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Reconnaissance Geochemistry of the South Pahroc/Hiko Bureau of Land Management Wilderness Study Area (NV 050-0132), Lincoln County, Nevada

By

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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 endorsement by the U.S. Geological Survey.

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EXECUTIVE (MANAGER) SUMMARY

A reconnaissance geochemical study of the South Pahroc/Hiko Wilderness Study Area (WSA NV 050-0132) was conducted during June 1983. The WSA is located in southeastern Nevada (Figure 1). This study supplements the South Pahroc/Hiko Geology-Energy-Minerals (GEM) Report (Great Basin GEM Joint Venture, 1983) by investigating the area for mineral potential not previously identified and classifies the study area as to metallic mineral resource favorability.

The WSA is composed of the South Pahroc Range and portions of the surrounding alluvium filled valleys. The range is a gently west-dipping block of Tertiary volcanic rocks bounded by north-trending basin and range normal faults. The underlying Paleozoic sediments contain mineral occurrences in other locations in Lincoln County but evidence of possible occurrences here is shielded by the thick layer (in excess of 2,000 feet) of volcanic rocks. A simplified geologic map is shown in Figure 2.

The entire WSA is of low favorability for metallic mineral resources at a moderate level of confidence.

LOCATION

The South Pahroc/Hiko Wilderness Study Area (NV 050-0132) is approximately 42 square miles (108 km^2) in area, and is in central Lincoln County, Nevada, approximately 90 miles north of Las Vegas. It is within the South Pahroc/Hiko G-E-M Resources Area (GRA No. NV-22) in the BLM Caliente Resource Area, Las Vegas district. It is on the U.S. Geological Survey Caliente 1:250,000 scale 1° x 2° topographic map and on the following 1:24,000 7 1/2' quadrangles: Hiko SE and Alamo NE. The northern boundary is approximately one mile south of Highway 93 and the western boundary is approximately six miles east of Highway 93. Access to the area from the highway is via unimproved dirt roads. This study was done by helicopter.

GEOLOGY

The WSA includes most of the outcrop area of the South Pahroc Range, a slightly west-dipping block of Tertiary volcanic rocks, which mask the underlying pre-Tertiary rocks. North striking Basin and Range normal faults bound the range. Information relating to geology presented herein is summarized from Tschanz and Pampeyan (1970), Ekren et al. (1977), and the U.S. Bureau of Land Management GEM report (1983).

Physiography

The major portion of the WSA is composed of the South Pahroc Range. The volcanic rocks dip gently west and are bounded by a 1,600 foot fault scarp on the east. Elevations are 8,000 feet along the crest of the range and 4,400 feet in the Delamar Valley to the east.

Rock Units

Rock units exposed in the WSA are Tertiary volcanics having a thickness of more than 2,000 feet. The majority of outcrop is a spheroidal-weathering rhyodacite. The unit forms cliffs and distinctive outcrop surfaces.

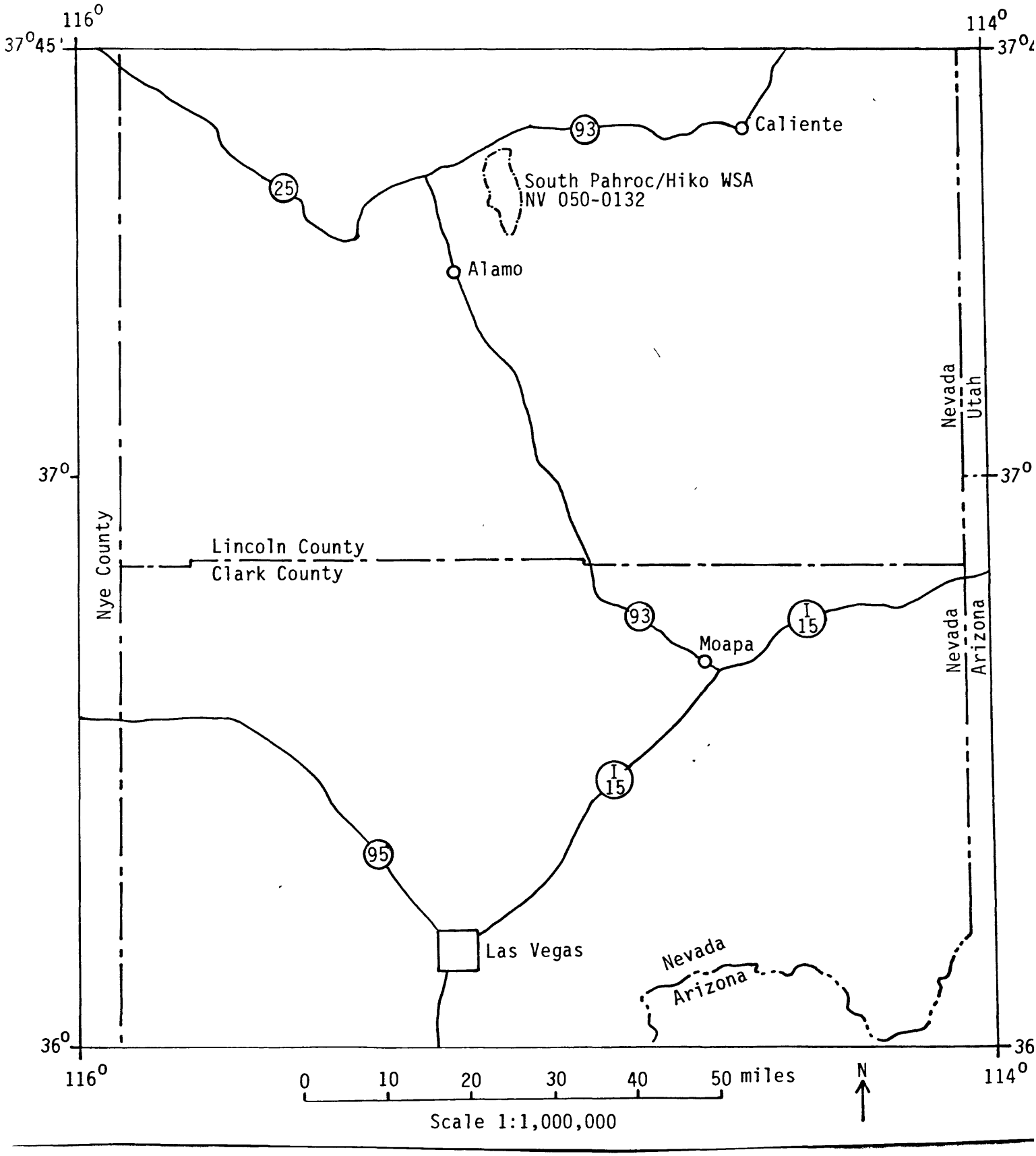

Figure 1.--Index map of the South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada

