



Water-Data Report 2012

364227076074709 Local number 61B 15 SOW 091H

Northern Atlantic Coastal Plain aquifer system
Upper Cretaceous Aquifer System

Chesapeake City, VA

LOCATION.--Lat 36°42'27", long 76°07'47" referenced to North American Datum of 1927, Chesapeake City, VA, Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Department of Environmental Quality.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 790 ft. Upper casing diameter 4.00 in; top of first opening 759 ft, bottom of last opening 769 ft. Drilled observation water well, diameter 2 in. from 674 to 790 ft, screened 759 to 769 ft.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 1.10 ft above land-surface datum, Mar. 13, 1989, to present.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Occasional measurement with manometer or chalked tape by Virginia Department of Environmental Quality - Water Division personnel. Prior to July 6, 1995, bimonthly measurement with manometer.

REMARKS.--Well is located in Virginia Beach aquifer of Cretaceous age. Records provided by the Virginia Department of Environmental Quality - Water Division. Water level affected by regional drawdown.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.75 ft above land-surface datum, Apr. 20, 1989; lowest measured, 4.91 ft below land-surface datum, July 31, 2012.

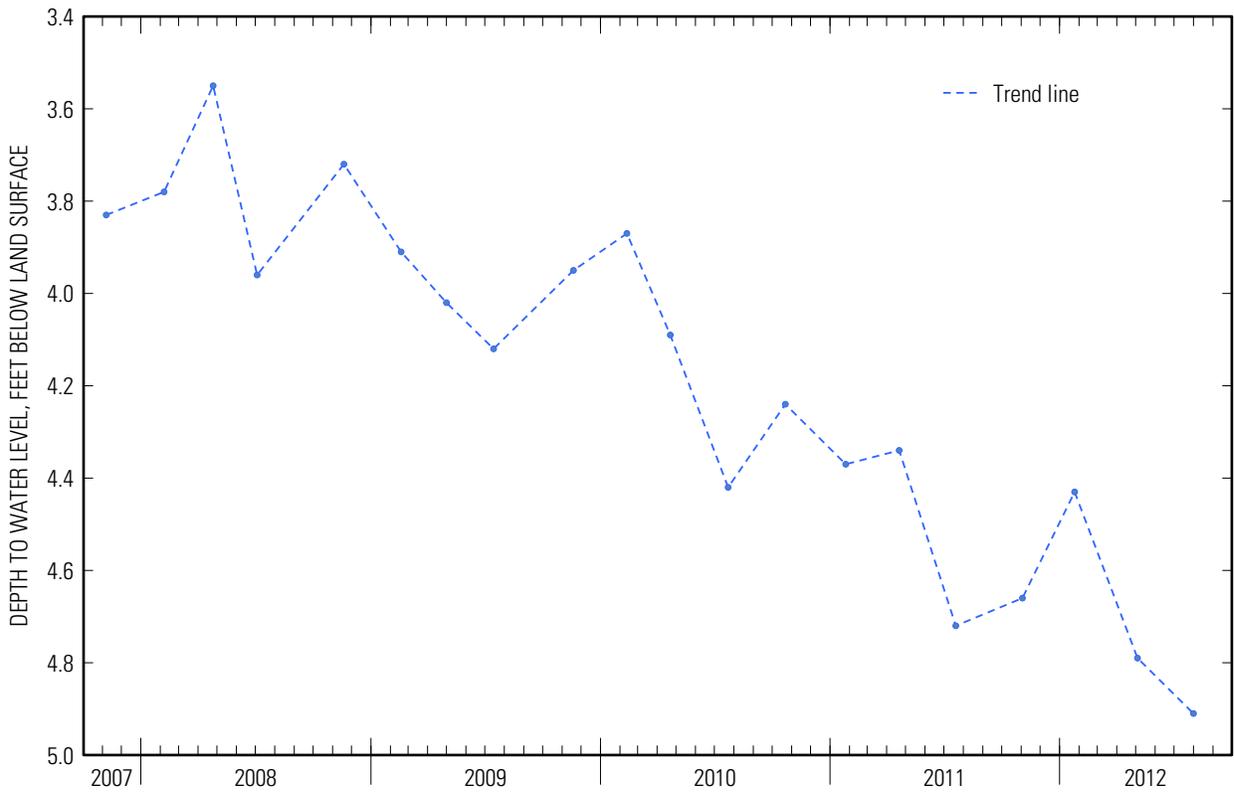
**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[Measurement method: S, steel tape. Water-level status: - - , static.]

Date	Water level	Measure-ment method	Water-level status	Date	Water level	Measure-ment method	Water-level status
Nov 2	4.66	S	--	May 3	4.79	S	--
Jan 24	4.43	S	--	Jul 31	4.91	S	--

Water year 2012 highest: 4.43, Jan 24, 2012; lowest: 4.91, Jul 31, 2012

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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 4

[%, percent; CaCO₃, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System]

Date	Sample start time	Medium name	Sample type	Geologic unit code	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Depth to water level, ft below land surface (72019)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)
05-17-2012	1200	Groundwater	Regular	211CRAQU	767	20.0	4.62	<1.0	1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

[%, percent; CaCO₃, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System]

Date	Sample start time	Flow rate, instantaneous, gallons per minute (00059)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, μS/cm at 25°C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Depth to bottom of sample interval, feet below land surface datum (72016)	Depth to top of sample interval, feet below land surface datum (72015)	Sampling depth, ft (00003)
05-17-2012	1200	8.6	7.8	7,900	21.0	40	769	759	97.0

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 4

[%, percent; CaCO₃, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System]

Date	Sample start time	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)
05-17-2012	1200	4,510	136	19.3	21.2	45.4	1,540	613	735

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 4

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Date	Sample start time	Bromide, water, filtered, mg/L (71870)	Carbonate, water, filtered, inflection-point incremental titration method, field, mg/L (00452)	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)	Sulfide, water, unfiltered, field, milligrams per liter (99119)	Iron, water, filtered, µg/L (01046)	Manganese, water, filtered, µg/L (01056)
05-17-2012	1200	8.02	6	2,200	1.39	10.1	164	0.162	280	11.6