

USBM

MLA 50-83

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES

Text = 27p = \$4.05  
map =

MINERAL INVESTIGATION OF THE MT. MORIAH ROADLESS AREA,  
WHITE PINE COUNTY, NEVADA

By  
Robert H. Wood II

MLA 50-83  
1983

This open file report summarizes the results of a Bureau of Mines wilderness study and will be incorporated in a joint report with the Geological Survey. The report is preliminary and has not been edited or reviewed for conformity with the Bureau of Mines editorial standards. Work on this study was conducted by personnel from Intermountain Field Operations Center, Building 20, Denver Federal Center, Denver, CO 80225.

## FOREWORD

The Bureau of Mines and Geological Survey jointly conduct mineral surveys of lands that in the Forest Service Second Roadless Area Review and Evaluation (RARE II) program have been designated for further planning. These evaluations are used in the RARE II program, which conforms with the Multiple-Use Sustained-Yield Act of 1960 (74 Stat. 215; 16 U.S.C. 528-531), the Forest and Rangeland Renewable Resources Planning Act of 1974 (88 Stat. 476, as amended; 16 U.S.C. 1601 note), and the National Forest Management Act of 1976 (90 Stat. 2949; 16 U.S.C. 1600 note). Reports on these surveys provide the President, Congress, the Forest Service, and the general public with information essential for determining the suitability of land for inclusion in the National Forest Preservation System.

This report is on the Mt. Moriah RARE II Further Planning Area (4-352), White Pine County, Nevada.

CONTENTS

	Page
Introduction.....	1
Location, size, and geographic setting.....	1
Mining activity.....	2
Mining districts and mineralized areas.....	2
Mt. Moriah mining area.....	4
Hampton Creek.....	4
Prospect Mountain Quartzite.....	5
Trail Canyon.....	5
Mt. Moriah.....	6
Silver Peak Mine.....	6
Smith Creek.....	7
Galena Mine.....	7
Hendrys Creek.....	11
Mineralized areas in Black Horse mining district.....	11
Black Horse workings.....	11
Bellander Mine.....	12
Tilford Mine.....	12
Oil and gas.....	15
Summary.....	15
References.....	16

ILLUSTRATIONS

Plate 1. Mine and prospect map of the Mt. Moriah Roadless Area, White Pine County, Nevada.....	at back
EXPLANATION OF SYMBOLS FOR MINE AND PROSPECT MAP.....	23
Figure 1. Index map of the Mt. Moriah Roadless Area, White Pine County, Nevada.....	3

CONTENTS--Continued

ILLUSTRATIONS--Continued

	Page
Figure 2. Map showing the Silver Peak Mine, sample localities 79-83, and table showing analytical data for samples.....	8
3. Map of the Galena Mine and sample localities 5-9, 11-13.....	9
4. Map showing the lower two adits in the Tilford Mine, and sample localities 58-60.....	13

TABLES

Table 1. Summary of information regarding mineral deposits in and near the Mt. Moriah Roadless Area, White Pine County, Nevada.....	17
2. Analysis of placer garnet samples from Hampton Creek.....	20
3. Data for samples that are not shown with figures 2-5 and which contain more than 0.2 oz silver per ton; or 0.10 percent copper, lead, zinc, or barium.....	21
4. Analytical data for samples from the Galena Mine.....	10
5. Analytical data for samples from the lower two adits at the Tilford Mine.....	14

MINERAL INVESTIGATION OF THE MT. MORIAH ROADLESS AREA,  
WHITE PINE COUNTY, NEVADA

Robert H. Wood II, Bureau of Mines

INTRODUCTION

In the fall of 1980 and the summer of 1981 the Bureau of Mines conducted field investigations of the Mt. Moriah Roadless Area as part of a joint effort with the Geological Survey to evaluate the mineral resources of the area. In addition to obtaining mining claim locations from the White Pine County Court-house, field studies included a reconnaissance of mines, prospects, and mineralized areas. Rock samples were taken at the workings examined (pl. 1). Pan-concentrate samples were obtained from stream gravels of major drainages in the area. A total of 83 samples were taken for analysis, and of these, 15 were garnet placer samples which were processed on a Frantz separator. All but the 15 garnet placer samples taken were fire-assayed for gold and silver, some were analyzed for copper, manganese, lead, zinc, barium, and tungsten, and a 40-element, semiquantitative spectrographic analysis was made on at least one sample from each locale. Results of all analyses are available for public inspection at the Bureau of Mines, Intermountain Field Operations Center, Building 20, Denver Federal Center, Denver, Colo. 80225.

Location, size, and geographic setting

The Mt. Moriah Roadless Area is in the northern part of the Snake Range and covers 97,205 acres of the Humboldt National Forest in White Pine County, Nev. This range is a typical elongate north-trending range in the Basin and Range physiographic province. Spring Valley, on the west side of the area, and Snake Valley on the east side, are typical enclosed basins within this physiographic province. Relief in the roadless area is about 6,000 ft, and elevations range from 12,050 ft on Mt. Moriah, the second highest peak in the range, to about 6,000 ft along the eastern border.

The Utah State boundary is 1-1/2 mi east of the roadless area (fig. 1). Baker, Nev., the nearest community, is about 10 mi south. The nearest main population center is Ely, Nev., about 24 mi west. U.S. Highway 6 and 50 crosses the Snake Range at Sacramento Pass about 3 mi south of the roadless area.

The perimeter of the roadless area generally follows the Forest Service boundary except in the northwest and southeast corners. Forest Service roads 460 and 469 define the northwest boundary of the roadless area, and the southwest corner is bounded by Forest Service roads 457 and 458. These and other Forest Service roads, together with several hiking trails, provide limited access to the roadless area (fig. 1).

