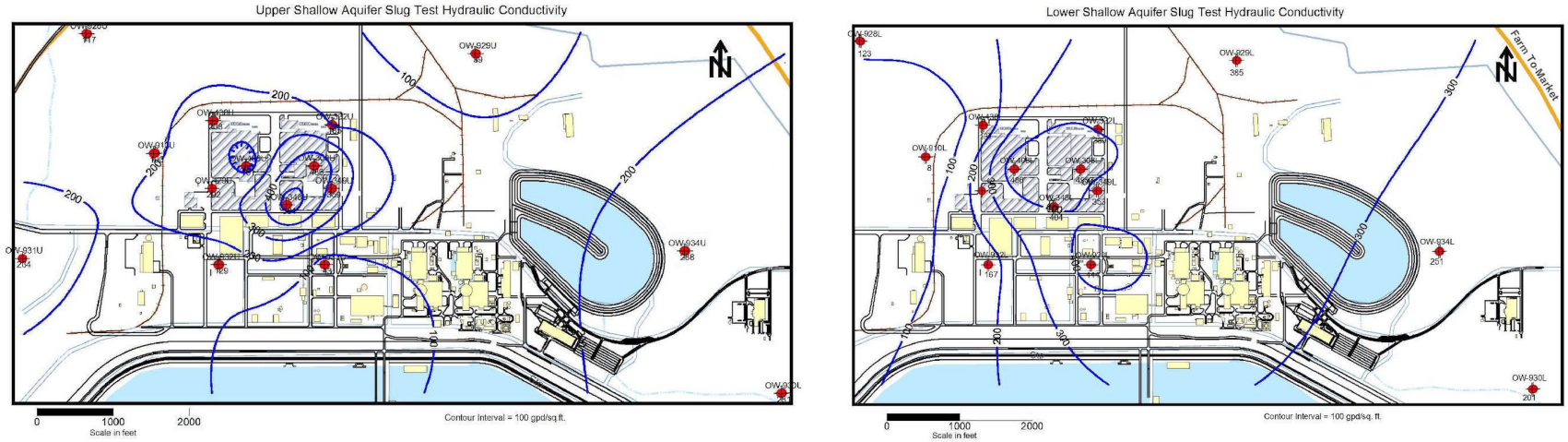

Figure 2.3.1-31 Contour Maps of Hydraulic Conductivity from Slug Tests in the Shallow Aquifer

Parameter	Regional Hydraulic Conductivity (gpd/ft^2)	STP Aquifer Pumping Test Hydraulic Conductivity (gpd/ft^2)	STP Slug Test Hydraulic Conductivity (gpd/ft^2)	STP Grain Size Hydraulic Conductivity (gpd/ft^2)
Sample Size (N)	35	5	28	12
Standard Deviation	623	230	152	40
Mean	540	429	266	125
Geometric Mean	420	337	205	120
Median	413	420	244	108

