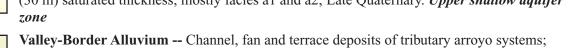
# **CROSS SECTION EXPLANATION (PLATE 2)**

## **Hueco Bolson Hydrostratigraphic Units (HSUs) RIO GRANDE VALLEY FILL**

# Rio Grande Alluvium -- River-channel and floodplain deposits of the Rio Grande; up to 100 ft (30 m) saturated thickness; mostly facies a1 and a2; Late Quaternary. Upper shallow aquifer



Undifferentiated deposits of (VAY and VAO) of major ephemeral tributaries to the Rio Grande; facies b (like 5 and 6); Middle and Late Quaternary

Younger Valley-Border Alluvium -- Valley fill deposits associated with entrenchment and backfilling of major arroyo tributaries to the Rio Grande; facies b (like 5 and 6); Late Quaternary

Rio Grande Terrace Deposits, undivided -- Channel and overbank sediments of the ancestral Rio Grande; as much as 150 ft above the present floodplain; mostly facies a1 entirely in the vadose zone; Middle and Late Quaternary

Older Rio Grande Terrace Deposits -- High-level river deposits; as much as 200 ft above the present floodplain; mostly facies a2, entirely in the vadose zone; Middle Pleistocene

#### YOUNGER BASIN FILL

VAY

Piedmont-Slope Alluvium -- Older and younger piedmont-slope deposits and correlative PAU Upper Santa Fe piedmont facies (5 to 8), undivided; Middle Pleistocene

**Piedmont-Slope Deposits** -- Younger and older (PAO) piedmont-slope deposits, undivided, stippeled where up to 10 ft (3 m) of Late Quaternary eolian cover is present; Middle and Late Quaternary mostly facies 5 and 6

Basin-Floor Deposits, undivided -- alluvial flat and small playa depression fills; mostly facies c and 3; entirely in vadose zone; Middle and Late Quaternary

Basin-Floor Deposits -- with thin eolian cover, undivided **EBF** 

Basin-Floor Playa-lake Deposits -- local depressions on basin-floor alluvial plains (unit BF); as much as 20 ft (6 m) thick and entirely in vadose zone; fine-grained with thin sandy layers; mostly facies c

### SANTA FE GROUP BASIN FILL

Upper Santa Fe HSUs, undivided -- medial to distal piedmont facies 5 and 6 that grade to **USF** basin-floor facies 1 to 4; Early Pleistocene to Late Miocene

Upper Santa Fe HSUs -- medial to distal piedmont facies, mostly facies 5 and 6; includes USF1 Camp Rice Formation; up to 10 ft (3 m) of upper Quaternary eolian cover is locally present; Early Pleistocene to Late Miocene

Upper Santa Fe HSUs -- basin-floor facies 1 to 4, undivided; includes Camp Rice Formation subdivisions; up to 10 ft (3 m) of upper Quaternary eolian cover is locally present; Early to Late Miocene

Upper Santa Fe HSUs -- mostly proximal piedmont facies 6 and 8; includes Camp Rice Formation subdivisions; Pliocene to Late Miocene

Middle Santa Fe HSUs, undivided -- primarily conglomeratic piedmont facies 7 and 8 that grade to basin-floor facies 3 and 4; includes Fort Hancock and Rincon Valley Fm correlatives Note that unit only occurs in the subsurface beneath the central basin areas and is saturated; Upper Cenozoic-Miocene

Middle Santa Fe HSUs -- primarily conglomeratic piedmont facies 7 and 8; includes Fort MSF1 Hancock and Rincon Valley Fm correlatives;

Middle Santa Fe HSUs -- basin-floor facies undivided; primarily weakly to moderately MSF2 indurated pebbley sandstones, sandstones and mudstones of facies 3, 4, and 9 (mostly in the zone of saturation); includes Rincon Valley Fm correlatives.

Middle and Lower Santa Fe HSUs -- undivided

MLS

**Lower Santa Fe HSUs --** undivided piedmont and basin-floor facies 4, 7, 8, 9, and 10; fanglomerate, conglomerate, conglomeratic sandstone, siltstone, and mudstone with thin, limestone and gypsite (facies 10) layers. Note that unit only occurs in subsurface; Upper Cenozoic-Miocene

Lower Santa Fe HSUs -- piedmont facies 7 and 8 LSF1

Lower Santa Fe HSUs -- basin floor facies 3, 4, 9, and 10

### **BEDROCK UNITS**

Intermediate Intrusive igneous rocks, undivided (Lower Cenozoic) Tli

Mostly lower Eocene-Paleocene (Lower Cenozoic) sedimentary rocks, sandstones, mudstones Tls and conglomerates with minor or no volcaniclastic constituents

Upper Cretaceous marine sedimentary rocks, undifferentiated -- Limestone, silty to shaly Limestone, and shale

Permian Rocks, Undifferentiated - Primarily limestone, sandstone and red-bed mudstones

Pennsylvanian and Lower Permian Rocks, Undifferentiated-Primarily Limestone and redbeds, sandy mudstone, with shale, sandstone and gypsite

Paleozoic Rocks, Undifferentiated

Upper Paleozoic Rocks, Undifferentiated -- Primarily limestone, with shale, sandstone, red-bed Pzu mudstones and gypsite

Middle Paleozoic Rocks, Devonian and Mississipian, primarily carbonate types, with shale Pzm

Lower Paleozoic Rocks, Cambrian to Silurian, primarily carbonate types Pzl

Precambrian Rocks, Undifferentiated

## **Textural-Class Symbols -- Dominant Clast-size Range**

- c Coarse-grained -- Gravel and gravelly sand
- m Medium-grained -- Sand and pebbly sand
- f Fined-grained -- Silty to fine sandy clay

Mi

fine-grained

medium-grained

Well Control, including City of El Paso and CD. Juearz watersupply wells -- solid within 5000 ft of section line; dashed when 5000-7000 ft from section line

medium- to fne-grained

medium- to coarse-grained

X-sec (1.6pt)

Major tics (0.8pt)

Surface (1pt) Certain contact (1pt)

—— Uncertain contact (1pt, dashed: 8pt, 2.5pt)

Fault (2.8pt)

Well on section (1.4pt)

---- Well off section (1.4, dashed: 5pt, 2pt) —— Leaders (.50pt)



Fault -- Dashed where approximate, question mark where inferred