#### Mining activity

Past production in or near the roadless area included; building stone, lead, silver, zinc, copper, gold, tungsten, and garnet (table 1). Small amounts of quartzite building stone are produced, on an intermittent basis, from various quarries south of Hendrys Creek and between Hendrys Creek and Hampton Creek. The quarry north of Silver Peak Mine also showed recent (1981) signs of building stone production. Signs of recent prospecting activity and claim staking for metallic minerals were observed near Old Man's Canyon just outside the southern border of the roadless area.

#### MINING DISTRICTS AND MINERALIZED AREAS

According to Hose, Blake, and Smith (1976, pl. 2), the Mt. Moriah Roadless Area is within the Mt. Moriah mining area and the Black Horse mining district; the Mt. Moriah mining area includes all but the southwest corner of the roadless area, and this corner is in the Black Horse mining district.

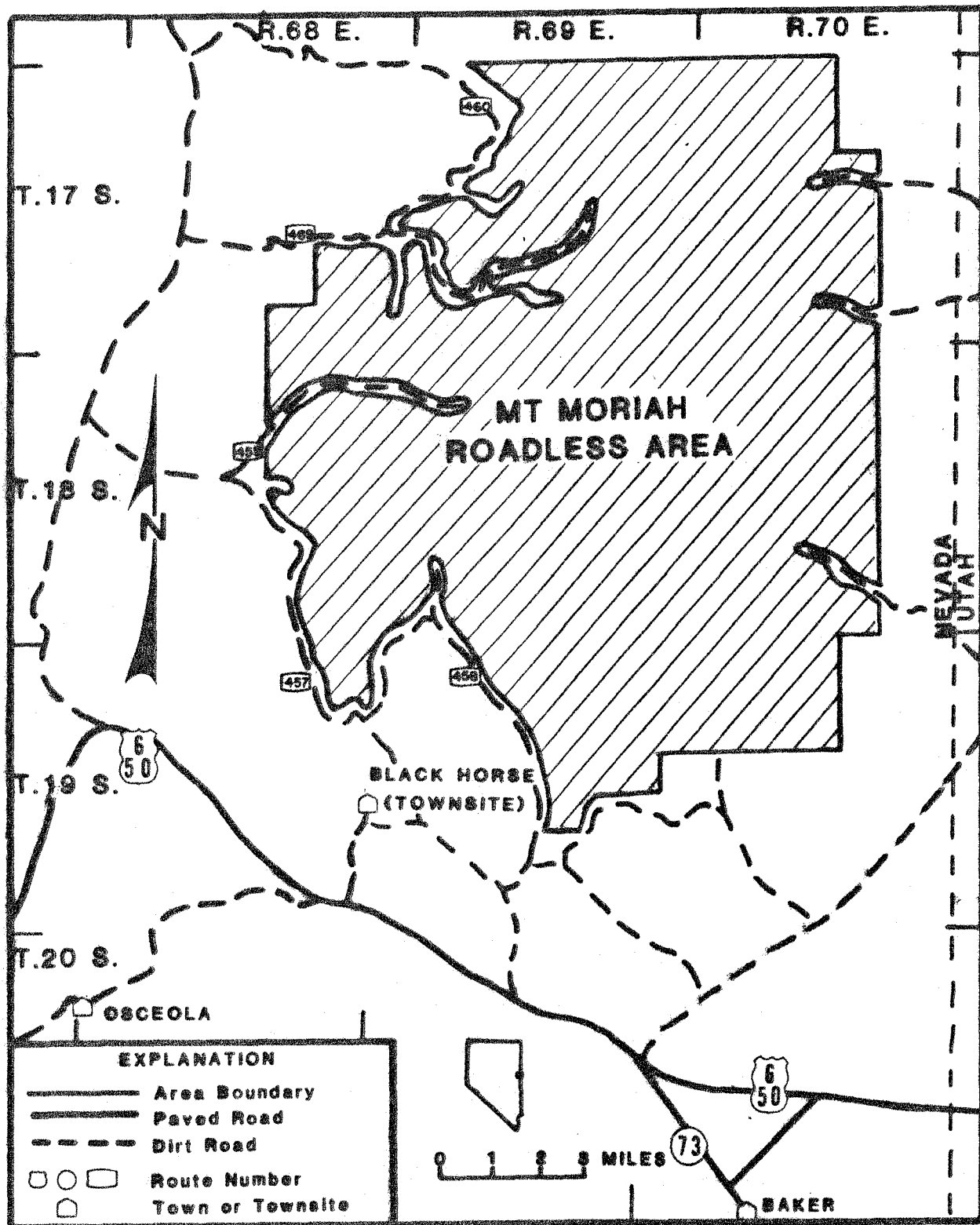


Figure 1.--Index map of the Mt. Moriah Roadless Area, White Pine County, Nevada.

### Mt. Moriah mining area

The Mt. Moriah mining area is named (Hose and others, 1976, p. 57) for several unrelated mine workings and prospects located on and around Mt. Moriah. Mining areas discussed under this section are Hampton Creek, Prospect Mountain Quartzite, Trail Canyon, Mt. Moriah, and Silver Peak Mine, all located within the roadless area, and Smith Creek, Galena Mine, and Hendrys Creek, all located outside the roadless area boundary (table 1). Except for 26 tons of lead-silver ore, an undetermined quantity of building stone, and possibly small amounts of copper ore and garnet, no other mineral commodities have been produced from the Mt. Moriah Roadless Area.

