

# Surface Geology

## Flora SE 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.

**Qos** Pond and Slough Sediment

Dark, obscurely bedded clay and silt; in modern ephemeral ponds.

##### 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.

**Qcrf** 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 in the northern part of the quadrangle and along the Sheyenne River valley.

**Qcrf(u)** Flat Fluvial Plains - Upper

Slightly higher level, presumably older fluvial surface.

**Qcrf(l)** Flat Fluvial Plains - Lower

Slightly lower level, presumably younger fluvial surface incised in the upper, Qcrf-u surface. Qcrf(u) and Qcrf(l) are differentiated only where both are present.

##### 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.

**Qcci** Slopewash-Eroded Till Surface

Glacial sediment on the sides of valleys.

**Qcdg** Glacial Sediment

Thin glacial sediment draped over pre-existing topography; mainly till draped over older glacial topography.

**Qcrl** Rolling To Hilly Surface With Kettles

Ridges, ice-disintegration features, and poorly integrated drainage; has both overall and internal linearity; moderately thick layer of till; relief of 50 to 100 feet locally ("end moraine").

**Qct** Ice-Thrust Masses

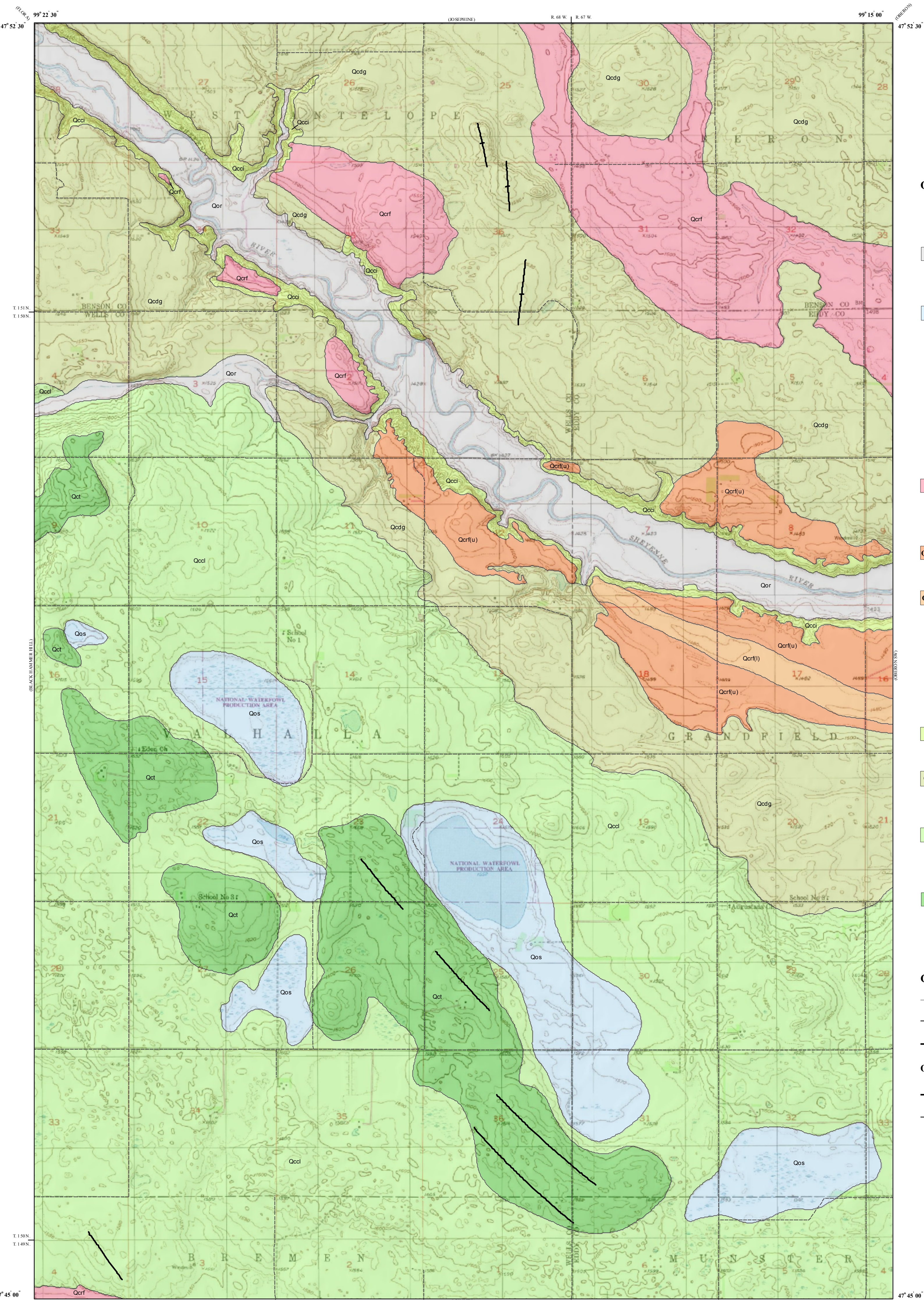
Glacial sediment that has been draped over glacial or preglacial sediment or rock that has been sheared up into thrust slabs or folds near the ice margin; hilly areas with intense internal linearity; local concentrations of gravel and boulders; local relief may exceed 150 feet.

