

Surface Geology

Casselton SE Quadrangle, North Dakota

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EXPLANATION

QUATERNARY SYSTEM

HOLOCENE EPOCH

Hls **LANDSLIDE DEPOSITS**
A mass of material that has moved downslope. Includes earth flows, slumps, and areas of soil creep.

Hal **ALLUVIUM**
Brown-gray, bedded to massive, sands, silts, gravels, and clays deposited as reworked and recent channel alluvium and overbank deposits. Constrained to areas along older meander belts and tributary drainages.

Hs **GLACIOLACUSTRINE OFFSHORE SEDIMENT**
Yellow-gray, laminated to obscurely bedded, silt, clay, and silty-clay, cohesive. Commonly near 30-feet in thickness within the quadrangle. Glaciolacustrine sediments deposited in offshore environments of Glacial Lake Agassiz.

PLEISTOCENE EPOCH

COLEHARBOR GROUP

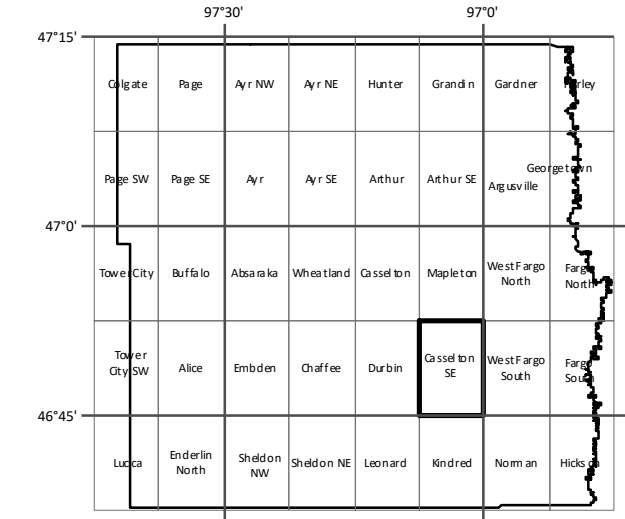
BRENNA FORMATION

Qb **GLACIOLACUSTRINE OFFSHORE SEDIMENT**
Not Exposed in Map Area, Shallow Subsurface Unit
Brown to very dark-gray, slightly laminated to unbedded, soft, slickensides. Directly underlies the Sherack Formation throughout the quadrangle. Depth and thickness values shown at available test hole/well locations.

ICE-DRAG MARKS
Low ridges and shallow grooves made by floating lake ice in contact with offshore lake bottom sediment.

