

LEGEND

SEDIMENTARY, IGNEOUS AND METAMORPHIC ROCKS

- Landaff granite** (Fine-grained pink to gray kaersutite granite, composed of oligoclase, quartz, potash feldspar, hornblende, and biotite)
- Serag granite** (Coarse to medium-grained pink granite, composed of potash feldspar and quartz, with small amounts of oligoclase, biotite, and muscovite very low in dark minerals)
- Pond Hill granite** (Medium to fine-grained granite composed of quartz, potash feldspar, oligoclase, and biotite)
- Moody Ledge granite** (Medium to fine-grained pink granite, composed of potash feldspar, quartz, oligoclase, and biotite; very low in dark minerals, overprinted by quartz rock intrusions, injected by dikes and sills of andesite and granite (Cam))
- French Pond granite** (Heterogeneous body of granite, with following phases: (1) a coarse-grained pink granite, composed of oligoclase, quartz, and biotite; (2) medium-grained gray phase, same as quartz; (3) fine-grained pink phase, composed of potash feldspar, albite, quartz, and muscovite)
- Sugar Hill quartz monzonite** (Medium-grained, pink, and locally granitic rock composed of oligoclase, potash feldspar, quartz, and biotite)
- Ramick tonalite** (Medium-grained gray tonalite composed of oligoclase, quartz, and biotite)
- Kinsman quartz monzonite** (Medium to coarse gray quartz monzonite, composed of quartz, oligoclase, potash feldspar, biotite, and muscovite; locally there are phenocrysts of potash feldspar from 1 to 2 inches long; locally the rock shows foliation)
- Bethlehem granodiorite gneiss** (Medium to fine-grained gray granodiorite, composed of quartz, oligoclase-andesine, potash feldspar, biotite, and little muscovite; usually foliated and strongly granulated)
- Areas where basic dikes and sills are abundant** (Probably contemporaneous with the volcanic activity during the deposition of the Litchfield formation)
- Moulton diorite** (Medium-grained dark gray diorite, consisting mainly of secondary minerals such as oligoclase, hornblende, epidote, chlorite, and carbonates)
- Owls Head granite** (Medium-grained pink granite composed of quartz, microcline, and locally biotite)
- Areas where soda-ryholite dikes and sills are abundant** (Probably contemporaneous with the volcanic activity during the deposition of the Litchfield formation)
- Litchfield formation** (Zone a: slate and sandstone with chlorite schist (D1), and andesite (D2) and breccia (D3). Zone m: mica schist, quartz-mica schist, garnet schist, and sericite schist, with amphibolite (D4), soda-ryholite volcanic conglomerate (D5), and andesite (D6) and breccia (D7). Zone e: mica schist, quartz-mica schist, amphibolite, and sericite schist, with amphibolite (D8) and mica schist (D9). Locally the Litchfield formation is injected by dikes of andesite and granitic granite associated with the Moody Ledge granite (D10))
- Fitch formation** (Zone e: limestone, marble, slaty dolomite, calcareous slate, arenaceous limestone, calcareous sandstone, argillite, quartz conglomerate, and gray slate. Zone m: mica schist, quartz-mica schist, amphibolite, actinolite schist, actinolite-biotite schist, biotite-epidote schist, greenstone marble, quartzite, argillite, mica schist, North Hill quartzite member (S1))
- Clough conglomerate** (Quartz conglomerate and quartzite; more coarsely crystalline in zone m than in zone e)

UNCONFORMITY

- Partridge formation** (Zone e: black slate, with thin-bedded quartzite, slate, and impure quartzite. Zone m: mica schist and garnet schist)
- Ammonoosuc volcanics** (Zone e: soda-ryholite tuff, breccia, and volcanic conglomerate, chlorite schist, chlorite-epidote schist, slate, and impure quartzite. Zone m: fine-grained biotite gneiss, amphibolite, amphibolite conglomerate, mica schist, and muscovite quartzite. Locally the Ammonoosuc volcanics are injected by dikes of andesite and fine-grained granite associated with the Moody Ledge granite (Cam))
- Albee formation** (Zone e: quartzite, crystalline quartzite, green slate, and black slate. Zone m: quartzite, muscovite quartzite, and mica schist)

BED ROCK NOT EXPOSED

- d** (Shown only where exceptionally thick and extensive. No attempt has been made on this map to show the Quaternary deposits systematically)

METAMORPHIC ZONES

Grubenmann-Niggli classification: shown below formation symbol thus: **S1**

- s**-sialone (low grade)
- m**-mesosome (middle grade)
- k**-katszone (high grade)

