

LEGEND

Ultramafic Rocks

u Ultramafic rocks: massive, brown to white weathering, green, partially to completely serpentinized dunite and peridotite (u); talc-carbonate rock, quartz-carbonate rock, and steatite (tc), generally sheared.

Ottawaquechee Formation

Co Rusty weathering, dark gray to black carbonaceous pyritic phyllite with subordinate lithologies that include silvery gray and grayish-green phyllite, gray, fine to medium-grained, granular quartzite, and silvery-gray to white phyllitic graywacke with blue-gray sub-rounded quartz pebbles.

Cobp Black, carbonaceous quartz-sericite phyllite with pyrite.

Copw Tan to gray phyllitic graywacke with rounded grains of quartz, blue-gray quartz and albite in a quartz-sericite-chlorite matrix; interlayered with gray and green phyllites.

Cog Massive to phyllitic, apple green, plagioclase-chlorite-epidote greenstone

Jay Formation

Cj Non-graphitic, fine-grained, light gray-green quartz-chlorite-albite phyllitic schist and quartzite; white quartzofeldspathic layers alternate with green chloritic phyllitic layers.

Stowe Formation

CZsmn Mount Norris member Silver gray-green quartz-chlorite-sericite +/-magnetite schist and phyllite with abundant vein quartz; abundant dark-gray, massive, weakly-foliated, mafic intrusive rocks commonly boudinaged; interlayered thin greenstone.

CZsggp Silvery grayish-green quartzose phyllite with abundant rootless isoclinal folds of vein quartz. Locally contains magnetite. Isolated single outcrops of black phyllite occur in this lithology. Local thin greenstone layers.

CZsms Interlayered thinly foliated rusty weathering pyritic dark gray phyllite, slaty phyllites and light greenish gray, medium grained quartzofeldspathic granofels, slates/phyllites locally interlayered with fine grained gray phyllitic granofels

CZsgr Dark apple-green weakly punky-weathering greenstones, locally contain magnetite, locally interlayered with grayish-green phyllites, phyllitic near fault contacts.

Tillotson Complex

Cb Blueschist and eclogite: dark blue gray, fine to medium grained, massive to foliated blueschist composed of amphibole (glaucofane, barrosite, and actinolite with rare cummingtonite exsolution lamellae), + epidote + garnet porphyroblasts + chlorite + titanite + magnetite +/-pyrite, chalcopyrite, and apatite commonly with phengitic muscovite, albite, and quartz. Quartz + garnet cotecule and calcite and/or dolomite, paragonite and omphacite occur locally. Rare eclogite delimited by medium grained, green layers and pods of garnet, omphacite, glaucofane, epidote, quartz, albite, and white mica record pressures and temperatures from 9 Kbar, 360 degrees to 12 Kbar, 520 degrees C. Both glaucofane and omphacite are altered to a fine-grained symplectite near contacts with CZhn and CZhngn.

Ctp Silver gray, medium-grained pelitic schist composed of white mica (phengitic muscovite +/- paragonite) + quartz +/- chlorite +/- garnet +/- albite +/- glaucofane (altered to symplectite) +/- chloritoid; local 1 cm thick lenses of cotecule.

Belvidere Mountain Complex

Cbu Ultramafic rocks: massive, brown to white weathering, green, partially to completely serpentinized dunite and peridotite (u); talc-carbonate rock, quartz-carbonate rock, and steatite (tc), generally sheared; locally with knots of actinolite and chlorite along contacts.

Cbc Coarse-grained, dark gray to black amphibolite and banded amphibolite composed of barrosite, albite, epidote, chlorite, garnet, quartz, actinolite, biotite, sphene, sericite and opagues; estimated maximum thickness is 60 m; *Airar 505 +/- (Laird)*

Cbf Fine to medium grained, blue-gray amphibolite composed of actinolite, epidote, hornblende and albite with minor garnet, chlorite, quartz and sphene; estimated maximum thickness is 35 m

Cbg Fine-grained, green chlorite-actinolite-albite-epidote greenstone, banded greenstone, and albite greenstone.

Cbs Silver-blue muscovite-chlorite-epidote-albite-quartz schist and melange with euhedral tourmaline and minor sphene; contains discontinuous layers, lenses and rounded blocks of greenstone, amphibolite, and talc phyllite.

Hazens Notch Formation

CZhn Medium-grained, massive, light gray and green banded quartz-albite-muscovite gneiss with minor epidote, chlorite, sphene, and magnetite; green chlorite-rich layers 2-10 cm thick may also contain plagioclase, polycrystalline quartz, and chlorite pseudomorphs after garnet porphyroblasts.

CZhn Gray and rusty-orange weathering, graphitic (CZhnca) and non-graphitic quartz-albite-sericite-chlorite schist with albite porphyroblasts and minor epidote, calcite, garnet, biotite and sphene; discontinuous quartzite layers and interlayered green albite schist.

CZhns Green, medium to fine-grained amphibole (barrosite to actinolite) + epidote + albite +/- garnet + quartz + titanite + magnetite greenstone and schist with garnet porphyroblasts pseudomorphed by chlorite.

CZhnss Fine-grained, silvery gray-green, finely laminated phyllitic schist composed of quartz, albite, sericite, chlorite and magnetite

Fayston Formation

Czf Silvery green, medium grained, muscovite-quartz- albite-chlorite +/-garnet +/-magnetite schist with thin light gray quartzites.

Outcrop

- ⎓ Strike and dip of finely spaced cleavage and compositional layers
- ⎓ Strike and dip of dominant foliation, axial planar to isoclinal folds (Sn+1)
- ⎓ Strike and dip of crenulate cleavage (Sn+2)
- ↑ Trend and plunge of isoclinal folds (F2)
- ↑ Trend and plunge of open to tight folds (F3)

--- Fault, teeth on upper plate

□ USGS 24K Quadrangle Boundaries

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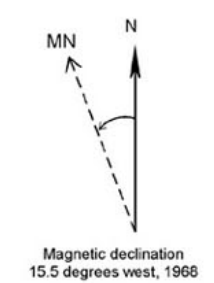
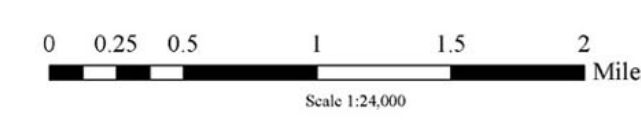
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Base map from U.S. Geological Survey.
 Quadrangle names printed in blue.
 Coordinate System: Vermont State Plane, meters, NAD 83.
 Geographic coordinates shown at topo corners are in NAD 83.
 Grid overlay on map is Universal Transverse Mercator,
 Zone 18N, NAD 27.
 Digital Cartography: M. Gale, 2007



BEDROCK GEOLOGIC MAP OF THE HAZENS NOTCH AND PORTIONS OF THE EDEN AND LOWELL 7.5 MINUTE QUADRANGLES, VERMONT

Digitally Compiled (Gale) from Bothner, W. and Laird, J. (1999),
 Cady et al.(1963), Gale, M. (1980, 1986), Kim, J. (1997) and Schoonmaker, A. (1997)
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