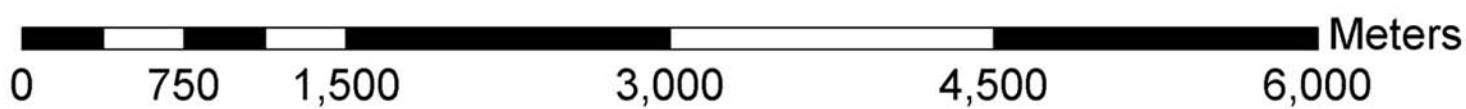
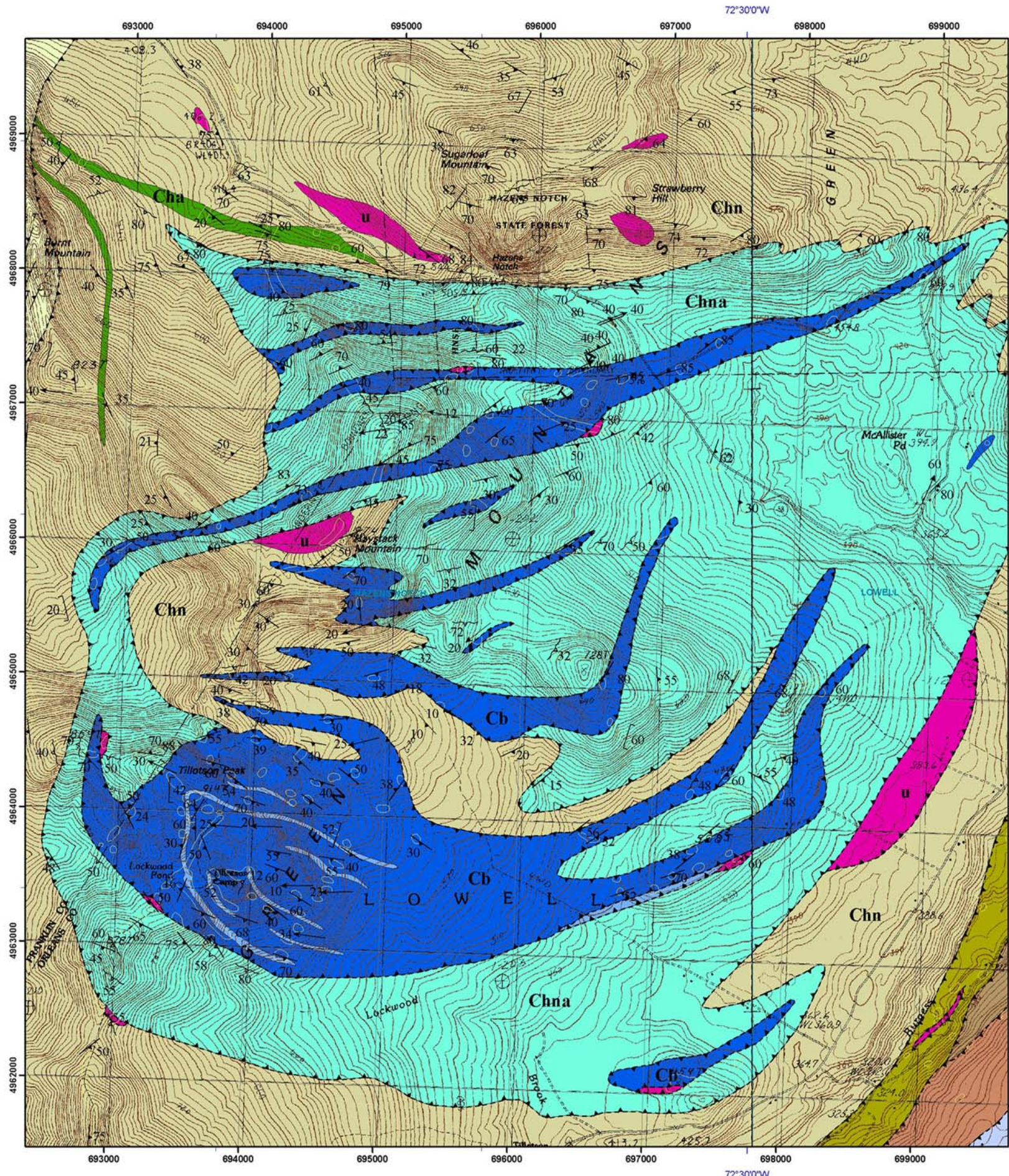