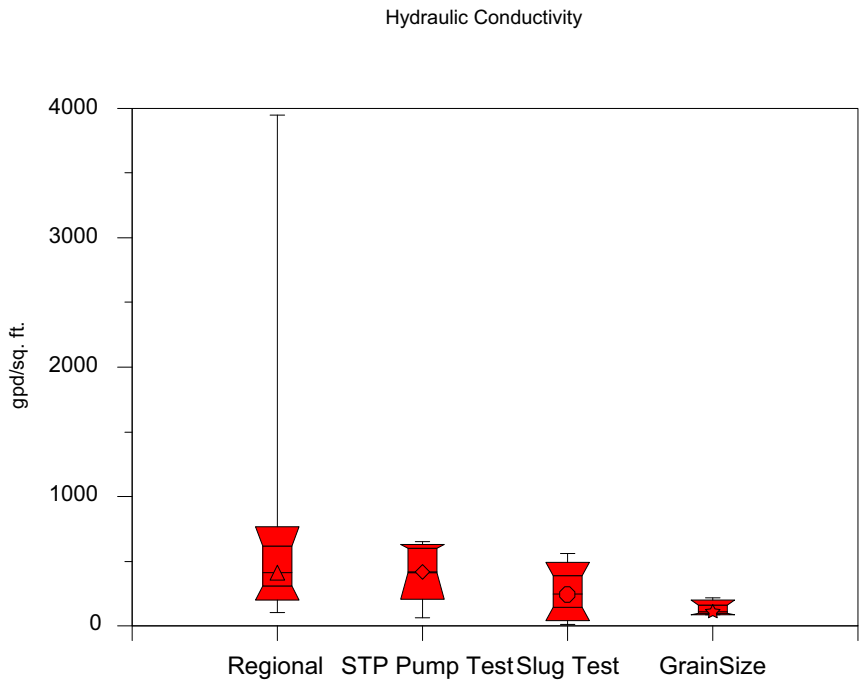

Figure 2.3.1-32 Summary of Hydraulic Conductivity from Aquifer Pumping Tests, Slug Tests, and Grain Size

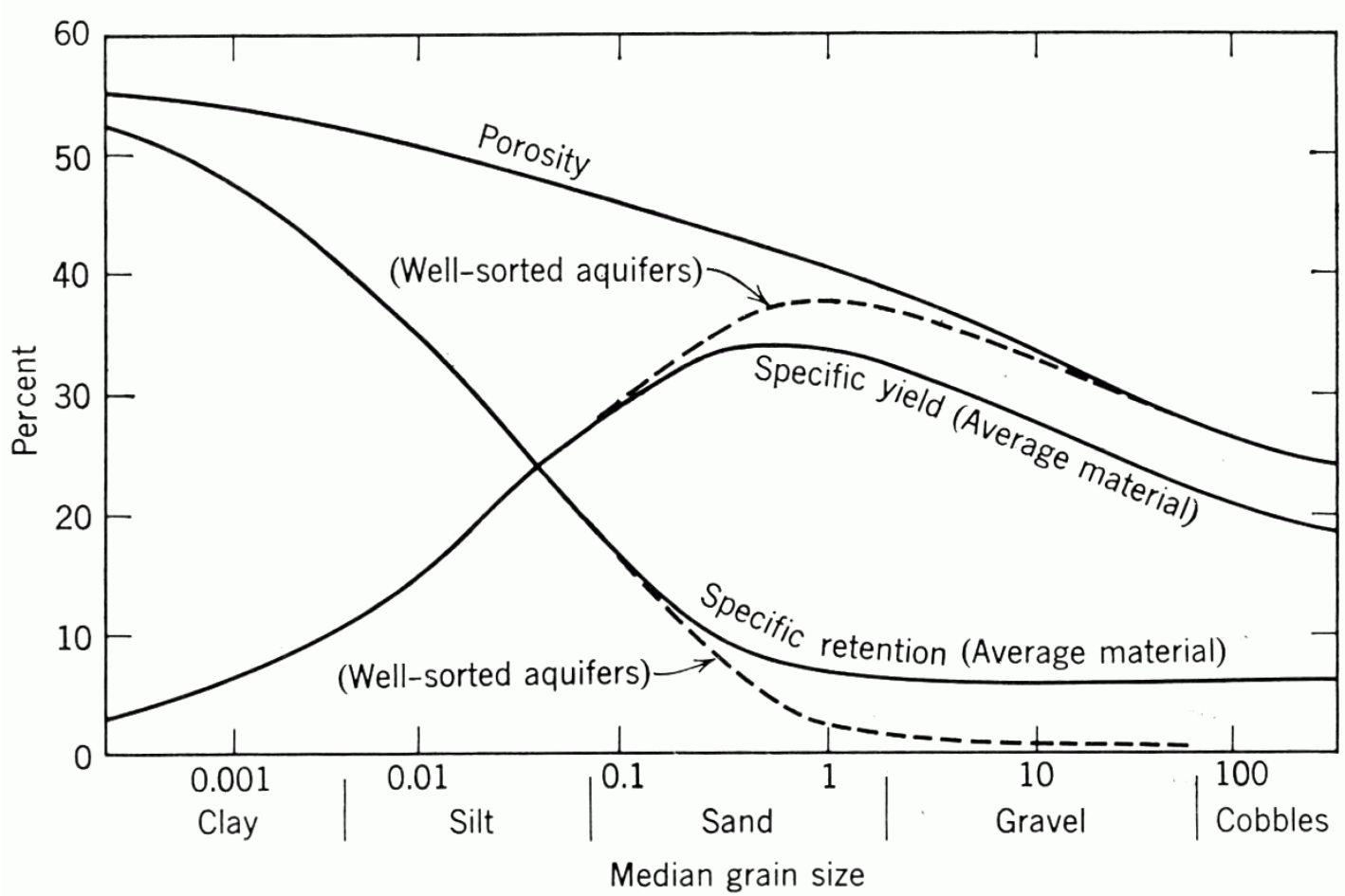

Figure 2.3.1-33 Relationship of Porosity, Specific Yield, and Specific Retention (Reference 2.3.1-28)

