41 25 55	119 25 47	10.0	10.00	5.0	>2.0	7,000	N	N	N	20	700

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--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	Sc-ppm s	Sn-ppm s
NOT MAGNETICALLY SEPARATED--Continued														
85EH61S	<1.0	N	N	30	70	15	<20	N	<20	20	15	N	30	N
85EH62S	N	N	N	50	70	15	<20	N	<20	20	15	N	50	N
85EH63S	N	N	N	20	70	10	<20	N	N	15	15	N	30	N
85EH64S	1.0	N	N	50	20	10	50	N	N	20	20	N	20	N
85EH80H	1.0	N	N	10	10	10	50	N	N	15	15	N	15	N
85EH81H	<1.0	N	N	7	10	7	50	7	N	7	20	N	20	N
85EH82H	1.0	N	N	7	10	10	50	5	N	10	15	N	15	N
85EH83H	1.5	N	N	10	20	10	70	5	N	15	20	N	15	N
85EH84H	1.0	N	N	10	10	5	50	<5	N	15	10	N	20	N
85EH85S	N	N	N	15	70	15	<20	N	N	15	10	N	20	N
85EH86S	1.0	N	N	10	15	10	50	<5	N	15	10	N	15	N
85EH87S	<1.0	N	N	10	10	5	50	N	N	10	15	N	15	N
85EH88S	1.0	N	N	10	20	10	50	N	N	15	20	N	20	N
85EH89S	1.0	N	N	20	30	15	50	N	N	20	15	N	20	N
85EH90S	<1.0	N	N	10	50	10	50	N	<20	15	15	N	20	N
85EH91S	1.0	N	N	15	30	15	50	N	<20	20	20	N	<20	N
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION--Continued														
85EH01H	<2.0	N	N	100	200	150	70	N	50	150	50	N	70	N
85EH02H	3.0	N	N	50	200	50	150	20	N	100	100	N	70	N
85EH03H	3.0	N	N	70	700	100	150	15	50	150	100	N	70	N
85EH05H	N	N	N	30	200	10	200	N	100	20	30	N	150	N
85EH06H	3.0	N	N	70	500	30	150	N	N	70	200	N	100	N
85EH07H	<2.0	N	N	50	500	15	150	10	N	70	30	N	150	N
85EH08H	<2.0	N	N	50	1,500	20	200	N	<50	50	200	N	150	100
85EH10H	5.0	N	N	70	150	30	200	70	<50	70	50	N	100	N
85EH11H	N	N	N	50	300	15	100	N	50	50	N	N	100	N
85EH12H	N	N	N	50	200	10	N	N	<50	50	N	N	100	N
85EH13H	N	N	N	50	200	10	70	N	50	50	N	N	150	N
85EH14H	<2.0	N	N	50	200	10	70	30	<50	30	N	N	100	N
85EH15H	<2.0	N	N	50	300	15	500	N	50	100	50	N	70	N
85EH16H	N	N	N	70	1,000	15	150	N	70	200	70	N	100	N
85EH17H	N	N	N	50	1,000	20	500	N	100	70	70	N	150	N
85EH18H	2.0	N	N	70	300	20	150	30	N	70	70	N	150	N
85EH19H	N	N	N	50	200	20	N	N	<50	70	20	N	100	N
85EH20H	N	N	N	70	700	15	70	N	<50	70	30	N	200	N
85EH21H	N	N	N	50	500	15	N	N	50	50	20	N	100	N
85EH41H	<2.0	N	N	70	500	20	N	10	50	70	50	N	100	N
85EH44H	2.0	N	N	70	500	20	200	<10	50	100	100	N	100	300
85EH47H	<2.0	N	N	50	700	10	70	N	N	70	50	N	150	N
85EH48H	3.0	N	N	50	700	15	100	15	N	70	70	N	150	N
85EH49H	3.0	N	N	50	500	15	100	20	N	70	50	N	150	N
85EH54H	N	N	N	50	200	10	N	N	N	50	<20	N	150	N

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm inst	As-ppm aa	Hi-ppm aa	Cd-ppm aa	So-ppm aa	Zn-ppm aa
MULT MAGNETICALLY SEPARATED--Continued														
85EH61S	300	200	N	30	N	100	N	N	N	<10	N	.2	N	220
85EH62S	300	200	N	30	N	100	N	N	N	N	N	.2	2	240
85EH63S	300	200	N	30	N	70	N	N	N	N	N	.2	N	170
85EH64S	300	100	N	30	N	100	N	N	N	10	N	.2	10	90
85EH60H	200	100	N	30	N	100	N	N	.08	10	N	.4	1	110
85EH81H	100	50	N	50	N	100	N	N	.10	50	N	.2	2	90
85EH82H	150	50	N	30	N	70	N	N	.04	60	N	.2	N	85
85EH83H	200	100	N	30	N	150	N	N	.04	60	N	.1	1	60
85EH84H	200	70	N	30	N	150	N	N	.10	20	N	.1	N	65
85EH85S	300	100	N	30	N	100	N	N	N	20	N	.2	N	60
85EH86S	300	70	N	50	N	70	N	N	N	10	N	.2	2	50
85EH87S	200	50	N	30	N	100	N	N	N	50	N	.4	N	85
85EH88S	200	70	N	30	N	200	N	N	N	<10	N	.2	N	100
85EH89S	300	150	N	50	N	100	N	N	N	N	N	.2	N	80
85EH90S	300	100	N	50	N	100	N	N	N	10	N	.2	N	120
85EH91S	300	200	N	50	N	100	N	N	N	N	N	.2	N	130
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION--Continued														
85EH01H	200	300	N	100	<500	200	N	--	--	--	--	--	--	--
85EH02H	1,500	500	<100	150	N	50	N	--	--	--	--	--	--	--
85EH03H	700	500	<100	100	N	150	N	--	--	--	--	--	--	--
85EH05H	N	200	N	150	500	500	N	--	--	--	--	--	--	--
85EH06H	500	700	100	150	N	150	N	--	--	--	--	--	--	--
85EH07H	200	500	N	70	N	2,000	N	--	--	--	--	--	--	--
85EH08H	200	300	N	150	N	1,000	N	--	--	--	--	--	--	--
85EH10H	200	500	N	100	<500	500	N	--	--	--	--	--	--	--
85EH11H	N	200	N	100	N	2,000	N	--	--	--	--	--	--	--
85EH12H	<200	200	N	50	N	500	N	--	--	--	--	--	--	--
85EH13H	N	300	N	50	N	100	N	--	--	--	--	--	--	--
85EH14H	<200	300	N	50	N	500	N	--	--	--	--	--	--	--
85EH15H	300	300	N	300	N	300	N	--	--	--	--	--	--	--
85EH16H	200	300	N	100	N	1,500	N	--	--	--	--	--	--	--
85EH17H	<200	300	N	300	N	300	N	--	--	--	--	--	--	--
85EH18H	200	500	N	100	N	2,000	N	--	--	--	--	--	--	--
85EH19H	200	300	N	50	N	1,000	N	--	--	--	--	--	--	--
85EH20H	<200	300	N	70	N	500	N	--	--	--	--	--	--	--
85EH21H	200	300	N	30	<500	500	N	--	--	--	--	--	--	--
85EH41H	300	700	N	70	<500	300	N	--	--	--	--	--	--	--
85EH44H	200	500	<100	300	N	1,000	N	--	--	--	--	--	--	--
85EH47H	<200	500	N	50	N	200	N	--	--	--	--	--	--	--
85EH48H	1,000	700	200	70	N	200	N	--	--	--	--	--	--	--
85EH49H	500	700	150	100	N	1,500	N	--	--	--	--	--	--	--
85EH54H	<200	300	N	50	<500	150	N	--	--	--	--	--	--	--