#### Hampton Creek

Industrial almandine garnets occur in a small, low-concentration placer deposit along the valley floor of Hampton Creek, from about 1 mi outside to approximately 2 mi into the roadless area. Lode mining claims have been staked for an additional 1-1/2 mi farther up Hampton Creek on a garnetiferous mica-schist in the Prospect Mountain Quartzite. According to V. T. Dow (1963, U.S. Forest Service, Report of mineral examination, Ely Ranger district unpublished validity examination, p. 2-4), the Gorco Garnet Abrasives Company was constructing a gravity-type mill in 1963 and had plans to mine the full width of the Hampton Creek channel to bedrock. The channel at this site within the roadless area is about 1,800 ft wide and has an undetermined depth. The remains of Gorco's mill were in place during the field examination (1981). A 15.7-ft vertical channel sample, 6 in. wide by 4 in. deep (table 2, nos. 24-27), was taken down the side of a 67 ft by 32 ft pit in alluvium. The sample averaged 4.1 percent garnet by weight but decreased to 3.9 percent in the weathered schist above the pit (table 2, nos. 16-27). The garnets averaged



1/16 in. in diameter. The average garnet content decreased considerably outside the roadless area to 0.8 percent in a small pit in alluvium near the mouth of Hampton Creek (table 2, nos. 29-31). No other placer garnet deposits are known to be or have been worked in or near the roadless area. A garnet-bearing schist was noted along Hendrys Creek inside the roadless area, and garnets were present in the pan-concentrate taken near the mouth of Hendrys Creek. Large areas within the roadless area were mapped by Hose (1981) as undivided Pioche Shale and Prospect Mountain Quartzite and may contain additional garnet-bearing zones.

#### Prospect Mountain Quartzite

Excellent quartzite building stone has been mined from more than 30 small- to medium-size quarries (pl. 1) in the Prospect Mountain Formation within and adjacent to the southeastern part of the roadless area. Mining claims have been located for this stone in the vicinity of Hendrys Creek, Hampton Creek, Smith Creek, Deadman Creek, and Negro Creek. Most of the quartzite is used for dimension building stone and flagstone. The Richard Hatch claims cover at least 4 sq mi of the deposit; more than half of the claimed area is inside the roadless area. The quartzite inside the roadless area is as much as 2,600 ft thick, and 10 to 60 percent is marketable. Richard Hatch (oral commun., 1981), claim owner, estimated his claims contain more than a trillion tons of building stone.

#### Trail Canyon

Mineralized rock (malachite and unidentified silver minerals) near the intersection of a northeast-trending high-angle fault and a northwest-trending low-angle fault, mapped by Hose (1981), is explored by two short adits about 3 mi inside the roadless area, 1/2 mi south of Negro Creek in

Trail Canyon. According to the geologic map (Hose, 1981), these adits are in the Laketown and Fish Haven Dolomites. Samples from these adits assayed as much as 0.6 oz silver per ton and 2.07 percent copper, across a 4-ft width (samples 67-70, table 3). The copper-silver mineralization occurred along bedding planes. The fault intersection, which was not cut by the adits, may have been the conduit for the mineralizing solutions. The mineralized rock was not traced on the surface beyond the area of the workings; however, small deposits could occur locally at depth.

#### Mt. Moriah

Copper-mineralized quartz vein material (malachite and azurite) is found on the dumps of two of the prospects in the central part of the roadless area on the east slope of Mt. Moriah. The veins do not crop out, but are probably associated with a northwest-trending fault zone in Cambrian limestone. A 4-ft chip sample taken across a fault zone, which is exposed only in the upper prospect, assayed 0.7 oz silver per ton and 0.07 percent copper (sample 74, table 3). Select samples of quartz vein material from these prospects assayed as much as 5.5 oz silver per ton and 1.473 percent copper (V. T. Dow, 1969, U.S. Forest Service, Report of mineral examination, Ely Ranger District, unpublished report, p. 2). Mineralized rock was not seen beyond these small workings; however, the mineralized vein material on the dumps of these caved workings and in the fault zone in the upper prospect could indicate a possible vein or replacement deposit at depth.

#### Silver Peak Mine

At the Silver Peak Mine (Hanna? Mine) workings, near the head of Smith Creek just inside the northern part of the roadless area, a small lead-silver replacement deposit was mined in a metamorphosed, iron-stained klippe of

Cambrian limestone. Samples from these workings assayed as much as 0.01 oz gold per ton, 0.4 oz silver per ton, and 1.89 percent lead (fig. 2). The areal extent of the klippe containing this replacement deposit is less than 1/2 mi in diameter and the mineralization could not be traced beyond the area of the workings. Additional small lead-silver deposits may exist along the thrust fault mapped by Hose (1981) at the base of this Cambrian limestone.

#### Smith Creek

Near the mouth of Smith Creek, adjacent to the northeast corner of the roadless area, two small adits were driven into a narrow northwest-trending fault zone in the Cambrian limestone. Barite and iron oxides are the major identifiable minerals present. A 4-ft vertical chip sample taken from one of the two adits assayed as much as 0.8 oz silver per ton and 19.0 percent barium (samples 2-4, table 3). This deposit was not identified beyond the area of the workings. Similar faulted Cambrian limestone host rock was mapped by Hose (1981) in various locations within the roadless area.

#### Galena Mine

Mine workings variously referred to as the Galena, Monitor Gulch, or Kaufman Mine are about 1/2 mi east of the roadless area between Smith Creek and Horse Canyon. These workings explore a replacement deposit in the Cambrian Notch Peak Limestone (fig. 3). The major minerals identified in this deposit are hemimorphite and iron oxides and minor amounts of galena and malachite. Samples from these workings assayed as much as 0.3 oz silver per ton, 5.8 percent lead, and 25.5 percent zinc (table 4). There is no evidence that this deposit extends into the roadless area. Similar faulted Notch Peak Limestone host rock was mapped by Hose (1981) in various places within the roadless area.