LEGEND

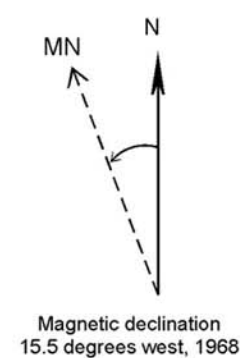
- Cj** **Jay Peak Formation**
Non-graphitic, light gray to greenish gray quartz-albite white mica-chlorite schist and quartzite with abundant discontinuous milky quartz stringers; lesser rusty weathering graphitic pelitic schist and quartzite (Burnt Mountain ridge)
- Chn** **Hazens Notch Formation**
Black and orange weathered, dark gray, graphitic and non-graphitic schist with plagioclase porphyroblasts, white mica, chlorite, quartz, titanite, and sulfide(s). Lesser, lighter gray, 2 to 15 cm thick, discontinuous quartzite layers, commonly isoclinally folded. C/S fabric locally well developed.
- Cha** **Mafic schist within the Hazens Notch Formation -**
Green, medium to fine-grained amphibole (barroisite to actinolite) + epidote + albite +/- garnet + quartz + titanite + magnetite greenstone and schist with garnet porphyroblasts pseudomorphed by chlorite.
- Chna** **Felsic gneiss (albite gneiss of Cady, Albee and Chidester, 1963)-**
Predominantly light gray, medium -grained, well-layered gneiss with plagioclase, polycrystalline quartz porphyroblasts, white mica epidote (+/-piemontite) +/- garnet +/-magnetite and pyrite. Green chlorite-rich layers 2 to 10 cm thick may also contain plagioclase, polycrystalline quartz, and chlorite pseudomorphs after garnet porphyroblasts.
- Cb** **Blueschist and eclogite within the Tillotson-Haystack Slice -**
Blueschist and eclogite: dark blue gray, fine to medium grained, massive to foliated blueschist composed of amphibole (glaucofane, barroisite, and actinolite with rare cummingtonite exsolution lamellae), + epidote + garnet porphyroblasts + chlorite + titanite + magnetite +/-pyrite, chalcocopyrite, 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, glaucophane, epidote, quartz, albite, and white mica record pressures and temperatures from 9 Kbar, 360 degrees to 12 Kbar, 520 degrees C. Both glaucophane and omphacite are altered to a fine-grained symplectite near contacts with Chn and Chna.
- Cbp** **Pelitic schist intercalated within the Tillotson-Haystack slice -**
Pelitic schist intercalated within the Tillotson-Haystack slice - Silver gray, medium -grained pelitic schist composed of white mica (phengitic muscovite +/- paragonite) + quartz +/- chlorite +/- garnet +/- albite +/- glaucophane (altered to symplectite) +/- chloritoid; local 1 cm thick lenses of cotecule.
- u** **Ultramafic Bodies-**
Isolated lenses of serpentinite along the contacts of Chna with Cb and with Chn composed of antigorite + talc+ magnetite +/- magnesite. Generally strongly sheared; locally with knots of actinolite and chlorite.
- 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**



**GEOLOGIC MAP OF THE TILLOTSON - HAYSTACK AREA,
HAZENS NOTCH AND PARTS OF THE LOWELL 7.5 MINUTE QUADRANGLES, VERMONT**

**Geology by W.A. Bothner and Jo Laird
1999**

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.
Digitized by: Stone Environmental, Inc.
Digital Cartography: M. Gale, 2007



Published by:
Vermont Geological Survey
Laurence Becker, State Geologist
Department of Environmental Conservation
Agency of Natural Resources
103 South Main St., Logue Cottage
Waterbury, VT 05671-2420
<http://www.anr.state.vt.us/dec/gco/vgs.htm>

Research supported by the Vermont Geological Survey, Dept. of Environmental Conservation, VT ANR.
This geologic map was funded in part by the USGS National Cooperative Mapping Program.
The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.