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON
WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Latitude	Longitude	Fe-pct. %	Mg-pct. %	Ca-pct. %	Ti-pct. %	Mn-ppm S	Ay-ppm S	As-ppm S	Au-ppm S	B-ppm S	ba-ppm S
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION--Continued												
85EH56H	41 26 26	119 26 10	10.0	10.00	5.0	>2.0	5,000	N	N	N	20	300
85EH57H	41 26 6	119 23 42	10.0	7.00	2.0	>2.0	10,000	N	N	N	20	1,000
85EH58H	41 24 12	119 22 34	10.0	5.00	3.0	>2.0	>10,000	N	N	N	20	2,000
85EH59H	41 20 29	119 18 55	10.0	5.00	3.0	-5	>10,000	N	N	N	20	5,000
85EH60H	41 20 26	119 17 55	10.0	7.00	5.0	>2.0	5,000	N	N	N	20	1,000
85EH61H	41 26 47	119 22 5	15.0	7.00	1.5	>2.0	2,000	N	N	N	20	200
85EH62H	41 26 36	119 20 52	10.0	7.00	5.0	>2.0	5,000	N	N	N	20	200
85EH63H	41 26 36	119 19 49	7.0	10.00	5.0	2.0	10,000	N	N	N	20	1,000
85EH64H	41 23 42	119 19 1	20.0	7.00	1.0	>2.0	10,000	N	N	N	20	1,500
85EH65H	41 27 28	119 24 26	10.0	7.00	5.0	>2.0	5,000	N	N	N	20	500
85EH66H	41 26 14	119 24 0	10.0	10.00	5.0	>2.0	10,000	N	N	N	20	1,000
85EH67H	41 24 58	119 23 44	20.0	7.00	3.0	>2.0	10,000	N	500	N	30	1,000
85EH68H	41 21 29	119 18 20	15.0	7.00	2.0	>2.0	>10,000	N	N	N	20	5,000
85EH69H	41 26 34	119 21 34	10.0	7.00	5.0	>2.0	3,000	N	N	N	20	200
85EH90H	41 26 12	119 20 49	15.0	7.00	2.0	>2.0	10,000	N	N	N	20	1,000
85EH91H	41 22 49	119 17 8	30.0	5.00	3.0	>2.0	10,000	N	N	N	30	200

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH RUCK CANYON
WILDERNESS STUDY AREA, WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Be-ppm S	Bi-ppm S	Cd-ppm S	Co-ppm S	Cr-ppm S	Cu-ppm S	La-ppm S	Mn-ppm S	Nb-ppm S	Ni-ppm S	Pb-ppm S	Sb-ppm S	Sc-ppm S	Sn-ppm S
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION--Continued														
85EH56H	N	N	N	50	200	10	100	N	N	50	N	N	150	N
85EH57H	N	N	N	50	200	10	70	<10	<50	50	<20	N	150	N
85EH58H	<2.0	N	N	50	300	15	150	20	<50	70	30	N	150	N
85EH59H	3.0	N	N	20	100	15	100	N	N	30	70	N	100	N
85EH60H	N	N	N	50	700	10	100	N	70	70	30	N	100	N
85EH61H	N	N	N	50	200	10	70	N	50	50	20	N	150	100
85EH62H	N	N	N	20	200	<10	70	N	<50	20	N	N	100	N
85EH63H	N	N	N	20	300	<10	N	N	N	20	N	N	100	N
85EH64H	N	N	N	70	200	15	N	N	50	100	20	N	150	N
85EH65H	N	N	N	50	200	<10	100	N	N	20	N	N	100	N
85EH66H	N	N	N	50	200	<10	70	N	N	20	N	N	150	N
85EH67H	<2.0	N	N	50	150	10	100	30	<50	50	20	N	200	N
85EH68H	<2.0	N	N	70	300	<10	100	10	<50	70	50	N	100	N
85EH69H	N	N	N	50	300	<10	70	N	50	50	<20	N	100	N
85EH90H	N	N	N	20	500	<10	N	N	<50	20	N	N	100	N
85EH91H	2.0	N	N	20	300	15	150	N	70	100	30	N	70	N

TABLE 4A -- RESULTS OF ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON
WILDERNESS STUDY AREA, WASHOE AND HUMBOLDT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm inst	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
COMBINED, NON-MAGNETIC FRACTION AND SLIGHTLY MAGNETIC FRACTION--Continued														
85EH56H	<200	200	N	70	N	1,500	N	--	--	--	--	--	--	--
85EH57H	<200	200	N	70	N	1,000	N	--	--	--	--	--	--	--
85EH58H	200	300	N	70	<500	150	N	--	--	--	--	--	--	--
85EH59H	700	500	N	70	N	100	N	--	--	--	--	--	--	--
85EH60H	200	200	N	70	N	1,500	N	--	--	--	--	--	--	--
85EH61H	<200	200	N	70	N	2,000	N	--	--	--	--	--	--	--
85EH62H	200	200	N	70	N	2,000	N	--	--	--	--	--	--	--
85EH63H	200	200	N	50	N	1,000	N	--	--	--	--	--	--	--
85EH64H	200	200	N	50	<500	150	N	--	--	--	--	--	--	--
85EH65H	<200	200	N	70	N	2,000	N	--	--	--	--	--	--	--
85EH66H	<200	200	N	70	N	1,000	N	--	--	--	--	--	--	--
85EH67H	200	300	N	70	<500	100	N	--	--	--	--	--	--	--
85EH68H	300	300	100	70	N	200	N	--	--	--	--	--	--	--
85EH69H	<200	300	N	70	N	1,500	N	--	--	--	--	--	--	--
85EH90H	<200	200	N	30	N	700	N	--	--	--	--	--	--	--
85EH91H	<200	300	N	70	<500	500	N	--	--	--	--	--	--	--

TABLE 4B -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLDT COUNTY, NEVADA

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

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	Hg-ppm S
NON-MAGNETIC FRACTION													
85LH21H	41 15 55	119 22 21	1.5	1.50	3.00	1.50	1,000	N	N	N	20	500	2.0
85LH23H	41 14 39	119 18 28	.7	.15	2.00	.50	200	N	N	N	200	500	2.0
85LH24H	41 12 7	119 19 31	.7	<.15	1.00	1.00	300	N	N	N	<20	700	N
85LH25H	41 10 33	119 19 56	.5	.20	1.50	1.00	100	N	N	N	20	500	2.0
85LH26H	41 11 30	119 21 8	3.0	5.00	3.00	1.50	1,500	N	N	N	<20	300	<7.0
85LH41H	41 15 28	119 21 6	.2	<.05	.50	.05	50	N	N	N	<20	2,000	N
85LH43H	41 14 2	119 19 11	1.5	.50	3.00	1.50	500	N	N	N	300	<150	<7.0
85LH45H	41 12 34	119 19 21	.5	.05	.50	1.00	200	N	N	N	N	2,000	2.0
85LH47H	41 13 58	119 21 47	.5	.07	1.50	.20	70	N	N	N	N	500	<2.0
85LH48H	41 13 55	119 21 50	1.0	.20	1.00	.70	700	N	N	N	N	300	<2.0
SLIGHTLY MAGNETIC FRACTION													
85LH01H	41 16 2	119 19 48	7.0	2.00	1.00	>1.00	5,000	N	N	N	<10	1,000	1.0
85LH02H	41 15 57	119 21 53	15.0	.15	.10	>1.00	3,000	N	N	N	20	1,000	1.0
85LH03H	41 15 30	119 21 24	10.0	2.00	1.50	>1.00	>5,000	N	<200	N	10	1,500	1.0
85LH04H	41 15 40	119 20 10	5.0	1.50	1.00	>1.00	>5,000	N	<200	N	15	1,500	1.0
85LH05H	41 15 38	119 20 9	7.0	1.00	1.00	>1.00	>5,000	N	<200	N	<10	1,000	1.0
85LH06H	41 13 39	119 19 54	10.0	2.00	1.50	>1.00	5,000	N	N	N	10	1,500	N
85LH07H	41 10 56	119 19 9	7.0	3.00	2.00	>1.00	3,000	N	N	N	<10	700	N
85LH08H	41 13 46	119 21 20	5.0	1.50	1.50	1.00	2,000	.7	N	N	10	50	N
85LH09H	41 16 30	119 21 23	10.0	1.50	1.00	>1.00	5,000	N	<200	N	10	1,000	N
85LH20H	41 16 20	119 20 1	20.0	.50	.05	>1.00	2,000	N	N	N	15	150	N
85LH21H	41 15 55	119 22 21	10.0	2.00	1.50	>1.00	>5,000	N	N	N	10	1,000	N
85LH22H	41 15 12	119 20 8	10.0	2.00	1.00	>1.00	3,000	N	200	N	10	700	1.5
85LH23H	41 14 39	119 18 28	15.0	1.50	.50	>1.00	5,000	N	N	N	15	100	N
85LH24H	41 12 7	119 19 31	10.0	1.00	1.00	>1.00	5,000	N	N	N	<10	1,500	N
85LH25H	41 10 33	119 19 56	10.0	2.00	1.00	>1.00	3,000	N	N	N	<10	300	N
85LH26H	41 11 30	119 21 8	5.0	2.00	1.50	>1.00	2,000	N	N	N	<10	150	N
NOT MAGNETICALLY SEPARATED													
85LH40H	41 15 28	119 21 10	5.0	1.50	.70	>1.00	3,000	N	N	N	<10	150	N
85LH41H	41 15 28	119 21 6	7.0	2.00	1.50	>1.00	2,000	N	N	N	10	150	N
85LH42H	41 15 56	119 22 9	5.0	3.00	1.50	.50	1,500	N	N	N	<10	100	N
85LH43H	41 14 2	119 19 11	10.0	1.50	1.00	>1.00	5,000	N	N	N	10	1,000	<1.0
85LH44H	41 14 30	119 22 1	7.0	2.00	.70	>1.00	1,500	N	N	N	<10	50	N
85LH45H	41 12 34	119 19 21	10.0	.50	.20	>1.00	5,000	N	N	N	20	2,000	N
85LH46H	41 11 37	119 20 12	2.0	3.00	3.00	.30	2,000	N	N	N	<10	500	N
85LH47H	41 13 58	119 21 47	15.0	1.50	.70	>1.00	5,000	N	N	N	10	500	N
85LH48H	41 13 55	119 21 50	15.0	1.00	.70	>1.00	>5,000	N	N	N	10	1,500	N
85LH49H	41 16 56	119 21 18	7.0	2.00	1.00	1.00	1,500	N	N	N	15	100	N