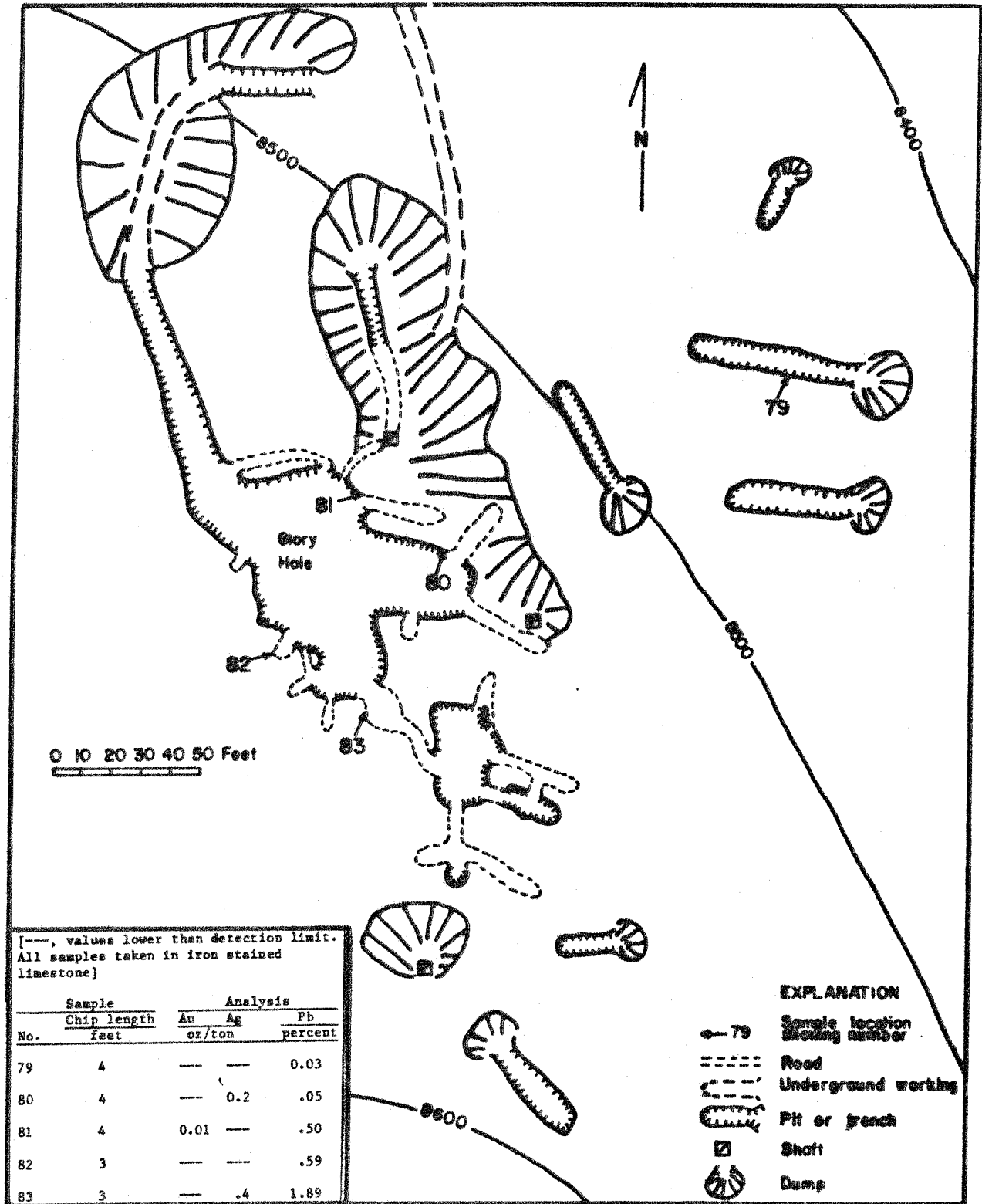


Figure 2.--Map showing the Silver Peak Mine, sample localities 79-83, and table showing analytical data for samples.

