

Scale = 1:24,000
Contour Interval = 20 feet
0 0.5 1 Kilometers
0 0.25 0.5 1 Miles
Coordinate System: Vermont State Plane, FIPS 4400, NAD83
Grid Overlay: UTM Zone 18N, NAD 1983
Base map data from the Vermont Center for Geographic Information (VCGI).
Elevation data derived from USGS NED 10m DEM.
Outcrops derived from Vermont Geological Survey
"Bedrock Outcrops" layer hosted by VCGI.

Surficial Geologic Map of Weathersfield, Vermont

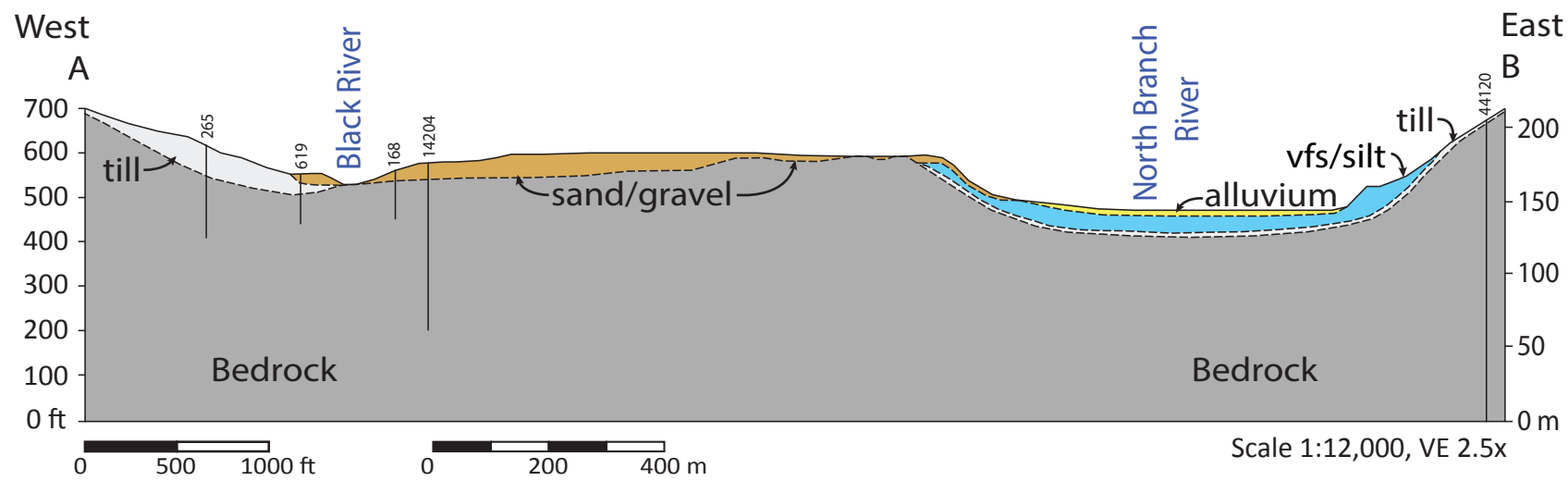
Vermont Geological Survey Open-File Report VG2017-5

By
Stephen F. Wright
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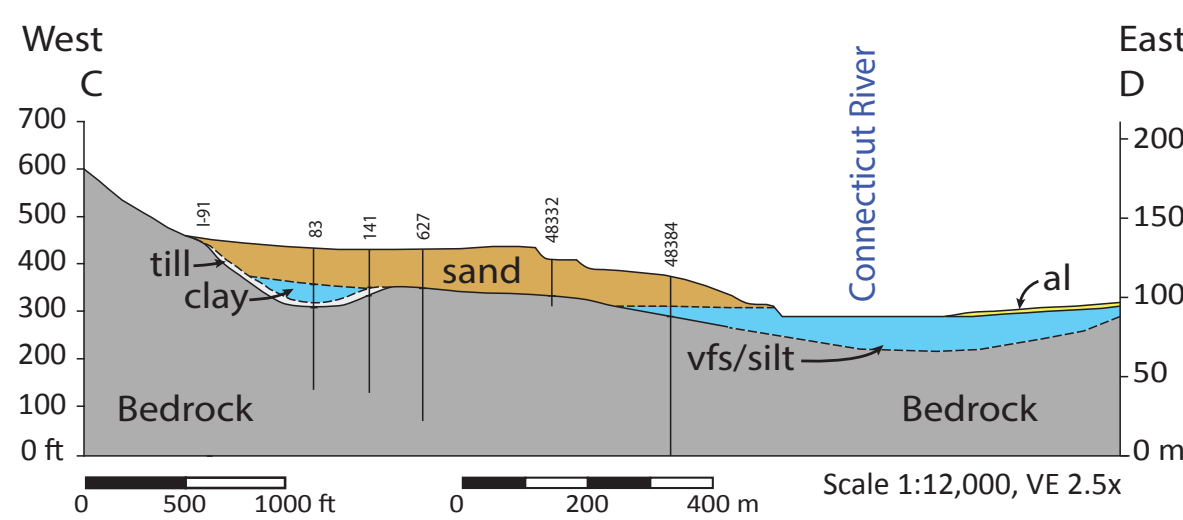
Thank you to:
1) Field Assistants - Will Vincett, Garrett Hazebrouck, Mitchell Miers, and Stephen Maglio (Department of Geology, University of Vermont)
2) Many volunteers from the Town of Weathersfield and landowners who allowed access to their property.

