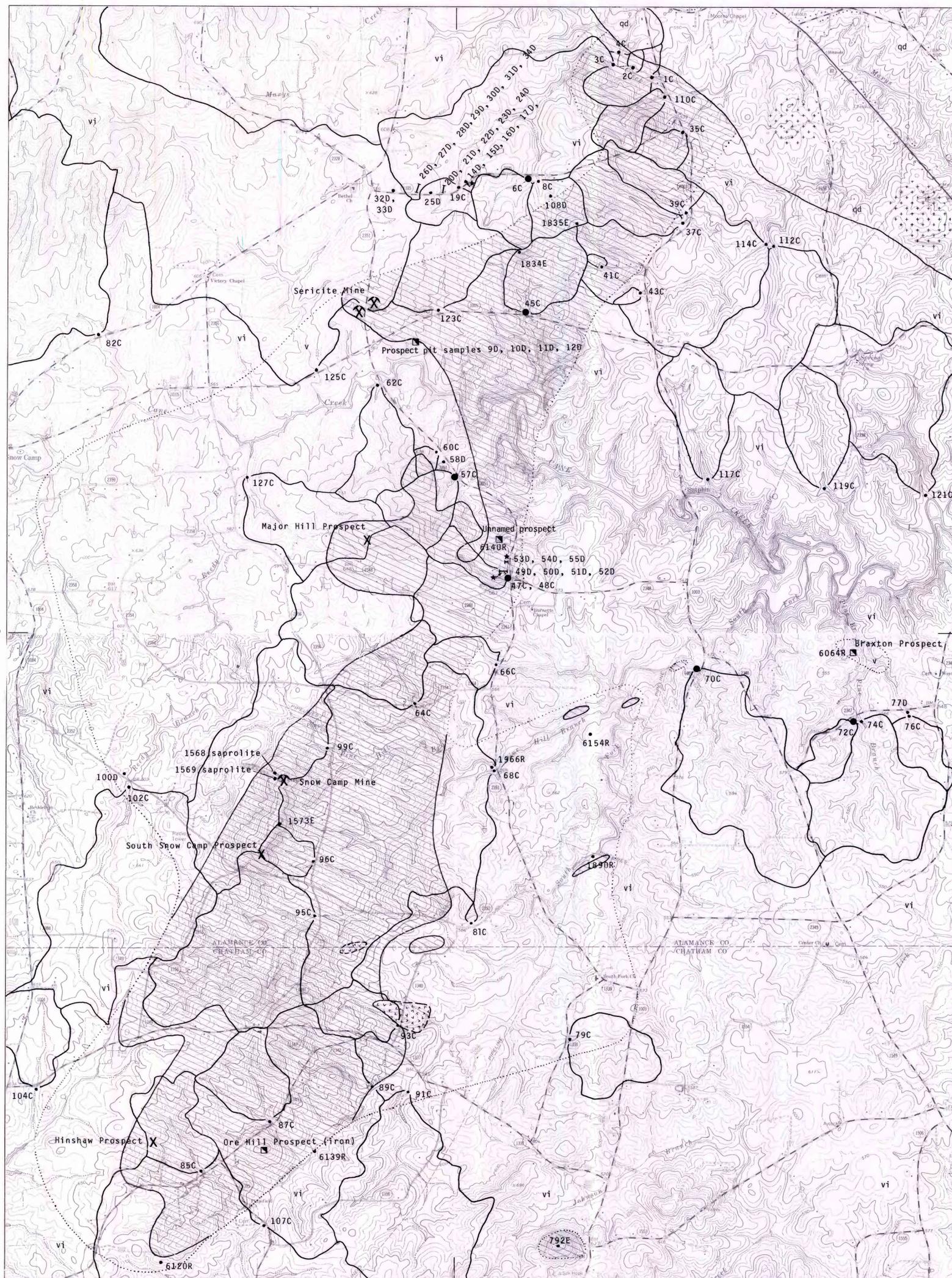


79°22'30"

35°52'30"

35°52'30"

79°22'30"



EXPLANATION

Intrusive rocks

Age unknown: Medium-grained quartz diorite. Affected by strong propylitic alteration on microfractures and along grain boundaries, but well-developed compositional zonation of plagioclase is retained in unaltered cores, suggesting little if any regional metamorphism. Pluton boundaries adapted from Carpenter, (1982); patterned areas examined in this study.

Late Proterozoic and (or) Cambrian: Hornblende-bearing granodiorite, extensively saussuritized. The complete albittization of the plagioclase is in the manner characteristic of regionally metamorphosed rocks.

Volcanic rocks

Rhyodacitic to dacitic crystal and crystal-lithic tuffs and flows. Includes layers and patches of intermediate composition, as well as black fine-grained rhyolitic crystal-rich tuffs and flows. Porphyritic subvolcanic rocks, some pre- and some post-tectonism and metamorphism, are present in several small areas. (v) Areas generally field checked in this study; (vi) areas where rock type is inferred from previous reconnaissance mapping.

Hydrothermally altered rocks

Areas of moderate to intense hydrothermal alteration. Quartz-sericite-pyrite alteration is widespread but rock outcrops are not extensive. Highly siliceous, locally alumina-rich alteration is not as widespread but produces erosion-resistant hills and ridges and abundant outcrops. Alteration was texture-destructive in many places. Extensive zones of quartz-magnetite and quartz-hematite rock are in part distinctively brecciated. In the high-alumina areas, pyrophyllite is abundant and kaolinite, andalusite, sericite, and pyrite are associated with it.

Geologic contact, dashed where controlling outcrops are far apart.

Edge of area examined geologically in this study

Metal prospect pit or shaft

Pyrophyllite or sericite mine, closed

Pyrophyllite prospect, not operating

Panned stream sediment concentrate without visible gold

Panned stream sediment concentrate with visible gold

6140R Analysed rock chip sample

Panned soil sample sites; bar symbol indicates linear traverse or trench; star where gold-bearing

149E Lower A horizon soil composite samples analysed by emission spectrograph

Drainage basin boundary

Location of Study Area

Base from U.S. Geological Survey Snow Camp, 1978, Saxapahaw, 1977, Crutchfield Crossroads, 1974, and Silk Hope, 1974, maps.

Geologic map data provided by Elizabeth H. Hughes, Robert G. Schmidt, Alba Payás, Carmen Anton-Pacheco, Terry L. Klein, and Pablo Gumiel; interpretation by Robert G. Schmidt.

