taken from NBMG 81-4 (1981) See also 81-3 for geochemical results. (77)

Spruce Mountain

I-Item 6

4590 0006 The Spruce Mountain district covers the north flank and summit of Spruce Mountain and part of Spruce Mountain Ridge to the north. Spruce Mountain and Spruce Mountain Ridge form a somewhat isolated spur between the Pequop Range on the east and Clover Valley on the west. The district was discovered in 1869, and production of lead-silver ores is recorded for the years 1869-1873, 1889-1909 and 1915-1949.

Rocks exposed in the district consist of Paleozoic sediments which dip gently to the east. The sediments have been intruded by a granite porphyry dike which cuts across the north side of Spruce Mountain in a northeasterly direction. This porphyry, where seen near the Kille Mine and east of the Black Forest Mine, is bleached, kaolinized, contains sericite, euhedral quartz phenocrysts (some are smoky in appearance) and some fine-grained sulfides.

Most of the mines and prospects in the district occur along the trend of this porphyry dike. Replacement deposits in limestone and skarn occur near the center of the district, and fissure filling, stockwork deposits occur in limestone, skarn, and porphyry. To the northeast, at the Humbug Parker and nearby prospects, outcrops of gossan and jasperoid occur in siliceous breccia along a shear zone in limestone.

Results of geochemical analysis of samples taken from dumps in the central part of Spruce Mountain district showed high tin values. Most samples also showed high arsenic and antimony as well as high lead, zinc, copper, and silver. Tungsten and molybdenum were present in some samples, but the values were low. The highest gold value obtained was associated with high arsenic and antimony values in gossan material from the Humbug Parker Mine.

This district was being actively explored at the time of the examination. Amax Exploration has a field camp established on the property, and were conducting a program of diamond drilling, and geologic mapping. Access to the

district was limited by the Amax project manager, and only one quick reconnaissance trip across the district was made.

Selected References:

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