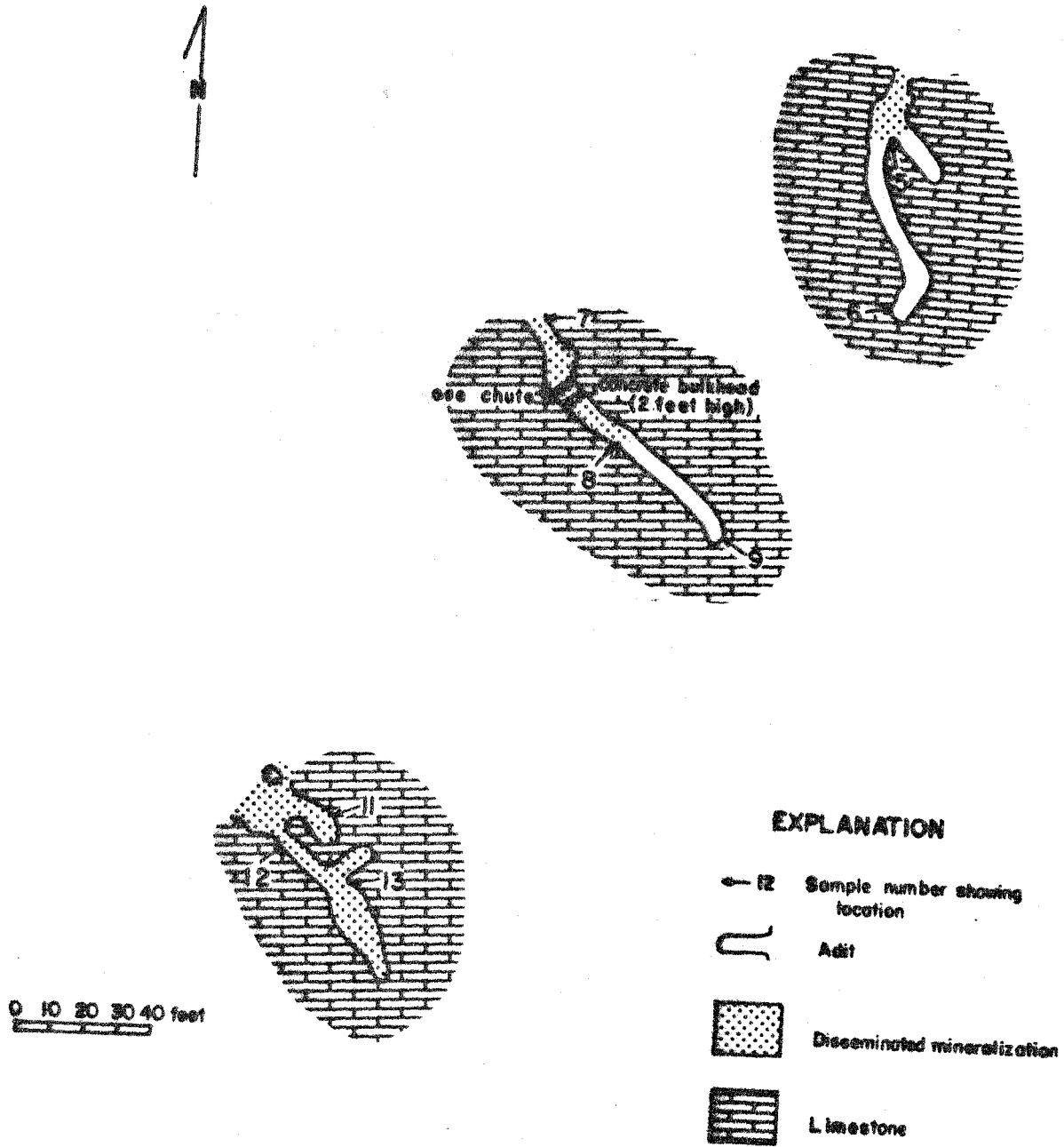


Figure 3.--Map of the Galena Mine and sample localities 5-9, 11-13.  
 (Sample 10 was taken from a trench between the middle and southern adits.)

Table 4.--Analytical data for samples from the Galena Mine

[---, values lower than detection limits; NT, not tested]

No.	Sample	Analysis				Geology
	Chip length feet	Au oz/ton	Ag	Pb percent	Zn	
5	3.....	---	0.2	---	NT	Iron-stained limestone.
6	4.5.....	---	---	0.01	NT	Crystalline limestone.
7	2.....	---	.3	4.09	25.5	Limestone, with iron oxide, galena, and hemimorphite.
8	5.....	---	---	1.95	.11	Iron-stained limestone.
9	5.....	---	---	.02	.10	Crystalline limestone.
<sup>1</sup> 10	4.....	---	---	---	.004	Iron-stained limestone.
11	4.....	---	---	.28	.43	Limestone, with iron oxide, galena, and hemimorphite.
12	3.....	---	.2	5.8	14.5	Do.
13	3.....	---	---	.01	NT	Iron-stained limestone.

<sup>1</sup> Sample 10 was taken from a trench between middle and southern adits.

## Hendry's Creek

Small replacement deposits along west- and south-trending faults are explored by two short adits and several shallow pits and dozer cuts on and near a small hill about 1 mi east of the roadless area. These faults are in Ordovician limestone mapped as combined Eureka Quartzite and Pogonip Group by Hose, Blake, and Smith (1976, pl. 1). Minerals identified from these workings include galena, barite, and malachite in addition to iron-oxide staining. A select sample from this area assayed 5.8 percent lead, 5.8 percent barite, and 2.3 oz silver per ton (sample 41, table 3). The Pogonip Group was mapped by Hose (1981) in a few places within the roadless area; however, the fault system associated with this small deposit does not extend into the roadless area.

## Mineralized areas in Black Horse mining district

At three mineralized areas in the Black Horse district, mining activity has taken place: the Black Horse workings about 2 mi south of the roadless area near the former townsite of Black Horse in T. 15 N., R. 68 E.; the Bellander Mine about 2 mi south of the roadless area in T. 14 N., R. 69 E.; and the Tilford Mine adjacent to the roadless area in Silver Creek in T. 16 N., R. 69 E. Total production, all from workings outside the roadless area, for the Black Horse district through 1954 was 4,655 oz gold, 4,535 oz silver, 179 lb copper, 38,948 lb lead, 44 lb zinc, and 337 short-ton units of tungsten (Hose and others, 1976, p. 46).

## Black Horse workings

The first mining in the district was for gold in 1905, near Black Horse. In this area, east-trending Cambrian limestone and shale beds have been complexly folded and faulted and generally dip steeply north but are locally

overturned. Gold and, later, scheelite production was mainly from northeast-striking, quartz-calcite veins that are as wide as 3 ft along bedding plane faults (Hose and others, 1976, p. 46-47). These fault-related veins do not extend into the roadless area. Faulted Cambrian limestones and shales have been mapped by Hose (1981) in the roadless area.

#### Bellander Mine

In 1933, pods of lead-silver ore were discovered and mined at the Bellander Mine. These pods occur with manganese and iron staining along a north-striking, west-dipping fault in Tertiary conglomerate (Hose and others, 1976, p. 47). Iron-stained Tertiary rocks just outside the roadless area, near the southeast corner, may be similar to that at the Bellander Mine; however, samples from the small prospects in this area did not contain the lead-silver values reported from the Bellander Mine.

