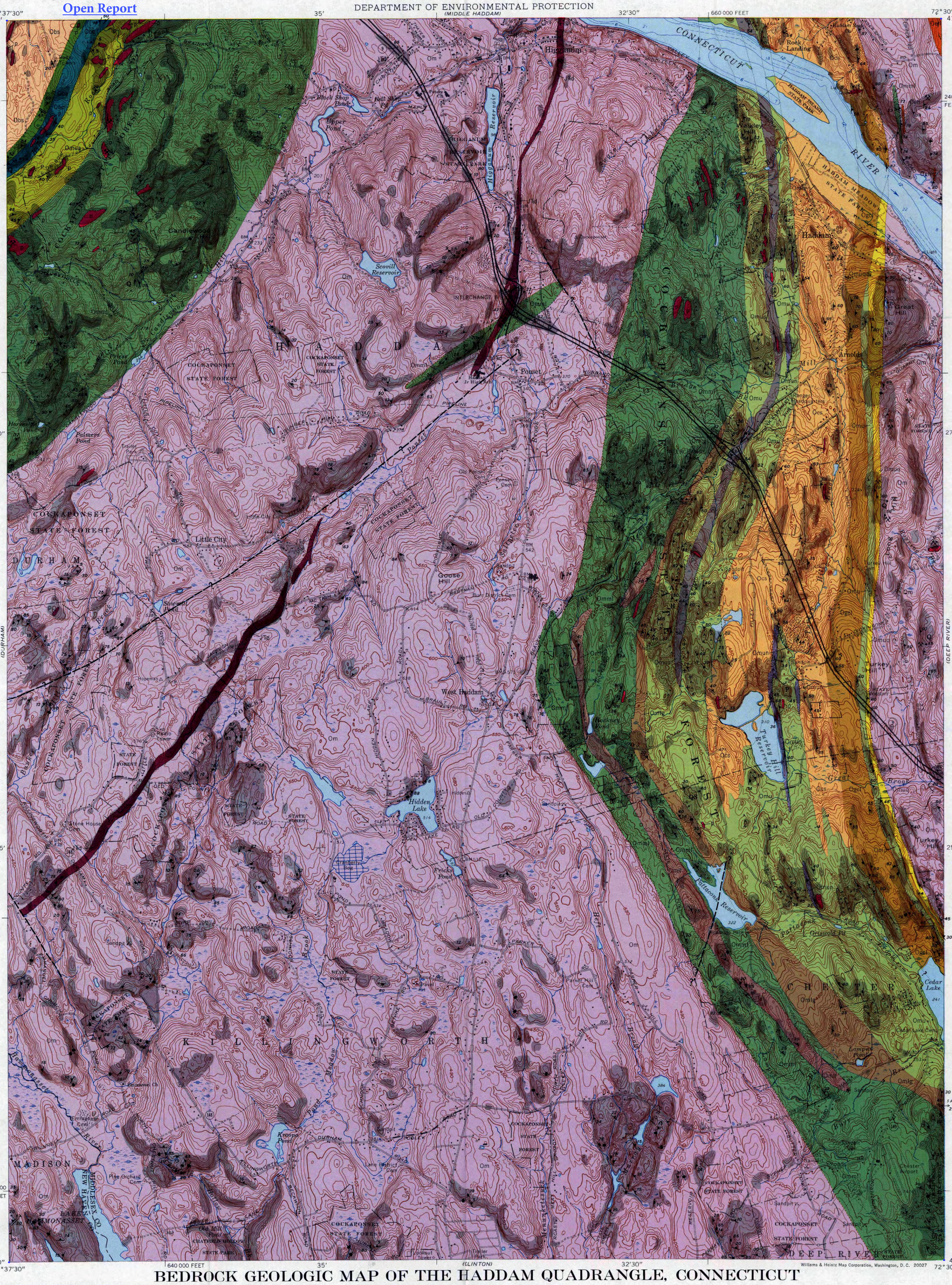
Open Report



BEDROCK GEOLOGIC MAP OF THE HADDAM QUADRANGLE, CONNECTICUT

By Lawrence Lundgren Jr., 1971-72, 1974-75

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 1950. Field checked 1952. Revised 1961. Photorevised 1971.

