EXPLANATION

TRIASSIC

Ꞧd

Diabase

Dikes of unmetamorphosed greenish-black olivine-bearing diabase

PALEOZOIC

Pzg

Gabbro

Greenish-gray, fine- to medium-grained gabbro

Pzm

Quartz monzonite

Yellowish-gray, coarse- to medium-grained sheared quartz monzonite

ORDOVICIAN(?)

Omy

Volcanic sandstone

Interbedded grayish-green volcanic sandstone and siltstone, and mafic crystal lithic tuff, containing subangular chloritized rock fragments and grains of quartz and feldspar. Equivalent to part of the Yadkin Graywacke (Conley and Bain, 1965)

Ommr, Omm, Ommd, Ommb

Argillite and volcanic rocks

Interbedded argillite and volcanic rocks, 3,000 to 6,000 feet thick.

Omm, *gray to greenish-gray argillite. Lower part locally distinctly bedded, in part graded; upper part less obviously bedded. Locally contains interbeds of grayish-green volcanic sandstone and siltstone, 6 inches to 2 feet thick. Weathers gray or brown.*

Ommb, *mafic volcaniclastic rocks. Weathers brown.*

Ommr, *felsic crystal lithic tuff containing fragments of feldspar and felsite.*

Ommd, *persistent thin beds of argillaceous tuffaceous breccia containing plagioclase and lithic fragments of felsite and fragments and slabs of argillite, in a matrix of tuffaceous argillite*

Omfb, Omf, Omfd

Volcanic rocks

Felsite locally interbedded with mafic volcanic rocks. Unit is about 4,000 feet thick.

Omf, *lapilli tuff, locally obscurely bedded. Consists of albite and felsite fragments set in a quartzo-feldspathic matrix containing aggregates of metamorphic biotite, chlorite, sericite, epidote, clinozoisite, and calcite. Related fine-grained to aphanitic volcaniclastic rocks in part distinctly bedded. Weathers white or pink*

Omfd, *lapilli tuff containing lithic felsite fragments in a brownish matrix of plagioclase-bearing vitric tuff showing shard structure.*

Omfb, *mafic amygdaloidal flows, flow breccia, lapilli tuff, crystal tuff, and tuff. The tuff and lapilli tuff are distinctly to obscurely bedded. Weathers maroon or brown*

Ocb, Ocr, Ocu, Ocr, Oc, Oc

Argillite, lava, and tuff

Argillite interbedded with mafic and felsic lava and tuff. Stratigraphic thickness about 10,000 feet. Sheared in northwest part of quadrangle.

Oc, *medium to light gray argillite. Weathers white, light gray, or pink. Upper part of unit is locally distinctly bedded due to alternating silt and clay-sized graded layers and has been quarried locally for flagstone. Middle and lower parts are blocky to obscurely bedded and ungraded; thin interbeds of fine-grained rhyolitic tuff are common. Where sheared the unit consists of cream-colored to dark gray sericite schist and phyllite.*

Ocb, *mafic amygdaloidal flows, lithic crystal lapilli tuff, tuff, and volcanic sandstone, siltstone, and argillite. Where sheared the unit consists of dark greenschist, locally containing small lenses of sheared quartz monzonite.*

Ocr, *gray felsic lava, crystal tuff, crystal lithic tuff, and vitrophyre. Lava displays good to obscure flow banding; vitrophyre is locally perlitic. Where sheared the unit consists of phyllite, containing chalky altered feldspars, and flattened and greatly elongated fine-grained rock fragments, some as much as 30 mm long.*

Ocu, *undivided sheared rocks northwest of the Gold Hill fault. Includes quartz-sericite schist, phyllite, and chlorite-epidote-plagioclase greenschist, small bodies of sheared quartz monzonite, diorite, and gabbro*

Otb, Ot, Otb, Ot, Otr

Argillite and related igneous rocks

Argillite locally interbedded with mafic and felsic volcanic rocks. Stratigraphic thickness about 5,000 feet. Sheared in northwest part of quadrangle.

Ot, *bluish to greenish-gray thinly bedded graded argillite, locally carbonaceous. Displays beds generally 1 to 4 mm thick that grade from silt or fine sand at the base to clay at the top.*

Otb, *amygdaloidal basalt and associated mafic volcaniclastic rocks.*

Otr, *felsic lava, tuff, and vitrophyre*

Contact

***Dashed** where approximately located, **short dashed** where inferred, dotted where concealed*

U/D — ? — ? · · ·

Fault

***Dashed** where approximately located, **dotted** where concealed, queried where inferred. U, **upthrown** side; D, downthrown side*

Shear zone

Anticline

***Showing** approximate trace of axial **plane and** direction of plunge of axis. **Short arrow points** toward steeper limb*

Syncline

*Showing approximate trace of axial **plane and** direction of plunge of axis*

PLANAR AND LINEAR FEATURES

Symbols joined at point of observation

30 — Inclined; Vertical; Horizontal; 30 — Graded

Strike and dip of beds

Arrow shows top of graded beds

50

Strike and dip of flow banding

70 — Inclined; Vertical

Strike and dip of joints

70 — Inclined; Vertical

Strike and dip of incipient to **distinct** axial plane cleavage

70 — Inclined; Vertical

Strike and dip of slip cleavage

*Open symbol indicates vertical slip **cleavage**, vertical lineation*

20

Direction and plunge of lineation

*Stretched rock or mineral fragments, or **intersection** of bedding and foliation*

Active; Inactive; Prospect

Mine, quarry or prospect

***Mixed sulfides of copper, lead, zinc, and iron, locally** with some gold and silver. **Ag**, silver; **Au**, gold; **Cu**, copper; **Pb**, lead; **Py**, pyrite; **Zn**, zinc; **Fl**, flagstone*

q

Quartz vein

ROCK TYPES AND TEXTURES

Rock units with no superimposed symbols are undivided lavas, tuffs and tuff breccias

Distinctly bedded sedimentary rock

Bedded tuff

Amygdaloidal lava

Porphyry or vitrophyre

Flow breccia

Crystal lithic tuff breccia

Volcanic rocks containing pyroclastic bombs

All rocks of Paleozoic age within the quadrangle contain mineral assemblages of the greenschist facies of regional metamorphism; grade of metamorphism increases slightly northwestward across the quadrangle. Although all of the Paleozoic rocks are low-grade metamorphic rocks, primary features are recognizable in most. The prefix "meta-" has been omitted throughout in order to simplify the lithologic names.

Less than one percent of the map-area is exposed bedrock. The remainder is mantled by saprolite, residual soil, or alluvium. Gravel, sand and clay, present along the main streams are covered by lakes formed by the damming of the Yadkin River; flood plain alluvium along the tributary streams too small to indicate on the map

REFERENCE CITED

Conley, J. F. and Bain, G. L., 1965, Geology of the Carolina slate belt west of the Deep River-Wadesboro Triassic basin, North Carolina: Southeastern Geology, v. 6, no. 3, p. 117-138.