

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

The Pennsylvania Water-Quality Network (WQN) is a statewide, fixed station water-quality sampling system currently operated by the Department of Environmental Protection (PaDEP), Bureau of Water Supply and Wastewater Management in cooperation with the United States Geological Survey (USGS). It is designed to assess both the quality of Pennsylvania's surface waters and the effectiveness of the water quality management program by accomplishing three basic objectives:

- \* Monitor temporal water-quality trends in major surface streams throughout the Commonwealth of Pennsylvania.
- \* Monitor temporal water-quality trends in selected reference waters.
- \* Monitor temporal water-quality trends in selected Pennsylvania lakes.

Major streams are defined as interstate waters and intrastate streams with drainage areas of roughly 200 mi<sup>2</sup> or greater. These waters are sampled at or near their mouths to measure overall quality before flows enter the next higher order stream or before exiting the Commonwealth. In this way, trends can be established and the effectiveness of water-quality management programs can be assessed by watershed. Samples are collected on fixed-time intervals resulting in coverage of a range of flow regimes. All samples were collected by the USGS and analyzed by the PaDEP laboratory in Harrisburg.

Most of the current WQN standard sites are co-located with USGS gage stations and others are equipped with a wire-weight gage. Currently the network consists of 117 standard stream sites, 22 reference stream sites, and 21 lakes distributed across the Commonwealth. This report contains only those sites in the Delaware River basin. The locations of these sites can be found in figures 6-11. Other data for the WQN can be found in the annual Water Data Reports PA-04-2 and PA-04-3.

Standard stations are sampled bimonthly (6 times per year) for physical and chemical parameters and stream discharge or a stage reading. Reference stations are sampled at 25-30 day intervals for physical and chemical parameters and stream discharge or a stage reading. Benthic macroinvertebrates are also collected annually at all WQN stations.

Ninety lakes are part of the WQN. Of these 90 lakes, approximately 15-25 are sampled annually during mid-summer stratification for 5 years; and then a different set of 15-25 lakes is sampled for 5 years. Using this schedule, all 90 lakes are sampled over a 30-year period. Lakes are sampled for physical and chemical parameters and chlorophyll-*a*. Two samples are collected from the deepest point of the lake with the first sample being collected 1-meter below the surface and the second sample collected 1-meter from the bottom. Each sample is analyzed separately. A temperature and dissolved oxygen profile is collected at the site through the water column. This report contains only data for lakes in the Delaware River basin. The locations of these sites can be found in figures 6-11.

For additional information, contact Andrew Reif at the USGS Pennsylvania Water Science Center, Exton Office, 770 Pennsylvania Drive, Suite 116, Exton, PA 19341; 610-321-2434, (email: agreif@usgs.gov).

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**TABLE 1.**--List of stream sites sampled as part of the Pennsylvania Water-Quality Network (WQN).

Station number	WQN No.	Location	Latitude	Longitude	Drainage area (mi <sup>2</sup> )
<sup>a</sup> 01427000	104	West Branch Delaware River at Hancock, NY	41° 57' 08"	75° 17' 31"	650
<sup>a</sup> 01427510	185	Delaware River at Callicoon, NY	41° 45' 24"	75° 03' 28"	1,820
01429301	336	Dyberry Creek at Tanners Falls near Dyberry, PA (Reference station)	41° 39' 11"	75° 16' 55"	46.4
01431600	141	Wallenpaupack Creek at East Sterling, PA	41° 20' 10"	75° 20' 25"	69.5
01432119	147	Lackawaxen River at mouth at Lackawaxen, PA	41° 29' 12"	74° 59' 31"	597
<sup>a</sup> 01434000	103	Delaware River at Port Jervis, NY	41° 22' 14"	74° 41' 52"	3,070
01438760	192	Adams Creek near Dingmans Ferry, PA (Reference station)	41° 14' 22"	74° 52' 02"	8.20
<sup>a</sup> 01439500	139	Bush Kill at Shoemakers, PA	41° 05' 17"	75° 02' 17"	117
01440650	138	Brodhead Creek near East Stroudsburg, PA	41° 02' 10"	75° 12' 34"	121
<sup>a</sup> 01442500	137	Brodhead Creek at Minisink Hills, PA	40° 59' 55"	75° 08' 35"	259
01444800	194	Delaware River near Richmond, PA	40° 49' 44"	75° 05' 06"	4,378
01447300	190	Choke Creek near Thornhurst, PA (Reference station)	41° 09' 40"	75° 36' 10"	8.06
<sup>a</sup> 01447500	126	Lehigh River at Stoddartsville, PA	41° 07' 49"	75° 37' 33"	91.7
<sup>a</sup> 01447720	142	Tobyhanna Creek near Blakeslee, PA	41° 05' 05"	75° 36' 21"	118
01449375	191	Wild Creek above Penn Forest Reservoir near Kresgeville, PA (Reference station)	40° 56' 24"	75° 35' 04"	5.4
01451070	125	Lehigh River at Treichlers, PA	40° 44' 03"	75° 32' 28"	928
01452040	130	Jordan Creek at mouth at Allentown, PA	40° 36' 06"	75° 27' 43"	82.3
<sup>a</sup> 01454700	123	Lehigh River at Glendon, PA	40° 40' 09"	75° 14' 12"	1,359
01457790	187	Cooks Creek at Durham Furnace, PA (Reference station)	40° 34' 56"	75° 12' 20"	29.4
01458900	186	Tinicum Creek near Ottsville, PA (Reference station)	40° 28' 14"	75° 08' 13"	14.7
<sup>a</sup> 01463500	101	Delaware River at Trenton, NJ	40° 13' 18"	74° 46' 42"	6,780
<sup>a</sup> 01465500	121	Neshaminy Creek near Langhorne, PA	40° 10' 26"	74° 57' 26"	210
<sup>a</sup> 01470500	113	Schuylkill River at Berne, PA	40° 31' 21"	75° 59' 55"	355
<sup>a</sup> 01471000	117	Tulpehocken Creek near Reading, PA	40° 22' 08"	75° 58' 46"	211
<sup>a</sup> 01472000	111	Schuylkill River at Pottstown, PA	40° 14' 30"	75° 39' 07"	1,147
01472150	156	French Creek at Coventryville, PA (Reference station)	40° 10' 16"	75° 41' 26"	36.9
01473030	116	Perkiomen Creek at Arcola near Collegeville, PA	40° 09' 11"	75° 27' 21"	300
01473170	154	Valley Creek at Wilson Road near Valley Forge, PA	40° 04' 53"	75° 27' 25"	22.0
<sup>a</sup> 01473900	193	Wissahickon Creek at Fort Washington, PA	40° 07' 26"	75° 13' 13"	40.8
<sup>a</sup> 01474000	115	Wissahickon Creek at mouth at Philadelphia, PA	40° 00' 55"	75° 12' 26"	64.0
01474010	110	Schuylkill River at Falls Bridge at Philadelphia, PA	40° 00' 30"	75° 11' 52"	1,893
<sup>a</sup> 01478245	149	White Clay Creek near Strickersville, PA	39° 44' 51"	75° 46' 15"	59.2
<sup>a</sup> 01479820	150	Red Clay Creek near Kennett Square, PA	39° 49' 00"	75° 41' 31"	28.3
<sup>a</sup> 01481000	105	Brandywine Creek at Chadds Ford, PA	39° 52' 11"	75° 35' 37"	287
01494990	256	Big Elk Creek near Lewisville, PA	39° 43' 48"	75° 50' 54"	41.0

<sup>a</sup>Other data for this station can be found in the continuous station records section of this report.

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**TABLE 2.**--List of lakes sampled as part of the Pennsylvania Water-Quality Network.