This manuscript is submitted for publication with the understanding that the United States Government is authorized to reproduce and distribute reprints for governmental use. This geologic map was supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program, under assistance Award No. G16AC00178. 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.

Perkinsville Surficial Geologic Cross-Section



Tenney Hill Surficial Geologic Cross-Section



Description of Map Units

- ar** Artificial Fill.
Materials brought to an area for large construction projects, e. g. dams, highways. Small deposits of fill were not mapped.
- Qs** Swamp/Wetlands.
Areas at or below the water table most of the year. Deposits consist largely of organics and silt.
- Qal** Alluvium.
Modern stream sediments ranging from boulder gravel to silt. Organics are common. Abandoned channels and scroll bars are frequently visible.
- Qaf** Alluvial Fan.
Fan-shaped deposits ranging from boulder to fine sand. Sediment usually fine from the apex to the toe of a fan.
- Qft** Fluvial Terrace Deposits.
Stream terrace deposits well above the modern floodplain. "Old" alluvium on these terraces is generally <2 m thick and has frequently been extracted revealing the underlying sediment.
- Qdl** Delta-Low Stage.
Sand and gravel deposited in topset and foreset beds of a delta built into Glacial Lake Hitchcock.
- Qdh** Delta-High Stage.
Sand and gravel deposited in topset and foreset beds of a delta built into Glacial Lake Hitchcock.
- Qls** Lacustrine fine sand/very fine sand/silt.
Interlayered fine sand, very fine sand, and silt deposited in Glacial Lake Hitchcock.
- Qlc** Lacustrine silt/clay.
Very fine sediments deposited in the deeper, quieter parts of Glacial Lake Hitchcock. Unit consists of interlayered silt and clay and has only been observed in the Weathersfield Bow area.
- Qe** Esker.
Ridge of poorly-sorted stream sediments ranging from coarse sand to boulders deposited in the subglacial tunnel. Bottom of esker usually lies on bedrock.
- Qt** Glacial Till.
Variable thicknesses of dense, unsorted, unlayered mixtures of sediment ranging from boulders to clay. Till usually lies directly above bedrock. Large boulders, many erratic, are common.
- r** Bedrock Outcrops.
Most areas include many, closely-spaced outcrops.

Description of Map Symbols

- E911 Site locations
- Landslides
- Landslides (large)
- Abandoned Channel
- Summits (Elevation)
- Field Stations
 - Surficial Material / Landform Observation
 - Bedrock Outcrop
 - Glacial Striations
- Cross-Section Lines
- Town Boundary
- USGS 24K Quadrangle Boundaries
- Lake/Pond
- Stream/River
- Interstate
- State/Town Roads
- Trails



Dense, grey glacial till exposed in the scarp of a small landslide on the western side of Little Ascutney Mountain.



Coarse sand and gravel exposed in a gravel pit on the east side of the North Branch River at an elevation of ~600 feet. Concave-up structure in the gravel (red dashed line) is a wick river channel that formed when a river flowed south into Glacial Lake Hitchcock.



Tree-covered esker ridge west of Upper Falls Road in the Black River valley.



Interlayered gravel and very fine sand/silt exposed along the eastern flank of an esker north of Ascutney village.



Glacial striations oriented North-South parallel to compass cross-cut older Northwest-Southeast striations on a bedrock outcrop immediately south of Route 12, about 100 m west of the Connecticut River, Ascutney, Vermont



Large "granite" erratics litter a pasture immediately south Little Ascutney Mountain, a distinctive Cretaceous intrusion that is the origin of erratics.