Geologic Symbols

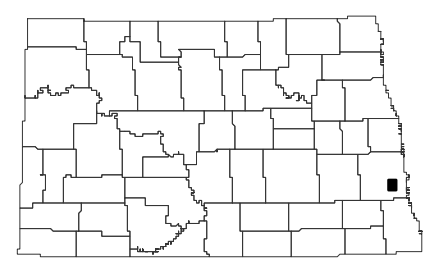
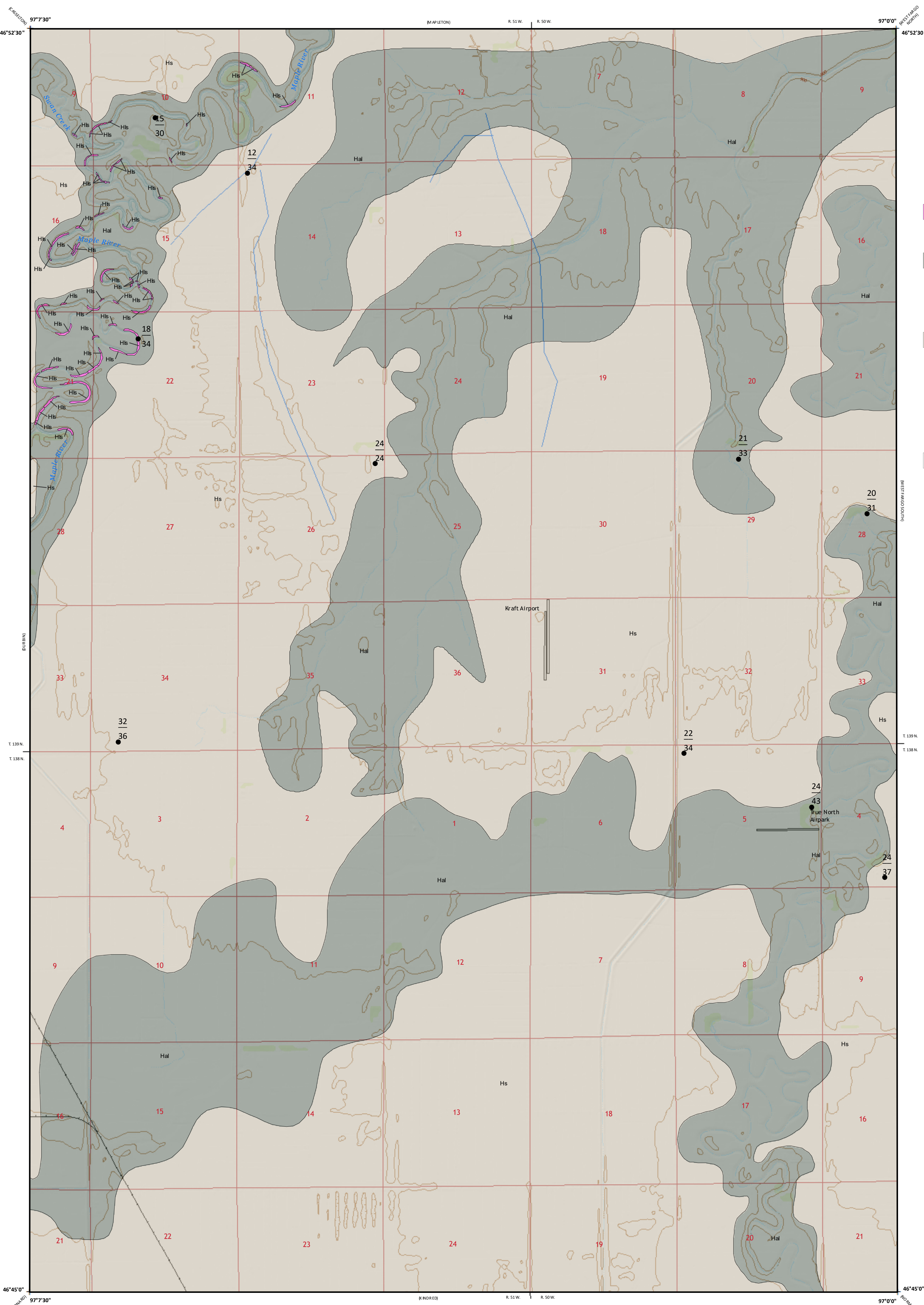
- Geologic contact (Known)
- BRENNA FORMATION**
- Test hole/Well Location
- Depth (FT)
- Thickness (FT)



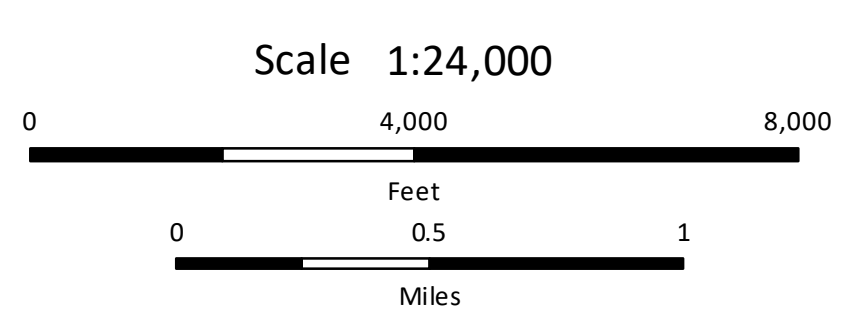
Index to 1:24,000 Quadrangles, Cass County

CORRELATION OF MAP UNITS

Glaciolacustrine	Fluvial		Geohazards	Geochronology	
	Offshore	Channel/Overbank		Epoch	Period
Hs	Hal	Hls	Holocene	Quaternary	
Qb			Pleistocene		



Casselton SE Quadrangle, North Dakota



Lambert Conformal Conic Projection
North American 1983 Datum
USGS 7.5 Minute Topo Map

Standard Parallels 46°45'0"N, 46°52'30"N
NGVD 1988