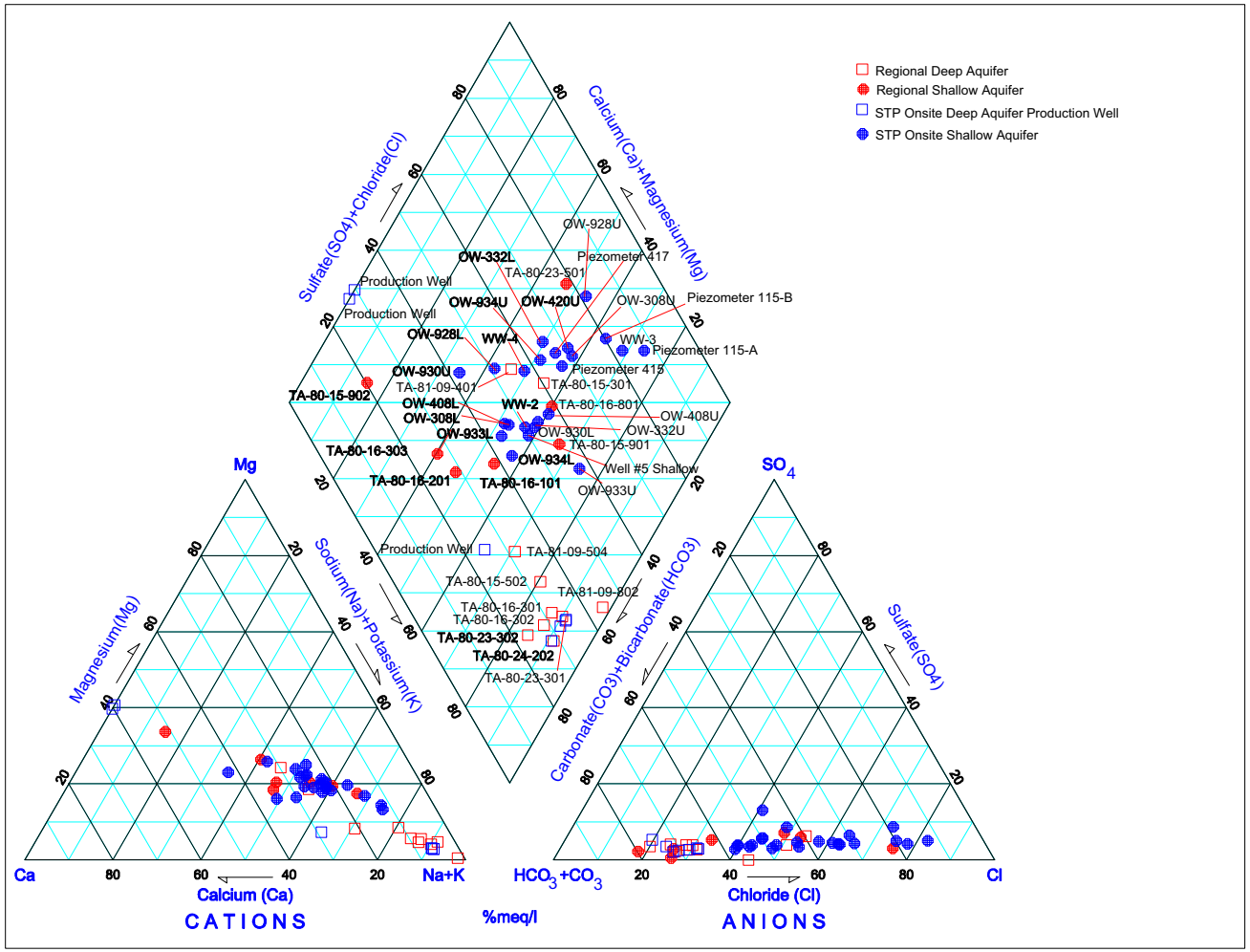

Figure 2.3.1-34 Trilinear Diagram of Hydrogeochemical Data

Unit	Hydrogeologic Zone	Ground Surface	Thickness	Geologic Materials
Shallow Aquifer	Upper Shallow Aquifer Confining Layer		10 - 30 ft	Clay and Silt
	Upper Shallow Aquifer		20 -30 ft	Silty Sand and Poorly Graded Sand
	Lower Shallow Aquifer Confining Layer		15 - 25 ft	Clay and Silt
	Lower Shallow Aquifer		25 - 50 ft	Silty Sand and Poorly Graded Sand with thin Clay and Silt Layers
Deep Aquifer Confining Layer			100 - 150 ft	Silty Clay and Silt with thin Sand Layers
Deep Aquifer			>500 ft	Sand with thin Clay and Silt Layers