Station number	WQN No.	Location	Latitude	Longitude
01427252	L114	Duck Harbor Pond near Lookout, PA	41° 45' 11"	75° 12' 01"
01446590	L112	Minsi Lake near Roseto, PA	40° 54' 43"	75° 10' 15"
01447100	L113	Gouldsboro Lake at Gouldsboro, PA	41° 14' 07"	75° 27' 09"
01464640	L115	Lake Galena near Chalfont, PA	40° 19' 01"	75° 12' 15"
01472124	L102	Hopewell Lake at Hopewell, PA	40° 12' 16"	75° 46' 43"
0148064640	L116	Struble Lake near Honey Brook, PA	40° 06' 28"	75° 51' 51"

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**REMARKS.**--Some values for "dissolved" parameters exceeded values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01427000 West Branch Delaware River at Hancock, NY (LAT 41 57 08N LONG 075 17 31W)													
OCT 2003 09...	1130	1028	9813	--	--	10.4	7.5	7.3	92	89	15.0	24	6.7
DEC 11...	1030	1028	9813	--	--	11.7	7.4	6.9	194	196	5.0	23	6.4
FEB 2004 09...	1115	1028	9813	--	--	14.3	8.3	7.7	123	133	.1	27	7.1
APR 20...	1100	1028	9813	--	--	13.6	7.9	7.3	84	84	7.3	24	6.7
JUN 15...	1100	1028	9813	--	--	11.1	8.5	7.7	104	100	19.3	27	7.9
AUG 24...	1230	1028	9813	--	--	12.8	7.5	6.7	86	87	12.3	23	6.5
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2003 08...	1215	1028	9813	54	2.0	11.9	7.3	7.4	61	59	8.9	24	--
NOV 03...	1400	1028	9813	123	4.0	11.2	7.2	7.2	54	53	11.8	19	--
DEC 10...	1230	1028	9813	70	<1.0	12.9	7.3	6.8	59	60	2.0	21	--
JAN 2004 07...	1300	1028	9813	178	<1.0	15.0	8.0	7.2	50	51	.1	17	--
FEB 25...	1330	1028	9813	29	6.0	14.5	7.4	7.3	76	79	.9	26	--
MAR 24...	1415	1028	9813	66	6.0	13.2	7.6	6.9	62	61	4.9	20	--
APR 19...	1545	1028	9813	77	5.0	10.9	7.4	7.0	61	60	14.3	21	--
MAY 19...	1450	1028	9813	61	4.0	10.3	7.7	7.2	64	63	18.1	23	--
JUN 14...	1530	1028	9813	22	1.0	9.8	7.4	6.8	75	55	16.2	28	--
JUL 29...	1540	1028	9813	99	1.0	9.2	7.1	7.0	62	62	19.2	25	--
AUG 23...	1615	1028	9813	48	<1.0	10.4	7.7	6.8	66	63	18.5	24	--
SEP 27...	1500	1028	9813	62	<1.0	10.0	7.2	6.9	62	51	15.6	24	--
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
OCT 2003 08...	1510	1028	9813	121	--	11.4	7.8	7.2	67	72	13.1	19	6.1
DEC 17...	0900	1028	9813	343	--	14.0	6.6	7.0	57	53	2.7	18	4.9
FEB 2004 19...	1130	1028	9813	172	--	14.8	8.0	6.6	80	79	.1	23	7.2
APR 15...	1000	1028	9813	164	--	10.8	7.0	6.8	67	66	5.6	17	--
JUN 24...	0830	1028	9813	44	--	10.0	7.2	--	84	78	17.1	26	8.2
AUG 17...	1240	1028	9813	413	--	9.3	6.8	6.3	46	45	17.8	15	4.5

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	ANC, wat unfl- xed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01427000 West Branch Delaware River at Hancock, NY (LAT 41 57 08N LONG 075 17 31W)													
OCT 2003 09...	6.8	1.7	1.8	19	0	--	--	6.1	146	6	<.020	.35	<.040
DEC 11...	6.5	1.3	1.7	13	0	--	--	6.0	174	24	<.020	.26	<.040
FEB 2004 09...	7.6	1.8	2.0	18	6.4	--	--	7.3	72	2	<.020	.56	<.040
APR 20...	6.6	1.8	1.7	15	13	--	--	6.2	48	8	<.020	.45	<.040
JUN 15...	7.8	2.0	1.9	21	14	--	--	6.7	56	10	.020	.40	<.040
AUG 24...	6.5	1.6	1.6	16	6.0	--	--	6.2	62	2	<.020	.49	<.040
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2003 08...	8.5	--	.78	19	--	2.6	<.2	5.7	56	8	<.020	.07	<.040
NOV 03...	6.6	--	.64	16	--	2.3	<.2	5.5	52	2	<.020	.07	<.040
DEC 10...	7.1	--	.66	16	--	2.5	<.2	6.1	24	<2	<.020	.17	<.040
JAN 2004 07...	5.7	--	.58	12	--	2.5	<.2	5.9	50	<2	<.020	.24	<.040
FEB 25...	8.9	--	.81	20	--	4.9	<.2	6.6	52	4	<.020	.33	<.040
MAR 24...	7.1	--	.66	15	--	4.7	<.2	6.2	58	4	<.020	.30	<.040
APR 19...	7.2	--	.66	19	--	3.6	<.2	6.0	60	<2	<.020	.15	<.040
MAY 19...	7.9	--	.71	18	--	3.0	<.2	5.6	42	2	<.020	.13	<.040
JUN 14...	9.7	--	.80	24	--	3.5	<.2	5.9	54	6	.030	.20	<.040
JUL 29...	8.6	--	.83	22	--	2.8	<.2	4.6	72	<2	.030	.06	<.040
AUG 23...	8.3	--	.75	23	--	3.1	<.2	4.9	48	<2	<.020	.07	<.040
SEP 27...	8.2	--	.78	22	--	2.4	<.2	5.2	58	<2	<.020	.10	<.040
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
OCT 2003 08...	6.1	.91	.90	15	--	--	--	5.8	86	2	<.020	.21	<.040
DEC 17...	5.5	.79	.95	8	0	--	--	6.1	56	<2	<.020	.35	<.040
FEB 2004 19...	7.4	1.11	1.1	13	9.2	--	--	7.1	22	<2	<.020	.44	<.040
APR 15...	5.6	--	.82	12	--	--	--	6.2	60	8	<.020	.28	<.040
JUN 24...	8.4	1.11	1.1	--	4.0	--	--	6.2	76	<2	<.020	.27	<.040
AUG 17...	4.6	.67	.72	9	17	--	--	4.8	46	14	<.020	.15	<.040

