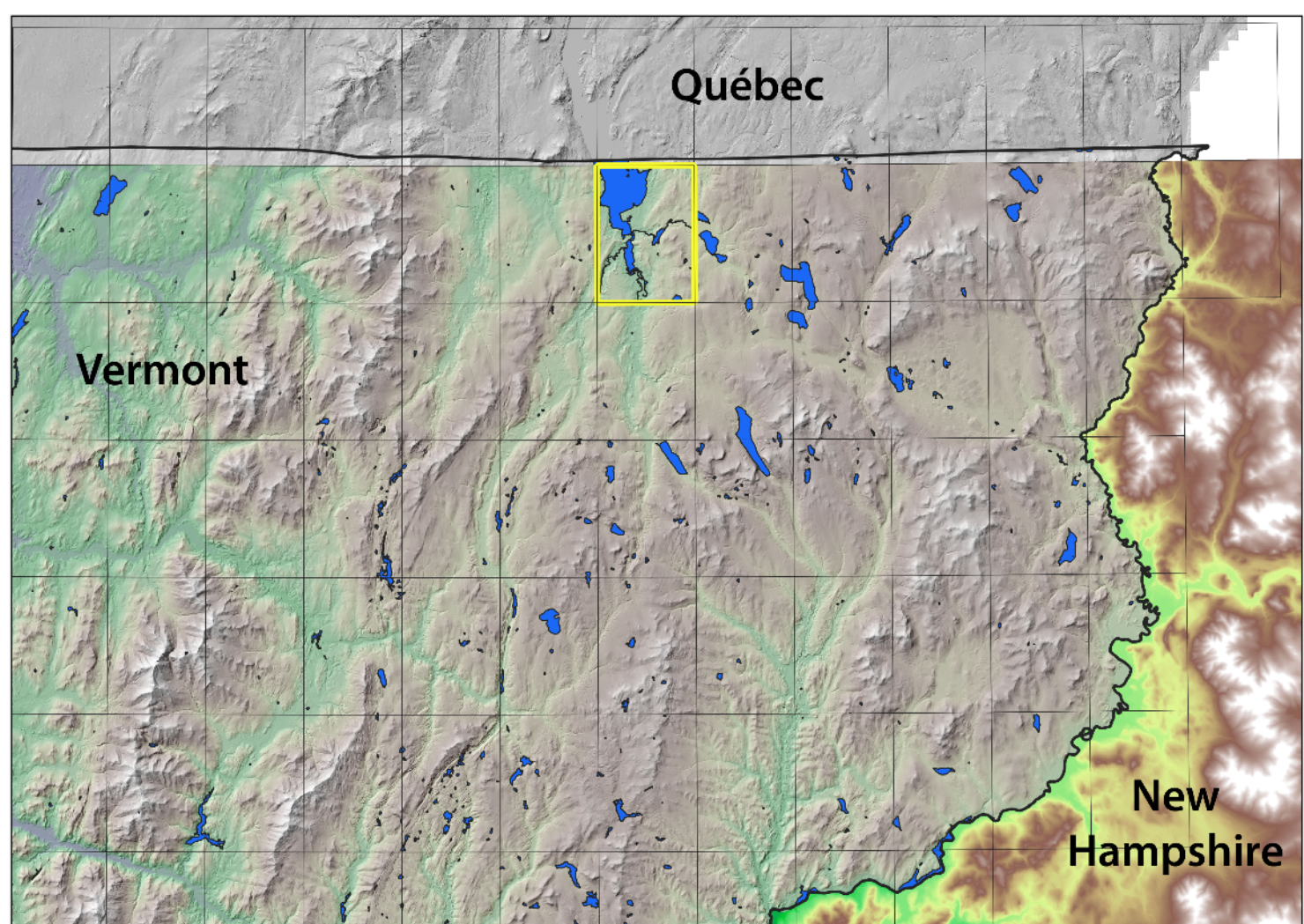
