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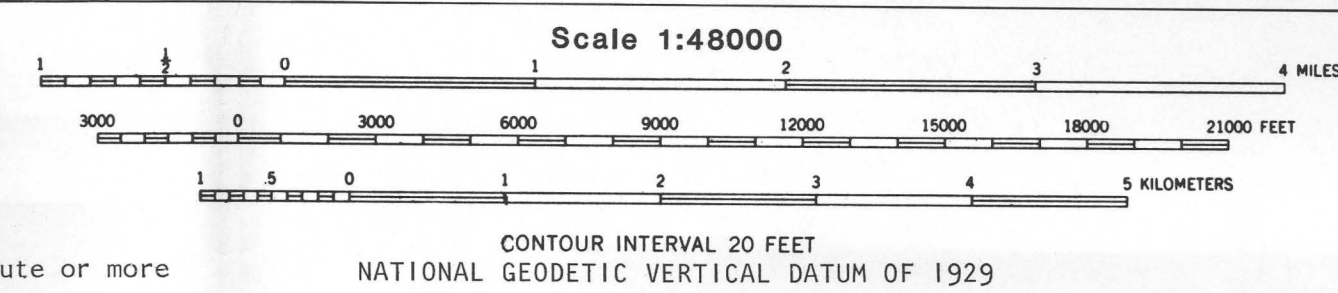
EXPLANATION

Bedrock wells

○ Wells yielding 2 gallons per minute or less ● Wells yielding 3 to 14 gallons per minute ● Wells yielding 15 gallons per minute or more

Bedrock hydrogeologic units

Lithology	Ground water
Contains metamorphic and plutonic rocks: the Mount Holly complex (primarily schist and gneiss, with minor granowacke, conglomerate and carbonates); the Cavendish, Tyson, Hoosac, Pinnacle and Intervale formations (mainly schist and phyllite with minor quartzite, conglomerate and carbonates); and igneous intrusive rocks.	Occurs in a system of interconnected fractures of otherwise impermeable rock. Fractures have been enlarged by solution in the carbonate rocks locally increasing permeability. Median well yield is 5 gal/min.
Predominantly non-carbonate rocks of the Champlain and Vermont Valleys: the Hoosacum phyllite (phyllite and schist); the Bolton, Deshires, Montpelier and Sandy Formations (predominately quartzite with dolomite, some schist, phyllite and conglomerate).	Occurs in a system of interconnected fractures in otherwise impermeable rock. Median well yield is 6 gal/min.
Predominantly carbonate rocks of the Champlain and Vermont Valleys: the Forestville, Dunham, Winslow, Clarendon Springs, Shelburne, Bacon, Chipman and Glen Falls Formations (mainly dolomite, marble and limestone with quartzite and phyllite).	Occurs in a system of interconnected fractures which have been locally enlarged by solution. Median well yield is 7 gal/min. The water is hard to very hard. Median water hardness is 250 milligrams per liter.
Predominantly slates and phyllite rocks of the west side of the Vermont Valley and the Taconic Mountains. Includes the Northville and Breese Formations (predominately graphitic pyritic phyllites and slates with minor dolomite and quartzite); and the St. Catherine Formation (slate, phyllite and quartzite). Common problems are caving, rock material sloughing into wells.	Occurs in a system of poorly interconnected fractures which are short and narrow owing to the incompetence of the rock. Median well yield is 2 gal/min. The occurrence of hydrogen sulfide gas (sulfur odor) and excessive concentrations of iron are common water-quality problems.



Bedrock Geology and Yields of Selected Wells in Bedrock,
Rutland Area, Vermont
1982