

**02043460 CURRITUCK SOUND OFF DEWS ISLAND NEAR JARVISBURG, NC**

Albemarle-Chowan Basin  
Albemarle Subbasin

LOCATION.--Lat 36°12'00", long 75°49'00" referenced to North American Datum of 1927, Currituck County, NC, Hydrologic Unit 03010205, 1.3 mi southwest of Dews Island.

DRAINAGE AREA.--Indeterminate.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2006-07, August 2012.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2006 to June 2007.

SALINITY: April 2006 to June 2007.

pH: April 2006 to June 2007.

WATER TEMPERATURE: April 2006 to June 2007.

DISSOLVED OXYGEN: April 2006 to June 2007.

DISSOLVED OXYGEN, PERCENT SATURATION: April 2006 to June 2007.

TURBIDITY, in FNU: April 2006 to June 2007.

CHLOROPHYLL: April 2006 to June 2007.

INSTRUMENTATION.--Self logging, water-quality monitor April 2006 to June 2007. Constituents monitored were: specific conductance, water temperature, dissolved oxygen, pH, turbidity, and chlorophyll. Turbidity data collected using a YSI 6136 sensor in formazin nephelometric units (FNU).

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 2006-07, station operated in cooperation with the North Carolina Department of Environment and Natural Resources, Division of Water Resources. Water-quality monitors were operated by Elizabeth City State University under the general supervision of the U.S. Geological Survey. Salinity and dissolved oxygen, percent saturation are computed. The salinity is computed from specific conductance using the conversion from U. S. Geological Survey Water-Supply Paper 2311. The dissolved oxygen, percent saturation is computed using a barometric pressure of 760 mm of Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 14,500 microsiemens, September 2, 2006; minimum recorded 1,890 microseimens, March 4, 2007.

SALINITY: Maximum recorded, 8.4 ppt, September 2, 2006; minimum recorded, 0.9 ppt, March 3, 4, 2007.

pH: Maximum recorded, 9.3 standard units, October 4, 2006; minimum recorded, 7.1 standard units, May 2, 2006.

WATER TEMPERATURE: Maximum recorded, 32.8°C, August 2, 2006; minimum recorded, 0.6°C, February 6, 2007.

DISSOLVED OXYGEN: Maximum recorded, 15.9 mg/L, February 6, 2007; minimum recorded, 6.6 mg/L, August 6, 31, 2006.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 160%, July 31, 2006; minimum recorded, 86%, August 31, 2006.

TURBIDITY: Maximum recorded, 230 FNU, November 22, 2006; minimum recorded, <5 FNU, on many days during the period.

CHLOROPHYLL: Maximum recorded, 23.6 micrograms per liter, February 20, 2007; minimum recorded, 2.70 micrograms per liter, June 8, 2006.

## 02043460 CURRITUCK SOUND OFF DEWS ISLAND NEAR JARVISBURG, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 1 of 5

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, 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)
08-02-2012	1000	Surface water	Regular	759	28.4	1.00	7.8	8.0	6,760

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 2 of 5

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, 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)	Transparency, 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 (99988)	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)
08-02-2012	1000	27.6	0.50	964	1.0	3,910	56	51.9	134	41.9

## 02043460 CURRITUCK SOUND OFF DEWS ISLAND NEAR JARVISBURG, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 3 of 5

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, 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 <sub>3</sub> (29801)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO <sub>3</sub> (39086)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (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)
08-02-2012	1000	1,100	57.6	58.4	2,070	0.21	2.22	260	1.4	0.014

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 4 of 5

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, 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, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Chlorophyll a, phytoplankton, chromatographic-fluorometric method, µg/L (70953)	Aluminum, water, filtered, µg/L (01106)	Cobalt, water, filtered, µg/L (01035)	Copper, water, filtered, µg/L (01040)
08-02-2012	1000	<.040	<.001	<.004	0.034	26.6	<8.8	0.138	<3.2

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 5 of 5

[CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, 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, µg/L (01046)	Lead, water, filtered, µg/L (01049)	Manganese, water, filtered, µg/L (01056)	Molybdenum, water, filtered, µg/L (01060)	Nickel, water, filtered, µg/L (01065)	Zinc, water, filtered, µg/L (01090)
08-02-2012	1000	<3.2	0.262	3.27	2.07	0.53	431