Figure 2.3.1-35 Simplified Hydrostratigraphic Section

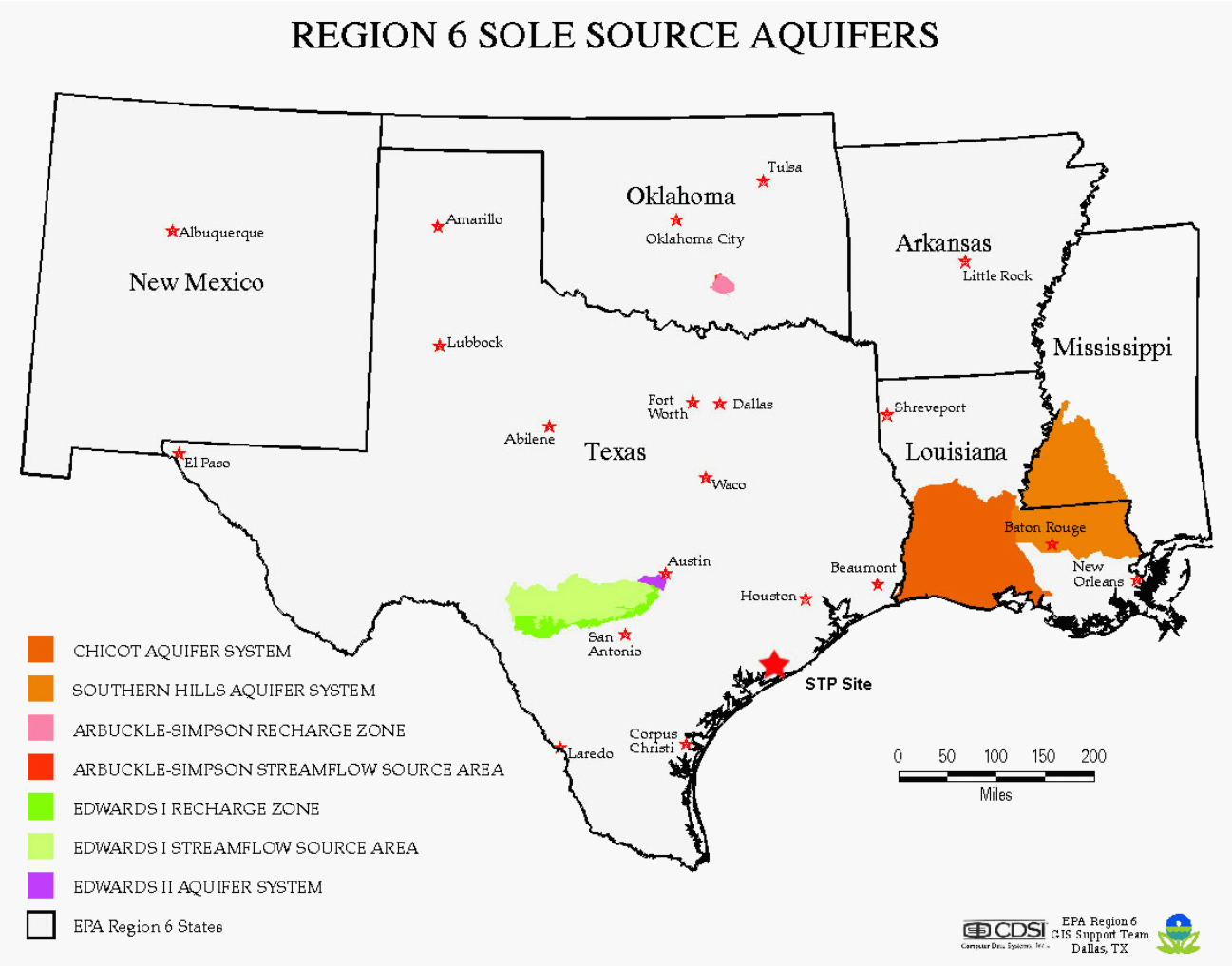

Figure 2.3.1-36 Sole Source Aquifers in EPA Region VI (Reference 2.3.1-33)