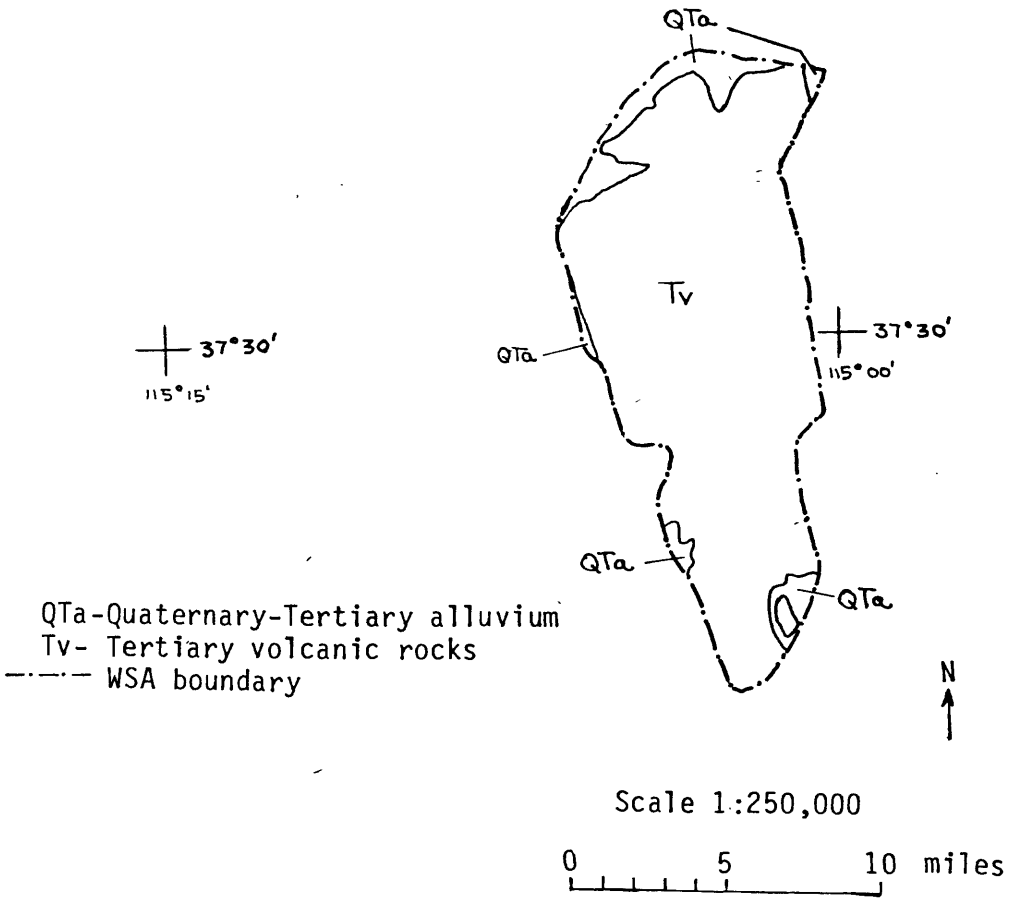

Figure 2.--Simplified geology map, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada

Structural Geology and Tectonics

The range is a tilted block of Tertiary volcanic rocks dipping 15° west. The Pahroc fault forms the eastern escarpment with a displacement of more than 1,600 feet and a length of 50 miles. The predominant structure is north striking Basin and Range normal faulting.

Paleontology

No fossil occurrences exist in the WSA.

Historical Geology

Marine carbonate and clastic rocks were deposited during the Paleozoic and into the early Mesozoic. The Mesozoic sediments were largely eroded away during uplift and thrust faulting of late Triassic to Cretaceous. Tertiary volcanism was followed by Basin and Range faulting and subsequent erosion.

MINERAL RESOURCES

There are no known metallic mineral resources, occurrences, or prospects in the WSA. There are no known patented or unpatented mining claims.

GEOCHEMISTRY

The purpose of this regional geochemical survey was to provide information relating to possible mineralization and permit the land classification of the WSA for metallic mineral potential with greater certainty. No previous geochemical exploration studies are known to have been made. The GEM report (Great Basin GEM Joint Venture, 1983) classified the entire area as one of low favorability with a very low confidence level.

Sampling Design

Samples were collected at 59 sites (plate 1), yielding a sampling density of 1.4 samples per square mile. Sites were generally selected on first-order streams (without tributaries are shown on USGS 1:24,000 topographic maps) or small second-order streams (formed by the juncture of two first-order or a first- and second-order stream). Sites were chosen to give near uniform reconnaissance coverage of the area.

Sample Media Selection

Stream sediments were chosen as the primary sample media because of the relatively large drainage area represented by each sample. Two sub-groups were utilized. They were (1) the medium to fine fraction (-80 mesh) of the active sediment in the bed load of the stream, and (2) the heavy minerals incorporated in the bed load of the stream.

The first of these media provides a geochemical cross section of the transported components of the drainage basin. The composition of the -80 mesh fraction is controlled mainly by the major geologic units and to a lesser extent by scavenging materials such as iron-manganese oxides, clays, and organic matter. Trace-metal components, which might originate from a

potentially economic mineral deposit, may be reflected in this sample medium but the trace-metal concentration is small because of the dilution by the barren material from the major components of the basin.

The second sample medium, the heavy-mineral concentrate, is used to enhance the influence of minor components such as ore related minerals. Many ore minerals are resistant to abrasion, are of high specific gravity, and are nonmagnetic. Weathering products of these ore minerals are transported by streams as detrital grains and are separated from low specific gravity diluting minerals such as quartz, feldspar, and mica by field panning and laboratory specific gravity separation. In this heavy mineral fraction produced by specific gravity separation, ore minerals are further separated on the basis of magnetic susceptibility, this time from interfering and diluting iron and magnesium silicate minerals. Removed also with these iron and magnesium silicate minerals in the more magnetic fraction are ore elements incorporated in the silicate mineral lattice, while the same element in an ore mineral is retained in the nonmagnetic fraction. Anomalous element concentrations related to mineralization are thereby enhanced. Analysis of this subset, the nonmagnetic fraction of a heavy-mineral concentrate, results in more frequent detection of ore related anomalous element concentrations whose natural abundance in rock or stream-sediment material is often below analytical detection limits.

Rock samples from outcrop and float provide information on background concentrations of elements in unaltered rocks. Additionally, some rock samples were taken at localities showing alteration or mineralization.

