

Surface Geology

Fessenden East Quadrangle, North Dakota

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EXPLANATION

QUATERNARY SYSTEM

RECENT

OAHE FORMATION

Qor Alluvium

River and stream sediment. Dark obscurely bedded clay and silt (mainly overbank sediment); generally overlying cross-bedded sand (channel sediment); on plains of modern streams.

Qod Windblown Sediment

Loess or sand-covered surface. Well-sorted fine sand and black silt with obscure bedding and weak paleosols, commonly with knobby topography.

PLEISTOCENE

COLEHARBOR GROUP

Silt Facies

Insignificant amounts of this facies on this quadrangle.

Sand and Gravel Facies

River sediment. Moderately well-sorted, cross bedded sand and plane-bedded gravel, including sediment of meltwater rivers.

Qcerf Flat Fluvial Plains

Flat-bedded sediment of nearly level plains and river terraces, commonly with braided channel scars, oxbows, and other relict markings; relief of 1 to 10 feet. Mainly along minor valleys.

Qcic Ice-Contact Deposits

Mainly gravel and sand with cobbles and boulders common; inclusions of glacial sediment common; local relief up to 50 feet; eskers and kames.

Till Facies

Glacial sediment. Unsorted, unbedded mixture of angular, subangular, and rounded blocks of rock, gravel, and sand, generally in a stiff matrix of silt and clay; yellowish-brown to olive-gray in exposures depending on weathering intensity; contains discontinuous lenses of gravel and sand.

Qceg Collapsed Glacial-Gently Undulating

Supraglacial sediment with hummocky topography; areas of linear topography and ice-thrust topography interspersed; gently undulating with 1 to 2 degree maximum slopes.

Qcer River-Eroded Glacial Sediment

Glacial sediment with flat to undulating topography resulting from stream erosion in the bottom of large meltwater trenches or over broad areas of till that have been washed by running water, overlain by a thin layer of fluvial sediment of the Coleharbor Group or Oahe Formation in places.

Geologic Symbols

- Known contact between two geologic units
- - - Approximate contact between two geologic units
- Ridge-Transverse

Other Features

- Water
- Water - Intermittent
- State Highway
- Paved Road
- Unpaved Road

