



Water-Data Report 2012

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC

Albemarle-Chowan Basin
Albemarle Subbasin

LOCATION.--Lat 36°25'43", long 75°58'02" referenced to North American Datum of 1927, Currituck County, NC, Hydrologic Unit 03010205, Lat 36°25'43", long 75°58'02" referenced to North American Datum of 1927, Currituck County, NC, Hydrologic Unit 03010205, on eastern shore of Bell Island, approximately 1.2 miles west of Goosecastle Point.

DRAINAGE AREA.--Indeterminate.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1997-99, August 2012.

PERIOD OF DAILY RECORD.--

SALINITY: August 1997 to July 1999.

WATER TEMPERATURE: August 1997 to July 1999.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Station operated in 2012 to define water quality in the Albemarle Sound as part of the National Monitoring Network for U.S. Coastal Waters and their Tributaries. Water-quality samples were collected through a zone equal to double the secchi depth using the depth-integration sampling technique. In water years 1997-99, station was operated in cooperation with the North Carolina Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--

SALINITY: Maximum recorded, 5.5 parts per thousand, July 4, 1999; minimum recorded, 0.1 parts per thousand, February 9, 1998.

WATER TEMPERATURE: Maximum recorded, 48.2°C, September 24, 1998; minimum recorded, 0.3°C, February 23, 1999.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Depth to bottom from water surface, at sampling location, meters (82903)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
08-01-2012	1230	Surface water	Regular	758	26.5	1.10	7.8	8.6	4,010

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Temperature, water, °C (00010)	Trans- parency, water, in situ, Secchi disc, m (00078)	Photosynthetically active radiation (average flux density on a horizontal surface during measurement interval), micromoles of photons per square meter per second		Sampling depth, m (00098)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
08-01-2012	1230	29.1	0.30	270	0.60	2,210	< 25	34.6	72.9	25.2	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (29801)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)
08-01-2012	1230	627	59.8	62	1,170	0.18	2.78	136	1.9	< .010

0204342510 CURRITUCK SOUND AT BELL ISLAND, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Nitrate plus nitrite, water, filtered,	Nitrite, water, filtered,	Orthophosphate, water, filtered,	Phosphorus, water, unfiltered,	Chlorophyll a, phytoplankton, chromatographic-fluorometric method,	Aluminum, water, filtered,	Cobalt, water, filtered,	Copper, water, filtered,
		mg/L as N (00631)	mg/L as N (00613)	mg/L as P (00671)	mg/L as P (00665)	µg/L (70953)	µg/L (01106)	µg/L (01035)	µg/L (01040)
08-01-2012	1230	< .040	< .001	< .004	0.060	48.0	22.8	3.81	< 2.4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 5 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Iron, water, filtered,	Lead, water, filtered,	Manganese, water, filtered,	Molybdenum, water, filtered,	Nickel, water, filtered,	Zinc, water, filtered,
		µg/L (01046)	µg/L (01049)	µg/L (01056)	µg/L (01060)	µg/L (01065)	µg/L (01090)
08-01-2012	1230	< 9.6	0.091	5.83	1.69	0.40	< 4.2