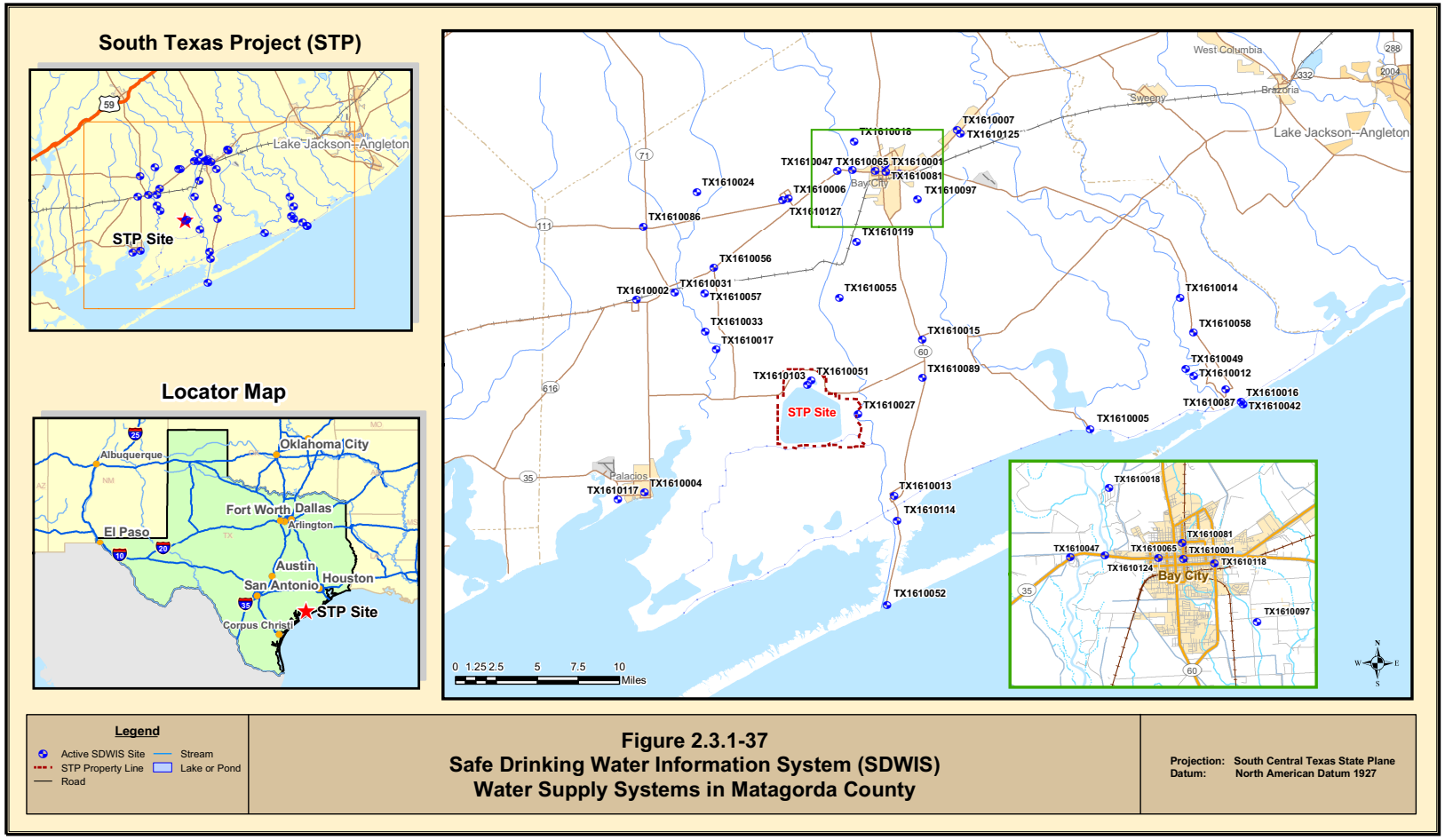

Figure 2.3.1-37 Safe Drinking Water Information System Water Supply Systems in Matagorda County