TABLE 4B -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLT COUNTY, NEVADA--Continued

Sample	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	Sc-ppm S	Sn-ppm S	Sr-ppm S
NON-MAGNETIC FRACTION--Continued														
85LH21H	N	N	10	100	<10	150	N	N	30	N	N	<10	30	500
85LH23H	N	N	<10	N	N	100	N	N	10	N	N	<10	N	700
85LH24H	N	N	N	N	N	<150	N	N	50	N	N	N	N	<700
85LH25H	N	N	<10	<20	N	100	N	N	20	N	N	<10	70	300
85LH26H	N	N	<30	300	N	<150	N	N	100	N	N	N	1,000	700
85LH41H	N	N	<10	N	N	N	N	N	10	N	N	N	N	200
85LH43H	N	N	N	N	N	300	N	N	30	N	N	N	150	N
85LH45H	N	N	N	N	N	1,000	N	N	20	N	N	30	N	<200
85LH47H	N	N	<10	N	N	N	N	N	<10	N	N	N	70	500
85LH48H	150	N	N	N	N	100	N	N	10	N	N	<10	N	<200
SLIGHTLY MAGNETIC FRACTION--Continued														
85LH01H	N	N	20	50	7	50	5	20	30	15	N	30	N	100
85LH02H	N	N	20	30	15	70	5	50	5	20	N	20	N	N
85LH03H	N	N	30	150	10	100	<5	20	50	50	N	50	N	<100
85LH04H	N	N	20	100	7	50	<5	<20	20	20	N	30	N	<100
85LH05H	N	N	20	200	10	150	<5	<20	20	20	N	20	N	<100
85LH06H	N	N	30	300	10	100	N	20	30	15	N	30	N	100
85LH07H	N	N	50	500	10	150	N	20	70	15	N	30	<10	<100
85LH08H	N	N	10	70	5	100	N	20	20	<10	N	20	N	<100
85LH09H	N	N	20	70	10	50	N	20	30	20	N	50	N	N
85LH20H	N	N	20	70	10	70	10	20	20	30	N	30	N	N
85LH21H	N	N	30	100	15	100	<5	30	50	100	N	50	N	N
85LH22H	N	N	20	100	10	50	<5	<20	30	30	N	30	N	<100
85LH23H	N	N	20	150	7	300	N	30	15	<10	N	50	N	N
85LH24H	N	N	20	100	20	1,000	N	50	20	10	N	30	N	N
85LH25H	N	N	30	200	10	150	N	20	30	N	N	50	N	N
85LH26H	N	N	20	500	10	100	N	20	50	<10	N	30	N	<100
NOT MAGNETICALLY SEPARATED--Continued														
85LH40H	N	N	10	150	5	50	5	30	20	10	N	30	N	<100
85LH41H	N	N	20	100	7	50	<5	30	30	10	N	50	N	<100
85LH42H	N	N	20	150	7	30	N	N	30	<10	N	30	N	100
85LH43H	N	N	15	100	10	500	N	30	20	10	N	50	N	<100
85LH44H	N	N	20	70	15	<20	N	20	30	N	N	30	N	<100
85LH45H	N	N	20	100	10	>1,000	7	50	20	20	N	50	N	N
85LH46H	N	N	20	1,000	7	N	N	N	70	<10	N	30	N	100
85LH47H	N	N	15	100	10	500	N	50	20	20	N	50	20	N
85LH48H	N	N	20	150	10	500	N	50	15	30	N	70	N	N
85LH49H	N	N	30	70	15	50	N	<20	30	10	N	30	N	<100

TABLE 4B -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLT COUNTY, NEVADA--Continued

Sample	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Zr-ppm S	Th-ppm S	Au-ppm aa	Hg-ppm inst	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
NON-MAGNETIC FRACTION--Continued													
85LH21H	100	N	300	N	>2,000	<200	--	--	--	--	--	--	--
85LH23H	20	N	200	N	>2,000	N	--	--	--	--	--	--	--
85LH24H	<70	N	1,500	N	>7,000	<700	--	--	--	--	--	--	--
85LH25H	70	N	500	N	>2,000	<200	--	--	--	--	--	--	--
85LH26H	200	N	500	N	>7,000	N	--	--	--	--	--	--	--
85LH41H	<20	N	100	N	>2,000	N	--	--	--	--	--	--	--
85LH43H	100	N	1,500	N	>7,000	700	--	--	--	--	--	--	--
85LH45H	20	N	1,500	N	>2,000	500	--	--	--	--	--	--	--
85LH47H	<20	N	300	N	>2,000	N	--	--	--	--	--	--	--
85LH48H	30	N	700	N	>2,000	<200	--	--	--	--	--	--	--
SLIGHTLY MAGNETIC FRACTION--Continued													
85LH01H	100	N	70	N	70	<100	--	--	--	--	--	--	--
85LH02H	50	N	70	N	200	N	--	--	--	--	--	--	--
85LH03H	200	N	50	N	100	N	--	--	--	--	--	--	--
85LH04H	150	N	50	N	70	N	--	--	--	--	--	--	--
85LH05H	150	N	20	N	50	N	--	--	--	--	--	--	--
85LH06H	200	N	30	N	150	N	--	--	--	--	--	--	--
85LH07H	150	N	50	N	200	N	--	--	--	--	--	--	--
85LH08H	70	N	50	<200	100	N	--	--	--	--	--	--	--
85LH09H	150	N	70	N	70	N	--	--	--	--	--	--	--
85LH20H	300	N	70	500	70	N	--	--	--	--	--	--	--
85LH21H	150	N	500	N	150	N	--	--	--	--	--	--	--
85LH22H	150	N	50	N	50	N	--	--	--	--	--	--	--
85LH23H	100	N	50	N	100	N	--	--	--	--	--	--	--
85LH24H	70	N	150	N	300	200	--	--	--	--	--	--	--
85LH25H	200	N	30	N	200	N	--	--	--	--	--	--	--
85LH26H	150	N	70	N	150	N	--	--	--	--	--	--	--
NOT MAGNETICALLY SEPARATED--Continued													
85LH40H	50	N	50	N	50	N	--	--	--	--	--	--	--
85LH41H	100	N	50	N	150	N	--	--	--	--	--	--	--
85LH42H	100	N	20	N	150	N	--	--	--	--	--	--	--
85LH43H	100	N	200	N	300	N	--	--	--	--	--	--	--
85LH44H	150	N	50	N	150	N	--	--	--	--	--	--	--
85LH45H	50	N	200	N	>1,000	500	--	--	--	--	--	--	--
85LH46H	150	N	15	N	20	N	--	--	--	--	--	--	--
85LH47H	100	N	50	N	150	<100	--	--	--	--	--	--	--
85LH48H	70	N	70	N	200	100	--	--	--	--	--	--	--
85LH49H	100	N	50	N	100	N	--	--	--	--	--	--	--

