Water-Data Report 2009

# 391013078012401 Local number 46X 57

Valley and Ridge aquifers
Beekmantown Group

Clarke County, VA

LOCATION.--Lat 39°10′13″, long 78°01′24″ referenced to North American Datum of 1927, Clarke County, VA, Hydrologic Unit 02070004.

## WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 250 ft. Upper casing diameter 6.00 in; top of first opening undefined, bottom of last opening undefined.

DATUM.--Land-surface datum is 630 ft above National Geodetic Vertical Datum of 1929. Measuring point: Undefined.

REMARKS.--Well is located in Pinesburg Station Dolomite and Rockdale Run Formation (undivided) of the Beekmantown Group of Lower to Middle Ordovician age.

### WATER-QUALITY DATA
### WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 4

[Remark codes: <, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

| Date | Time | Medium name | Sample type | Geologic unit | Barometric pressure, mm Hg (00025) | Dissolved oxygen, mg/L (00300) | pH, water, unfltrd field, std units (00400) | Specific conductance, wat unf µS/cm @ 25 degC (00095) |
|---|---|---|---|---|---|---|---|---|
| **May 19...** | 1345 | Groundwater | Regular | 367BKMN | 755 | 2.4 | 7.1 | 757 |

### WATER-QUALITY DATA
### WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 4

[Remark codes: <, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

| Date | Temperature, water, deg C (00010) | Depth of well, feet below LSD (72008) | Pump or flow period prior to sampling, minutes (72004) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Potassium, water, fltrd, mg/L (00935) | Sodium, water, fltrd, mg/L (00930) | Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801) | Alkalinity, wat flt inf tit field, mg/L as CaCO3 (39086) | Bicarbonate, wat flt infl pt titr., field, mg/L (00453) | Bromide water, fltrd, mg/L (71870) | Carbonate, wat flt infl pt titr., field, mg/L (00452) | Chloride, water, fltrd, mg/L (00940) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May 19...** | 13.4 | 250 | 49 | 99.4 | 36.3 | 1.96 | 14.6 | 283@c | 356 | 434 | .02 | <1 | 24.5 |

**391013078012401 Local number 46X 57—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**
Part 3 of 4
[Remark codes: <, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

| Date | Fluoride, water, fltrd, mg/L (00950) | Silica, water, fltrd, mg/L as SiO2 (00955) | Sulfate water, fltrd, mg/L (00945) | Sulfide water, unfltrd field, mg/L (99119) | Ammonia + org-N, water, fltrd, mg/L as N (00623) | Ammonia water, fltrd, mg/L as N (00608) | Nitrate + nitrite water, fltrd, mg/L as N (00631) | Nitrite water, fltrd, mg/L as N (00613) | Orthophosphate, water, fltrd, mg/L as P (00671) | Phosphorus, water, fltrd, mg/L as P (00666) | E coli, MI MF, water, col/ 100 mL (90901) | Total coliform, MI MF, water, col/ 100 mL (90900) | Aluminum, water, fltrd, µg/L (01106) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May** | | | | | | | | | | | | | |
| **19...** | .45 | 10.5 | 22.2 | <.005 | <.10 | <.020 | .95 | <.002 | E.007n | <.006 | E<1k | E2k | <4.0 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**
Part 4 of 4
[Remark codes: <, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

| Date | Barium, water, fltrd, µg/L (01005) | Chromium, water, fltrd, µg/L (01030) | Iron, water, fltrd, µg/L (01046) | Lead, water, fltrd, µg/L (01049) | Lithium water, fltrd, µg/L (01130) | Manganese, water, fltrd, µg/L (01056) | Strontium, water, fltrd, µg/L (01080) | Zinc, water, fltrd, µg/L (01090) | Boron, water, fltrd, µg/L (01020) | N-15 / N-14 in nitrate water, fltrd, per mil (82690) | O-18 / O-16 ratio in nitrate wat flt per mil (63041) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **May** | | | | | | | | | | | |
| **19...** | 112 | <.12 | E3n | .11 | 3.2 | .4 | 303 | 5.5 | 25 | 11.40 | 2.58 |