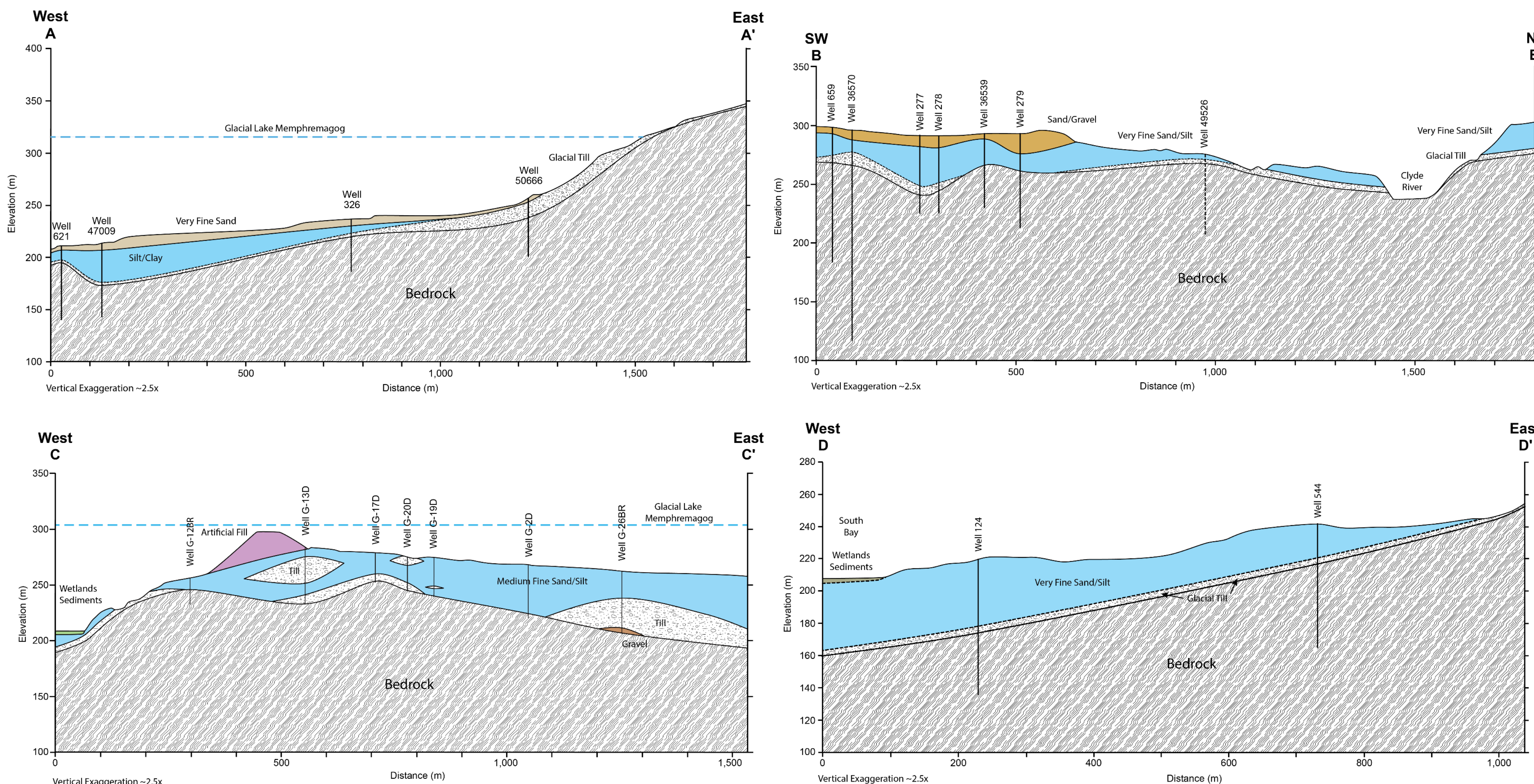


