

Explanation for the Geologic Structure Contour Maps

The bedrock structure contours shown on these maps were derived from county-wide geologic mapping that was undertaken as a part of the water-resource investigation. The structure contours were released as a 1:50,000 map by the Pennsylvania Geological Survey as part of an open-file publication. (Dodge and Glover, 1995, Bedrock geologic map and structure-contour map of Warren County, Pennsylvania: Pennsylvania Geological Survey, 4th ser., Open-File Report 95-02, 2 pls., scale 1:50,000)

Structure contours represent lines of equal elevation on a particular geologic horizon that can be identified over a wide area. It provides geologists with a reference elevation on which to base geologic interpretations throughout the study area. Structure contours for this investigation were prepared for one of two different geologic horizons – either the base of the First Warren Sandstone or the top of Corry Sandstone (or its equivalent).

The First Warren Sandstone is the uppermost oil bearing sandstone bed in the Devonian Bradford group. The First Warren Sandstone does not crop out in the county so the structure contours are based strictly on interpretation of subsurface data, mostly geophysical logs from oil and gas wells. The horizon of the Corry sandstone does crop out over much of the county so, in addition to geophysical logs, data was derived from field observations as well as interpretation of aerial photography.

Explanation of Map Symbology



Structure contour showing the elevation at the base of the Warren First Sandstone. Elevation in feet, contour interval is 20 feet.



Structure contour showing elevation on the top of the Corry Sandstone or its equivalent. Elevation in feet, contour interval is 20 feet