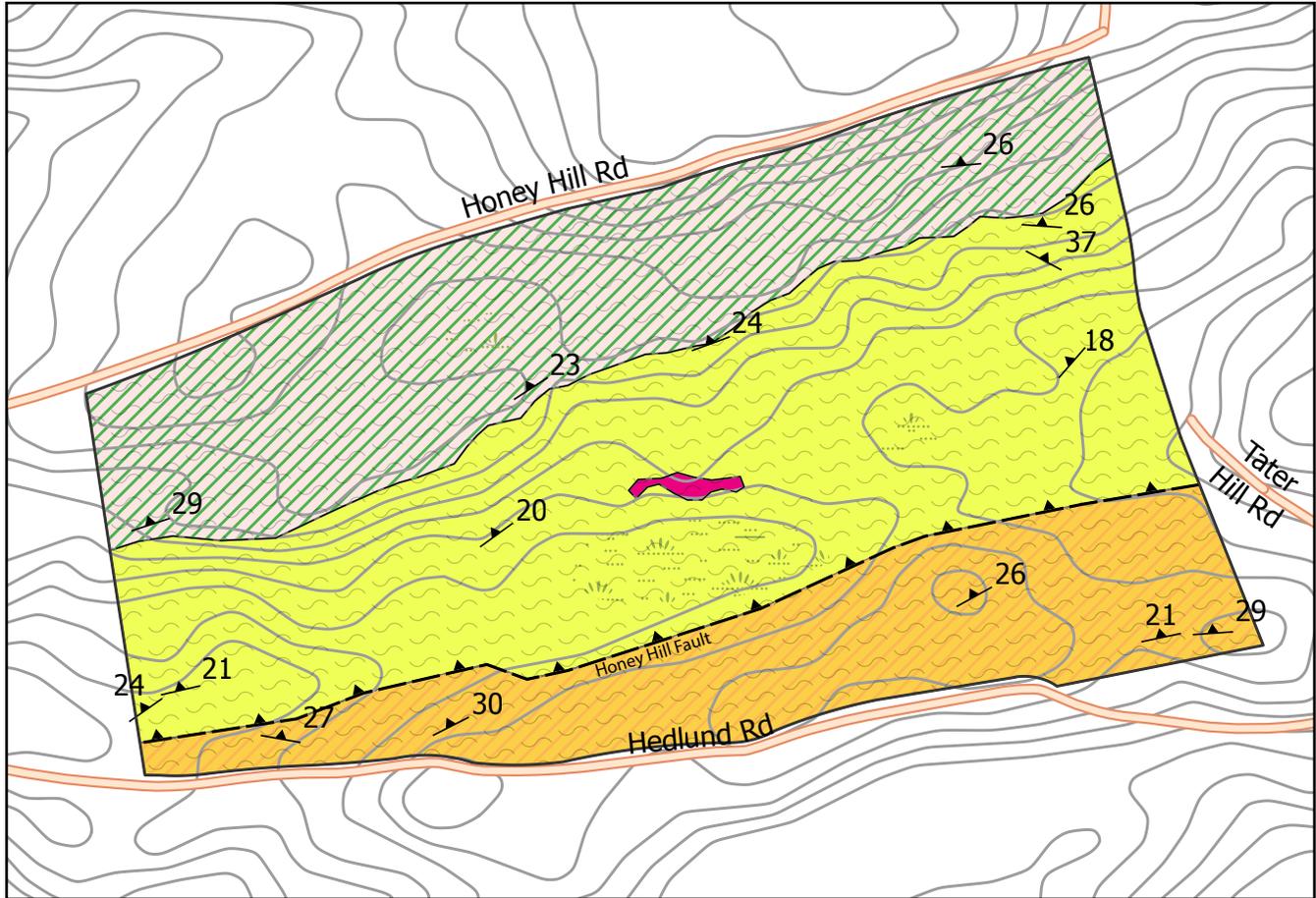
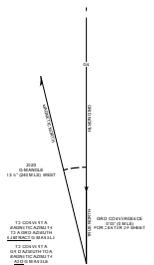
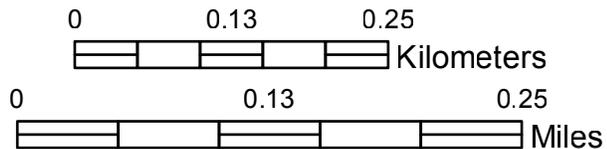
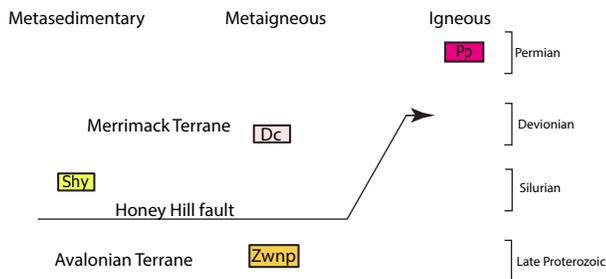


Bedrock Geology of the East Haddam Land Trust Saunders Preserve

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Correlation of Map Units



Description of Map Units

Explanation of Map Symbols

- Contact-contact between map units
- ▲ Fault
- ▲ Strike and Dip of foliation
- Ductile shear
- Road
- Pond
- Wetland
- Elevation Contour

Metasedimentary

Shy Yantic Member (Hebron Formation): Medium to coarse grained, quartz-plagioclase- muscovite-biotite gneiss. Porphyroblasts of plagioclase are common and have an augen gneissic texture. Well foliated with a strong lineation. This unit extends across the middle of the preserve and possibly is the upper bound of the honeyhill fault. The yantic member was mapped as part of the Putnam gneiss by Lundgren (1963) and as a part of the Tatnic Hill Formation by Dixon (1964). This unit was redefined as being a part of the Hebron Formation by Winsch et al. 1993. This member makes up the lower member of the Hebron Formation.

Metaigneous

DC Canterbury Gneiss: Medium grained K-feldspar-plagioclase-biotite gneiss. Well foliated but poorly layered. Often greatly deformed. Zircon within the Canterbury Gneiss have a magmatic age of 414 ± 3 Ma (Winsch et al., 2007). The distribution of the Canterbury Gneiss across the region supports an intrusive origin (Rogers, 1985).

Zwnp North Plains Lithofacies: Assemblage of felsic to intermediate igneous granofeses. Southern bound of the Honey Hill fault. Light to medium gray weathering, medium grained, moderately foliated plagioclase-quartz-biotite-hornblende-magnetite gneiss. Most grains are 0.5 to 1.0mm in diameter. This rock is ~590 mya established with U-Pb dating of zircon crystals (Aleinikoff and Wintsh unpub.). Originally mapped as part of the Monson gneiss, but was later reassigned stratigraphically to be Late Proterozoic in age.

Interbedded Units

Shy/DC Interbedded Canterbury Gneiss and Hebron Formation: The upper part of the preserve contains interbedded Canterbury Gneiss and Yantic Member. Canterbury Gneiss intruded the Yantic Member with 10cm- 1m thick layers. Previously mapped through this region by (Lundgren 1963)

Igneous

Pp Pink Granitic intrusive igneous rock with some muscovite and comprised mostly of Potassium-Feldspar with some Quartz inclusions. Pegmatite intrusions are seen across the preserve. First described by Lundgren (1967). These pegmatites were dated to Permian age by the Walsh et al. 2007.