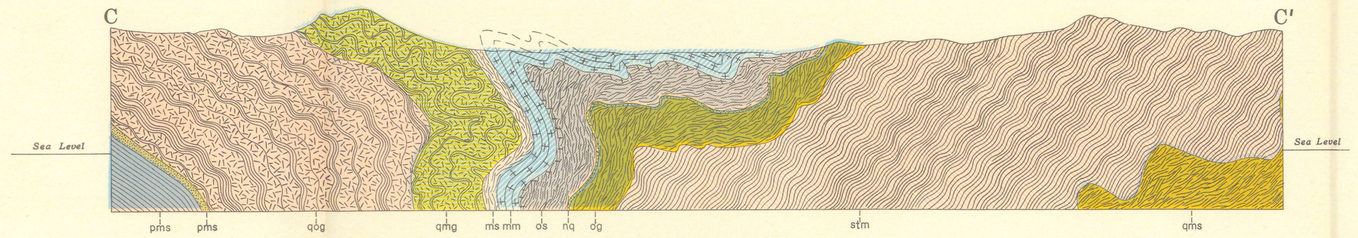
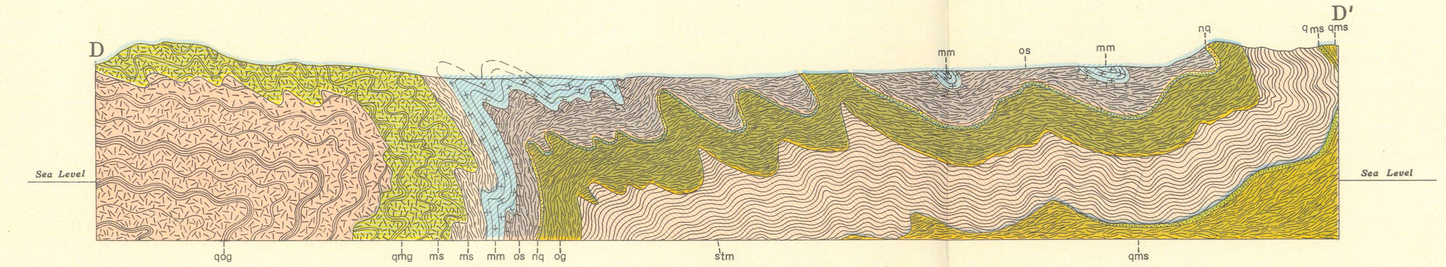
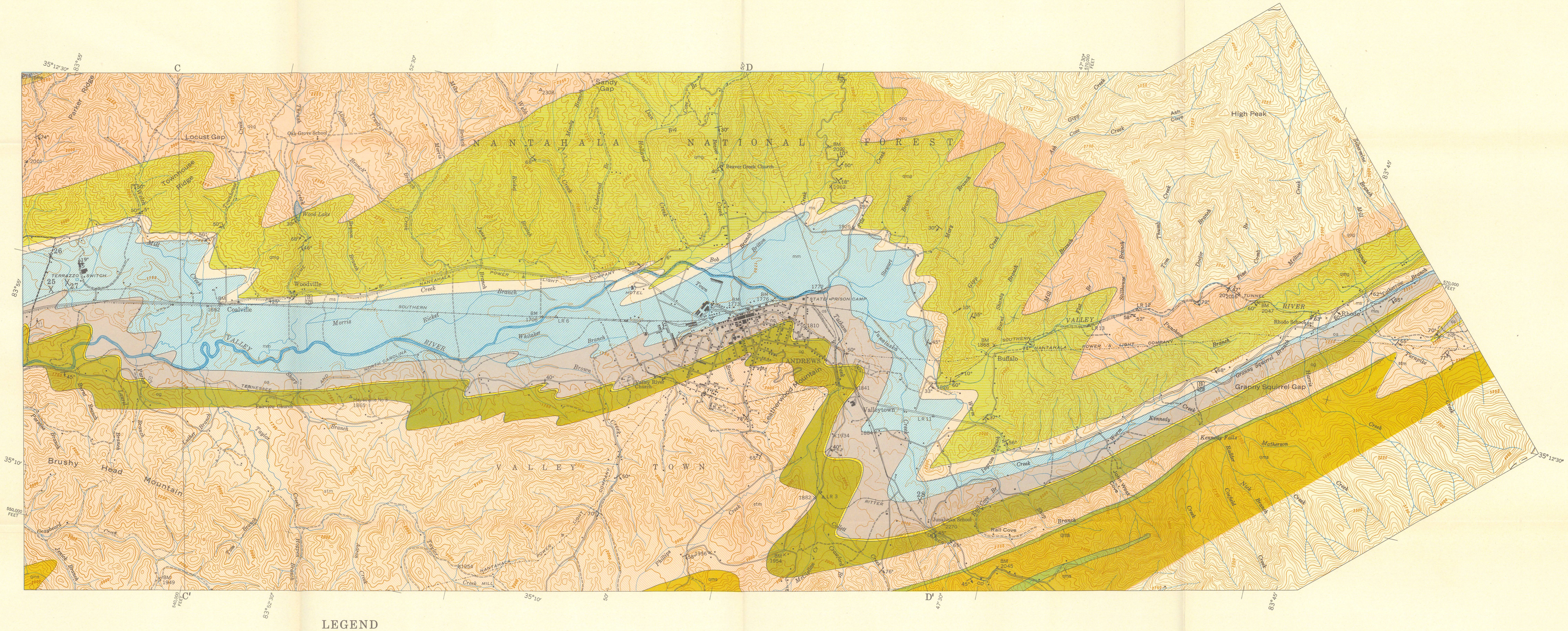