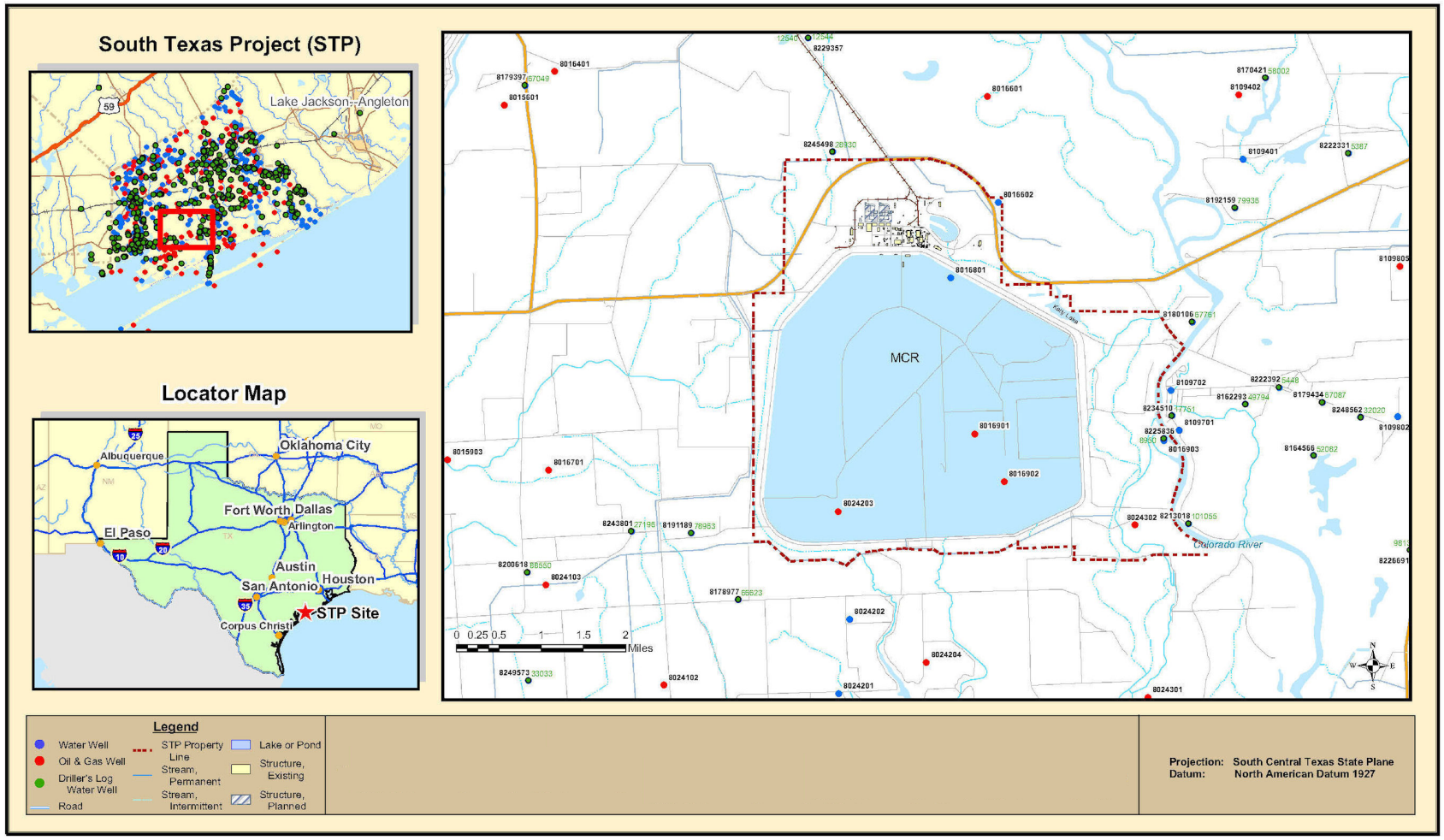

Figure 2.3.1-38 Well Locations in Matagorda County and Adjacent areas from the TWDB Database

