The aquifers mapped by the Brackish Resources Aquifer Characterization System (BRACS) team at the Texas Water Development Board (TWDB) in conjunction with the Texas Water Development Board (TWDB) and the State Well Number (SWN) - BRACS team accomplishes this goal by:

- estimating saturated pore space using lithology
- calculating total dissolved solids from geophysical well logs, interpolated net sand GIS rasters, delineated salinity classes, calculated groundwater quality samples. All this data is interrelated and provided with geophysical well logs or driller's descriptions
- making 4,652 stratigraphic picks and 5,139 assigned lithologic intervals (Figure 2). Data mining and with geophysical well logs or driller's descriptions
- estimating saturated pore space using geophysical well logs, estimated salinity class. The center track shows the depth
- delineating the extent of salinity classes based on the measured and calculated total dissolved solids,
- calculating the total dissolved solids from geophysical well logs where no measured water quality samples exist,
- calculating an estimate of in place groundwater volume per aquifer salinity class.

For Brackish Groundwater in Aquifers of the Upper Coastal Plains, Central Texas, geophysical well logs were used to make 4,952 stratigraphic and 5,139 groundwater salinity calulations. More than 2,000 wells with geophysical well logs or driller's descriptions assigned lithologic intervals (Figure 2). Data mining and aquifer determination yielded 3,862 measured water quality samples. All this data is interpolated and provided the foundation to map and characterize the groundwater of the study area.

GIS datasets from this study, for example formation surfaces elevation rasters and net sand point value shapefiles, can be downloaded from the Texas Water Development Board's website: http://www.twdb.texas.gov/innovativewater/bracs/studies/UCP/index.asp.

In addition to the study report and GIS datasets, stratigraphic, lithologic, and salinity interpretations are saved in the BRACS Database. It may be downloaded with an accompanying data dictionary: http://www.twdb.texas.gov/innovativewater/bracs/database.asp.

We constructed nine regional cross-sections, six strike-oriented and three dip-oriented (Figure 3), to illustrate the stratigraphy, lithology, and salinity interpretations for selected wells in the project. Structural cross-section of Strike Line B (Figure 1) was constructed from Brackish Groundwater in Aquifers of the Upper Coastal Plains, Central Texas data and interpretations stored in the BRACS Database. Each well on the line is labeled with the owner's name and either the BRACS Database well ID (5 digit, auto-assigned number) or the Groundwater Database State Well Number (SWN in W#.W#.W#.). Well intervals are displayed in feet relative to mean sea level with a vertical exaggeration of 80x. An approximate ground surface is shown for illustrative purposes.

This strike-oriented line was selected to highlight the groundwater salinity class and lithology mapping of the Carrizo Aquifer near outcrop. The Carrizo Aquifer is primarily fresh in Strike Line B. However, State Well Number 68-60-310 displays an interval of measured slightly saline Carrizo Aquifer groundwater, wells 41865 and 16409 display intervals of interpreted fresh and slightly saline Carrizo Aquifer groundwater, and Well 1739 displays an interval of interpreted slightly saline groundwater. On this cross-section line, the Carrizo Formation is predominantly composed of sand.

Beneath the Carrizo Aquifer is the Wilcox Aquifer. The Wilcox Aquifer groundwater in Strike Line B is mapped primarily as slightly saline. Like the Carrizo Formation, the Wilcox Group is also primarily composed of sand.