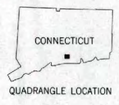
Selected hydrographic data compiled from USC&GS Chart 266 (1962). This information is not intended for navigational purposes.

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

MN GN
13½°
240 MILS
1°37'
29 MILS
UTM GRID AND 1971 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

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 2.5 FEET



QUADRANGLE LOCATION

EXPLANATION

ROCK UNITS

LATE TRIASSIC TO EARLY JURASSIC

Jrd

Diabase

Dark-gray porphyritic to ophitic diabase

DEVONIAN TO PERMIAN

p

Pegmatite

Pink to white microcline-albite-quartz pegmatite

ORDOVICIAN

Obs

"Calc-silicate rocks and schists of Bodkin Rock" of Eaton and Rosenfeld (1972)

Highly varied unit consisting of muscovite-biotite schist, calc-silicate granofels and muscovitic gray gneiss.

Oba Obc

"Metavolcanic rocks of Bible Rock Brook" of Eaton and Rosenfeld (1972)

Oba: Laminar amphibolite
Obc: Coticule (bedded spessartite-quartz granofels)

Ocs Ogcl

Collins Hill Formation

Ocs: Muscovite-biotite schist, muscovitic quartz-feldspar gneiss, amphibolite, marble, and coticule.

Ogcl: "Gneiss at Cedar Lake" - Quartz-feldspar gneiss with thin layers of amphibolite and muscovite-biotite schist

Oeh

"Schist of East Hampton" of Eaton and Rosenfeld (1972)

Biotite-muscovite schist with quartz-plagioclase folia giving rock a migmatitic appearance.

Omua Omu Omus Omun Omuq Omlg Omml Omml Omlf

Middletown Formation

Northwestern part of quadrangle

Omua: Upper amphibolite with epidote lenses

Eastern part of quadrangle

Omu: Undifferentiated upper Middletown a distinctive ensemble of orthoamphibole gneisses, gedrite rocks, garnet rocks, sillimanite-quartz nodule rocks, staurolite-kyanite-cordierite schist, amphibolite, and coticule. (+ symbol indicates isolated exposure of nodule rock)

Omun: Gneiss and schist containing sillimanite quartz nodules. Thickness exaggerated.

Omus: Biotite-muscovite schist.

Omuq: Muscovite quartzite with biotite-muscovite schist

Omlg: Plagioclase gneiss with epidote lenses and amphibolite.

Omlf: Quartz-plagioclase-microcline gneiss with amphibolite layers.

Omml: Middle and lower units - Orthoamphibole gneiss, plagioclase gneiss, amphibolite.

Conspicuous exposures of orthoamphibole gneiss indicated by ^ symbol.

Om

Monson Gneiss

Gray quartz-plagioclase gneiss with amphibolite layers. Massive in some exposures and sharply layered in others.

SYMBOLS

Bedrock outcrops

Shading identifies areas of scattered bedrock outcrops and areas where bedrock is inferred to be near the surface (less than ten feet). Data are based on outcrops located during field mapping and on interpretation of topography.

Contact

Dashed where approximately located, dotted where concealed or speculative

PLANAR FEATURES

30 — Inclined
Vertical
Horizontal

Strike and dip of foliation; foliation mapped is generally parallel with layering; second younger foliation not mapped.

70 — Inclined
Vertical

Strike and dip of prominent joints

65

Strike and dip of fault zone

——— ? ———

Trace of inferred fault

65

Strike and dip of diabase dike, querried where inferred from measured orientation of columnar joints.

LINEAR FEATURES

A → 25

Bearing and plunge of mineral lineation

A = orthoamphibole; B = biotite; H = hornblende, P = plagioclase aggregates; Q = quartz rods; QS = quartz-sillimanite nodules

MINOR FOLDS

14 FA — Symmetrical
FA 25 — Asymmetrical

Bearing and plunge of fold axis

40

Strike and dip of axial plane

QUARRY