#### Tilford Mine

In 1949, silver ore was produced from Cambrian limestone at the Tilford or Anna Lee Mine. According to Hose, Blake, and Smith (1976, p. 47), "a narrow calcite vein shows iron and copper stain, and a stope and winze on a narrow fracture may have yielded the 16 tons of ore reported to contain 1 oz gold and 532 oz silver." This narrow calcite vein was not found during the present investigation; however, several small north- to northeast-striking faults were mapped in the mine (fig. 4), and analyses showed small amounts of zinc, silver, and a trace of gold in samples from this mine (table 5). These faults could not be traced into the roadless area; however, similar, faulted Cambrian limestone host rock was mapped by Hose (1981) in the area.



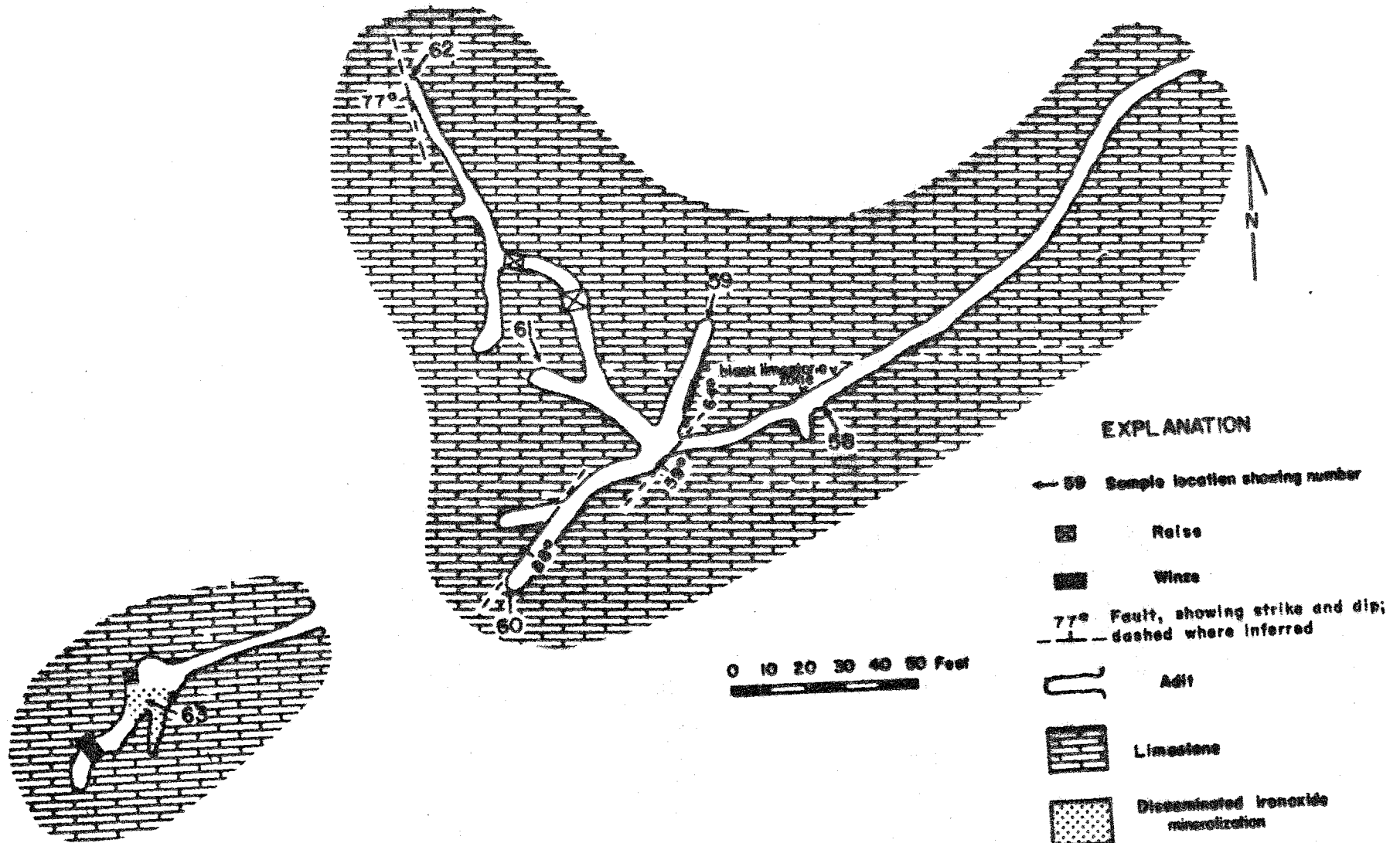


Figure 4.--Map showing the lower two adits in the Tilford Mine and sample localities 58-63.

Table 5.--Analytical data for samples from the  
lower two adits at the Tilford Mine

[---, values lower than detection limits; NT, not tested; Tr, trace]

No.	Sample Type	Analysis			Geology
		Au oz/ton	Ag	Zn percent	
58	Chip, 12 ft..	---	0.2	NT	Black limestone zone.
59	Chip, 4 ft...	---	.2	NT	Fractured zone in limestone.
60	Chip, 4 ft...	---	---	NT	Do.
61	Grab.....	---	---	NT	Slightly iron-stained clay zone in limestone.
62	Chip, 3 ft...	---	---	NT	Fractured zone in limestone.
63	Grab.....	Tr	---	2.28	Highly iron-stained limestone.

## Oil and gas

As of June 1981, none of the land in the roadless area was under current or recent oil and gas lease, and no lease applications had been filed.