TABLE 4B --- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLT COUNTY, NEVADA--Continued

Sample	Latitude	Longitude	Fe-pct. S	Mg-pct. S	Ca-pct. S	Ti-pct. S	Mn-pptm S	Ag-pptm S	As-pptm S	Au-pptm S	B-pptm S	Ba-pptm S	Pe-pptm S
NOT MAGNETICALLY SEPARATED--Continued													
85LH01H	41 16 2	119 19 48	5.0	.30	.30	.50	1,500	N	N	N	10	700	<1.0
85LH02H	41 15 57	119 21 53	20.0	.05	.20	>1.00	2,000	N	N	N	<10	2,000	<1.0
85LH03H	41 15 30	119 21 24	7.0	.70	.70	.50	3,000	N	N	N	50	1,000	1.0
85LH04H	41 15 40	119 20 10	10.0	.70	1.00	1.00	5,000	N	N	N	30	2,000	1.5
85LH05H	41 15 38	119 20 9	10.0	.70	1.00	1.00	>5,000	N	N	N	15	5,000	1.5
85LH06H	41 13 39	119 19 54	7.0	1.00	1.00	1.00	2,000	N	N	N	20	1,000	1.0
85LH07H	41 10 56	119 19 9	15.0	2.00	1.50	1.00	3,000	N	N	N	10	1,500	<1.0
85LH08H	41 13 46	119 21 20	5.0	.70	.70	.50	1,500	N	N	N	50	300	1.0
85LH09H	41 16 30	119 21 23	7.0	.50	.70	.70	3,000	N	N	N	70	1,500	1.5
85LH20H	41 16 20	119 20 1	5.0	.15	.20	.50	>5,000	N	N	N	15	700	1.0
85LH21H	41 15 55	119 22 21	3.0	.70	.50	.20	1,500	N	N	N	50	300	1.0
85LH22H	41 15 12	119 20 8	10.0	1.00	.70	.70	3,000	N	N	N	30	1,500	1.5
85LH23H	41 14 39	119 18 28	20.0	1.00	.20	>1.00	2,000	N	N	N	<10	<20	<1.0
85LH24H	41 12 7	119 19 31	1.0	.20	.30	.30	700	N	N	N	20	200	1.0
85LH25H	41 10 33	119 19 56	10.0	1.00	.70	.70	2,000	N	N	N	20	1,500	1.0
85LH26H	41 11 30	119 21 8	3.0	.50	.50	.30	700	N	N	N	50	500	1.5
85LH40H	41 15 28	119 21 10	5.0	.30	.30	.50	1,500	N	N	N	50	700	1.0
85LH41H	41 15 28	119 21 6	3.0	.50	.50	.20	700	N	N	N	30	700	1.0
85LH42H	41 15 56	119 22 9	3.0	.70	1.00	.20	700	N	N	N	50	500	1.5
85LH43H	41 14 2	119 19 11	3.0	.30	.50	.50	2,000	N	N	N	20	300	1.0
85LH44H	41 14 30	119 22 1	10.0	1.00	1.00	1.00	3,000	N	N	N	15	700	1.0
85LH45H	41 12 34	119 19 21	1.0	.10	.20	.50	2,000	N	N	N	20	300	1.0
85LH46H	41 11 37	119 20 12	15.0	3.00	3.00	.70	3,000	N	N	N	<10	1,000	<1.0
85LH47H	41 13 58	119 21 47	15.0	1.00	.15	>1.00	5,000	N	N	N	<10	700	<1.0
85LH48H	41 13 55	119 21 50	15.0	.70	.10	>1.00	5,000	N	N	N	<10	300	<1.0
85LH49H	41 16 56	119 21 18	5.0	.50	.50	.30	1,000	N	N	N	50	200	1.5

TABLE 4B -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS
STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLT COUNTY, NEVADA--Continued

Sample	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	Sc-ppm S	Sn-ppm S	Sr-ppm S
NOT MAGNETICALLY SEPARATED--Continued														
85LH01H	N	N	7	<10	5	<20	N	<20	7	15	N	10	N	<100
85LH02H	N	N	15	20	20	70	10	30	10	30	N	20	N	100
85LH03H	N	N	15	15	15	50	<5	<20	15	20	N	10	N	150
85LH04H	N	N	20	20	10	70	<5	<20	15	20	N	15	N	200
85LH05H	N	N	30	20	15	70	<5	<20	20	30	N	15	N	200
85LH06H	N	N	10	100	15	50	N	N	20	20	N	15	N	500
85LH07H	N	N	50	100	50	70	N	N	50	20	N	15	N	300
85LH08H	N	N	10	10	10	50	N	N	15	20	N	7	N	150
85LH09H	N	N	10	10	7	70	N	<20	10	20	N	10	N	100
85LH20H	N	N	5	<10	<5	<20	5	N	5	15	N	7	N	100
85LH21H	N	N	7	10	10	50	<5	<20	7	50	N	5	N	100
85LH22H	N	N	20	20	15	70	5	<20	20	30	N	15	N	150
85LH23H	N	N	50	150	15	150	N	N	20	N	N	30	N	150
85LH24H	N	N	5	<10	N	50	N	N	5	10	N	<5	N	<100
85LH25H	N	N	10	20	10	50	<5	<20	20	20	N	10	N	200
85LH26H	N	N	7	20	10	70	N	<20	15	15	N	5	N	150
85LH40H	N	N	7	10	<5	50	N	<20	7	15	N	7	N	100
85LH41H	N	N	5	10	<5	50	N	N	7	20	N	5	N	100
85LH42H	N	N	7	10	15	50	N	<20	10	20	N	10	N	300
85LH43H	N	N	7	50	<5	50	N	<20	10	15	N	7	N	100
85LH44H	N	N	20	70	10	50	N	<20	20	10	N	15	N	200
85LH45H	N	N	5	N	N	200	<5	<20	5	15	N	<5	50	100
85LH46H	N	N	20	700	20	N	N	N	100	N	N	30	N	500
85LH47H	N	N	30	100	15	150	N	<20	30	15	N	30	N	150
85LH48H	N	N	30	50	10	150	N	<20	20	15	N	30	N	100
85LH49H	N	N	7	15	10	50	N	<20	15	20	N	5	N	100

TABLE 4B -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS
STUDY AREA, WASHOE COUNTY, CALIFORNIA AND HUMBOLT COUNTY, NEVADA--Continued