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/100 mL (31616)	Aluminum, water, unfltrd µg/L (01106)	Aluminum, water, recover-able, fltrd, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Cyanide amenable to chlorination wat unfl mg/L (00722)
01427000 West Branch Delaware River at Hancock, NY (LAT 41 57 08N LONG 075 17 31W)													
OCT 2003 09...	<.01	.017	.75	--	1.1	--	<10	30	--	--	<4	<4	--
DEC 11...	.02	.070	.60	--	2.1	--	40	1600	--	--	<4	<4	--
FEB 2004 09...	.01	.013	.76	--	1.3	--	20	40	--	--	<4	<4	--
APR 20...	.01	.022	.74	--	1.2	--	<10	40	--	--	<4	<4	--
JUN 15...	<.01	.023	.69	--	1.2	--	<10	30	--	--	<4	<4	--
AUG 24...	<.01	.019	.60	--	.5	--	<10	40	--	--	<4	<4	--
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2003 08...	.01	<.010	.24	--	.8	<20	<10	20	<4.0	<.20	<4	<4	--
NOV 03...	<.01	<.010	.24	--	--	40	30	80	<4.0	<.20	<4	<4	--
DEC 10...	<.01	.016	.32	--	1.9	<20	<10	40	<4.0	<.20	<4	<4	--
JAN 2004 07...	<.01	.016	.40	--	.7	<20	20	80	<4.0	<.20	<4	<4	--
FEB 25...	<.01	.016	.45	--	1.3	<10	<10	30	<4.0	<.20	<4	<4	--
MAR 24...	<.01	<.010	.41	--	.8	<20	10	50	<4.0	<.20	<4	<4	--
APR 19...	.01	.015	.43	--	1.7	<20	20	50	<4.0	<.20	<4	<4	--
MAY 19...	.01	.023	.26	--	.9	20	10	80	<4.0	<.20	<4	<4	--
JUN 14...	.01	.025	.34	--	1.0	40	10	30	<4.0	<.20	<4	<4	--
JUL 29...	.01	.039	.31	--	1.0	140	20	60	<4.0	<.20	<4	<4	--
AUG 23...	.01	.015	.18	--	<.2	<20	20	40	<4.0	<.20	<4	<4	--
SEP 27...	.01	.014	.23	--	.9	10	<10	30	<4.0	<.20	<4	<4	--
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
OCT 2003 08...	.01	.013	.44	--	--	--	30	40	--	--	<4	<4	--
DEC 17...	.02	.012	.35	--	1.7	--	40	120	--	--	<4	<4	--
FEB 2004 19...	<.01	.012	.54	--	2.8	--	10	30	--	--	<4	<4	--
APR 15...	.01	.011	.58	2.6	--	--	--	<200	--	--	--	<10	--
JUN 24...	<.01	.013	.26	--	1.0	--	30	50	--	--	<4	<4	--
AUG 17...	.01	.028	.38	--	.7	--	70	150	--	--	<4	<4	--

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MISCELLANEOUS STATION ANALYSES

Date	Iron, water, unfltrd, recover- able, µg/L (01046)	Iron, water, unfltrd, recover- able, µg/L (01045)	Lead, water, unfltrd, recover- able, µg/L (01049)	Lead, water, unfltrd, recover- able, µg/L (01051)	Mangan- ese, water, unfltrd, recover- able, µg/L (01056)	Mangan- ese, water, unfltrd, recover- able, µg/L (01055)	Nickel, water, unfltrd, recover- able, µg/L (01065)	Nickel, water, unfltrd, recover- able, µg/L (01067)	Zinc, water, unfltrd, recover- able, µg/L (01090)	Zinc, water, unfltrd, recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd, µg/L (32730)
01427000 West Branch Delaware River at Hancock, NY (LAT 41 57 08N LONG 075 17 31W)											
OCT 2003 09...	<20	90	<1.0	<1.0	31	51	12	<4.0	<5.0	<5.0	--
DEC 11...	100	2320	<1.0	4.6	80	190	<4.0	<4.0	6.5	22	--
FEB 2004 09...	30	120	<1.0	<1.0	26	35	<4.0	<4.0	<5.0	<5.0	--
APR 20...	40	150	<1.0	1.0	36	48	<4.0	<4.0	<5.0	<5.0	--
JUN 15...	50	130	1.0	<1.0	29	43	<4.0	<4.0	<5.0	<5.0	--
AUG 24...	50	180	<1.0	<1.0	12	35	<4.0	<4.0	<5.0	<5.0	--
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)											
OCT 2003 08...	40	90	<1.0	<1.0	23	26	<4.0	<4.0	<5.0	<5.0	<5
NOV 03...	50	110	<1.0	<1.0	16	28	<4.0	<4.0	<5.0	<5.0	<5
DEC 10...	50	90	<1.0	<1.0	22	28	<4.0	<4.0	<5.0	<5.0	<5
JAN 2004 07...	40	140	<1.0	<1.0	11	20	<4.0	<4.0	<5.0	<5.0	<5
FEB 25...	40	100	<1.0	<1.0	21	25	<4.0	<4.0	<5.0	<5.0	<5
MAR 24...	30	80	<1.0	<1.0	17	21	<4.0	<4.0	<5.0	<5.0	<5
APR 19...	40	90	<1.0	<1.0	18	25	<4.0	<4.0	<5.0	<5.0	<5
MAY 19...	70	120	<1.0	<1.0	22	32	<4.0	<4.0	<5.0	<5.0	<5
JUN 14...	40	110	<1.0	<1.0	27	36	<4.0	<4.0	<5.0	<5.0	<5
JUL 29...	90	290	<1.0	<1.0	13	39	<4.0	<4.0	<5.0	<5.0	<5
AUG 23...	70	140	<1.0	<1.0	18	31	<4.0	<4.0	<5.0	<5.0	<5
SEP 27...	70	90	<1.0	<1.0	25	30	<4.0	<4.0	<5.0	<5.0	<5
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)											
OCT 2003 08...	100	140	<1.0	<1.0	24	30	<4.0	<4.0	--	--	--
DEC 17...	80	230	<1.0	<1.0	18	30	<4.0	<4.0	6.2	5.7	--
FEB 2004 19...	60	90	<1.0	<1.0	25	31	<4.0	<4.0	<5.0	<5.0	--
APR 15...	--	120	--	<1.0	--	27	--	<50	--	<10	--
JUN 24...	60	140	<1.0	<1.0	21	33	<4.0	<4.0	<5.0	<5.0	--
AUG 17...	140	290	<1.0	<1.0	50	69	<4.0	<4.0	6.2	6.6	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unfl lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unfl lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
DEC 2003 17...	1100	1028	9813	3050	--	14.7	7.1	7.1	73	69	2.5	19	--
FEB 2004 19...	1330	1028	9813	699	--	16.0	8.1	7.4	88	87	.3	25	--
APR 14...	1000	1028	9813	2540	--	12.1	6.5	7.0	77	78	7.3	22	--
JUN 24...	1050	1028	9813	800	--	11.4	8.3	7.6	90	89	17.4	27	--
AUG 17...	1110	1028	9813	2720	--	8.9	7.0	6.5	84	85	18.9	22	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2003 01...	1020	1028	9813	15	3.0	11.0	7.1	6.5	73	60	8.1	8	1.8
NOV 24...	1410	1028	9813	23	5.0	11.8	6.9	6.5	63	61	7.8	15	3.3
DEC 15...	1400	1028	9813	40	<1.0	14.2	6.6	6.6	60	57	1.8	12	3.0
FEB 2004 23...	1530	1028	9813	--	4.0	16.0	7.0	6.6	80	78	1.2	18	4.4
MAR 23...	1340	1028	9813	16	6.0	14.8	7.5	6.8	81	83	1.1	17	4.1
APR 19...	1300	1028	9813	21	5.0	11.3	7.1	6.7	82	73	13.1	15	3.8
MAY 25...	1250	1028	9813	11	3.0	9.6	7.3	7.0	82	81	17.4	17	4.2
JUN 24...	1400	1028	9813	3.0	2.0	10.2	7.3	6.9	80	78	17.3	22	--
JUL 13...	1520	1028	9813	2.6	2.0	10.2	7.3	6.6	75	73	17.2	20	--
AUG 17...	0800	1028	9813	10	1.0	9.8	7.2	6.5	78	79	16.6	18	--
SEP 09...	0945	1028	9813	30	<1.0	9.4	7.0	6.9	82	80	19.5	17	--
01440650 Brodhead Creek near Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
OCT 2003 07...	1430	1028	9813	261	--	10.8	7.5	7.1	84	76	10.0	19	5.4
DEC 16...	1620	1028	9813	610	--	13.8	6.8	6.9	71	66	3.4	17	4.6
FEB 2004 23...	1630	1028	9813	99	--	15.3	7.2	6.6	101	101	3.4	22	6.1
APR 19...	1600	1028	9813	292	--	11.6	7.6	6.8	104	92	14.1	22	5.9
JUN 21...	1640	1028	9813	73	--	10.3	7.2	7.9	109	100	19.6	27	7.2
AUG 17...	1420	1028	9813	588	--	9.6	7.2	6.6	77	78	18.1	18	4.9