### SUMMARY

A large quartzite building stone deposit in the Prospect Mountain Quartzite is within and adjacent to the southeast boundary of the roadless area. This deposit is identified by numerous active and inactive quarries in the Hendrys and Hampton Creek area. The Prospect Mountain Quartzite also has been quarried for building stone in the northwestern corner of the roadless area, near the heads of Smith and Deadman Creeks.

In addition to building stone, the Mt. Moriah Roadless Area has yielded minor amounts of lead and silver from the Silver Peak Mine and industrial garnet from the Hampton Creek area. The small copper-silver occurrences in Trail Canyon and on the east slope of Mt. Moriah in the central part of the roadless area have had no recorded production.

Not enough information is available to determine if the small isolated occurrences of lead-silver, copper-silver, or garnet indicate a resource at depth. There is no evidence that the lead, zinc, silver, barium, gold, or tungsten mineralization seen in the various veins or structures in mines and prospects near the roadless area extend into the roadless area; however, the host rocks for one or more of these mineral commodities are found within the roadless area.

#### REFERENCES

- Hose, R. K., 1981, Geologic map of the Mount Moriah Further Planning (RARE II) Area, eastern Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-1244-A, scale 1:62,500.
- Hose, R. K., Blake, M. C., and Smith, R. M., 1976, Geology and mineral resources of White Pine County, Nevada: Nevada Bureau of Mines and Geology Bulletin 85, 105 p.

Table 1.--Summary of information regarding mineral deposits in and near the  
Mt. Moriah Roadless Area, White Pine County, Nevada

Deposit and location	Commodities	Geology	Development	Production	Resource
Hampton Creek, secs. 15 and 16, T. 16 N., R. 70 E.	Garnet	Placer deposit along valley floor of Hampton Creek.	Open pit 67 ft by 32 ft by 15 ft deep.	Small, garnet	Small, garnet
Prospect Mountain Quartzite, secs. 17 and 22, T. 17 N., R. 69 E.; secs. 14-16, 22, 23, 26, 27, 34, and 35, T. 16 N., R. 70 E.; and secs. 1, 2, and 11, T. 15 N., R. 70 E.	Building stone	Thin-bedded (1 to 6 in.) Prospect Mountain Quartzite.	More than 30 small- to medium-size quarries.	Unknown, at least 150 tons in 1963 (Hose and others, 1976, p. 57).	Large, building stone.
Trail Canyon, sec. 7, T. 16 N., R. 69 E.	Copper, silver	Mineralization along bedding planes in Ordovician and Silurian dolomites, probably related to northeast- and northwest-trending fault intersection.	Two short adits.	Unknown, probably none.	Small, Cu and Ag possible.
Mount Moriah, secs. 3 and 10, T. 16 N., R. 69 E.	Copper, silver	Vein in northwest-trending fault zone in Cambrian limestone.	Three caved prospects.	Unknown, probably none.	Small, Cu and Ag possible.

Table 1.--Summary of information regarding mineral deposits in and near the  
Mt. Moriah Roadless Area, White Pine County, Nevada--Continued

Deposit and location	Commodities	Geology	Development	Production	Resource
Silver Peak Mine, sec. 20, T. 17 N., R. 69 E.	Lead, silver	Replacement deposit in a klippe of Cambrian limestone.	Several small trenches, adits, shafts, and two glory holes.	At least 38,574 lbs of lead and 275 oz of silver (Hose and others, 1976, p. 57).	Small, Pb and Ag possible.
Smith Creek, sec. 10, T. 17 N., R. 70 E.	Silver, barite	Iron-stained brec- ciated Cambrian limestone.	Two short adits.	Unknown, probably none.	None.
Galena Mine, sec. 26, T. 17 N., R. 70 E.	Lead, zinc	Replacement deposit in Cambrian lime- stone.	Three adits total 280 ft, and two open cuts total 80 ft.	33 tons of lead-zinc ore with some silver and copper (Hose and others, 1976, p. 57).	Small, Pb and Zn.
Hendrys Creek, sec. 35, T. 16 N., R. 70 E.	Lead, silver, barite	Replacement deposit in Ordovician limestone along west- and south- trending faults.	Two small adits and several small pits and dozer cuts.	Unknown, probably none.	None.

Table 1.--Summary of information regarding mineral deposits in and near the Mt. Moriah Roadless Area, White Pine County, Nevada--Continued

Deposit and location	Commodities	Geology	Development	Production	Resource
Black Horse, secs. 23 and 24, T. 15 N., R. 68 E.	Gold, tungsten	Quartz-calcite veins as much as 3 ft wide along bedding plane faults in Cambrian limestone and shale (Hose and others, 1976, p. 46-47).	Several shafts, adits, and pits.	Medium, gold and tungsten.	Small, Au and WO <sub>3</sub> .
Bellander Mine, sec. 1, T. 14 N., R. 69 E.	Lead, silver	Pods of lead-silver ore along a north-striking, west-dipping fault in Tertiary conglomerate (Hose and others, 1976, p. 47).	Several open cuts.	Small, lead and silver.	Small, Pb and Ag.
Tilford Mine, sec. 31, T. 16 N., R. 69 E.	Silver	Several small north-to northeast-striking faults in Cambrian limestone.	Three adits total more than 740 ft, a shaft and several pits.	1 oz gold, and 532 oz silver (Hose and others, 1976, p. 49).	Small, Ag.