Sample Collection

Both a stream sediment and stream sediment taken for preparation of a heavy-mineral concentrate were collected at 59 sites. Both samples were passed through a 10 mesh (2 mm sieve). Enough sample to fill a 4 1/2" by 6" cloth bag (0.5 lb) was collected for the stream sediment, and sample to fill two 5 1/2" by 10" bags (6.8 lb) was collected for the heavy-mineral-concentrate sample. The stream-sediment sample was composited from throughout the stream bed to be as representative as possible; the stream sediment taken for preparation of a heavy-mineral concentrate was selected to give a high yield of heavy minerals. All heavy-mineral-concentrate samples were panned at the Meadow Valley Wash near Caliente. All but eight samples yielded enough heavy-mineral concentrate for analysis. Rock samples were collected at 12 sites.

Sampling sites were assigned a two letter prefix, the first letter "P" denotes the site as being in the South Pahroc/Hiko WSA. The second letter identifies the person collecting the sample and therefore the pertinent field notebook. Consecutive three digit numbers were assigned from 242 to 456. A single letter suffix designates the sample type: S--stream sediment, C--heavy mineral concentrate, R--rock.

Sample Preparation

Stream sediment samples were passed through an 80-mesh stainless steel sieve and analyzed spectrographically.

Following panning, heavy-mineral concentrate samples were passed through a 30-mesh stainless steel sieve and minerals with a specific gravity of less than 2.85 separated by flotation in bromoform and discarded. The heavy minerals were separated into three fractions on the basis of magnetic susceptibility. The most magnetic (largely magnetite) was separated with a hand magnet and discarded. The remainder was separated into two fractions with a Frantz Isodynamic Separator set at a slope of 15°, tilt of 10°, and current of 1.0 ampere. The intermediate magnetic fraction of largely ferromagnesian silicates was saved but not analyzed. The nonmagnetic fraction can contain low-iron magnesium silicates, barite, apatite, sphene, zircon, tourmaline, brookite, rutile, most sulfide minerals and secondary minerals (alteration products) of base metals. This nonmagnetic fraction was split, one fraction was hand ground and analyzed spectrographically, the other saved for future mineralogic study.

Rock samples were crushed and pulverized to minus 0.15 mm and analyzed spectrographically.

Sample Analysis

All samples were analyzed for 31 elements by a D.C. arc semiquantitative emission spectrographic method (Grimes and Marranzino, 1968). Element concentrations are obtained by visual comparison of sample spectra with spectra of standards prepared in concentration steps of 1, 2, 5, 10, etc. Samples were estimated to be equal to a standard concentration step or intermediate and assigned a value of 1.5, 3, 7, 15, etc. Six values are therefore possible for a given order of magnitude (1, 1.5, 2, 3, 5, 7). Detection limits for rock and stream sediment samples for which a 10 mg sample is analyzed are presented in Table 1. Detection limits for heavy-mineral-concentrate samples for which only a 5 mg sample is analyzed to reduce spectral interferences are two reporting steps higher (approximately twice those of stream sediments).

Data Storage and Statistical Methods

Chemical analysis data and sample site locations (latitude and longitude) were entered in the U.S. Geological Survey computer data storage system entitled Rock Analysis Storage System (RASS). Statistical treatment of the data and plotting was performed with the U.S. Geological Survey Statistical Package (STATPAC) (VanTrump and Miesch, 1977).

Chemical analysis data for the three sample media (stream sediment, heavy-mineral concentrate, and rock) along with sample site location are presented in Appendices A, B, and C.

Histograms of the distribution of analysis data for each of the 31 elements determined were obtained for each sample media and used in setting background levels and concentration ranges for symbol representation in element distribution plots for map overlay.

R-mode factor analysis (VanTrump and Miesch, 1976; Davis, 1973) was applied to both heavy-mineral concentrates and stream-sediment sample analyses to derive element associations to which a geological or geochemical significance could be attached. A three factor model for stream sediments

Table 1.--Detection limits for stream sediment and rock analysis

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

explaining 74% of the variance showed associations primarily related to lithology with a ferride element association of Fe, Ti, Mn, Co, Cr, Ni, Sc, and V; a carbonate-barite association of Ca, Mg, Ba, Sr; and a remaining factor of Pb and B.

Table 2 presents the factor loadings for R-mode factor analysis of heavy-mineral concentrates for 26 elements. Five elements (Au, Bi, Cd, W, and Th) were not included in the factor analysis due to lack of unqualified data. Also included is the percent of the total variance of the 26 elements which is explained by the use of up to six factors.

A five factor model for heavy-mineral concentrates explained 82% of the variance. Factor one was a Cu-Sn association with strong negative association with Ba-Sr. Lead emerged as a separate factor 5. Factor 2 was an association of Ti, La, Nb, V, and Y. Factor 3 was a Ni-Sc association and factor 4 a carbonate association of Ca-Mg.

Areal plots of stream sediment Factor 3 (Pb-B) or heavy-mineral concentrate Factor 1 (Cu-Sn) failed to depict any mineralization trends that were not shown by element distribution plots, and are not presented herein.

Interpretation of Geochemical Anomalies

Areal plots of the distribution of barium and tin are presented in Plate 2 and of lead in Plate 3, both at a scale of 1:50,000. Plate 1 is a sample site location map.

The negative association of barium and tin in heavy-mineral concentrates which was noted in factor analysis is apparent from an inspection of their plots in Plate 2. Barium is prevalent in the northwest and tin in the south and east. Lead, shown in Plate 3, is most prevalent in the north but has a lesser group of anomalous values in the extreme south.

Hydrothermal metallic mineral deposits of the types described by Tschantz and Pampeyan (1978), bedded barite or porphyry copper deposits are possible deposit types in the Paleozoic sediments underlying the Tertiary volcanics of the range. The thickness of the cover, more than 2,000 feet, makes their detection difficult. Patterns obtained for the distribution of lead, tin, and barium may be due to leakage up through fault systems or to varying lithology of the volcanics.

LAND CLASSIFICATION FOR GEM RESOURCES POTENTIAL, METALLIC MINERALS

The land classification for the entire WSA is 2C, one of low favorability and moderate confidence level. The BLM land classification scheme for metallic mineral potential is shown in Table 3 and is the system used in the GEM report (Great Basin Joint Venture, 1983). A plate representation of the ratings of sub-areas is not presented because the entire WSA is designated area M1 and has a rating of 2C. The confidence level is upgraded from the "A" of the GEM report to "C" because of the generation of geochemical data.

