

Camden County area

Chloride concentrations in the Upper Floridan aquifer have been monitored in the Camden County area since 1994. During 2001, six wells (table, below) were pumped and sampled by the U.S. Geological Survey in the Camden County area, and analyses were performed by the St. Johns River Water Management District (Bill Osborne, St. Johns River Water Management District, written commun. with David C. Leeth, February 7, 2002). Data from these wells indicate chloride concentrations generally are less than 40 milligrams per liter (mg/L), with the exception of well 33D061, which had concentrations ranging from about 130 to 185 mg/L during 1994–2001. The source of the higher chloride concentrations in this well is not known; however, in adjacent Glynn County, chloride contamination of the Upper Floridan aquifer from deep saline zones has been documented by several investigators (Wait, 1965; Gregg and Zimmerman, 1974; Krause and Randolph, 1989; Clarke and others, 1990; Jones and others, 2002).

References Cited

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- Gregg, D.O., and Zimmerman, E.A., 1974, Geologic and hydrologic control of chloride contamination in aquifers at Brunswick, Glynn County, Georgia: U.S. Geological Water-Supply Paper 2029-D, 44 p.
- Jones, L.E., Prowell, D.C., and Maslia, M.L., 2002, Hydrogeology and water quality (1978) of the Floridan aquifer system at U.S. Geological Survey test well 26, on Colonels Island, near Brunswick, Georgia: U.S. Geological Survey Water-Resources Investigations Report 02-4020, 44 pages, 1 plate.
- Krause, R.E., and Randolph, R.B., 1989, Hydrology of the Floridan aquifer system in southeast Georgia and adjacent parts of Florida and South Carolina: U.S. Geological Survey Professional Paper 1403-D, 65 p.
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Chloride-monitoring network in the Upper Floridan aquifer, Camden County, Georgia [mg/L, milligrams per liter]

Site name	Other identifier	Open interval (feet)	Chloride concentration, May 2001 ¹ (mg/L)	Chloride concentration, August 2001 ¹ (mg/L)
32E033	Georgia Welcome Center	420 – 600	37	31
33D054	St Marys 2	563 – 1,000	31	31
33D061	Gilman Paper Company 11	550 – 1,090	166	135
33E049	Osprey Cove	522 – 840	32	33
33E053	Kings Bay 2	570 – 900	34	34
34E001	Cumberland Island Georgia Geologic Survey test well 1	540 – 640	31	31

^{1/} Bill Osborne, St. Johns River Water Management District, written commun. with David C. Leeth, February 7, 2002

