

Preliminary Potentiometric Surface (Static Water Level) Contours for the Bedrock Aquifer of the Clarendon Area, Vermont

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DESCRIPTION OF MAP SYMBOLS

Well Locations

(Labels = Static water level elevation, ft)

◆ Bedrock Well (n = 219)

▨ Rutland Airport Runways

Generalized Static Water Level Elevation GIS Outputs Derived From Raster Contouring of Well Data

--- Static Water Level Contour (50 ft)

Static Water Level

High: 1,300 ft

Low: 494 ft

This map was produced at a scale of 1:17,000 and is designed to show general static water level for the town of Clarendon, Vermont.

LiDAR and Imagery Bases from VT Center for Geographic Information (VCGI)
Projected Coordinate System: NAD 1983 2011 StatePlane Vermont FIPS 4400

This map includes Static Water Level (Potentiometric Surface) contours (50 ft) derived from an interpolated Static Water Level raster. This raster was interpolated using the Inverse Distance Weighted interpolation technique from the "Static Water Level" field in the WellDrillerReports database (<https://anrweb.vt.gov/DEC/WellDrillerReports/Default.aspx>). Only wells with static water level information were included in the interpolation. IDW parameters: Output cell size = 2, Power = 2, Search radius = variable, Number of points = 12. The resulting raster was smoothed using the FOCAL STATISTICS tool. FOCAL STATISTICS parameters: Neighborhood = circle, Radius = 50 map units, Statistics type = mean. The Static Water Level contours were constructed using the CONTOUR tool with a 50 foot contour interval. Some contours were hand edited in places to more accurately portray static water level data.

Software: ArcGIS Pro 2.7.0, Spatial Analyst Tools

References

Van Hoesen J.G., 2014, A Geographic Information Systems (GIS)-Based Approach to Derivative Map Production and Visualizing Bedrock Topography within the Town of Rutland, Vermont, USA: ISPRS Int. J. Geo-Inf, v. 3, p. 130-142, doi:10.3390/ijgi3010130.