#### Geologic Symbols

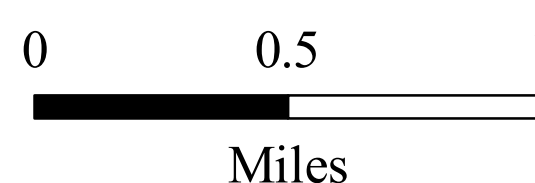
- Known contact between two geologic units
- Abandoned channel
- Ridge-Transverse

#### Other Features

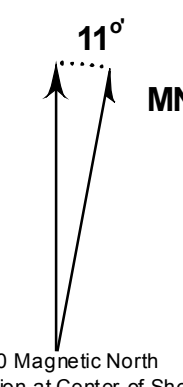
- Paved Road
- - - Unpaved Road



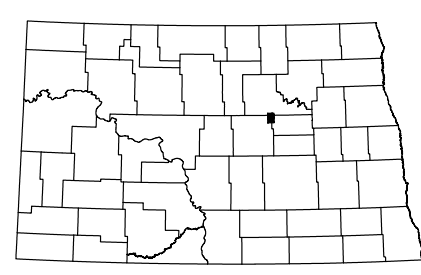
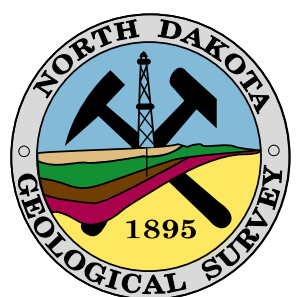
Scale 1:24,000



Miles

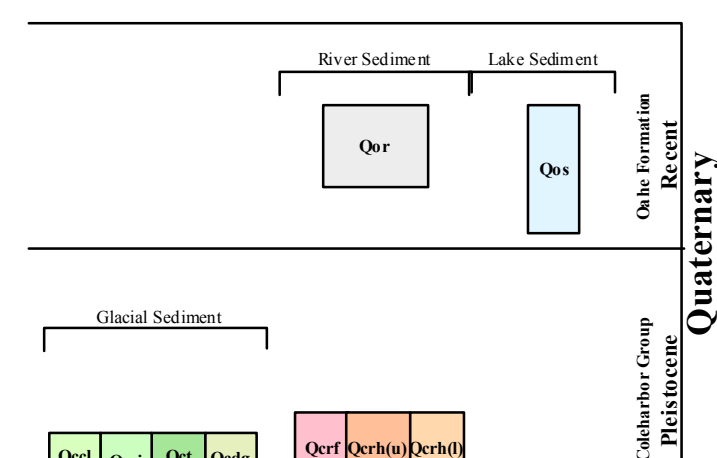


1950 Magnetic North  
Declination at Center of Sheet



Flora SE Quadrangle, North Dakota

Lambert Conformal Conic Projection Standard Parallels 47° 45' 00" and 47° 52' 30"  
1927 North American Datum NGVD 1929  
USGS 7.5 Minute Topographic Map Contour Interval 5 Feet  
Road Layer Rectified to 2003 NAIP Digital Orthophoto



Quaternary  
Recent  
Pleistocene  
Cole Harbor Group