Table 2.--Analysis of placer garnet samples from Hampton Creek

No.	Sample Descriptions	Sample weight	Garnet (grams)	Garnet percent
16	6.6 ft vertical channel sample (from top of hillside).	1,874	41	2.2
17	4.1 ft vertical channel sample	1,881	51	2.7
18	4.3 ft vertical channel sample	2,085	97	4.7
19	3.4 ft vertical channel sample	2,002	87	4.3
20	5.0 ft vertical channel sample	1,897	82	4.3
21	4.0 ft vertical channel sample	1,790	61	3.4
22	4.6 ft vertical channel sample	1,858	88	4.7
23	5.0 ft vertical channel sample (to top of prospect pit).	2,063	97	4.7
24	3.5 ft vertical channel sample (from top of prospect pit).	1,800	102	5.7
25	3.5 ft vertical channel sample (from prospect pit).	1,685	70	4.2
26	3.5 ft vertical channel sample (from prospect pit).	1,813	49	2.7
27	5.2 ft vertical channel sample (from prospect pit).	1,575	59	3.7
29	3.0 ft vertical channel sample (lower one-third of prospect).	2,121	5	.2
30	3.0 ft vertical channel sample (middle one-third of prospect).	1,859	18	1.0
31	3.0 ft vertical channel sample (upper one-third of prospect).	1,905	24	1.3



Table 3.--Data for samples that are not shown with figures 2-5 and which contain more than 0.2 oz silver per ton; or 0.10 percent copper, lead, zinc, or barium. Two sample results for a single sample indicate that a second sample was tested at the Bureau of Mines Reno Research Center

[---, less than stated values; NT, not tested]

No.	Sample Type	Geology	Working	Analysis				
				Ag oz/ton	Cu	Pb	Zn	Ba
1	Random dump....	Iron-stained carbonate with barite.	Adit	---	NT	NT	NT	3.2
2	Chip, 3 ft.....	do.	do.	---	NT	NT	NT	5.0
3	Chip, 4 ft.....	do.	do.	0.8	NT	NT	NT	9.0/19.0
4	Random dump....	do.	do.	---	NT	NT	NT	7.0
36	..do.....	Iron-stained, silicified carbonate, with barite and galena.	Pit	.6	NT	1.45	NT	.5
37	..do.....	do.	Adit	---	NT	---	NT	.6
39	Chip, 4 ft.....	Silicified carbonate, with calcite veins.	do.	---	NT	---	NT	.55
40	Chip, 4 ft.....	Faulted; iron-stained carbonate.	do.	---	NT	---	NT	.2
41	Selected dump..	Silicified brecciated carbonate, with iron oxide, galena, and barite.	Trench	1.8/2.3	NT	5.8	NT	3.5/5.8
42	Random dump....	do.	do.	---	NT	.27	NT	---
43	..do.....	Iron-stained silicified, and brecciated carbonate.	Pit	---	NT	.27	NT	1.5
44	Grab sample....	Fault zone in carbonate, with iron oxide, galena, and barite.	Trench	---	NT	.81	NT	1.0

Table 3.--Data for samples that are not shown with figures 2-5 and which contain more than 0.2 oz silver per ton; or 0.10 percent copper, lead, zinc, or barium. Two sample results for a single sample indicate that a second sample was tested at the Bureau of Mines Reno Research Center--Continued

[---, less than stated values; NT, not tested]

No.	Sample Type	Geology	Working	Analysis				
				Ag oz/ton	Cu	Pb	Zn	Ba
55	Random dump....	Iron-stained quartzite.	Pit	0.4	NT	NT	NT	NT
57	..do.....	Carbonate, with iron oxide, galena, and malachite.	do.	---	---	0.55	NT	NT
65	..do.....	Iron-stained limestone.	Shaft	2.4	NT	NT	NT	NT
67	Chip, 3 ft.....	Carbonate, with iron oxide, malachite, and chalcopyrite.	Adit	.4	1.53	NT	NT	NT
68	Chip, 4 ft.....	Iron-stained, sandy carbonate.	do.	.6	---	NT	NT	NT
69	Chip, 3 ft.....	Iron-stained, sandy carbonate, with malachite.	do.	.3	1.26	NT	NT	NT
70	Chip, 4 ft.....	do.	do.	.6	2.07	NT	NT	NT
74	Chip, 4 ft.....	Fault zone in silicified iron-stained carbonate, with malachite and azurite.	Pit	.7	---	NT	NT	NT

EXPLANATION OF SYMBOLS FOR MINE AND PROSPECT MAP



APPROXIMATE BOUNDARY OF THE MT. MORIAH ROADLESS AREA



MINING DISTRICT OR MINING AREA BOUNDARIES (Labeled)



UNPATENTED MINING CLAIMS (Current as of February 1981)



OIL AND GAS LEASES (Current as of June 1981)



LOCALITY OF PANNED CONCENTRATE SAMPLE--Showing sample locality number

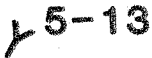
SURFACE OPENINGS--Showing sample locality number; symbol may represent more than one working



Quarry



Shaft



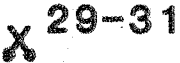
Adit



Prospect pit



Mine

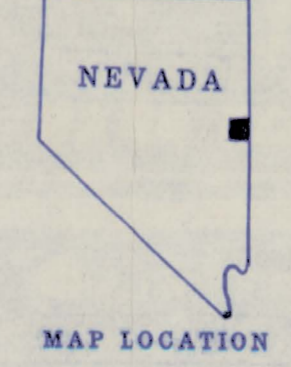


Placer mine



Base map from U.S. Geological Survey  
1:250,000 Ely, 1966-62.

SCALE 1:62,500  
CONTOUR INTERVAL 200 FEET



Field work 1980 and 1981;  
assisted by Brian J. Hauligan,  
John E. Thompson, Steven E. Tuttle,  
and Joanne E. Zeltan.

MINE AND PROSPECT MAP OF THE MOUNT MORIAH ROADLESS AREA, WHITE PINE COUNTY, NEVADA  
BY  
ROBERT H. WOOD II, U. S. BUREAU OF MINES  
1983