STATE OF CONNECTICUT
GEOLOGICAL AND NATURAL HISTORY SURVEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

QUADRANGLE REPORT NO. 29
PLATE 1

Open Report

BEDROCK GEOLOGIC MAP OF THE CLINTON QUADRANGLE, CONNECTICUT

By Lawrence Lundgren, Jr. and Robert F. Thurrell, 1969 and 1970

EXPLANATION

Ob — "Brimfield" Formation

Bedded spessartite-quartz rock (coticule) and sillimanite-garnet schists (exposed in adjacent Essex quadrangle).

Omi, Omig, Omic — Middletown Gneiss

Omi: *Undifferentiated Middletown Gneiss consisting of* Omig *and* Omic *as described below.*

Omig: *Plagioclase gneiss-amphibolite association: interbedded amphibolite and rust-stained plagioclase gneisses containing gedrite (or aluminous anthophyllite) and/or cummingtonite and/or garnet. Areas of gedrite-bearing rock marked with symbol ∧.*

Omic: *Calc-silicate gneiss-sillimanite schist association: Biotite schists with quartz-sillimanite nodules and calc-silicate gneiss containing calcite and diopside. Areas of nodule-bearing rock marked with symbol ▲.*

Om, Oma, Omh — Monson Gneiss

Om: *Light to dark-gray biotite-plagioclase-quartz gneiss with black amphibolite layers.*

Omh: *Dark gray hornblendic plagioclase-quartz rock (Boulder Lake variety) with amphibolite inclusions.*

Oma: *Black amphibolite.*

ORDOVICIAN OR OLDER

cg — Clinton Granitic Gneiss

Pink biotitic granitic (quartz-monzonitic) gneiss

Single outcrop or closely spaced outcrop.

Contact

Long dashed where approximately located; short dashed where gradational or inferred; dotted where concealed.

PLANAR FEATURES

25 Inclined — Vertical — Horizontal

Strike and dip of foliation. Most pronounced foliation commonly parallel with layering and/or bedding.

13

Strike and dip of fracture cleavage in Middletown Gneiss. Cleavage commonly coated with hornblende prisms.

70 Inclined — Vertical

Strike and dip of conspicuous joints.

LINEAR FEATURES

10

Bearing and plunge of lineation. Tail of arrow at point of observation.

MINOR FOLDS

27

Strike and dip of inclined axial plane.

14

Bearing and plunge of fold axis.

Quarry

Base map by U.S. Geological Survey

Control by USGS, USC&GS, USCE, and Connecticut Geodetic Survey

Topography by photogrammetric methods from aerial photographs taken 1949. Field checked 1951. Revised 1961.

Revisions of culture and drainage from aerial photographs taken 1970.

Selected hydrographic data compiled from USC&GS Chart 216 (1960). This information is not intended for navigational purposes.

Polyconic projection. 1927 North American datum
10,000-foot grid based on Connecticut coordinate system

UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 4.7 FEET

CONNECTICUT
QUADRANGLE LOCATION