Water Well Yield and Bedrock Geology, Joes Pond Quadrangle, Vermont

by George E. Springston
2018


- 0.0 - 2.0
- 2.1 - 5.0
- 5.1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 100

Bedrock Units
- Dbg - biotite granite
- Ddbg - Derby pluton
- Dga - Gile Mtn. Fm. amphib.
- Dgqs - Gile Mtn. Fm. qtzites
- Dgr - Gile Mtn. Fm. rhyol. graded
- DSwa - Waits River Fm., mafic
- DSw - Waits River Fm.

EXPLANATION

This plate shows driller’s estimates of yields of bedrock wells in gallons per minute. Yields are indicated by the labels, as well as by the size of the green symbols. Bedrock geologic units from Ratcliffe and others (2011) are also shown. The mean well yield is 15.9 gallons per minute and the median value is 10.0 gallons per minute. Statewide, the mean yield of bedrock wells is 14.0 gallons per minute. Thus, the wells in the quadrangle have yields that are similar to the statewide average.

Yields in the Waits River and Gile Mountain Formations are compared below. Only two wells are located in the areas mapped as granitic intrusives.

Bedrock wells in the quadrangle that are in the Waits River Formation have a mean yield of 17.2 gallons per minute and a median yield of 10.0 gallons per minute while those in the Gile Mountain Formation have a mean yield of 8.7 gallons per minute and a median yield of 5.0 gallons per minute. The median yield values were compared using a Wilcoxon-Mann-Whitney test. With a 95% confidence limit the Waits River Formation is found to be statistically higher than the Gile Mountain Formation.

Reference:

Legend:
- Water Bodies
- Streams
- Quadrangle Boundaries
- Major Roads
- Minor Roads
- Study Area
- Town Boundaries
- Dgr - Gile Mtn. Fm., amphib.
- Dgqs - Gile Mtn. Fm. qtzites
- DSw - Waits River Fm.
- DSwa - Waits River Fm., mafic
- Ddbg - Derby pluton
- Dbg - biotite granite
- Water Well Yield (gpm)
- 0.0 - 2.0
- 2.1 - 5.0
- 5.1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 100
- 21 - 40
- 41 - 60
- 61 - 100

Geographic coordinates shown at topo corners are in NAD 83. Digital cartography by George Springston, December 31, 2018.

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 State of Vermont.

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