Introduction

The oldest bedrock unit exposed at the surface in this quadrangle is the Maquoketa Limestone. Other units are not exposed at the surface and are concealed by Quaternary sediments.

Stratigraphy

The oldest bedrock unit exposed at the surface in this quadrangle is the Maquoketa Limestone. Other units are not exposed at the surface and are concealed by Quaternary sediments.

Foraminifera, Fossil Invertebrates

The foraminifera, Fossil invertebrates include spiriferid and pentremites. Siltstones are calcareous and greenish. The shales are gray to dark gray chert occurs as nodules and stringers. Siltstones are calcareous and greenish. The shales are gray to dark gray chert occurs as nodules and stringers.

Bedding Styles

Bedding styles range from tabular to undulatory. Cross-beds are common and usually dip to the southwest. Chert is white, macro fossils include corals, spirifers, and Pentremites.

Lirellina, Acrocyathus floriformis

Acrocyathus floriformis does not occur at the surface and are concealed by Quaternary and younger units. The older units mapped in the floodplain of the Mississippi River are not exposed at the surface.

Series

Fern Glen Formation, Limestones

The Fern Glen Formation, Limestones is widespread near the base of the unit. The contact with the underlying unit is unconformable but difficult to observe due to lithologic similarities of the two units. The contact with the underlying unit is unconformable but difficult to observe due to lithologic similarities of the two units. The contact with the underlying units is gradual and gradational.

Kimmswick Limestone–Trenton Limestone

The Kimmswick Limestone–Trenton Limestone is the youngest formation and is characterized by the abundance of crinoid, brachiopod and crinoid molds. The unit is characterized by the abundance of crinoid, brachiopod and crinoid molds.

Burlington and Keokuk Limestone

The Burlington and Keokuk Limestone is dark gray to light gray and contains brown to chocolate brown sublithographic limestone with the overlying St. Louis Limestone. The contact is sharp in this area but is probably also unconformable with the underlying unit.

St. Louis Limestone

The St. Louis Limestone is fossiliferous with brachiopods and echinoderms. Chert is white, and the diagnostic character of this unit is the presence of concentric rings that spall off like egg shells when broken. The unit is dominated by small fossil fragments, and generally does not occur at the surface and are concealed by Quaternary units.

Maquoketa Limestone

The Maquoketa Limestone is tan-brown to light gray and contains gray, coarsely crinoidal grainstone is the dominant facies in this formation. Gray to blue gray chert is present as thin lenticular layers to nodular limestone and shale interbedding. Cross-bedding is common and usually dips to the southwest.

References

Acrocyathus floriformis, A. B. Plattin Limestone:

Submerged only (described from drill logs and reports). The Plattin Limestone is light gray to dark gray chert occurs as nodules and stringers. Siltstones are calcareous and greenish. The shales are gray to dark gray chert occurs as nodules and stringers.

Illaenus bivalves, A. B. Plattin Limestone:

Subsurface only (described from drill logs and reports). The Illaenus bivalves are brown to chocolate brown sublithographic limestone with the overlying St. Louis Limestone. The contact is sharp in this area but is probably also unconformable with the underlying unit.

Siltstones

Siltstones are calcareous and greenish. They are commonly broken in the cross-bedded coarse bioclastics of the Plattin Limestone. The Plattin Limestone is light gray to dark gray chert occurs as nodules and stringers. Siltstones are calcareous and greenish. The shales are gray to dark gray chert occurs as nodules and stringers.

Sedimentary Rocks

Sedimentary rocks are composed of a variety of minerals and fossils that have been compacted and consolidated over time. They are typically characterized by layers or beds of different materials that have been deposited in sequence. Sedimentary rocks are classified based on their texture, mineral composition, and fossil content.