



Water-Data Report 2012

364227076074706 Local number 61B 12 SOW 091E

Northern Atlantic Coastal Plain aquifer system
Patuxent Formation

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 1,831 ft. Upper casing diameter 4.00 in; top of first opening 1,821 ft, bottom of last opening 1,831 ft. Drilled observation water well, diameter 2 in. from 1,626 to 1,831 ft, screened 1,821 to 1,831 ft.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 1.40 ft above land-surface datum, Mar. 6, 1989, to present.

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

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

REMARKS.--Well is located in Lower Potomac aquifer of Cretaceous age. Records provided by the Virginia Department of Environmental Quality - Water Division. Water level affected by regional drawdown. Water from this well is known to contain concentrations of dissolved solids greater than 1,000 mg/L.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.50 ft below land-surface datum, June 21, 1989; lowest measured, 96.97 ft below land-surface datum, July 31, 2012.

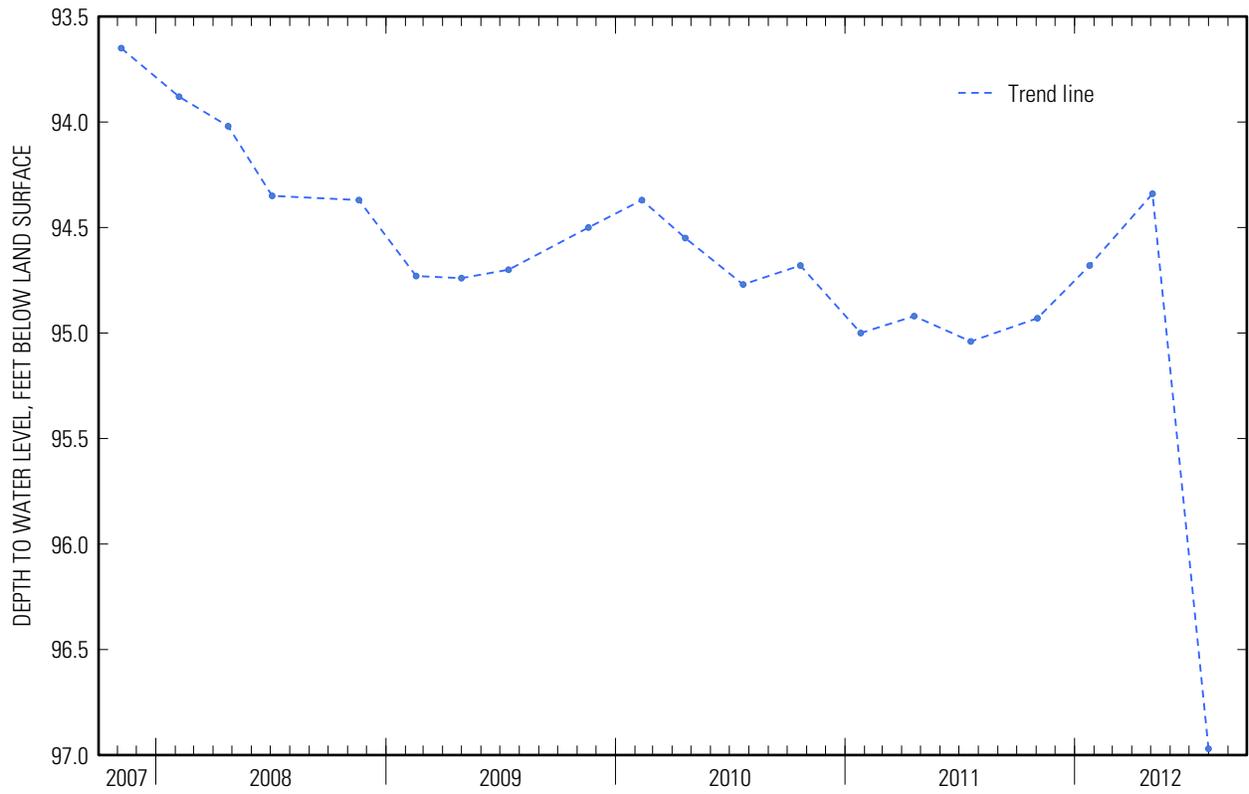
**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[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	94.93	S	--	May 3	94.34	S	--
Jan 24	94.68	S	--	Jul 31	96.97	S	--

Water year 2012 highest: 94.34, May 3, 2012; lowest: 96.97, 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; 217PTXN, Patuxent Formation; <, less than]

Date	Sample start time	Medium name	Sample type	Geologic unit code	Barometric pressure, mm Hg (00025)	Depth to water level, ft below land surface (72019)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	Flow rate, instantaneous, gallons per minute (00059)	pH, water, unfiltered, field, standard units (00400)
05-10-2012	1730	Groundwater	Regular	217PTXN	760	94.67	< 1.0	2	4.9	7.3

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

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Date	Sample start time	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)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO ₃ (00900)
05-10-2012	1730	46,800	22.4	3.0	1,830	1,820	185	31,500	4,480

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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; 217PTXN, Patuxent Formation; <, less than]

Date	Sample start time	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)	Bromide, water, filtered, mg/L (71870)	Carbonate, water, filtered, inflection-point incremental titration method, field, mg/L (00452)
05-10-2012	1730	1,040	458	106	9,370	100	121	65.6	<1.0

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 4

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Date	Sample start time	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)	Iron, water, filtered, μg/L (01046)	Manganese, water, filtered, μg/L (01056)
05-10-2012	1730	18,500	0.05	18.1	578	11,000	2,830