**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnes- ium, water, recover- fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
DEC 2003 17...	6.2	--	1.0	12	--	--	--	6.6	266	2	.030	.19	<.040
FEB 2004 19...	7.8	--	1.3	16	--	--	--	7.5	64	<2	<.020	.31	<.040
APR 14...	7.2	--	1.1	14	--	--	--	6.6	44	20	<.020	.24	<.040
JUN 24...	8.7	--	1.2	19	--	--	--	7.0	84	2	<.020	.11	<.040
AUG 17...	7.3	--	1.0	20	--	--	--	5.8	56	4	.030	.05	<.040
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2003 01...	1.9	.69	.7	4	0	15.1	<.2	2.0	122	16	<.020	<.04	<.040
NOV 24...	3.6	1.3	1.3	7	0	9.1	<.2	8.0	32	14	<.020	<.04	<.040
DEC 15...	3.0	1.2	1.2	5	--	8.0	<.2	7.8	42	4	<.020	.08	<.040
FEB 2004 23...	4.4	1.7	1.7	8	--	12.0	<.2	8.3	182	<2	<.020	.19	<.040
MAR 23...	4.3	1.4	1.6	7	11	14.1	<.2	7.6	46	<2	<.020	.10	<.040
APR 19...	3.8	1.4	1.4	7	--	13.3	<.2	7.6	--	--	<.020	.05	<.040
MAY 25...	4.2	1.6	1.6	9	--	13.0	<.2	6.4	26	<2	--	.16	<.040
JUN 24...	5.6	--	1.9	12	--	12.4	<.2	6.5	66	<2	<.020	.18	<.040
JUL 13...	5.3	--	1.7	15	--	8.5	<.2	6.9	76	<2	<.020	.27	<.040
AUG 17...	4.6	--	1.6	12	--	12.4	<.2	6.5	42	22	<.020	.09	<.040
SEP 09...	4.3	--	1.5	9	--	14.0	<.2	6.1	52	2	.040	.06	<.040
01440650 Brodhead Creek near Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
OCT 2003 07...	5.4	1.4	1.5	12	0	--	--	7.0	64	<2	<.020	.19	<.040
DEC 16...	4.7	1.2	1.2	9	0	--	--	7.3	64	2	<.020	.25	<.040
FEB 2004 23...	6.2	1.7	1.7	11	.20	--	--	7.6	14	<2	<.020	.32	<.040
APR 19...	6.1	1.5	1.5	12	6.6	--	--	7.4	--	--	<.020	.18	<.040
JUN 21...	7.5	1.9	2.0	16	1.6	--	--	7.0	152	<2	<.020	.12	<.040
AUG 17...	5.1	1.2	1.3	15	6.2	--	--	6.5	44	10	<.020	.20	<.040

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd as P (70507) mg/L	Phosphorus, water, unfltrd (00665) mg/L	Total nitrogen, water, unfltrd (00600) mg/L	Organic carbon, water, unfltrd (00680) mg/L	BOD, water, unfltrd 5 day, 20 degC (00310) mg/L	Fecal coliform, M-FC 0.45µMF col/100 mL (31616)	Aluminum, water, fltrd (01106) µg/L	Aluminum, water, unfltrd recover-able, (01105) µg/L	Arsenic, water, fltrd (01000) µg/L	Cadmium, water, fltrd (01025) µg/L	Copper, water, fltrd (01040) µg/L	Copper, water, unfltrd recover-able, (01042) µg/L	Cyanide, amenable to chlorination wat unf (00722) mg/L
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
DEC 2003 17...	.02	.033	.30	3.9	--	--	--	<200	--	--	--	<10	--
FEB 2004 19...	.01	.019	.50	2.8	--	--	--	<200	--	--	--	<10	--
APR 14...	.02	.047	1.2	4.0	--	--	--	240	--	--	--	<10	--
JUN 24...	<.01	.018	1.1	3.0	--	--	--	<200	--	--	--	<10	--
AUG 17...	.01	.036	.38	4.0	--	--	--	<200	--	--	--	<10	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2003 01...	<.01	.013	<.06	--	1.4	<10	20	40	<4.0	<.20	<4	<4	--
NOV 24...	<.01	.017	.19	--	1.2	20	20	30	<4.0	<.20	<4	<4	--
DEC 15...	<.01	.013	.17	--	1.6	10	30	40	<4.0	<.20	<4	<4	--
FEB 2004 23...	<.01	.020	.20	--	1.7	<20	<10	20	<4.0	<.20	<4	<4	--
MAR 23...	<.01	<.010	.20	--	.9	<20	10	30	<4.0	<.20	<4	<4	--
APR 19...	.01	.014	.23	--	1.2	80	20	50	<4.0	<.20	<4	<4	--
MAY 25...	<.01	--	.56	--	.6	20	10	50	<4.0	<.20	<4	<4	--
JUN 24...	<.01	.022	.35	--	1.1	<10	30	30	<4.0	<.20	<4	<4	--
JUL 13...	.01	.016	.53	--	2.3	20	20	40	<4.0	<.20	<4	<4	--
AUG 17...	<.01	.015	.20	--	.5	20	<10	30	<4.0	<.20	<4	<4	--
SEP 09...	<.01	.017	.23	--	.5	140	20	70	<4.0	<.20	<4	<4	--
01440650 Brodhead Creek near Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
OCT 2003 07...	.01	.013	.41	--	1.0	--	10	30	--	--	<4	<4	--
DEC 16...	.01	.013	.26	--	1.7	--	20	50	--	--	<4	<4	--
FEB 2004 23...	<.01	.012	.37	--	1.9	--	<10	10	--	--	<4	<4	--
APR 19...	.01	.012	.42	--	1.3	--	10	30	--	--	<4	<4	--
JUN 21...	<.01	.017	.99	--	1.8	--	--	--	--	--	<4	<4	--
AUG 17...	.02	.019	.30	--	.7	--	30	70	--	--	<4	<4	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, unfltrd, fltrd, µg/L (01046)	Iron, water, recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd, µg/L (32730)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)											
DEC 2003 17...	--	200	--	<1.0	--	50	--	<50	--	<10	--
FEB 2004 19...	--	110	--	<1.0	--	20	--	<50	--	40	--
APR 14...	--	390	--	1.1	--	80	--	<50	--	10	--
JUN 24...	--	100	--	<1.0	--	30	--	<50	--	20	--
AUG 17...	--	500	--	<1.0	--	290	--	<50	--	<10	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)											
OCT 2003 01...	<20	30	<1.0	<1.0	4.7	7.5	<4.0	<4.0	19	17	<5
NOV 24...	30	70	<1.0	<1.0	<2.0	7.2	<4.0	<4.0	7.2	<5.0	<5
DEC 15...	30	60	<1.0	<1.0	2.7	6.9	<4.0	<4.0	<5.0	<5.0	<5
FEB 2004 23...	40	60	<1.0	<1.0	<2.0	2.8	<4.0	<4.0	<5.0	<5.0	<5
MAR 23...	30	70	<1.0	<1.0	2.2	7.4	<4.0	<4.0	7.1	<5.0	<5
APR 19...	30	80	<1.0	<1.0	2.6	20	<4.0	<4.0	<5.0	<5.0	<5
MAY 25...	70	170	<1.0	<1.0	2.3	22	<4.0	<4.0	<5.0	<5.0	--
JUN 24...	--	--	<1.0	<1.0	--	--	<4.0	<4.0	<5.0	<5.0	<5
JUL 13...	30	70	<1.0	<1.0	<2.0	8.0	<4.0	<4.0	<5.0	<5.0	--
AUG 17...	40	80	<1.0	<1.0	<2.0	9.8	<4.0	<4.0	<5.0	<5.0	18
SEP 09...	80	250	<1.0	<1.0	<2.0	22	<4.0	<4.0	<5.0	<5.0	<5
01440650 Brodhead Creek near Analomink, PA (LAT 41 02 10N LONG 075 12 34W)											
OCT 2003 07...	20	50	<1.0	<1.0	6.5	11	<4.0	<4.0	<5.0	<5.0	--
DEC 16...	30	70	<1.0	<1.0	6.9	13	<4.0	<4.0	6.0	5.3	--
FEB 2004 23...	20	60	<1.0	<1.0	12	13	<4.0	<4.0	5.6	<5.0	--
APR 19...	<20	60	<1.0	<1.0	4.3	9.6	<4.0	<4.0	<5.0	<5.0	--
JUN 21...	30	40	<1.0	<1.0	2.7	7.7	<4.0	<4.0	<5.0	<5.0	--
AUG 17...	60	140	<1.0	<1.0	13	31	<4.0	<4.0	<5.0	5.3	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
OCT 2003 27...	0900	1028	9813	6940	--	13.2	7.5	6.8	110	116	10.6	32	--
DEC 15...	1140	1028	9813	28300	--	15.7	6.6	7.0	80	76	1.4	24	--
FEB 2004 23...	1200	1028	9813	3560	--	14.9	7.1	7.3	151	147	1.8	45	--
APR 26...	1300	1028	9813	9110	--	11.9	7.6	7.5	115	112	12.6	31	--
JUN 22...	1320	1028	9813	2820	--	8.2	7.7	6.9	136	128	23.7	41	--
AUG 16...	1150	1028	9813	17600	--	8.6	7.0	6.6	74	75	20.4	20	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2003 08...	1020	1028	9813	16	2.0	11.2	4.7	5.0	24	22	8.3	5	.92
NOV 24...	1130	1028	9813	21	4.0	11.6	4.9	5.4	24	24	6.5	5	1.1
DEC 16...	0930	1028	9813	28	<1.0	14.6	4.7	5.0	24	23	.9	5	.93
JAN 2004 29...	1430	1028	9813	--	6.0	15.3	5.6	5.6	21	8	.0	5	.92
FEB 24...	0830	1028	9813	--	6.0	16.0	5.2	6.3	22	21	.7	5	1.0
MAR 24...	0740	1028	9813	12	5.0	14.2	5.8	6.2	30	31	.6	6	1.2
APR 20...	0800	1028	9813	11	3.0	12.0	5.1	5.7	28	24	10.8	6	1.2
MAY 26...	0950	1028	9813	--	2.0	9.3	5.1	6.0	21	21	15.5	5	1.1
JUN 22...	0900	1028	9813	6.6	2.0	9.3	5.2	5.8	20	19	15.7	5	.98
JUL 14...	1400	1028	9813	3.5	1.0	9.2	5.5	5.7	23	21	17.9	6	1.1
AUG 18...	0900	1028	9813	15	<1.0	10.3	4.1	5.5	22	21	14.6	4	.88
SEP 08...	1500	1028	9813	6.4	--	9.2	5.4	6.0	16	18	17.4	4	.77
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville, PA (LAT 40 56 24N LONG 075 35 04W)													
NOV 2003 24...	0920	1028	9813	15	5.0	11.3	7.4	6.3	60	58	7.8	8	1.9
DEC 16...	1240	1028	9813	25	<1.0	13.3	6.4	6.6	68	63	4.5	7	1.8
JAN 2004 29...	1130	1028	9813	12	6.0	16.1	6.7	6.7	53	53	.2	7	1.6
FEB 24...	1240	1028	9813	6.0	6.0	15.8	6.2	6.8	54	51	2.0	7	1.7
MAR 24...	1000	1028	9813	11	5.0	13.3	6.8	6.8	59	57	3.5	7	1.8
APR 20...	1400	1028	9813	7.7	4.0	11.5	6.8	6.7	62	52	13.3	9	2.0
MAY 26...	1050	1028	9813	10	2.0	9.8	6.6	6.4	63	62	14.1	8	2.0
JUN 21...	1230	1028	9813	5.1	2.0	9.9	6.5	6.7	63	57	15.2	9	2.0
JUL 14...	1100	1028	9813	5.0	2.0	10.3	6.3	6.1	56	52	15.7	8	1.8
AUG 19...	1000	1028	9813	8.1	<1.0	10.8	5.4	6.4	68	65	15.1	9	2.2
SEP 07...	1200	1028	9813	6.4	<1.0	9.2	5.4	6.0	--	18	17.4	4	.77

