

Section Description

L-L' is a strike-oriented section that traverses the lower part of the Coastal Plain near the coast. Originating at a core hole in Beaufort County, the section runs along the coastline in a northeasterly direction passing through Colleton, Charleston, and Georgetown Counties, terminating at a test site in Brunswick County, North Carolina near the SC-NC state line. Six core holes and seven water wells were used to construct the section. One inch on the vertical scale is equivalent to 200 feet of depth. The distance, in miles, between two adjacent wells is provided on the section.

Moving from west to east along the section line, the first well on the section is **BFT-2055**, which is a core hole located at Hilton Head Island in Beaufort County. Drilled in 1992 by the South Carolina Water Resource Commission (SCWRC), a continuous core was prohibitively expensive to drill owing to the thickness of the Coastal Plain (3,830 ft). As such, sidewall cores were collected at various intervals from land surface to bedrock. The hole was completed as a well in the Gramling aquifer and is monitored by the South Carolina Department of Natural Resources (SCDNR) for water levels.

The next well on the section, **BFT-2092**, is an irrigation well drilled at the Ocean Creek Golf Course on Fripp Island in Beaufort County. Completed solely in the Gramling aquifer, an aquifer test produced a transmissivity of 190 ft²/d (feet squared per day) pumping at a rate that ranged from 241 to 352 gpm (gallons per minute). **COL-364** is a core hole drilled in 1999 by the U.S. Geological Survey (USGS) and SCDNR at Edisto Beach. Drilled for stratigraphic information, the hole was plugged and abandoned after the core was obtained.

Well **CHN-814** is a golf course irrigation well drilled in 1999 for Kiawah Island Resorts at Kiawah Island in Charleston County. Screened in the Charleston aquifer, a transmissivity of 1,900 ft²/d was determined from an aquifer test pumping at a rate of 1,102 gpm. Well **CHN-800** is a core hole drilled in 1994 by the USGS for stratigraphic information needed for an aquifer storage-and-recovery (ASR) project ([USGS SIR2004-5046](#)). Drilled at Cannon Park in downtown Charleston, the core hole was backfilled and completed as an open hole in the Gordon aquifer and overlying confining unit.

Well **CHN-635** was a public supply well (currently unused) drilled in 1992 for Sullivan's Island. Completed in the Charleston aquifer, an aquifer test yielded a transmissivity of 750 ft²/d pumping at a rate of 610 gpm. Well **CHN-802** is a core hole drilled by the USGS in 1996 at Garris Landing (formerly Moores Landing), a U.S. Fish and Wildlife facility in Charleston County. Drilled for stratigraphic information, the core hole was completed as monitoring well but the well has since been abandoned. In 2014, SCDNR completed two wells at the site—one in the surficial aquifer and the other in the Gordon aquifer. Both wells are currently being monitored for water levels by SCDNR.

Well **CHN-820** is a core hole drilled by the USGS and SCDNR in 2000 at the Santee Coastal Reserve in the northeastern part of Charleston County. In 1996, a core hole (CHN-803) was originally drilled to a depth of 545 ft. That hole was backfilled and completed as a monitoring well in the unconfined Gordon aquifer. The USGS returned to the site in 2000 and cored a second hole (**CHN-820**) adjacent to the first one to a depth of 1,536 ft.

Well **GEO-88** was a test hole drilled by the U.S. Army Corps of Engineers for the SCWRC in 1979 for the purpose of collecting geologic and hydrologic data for a Capacity-Use investigation. The borehole was drilled at the Estherville Plantation in southern Georgetown County. Well **GEO-298** is a public supply well drilled in 1996 for the Litchfield Company at Litchfield Beach. Completed in both the Crouch Branch and

McQueen Branch aquifers, an aquifer test yielded a transmissivity of 260 ft²/d pumping at a rate of 125 gpm. **GEO-234** is also a public supply well for Georgetown County Water and Sewer. Drilled in 1986, the well is completed in both the Crouch Branch and McQueen Branch aquifers. An aquifer test produced a transmissivity of 1,300 ft²/d pumping at a rate of 754 gpm.

Well **HOR-1165** is a core hole drilled by the USGS and SCDNR for stratigraphic information. The core hole is located within several hundred feet of an earlier core hole (HOR-973) that was drilled by the SCWRC for an aquifer storage-and-recovery (ASR) study ([SCDNR Report 4](#)). The last well on the section is the **Calabash** well-cluster site drilled at the Calabash Research Station in Brunswick County, North Carolina. Constructed in 1973, the site consists of seven monitoring wells each completed in a major aquifer.

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