



Water-Data Report 2006

391904079413601 Local number Pre-0007

Valley and Ridge aquifers
Chemung Formation
Preston County, WV

LOCATION.--Lat 39°19'04", long 79°41'36" referenced to North American Datum of 1927, Preston County, WV, Hydrologic Unit 05020004.

WATER-QUALITY RECORDS

REMARKS.--During the period of April 19 to June 23, 2006, 30 wells were sampled as part of an ongoing study with the West Virginia Department of Environmental Protection-Division of Water and Waste Management (WV-DEP-DWWM) of ambient ground-water quality in West Virginia. Samples were collected from wells in the following hydrologic units: Cheat River (05020004), Shenendoah River (02070007), South Branch Potomac River (02070001), the Upper Kanawha River (05050006), and the northern section of the Ohio River (05030101). Sample analyses included field determinations, major ions, nutrients, microbiological indicators, metals, volatile organic compounds, and radon.

Since 1999, 30 wells have been selected and sampled annually to characterize the ambient quality of West Virginia's ground-water resources. Data for these samples are published in "Water Resources Data-West Virginia-Water Year XXXX, Water-Data Report WV-XX-01". The electronic versions of these reports can be found at the following url: <http://pubs.usgs.gov/wdr/#wv>.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 7

[Remark codes: <, less than; >, greater than. Value qualifier codes: @, holding time exceeded; c, see laboratory comment; m, value is highly variable by this method; n, below the LRL and above the LT-MDL.]

| Date | Time | Sample type | Medium code | Depth of well, feet below LSD (72008) | Altitude of land surface, feet (72000) | Pump or flow period to sampling, minutes (72004) | Turbidity white light, 90+/-30 corrctd NTRU (63676) | Barometric pressure, mm Hg (00025) | Carbon dioxide, unfltrd mg/L (00405) | Dissolved oxygen, mg/L (00300) | Dissolved oxygen, percent of saturation (00301) | pH, unfltrd field, std units (00400) | Specific conductance, wat unfltrd uS/cm 25 degC (00095) |
|-----------|------|-------------|-------------|---------------------------------------|--|--|---|------------------------------------|--------------------------------------|--------------------------------|---|--------------------------------------|---|
| May 23... | 1100 | 9 | 6 | 15.0 | 1,430.00 | >40 | 1.9 | 729 | 77 | 12.6 | 121 | 5.8 | 215 |

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Part 2 of 7

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| Date | Temperature, deg C (00010) | Noncarbon hardness, wat unfltrd lab, mg/L as CaCO3 (00903) | Calcium, unfltrd recover mg/L (00916) | Magnesium, unfltrd recover mg/L (00927) | Potassium, unfltrd recover mg/L (00937) | Sodium, unfltrd recover mg/L (00929) | ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (90410) | Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086) | Bicarbonate, wat flt incrm. titr., field, mg/L (00453) | Carbonate, wat flt incrm. titr., field, mg/L (00452) | Bromide, water, fltrd, mg/L (71870) | Chloride, water, fltrd, mg/L (00940) | Fluoride, water, fltrd, mg/L (00950) |
|-----------|----------------------------|--|---------------------------------------|---|---|--------------------------------------|---|--|--|--|-------------------------------------|--------------------------------------|--------------------------------------|
| May 23... | 11.6 | 9 | 9.61 | 2.43 | 1.55 | 27.4 | 25@c | 34 | 42 | <1 | <.02n | 36.2 | <.10 |

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Part 3 of 7

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| Date | Sulfate water, fltrd, mg/L (00945) | Residue on evap. at 105degC wat unf mg/L (00500) | Residue on evap. at 180degC wat flt mg/L (70300) | Ammonia water, fltrd, mg/L as N (00608) | Nitrite + nitrate water fltrd, mg/L as N (00631) | Nitrite water, fltrd, mg/L as N (00613) | Total nitro- gen, wat unf ysis, mg/L (62855) | Ortho- phos- phate, water, fltrd, mg/L as P (00671) | Phos- phorus, water, unfltrd mg/L (00665) | Hydro- gen ion, water, fltrd, calcd, mg/L (00191) | Organic carbon, water, unfltrd mg/L (00680) | E coli, Defined Substr. Tech., water, MPN/ 100 mL (50468) | Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625) |
|--------------|--|---|---|--|---|--|--|--|--|--|--|--|---|
| May 23... | 17.0 | 116 | 123 | <.04 | .75 | <.008 | .80 | <.006n | .006 | .00160 | .5 | 2 | <1 |

