



Water-Data Report 2011

**375213076190207 Local number 60L 33 SOW 216F**

Northern Atlantic Coastal Plain aquifer system  
Eocene Series

Northumberland County, VA

LOCATION.--Lat 37°52'12.43", long 76°19'03.45" referenced to North American Datum of 1927, Northumberland County, VA, Hydrologic Unit 02080102, 2 mi east of intersection of U.S. Highway 360 and State Highway 200, 3 mi west of Reedville.

**GROUNDWATER RECORDS**

WELL CHARACTERISTICS.--Depth 480.75 ft. Upper casing diameter 4.5 in; top of first opening 439.55 ft, bottom of last opening 480.75 ft. Drilled observation water well, screened 439.55 to 480.75 ft.

DATUM.--Land-surface datum is 110 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 2.27 ft above land-surface datum, May 5, 2011, to present.

PERIOD OF RECORD.--May to September 2011.

GAGE.--Electronic data logger and pressure transducer, 15-minute record interval.

REMARKS.--Well is located in Chickahominy-Piney Point aquifer of Eocene-Oligocene age. Records provided by Virginia Department of Environmental Quality - Water Division. Water levels affected by Hurricane Irene in August 2011.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 104.11 ft below land-surface datum, Sept. 30, 2011; lowest measured, 106.19 ft below land-surface datum, May 5, 2011.

EXTREMES FOR CURRENT YEAR.--Highest water level, 104.11 ft below land surface datum, Sept. 30; lowest water level, 104.89 ft below land surface datum, Aug. 24.

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

[Measurement method: R, reported, method not known; 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
May 5	106.19	R	--	Aug 8	104.75	S	--
Jul 12	104.54	S	--				

375213076190207 Local number 60L 33 SOW 216F—Continued

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

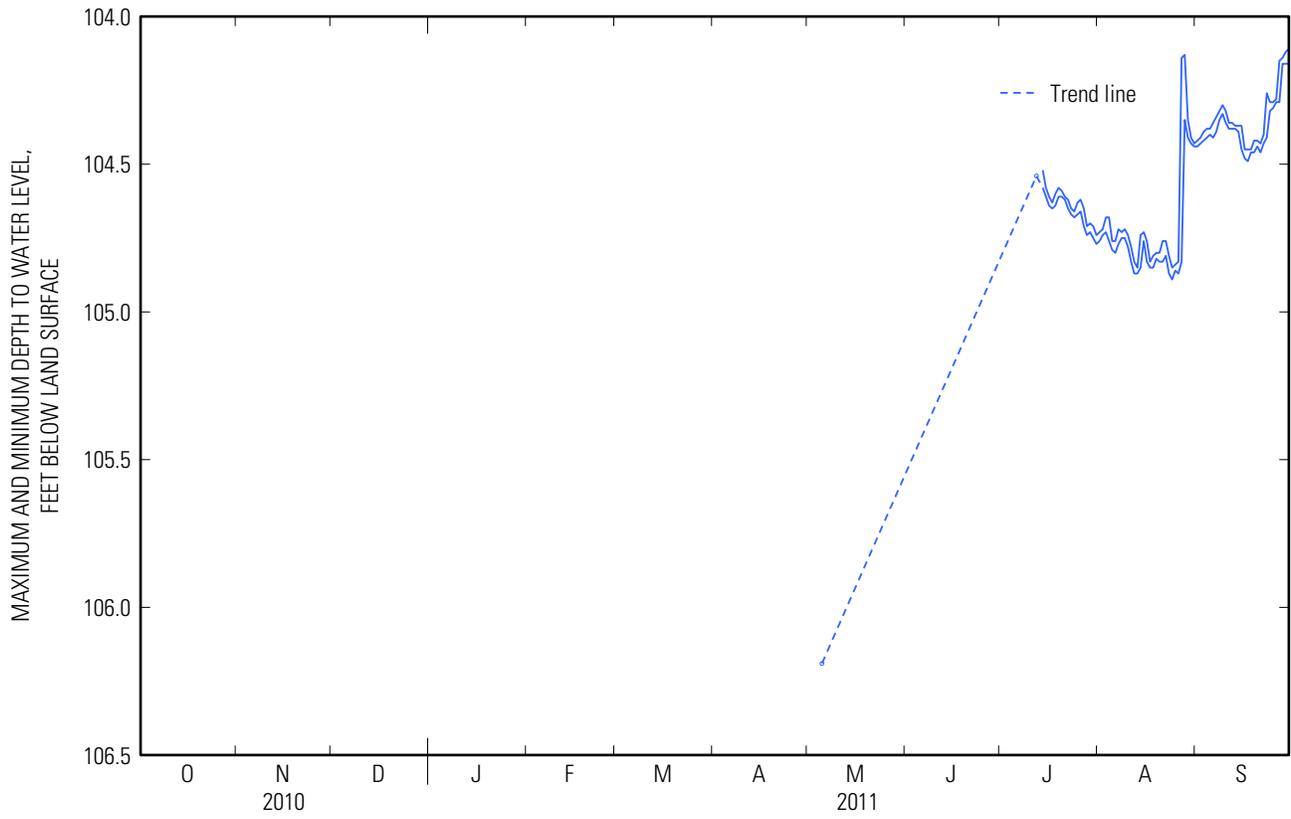
Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

