



Water-Data Report 2012

364722075591801 Local number 63C 4 SOW 173A

Northern Atlantic Coastal Plain aquifer system
Upper Chesapeake Group

Virginia Beach City, VA

LOCATION.--Lat 36°47'21.10", long 75°59'16.03" referenced to North American Datum of 1927, Virginia Beach City, VA, Hydrologic Unit 03010205, at Redwing Park, 0.7 mi northeast of intersection of Oceana Boulevard and Dam Neck Road in Virginia Beach. Owner: Virginia Department of Environmental Quality.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 291 ft. Upper casing diameter 3.00 in; top of first opening 281 ft, bottom of last opening 291 ft. Drilled observation water well, screened 281 to 291 ft.

DATUM.--Land-surface datum is 8.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 1.35 ft above land-surface datum, Nov. 16, 2001, to present.

PERIOD OF RECORD.--April 1984 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 Unpublished records available prior to October 1985 in files of the Virginia Department of Environmental Quality - Water Division.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. Oct. 10, 1985, to July 5, 1995, bimonthly measurement with chalked tape. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

REMARKS.--Well is located in Yorktown-Eastover aquifer of Miocene-Pliocene age. Records provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.53 ft below land-surface datum, Nov. 15, 2006; lowest measured, 7.96 ft below land-surface datum, Nov. 4, 2002.

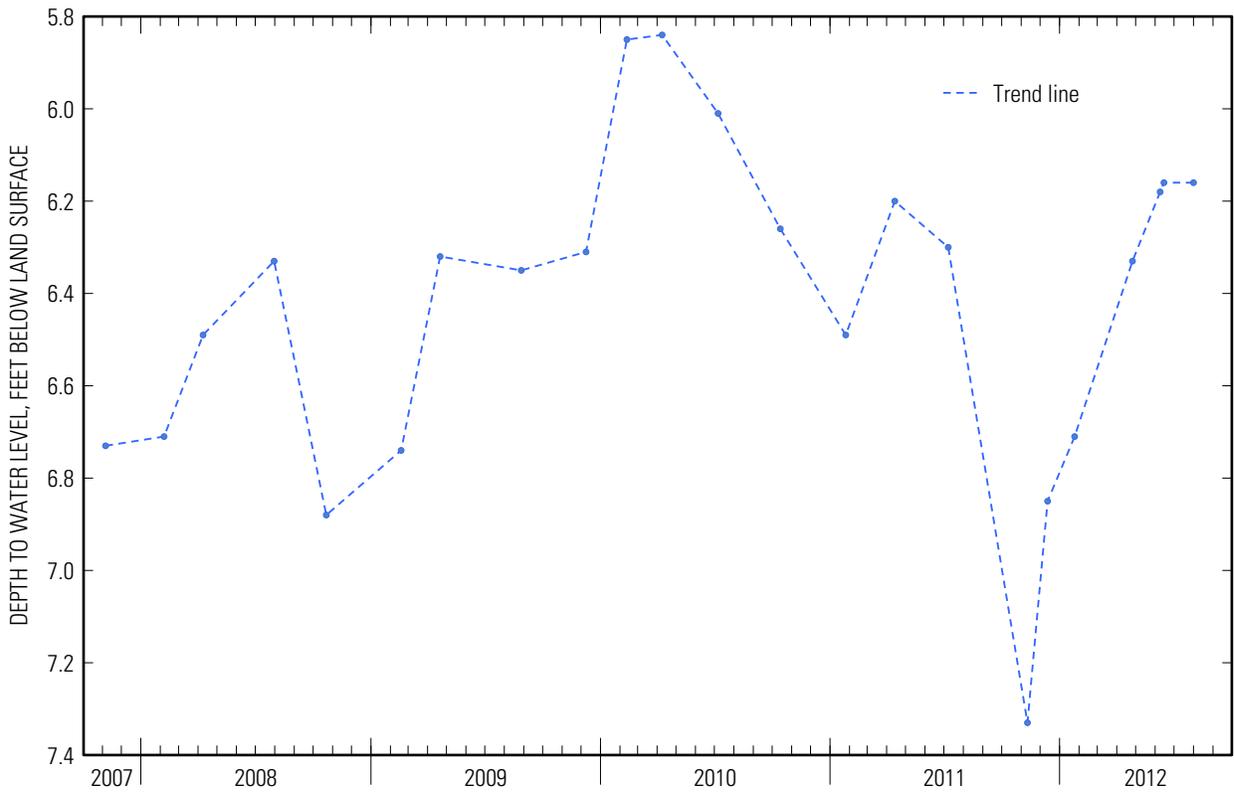
**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

[Measurement method: S, steel tape; V, calibrated electric tape--accuracy of instrument has been checked. Water-level status: - - , static.]

| Date | Water level | Measure-ment method | Water-level status | Date | Water level | Measure-ment method | Water-level status |
|--------|-------------|---------------------|--------------------|--------|-------------|---------------------|--------------------|
| Nov 10 | 7.33 | S | -- | Jun 8 | 6.18 | V | -- |
| Dec 12 | 6.85 | S | -- | 14 | 6.16 | V | -- |
| Jan 24 | 6.71 | S | -- | Jul 31 | 6.16 | S | -- |
| Apr 25 | 6.33 | S | -- | | | | |

Water year 2012 highest: 6.16, Jun 14, 2012, Jul 31, 2012; lowest: 7.33, Nov 10, 2011

364722075591801 Local number 63C 4 SOW 173A—Continued



364722075591801 Local number 63C 4 SOW 173A—Continued

WATER-QUALITY RECORDS

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 3

[CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 121CSPKU, Upper Chesapeake Group; <, less than]

| Date | Sample start time | Medium name | Sample type | Geologic unit code | Depth to water level, ft below land surface (72019) | Dissolved oxygen, water, unfiltered, mg/L (00300) | 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) |
|------------|-------------------|-------------|-------------|--------------------|---|---|--|--|--|--------------------------------|
| 06-15-2012 | 0945 | Groundwater | Regular | 121CSPK U | 6.18 | < 1.0 | 0.30 | 7.1 | 13,300 | 17.4 |

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 3

[CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 121CSPKU, Upper Chesapeake Group; <, less than]

| 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) |
|------------|-------------------|--|--|--|--|--|---------------------------------------|---|---|
| 06-15-2012 | 0945 | 7,820 | 905 | 107 | 155 | 67.6 | 2,390 | 554 | 673 |

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 3

[CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 121CSPKU, Upper Chesapeake Group; <, less than]

| 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) | Iron, water, filtered, µg/L (01046) | Manganese, water, filtered, µg/L (01056) |
|------------|-------------------|--|---|---|---|---|--|-------------------------------------|--|
| 06-15-2012 | 0945 | 14.5 | 1 | 4,440 | 0.22 | 20.7 | 140 | 247 | 33.9 |