Sample	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Zr-ppm S	Th-ppm S	Au-ppm aa	Hg-ppm inst	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
NOT MAGNETICALLY SEPARATED--Continued													
85LH01H	30	N	30	N	150	N	N	N	N	N	.3	N	90
85LH02H	100	N	20	500	200	N	N	.02	N	N	.2	N	390
85LH03H	70	N	30	N	150	N	N	.02	10	N	.2	N	65
85LH04H	150	N	50	N	200	N	N	N	20	N	.5	N	95
85LH05H	150	N	50	N	100	N	N	.16	30	N	.6	4	100
85LH06H	150	N	30	N	100	N	N	.02	N	N	N	N	70
85LH07H	200	N	50	N	150	N	<.05	.08	N	N	.1	N	95
85LH08H	70	N	50	N	100	N	N	.04	N	N	.1	N	55
85LH09H	100	N	50	N	200	N	N	N	N	N	.2	N	70
85LH20H	20	N	50	N	150	N	N	.04	N	N	1.5	N	85
85LH21H	30	N	50	N	150	N	N	.02	N	N	.4	N	35
85LH22H	150	N	50	N	150	N	N	.10	40	N	.5	4	80
85LH23H	500	N	30	N	70	N	N	.14	N	N	.1	N	390
85LH24H	20	N	15	N	150	N	N	.02	N	N	N	N	15
85LH25H	100	N	30	N	200	N	N	.04	N	N	.2	N	110
85LH26H	50	N	30	N	200	N	N	.06	N	N	.1	N	60
85LH40H	30	N	30	N	150	N	N	.06	N	N	.1	N	60
85LH41H	20	N	30	N	100	N	N	N	N	N	N	N	40
85LH42H	30	N	30	N	100	N	N	.08	N	N	.3	2	45
85LH43H	50	N	30	N	100	N	N	.04	N	N	.2	N	60
85LH44H	200	N	30	N	300	N	N	.02	N	N	.3	N	75
85LH45H	30	N	30	N	500	N	N	.06	N	N	N	N	20
85LH46H	200	N	10	N	70	N	N	.02	N	N	.1	N	90
85LH47H	300	N	50	N	150	N	N	.04	N	N	.2	2	300
85LH48H	300	N	50	N	200	N	N	.06	N	N	.3	4	380
85LH49H	50	N	30	N	200	N	N	N	N	N	.2	N	50

TABLE 4C -- ANALYSIS OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE COUNTY, NEVADA
[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppt. S	Mg-ppt. S	Ca-ppt. S	Ti-pct. S	Mn-ppt. S	Ag-ppt. S	As-ppt. S	Pu-ppt. S	R-ppt. S	Ba-ppt. S
NON-MAGNETIC FRACTION												
85HR05H	41 21 52	119 22 4	.5	.05	.70	.1	70	N	N	N	20	300
85HR09H	41 22 46	119 24 47	1.0	.20	1.50	.7	300	N	N	N	<20	300
85HR43H	41 19 16	119 20 12	1.0	.15	1.00	.3	200	N	N	N	20	1,500
SLIGHTLY MAGNETIC FRACTION												
85HR01H	41 18 4	119 18 22	15.0	1.50	1.00	.2	>5,000	N	N	N	10	>5,000
85HR03H	41 30 8	119 22 28	15.0	2.00	1.00	>1.0	>5,000	N	N	N	10	2,000
85HR04H2	41 21 43	119 22 12	15.0	2.00	1.50	>1.0	>5,000	N	N	N	10	5,000
85HR05H	41 21 52	119 22 4	10.0	2.00	1.00	>1.0	>5,000	N	N	N	10	5,000
85HR07H	41 20 0	119 23 58	15.0	2.00	1.50	>1.0	>5,000	N	N	N	10	1,500
85HR08H	41 21 58	119 21 38	10.0	1.50	1.00	>1.0	>5,000	N	N	N	10	5,000
85HR09H	41 22 46	119 24 47	10.0	1.50	1.50	>1.0	>5,000	N	N	N	<10	2,000
85HR10H	41 23 11	119 24 43	10.0	3.00	1.50	>1.0	>5,000	N	N	N	<10	2,000
85HR11H	41 23 56	119 25 8	5.0	1.50	1.50	>1.0	>5,000	N	N	N	<10	1,500
85HR12H	41 24 30	119 25 22	7.0	3.00	1.00	>1.0	>5,000	N	N	N	10	1,500
85HR13H	41 25 42	119 25 58	10.0	1.50	1.00	>1.0	5,000	N	N	N	<10	500
85HR14H2	41 20 19	119 22 52	15.0	2.00	1.00	>1.0	>5,000	N	N	N	<10	5,000
85HR40H	41 19 56	119 20 40	10.0	1.00	.50	1.0	>5,000	N	N	N	10	>5,000
85HR42H	41 19 10	119 20 11	15.0	1.50	.70	>1.0	>5,000	N	N	N	10	>5,000
85HR43H	41 19 16	119 20 12	15.0	1.50	1.00	>1.0	>5,000	N	<200	N	<10	>5,000
85HR45H	41 20 31	119 22 4	15.0	.70	.50	>1.0	>5,000	N	N	N	10	200
85HR46H	41 20 55	119 21 47	10.0	1.50	2.00	>1.0	>5,000	N	N	N	10	1,500
85HR50H	41 20 42	119 23 41	15.0	2.00	1.50	>1.0	3,000	N	N	N	10	1,000
85HR51H	41 22 19	119 20 58	10.0	2.00	2.00	>1.0	5,000	N	N	N	10	1,000
85HR52H	41 22 36	119 25 41	10.0	2.00	1.00	>1.0	>5,000	N	N	N	10	1,000
85HR53H	41 24 13	119 26 28	10.0	2.00	1.00	>1.0	5,000	N	N	N	10	1,000
85HR55H	41 26 26	119 26 10	5.0	2.00	1.50	>1.0	2,000	N	N	N	<10	200
NOT MAGNETICALLY SEPARATED												
85HR01H	41 18 4	119 18 22	7.0	.50	.50	.5	5,000	N	N	N	15	3,000
85HR03H	41 30 8	119 22 28	3.0	.50	.50	.3	2,000	N	N	N	30	1,000
85HR04H1	41 21 43	119 22 12	5.0	.70	.70	.7	3,000	N	N	N	20	2,000
85HR05H	41 21 52	119 22 4	5.0	.50	.50	.5	5,000	N	N	N	10	3,000
85HR07H	41 20 0	119 23 58	7.0	.70	.70	1.0	5,000	N	N	N	20	2,000
85HR08H	41 21 58	119 21 38	7.0	.50	.70	.7	5,000	N	N	N	10	5,000
85HR09H	41 22 46	119 24 47	7.0	1.00	.70	1.0	>5,000	N	N	N	10	2,000
85HR10H	41 23 11	119 24 43	3.0	.50	.70	.7	2,000	N	N	N	15	3,000
85HR11H	41 22 56	119 25 8	5.0	1.00	.50	1.0	2,000	N	N	N	10	1,000
85HR12H	41 24 30	119 25 22	5.0	.70	1.00	1.0	3,000	N	N	N	20	3,000
85HR13H	41 25 42	119 25 58	5.0	1.00	1.00	1.0	2,000	N	N	N	10	3,000
85HR14H2	41 20 19	119 22 52	5.0	.50	.70	1.0	5,000	N	N	N	15	2,000
85HR40H	41 19 56	119 20 40	5.0	.30	.70	1.0	5,000	N	N	N	30	5,000
85HR42H	41 19 10	119 20 11	3.0	.50	.50	.5	5,000	N	N	N	20	1,500
85HR43H	41 19 16	119 20 12	5.0	.50	.50	.7	>5,000	N	N	N	10	2,000

TABLE 4C -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE COUNTY, NEVADA--Continued

