Bedrock Elevation and Quaternary Thickness Maps of the Donnellson 7.5' Quadrangle, Lee County, Iowa

Introduction

The Bedrock Elevation and Quaternary Thickness Maps of the Donnellson 7.5' Quadrangle (OFM-20-2) show the elevation of the bedrock surface and the thickness of Quaternary deposits within the mapping area. The maps provide insights into the topography and geology of the area, which is essential for various applications such as urban planning, resource management, and environmental studies.

Methodology

The Bedrock Elevation and Quaternary Thickness Maps of the Donnellson 7.5' Quadrangle were created using a combination of field data, borehole records, and existing geologic maps. The bedrock topographic lines were drawn based on borehole data coupled with bedrock outcrop observations. The bedrock elevation contours were digitized manually on screen using ArcGIS software at a scale of 1:24,000.

More than 280 boring records from the IGS GeoSam database, including both driller's logs and core samples, were used to generate the Quaternary thickness map. Each record was checked for locational accuracy using information from the driller's logs. The contours were generated from this result and then smoothed.

Support

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