## 375213076190207 Local number 60L 33 SOW 216F—Continued

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	---	---	---	---	---	---	---	---	104.76	104.73	104.44	104.42
2	---	---	---	---	---	---	---	---	104.74	104.72	104.43	104.41
3	---	---	---	---	---	---	---	---	104.73	104.68	104.42	104.39
4	---	---	---	---	---	---	---	---	104.76	104.68	104.41	104.38
5	---	---	---	---	---	---	---	---	104.79	104.76	104.40	104.38
6	---	---	---	---	---	---	---	---	104.80	104.76	104.41	104.36
7	---	---	---	---	---	---	---	---	104.77	104.72	104.39	104.34
8	---	---	---	---	---	---	---	---	104.75	104.73	104.35	104.32
9	---	---	---	---	---	---	---	---	104.75	104.72	104.33	104.30
10	---	---	---	---	---	---	---	---	104.78	104.74	104.36	104.32
11	---	---	---	---	---	---	---	---	104.83	104.78	104.38	104.36
12	---	---	---	---	---	---	---	---	104.87	104.83	104.38	104.36
13	---	---	---	---	---	---	---	---	104.87	104.85	104.38	104.37
14	---	---	---	---	---	---	104.58	104.52	104.85	104.74	104.39	104.37
15	---	---	---	---	---	---	104.61	104.58	104.76	104.73	104.45	104.37
16	---	---	---	---	---	---	104.64	104.61	104.83	104.76	104.48	104.45
17	---	---	---	---	---	---	104.65	104.63	104.85	104.83	104.49	104.45
18	---	---	---	---	---	---	104.64	104.60	104.85	104.81	104.46	104.45
19	---	---	---	---	---	---	104.61	104.58	104.82	104.80	104.46	104.42
20	---	---	---	---	---	---	104.61	104.59	104.83	104.80	104.44	104.42
21	---	---	---	---	---	---	104.62	104.61	104.83	104.76	104.46	104.43
22	---	---	---	---	---	---	104.65	104.62	104.81	104.76	104.43	104.40
23	---	---	---	---	---	---	104.67	104.65	104.87	104.81	104.41	104.26
24	---	---	---	---	---	---	104.68	104.66	104.89	104.85	104.32	104.29
25	---	---	---	---	---	---	104.67	104.63	104.86	104.84	104.31	104.29
26	---	---	---	---	---	---	104.66	104.62	104.87	104.83	104.29	104.28
27	---	---	---	---	---	---	104.71	104.65	104.83	104.14	104.29	104.15
28	---	---	---	---	---	---	104.74	104.71	104.35	104.13	104.16	104.14
29	---	---	---	---	---	---	104.73	104.70	104.41	104.35	104.16	104.12
30	---	---	---	---	---	---	104.75	104.71	104.43	104.41	104.16	104.11
31	---	---	---	---	---	---	104.77	104.74	104.44	104.43	---	---
<b>Month</b>	---	---	---	---	---	---	---	---	104.89	104.13	104.49	104.11

375213076190207 Local number 60L 33 SOW 216F—Continued



375213076190207 Local number 60L 33 SOW 216F—Continued

## WATER-QUALITY RECORDS

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 4

[%, percent; CaCO<sub>3</sub>, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO<sub>2</sub>, 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; 124EOCN, Eocene Series; <, less than]

Date	Sample start time	Medium name	Sample type	Geologic unit code	Barometric pressure, mm Hg (00025)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)
05-05-2011	1345	Groundwater	Regular	124EOCN	763	<1.0	<1.0	8.5	796	20.0

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 4

[%, percent; CaCO<sub>3</sub>, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO<sub>2</sub>, 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; 124EOCN, Eocene Series; <, less than]

Date	Sample start time	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 <sub>3</sub> (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
05-05-2011	1345	8.0	481	439	254	522	11.7	2.71	1.18

## 375213076190207 Local number 60L 33 SOW 216F—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 3 of 4

[%, percent; CaCO<sub>3</sub>, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO<sub>2</sub>, 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; 124EOCN, Eocene Series; <, less than]

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 <sub>3</sub> (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)
05-05-2011	1345	9.19	200	446	522	< .02	11	1.91	2.26

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 4 of 4

[%, percent; CaCO<sub>3</sub>, calcium carbonate; NTRU, nephelometric turbidity ratio unit; SiO<sub>2</sub>, 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; 124EOCN, Eocene Series; <, less than]

Date	Sample start time	Silica, water, filtered, mg/L as SiO <sub>2</sub> (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)
05-05-2011	1345	33.4	.23	.082	94	1.3