Sample	Re-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	Sc-ppm S	Sn-ppm S
NON-MAGNETIC FRACTION--Continued														
85HR05H	N	N	N	<10	N	N	N	N	N	<10	N	N	N	N
85HR09H	N	N	N	<10	N	<10	<50	N	N	10	N	N	<10	N
85HR43H	<2.0	N	N	<10	N	N	100	N	N	<10	N	N	N	N
SLIGHTLY MAGNETIC FRACTION--Continued														
85HR01H	3.0	N	N	15	30	10	50	<5	N	20	20	N	20	N
85HR03H	1.0	N	N	20	200	7	100	N	<20	20	30	N	30	N
85HR04H2	1.5	N	N	20	100	10	50	<5	20	20	10	N	30	N
85HR05H	2.0	N	N	15	70	10	50	<5	<20	20	15	N	30	N
85HR07H	N	N	N	20	100	10	70	N	<20	20	<10	N	30	N
85HR08H	1.0	N	N	15	100	10	50	<5	<20	15	10	N	50	N
85HR09H	1.0	N	N	15	100	7	50	5	30	20	20	N	70	N
85HR10H	<1.0	N	N	20	100	10	50	5	20	20	20	N	70	N
85HR11H	<1.0	N	N	10	70	5	<20	5	50	15	10	N	50	N
85HR12H	N	N	N	30	100	10	50	<5	20	50	<10	N	50	N
85HR13H	N	N	N	20	150	5	<20	N	<20	20	N	N	70	N
85HR14H2	1.0	N	N	20	150	15	50	N	20	20	30	N	30	N
85HR40H	5.0	N	N	20	100	20	50	5	<20	15	100	N	20	N
85HR42H	2.0	N	N	20	300	15	200	5	50	20	30	N	30	N
85HR43H	3.0	N	N	20	100	10	100	<5	<20	20	50	N	20	N
85HR45H	N	N	N	7	20	5	300	<5	50	10	N	N	30	N
85HR46H	<1.0	N	N	10	300	20	200	<5	30	20	10	N	50	N
85HR50H	N	N	N	20	100	10	50	N	<20	20	<10	N	50	N
85HR51H	N	N	N	10	100	5	<20	N	<20	15	N	N	30	N
85HR52H	1.0	N	N	15	100	10	50	N	30	20	70	N	70	N
85HR53H	1.0	N	N	20	70	10	300	<5	30	30	100	N	50	20
85HR55H	N	N	N	20	70	5	50	N	20	20	N	N	50	N
NOT MAGNETICALLY SEPARATED--Continued														
85HR01H	1.0	N	N	7	10	5	<20	<5	N	15	15	N	20	N
85HR03H	1.5	N	N	10	10	7	50	N	<20	15	15	N	10	N
85HR04H1	1.5	N	N	7	10	10	50	N	N	15	20	N	15	N
85HR05H	1.0	N	N	7	<10	7	50	N	N	15	15	N	15	N
85HR07H	1.0	N	N	15	15	10	50	N	N	15	30	N	20	N
85HR08H	1.0	N	N	10	10	7	50	N	N	15	20	N	20	N
85HR09H	1.0	N	N	10	20	10	50	<5	N	15	30	N	30	N
85HR10H	1.0	N	N	7	10	5	50	N	N	10	20	N	15	N
85HR11H	<1.0	N	N	10	20	5	50	N	<20	10	20	N	15	N
85HR12H	1.0	N	N	10	10	7	50	N	N	15	20	N	15	N
85HR13H	<1.0	N	N	10	10	7	50	N	N	15	15	N	20	N
85HR14H2	<1.0	N	N	15	10	7	70	N	N	15	20	N	15	N
85HR40H	1.5	N	N	7	10	5	50	N	N	7	15	N	20	N
85HR42H	1.5	N	N	10	10	5	50	N	N	10	20	N	15	N
85HR43H	1.5	N	N	15	10	7	50	N	N	15	20	N	20	N

TABLE 4C -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE COUNTY, NEVADA--Continued

Sample	Sr-ppm S	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Th-ppm S	Au-ppm aa	Hg-ppm inst	As-ppm aa	Pb-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
NON-MAGNETIC FRACTION--Continued													
85HR05H	200	<20	N	20	N	>2,000	N	--	--	--	--	--	--
85HR09H	500	30	N	150	N	>2,000	N	--	--	--	--	--	--
85HR43H	200	<20	N	70	N	>2,000	N	--	--	--	--	--	--
SLIGHTLY MAGNETIC FRACTION--Continued													
85HR01H	500	150	<50	30	N	150	N	--	--	--	--	--	--
85HR03H	100	200	N	70	N	200	N	--	--	--	--	--	--
85HR04H2	150	150	N	50	N	70	N	--	--	--	--	--	--
85HR05H	200	150	<50	30	N	70	N	--	--	--	--	--	--
85HR07H	<100	150	N	70	N	100	N	--	--	--	--	--	--
85HR08H	100	200	N	30	N	100	N	--	--	--	--	--	--
85HR09H	<100	100	<50	30	N	100	N	--	--	--	--	--	--
85HR10H	<100	150	N	30	N	100	N	--	--	--	--	--	--
85HR11H	N	50	N	20	N	100	N	--	--	--	--	--	--
85HR12H	<100	100	N	30	N	150	N	--	--	--	--	--	--
85HR13H	N	150	N	30	N	100	N	--	--	--	--	--	--
85HR14H2	100	200	N	50	N	70	N	--	--	--	--	--	--
85HR40H	1,000	200	50	50	N	70	N	--	--	--	--	--	--
85HR42H	200	150	N	70	N	100	N	--	--	--	--	--	--
85HR43H	300	200	N	50	N	70	N	--	--	--	--	--	--
85HR45H	N	30	N	50	N	100	N	--	--	--	--	--	--
85HR46H	<100	70	N	50	N	70	N	--	--	--	--	--	--
85HR50H	<100	150	N	30	N	70	N	--	--	--	--	--	--
85HR51H	<100	150	N	20	N	70	N	--	--	--	--	--	--
85HR52H	N	100	N	50	N	70	N	--	--	--	--	--	--
85HR53H	N	100	N	200	N	150	N	--	--	--	--	--	--
85HR55H	<100	100	N	30	N	100	N	--	--	--	--	--	--
NOT MAGNETICALLY SEPARATED--Continued													
85HR01H	200	30	N	30	N	100	N	.10	N	N	.5	N	110
85HR03H	150	70	N	50	N	200	N	.04	N	N	.1	N	60
85HR04H1	200	50	N	30	N	150	N	.08	N	N	.2	2	90
85HR05H	150	50	N	20	N	100	N	.04	N	N	.3	N	110
85HR07H	200	70	N	50	N	100	N	.14	N	N	.2	N	100
85HR08H	200	100	N	30	N	150	N	.08	N	N	.3	N	110
85HR09H	200	200	N	30	N	100	N	.10	10	N	.4	2	180
85HR10H	200	50	N	50	N	100	N	.04	N	N	.1	N	90
85HR11H	100	100	N	20	N	70	N	N	N	N	.1	2	95
85HR12H	200	70	N	30	N	100	N	.06	10	N	.2	N	75
85HR13H	150	70	N	30	N	100	N	.06	N	N	.1	N	90
85HR14H2	150	100	N	50	N	150	N	.12	N	N	.6	N	95
85HR40H	200	50	N	50	N	150	N	.34	N	N	.2	2	390
85HR42H	100	50	N	70	N	150	N	.04	N	N	.2	N	65
85HR43H	300	70	N	30	N	150	N	.04	10	N	.3	4	110

TABLE 4C -- ANALYSES OF HEAVY-MINERAL-CONCENTRATE SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE COUNTY, NEVADA--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
NOT MAGNETICALLY SEPARATED--Continued												
85HR45H	41 20 31	119 22 4	15.0	1.00	.10	>1.0	5,000	N	N	N	10	300
85HR46H	41 20 55	119 21 47	3.0	.50	.50	.5	1,000	N	N	N	30	500
85HR50H	41 20 42	119 23 41	7.0	.50	.70	.7	2,000	N	N	N	10	3,000
85HR51H	41 22 19	119 20 58	15.0	2.00	1.00	1.0	5,000	N	N	N	<10	2,000
85HR52H	41 22 36	119 25 41	2.0	.50	.50	.3	3,000	N	N	N	20	1,000
85HR53H	41 24 13	119 26 28	3.0	.20	.15	.5	1,000	N	N	N	50	150
85HR55H	41 26 26	119 26 10	3.0	1.00	.70	.7	1,000	N	N	N	30	1,000

