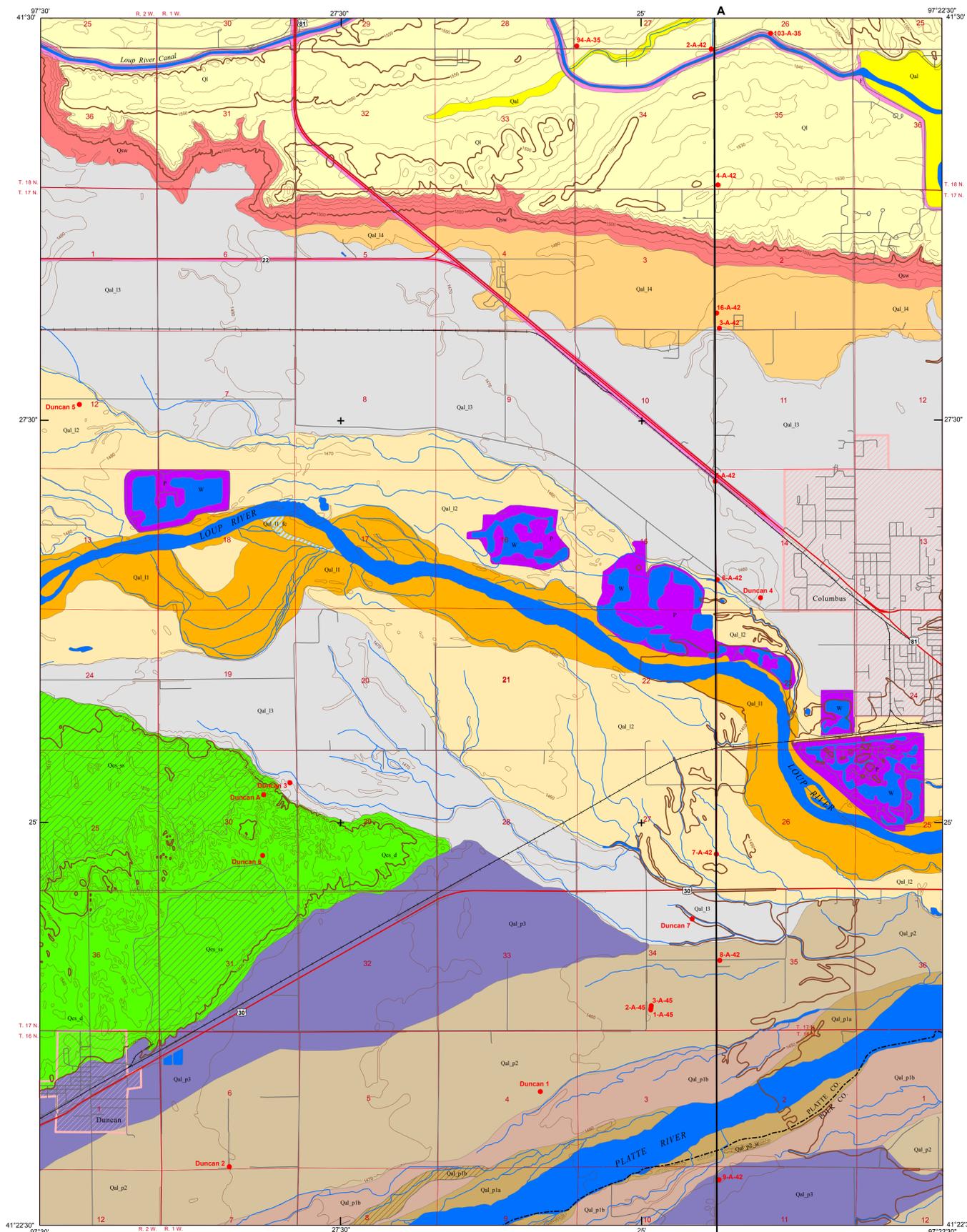


Surficial Geology and Interpretive Cross Section of the Duncan 7.5 Minute Quadrangle, Nebraska

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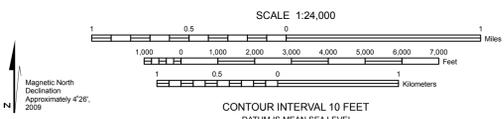


Surficial Geology of the Duncan 7.5 Minute Quadrangle, Nebraska

Description of Mapping Units:

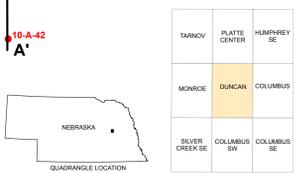
- Qal** Alluvium (Holocene).
Silt and clay with local sandy deposits
Holocene sediments in small stream valleys sourced in the loess-covered uplands.
- Qal_II** Loup River Alluvium, recent channel belts (late Holocene).
Fine to medium sand with local deposits of silt or clay
Largely historic aged alluvium found directly alongside the active Loup River channel belt. Vegetation cover on these deposits varies from trees to minimal vegetation. Alluvial bar and swale topography is apparent where not obscured by vegetation.
- Qal_II_c** Flood Channel. Channels that were occupied during recent flooding events on the Loup River.
- Qal_II_a** Loup River Alluvium, abandoned alluvial sediments and channel belts (late Holocene).
Fine to medium sand with local areas of silt and clay
Alluvium with bar and swale topography present locally. Predominantly sand and pebbly sand below the ground surface.
- Qal_III** Loup River Alluvium, (Holocene).
Silt and clay overbank sediments that overlie sandy sediments
Silt and clay overbank sediments range from 10-15 feet thick. Alluvial bar and swale topography are visible locally.
- Qal_IV** Loup River Alluvium (Holocene).
Silt and Clay with local sandy deposits that overlie deeper sandy sediments
Silt and clay overbank sediments range from 10-15 feet thick. Alluvial bar and swale topography are not visible.
- Qal_p1** Platte River Alluvium, recent braided channel belt (late Holocene).
Fine to coarse sand with local areas of silt or clay
Late Holocene, and largely historic sediments along the present Platte River. Bar and swale topography evident where not obscured by vegetation. These areas have a shallow water table. **Qal_p1a** deposits have abundant bar and swale topography, while **Qal_p1b** deposits have local alluvial bar and swale topography.
- Qal_p1_c** Flood Channel. Channels that are occupied during flooding events on the Platte River.
- Qal_p1_sr** Sand Ridges. Linear features that are composed predominantly of fine sand that stand approximately 6-12 feet (2-4 m) above the surrounding Qal_p1 surfaces.
- Qal_p2** Platte River Alluvium (Holocene).
Fine to coarse sand with local areas of silt or clay
Alluvial sediments that are less frequently inundated by flood waters relative to Qal_p1 deposits. Alluvial bar and swale topography are visible only locally.
- Qal_p3** Platte River Alluvium (Holocene).
Fine to coarse sand with local areas of silt or clay
Alluvial bar and swale topography are visible only locally.
- Qes** Eolian Sand, Late Holocene.
Fine to medium sand, well-sorted
Wind blown sand over 3 feet thick and includes areas of both dunes and sand sheets that overlie abandoned late Pleistocene to Holocene alluvium.
- Qes_d** Dunes. Dunes have relief of 5 to 20 feet.
- Qes_ss** Sand Sheet. Sand sheets have relief of less than 10 feet.
- Ql** Peoria Loess, late Pleistocene.
Silt to silty clay.
Wind-blown silt that was deposited in the late Pleistocene. Peoria Loess in the mapping region ranges from 35-45 feet (11-14 m) in thickness and overlies Pleistocene alluvium.
- Qsw** Slope Wash and Alluvial Fan Deposits (late Pleistocene and Holocene).
Silt and clay with local sandy deposits
Predominantly silt and clay deposits that gently slope away from the loess-covered uplands that these slope wash and fan deposits are sourced from. Locally these deposits exceed 10 feet in thickness.
- F** Artificial Fill.
Largely silt and clay fills, including fill along major roads and artificial levees along canals.
- G** Gravel Pits.
Includes deposits resulting from both active and inactive gravel mining operations.
- W** Water
- Test hole location

Projection: UTM zone 14 North, NAD83
Contours from the Nebraska Department of Natural Resources, compiled from USGS 7.5 minute topographic quadrangles
Additional base data derived from 2005 second edition TIGERline files



Magnetic North Declination Approximately 4°20' 2009

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL



TARNOV	PLATTE CENTER	HUMPHREY SE
MONROE	DUNCAN	COLUMBUS
SEVER CREEK SE	COLUMBUS SW	COLUMBUS SE