CONTACTS

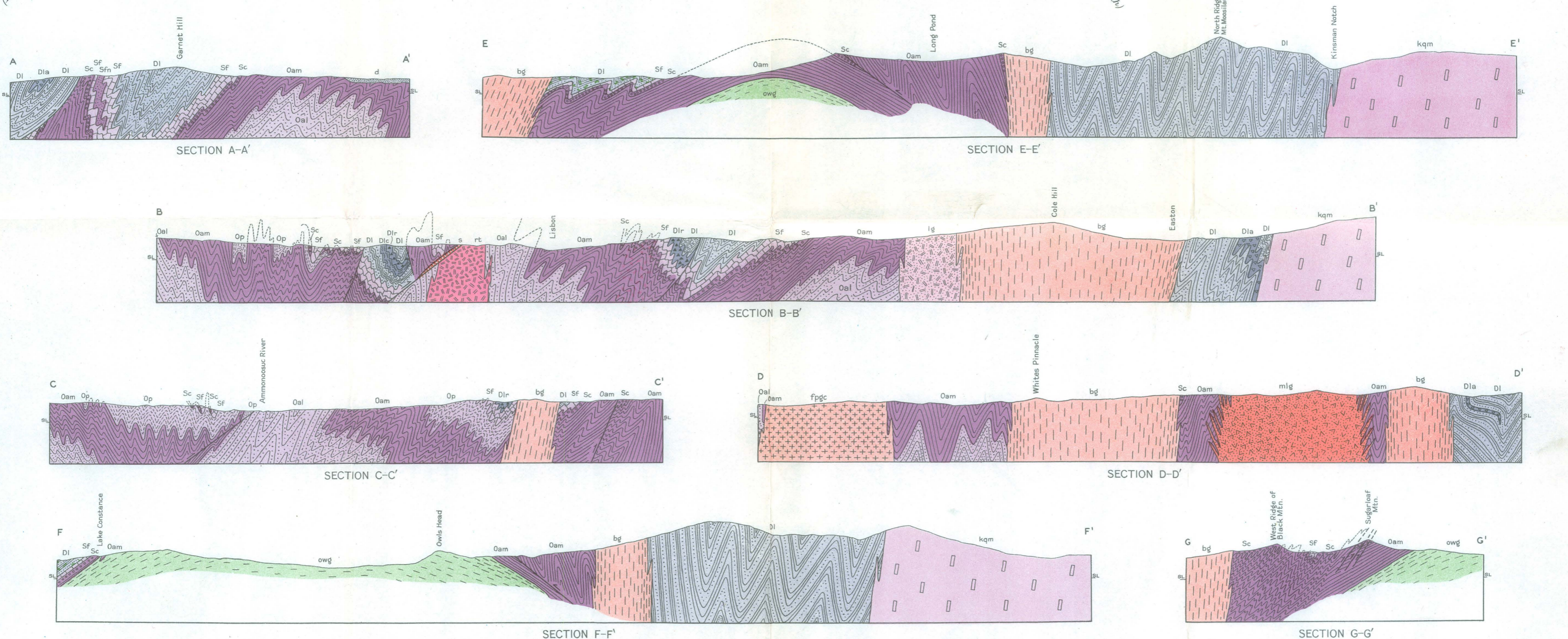
- Accurate
- Approximate and diagrammatic due to poor exposures
- Indefinite as sharp contact is lacking

SPECIAL SYMBOLS

(Dip and strike symbols represent only a small percentage of the field observations)

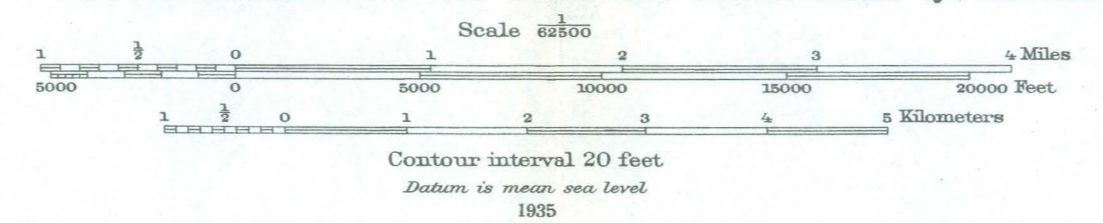
- Strike and dip of bedding, including inverted and normal strata
- Strike of vertical beds
- Strike and dip of foliation and schistosity
- Strike of vertical foliation and schistosity
- Horizontal foliation and schistosity
- Overthrust side of thrust faults
- Silicified fault zone
- Mines, prospects, and quarries mostly abandoned

White Mountain Magma Series
 Post-folding, but sequence not well established
 New Hampshire Magma Series
 Younger than lower Devonian, either late Devonian or late Carboniferous
 Contemporaneous with folding
 Oligivert Magma Series
 Pre-folding
 Lower Devonian
 Middle
 Lower or middle Silurian



GEOLOGIC MAP AND STRUCTURE SECTIONS OF THE MOOSILAUKE QUADRANGLE, NEW HAMPSHIRE

Topographic base by U. S. Geological Survey, surveyed in cooperation with the State of New Hampshire.



Geology by Marland Billings, assisted by Jarvis B. Hadley, William F. Jenks, Charles B. Moke, and Allen Waldo. Geology surveyed in 1931, 1932, 1933, and 1934 under the auspices of the Division of Geological Sciences, Harvard University, with the aid of grants from the Shaler and Milton Funds.