

Legend

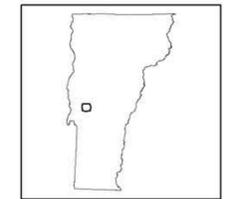
- I HIGHEST; Thick Delta and ice contact sand-gravel.
- II HIGH; Thinner delta and ice contact sand-gravel. Lacustrine sand. Peripheral sand-gravel and sand.
- III MODERATE; Ground moraine, exposed rock ridges within thick sand-gravel and sand areas. Peripheral rock ridges, lacustrine sand, ground moraine and minor sand and sand-gravel.
- IV LOW; Thin till areas within aquifer catchment, thick till areas, muck (presumed aquifer discharge areas).
- V LOWEST; Down gradient areas, lacustrine clay - silt areas
- Town Boundary

EXPLANATION

SHALLOW AQUIFER
A shallow aquifer is a volume of porous and permeable sediment, either sand or gravel or a mixture of sand and gravel, which is exposed at the ground surface. Hydrologists refer to this as an unconfined aquifer because the aquifer is not sealed, capped or confined by an impermeable layer. Shallow aquifers are recharged by direct downward infiltration of surface water from precipitation, snow melt and possibly through the bottoms of stream channels.

RECHARGE POTENTIAL
Recharge potential is ranked from 1 being the highest to V being the lowest. The criteria for the rankings are based on knowledge of the surficial geology, overburden thickness and the stratigraphy of the overburden as determined from analysis of the well logs.

The recharge potentials are qualitative and no absolute values on rates of recharge through each of the surficial material types can be provided, especially because of the heterogeneous nature of most surficial materials deposited in glacial environments. Areas of the thickest and most permeable sediments are assigned the highest recharge potential while thinner permeable deposits are assigned a recharge potential of II. Moderate recharge potential is assigned to the most heterogeneous permeable deposits, specially ground moraine. Low to lowest potential recharge areas are found where the sediment is relatively impermeable such as till or lacustrine clay, to areas down the hydraulic gradient from the extent of the overburden aquifer, and to presumed aquifer discharge areas represented by wetlands.

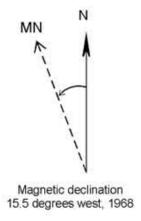
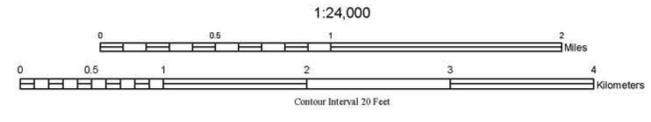


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Base map from U.S. Geological Survey.
Quadrangle names printed in blue.
Coordinate System: Vermont State Plane, meters, NAD 83.
Geographic coordinates shown at topo corners are in NAD 83.
Grid overlay on map is Universal Transverse Mercator, Zone 18N, NAD 27.

Digital Cartography by Marci Young and Marjorie Gale
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**RECHARGE POTENTIAL TO SHALLOW (UNCONFINED OVERBURDEN) AQUIFERS
BRANDON, VERMONT**
by
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