Sample	Be-ppm S	Bi-ppm S	Ci-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	Sc-ppm S	Sn-ppm S
NOT MAGNETICALLY SEPARATED--Continued														
85HR45H	N	N	N	50	100	15	200	N	20	15	20	N	50	N
85HR46H	1.0	N	N	7	30	<5	50	N	N	7	20	N	7	N
85HR50H	<1.0	N	N	10	10	10	50	N	N	10	15	N	15	N
85HR51H	N	N	N	15	50	10	N	N	N	15	10	N	30	N
85HR52H	1.5	N	N	7	<10	5	50	N	N	5	30	N	10	N
85HR53H	2.0	N	N	7	10	<5	70	N	<20	7	15	N	5	N
85HR55H	1.0	N	N	7	10	10	50	N	N	10	20	N	10	N

Sample	Sr-ppm S	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Zr-ppm S	Th-ppm S	Au-ppm aa	Hg-ppm inst	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
NOT MAGNETICALLY SEPARATED--Continued														
85HR45H	N	200	N	50	500	100	N	N	.06	<10	N	.4	4	85
85HR46H	<100	30	N	50	N	150	N	.05	.12	N	N	.1	N	35
85HR50H	200	70	N	30	N	100	N	N	.06	N	N	.1	2	95
85HR51H	300	200	N	30	N	70	N	N	.24	N	N	.2	N	150
85HR52H	100	30	N	30	N	100	N	N	.08	N	N	.1	N	85
85HR53H	<100	50	N	70	<200	500	N	N	.02	N	N	N	N	60
85HR55H	300	50	N	30	N	150	N	N	.10	N	N	.1	N	55

TABLE 5A -- RESULTS OF ANALYSES OF ROCK SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE AND HUMBOLT COUNTIES, NEVADA

[N, not detected; (<, detected but below the limit of determination shown;), determined to be greater than the value shown.]

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
85EH60R	41 20 26	119 17 55	7.00	.70	3.00	.700	700	N	N	N	10	3,000
85EH03R	41 19 46	119 19 29	7.00	.70	3.00	.700	1,000	N	N	N	<10	>5,000
85EH17R	40 20 7	119 17 50	1.50	.07	.20	.100	700	N	N	N	50	70
85EH02R	41 19 44	119 19 33	3.00	.30	1.50	.300	300	N	N	N	<10	3,000
85EH91R2	41 22 49	119 17 8	7.00	1.00	3.00	.700	1,000	N	N	N	<10	3,000
85EH87R	41 24 58	119 23 44	3.00	.07	1.50	.500	1,000	N	N	N	10	3,000
85EH88R	41 21 29	119 18 20	5.00	.15	1.50	.500	500	N	N	N	<10	3,000
85EH05R1	41 20 58	119 21 32	1.50	.30	1.50	.150	500	N	N	N	<10	500
85EH15R	41 22 8	119 17 28	2.00	.10	.70	.100	700	N	N	N	50	150
85EH07R	41 22 1	119 20 31	7.00	.30	2.00	.700	1,000	N	N	N	10	3,000
85EH13R	41 25 57	119 24 5	5.00	.20	2.00	1.000	300	N	N	N	<10	>5,000
85EH89R	41 26 34	119 21 34	.05	<.02	.07	<.002	20	N	N	N	10	500
85EH86R	41 26 14	119 24 0	7.00	.70	3.00	1.000	1,000	N	N	N	<10	>5,000
85EH91R1	41 22 49	119 17 8	2.00	.30	1.50	.150	700	1.5	N	N	30	150
85EH64R	41 23 42	119 19 1	7.00	1.00	5.00	1.000	1,500	N	N	N	N	>5,000

TABLE 5A -- RESULTS OF ANALYSES OF ROCK SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE AND HUMBOLT COUNTIES, NEVADA--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	Sc-ppm s	Sn-ppm s
85EH60R	1.5	N	N	15	10	15	50	N	<20	5	10	N	50	<10
85EH03R	1.0	N	N	7	<10	7	30	N	<20	5	10	N	30	<10
85EH17R	3.0	N	N	N	<10	<5	100	N	20	N	15	N	7	<10
85EH02R	1.0	N	N	N	<10	<5	50	N	<20	<5	15	N	50	<10
85EH91R2	1.5	N	N	10	15	7	50	N	<20	5	10	N	30	<10
85EH87R	1.5	N	N	<5	<10	<5	30	<5	<20	<5	15	N	30	N
85EH88R	1.0	N	N	<5	<10	<5	30	N	<20	<5	15	N	30	N
85EH05R1	3.0	N	N	<5	15	7	50	N	<20	<5	10	N	7	N
85EH15R	3.0	N	N	N	<10	<5	70	N	30	N	15	N	15	<10
85EH07R	1.0	N	N	<5	<10	<5	50	<5	<20	<5	15	N	70	N
85EH13R	1.0	N	N	<5	<10	<5	30	N	<20	<5	10	N	50	N
85EH89R	N	N	N	N	<10	<5	N	N	N	<5	N	N	N	N
85EH86R	1.0	N	N	5	5	<5	50	N	<20	<5	10	N	50	N
85EH91R1	2.0	N	N	N	<10	<5	70	N	20	N	15	N	10	N
85EH64R	1.0	N	N	7	15	10	30	N	<20	5	10	N	50	N

TABLE 5A -- RESULTS OF ANALYSES OF ROCK SAMPLES COLLECTED FROM THE EAST FORK HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE AND HUMBOLT COUNTIES, NEVADA--Continued

Sample	Sr-ppm s	Y-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
85EH60R	1,000	200	N	50	N	150	N	<.1	.04	<5	<2	.5	<2	66
85EH03R	700	150	N	30	N	100	N	<.1	.04	<5	<2	.7	<2	85
85EH17R	<100	<10	N	50	N	300	N	<.1	<.02	<5	<2	.1	<2	15
85EH02R	300	20	N	30	N	150	N	<.1	.02	<5	<2	.4	<2	88
85EH91R2	700	150	N	50	N	150	N	<.1	<.02	<5	<2	.2	<2	43
85EH87R	300	10	N	30	N	150	N	<.1	<.02	6	<2	.3	<2	84
85EH88R	300	20	N	30	N	150	N	<.1	<.02	<5	<2	.3	<2	76
85EH05R1	200	30	N	50	N	150	N	<.1	.04	<5	<2	.4	<2	38
85EH15R	<100	30	N	70	N	500	N	<.1	<.02	<5	<2	.1	<2	19
85EH07R	700	30	N	50	N	150	N	<.1	<.02	<5	<2	.4	<2	88
85EH13R	700	70	N	30	N	150	N	<.1	<.02	<5	<2	.3	<2	100
85EH89R	N	N	N	<10	N	10	N	<.1	<.02	<5	<2	<.1	<2	<2
85EH86R	700	100	N	30	N	150	N	<.1	<.02	<5	<2	.4	<2	81
85EH91R1	150	<10	N	100	N	300	N	<.1	<.02	<5	<2	.3	<2	52
85EH64R	700	150	N	30	N	100	N	<.1	<.02	<5	<2	.5	<2	46

TABLE 5B -- RESULTS OF ANALYSES OF ROCK SAMPLES COLLECTED FROM THE LITTLE HIGH ROCK CANYON WILDERNESS STUDY AREA,
WASHOE AND HUMBOLT COUNTIES, NEVADA

[N, not detected; (<), detected but below the limit of determination shown; >), determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppm s	Mg-ppm s	Ca-ppm s	Ti-ppm s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
85LH01R	41 16 2	119 19 48	1.5	.10	.10	.15	700	N	N	N	50	70
85LH02R	41 15 57	119 21 53	1.5	.07	.10	.10	300	N	N	N	20	100
85LH06	41 13 39	119 19 54	2.0	.20	1.50	.30	300	N	N	N	10	3,000
85LH09R	41 16 30	119 21 23	2.0	.15	1.50	.70	200	N	N	N	<10	5,000
85LH41R1	41 15 28	119 21 6	2.0	.05	.10	.10	500	N	N	N	20	150
85LH43R1	41 14 2	119 19 11	2.0	.10	.50	.15	300	N	N	N	20	700
85LH43R2	41 14 39	119 18 28	1.0	.07	.30	.05	500	N	N	N	50	1,000
85LH47R	41 13 58	119 21 47	1.5	.02	.10	.07	150	N	N	N	30	500
85LH48R	41 13 58	119 21 47	3.0	.10	1.00	.20	700	N	N	N	20	1,000
85LH49R	41 16 56	119 21 18	1.5	.03	.15	.10	300	N	N	N	50	150

