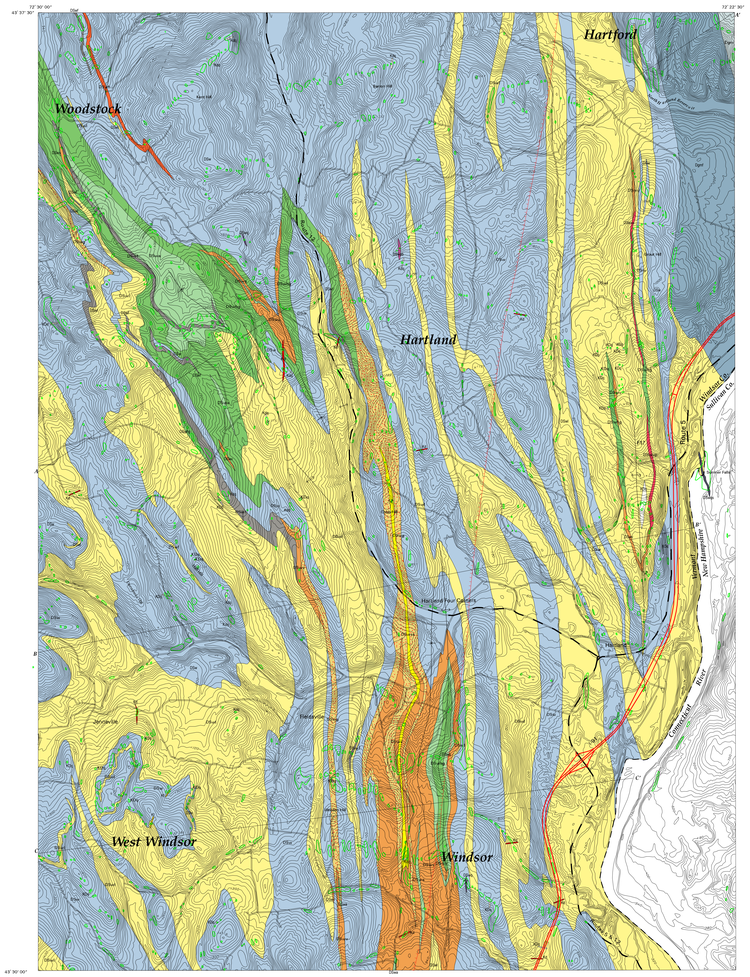
U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
STATE OF VERMONT, GEOLOGICAL SURVEY

OPEN-FILE REPORT 98-123-A
Plate 1 of 1
Explanatory pamphlet accompanies map

GEOLOGIC UNITS AND OUTCROP MAP



Topography from the Hartland, VT-NH 7.5' quadrangle (1959 edition)
Contour Interval 20 feet
Digital map units in State Plane Coordinate System
National Geodetic Horizontal Datum of 1983
Roads and town boundaries from the Vermont Center for Geographic Information, Inc.

Geology mapped by Walsh in 1995-1996, reconnaissance by Norman L. Hatch, Jr., in 1984. Digitized by Walsh, David Draher[1], and Thomas Merrifield[1].

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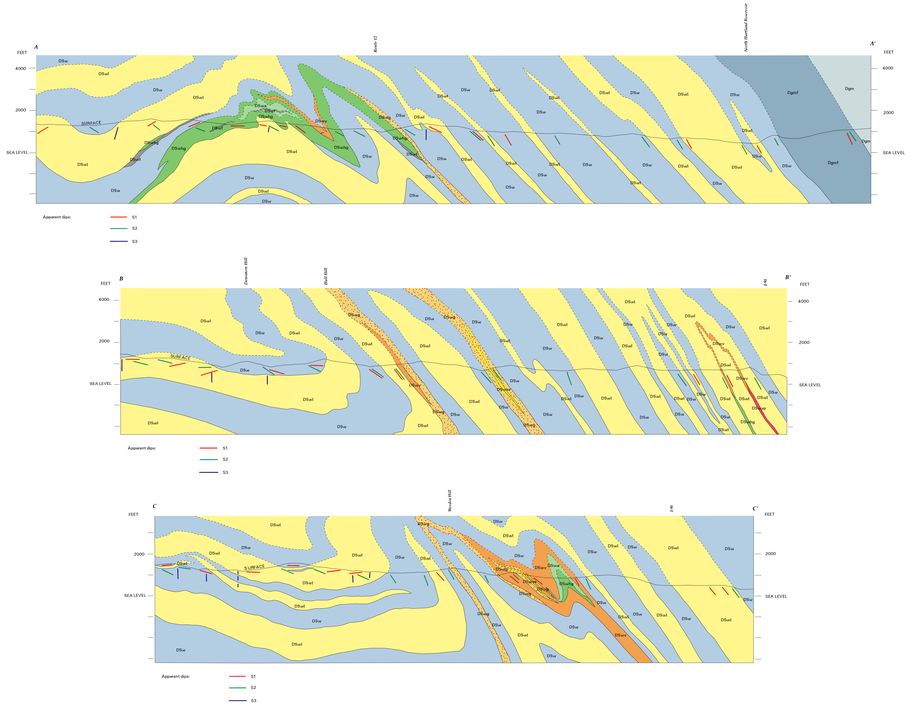
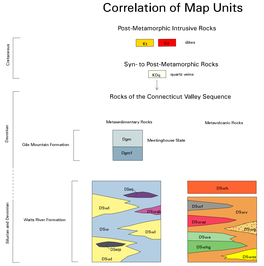
SCALE 1:24000

Approximate Mean Declination
15°00' West, 1990



Correlation of Map Units



Simplified Description of Map Units

(see accompanying text for complete description)

POST-METAMORPHIC INTRUSIVE ROCKS

Dikes (Cretaceous)

