

Structural Cross-Section Legend

Stratigraphic Column

Quaternary Deposits: Unconsolidated recent deposits

Younger Tertiary Rocks: Unconsolidated fossil and volcanic deposits

Denver Basin Group Sequence D2: Tertiary deposits deposited by alluvial fans. Coarse-grained arkosic facies are shaded yellow. Fine-grained overbank deposits are shaded pink. Coarse-grained deposits dominate the west side of the basin in a similar fashion to the underlying fans.

Denver Basin Group Sequence D1: Tertiary deposits deposited by alluvial fans. Coarse-grained arkosic and arkosic facies are shaded yellow. Fine-grained overbank deposits are shaded pink. Coarse-grained deposits dominate the west side of the basin in a similar fashion to the underlying fans.

Laramie Formation: Tertiary coastal plain deposits. Shale is shaded green. Silt and sand lenses are shaded yellow. Coal is common near the base.

Fox Hills Sandstone: Beach to lower shoreline deposits. Fine-grained sands intertongue with the Laramie Formation above and the marine Pierre Shale below.

Pierre Shale: Marine shale with occasional marine sand and silt.

Geologic Boundaries

Conformable Boundary

Unconformable Boundary

Intermediate Boundary

Surface Mapped Geologic Units of the Dawson Group

TK2 Dawson Arkose: fine-grained sandstone, shale, and lignite facies (Bryant et al., 1981)

TK2 Denver Formation (Trimble and Machette, 1979)

TK2 Dawson and Arapahoe Formations (Trimble and Machette, 1979)

Geophysical Log Traces and Completion Details

Well identification: DWR permit number for water wells, DWR Unique Well Identification for unpermitted wells, PS number for Biju Creek exploration boreholes, and API number for oil and gas wells.

Deep Resistivity (MDI): LINEAR SCALE 1:100 CUTOFF = 8.00

Shallow Resistivity (MSI): LINEAR SCALE 1:100 CUTOFF = 8.00

Resistance (MM): LINEAR SCALE 1:100 CUTOFF = 25

Completed interval from Division of Water Resources well records

A vertical line indicates wells without digitized log traces used for depth control at cross-section edges

Note on Facies Correlations

Coarse-grained arkosic facies have been given solid yellow shading. Higher resistivity values on the well logs have been given solid yellow shading. Fine-grained facies, as interpreted from lower resistivity values have been given darker shading. In places where coarse-grained facies are laterally correlative, the solid yellow shading connects between neighboring wells. In places where coarse-grained facies are not laterally correlative, the darker shading connects between neighboring wells. Individual sandstone and siltstone or intervals of alternating coarse-grained facies in cases where lateral correlation could not be made with confidence between adjoining wells, individual sand bodies are depicted as solid yellow lens-shaped polygons. Horizontal dimension is not implied by the polygon size. Areas between wells filled with transparent lens-shaped polygons indicate that lenses of coarse material of variable thickness and lateral extent may be present at any depth.