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnes- ium, water, recover- fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	ANC, wat un- fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
OCT 2003 27...	9.3	--	2.2	25	--	--	--	7.7	196	<2	.020	.19	<.040
DEC 15...	6.8	--	1.6	15	--	--	--	7.0	84	2	<.020	.30	<.040
FEB 2004 23...	12.7	--	3.3	32	--	--	--	10.4	92	2	<.020	.44	<.040
APR 26...	8.9	--	2.1	22	--	--	--	7.8	76	8	<.020	.31	<.040
JUN 22...	11.9	--	2.6	31	--	--	--	9.1	84	2	.020	.16	<.040
AUG 16...	5.8	--	1.3	18	--	--	--	6.0	82	8	.020	.19	<.040
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2003 08...	1.0	.53	.54	1	26	1.5	<.2	4.1	68	2	<.020	<.04	<.040
NOV 24...	1.2	.57	.58	2	20	1.7	<.2	4.7	--	--	.020	<.04	<.040
DEC 16...	1.0	.55	.56	1	14	1.3	<.2	4.8	26	<2	<.020	<.04	<.040
JAN 2004 29...	1.1	.55	.58	2	22	1.7	<.2	4.0	10	<2	<.020	<.04	<.040
FEB 24...	1.1	.60	.62	3	10	1.9	<.2	3.9	16	<2	<.020	<.04	<.040
MAR 24...	1.2	.66	.67	2	--	3.8	<.2	4.5	--	<2	<.020	<.04	<.040
APR 20...	1.3	.63	.64	2	18	3.0	<.2	4.4	22	2	<.020	<.04	<.040
MAY 26...	1.1	.52	.53	3	32	1.8	<.2	3.4	14	4	<.020	<.04	<.040
JUN 22...	1.0	.53	.54	3	24	1.7	<.2	3.3	14	<2	<.020	<.04	<.040
JUL 14...	1.1	.63	.66	3	18	2.0	<.2	4.4	20	<2	<.020	<.04	<.040
AUG 18...	.91	.50	.53	2	26	1.8	<.2	3.9	36	4	<.020	<.04	<.040
SEP 08...	.79	.44	.46	3	29	1.3	<.2	3.2	--	<2	.030	<.04	<.040
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville, PA (LAT 40 56 24N LONG 075 35 04W)													
NOV 2003 24...	1.9	.72	.75	4	12	13.6	<.2	2.1	10	26	<.020	<.04	<.040
DEC 16...	1.8	.69	.68	4	0	16.5	<.2	2.3	446	<2	<.020	<.04	<.040
JAN 2004 29...	1.7	.66	.68	5	0	12.2	<.2	1.8	24	<2	<.020	.04	<.040
FEB 24...	1.7	.70	.71	5	6.8	12.0	<.2	1.6	146	<2	<.020	.04	<.040
MAR 24...	1.7	.74	.73	5	--	13.0	<.2	2.0	--	<2	<.020	.04	<.040
APR 20...	2.0	.81	.82	5	16	13.7	<.2	1.7	64	4	<.020	<.04	<.040
MAY 26...	2.0	.79	.81	6	14	14.3	<.2	1.5	84	12	.060	.06	<.040
JUN 21...	2.1	.87	.86	10	9.6	14.7	<.2	1.4	56	<2	<.020	.04	<.040
JUL 14...	1.9	.69	.73	5	12	11.9	<.2	2.6	52	<2	<.020	.06	<.040
AUG 19...	2.1	.86	.87	5	7.4	15.9	<.2	1.9	26	<2	<.020	.04	<.040
SEP 07...	.77	.44	.46	3	29	1.3	<.2	3.2	--	<2	.030	<.04	<.040

