U. S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

AREAL GEOLOGY

TENNESSEE – NORTH CAROLINA
GREENEVILLE QUADRANGLE

LEGEND

(continued)

IGNEOUS ROCKS
(Areas of igneous rocks are shown by patterns of triangles and rhombs)

- Amp — Max Patch granite *(coarse or porphyritic granite, whitish to red in color)*
- Acb — Cranberry granite *(chiefly granite and granite-gneiss)*

ARCHEAN

Faults

Sections

Lead and zinc mine
Iron prospects

Known productive formations
- Marble
- Brown hematite *(residual clay of Shady limestone contains irregular deposits of limonite or brown hematite)*

LEGEND

SEDIMENTARY ROCKS
(Areas of subaqueous deposits are shown by patterns of parallel lines)

CARBONIFEROUS
- Cn — Newman limestone *(bluish shaly and massive limestones)*

DEVONIAN
- Dg — Grainger shale *(grayish sandstone and sandy shale)*
- Dc — Chattanooga shale *(carbonaceous black shale)*

SILURIAN
- UNCONFORMITY
- Sr — Rockwood formation *(variegated sandy and calcareous shales)*
- Scl — Clinch sandstone *(massive white sandstone)*
- Sb — Bays sandstone *(red calcareous and argillaceous sandstone)*

ORDOVICIAN
- Osv — Sevier shale *(calcareous sandstone, sandy shale, calcareous shale, and limestone)*
- Omc — Moccasin limestone *(red and green argillaceous limestone)*
- Ot — Tellico sandstone *(red and gray calcareous sandstone)*
- Och — Chickamauga limestone and Holston marble lentil *(reddish variegated marble)*
- Oa — Athens shale *(blue and black calcareous shale)*
- €Ok — Knox dolomite *(magnesian limestone, massive and cherty)*
- €n — Nolichucky shale *(variegated calcareous shale and thin limestones)*
- €m — Maryville limestone *(massive blue limestone)*
- €rg — Rogersville shale *(greenish clay shale with limestone layers)*
- €Chk — Honaker limestone *(massive blue and gray limestones)*
- €rt — Rutledge limestone *(massive dark-blue limestone)*
- €r, €rs — Rome formation including sandstone lentil at base *(red, green, and brown sandy shale and sandstone)*

SEQUENCE BROKEN

CAMBRIAN
- €sh — Shady limestone *(grayish limestone with chert)*
- €h — Hesse quartzite *(massive white quartzite)*
- €mr — Murray slate *(bluish and gray slate)*
- €nb — Nebo quartzite *(massive white quartzite)*
- €nc — Nichols slate *(bluish and gray slate)*
- €ch — Cochran conglomerate *(white sandstone, quartzite, and conglomerate)*
- €hi — Hiwassee slate *(chiefly dark, banded slate, with sandy beds and layers of limestone)*
- €sb — Snowbird formation *(chiefly light-colored quartzite and sandstone; includes beds of slate, conglomerate, and arkose)*

Legend is continued on the left margin.

Henry Gannett, Chief Geographer.
Gilbert Thompson, Geographer in charge.
Triangulation by W. C. Kerr, S. S. Gannett, and F. M. Pearson.
Topography by R. O. Gordon and R. L. Longstreet.
Surveyed in 1883-84, 1888 and 1891.

Geology by Arthur Keith, assisted by A. C. Lane.
Surveyed in 1888-1891, 1900, and 1901.

Scale 1/125000
1 0 1 2 3 4 5 Miles
1 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

APPROXIMATE MEAN DECLINATION 1902.

Edition of Nov. 1904