Surficial Geology and Interpretive Geologic Cross Section of the Schuyler 7.5 Minute Quadrangle, Nebraska
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**Surficial Geology of the Schuyler 7.5 Minute Quadrangle, Nebraska**

**Description of Mapping Units:**

- **Alluvium (Holocene):**
  - Silts and clays with local sandy deposits
  - Predominantly Late Pleistocene alluvium sourced from modern remains that are shallow, in the Platte River or Shell Creek. These deposits are primarily Holocene in age, and have ages from 2,000 to 10,000 years old.

- **Shell Creek alluvium:**
  - Silt or clay with local sand lenses in the northwest.
  - Abandoned alluvial fans of Shell Creek. These deposits are likely Holocene in age. They are typically 0 to 100 feet in thickness and are most likely formed by ancient rivers or streams.

- **Alluvial Fan Deposits (Late Pleistocene and Holocene):**
  - Silts and clays with local sandy deposits
  - Predominantly alluvial fan deposits that grade into alluvial fans from the Platte River. These deposits are Pleistocene in age and have ages from 100,000 years old.

- **Platte River alluvium:**
  - Flow in course sand with local lenses of silty clay
  - Late Holocene and largely historical sediments along the present Platte River. Bar and meander topography is evident where not obscured by modern agricultural activity.

- **Eolian sand (Holocene):**
  - Predominantly alluvial fan deposits that grade into dunes from the Platte River. These deposits are Holocene in age and have ages from 1,000 to 10,000 years old.

- **Loess Covered Dunes (Late Pleistocene):**
  - Silty clay to sandy loam
  - Late Pleistocene eolian dune deposits from 1-10 feet thick.

- **Loess Covered Alluvial Deposit (Late Pleistocene):**
  - Silty clay
  - Late Pleistocene eolian dune deposits from 1-10 feet thick.

- **Slopewash:**
  - Silty clay
  - Late Holocene and largely historical sediments along the present Platte River. Bar and meander topography is evident where not obscured by modern agricultural activity.

- **Eolian sand (Holocene):**
  - Predominantly alluvial fan deposits that grade into dunes from the Platte River. These deposits are Holocene in age and have ages from 1,000 to 10,000 years old.

- **Undifferentiated Holocene alluvium (Holocene):**
  - Silts and clays with local sandy deposits
  - Predominantly alluvial fan deposits that grade into dunes from the Platte River. These deposits are Holocene in age and have ages from 1,000 to 10,000 years old.

**Additional base data derived from 2005 second edition TIGER/line files**

**Legend:**

- **Qa, Qap1a, Qap1b:**
  - Alluvium

- **Qa, Qap3:**
  - Eolian sand

- **Qa_sh:**
  - Loess Covered Alluvial Deposit (Late Pleistocene)

- **Qap2a, Qap2b:**
  - Alluvial Fan Deposits (Late Pleistocene and Holocene)

- **Qa_sh:**
  - Loess Covered Dunes (Late Pleistocene)

- **Qa_sh:**
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- **Qa_sh:**
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The Platte River Valley contains a complex fill of alluvial and eolian deposits that create Glacial/Continental deposits. The majority of the alluvial deposits found in the valley were deposited by the Platte River valley prior to 0 ka. The innermost landforms located between the Platte River and Shell Creek in the southeastern portion of the map are interpreted as abandoned alluvial fans of the Platte River. The top of the landform is 10 to 15 meters (33 to 50 feet) above the present-day Platte River. After its abandonment, the terrace became a site where sand and gravel deposits were eventually pushed and moved to the present-day Platte River. Based on the Platte River valley, relative dating suggests that the terrace was abandoned around 25 to 15 ka.

Two younger terraces are found in the Platte River valley and are indicated by the extreme southern edge of the map and is also found 6 to 8 meters (20 to 25 feet) above the present Platte River. These terrace remnants are found between the recent Platte River alluvium and the Cretaceous bedrock. The majority of the alluvial deposits found in the valley were deposited by the Platte River in the past ~25 ka. The loess deposit overlie Cretaceous bedrock. The majority of the alluvial deposits found in the valley were deposited by the Platte River in the past ~25 ka. The loess deposit overlie Cretaceous bedrock.

References Cited


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