



Water-Data Report 2007

**01482580 SALEM CANAL AT U.S. ROUTE 130, AT DEEPWATER, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 39°40'54", long 75°29'29" referenced to North American Datum of 1983, Pennsville Township, Salem County, NJ, Hydrologic Unit 02040206, at bridge on U.S. Route 130 in Deepwater, 1.0 mi upstream from mouth, 2.0 mi northeast of Pennsville, and 3.5 mi south of Penns Grove.

DRAINAGE AREA.--58.3 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water year 2007.

GAGE.--Reference point only.

REMARKS.--Almost the entire flow of the upper Salem River is diverted through the Salem (Deepwater) Canal, some of which is used for industrial water supply.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

| <b>Date</b>  | <b>Discharge,<br/>in ft<sup>3</sup>/s</b> |
|--------------|---|
| Jul 10, 2007 | 24.8                                      |
| Jul 25, 2007 | 16.5                                      |
| Aug 15, 2007 | 13.9                                      |
| Aug 23, 2007 | 18.4                                      |
| Sep 25, 2007 | 18.8                                      |

## 01482580 SALEM CANAL AT US ROUTE 130, AT DEEPWATER, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 2007.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of carbonaceous biochemical oxygen demand and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 3

[Remark codes: &lt;, less than; E, estimated.]

| Date       | Time | Sample type     | Instantaneous discharge, cfs (00061) | Turbidity white light, 90+/-30 corrctd NTRU (63676) | Barometric pressure, mm Hg (00025) | Dissolved oxygen, mg/L (00300) | Dissolved oxygen, percent of saturation (00301) | pH, water, unfltrd field, std units (00400) | Specific conductance, wat unf 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | ANC, wat unfixed end pt, lab, mg/L as CaCO3 (90410) |
|------------|------|-----------------|--------------------------------------|---|------------------------------------|--------------------------------|---|---|---|---------------------------------|-----------------------------------|---|
| <b>Jul</b> |      |                 |                                      |   |                                    |                                |   |   |   |                                 |                                   |   |
| 10...      | 0839 | Field Blank     | --                                   | --  | --                                 | --                             | --  | --  | --  | --                              | --                                | <5  |
| 10...      | 0920 | Environmental   | 25                                   | 15  | 760                                | 2.6                            | 33  | 7.2   | 316   | 30.5                            | 28.3                              | 64  |
| 25...      | 1040 | Environmental   | 16                                   | 17  | 765                                | 2.6                            | 32  | 7.2   | 328   | 26.5                            | 24.9                              | 66  |
| <b>Aug</b> |      |                 |                                      |   |                                    |                                |   |   |   |                                 |                                   |   |
| 15...      | 1100 | Environmental   | 14                                   | 25  | 758                                | 4.6                            | 57  | 7.3   | 589   | 28.0                            | 27.2                              | 66  |
| 15...      | 1101 | Split Replicate | --                                   | --  | --                                 | --                             | --  | --  | --  | --                              | --                                | 67  |
| 23...      | 1149 | Field Blank     | --                                   | --  | --                                 | --                             | --  | --  | --  | --                              | --                                | <5  |
| 23...      | 1230 | Environmental   | 18                                   | 16  | 764                                | 6.5                            | 73  | 7.1   | 293   | 21.5                            | 21.1                              | 57  |
| <b>Sep</b> |      |                 |                                      |   |                                    |                                |   |   |   |                                 |                                   |   |
| 25...      | 0940 | Environmental   | 19                                   | 25  | 764                                | 8.5                            | 99  | 8.0   | 342   | 21.5                            | 22.9                              | 60  |

## 01482580 SALEM CANAL AT US ROUTE 130, AT DEEPWATER, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 3

[Remark codes: &lt;, less than; E, estimated.]

| Date       | Chloride, water, fltrd, mg/L (00940) | Residue on evap. at 180degC wat flt mg/L (70300) | Residue total non-filterable, mg/L (00530) | Ammonia + org-N, water, unfltrd mg/L as N (00625) | Ammonia water, fltrd, mg/L as N (00608) | Nitrate + nitrite water fltrd, mg/L as N (00631) | Total nitrogen, water, unfltrd mg/L (00600) | Phosphorus, water, fltrd, mg/L (00666) | Phosphorus, water, unfltrd mg/L (00665) | Organic carbon, water, unfltrd mg/L (00680) | CBOD, water, unfltrd 5 day, mg/L (80082) | Chlorophyll a phytoplankton, fluoro, µg/L (70953) | Pheophytin a, phytoplankton, µg/L (62360) |
|------------|--------------------------------------|--|--|---|---|--|---|--|---|---|--|---|---|
|            | <b>Jul</b>                           |  |  |   |   |  |   |  |   |   |  |   |   |
| 10...      | <.12                                 | <10  | --   | <.10  | <.040                                   | <.04   | --  | <.008                                  | <.008                                   | .5  | --                                       | .2  | .1  |
| 10...      | 34.1                                 | 197  | 20   | 1.2   | .136                                    | E.03   | --  | .029                                   | .166                                    | 5.5   | 3.1                                      | 38.0  | 34.9                                      |
| 25...      | 34.9                                 | 182  | 19   | 1.2   | <.040                                   | <.04   | --  | .031                                   | .151                                    | 13.0  | <1.9                                     | 31.3  | 18.8                                      |
| <b>Aug</b> |                                      |  |  |   |   |  |   |  |   |   |  |   |   |
| 15...      | 112                                  | 315  | 35   | 1.2   | .064                                    | E.02   | --  | .033                                   | .193                                    | 12.0  | 2.3                                      | 39.3  | 31.7                                      |
| 15...      | 112                                  | 312  | 29   | 1.3   | .057                                    | <.04   | --  | .027                                   | .193                                    | 12.1  | 2.4                                      | 37.3  | 33.4                                      |
| 23...      | <.12                                 | <10  | <1   | <.10  | <.040                                   | <.04   | --  | E.005                                  | E.007                                   | E.3   | --                                       | <.1   | <.1                                       |
| 23...      | 32.6                                 | 173  | 14   | 1.9   | .563                                    | .05  | 1.9   | .046                                   | .167                                    | E9.6  | E1.5                                     | 50.8  | 32.9                                      |
| <b>Sep</b> |                                      |  |  |   |   |  |   |  |   |   |  |   |   |
| 25...      | 41.9                                 | 188  | 29   | 1.6   | .079                                    | .336   | 2.0   | .022                                   | .206                                    | 11.3  | 3.6                                      | 73.7  | 52.7                                      |

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO**  
**SEPTEMBER 2007**

Part 3 of 3

[Remark codes: &lt;, less than; E, estimated.]

| Date       | Boron, water, unfltrd recover-able, µg/L (01022) | Iron, water, unfltrd recover-able, µg/L (01045) |
|------------|--|---|
| <b>Jul</b> |  |   |
| 10...      | <8   | <6  |
| 10...      | 41   | 990   |
| 25...      | 46   | 1,090   |
| <b>Aug</b> |  |   |
| 15...      | 68   | 1,470   |
| 15...      | 67   | 1,480   |
| 23...      | <8   | <6  |
| 23...      | 55   | 1,230   |
| <b>Sep</b> |  |   |
| 25...      | 81   | 1,260   |