Surficial Geologic Map and Cross-Sections of the Newport 7.5-minute Quadrangle, Vermont

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2025

Explanation

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|-------------|--|------------|--|
| af | af Artificial Fill: Artificially-emplaced material along road beds, embankments and in developed areas. Material varies from natural sand, gravel, or till to various waste materials, e.g. in landfills. Thickness varies. | Ptm | Pie Esker Sediments: Elongate ridge of ice-contact stratified sand and gravel deposited by glacial melt-water streams in tunnels within or beneath the glacial ice. |
| Hw | Hw Wetlands Sediments: Accumulations of organic matter and/or clastic sediment in low-lying areas. Includes a wide variety of wetland types. Commonly overlies other deposits such as lacustrine sediment or till. May interfinger with alluvium in floodplains and deltas. Larger deposits are shown. | Pt | Ptm Moraine: Ridge composed primarily of till with variable amounts of stratified sand and gravel. Deposited adjacent to the ice margin. |
| Ha | Ha Alluvium: Silt, sand, and gravel deposited by modern streams. Includes stream channel, bar, and floodplain deposits. Wetland deposits are common within these areas and are not distinguished. Thickness in tributary valleys is typically less than 3 meters, although the depth may be much greater in the valleys of the larger streams. | | Pt Glacial Till: Very dense to loose, unsorted to very poorly sorted material deposited directly from glacial ice. Contains a wide range of grain sizes, from clay or silt up to large boulders. Matrix commonly dominated by the silt or sand fraction. Surface boulders are generally common. Thickness is highly variable, from less than 3 meters to greater than 30 meters. |
| Hat | Hat Alluvial Terrace Deposits: Silt, sand, and gravel deposited on terraces above the modern floodplains of streams. They are composed of a variety of channel, bar, and floodplain deposits. May include late Pleistocene alluvial sediment deposited onto freshly-drained glacial lake bottoms before the main stream and its tributaries incised down into the lacustrine deposits. Commonly less than 5 m thick. | | Glacial Striations/Grooves: Arrow points in ice flow direction. |
| Haf | Haf Alluvial Fan Deposits: Boulder, cobble, and pebble gravel, pebbly sand, and diamict deposited at sites where steep, stream gradients are sharply reduced. Alluvial fans are common at the mouths of steep tributaries where they meet the main stream. | | Landslide Scarp: Ticks point in direction of down-dropped material. |
| Hls | Hls Modern Lacustrine Shoreline Deposits: Consists of well-sorted sand deposits of present-day lakes and ponds. Includes beach and nearshore deposits from backshore out to shoreline. | | Abandoned Channel: Channels, many ice-marginal, eroded as high-level glacial lakes drained to lower-level glacial lakes. |
| Hld | Hld Modern Lake Delta: Well-sorted sand and gravel deposited in a present-day lake at the mouth of a tributary stream. | | Wave Cut Bench: Narrow terraces occurring at projected glacial lake shorelines. Frequently eroded into till. |
| Pld | Pld Glacial Lake Delta: Well-sorted sand and gravel deposited in a glacial lake at the mouth of a tributary stream. Includes topset, foreset, and proximal bottomset beds. Mapped deltas formed in both high and low stages of Glacial Lake Memphremagog. | | Projected Shoreline of Glacial Lake Memphremagog (Isostatic Tilt 1.2 m/km to N35W) |
| Pls | Pls Lacustrine Deposits, Shoreline: Well-sorted fine to coarse sand, pebbly sand, pebble gravel, or cobble gravel deposited in beach or nearshore environments. Includes deposits from backshore out to shoreline. | | Glacial Kettle |
| Plf | Plf Lacustrine Sediments, Fine Grained: Clay, silt, and very-fine to fine sand deposited in quiet-water environments of a glacial lake. Commonly laminated. | | Grooved Till: Elongate depressions in till aligned parallel to regional ice-flow. |
| Plo | Plo Subaqueous Outwash: Interbedded well-sorted fine, medium, and coarse sand and gravel deposited as subaqueous fans within glacial lakes at and near esker tunnel mouths. Sediment size diminishes with increasing distance from the tunnel mouth. Subaqueous outwash is frequently blanketed with fine-grained lacustrine sediment (Plf). | | Geologic Cross Sections |
| Pldi | Pldi Lacustrine Stratified Diamict: Interbedded massive diamict layers and sandylayers fining upwards to silt-clay layers. Interpreted to represent subaqueous debris flows and turbidity flows deposited in an ice-proximal setting. Diamict layers may extend above shoreline. | | Gravel Pit: Active and inactive. |
| Po | Po Outwash Deposits: Glacial meltwater deposits composed of stratified sand and gravel deposited in streams emanating from the glacial margin. | | Rock Quarry |
| Pi | Pi Ice Contact Sediments, Undifferentiated: Unsorted to poorly-sorted stratified sand, gravel, and silt deposited in contact with glacial ice. Surface may contain scattered kettle holes formed by melting of buried ice blocks or be a highly complex kame and kettle topography. | | Vermont Road Centerline |
| | | | Esker Ridge Line |
| Pie | | | |



Field Assistance during June 2024 provided by University of Vermont students Jared Berlin, Sulemaan Bokhari, Bren Cable, Bryce Doherty, and Mackenzie Patterson.



Research supported by the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number G23AC00462. 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.



AGENCY OF NATURAL RESOURCES
Vermont Geological Survey

Vermont Geological Survey Open File Report VG2025-1