Table 2.--Varimax factor loadings for heavy-mineral concentrates, 26 elements, R-mode factor analysis (loadings not given when less than 0.2 absolute values)

Element	Factor 1 Felsic Assoc.	Factor 2 Ferride Assoc.	Factor 3	Factor 4 Dolomite	Factor 5 Mineralization Pb, Ag	Factor 6 Barite
Fe		0.9				
Mg				0.7		
Ca			0.8	0.3		
Ti	0.9					
Mn	0.5	0.5			-0.3	
Ag			0.3		0.7	
As		0.4		-0.3		
B	0.4	0.5				
Ba	0.3	0.2				0.6
Be	0.3	0.4				-0.3
Co		0.8				
Cr	0.3	0.4	0.6			
Cu		0.9				
La	0.7		0.3	-0.4		
Mo		0.7				
Nb	0.7					-0.3
Ni		0.8				
Pb					0.8	
Sb						0.7
Sc	0.9					
Sn	0.4					
Sr			0.7	-0.3		
V	0.5	0.5	0.4			
Y	0.8		0.3	-0.3		
Zn				0.3		
Zr	0.7					0.3
Percent of variance explained	25.2	39.0	47.9	54.0	59.0	63.6

Table 3.--BLM Land Classification System

I. Level of Favorability	II. Level of Certainty
1. The geologic environment and the inferred geologic processes do not indicate favorability for accumulation of mineral resources.	A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.
2. The geologic environment and the inferred geologic processes indicate low favorability for accumulation of mineral resources.	B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.
3. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate favorability for accumulation of mineral resources.	C. The available data provide direct evidence, but are quantitatively minimal to support or refute the possible existence of mineral resources.
4. The geologic environment, the inferred geologic processes, the reported mineral occurrences, and/or valid geochemical/ geophysical anomaly, and known mines or deposits indicate high favorability for accumulation of mineral resources.	D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

RECOMMENDATIONS FOR ADDITIONAL WORK

1. More detailed geologic mapping of those areas within the WSA having high concentrations of barium, tin, and lead should be accomplished to identify any structural controls or alteration that could be related to mineralization.

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APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada

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
PN242S	37 33 22	115 1 0	2	1.0	1.0	.30	500	N	N	N	20	1,000
PY243S	37 32 44	115 0 55	1	.5	1.0	.10	300	N	N	N	30	300
PB244S	37 32 31	115 1 8	1	.5	1.0	.20	500	N	N	N	30	500
PN245S	37 31 53	115 0 53	2	.5	1.0	.20	300	N	N	N	20	500
PY246S	37 31 30	115 0 46	2	.5	1.0	.20	300	N	N	N	30	500
PB247S	37 31 6	115 0 42	1	.2	.5	.10	300	N	N	N	20	200
PN248S	37 30 41	115 0 43	2	.5	1.0	.20	500	N	N	N	30	500
PY249S	37 30 15	115 0 45	5	1.0	1.0	.50	500	N	N	N	20	700
PB250S	37 30 3	115 0 42	3	1.0	1.0	.30	500	N	N	N	30	500
PN251S	37 29 51	115 0 48	2	1.0	1.0	.30	300	N	N	N	30	700
PY252S	37 29 32	115 0 47	2	1.0	1.0	.20	300	N	N	N	20	700
PB253S	37 29 20	115 0 47	5	1.0	1.0	.50	500	N	N	N	20	500
PN254S	37 29 4	115 0 43	10	1.0	1.0	.50	700	N	N	N	20	1,000
PY255S	37 28 28	115 0 47	2	1.0	1.0	.20	500	N	N	N	20	1,000
PB256S	37 28 7	115 0 49	2	.5	1.0	.20	300	N	N	N	10	500
PN257S	37 28 2	115 0 3	10	.5	1.0	.50	1,000	N	N	N	20	500
PY258S	37 26 33	115 0 21	2	1.0	1.0	.20	500	N	N	N	10	500
PB259S	37 25 55	115 0 55	2	.5	.7	.20	500	N	N	N	30	300
PN260S	37 25 45	115 1 9	5	1.0	1.0	.30	700	N	N	N	20	700
PY261S	37 25 28	115 1 45	2	1.0	1.0	.20	500	N	N	N	30	500
PB262S	37 24 42	115 2 44	2	1.0	1.0	.20	500	N	N	N	20	700
PN263S	37 24 57	115 2 47	2	1.0	1.0	.30	300	N	N	N	30	500
PY264S	37 25 2	115 3 1	2	1.0	2.0	.20	500	N	N	N	30	700
PB265S	37 25 17	115 3 17	7	2.0	1.0	.50	1,000	N	N	N	30	700
PN266S	37 25 53	115 3 8	2	1.0	1.0	.20	300	N	N	N	30	700
PY267S	37 26 32	115 2 53	2	.7	.7	.20	300	N	N	N	10	700
PB268S	37 26 30	115 2 57	1	.5	1.0	.15	200	N	N	N	10	700
PN269S	37 26 45	115 3 38	2	1.0	1.0	.20	200	N	N	N	30	700
PY270S	37 27 22	115 4 5	5	1.0	1.0	.30	500	N	N	N	20	700
PB271S	37 27 40	115 4 5	5	1.0	2.0	.30	500	N	N	N	10	1,000
PN272S	37 27 44	115 4 6	3	1.0	1.0	.30	500	N	N	N	10	700
PY273S	37 27 52	115 4 12	3	1.0	1.0	.30	500	N	N	N	10	700
PB274S	37 28 23	115 4 32	3	1.0	1.0	.30	500	N	N	N	10	700
PN275S	37 28 45	115 4 36	2	1.0	1.0	.20	500	N	N	N	10	700
PY276S	37 30 9	115 4 49	10	.7	1.0	.50	700	N	N	N	20	700
PB277S	37 30 12	115 4 47	2	.3	.7	.20	300	N	N	N	10	300
PK434S	37 30 19	115 2 51	3	1.0	2.0	.30	700	N	N	N	10	700
PY435S	37 30 15	115 2 52	5	1.0	1.0	.30	500	N	N	N	10	700
PB436S	37 30 11	115 3 48	10	1.0	1.0	.50	700	N	N	N	50	500
PK437S	37 31 12	115 3 43	5	1.0	1.0	.30	500	N	N	N	20	700
PY438S	37 31 17	115 3 40	7	2.0	2.0	.50	700	N	N	N	30	700
PB439S	37 32 3	115 4 26	7	1.0	1.0	.50	500	N	N	N	10	300
PK440S	37 31 8	115 5 20	3	1.0	1.0	.20	500	N	N	N	20	500
PY441S	37 31 o	115 5 22	3	.7	2.0	.30	500	N	N	N	10	700
PB442S	37 31 30	115 5 51	2	1.0	2.0	.20	300	N	N	N	30	500

APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, 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
PN242S	1	N	N	7	N	10	50	N	N	7	70	N	5
PY243S	2	N	N	5	N	5	20	N	N	5	30	N	5
PB244S	2	N	N	5	N	5	20	N	N	5	30	N	5
PN245S	2	N	N	5	20	5	20	N	N	5	20	N	5
PY246S	2	N	N	5	20	10	20	N	N	5	30	N	5
PB247S	2	N	N	5	N	<5	20	N	N	<5	10	N	5
PN248S	1	N	N	7	N	10	30	N	N	5	50	N	5
PY249S	1	N	N	10	50	10	20	N	N	10	50	N	7
PB250S	1	N	N	10	50	10	50	N	N	5	50	N	7
PN251S	1	N	N	10	20	10	50	N	N	5	50	N	7
PY252S	1	N	N	5	N	10	70	N	N	5	70	N	5
PB253S	1	N	N	20	150	15	150	N	N	20	50	N	10
PN254S	<1	N	N	30	150	20	70	N	20	15	70	N	10
PY255S	1	N	N	7	20	10	50	N	N	7	70	N	7
PB256S	1	N	N	5	50	5	70	N	N	<5	20	N	7
PN257S	1	N	N	20	100	15	100	N	N	10	50	N	10
PY258S	1	N	N	10	50	5	70	N	N	5	30	N	10
PB259S	1	N	N	10	N	7	20	N	N	5	30	N	5
PN260S	1	N	N	20	50	15	30	N	N	10	30	N	10
PY261S	1	N	N	10	20	15	70	N	N	10	30	N	7
PB262S	1	N	N	7	N	10	50	N	N	5	70	N	7
PN263S	<1	N	N	7	N	10	30	N	N	10	70	N	5
PY264S	1	N	N	7	20	10	200	N	N	7	50	N	10
PB265S	<1	N	N	20	100	20	70	N	20	10	70	N	15
PN266S	1	N	N	10	20	15	70	N	N	10	50	N	7
PY267S	1	N	N	10	N	10	100	N	N	5	20	N	7
PB268S	1	N	N	5	N	7	200	N	N	5	20	N	5
PN269S	1	N	N	10	20	10	30	N	N	5	50	N	7
PY270S	<1	N	N	20	70	15	300	N	20	10	50	N	10
PB271S	<1	N	N	15	70	15	150	N	N	10	50	N	10
PN272S	1	N	N	10	50	10	100	N	N	10	30	N	7
PY273S	1	N	N	15	50	15	70	N	<20	10	50	N	7
PB274S	1	N	N	10	50	15	70	N	<20	10	50	N	7
PN275S	1	N	N	10	50	7	200	N	N	5	30	N	7
PY276S	<1	N	N	30	100	15	150	N	N	15	50	N	7
PB277S	1	N	N	5	20	<5	100	N	N	5	N	N	5
PK434S	1	N	N	15	70	15	150	N	N	5	30	N	10
PY435S	1	N	N	15	70	10	100	N	N	10	30	N	10
PB436S	<1	N	N	30	100	15	200	N	<20	20	20	N	10
PK437S	1	N	N	20	70	10	200	N	N	10	30	N	7
PY438S	1	N	N	30	100	15	150	N	N	10	50	N	10
PB439S	<1	N	N	20	100	10	70	N	N	10	30	N	7
PK440S	1	N	N	10	70	15	70	N	N	10	50	N	7
PY441S	1	N	N	10	50	5	300	N	N	5	30	N	7
PB442S	1	N	N	5	50	15	30	N	N	10	30	N	5

APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada (continued)

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
PN242S	N	500	50	N	15	N	70	N
PY243S	N	200	20	N	15	N	70	N
PB244S	N	200	20	N	15	N	100	N
PN245S	N	300	50	N	15	N	100	N
PY246S	N	300	50	N	20	N	150	N
PB247S	N	100	30	N	10	N	100	N
PN248S	N	300	30	N	15	N	300	N
PY249S	N	500	70	N	20	N	300	N
PB250S	N	300	70	N	30	N	70	N
PN251S	N	500	50	N	20	N	100	N
PY252S	N	500	50	N	15	N	300	N
PB253S	N	300	200	N	30	<200	300	N
PN254S	N	500	200	N	30	<200	100	N
PY255S	N	500	50	N	20	N	100	N
PB256S	N	500	50	N	15	N	500	N
PN257S	N	300	200	N	30	200	200	N
PY258S	N	500	100	N	10	N	200	N
PB259S	N	300	50	N	20	N	200	N
PN260S	N	500	150	N	20	<200	200	N
PY261S	N	300	50	N	20	N	150	N
PB262S	N	500	30	N	15	N	150	N
PN263S	N	300	50	N	15	N	100	N
PY264S	N	500	50	N	20	N	200	N
PB265S	N	500	150	N	30	<200	300	N
PN266S	N	500	50	N	20	N	100	N
PY267S	N	500	70	N	20	N	200	N
PB268S	N	500	20	N	10	N	70	N
PN269S	N	500	50	N	10	<200	100	N
PY270S	N	500	100	N	20	N	100	N
PB271S	N	700	100	N	20	N	200	N
PN272S	N	700	100	N	15	N	150	N
PY273S	N	500	100	N	20	N	200	N
PB274S	N	500	100	N	30	N	500	N
PN275S	N	500	70	N	20	<200	200	N
PY276S	N	700	200	N	20	N	300	N
PB277S	N	200	100	N	15	<200	500	N
PK434S	N	700	100	N	30	<200	200	N
PY435S	N	500	150	N	15	<200	200	N
PB436S	N	500	200	N	30	N	300	N
PK437S	N	500	100	N	20	<200	1,000	N
PY438S	N	700	200	N	20	N	500	N
PB439S	N	200	150	N	15	N	500	N
PK440S	N	500	100	N	15	N	200	N
PY441S	N	700	100	N	10	N	200	N
PB442S	N	500	50	N	<10	N	200	N

APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln 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
PK443S	37 32 31	115 4 33	2	.7	2.0	.10	300	N	N	N	10	700
PY444S	37 32 55	115 3 34	2	1.0	2.0	.20	200	N	N	N	10	1,000
PB445S	37 32 1	115 5 27	1	.1	.5	.10	100	N	N	N	10	200
PB446S	37 32 11	115 5 15	3	1.0	1.0	.50	500	N	N	N	20	500
PK447S	37 33 3	115 2 39	20	.5	.5	1.00	700	N	N	N	70	200
PK448S	37 33 7	115 2 37	5	1.0	2.0	.20	500	N	N	N	10	700
PY449S	37 32 22	115 2 44	1	.5	1.0	.10	200	N	N	N	10	300
PY450S	37 32 26	115 2 45	3	1.0	1.0	.20	500	N	N	N	20	500
PB451S	37 32 10	115 3 24	1	1.0	2.0	.20	200	N	N	N	<10	500
PK452S	37 34 12	115 3 38	2	1.0	2.0	.20	500	N	N	N	10	500
PY453S	37 33 55	115 4 5	1	1.0	2.0	.20	500	N	N	N	10	500
PB454S	37 33 22	115 4 23	2	1.0	1.0	.20	300	N	N	N	15	500
PK455S	37 33 42	115 2 31	2	1.0	1.0	.20	500	N	N	N	10	500
PY456S	37 33 46	115 2 3	5	1.0	1.0	.30	500	N	N	N	20	300

APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, 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
PK443S	1	N	N	5	N	<5	20	N	N	5	30	N	5
PY444S	1	N	N	5	N	10	50	N	N	5	50	N	5
PB445S	1	N	N	N	N	<5	N	N	N	N	N	N	5
PB446S	1	N	N	15	50	15	100	N	N	10	50	N	7
PK447S	N	N	N	100	500	50	200	N	N	70	30	N	15
PK448S	1	N	N	7	N	5	70	N	N	5	30	N	10
PY449S	1	N	N	5	N	5	70	N	N	5	20	N	5
PY450S	1	N	N	15	50	15	20	N	N	10	50	N	10
PB451S	1	N	N	7	N	5	50	N	N	5	20	N	7
PK452S	1	N	N	10	20	10	50	N	N	10	50	N	7
PY453S	2	N	N	7	N	5	200	N	N	5	30	N	7
PB454S	2	N	N	7	20	15	70	N	N	10	50	N	7
PK455S	1	N	N	10	50	15	50	N	N	10	50	N	7
PY456S	1	N	N	15	70	10	100	N	N	10	30	N	7

APPENDIX A.--Chemical analyses of stream-sediment samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada (continued)

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
PK443S	N	700	30	N	<10	N	70	N
PY444S	N	500	30	N	15	N	70	N
PB445S	N	200	20	N	<10	N	50	N
PB446S	N	500	100	N	30	N	500	N
PK447S	30	N	200	N	30	500	1,000	N
PK448S	N	500	50	N	20	N	200	N
PY449S	N	200	50	N	15	N	200	N
PY450S	N	300	100	N	20	N	500	N
PB451S	N	700	50	N	20	N	200	N
PK452S	N	500	50	N	15	N	100	N
PY453S	N	500	30	N	20	N	70	N
PB454S	N	300	50	N	15	N	100	N
PK455S	N	500	70	N	15	N	70	N
PY456S	N	300	150	N	30	<200	500	N

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada

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
PN242H	37 33 22	115 1 0	1.0	.2	7	>2.00	1,000	N	N	N	<20	200
PY243H	37 32 44	115 0 55	1.0	.5	7	>2.00	700	N	N	N	<20	200
PB244H	37 32 31	115 1 8	2.0	.5	7	>2.00	700	N	N	N	<20	200
PN245H	37 31 53	115 0 53	2.0	.5	5	>2.00	700	N	N	N	<20	500
PY246H	37 31 30	115 0 46	2.0	.5	7	>2.00	700	N	N	N	<20	300
PB247H	37 31 6	115 0 42	1.0	.2	2	2.00	500	N	N	N	<20	700
PN248H	37 30 41	115 0 43	2.0	.2	5	>2.00	700	N	N	N	<20	700
PY249H	37 30 15	115 0 45	2.0	.5	5	>2.00	700	N	N	N	<20	700
PB250H	37 30 3	115 0 42	2.0	.5	7	>2.00	700	N	N	N	<20	700
PN251H	37 29 51	115 0 48	5.0	.5	7	>2.00	1,000	N	N	N	<20	500
PY252H	37 29 32	115 0 47	2.0	1.0	7	>2.00	1,000	N	N	N	<20	100
PB253H	37 29 20	115 0 47	1.0	.5	5	2.00	500	N	N	N	<20	700
PN254H	37 29 4	115 0 43	1.0	.5	5	2.00	500	N	N	N	<20	700
PY255H	37 28 28	115 0 47	2.0	.5	7	>2.00	700	N	N	N	<20	100
PB256H	37 28 7	115 0 49	2.0	2.0	7	>2.00	1,000	N	N	N	<20	300
PN257H	37 28 2	115 0 33	2.0	.2	5	>2.00	700	N	N	N	<20	500
PY258H	37 26 33	115 0 21	.7	.5	2	1.50	300	N	N	N	<20	700
PB259H	37 25 55	115 0 55	1.0	.5	5	2.00	500	N	N	N	<20	500
PN260H	37 25 45	115 1 9	1.0	.2	5	2.00	500	N	N	N	<20	700
PY261H	37 25 28	115 1 45	2.0	.5	5	>2.00	700	N	N	N	<20	500
PB262H	37 24 42	115 2 42	2.0	1.5	7	>2.00	1,000	N	N	N	<20	500
PN263H	37 24 57	115 2 47	2.0	.5	5	>2.00	700	N	N	N	<20	500
PY264H	37 25 2	115 3 1	1.5	.2	7	>2.00	700	N	N	N	<20	500
PB265H	37 25 17	115 3 17	2.0	1.0	7	>2.00	1,000	N	N	N	<20	200
PN266H	37 25 53	115 3 8	2.0	2.0	5	>2.00	1,000	N	N	N	<20	500
PY267H	37 26 32	115 2 53	2.0	1.0	7	>2.00	1,000	N	N	N	<20	300
PN269H	37 26 45	115 3 38	2.0	1.0	5	>2.00	700	N	N	N	<20	100
PY270H	37 27 22	115 4 5	2.0	1.0	5	>2.00	700	N	N	N	<20	100
PB271H	37 27 40	115 4 5	1.0	.5	5	>2.00	700	N	N	N	<20	100
PN272H	37 27 44	115 4 6	1.0	.5	5	2.00	500	N	N	N	<20	500
PY273H	37 27 52	115 4 12	.7	.2	5	2.00	500	N	N	N	<20	500
PB274H	37 28 23	115 4 32	1.0	.5	5	>2.00	700	N	N	N	<20	500
PN275H	37 28 45	115 4 36	1.5	.5	2	>2.00	500	N	N	N	<20	50
PY276H	37 30 9	115 4 49	1.0	.2	2	>2.00	500	N	N	N	<20	500
PB277H	37 30 12	115 4 47	1.5	.5	5	>2.00	700	N	N	N	<20	150
PK434H	37 30 19	115 2 51	.7	.2	5	1.50	500	N	N	N	<20	1,500
PY435H	37 30 15	115 2 52	.7	.2	5	.50	300	N	N	N	<20	200
PB436H	37 30 11	115 3 48	.7	.1	5	2.00	300	N	N	N	<20	1,500
PK437H	37 31 12	115 3 43	1.0	.5	5	2.00	500	N	N	N	<20	1,000
PY438H	37 31 17	115 3 40	.7	.5	10	2.00	500	N	N	N	<20	1,000
PB439H	37 32 3	115 4 26	1.0	.2	10	2.00	500	N	N	N	<20	1,000
PK440H	37 31 8	115 5 20	.7	.2	5	.50	200	N	N	N	<20	1,500
PY441H	37 31 6	115 5 22	.7	.5	10	2.00	300	N	N	N	<20	2,000
PB442H	37 31 30	115 5 51	1.0	.7	5	1.00	300	N	N	N	<20	2,000
PK443H	37 32 31	115 4 33	1.0	.5	5	.30	200	N	N	N	<20	3,000

