

Section Description

F-F' is a dip-oriented section running along the eastern part of the State. Originating at a core hole in eastern Chesterfield County, the section runs in a southeasterly direction passing through Darlington, Florence, and Marion Counties, and terminating at a water well in coastal Georgetown County. Four core holes and ten 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.

The northernmost well (**CTF-81**) is a core hole that was drilled by the U.S. Geological Survey (USGS) and the South Carolina Department of Natural Resources (SCDNR) in 1995 at Cheraw State Park in eastern Chesterfield County. After reaching bedrock, the borehole was completed as a monitoring well in the Crystalline Rock aquifer (bedrock) and is currently being monitored for water levels by SCDNR. In 2019, SCDNR completed a shallow, water-table well at the site, which is completed in an unconfined section of the Crouch Branch aquifer. SCDNR monitors water levels in the well for drought assessment purposes. The next well on the section, **CTF-82**, is a public supply well drilled in 1996 for Chesterfield Rural Water. Completed in the McQueen Branch aquifer, an aquifer test of the well yielded a transmissivity of 350 ft²/d (feet squared per day) pumping at a rate of 50 gpm (gallons per minute).

Moving downdip, well **DAR-228** is a core hole drilled by the USGS in 1990 for a groundwater availability study of the region ([USGS Open File 9458](#)). A monitoring well was completed at the site in the McQueen Branch aquifer and is currently being monitored for water levels by the SCDNR. Well **DAR-90** is an industrial well drilled for Fiber Industries in 1973. The well is completed in both the McQueen Branch aquifer and in sandy beds of the Gramling confining unit.

Well **FLO-275** is a public supply well drilled for the City of Florence in 1990. Completed in the McQueen Branch aquifer and in sandy beds of the Gramling confining unit, an aquifer test of the well produced a transmissivity of 4,400 ft²/d pumping at a rate of 1,000 gpm. Well **FLO-286** is also a public supply well drilled for the City of Florence. Drilled in 1992 and completed in both the McQueen Branch and Gramling confining unit, an aquifer test of the well produced a transmissivity of 1,500 ft²/d pumping at a rate of 800 gpm. Well **FLO-264** is a crop irrigation well drilled in 1988 for McCall Farms, located several miles north of the Town of Effingham. Completed in parts of the Crouch Branch and McQueen Branch aquifers, and in sandy beds of the Gramling confining unit, the well was tested at a pumping rate of 1,200 gpm. Well **FLO-313** is a public supply well drilled in 2000 for Florence County Water and Sewer near the Town of Evergreen. The well is completed solely in the Crouch Branch aquifer. An aquifer test of the well produced a transmissivity of 4,100 ft²/d pumping at a rate of 1,250 gpm. Well **FLO-317** is a public supply well drilled in 2000 for the Town of Pamplico. Screened in both the Crouch Branch and McQueen Branch aquifers, an aquifer test yielded a transmissivity of 2,000 ft²/d pumping at a rate of 350 gpm.

Well **MRN-78** is a core hole drilled by the USGS in 1982 to obtain stratigraphic and hydrostratigraphic information. A USGS report was released (*Hydrologic and Geologic Analysis of Two Wells in Marion County, South Carolina*, 1986, USGS Water-Resources Investigations Report 86-4102 by M.S. Reid, R.A. Renken, R.L. Wait, R.W. Aucott, and R.W. Lee) but to the author's knowledge is not available online. **MRN-78** was completed as a monitoring well in the Gramling aquifer. A shallower well (MRN-77) was also drilled at the site and was completed in the Crouch Branch aquifer. Water levels in both wells are currently monitored by SCDNR. In 2019, SCDNR drilled a shallow, water-table well at the site in the surficial aquifer and monitors water levels to assess drought conditions.

Well **GEO-249** is a public supply well drilled in 1989 for Georgetown County Water and Sewer. Completed in the both the Crouch Branch and McQueen Branch aquifers, an aquifer test of the well produced a transmissivity of 2,500 ft²/d pumping at a rate of 2,000 gpm. Well **GEO-234** is also a public supply well drilled 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.

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