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Part 4 of 7

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| Date | Total coli- form, Defined Tech., MPN/ 100 mL (50569) | Alum- inum, water, unfltrd recover -able, ug/L (01105) | Anti- mony, water, unfltrd ug/L (01097) | Arsenic water unfltrd ug/L (01002) | Barium, water, unfltrd recover -able, ug/L (01007) | Beryll- ium, water, unfltrd recover -able, ug/L (01012) | Cadmium water, unfltrd ug/L (01027) | Chrom- ium, water, unfltrd recover -able, ug/L (01034) | Iron, water, unfltrd recover -able, ug/L (01045) | Lead, water, unfltrd recover -able, ug/L (01051) | Mangan- ese, water, unfltrd recover -able, ug/L (01055) | Mercury water, unfltrd recover -able, ug/L (71900) | Nickel, water, unfltrd recover -able, ug/L (01067) |
|--------------|---|---|--|--|--|--|---|---|--|--|--|--|--|
| May 23... | 53 | 16 | <.2 | .13 | 36.0 | <.06 | <.04n | .21 | 38 | .28 | .9 | <.010 | .33 |

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Part 5 of 7

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| Date | Selen- ium, water, unfltrd ug/L (01147) | Thall- ium, water, unfltrd ug/L (01059) | Zinc, water, unfltrd recover -able, ug/L (01092) | 1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506) | CFC-113 water unfltrd ug/L (77652) | 1,1-Di- chloro- ethane, water unfltrd ug/L (34496) | 1,1-Di- chloro- ethene, water, unfltrd ug/L (34501) | 1,2-Di- chloro- benzene water unfltrd ug/L (34536) | 1,2-Di- chloro- ethane, water, unfltrd ug/L (32103) | 1,2-Di- chloro- propane water unfltrd ug/L (34541) | 1,3-Di- chloro- benzene water unfltrd ug/L (34566) | 1,4-Di- chloro- benzene water unfltrd ug/L (34571) | Benzene water unfltrd ug/L (34030) |
|--------------|--|--|--|--|--|--|---|--|---|--|--|--|--|
| May 23... | <.08n | <.18 | <2n | <.1 | <.1 | <.1 | <.1 | <.1 | <.2 | <.1 | <.1 | <.1 | <.1 |

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| Date | Bromo- di- chloro- methane water unfltrd ug/L (32101) | Chloro- benzene water unfltrd ug/L (34301) | cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093) | Di- bromo- chloro- methane water unfltrd ug/L (32105) | Di- chloro- di- fluoro- methane wat unf unfltrd ug/L (34668) | Di- chloro- methane water unfltrd ug/L (34423) | Di- ethyl ether, water, unfltrd ug/L (81576) | Diiso- propyl ether, water, unfltrd ug/L (81577) | Ethyl- benzene water unfltrd ug/L (34371) | Methyl tert- pentyl ether, water, unfltrd ug/L (50005) | meta- + para- Xylene, water, unfltrd ug/L (85795) | o- Xylene, water, unfltrd ug/L (77135) | Styrene water unfltrd ug/L (77128) |
|--------------|--|---|---|--|--|--|--|--|--|---|---|---|--|
| May 23... | <.1 | <.1 | <.1 | <.2 | <.2mc | <.2 | <.2 | <.2 | <.1 | <.2 | <.2 | <.1 | <.1 |

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| Date | t-Butyl ethyl ether, water, unfltrd ug/L (50004) | Methyl t-butyl ether, water, unfltrd ug/L (78032) | Tetra- chloro- ethene, water, unfltrd ug/L (34475) | Tetra- chloro- methane water unfltrd ug/L (32102) | Toluene water unfltrd ug/L (34010) | trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546) | Tri- bromo- methane water unfltrd ug/L (32104) | Tri- chloro- ethene, water, unfltrd ug/L (39180) | Tri- chloro- fluoro- methane water unfltrd ug/L (34488) | Tri- chloro- methane water unfltrd ug/L (32106) | Vinyl chlor- ide, water, unfltrd ug/L (39175) | Rn-222, water, unfltrd pCi/L (82303) |
|--------------|--|---|--|---|--|---|--|--|--|---|---|--|
| May 23... | <.1 | <.2 | <.1 | <.2 | <.1 | <.1 | <.2 | <.1 | <.2 | <.1 | <.2 | 630 |