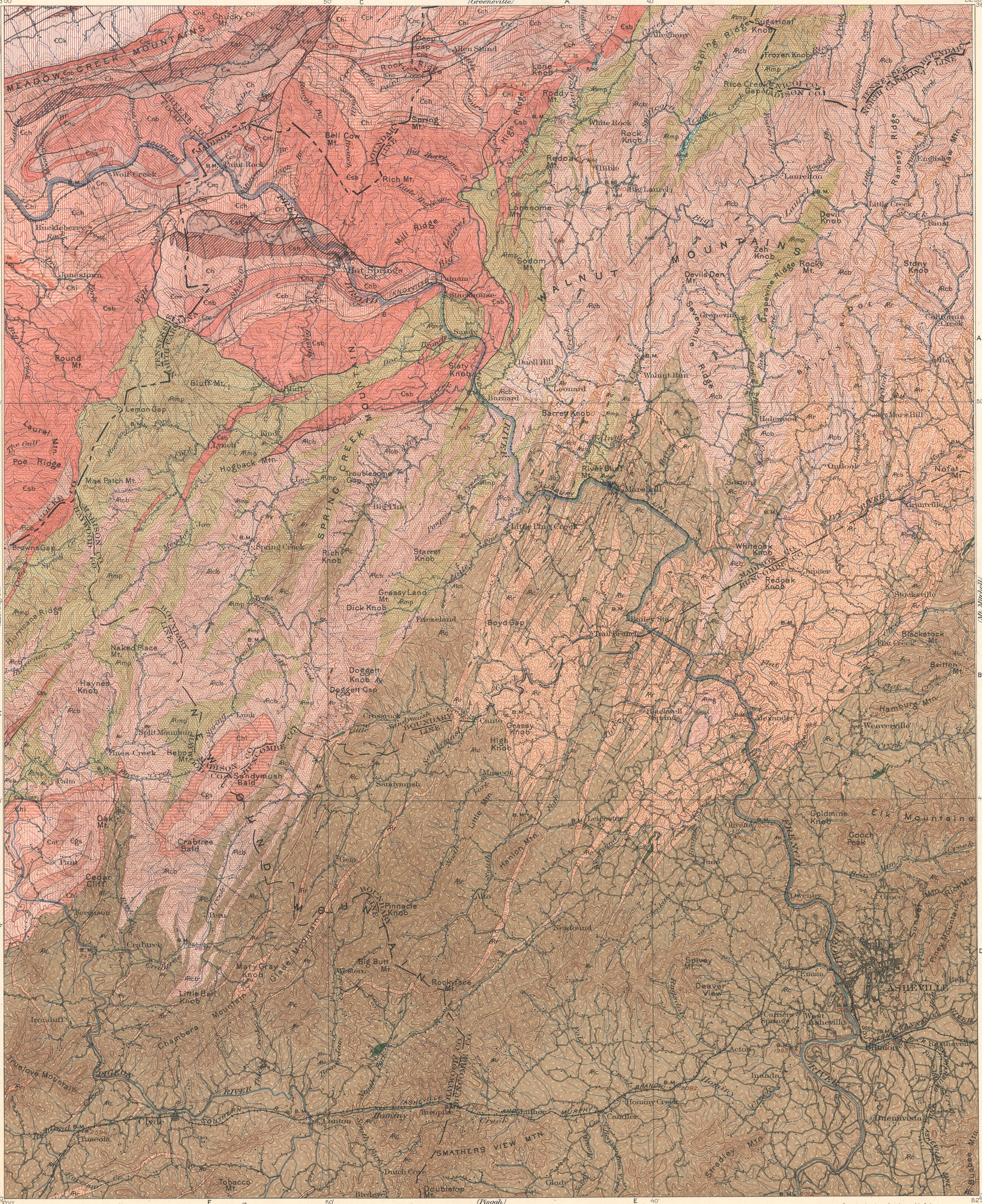
(Morristown)

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

AREAL GEOLOGY

NORTH CAROLINA-TENNESSEE
ASHEVILLE QUADRANGLE

(Roan Mt.)



H.M. Wilson, Geographer in charge.
Triangulation by W.C. Kerr and S.S. Gannett.
Topography by W.L. Miller.
Surveyed in 1898-99.

MAGNETIC NORTH / TRUE NORTH
APPROXIMATE MEAN DECLINATION 1904.

Scale $\frac{1}{125000}$

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

Edition of July 1904.

Geology by Arthur Keith.
Assisted by H.B. Goodrich and H.S. Gale.
Surveyed in 1893, 1900, 01, and 02.

LEGEND

SEDIMENTARY ROCKS

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

ORDOVICIAN

- Oa — Athens shale *(blue and black calcareous shale)*

CAMBRIAN

- €Ok — Knox dolomite *(light and dark magnesian limestone with chert nodules)*
- €n — Nolichucky shale *(variegated calcareous shales and thin limestones)*
- €hk — Honaker limestone *(blue and gray limestone)*
- €w — Watauga shale *(purple, reddish, and yellow shales and sandy shale)*
- €sh — Shady limestone *(gray and blue cherty limestone, with beds of marble near the base)*
- €h — Hesse quartzite *(chiefly white quartzite)*
- €mr — Murray slate *(grayish slate and shale, with sandy layers)*
- €nb — Nebo quartzite *(chiefly white quartzite)*
- €nc — Nichols slate *(grayish slate and shale, with sandy layers)*
- €nt — Nantahala slate *(dark slate and mica-schist, with banded ottrelite-schist)*
- €nq — Quartzite lentil in Nichols slate *(chiefly white quartzite)*
- €ch — Cochran conglomerate *(gray conglomerate, with beds of slate)*
- €gs — Great Smoky conglomerate *(chiefly graywacke and conglomerate, with beds of schist)*
- ls, €hi — Hiwassee slate *(chiefly dark banded slate and schist, with layers of limestone, ls, and sandy beds)*
- €sb — Snowbird formation *(chiefly light-colored quartzite and sandstone; includes beds of slate, conglomerate, and arkose)*

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and rhombs; metamorphism is indicated by hachures)

ALGONKIAN ?

- Amr — Metarhyolite *(gray and black rhyolite, much altered and schistose)*
- Amd — Metadiabase *(altered greenish diabase and gabbro)*

ARCHEAN

- Rmp — Max Patch granite *(coarse or porphyritic granite, light gray or red)*
- Rcb — Cranberry granite *(mainly granite and granite-gneiss)*
- Rs — Soapstone, dunite, and serpentine
- Rmg — Metagabbro *(altered black and dark gabbro)*
- Rr — Roan gneiss *(chiefly hornblende-gneiss and diorite)*

Legend is continued on the left margin.

LEGEND
(continued)

METAMORPHIC ROCKS OF UNKNOWN ORIGIN

(Areas of metamorphic rocks of unknown origin are shown by hachures)

ARCHEAN

- Rc — Carolina gneiss *(chiefly mica-gneiss and mica-schist; includes other gneisses, granites, and diorites and small lenses of marble)*

Faults

Sections