



Water-Data Report 2011

371027076335601 Local number 58F 1 SOW 002

Northern Atlantic Coastal Plain aquifer system
Upper Cretaceous Series

Newport News City, VA

LOCATION.--Lat 37°10'27", long 76°33'56" referenced to North American Datum of 1927, Newport News City, VA, Hydrologic Unit 02080206, on shore of Lee Hall Reservoir, 0.15 mi north of intersection of State Highway 105 and U.S. Highway 60, and 0.65 mi northeast of Fort Eustis in Newport News. Owner: City of Newport News.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 496.5 ft. Upper casing diameter 10.00 in; top of first opening 443.38 ft, bottom of last opening 489.96 ft. Drilled unused water well, diameter 8 in. from 431.3 to 443 ft, diameter 6 in. from 443 to 496.5 ft, screened 443.38 to 489.96 ft.

DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF SHELF, 2.30 ft above land-surface datum, Jan. 1, 1968, to present.

PERIOD OF RECORD.--January 1968 to current year. Unpublished records available prior to October 1985 in files of the Virginia Department of Environmental Quality - Water Division.

GAGE.--Occasional measurement with chalked tape by Virginia Department of Environmental Quality - Water Division personnel. Oct. 1, 1985, to July 10, 1995, bimonthly measurement with chalked tape. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

REMARKS.--Well is located in Brightseat-Upper Potomac aquifer of Cretaceous-Paleocene age. Records provided by the Virginia Department of Environmental Quality - Water Division. Water level affected by local pumpage and 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, 54.76 ft below land-surface datum, May 10, 1969; lowest measured, 172.02 ft below land-surface datum, Nov. 30, 2004.

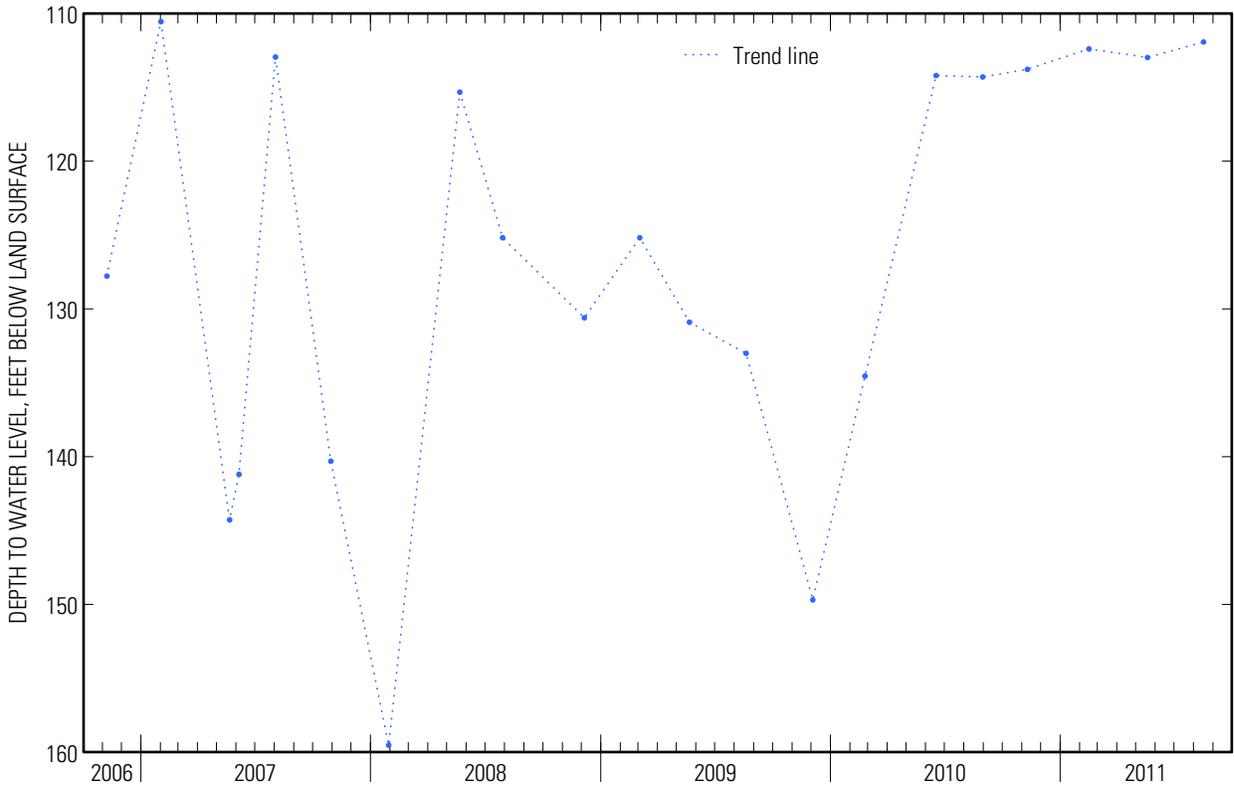
**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

[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 9	113.78	S	--	May 19	112.98	S	--
Feb 15	112.40	S	--	Aug 16	111.93	S	--

Water year 2011 highest: 111.93, Aug 16, 2011; lowest: 113.78, Nov 9, 2010

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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than; M, presence verified but not quantified]

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)
05-25-2011	0100	Groundwater	Regular	211CRCSU	759	111.05	< 1.0	1	5.5	8.7

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than; M, presence verified but not quantified]

Date	Sample start time	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)	Temperature, water, °C (00010)	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)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
05-25-2011	0100	2,950	19.4	490	443	150	1,730	16.4	2.57	2.42

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than; M, presence verified but not quantified]

Date	Sample start time	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)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)
05-25-2011	0100	18.8	608	429	490	2.54	16	729	2.24

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than; M, presence verified but not quantified]

Date	Sample start time	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)	Manga-nese, water, filtered, µg/L (01056)
05-25-2011	0100	11.0	65.2	M	68	16.9