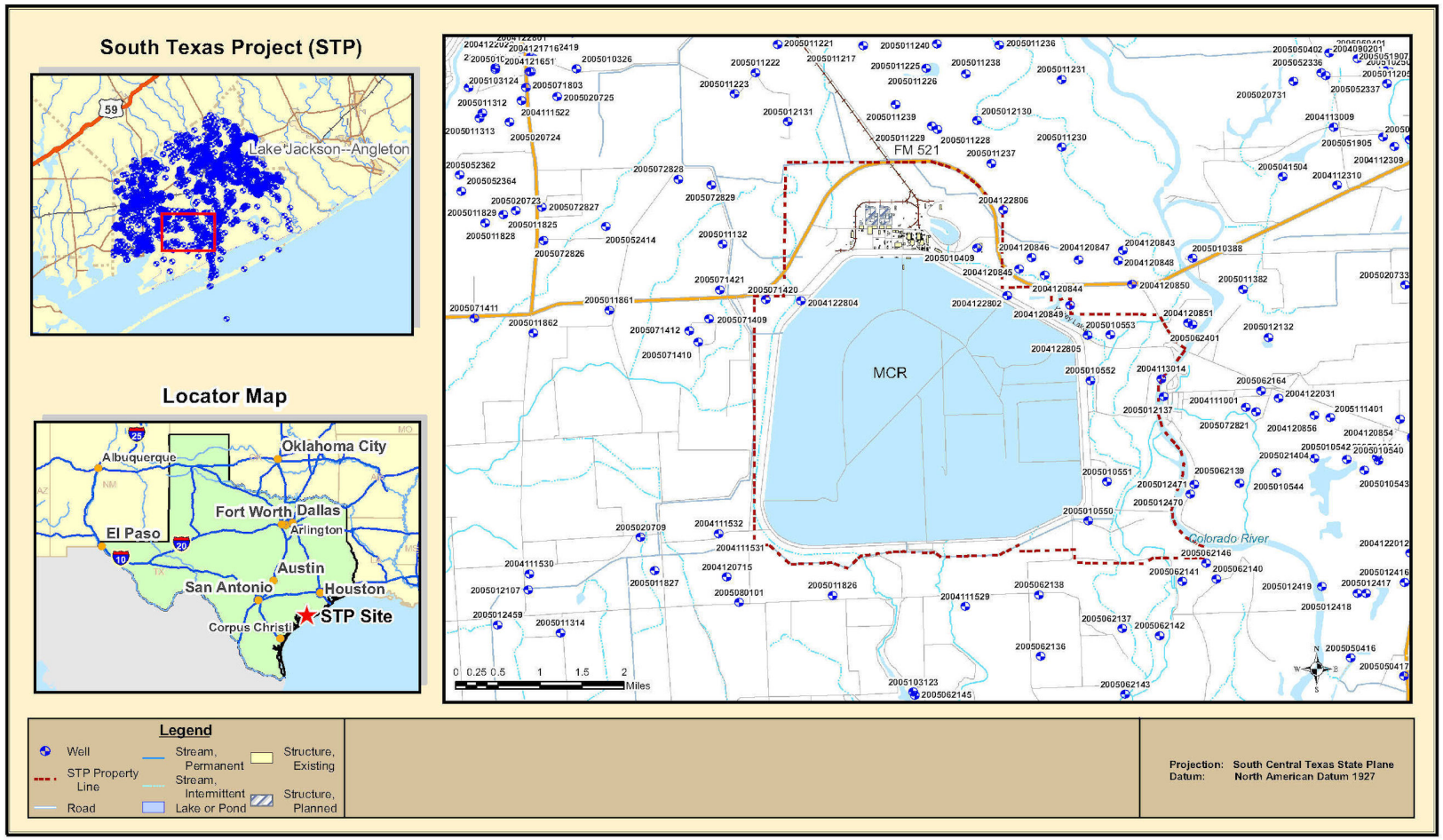

Figure 2.3.1-39 Coastal Plains Groundwater Conservation District Well Locations