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	Sc-ppm s	Sn-ppm s
85LH01R	3.0	N	N	N	<10	<5	30	N	20	<5	15	N	7	N
85LH02R	1.5	N	N	N	<10	<5	70	<5	<20	N	15	N	<5	N
85LH06	1.5	N	N	<5	<10	5	50	<5	<20	<5	15	N	10	N
85LH09R	<1.0	N	N	<5	<10	<5	N	N	<20	<5	10	N	20	N
85LH41R1	2.0	N	N	N	<10	<5	50	<5	<20	<5	15	N	<5	N
85LH43R1	1.5	N	N	<5	10	<5	70	<5	<20	<5	15	N	7	N
85LH43R2	3.0	N	N	N	<10	<5	50	N	20	N	10	N	5	N
85LH47R	3.0	N	N	N	<10	<5	70	N	20	<5	15	N	N	N
85LH48R	1.5	N	N	N	<10	<5	70	<5	<20	<5	15	N	15	N
85LH49R	2.0	N	N	N	<10	<5	70	<5	<20	<5	20	N	N	N

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Hg-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
85LH01R	<100	10	N	70	N	300	N	<1	<.02	<5	<2	.2	<2	23
85LH02R	<100	N	N	30	N	200	N	<1	<.02	<5	<2	.2	<2	85
85LH06	300	50	N	N	N	300	N	<1	<.02	<5	<2	.2	<2	60
85LH09R	300	70	N	15	N	100	N	<1	<.02	12	<2	.2	<2	59
85LH41R1	<100	10	N	30	N	200	N	<1	<.02	<5	<2	.2	<2	98
85LH43R1	<100	30	N	50	N	200	N	<1	<.02	<5	<2	.1	<2	77
85LH43R2	<100	<10	N	30	N	300	N	<1	.02	<5	<2	.1	<2	14
85LH47R	<100	<10	N	50	N	300	N	<1	<.02	7	<2	.1	6	46
85LH48R	<100	<10	N	50	N	200	N	<1	<.02	<5	<2	.1	<2	11
85LH49R	<100	<10	N	50	N	300	N	<1	.02	<5	<2	.1	<2	44

TABLE 5C -- RESULTS OF ANALYSES OF ROCK SAMPLES COLLECTED FROM THE HIGH ROCK CANYON WILDERNESS STUDY AREA, HUMBOLT COUNTY, NEVADA

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppt. S	Hg-ppt. S	Ca-ppt. S	Ti-pct. S	Mn-ppm S	Ag-ppm S	As-ppm S	Au-ppm S	B-ppm S	Ba-ppm S
85HR01R	41 18 4	119 18 22	5.0	.20	1.5	.30	1,500	N	N	N	<10	3,000
85HR02R	41 30 25	119 21 28	7.0	1.50	7.0	1.00	1,000	N	N	N	<10	3,000
85HR03R1	41 30 8	119 22 28	1.5	.20	.3	.15	500	N	N	N	20	2,000
85HR08R	41 21 58	119 21 38	5.0	.15	1.5	.50	300	N	N	N	10	3,000
85HR11R	41 23 56	119 25 8	7.0	.70	3.0	.10	1,500	N	N	N	<10	>5,000
85HR13R	41 25 42	119 25 58	7.0	.70	3.0	.70	1,500	N	N	N	<10	>5,000
85HR42R	41 19 10	119 20 11	1.5	.10	.5	.10	300	N	N	N	30	30
85HR51R	41 22 19	119 20 58	3.0	.15	1.5	.15	700	N	N	N	10	1,500
85HR52R1	41 22 36	119 25 41	2.0	.03	.3	.30	300	N	N	N	10	700
85HR52R2	41 22 36	119 25 41	3.0	.10	1.0	.30	700	N	N	N	20	700
85HR55R	41 26 26	119 26 10	5.0	.70	3.0	.70	1,000	N	N	N	<10	>5,000

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	Sc-ppm S	Sn-ppm S
85HR01R	<1.0	N	N	N	<10	<5	30	<5	<20	N	10	N	50	N
85HR02R	1.0	N	N	15	30	10	50	N	<20	15	10	N	50	N
85HR03R1	2.0	N	N	N	<10	<5	70	<5	<20	<5	15	N	N	N
85HR08R	1.5	N	N	N	<10	<5	30	<5	<20	<5	15	N	30	N
85HR11R	1.0	N	N	<5	<10	<5	<30	N	<20	<5	10	N	30	N
85HR13R	1.5	N	N	<5	<10	<5	<30	N	<20	<5	15	N	30	N
85HR42R	2.0	N	N	N	<10	<5	70	5	<20	N	20	N	N	N
85HR51R	1.0	N	N	N	<10	<5	50	<5	<20	<5	15	N	30	N
85HR52R1	1.5	N	N	N	<10	<5	30	<5	<20	N	15	N	15	N
85HR52R2	1.5	N	N	N	<10	<5	50	5	<20	N	15	N	15	N
85HR55R	1.0	N	N	<5	15	<5	<30	<5	<20	<5	10	N	30	N

Sample	Str-ppm S	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Zr-ppm S	Th-ppm S	Au-ppm aa	Hg-ppm aa	As-ppm aa	Bi-ppm aa	Cd-ppm aa	Sb-ppm aa	Zn-ppm aa
85HR01R	<100	<100	N	20	N	100	N	<.1	.02	<5	<2	.3	<2	77
85HR02R	1,000	200	N	30	N	100	N	<.1	.02	<5	<2	.7	<2	73
85HR03R1	150	<10	N	50	N	300	N	<.1	<.02	<5	<2	.2	<2	91
85HR08R	500	150	N	30	N	150	N	<.1	<.02	34	<2	.3	<2	91
85HR11R	700	70	N	30	N	150	N	<.1	.02	<5	<2	.5	<2	80
85HR13R	700	100	N	30	N	150	N	<.1	<.02	12	<2	.2	<2	38
85HR42R	<100	200	N	50	N	200	N	<.1	<.02	<5	<2	<.1	<2	10
85HR51R	100	<10	N	30	N	100	N	<.1	<.02	<5	<2	<.1	<2	17
85HR52R1	<100	N	N	30	N	150	N	<.1	<.02	<5	<2	.2	<2	61
85HR52R2	<100	N	N	30	N	150	N	<.1	<.02	<5	<2	.1	<2	30
85HR55R	700	70	N	30	N	150	N	<.1	<.02	12	<2	.2	<2	37

**TABLE 6A.--Description of rock samples from East Fork of High Rock Canyon
Wilderness Study Area, Washoe and Humboldt Counties, Nevada**

Sample No.	Rock description
85EH02R	basalt
03R	basalt
05R	basalt
07R	basalt
13R	basalt
15R	rhyolite
17R	rhyolite
60	rhyolite
64	basalt
80R	chert
81R	rhyolite
82R	chert
83R1	rhyolite
83R2	basalt
84R	basalt
86R	basalt
87R	rhyolite
88R	rhyolite
89R	chert
91R1	jasperoid
91R2	rhyolite

**TABLE 6B.--Description of rock samples from Little High rock Canyon
Wilderness Study Area, Washoe and Humboldt Counties, Nevada**

Sample No.	Rock description
85LH01R	rhyolite tuff
02R	rhyolite
06R	rhyolite tuff
09R	basalt
40R	flow banded rhyolite
41R	rhyolite
43R1	flow banded rhyolite
43R2	andesite
47R	rhyolite
49R	andesite
48R	andesite

**TABLE 6C.--Description of rock samples from High Rock Canyon Wilderness
Study Area, Washoe and Humboldt Counties, Nevada**

Sample No.	Rock description
85HR01R	jasperoid
02R	basalt
03R	rhyolite
08R	basalt
11R	basalt
13R	basalt
42R	basalt
51R	welded tuff
52R1	rhyolite
52R2	rhyolite
55	basalt