**Introduction**

The Muscatine Quadrangle in Muscatine County, Iowa, and Rock Island County, Illinois, is located within the Southern Iowa Hill-Plateau and Mississippi Valley Adjoining Plan (MVAP) Sandusky region. The MVAP is an area with topography defined by intense, north-south-trending faults and stresses, where the MVAP is a low-relief basement consisting of residual diapiric uplifted by the Mississippi River. Due to the abundance of the MVAP, this map area has a tremendous diversity of stratigraphic sections, indicating a complex geologic history. The Mississippi River Bedrock Channel (MRBC) is a prominent feature in this map area due to its repeated exposure over time.

The bedrock surface of the Muscatine Quadrangle is dominated by the Middle Devonian area of the Muscatine and Muscatine Valley groups, which are primarily composed of a vermiform area of the Muscatine and Muscatine Valley groups. A dense limestone characterizes the Pulaski Member, however, discontinuous beds of the spring Grove and Davenport members are absent. The Spring Grove and Davenport members are present in the respective areas of the map area.

Further detail about the bedrock elevation and stratigraphy is included in the Muscatine Quadrangle. Excavation of the map area can be found in the accompanying map (Map 1: Bedrock Geologic Map of the Muscatine Quadrangle, Iowa, Figure 1). A more comprehensive account of the stratigraphy of the Muscatine Quadrangle is included in the associated geologic report.

**Stratigraphic Column**

- **Otis Formation**
  - *Givetian*
- **Muscatine (formerly "Caseyville") Formation**
  - *Morrowan*
- **Spring Grove Member**
- **Davenport Member**
- **Quaternary**
  - *Last Glacial* Glacial till is largely missing in the MVAP, however, both Devonian and Pennsylvanian strata outcrop along its bluffs just beyond the mapping area. Erosion during the Quaternary has exposed Devonian units within the Mississippi River Bedrock Channel, however, both Devonian and Pennsylvanian strata are present along its bluffs just beyond the mapping area.

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