SECTION ALONG LINE C-C'



SECTION ALONG LINE D-D'



LEGEND

do — **Diorite**
(dark gray sills or dikes; best exposed near Murphy and Hewitt)

pms — **Phyllite and mica schist**
(usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)

qog — **Quartz-ottrelite gneiss**
(dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)

qmg — **Quartz-mica gneiss**
(essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)

ms — **Mica schist**
(fine-grained uniform schist impregnated with pegmatite material; becomes siliceous in vicinity of Nantahala River)

mm — **Murphy marble**
(white to dark blue, usually dolomitic marble with siliceous phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)

os — **Ottrelite schist**
(coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)

nq — **Nottely quartzite**
(usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)

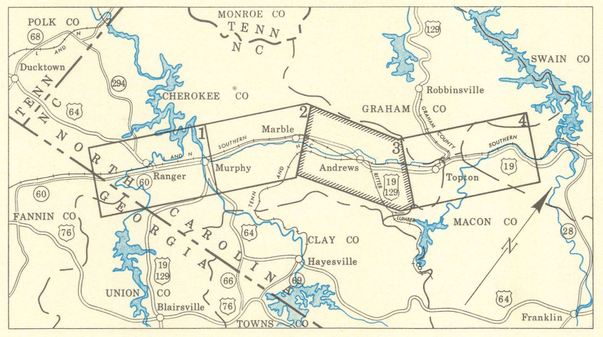
og — **Ottrelite gneiss**
(typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)

stm — **Staurolite-mica schist**
(light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic west of Murphy; mica schist and quartz schist east of Andrews)

qms — **Quartz-mica schist**
(essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50°, 22°
Inclined fold axis ..... 8°
Horizontal fold axis
Note:
See text for facies changes along strike

INDEX TO SHEETS



GEOLOGIC MAP
TALC DEPOSITS OF MURPHY MARBLE BELT

NORTH CAROLINA DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINERAL RESOURCES
IN COOPERATION WITH
TENNESSEE VALLEY AUTHORITY
COMMERCE DEPARTMENT - MINERALS SECTION

SCALE 1:24,000

5,000 0 5,000 Feet
1 0 1 Mile

1947

Cartography and Reproduction
TVA Maps and Surveys Division

SHEET 3 OF 4 SHEETS

5-CO-800 K 501-3