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd as P (70507) mg/L	Phosphorus, water, unfltrd (00665) mg/L	Total nitrogen, water, unfltrd (00600) mg/L	Organic carbon, water, unfltrd (00680) mg/L	BOD, water, unfltrd 5 day, 20 degC (00310) mg/L	Fecal coliform, M-FC 0.45µMF col/100 mL (31616)	Aluminum, water, fltrd (01106) µg/L	Aluminum, water, unfltrd (01105) µg/L	Arsenic, water, fltrd (01000) µg/L	Cadmium, water, fltrd (01025) µg/L	Copper, water, fltrd (01040) µg/L	Copper, water, unfltrd recoverable (01042) µg/L	Cyanide, amenable to chlorination, water, unfltrd (00722) mg/L
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
OCT 2003 27...	.01	.020	.41	3.0	--	--	--	<200	--	--	--	<10	--
DEC 15...	.02	.021	.53	2.8	--	--	--	<200	--	--	--	<10	--
FEB 2004 23...	<.01	.016	.57	2.1	--	--	--	<200	--	--	--	<10	--
APR 26...	.01	.020	.60	2.7	--	--	--	<200	--	--	--	10	--
JUN 22...	.02	.031	.43	3.1	--	--	--	<200	--	--	--	<10	--
AUG 16...	.02	.052	.48	5.2	--	--	--	330	--	--	--	<10	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2003 08...	<.01	<.010	.17	--	1.1	<20	120	130	<4.0	<.20	<4	<4	--
NOV 24...	<.01	.016	.10	--	1.2	40	130	160	<4.0	<.20	<4	<4	--
DEC 16...	<.01	<.010	.09	--	1.6	<20	140	150	<4.0	<.20	<4	<4	--
JAN 2004 29...	<.01	<.010	<.06	--	.6	<20	60	80	<4.0	<.20	<4	<4	--
FEB 24...	<.01	<.010	.08	--	1.3	<20	70	80	<4.0	<.20	<4	<4	--
MAR 24...	<.01	<.010	.11	--	1.0	<20	80	90	<4.0	<.20	<4	<4	--
APR 20...	<.01	<.010	.18	--	.9	<10	110	130	<4.0	<.20	<4	<4	--
MAY 26...	<.01	.012	.42	--	.6	60	130	170	<4.0	<.20	<4	<4	--
JUN 22...	<.01	.014	<.06	--	1.0	<20	100	170	<4.0	<.20	<4	<4	--
JUL 14...	<.01	.011	.17	--	1.0	40	90	100	<4.0	<.20	<4	<4	--
AUG 18...	<.01	<.010	.08	--	.8	10	140	180	<4.0	<.20	<4	<4	--
SEP 08...	<.01	.010	<.06	--	1.2	550	100	120	<4.0	<.20	<4	<4	--
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville, PA (LAT 40 56 24N LONG 075 35 04W)													
NOV 2003 24...	<.01	.010	.20	--	1.1	<20	30	60	<4.0	<.20	<4	<4	--
DEC 16...	<.01	<.010	<.06	--	1.5	<20	30	40	<4.0	<.20	<4	<4	--
JAN 2004 29...	<.01	<.010	.10	--	.6	<10	10	50	<4.0	<.20	<4	<4	--
FEB 24...	<.01	<.010	.30	--	1.4	<20	20	30	<4.0	<.20	<4	<4	--
MAR 24...	<.01	.013	.11	--	1.1	40	20	30	<4.0	<.20	<4	<4	--
APR 20...	<.01	.011	--	--	.7	<20	40	90	<4.0	<.20	<4	<4	--
MAY 26...	<.01	<.010	.30	--	.2	20	20	90	<4.0	<.20	<4	<4	--
JUN 21	<.01	.019	.12	--	1.4	<20	20	50	<4.0	<.20	<4	<4	--
JUL 14...	<.01	.011	.48	--	1.0	<20	60	90	<4.0	<.20	<4	<4	--
AUG 19...	<.01	<.010	<.06	--	.8	<20	30	50	<4.0	<.20	<4	<4	--
SEP 07...	<.01	.010	<.06	--	1.2	280	100	120	<4.0	<.20	<4	<4	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd, recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd, recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd, recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd, recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd, recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd, µg/L (32730)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)											
OCT 2003 27...	--	160	--	<1.0	--	20	--	<50	--	30	--
DEC 15...	--	200	--	<1.0	--	30	--	<50	--	80	--
FEB 2004 23...	--	80	--	<1.0	--	10	--	<50	--	<10	--
APR 26...	--	170	--	<1.0	--	30	--	<50	--	40	--
JUN 22...	--	200	--	<1.0	--	50	--	<50	--	20	--
AUG 16...	--	690	--	1.6	--	90	--	<50	--	20	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)											
OCT 2003 08...	110	120	<1.0	<1.0	67	67	<4.0	<4.0	12	12	<5
NOV 24...	70	130	1.0	<1.0	74	82	<4.0	<4.0	--	--	<5
DEC 16...	60	70	<1.0	<1.0	72	78	<4.0	<4.0	16	14	<5
JAN 2004 29...	30	40	<1.0	<1.0	30	32	<4.0	<4.0	10	9.0	<5
FEB 24...	30	40	<1.0	<1.0	23	22	<4.0	<4.0	12	9.1	<5
MAR 24...	30	50	<1.0	<1.0	48	50	<4.0	<4.0	13	14	<5
APR 20...	60	100	<1.0	<1.0	48	50	<4.0	<4.0	17	18	<5
MAY 26...	210	260	<1.0	<1.0	35	40	<4.0	<4.0	9.6	9.8	<5
JUN 22...	100	190	<1.0	<1.0	25	37	<4.0	<4.0	9.1	14	<5
JUL 14...	80	110	<1.0	<1.0	19	21	<4.0	<4.0	7.5	7.7	<5
AUG 18...	180	220	<1.0	<1.0	63	74	<4.0	<4.0	11	12	<5
SEP 08...	110	200	<1.0	<1.0	20	24	<4.0	<4.0	6.4	7.4	<5
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville, PA (LAT 40 56 24N LONG 075 35 04W)											
NOV 2003 24...	<20	60	<1.0	<1.0	3.1	17	<4.0	<4.0	20	21	<5
DEC 16...	<20	30	<1.0	<1.0	6.9	9.6	<4.0	<4.0	21	19	<5
JAN 2004 29...	<20	40	<1.0	<1.0	2.4	17	<4.0	<4.0	12	15	<5
FEB 24...	<20	20	<1.0	<1.0	2.3	3.6	<4.0	<4.0	18	15	<5
MAR 24...	<20	<20	<1.0	<1.0	5.0	8.2	<4.0	<4.0	19	20	<5
APR 20...	<20	60	<1.0	<1.0	5.4	32	<4.0	<4.0	16	17	<5
MAY 26...	30	140	<1.0	<1.0	4.7	35	<4.0	<4.0	15	15	<5
JUN 21...	40	100	<1.0	<1.0	3.0	14	<4.0	<4.0	12	12	<5
JUL 14...	60	90	<1.0	<1.0	3.9	14	<4.0	<4.0	20	23	<5
AUG 19...	40	60	<1.0	<1.0	3.8	13	<4.0	<4.0	16	15	<5
SEP 07...	110	200	<1.0	<1.0	20	24	<4.0	<4.0	6.4	7.4	<5