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, 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
PN242H	2	N	N	N	N	20	2,000	N	150	10	1,000	N	50
PY243H	2	N	N	N	N	20	1,000	N	100	10	500	N	50
PB244H	N	N	N	N	N	20	1,000	N	150	10	20	N	20
PN245H	N	N	N	N	N	10	700	N	100	10	1,000	N	10
PY246H	N	N	N	N	N	20	1,500	N	150	10	20	N	10
PB247H	<2	N	N	N	N	<10	500	N	150	10	300	N	10
PN248H	<2	N	N	N	N	10	1,000	N	100	10	20	N	10
PY249H	<2	N	N	N	N	20	2,000	N	150	10	20	N	10
PB250H	<2	N	N	N	20	10	2,000	N	150	10	20	N	30
PN251H	N	N	N	N	50	20	2,000	N	150	10	20	N	30
PY252H	N	N	N	N	N	20	2,000	N	150	10	50	N	50
PB253H	<2	N	N	N	N	<10	300	N	70	10	20	N	10
PN254H	<2	N	N	N	N	10	700	N	150	10	20	N	10
PY255H	<2	N	N	N	N	20	2,000	N	150	10	150	N	70
PB256H	<2	N	N	N	N	20	1,500	N	150	10	70	N	70
PN257H	<2	N	N	N	N	10	1,000	N	150	10	20	N	10
PY258H	<2	N	N	N	N	<10	500	N	50	10	20	N	10
PB259H	2	N	N	N	N	10	500	N	100	10	20	N	10
PN260H	2	N	N	N	N	10	500	N	100	10	N	N	10
PY261H	<2	N	N	N	N	20	1,000	N	150	10	100	N	50
PB262H	<2	N	N	N	N	20	1,000	N	150	10	150	N	50
PN263H	2	N	N	N	N	10	1,000	N	150	10	1,000	N	20
PY264H	<2	N	N	N	N	10	1,000	N	150	10	20	N	10
PB265H	N	N	N	N	N	20	2,000	N	150	10	70	N	50
PN266H	N	N	N	N	N	15	1,000	N	150	10	100	N	50
PY267H	<2	N	N	N	N	20	2,000	N	150	10	100	N	50
PN269H	<2	N	N	N	N	15	2,000	N	150	10	100	N	50
PY270H	<2	N	N	N	N	15	2,000	N	150	10	N	N	50
PB271H	2	N	N	N	N	15	2,000	N	100	10	70	N	50
PN272H	2	N	N	N	N	10	500	N	50	10	N	N	20
PY273H	2	N	N	N	N	10	700	N	100	10	50	N	20
PB274H	<2	N	N	N	N	20	1,000	N	150	10	N	N	20
PN275H	<2	N	N	N	N	10	700	N	100	10	N	N	20
PY276H	2	N	N	N	N	10	1,500	N	70	10	N	N	20
PB277H	<2	N	N	N	N	20	2,000	N	100	10	N	N	50
PK434H	5	N	N	N	N	<10	500	N	200	10	50	N	50
PY435H	5	N	N	N	N	<10	200	N	50	10	50	N	30
PB436H	5	N	N	N	N	<10	1,000	N	200	10	100	N	50
PK437H	5	N	N	N	N	10	1,500	N	300	10	100	N	50
PY438H	5	N	N	N	N	<10	2,000	N	300	10	100	N	70
PB439H	5	N	N	N	N	10	2,000	N	200	10	20	N	70
PK440H	7	N	N	N	N	<10	150	N	100	10	150	N	30
PY441H	5	N	N	N	N	10	1,000	N	300	10	500	N	70
PB442H	5	N	N	N	N	<10	200	N	150	10	50	N	30
PK443H	5	N	N	N	N	<10	150	N	N	10	20	N	20

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada (continued)

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
PN242H	100	N	150	N	1,500	N	>2,000	N
PY243H	100	N	150	N	1,000	N	>2,000	N
PB244H	100	N	150	N	1,000	N	>2,000	N
PN245H	100	300	100	N	700	N	>2,000	N
PY246H	100	200	100	N	1,000	N	>2,000	N
PB247H	20	500	50	N	500	N	>2,000	N
PN248H	70	200	100	N	700	N	>2,000	N
PY249H	70	200	100	N	700	N	>2,000	N
PB250H	70	500	100	N	700	N	>2,000	N
PN251H	70	200	100	N	700	N	>2,000	N
PY252H	150	N	150	N	1,000	N	>2,000	N
PB253H	150	1,000	70	N	300	N	>2,000	N
PN254H	70	500	100	N	500	N	>2,000	N
PY255H	100	N	150	N	1,000	N	>2,000	N
PB256H	100	200	150	N	1,000	N	>2,000	N
PN257H	700	200	100	N	700	N	>2,000	N
PY258H	N	500	70	N	300	N	>2,000	N
PB259H	50	500	100	N	500	N	>2,000	N
PN260H	70	500	100	N	500	N	>2,000	N
PY261H	70	200	100	N	700	N	>2,000	N
PB262H	70	200	100	N	1,000	N	>2,000	N
PN263H	500	200	100	N	700	N	>2,000	N
PY264H	70	500	100	N	700	N	>2,000	N
PB265H	70	200	100	N	1,000	N	>2,000	N
PN266H	70	200	100	N	700	N	>2,000	N
PY267H	70	N	100	N	1,500	N	>2,000	N
PN269H	70	N	100	N	1,000	N	>2,000	N
PY270H	70	200	100	N	1,000	N	>2,000	N
PB271H	70	N	100	N	1,000	N	>2,000	N
PN272H	30	500	70	N	500	N	>2,000	N
PY273H	50	500	70	N	500	N	>2,000	N
PB274H	70	500	100	N	1,000	N	>2,000	<200
PN275H	50	N	100	N	700	N	>2,000	N
PY276H	50	500	100	N	500	N	>2,000	N
PB277H	70	N	100	N	1,000	N	>2,000	N
PK434H	N	1,000	100	N	500	N	>2,000	<200
PY435H	N	1,000	50	N	200	N	>2,000	N
PB436H	N	1,000	100	N	700	N	>2,000	200
PK437H	N	1,000	100	N	700	N	>2,000	<200
PY438H	N	1,000	150	N	1,000	N	>2,000	200
PB439H	N	1,000	150	N	1,000	N	>2,000	200
PK440H	N	1,000	50	N	300	N	>2,000	<200
PY441H	N	1,500	100	N	1,000	N	>2,000	200
PB442H	N	1,500	70	N	300	N	>2,000	N
PK443H	N	1,500	50	N	100	N	>2,000	N

