NBMG OFR 83-11
See also 83-12 for
geochemical results.

(102)
Item 15

SYLVANIA DISTRICT

4720 0014

The Sylvania mining district includes all of the northern Sylvania mountains in the area south of Palmetto wash extending generally along the Nevada-California state line to Cucomungo Canyon.

Prospects here were first noted in 1870, and the district was organized as the Green Mountain district. The name was changed to Sylvania before any production was made. A lead smelting furnace was constructed in 1875, and operated for several years (Lincoln, 1923). Only a small production of lead and silver is credited to the district, mostly from the old Sylvania mine and from the nearby Four Aces mine. Small quantities of tungsten were produced from the district in the 1940's and 1950's (Stager, in preparation). There was no activity at the Four Aces mine when it was visited in August, 1982, but it had apparently operated to a limited extent during 1974-75.

The Sylvania district has been an important producer of talc and chlorite, and is credited with producing some 87 percent of all of the talcose material mined in Nevada through 1973 (Papke, 1975).

Beginning in 1960, exploration for porphyry-type molybdenum became active in the district and was centered around the old Sorenson property (Cucomungo Prospect) at the head of Alum canyon. A succession of major companies examined this area up through the 1970's, but it is quiet at the present time.

The geology of the Sylvania district is dominated by the granitic rocks of the Sylvania pluton. This large composits intrusive body underlies the Sylvania mountains and extends southeast to the Last Chance range as well as northeast to the Palmetto Mountains. Essentially all of the mineral deposits of the Sylvania district, metallic and non-metallic, are associated with skarn zones which formed along the margins of the Sylvania stock or skarns which formed in small pendants of sedimentary rock contained within the stock itself.

The Cucomungo molybdenum prospect is located within a large area of alteration within the stock itself, but it occurs where two separate bodies of quartz monzonite are in contact with a wedge of metasediments (Schilling, 1962).

According to Papke, 1975, the metasedimentary rocks within which most of the skarn formed consisted of both Precambrian Wyman Formation and Precambrian Reed Dolomite.

At the old Sylvania mine, the site of the earliest mining in the area, gossan can be seen along replacement lenses which follow bedding in a band of garnet skarn. The band of marble and skarn is exposed over an approximate width of 100 feet between two walls of porphyryitic granite. The granite-skarn contact parallels bedding in the skarn, and the bedding trends N60°-70°W. Galena, sphalerite, and pyrite are present in the replacement lenses associated with silicate minerals. The most recent work reported at this site was for tungsten, but no scheelite was noted in samples collected during this examination (1982).

The Four Aces mine, about one mine to the northwest from the old Sylvania, is located in skarn within what may be a continuation of the metasedimentary pendant exposed at the Sylvania mine. Mining at the Four Aces was centered in two areas. On the southeast end of the camp, old shafts and a fairly recent decline explore a skarn area within the pendant. Massive sphalerite and galena are visible on dumps here, and one dump contained garnet skarn loaded with coarse-grained molybdenite. The second area, to the northwest near the present mill building, is probably located on the same skarn lense, but the workings appear to be older. There was no activity at the property at the time of the examination.

Papke, 1975, describes in detail the many talc and chlorite deposits within district. His work (NBMG Bull. 84) should be consulted for information on the talc occurrences.

The geology and exploration history of the Cucomungo molybdenum prospect is summarized in NBMG Report 2, and is described in detail in Schilling 1979 open file release, "Molybdenum Resources of Nevada" (NBMG OFR 79-3). Drill core from one stage of exploration at Cucomungo is on file at the NBMG core library in Reno, and an extensive file of geochemical sampling results from the property are also on file in the NBMG offices. Placer deposits along the east side of the Sylvania district, in East Sylvania Canyon and in the canyon south of Pigeon Spring, are sometimes included in a separate Pigeon Springs district, are sometimes included in the Palmetto district to the northeast, or are sometimes included in the Sylvania district. Since these occurrences are located within the Sylvania mountains, it is logical to include them within the Sylvania district. The gold placer prospects in east Sylvania canyon were not active at the time the area was examined, but equipment was still in place at the placer treatment plant near the mouth of the canyon, and a watchman was living at the site. In the canyon south of Pigeon Spring, a small gravel washing plant was in place, and some prospecting work was in progress. None of activity in the placer area appeared to have long-term potential.

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