**TUDY SITES**  
**PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unf lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
OCT 2003 29...	1130	1028	9813	520	--	12.5	7.5	6.5	78	75	10.5	21	--
DEC 16...	0930	1028	9813	270	--	14.1	6.5	6.8	90	93	2.6	23	--
FEB 2004 23...	0940	1028	9813	170	--	13.8	7.4	7.2	141	144	2.1	39	--
APR 27...	0830	1028	9813	220	--	11.2	7.0	7.0	108	108	10.1	21	--
JUN 23...	0930	1028	9813	92	--	9.1	7.5	6.7	118	116	18.4	33	--
AUG 18...	0810	1028	9813	105	--	9.1	7.3	6.4	96	101	18.5	26	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
OCT 2003 29...	1230	1028	9813	840	--	12.2	7.7	7.0	217	215	11.4	79	--
DEC 16...	1030	1028	9813	250	--	14.1	7.5	7.7	311	323	3.7	99	--
FEB 2004 23...	1030	1028	9813	150	--	14.5	8.1	8.1	308	308	4.2	100	--
APR 27...	1020	1028	9813	210	--	11.1	7.8	7.8	253	256	11.6	95	--
JUN 23...	1040	1028	9813	43	--	8.4	7.8	7.8	407	399	19.8	140	--
AUG 18...	0900	1028	9813	79	--	8.4	7.6	7.7	417	425	19.6	150	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2003 09...	1500	1028	9813	25	6.0	12.9	8.8	8.7	276	255	12.9	130	--
NOV 20...	0920	1028	9813	E13	1.0	10.9	7.6	7.5	137	143	10.3	58	--
DEC 09...	0950	1028	9813	50	<1.0	14.6	8.2	8.1	248	256	3.1	120	--
JAN 2004 22...	1130	1028	9813	38	2.0	17.8	7.7	8.1	271	266	2.0	120	--
FEB 17...	1130	1028	9813	E45	9.0	15.0	8.2	8.2	265	269	2.6	120	--
MAR 23...	1100	1028	9813	60	9.0	14.7	8.0	7.9	232	234	4.0	95	--
APR 08...	0800	1028	9813	E35	8.0	12.8	7.7	8.1	255	253	7.7	120	--
MAY 25...	0950	1028	9813	26	5.0	9.5	8.1	8.2	276	272	17.9	130	--
JUN 17...	1030	1028	9813	E28	6.0	10.0	8.2	8.2	293	284	19.0	130	--
JUL 21...	1030	1028	9813	37	3.0	9.9	8.1	8.0	261	258	17.5	120	--
AUG 16...	1010	1028	9813	30	3.0	9.4	8.0	7.8	271	275	17.7	130	--
SEP 15...	1030	1028	9813	20	3.0	10.1	8.1	8.3	280	273	16.2	130	--



**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnes- ium, water, recover- fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
OCT 2003 29...	5.7	--	1.7	11	--	--	--	8.6	58	16	<.020	.64	<.040
DEC 16...	6.0	--	2.0	9	--	--	--	11.1	86	8	<.020	.66	<.040
FEB 2004 23...	9.9	--	3.5	16	--	--	--	17.6	96	<2	.020	1.04	<.040
APR 27...	5.4	--	1.8	9	--	--	--	9.8	88	8	<.020	.44	<.040
JUN 23...	8.5	--	2.9	19	--	--	--	15.4	80	<2	.040	.69	<.040
AUG 18...	6.8	--	2.1	14	--	--	--	11.5	92	4	<.020	.53	<.040
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
OCT 2003 29...	21.7	--	6.0	45	--	--	--	21.5	198	16	<.020	4.65	<.040
DEC 16...	26.6	--	7.9	50	--	--	--	28.4	220	10	<.020	5.40	<.040
FEB 2004 23...	27.1	--	8.3	62	--	--	--	39.4	180	4	<.020	3.72	<.040
APR 27...	25.0	--	8.0	53	--	--	--	20.9	180	18	.100	2.98	<.040
JUN 23...	36.4	--	11.6	98	--	--	--	51.0	298	4	.030	2.70	.080
AUG 18...	38.6	--	12.8	99	--	--	--	51.9	304	2	.050	3.39	<.040
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2003 09...	30.8	--	14.0	105	--	10.5	<.2	15.8	200	<2	<.020	1.94	<.040
NOV 20...	14.6	--	5.2	43	--	5.9	<.2	10.2	148	32	<.020	1.52	<.040
DEC 09...	26.7	--	12.1	88	--	11.5	<.2	17.0	186	12	<.020	2.21	<.040
JAN 2004 22...	26.5	--	13.3	94	--	11.1	<.2	17.0	182	2	.020	2.50	<.040
FEB 17...	25.4	--	13.1	93	--	12.3	<.2	16.8	218	<2	<.020	2.46	<.040
MAR 23...	21.8	--	9.8	72	--	16.9	<.2	15.2	164	8	<.020	2.23	<.040
APR 08...	26.6	--	11.9	84	--	13.4	<.2	16.0	176	<2	<.020	1.91	<.040
MAY 25...	28.9	--	13.5	99	--	10.5	<.2	15.7	202	8	<.020	1.94	<.040
JUN 17...	28.2	--	13.7	107	--	10.7	<.2	15.5	206	<2	<.020	1.70	<.040
JUL 21...	27.2	--	12.1	92	--	11.5	<.2	14.9	204	6	.030	1.97	<.040
AUG 16...	28.0	--	13.7	98	--	11.5	<.2	14.7	196	12	<.020	1.84	<.040
SEP 15...	27.9	--	13.7	105	--	10.9	<.2	15.1	212	10	<.020	2.02	<.040