- Kd — Lamprophyre, camptonite, or diabasic dikes
- Kt — Trachyte dikes

SYN- TO POST-METAMORPHIC ROCKS

- KDq — Quartz veins (Devonian and Cretaceous)

ROCKS OF THE CONNECTICUT VALLEY SEQUENCE

Gile Mountain Formation (Lower Devonian)

- Dgm — Meetinghouse Slate
- Dgmf — Feldspathic quartzite, granofels, and dark-gray phyllite

Waits River Formation (Silurian and Lower Devonian)

Metasedimentary Rocks

- DSwl — Limestone and schist
- DSw — Gray phyllite and schist
- DSwq — Quartzite
- DSwqs — Quartzose schist
- DSwab — Ankeritic biotite schist

Metavolcanic Rocks

- DSwv — Laminated schist and granofels
- DSwvp — Porphyritic schist and granofels
- DSwg — Large garnet and hornblende garbenschiefer schist
- DSwa — Amphibolite and greenstone
- DSwhg — Hornblende-plagioclase gneiss
- DSwf — Felsic gneiss and quartzose granofels
- DSwfc — Sulfidic schist
- DSwh — Hornblende fascicle schist

Explanation of Map Symbols

Contacts

Outcrops (areas of exposed bedrock examined in this study)

Garnet isograd, hachures in the garnet zone

F2 antiform

F2 synform

F17 antiform

Minor Folds
Strike and dip of refolded F1 axial surface
Inclined
Inclined, with refolded horizontal fold axis

Strike and dip of F2 axial surface
Inclined
Inclined, with horizontal fold axis

Planar Features
Strike and dip of bed-parallel S1 schistosity
Inclined, showing tops from graded beds
Inclined
Vertical
Horizontal
Inclined, deformed

Strike and dip of S2 foliation
Inclined, expressed as schistosity
Inclined, expressed as a spaced cleavage
Horizontal, expressed as a spaced cleavage

Strike and dip of S3 or younger crenulation cleavage
Inclined
Vertical

Strike and dip of dominant schistosity of undetermined age
Inclined

Strike and dip of brittle features
Inclined joint
Vertical joint
Inclined normal fault

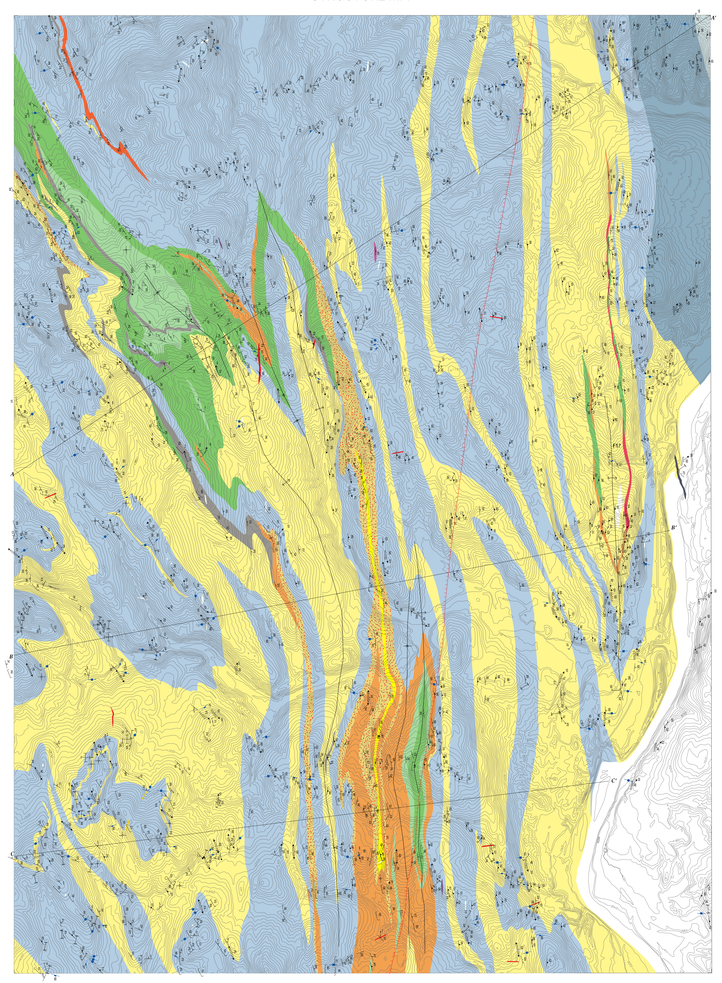
Linear Features
Trend and plunge of fold axes and lineations
Refolded F1 fold axis
F2 fold axis
Intersection between S1 and S2
Intersection between S2 and S3
Aligned hornblende

Other Features
Abandoned quarry or prospect

Digital Bedrock Geologic Map of the Vermont Part of the Hartland Quadrangle, Windsor County, Vermont

by
Gregory J. Walsh[1]
1998

This plate is a paper representation of the digital bedrock geologic information for the Vermont part of the Hartland quadrangle located in Windsor County, Vermont. The database was digitally compiled on a personal computer system using PC ARC/INFO version 3.5 by Environmental Systems Research Institute, Inc. This map was created in ARC/INFO version 7.1. The topography was obtained from a photographic negative separate of contour lines from the Hartland (1959 edition) U.S.G.S. 7.5-minute topographic quadrangle. The negative was scanned on an IDEAL FSS 8000 raster-format scanner. The raster image was vectorized using GTX DSR Contour version 2.00 by GTX Corporation, Inc., and converted into an unattributed line coverage in ARC/INFO version 7.1.



LOCATION OF MAP

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, firm, or product names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government.

This plate is part A and the database is part B of this Open-File Report. Both parts are available from the Vermont Geological Survey, telephone (802) 241-3608.