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln 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
PY444H	37 32 55	115 3 44	1.0	.2	5	.07	200	N	N	N	<20	2,000
PB445H	37 32 1	115 5 27	.7	.2	5	1.00	300	N	N	N	<20	2,000
PB446H	37 32 11	115 5 15	.2	.2	7	1.50	300	N	N	N	<20	700
PK447H	37 33 3	115 2 39	.7	.2	2	.50	300	N	N	N	<20	1,500
PK448H	37 33 7	115 2 37	2.0	.5	10	1.50	1,000	N	N	N	<20	1,000
PY449H	37 32 22	115 2 44	.5	.2	5	.50	200	N	N	N	<20	2,000
PY450H	37 32 26	115 2 45	.5	.5	5	1.00	500	N	N	N	<20	1,500
PB451H	37 32 10	115 3 24	.5	.2	5	.50	200	N	N	N	<20	1,500
PK452H	37 34 12	115 3 38	1.5	.5	5	1.00	500	N	N	N	<20	2,000
PY453H	37 33 55	115 4 5	1.0	.2	5	.10	200	N	N	N	<20	2,000
PB454H	37 33 22	115 4 23	1.0	.5	10	.70	500	N	N	N	<20	1,500
PK455H	37 33 42	115 2 31	.5	.2	5	1.00	300	N	N	N	<20	2,000
PY456H	37 33 46	115 2 3	1.0	.2	5	1.50	300	N	N	N	<20	1,500

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, 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
PY444H	5	N	N	N	N	10	N	N	N	10	50	N	10
PB445H	7	N	N	N	N	50	200	N	100	10	50	N	20
PB446H	10	N	N	N	N	<10	700	N	150	70	N	N	150
PK447H	7	N	N	N	N	<10	150	N	50	10	20	N	50
PK448H	5	N	N	N	N	<10	1,500	N	200	10	20	N	50
PY449H	7	N	N	N	N	<10	200	N	100	10	100	N	30
PY450H	7	N	N	N	N	<10	500	N	200	10	20	N	50
PB451H	10	N	N	N	N	<10	150	N	N	10	70	N	50
PK452H	5	N	N	N	N	<10	700	N	100	10	20	N	30
PY453H	7	N	N	N	N	10	150	N	50	10	20	N	10
PB454H	7	N	N	N	N	<10	500	N	70	10	500	N	20
PK455H	7	N	N	N	N	<10	200	N	100	10	50	N	50
PY456H	5	N	N	N	N	<10	700	N	200	10	150	N	30

APPENDIX B.--Chemical analyses of heavy-mineral-concentrate samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada (continued)

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
PY444H	N	1,500	50	N	20	N	>2,000	N
PB445H	N	1,500	50	N	300	N	>2,000	N
PB446H	N	200	70	N	1,000	N	>2,000	500
PK447H	N	1,000	50	N	300	N	>2,000	N
PK448H	30	1,500	150	N	700	N	>2,000	N
PY449H	N	1,500	50	N	200	N	>2,000	N
PY450H	N	700	70	N	700	N	>2,000	<200
PB451H	N	1,000	50	N	500	N	>2,000	<200
PK452H	N	1,000	70	N	300	N	>2,000	N
PY453H	N	1,000	20	N	70	N	>2,000	N
PB454H	N	1,000	70	N	300	N	>2,000	N
PK455H	N	1,000	70	N	700	N	>2,000	200
PY456H	30	1,000	100	N	500	N	>2,000	200

APPENDIX C.--Chemical analyses of rock samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada

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
PN242R	37 33 22	115 1 0	1	.1	1.0	.10	700	N	<200	N	70	500
PY243R	37 32 44	115 0 55	1	.1	.5	.10	700	N	<200	N	50	500
PB244R	37 32 31	115 1 8	1	1.0	.5	.10	700	N	<200	N	50	500
PB247R	37 31 6	115 0 42	7	.5	1.0	.70	500	N	<200	N	50	1,000
PY249R	37 30 15	115 0 45	2	.2	.5	.20	500	N	<200	N	30	1,000
PN251R	37 29 51	115 0 48	7	.5	1.0	1.00	500	N	<200	N	50	1,000
PN254R	37 29 4	115 0 43	7	1.0	2.0	1.00	500	N	<200	N	70	1,000
PY258R	37 26 33	115 0 21	2	.1	7.0	.05	300	N	<200	N	10	50
PN260R	37 25 45	115 1 9	7	.5	.5	.70	500	N	<200	N	100	500
PN269R	37 26 32	115 2 53	10	2.0	2.0	1.00	700	N	<200	N	30	1,000
PB271R	37 27 40	115 4 5	5	1.0	1.0	.50	700	N	<200	N	30	1,000
PB436R	37 30 11	115 3 48	1	.1	2.0	.05	100	N	N	N	10	50

APPENDIX C.--Chemical analyses of rock samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, 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
PN242R	5	N	N	N	<10	100	70	N	N	5	30	N	5
PY243R	3	N	N	N	<10	100	50	N	N	10	50	N	5
PB244R	3	N	N	N	<10	70	70	N	N	5	50	N	5
PB247R	1	N	N	20	20	70	100	N	N	10	50	N	10
PY249R	1	N	N	5	<10	100	70	N	N	5	50	N	5
PN251R	1	N	N	10	10	100	100	N	N	10	50	N	10
PN254R	1	N	N	20	20	100	100	N	N	30	50	N	10
PY258R	3	N	N	N	<10	100	N	N	N	10	20	N	N
PN260R	3	N	N	20	100	70	100	N	N	70	100	N	20
PN269R	1	N	N	50	50	100	100	N	N	20	20	N	30
PB271R	2	N	N	10	10	100	100	N	N	10	50	N	10
PB436R	<1	N	N	N	10	50	N	N	N	5	<10	N	5

APPENDIX C.--Chemical analyses of rock samples, South Pahroc/Hiko Wilderness Study Area, Lincoln County, Nevada (continued)

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
PN242R	N	100	10	N	30	N	100	N
PY243R	N	100	10	N	30	N	100	N
PB244R	N	100	10	N	30	N	100	N
PB247R	N	500	100	N	30	N	500	N
PY249R	N	200	20	N	20	N	300	N
PN251R	N	500	70	N	50	N	500	N
PN254R	N	500	100	N	50	N	500	N
PY258R	N	N	70	N	N	N	10	N
PN260R	N	100	100	N	50	1,000	500	N
PN269R	N	500	150	N	50	<200	500	N
PB271R	N	500	70	N	30	N	200	N
PB436R	N	500	20	N	70	N	70	N