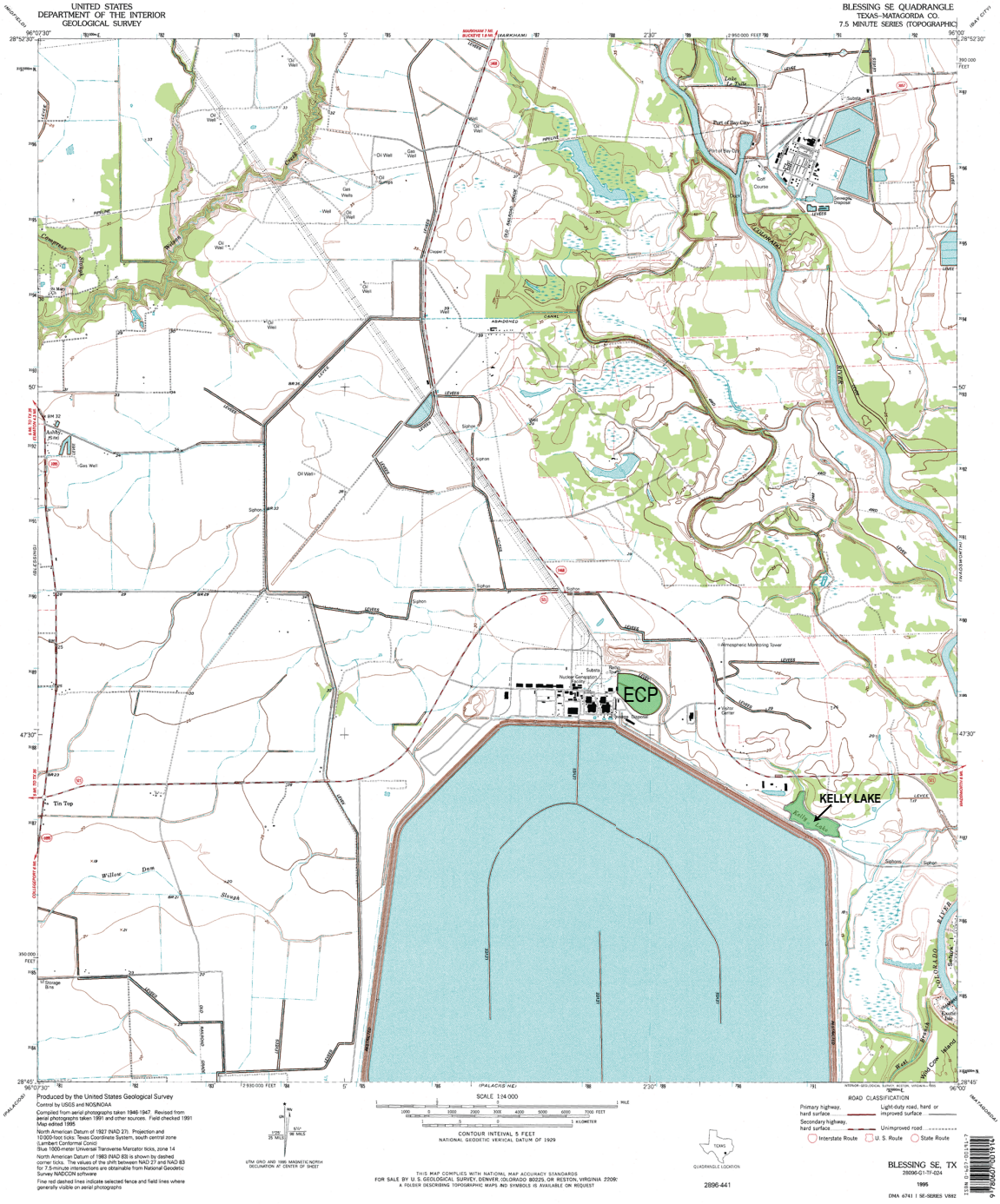

Figure 2.3.1-40 USGS Blessing SE 7.5 Minute Topographic Map (modified from Reference 2.3.1-39)