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd as P (70507) mg/L	Phosphorus, water, unfltrd (00665) mg/L	Total nitrogen, water, unfltrd (00600) mg/L	Organic carbon, water, unfltrd (00680) mg/L	BOD, water, unfltrd 5 day, 20 degC (00310) mg/L	Fecal coliform, M-FC 0.45µMF col/100 mL (31616)	Aluminum, water, fltrd (01106) µg/L	Aluminum, water, unfltrd recover-able, fltrd (01105) µg/L	Arsenic, water, fltrd (01000) µg/L	Cadmium, water, fltrd (01025) µg/L	Copper, water, fltrd, recover-able, (01040) µg/L	Copper, water, unfltrd, recover-able, (01042) µg/L	Cyanide, amenable to chlorination wat unfl (00722) mg/L
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
OCT 2003 29...	.02	.032	1.0	4.7	--	--	--	460	--	--	--	<10	--
DEC 16...	.01	.024	.71	2.4	--	--	--	290	--	--	--	<10	--
FEB 2004 23...	.02	.021	1.2	1.4	--	--	--	<200	--	--	--	<10	--
APR 27...	.02	.029	.69	2.7	--	--	--	260	--	--	--	<10	--
JUN 23...	.02	.025	.79	2.0	--	--	--	<200	--	--	--	<10	--
AUG 18...	.02	.041	.78	3.7	--	--	--	290	--	--	--	10	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
OCT 2003 29...	.04	.065	5.3	2.4	--	--	--	600	--	--	--	<10	--
DEC 16...	.02	.043	5.8	1.3	--	--	--	<200	--	--	--	<10	--
FEB 2004 23...	.03	.026	4.2	1.9	--	--	--	<200	--	--	--	<10	--
APR 27...	.05	.067	3.7	3.1	--	--	--	380	--	--	--	<10	--
JUN 23...	.09	.117	2.9	2.7	--	--	--	<200	--	--	--	<10	--
AUG 18...	.05	.055	3.8	2.0	--	--	--	<200	--	--	--	<10	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2003 09...	<.01	.014	2.3	--	1.3	50	--	20	--	--	--	<4	--
NOV 20...	.09	.103	2.3	--	2.3	8100	60	1000	<4.0	<.20	<4	<4	--
DEC 09...	.01	.011	2.5	--	1.6	200	20	30	<4.0	<.20	<4	<4	--
JAN 2004 22...	.01	.011	3.1	--	.8	40	<10	20	<4.0	<.20	<4	<4	--
FEB 17...	.01	.014	2.5	--	.8	<20	10	20	<4.0	<.20	<4	<4	--
MAR 23...	.01	.010	2.5	--	.8	40	<10	50	<4.0	<.20	<4	<4	--
APR 08...	.01	.017	2.1	--	.2	100	<10	20	<4.0	<.20	<4	<4	--
MAY 25...	.02	.050	2.3	--	.9	400	<10	60	<4.0	<.20	<4	<4	--
JUN 17...	.01	.025	2.0	--	1.1	1000	<10	130	<4.0	<.20	<4	<4	--
JUL 21...	.02	.026	2.4	--	.9	220	<10	70	<4.0	<.20	<4	<4	--
AUG 16...	.01	.019	1.9	--	.3	340	<10	30	<4.0	<.20	<4	<4	--
SEP 15...	.02	.032	2.1	--	.7	140	<10	30	<4.0	<.20	<4	<4	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd, recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd, recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd, recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd, recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd, recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd, µg/L (32730)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)											
OCT 2003 29...	--	690	--	2.1	--	120	--	<50	--	70	--
DEC 16...	--	220	--	<1.0	--	70	--	<50	--	80	--
FEB 2004 23...	--	150	--	<1.0	--	80	--	<50	--	130	--
APR 27...	--	330	--	<1.0	--	80	--	<50	--	50	--
JUN 23...	--	270	--	<1.0	--	70	--	<50	--	90	--
AUG 18...	--	330	--	<1.0	--	90	--	<50	--	70	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)											
OCT 2003 29...	--	1070	--	2.8	--	30	--	<50	--	<10	--
DEC 16...	--	300	--	1.3	--	20	--	<50	--	<10	--
FEB 2004 23...	--	180	--	<1.0	--	10	--	<50	--	120	--
APR 27...	--	540	--	1.8	--	30	--	<50	--	110	--
JUN 23...	--	230	--	1.9	--	20	--	<50	--	<10	--
AUG 18...	--	80	--	<1.0	--	10	--	<50	--	10	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)											
OCT 2003 09...	--	30	--	<1.0	--	2.3	--	<4.0	--	<5.0	<5
NOV 20...	120	1310	<1.0	1.4	7.2	55	<4.0	<4.0	5.4	6.6	<5
DEC 09...	<20	40	<1.0	<1.0	3.6	5.3	<4.0	<4.0	<5.0	<5.0	<5
JAN 2004 22...	20	50	<1.0	<1.0	3.3	4.7	<4.0	<4.0	<5.0	<5.0	<5
FEB 17...	<20	30	<1.0	<1.0	3.8	4.3	<4.0	<4.0	<5.0	<5.0	<5
MAR 23...	20	70	<1.0	<1.0	5.0	7.0	<4.0	<4.0	<5.0	<5.0	<5
APR 08...	<20	70	<1.0	<1.0	5.8	8.9	<4.0	<4.0	<5.0	<5.0	<5
MAY 25...	<20	120	<1.0	<1.0	8.4	16	<4.0	<4.0	<5.0	<5.0	<5
JUN 17...	20	220	<1.0	<1.0	4.4	18	<4.0	<4.0	<5.0	<5.0	<5
JUL 21...	40	150	<1.0	<1.0	2.2	9.2	<4.0	<4.0	<5.0	<5.0	<5
AUG 16...	<20	70	<1.0	<1.0	<2.0	4.8	<4.0	<4.0	<5.0	<5.0	<5
SEPT 15...	<20	60	<1.0	<1.0	<2.0	5.1	<4.0	<4.0	<5.0	<5.0	<5

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unf lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2003													
09...	1640	1028	9813	6.0	6.0	12.3	9.0	8.8	220	202	14.5	90	--
NOV													
20...	0820	1028	9813	E418	<1.0	11.1	7.5	7.3	82	85	10.4	33	--
DEC													
09...	1130	1028	9813	13	1.0	15.0	8.0	7.9	177	181	1.1	74	--
JAN 2004													
22...	1320	1028	9813	4.5	<1.0	17.9	7.8	7.8	247	243	.3	100	--
FEB													
17...	0940	1028	9813	12	8.0	15.2	7.2	7.7	231	237	.1	91	--
MAR													
23...	0920	1028	9813	25	6.0	15.4	7.3	7.6	168	173	1.7	61	--
APR													
08...	1000	1028	9813	E21	6.0	14.0	8.2	7.9	155	154	8.0	62	--
MAY													
25...	0830	1028	9813	2.4	6.0	8.4	7.6	7.9	335	332	19.0	150	--
JUN													
17...	0850	1028	9813	1.8	6.0	8.6	7.7	8.0	343	341	20.8	140	--
JUL													
21...	0900	1028	9813	12	2.0	9.4	7.6	7.4	169	168	18.2	69	--
AUG													
16...	0900	1028	9813	6.1	2.0	8.9	7.6	7.2	279	283	19.2	120	--
SEP													
15...	0840	1028	9813	5.9	4.0	9.2	7.5	8.0	393	385	16.8	170	--
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2003													
16...	1430	1028	9813	55	3.0	11.2	7.6	7.2	141	128	12.4	51	--
NOV													
13...	1030	1028	9813	93	4.0	11.0	7.6	7.2	137	135	9.8	51	--
DEC													
08...	1150	1028	9813	E68	<1.0	14.7	7.6	7.5	147	152	1.1	49	--
08...	1151	1028	9813	E68	<1.0	14.7	7.6	7.5	146	152	1.1	49	--
JAN 2004													
20...	1300	1028	9813	58	<1.0	15.2	7.5	6.9	156	150	.2	49	--
FEB													
19...	0930	1028	9813	64	7.0	14.6	7.3	7.5	142	144	1.9	47	--
MAR													
16...	1100	1028	9813	46	7.0	13.4	7.5	7.5	141	144	3.8	50	--
APR													
12...	1100	1028	9813	56	6.0	12.7	7.5	7.3	135	135	8.5	47	--
MAY													
20...	0850	1028	9813	78	<1.0	9.4	7.0	7.5	140	136	16.7	49	--
JUN													
16...	1250	1028	9813	60	3.0	8.8	7.4	7.3	122	120	20.1	46	--
JUL													
07...	1100	1028	9813	19	3.0	9.7	7.9	7.4	164	161	20.9	60	--
AUG													
12...	1010	1028	9813	51	<1.0	9.4	7.7	6.8	139	140	20.1	51	--
SEP													
01...	1130	1028	9813	53	1.0	9.2	7.5	7.0	137	138	19.4	49	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnes- ium, water, recover- fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2003 09...	21.6	--	8.7	65	--	10.2	<.2	28.0	188	4	<.020	.21	<.040
NOV 20...	7.2	--	3.7	24	--	3.4	<.2	8.4	74	6	<.020	.33	<.040
DEC 09...	16.6	--	8.0	49	--	11.0	<.2	20.9	158	6	<.020	.28	<.040
JAN 2004 22...	21.8	--	11.3	61	--	14.4	<.2	36.8	166	<2	<.020	.54	<.040
FEB 17...	19.6	--	10.1	49	--	16.6	<.2	36.2	210	4	<.020	.72	<.040
MAR 23...	13.8	--	6.5	38	--	15.9	<.2	20.0	180	4	<.020	.53	<.040
APR 08...	13.8	--	6.8	39	--	9.5	<.2	18.9	88	<2	<.020	.20	<.040
MAY 25...	34.2	--	14.9	89	--	13.6	<.2	54.6	266	2	<.020	.82	<.040
JUN 17...	33.7	--	14.7	96	--	12.5	<.2	56.1	254	2	.020	.52	<.040
JUL 21...	16.1	--	7.0	49	--	7.0	<.2	19.0	818	4	.030	.30	<.040
AUG 16...	27.8	--	11.4	79	--	10.5	<.2	40.5	230	4	<.020	.33	<.040
SEP 15...	41.7	--	16.9	100	--	13.6	<.2	74.4	264	2	<.020	.58	<.040
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2003 16...	12.9	--	4.5	37	--	10.7	<.2	10.2	110	30	<.020	1.00	<.040
NOV 13...	12.8	--	4.6	34	--	10.2	<.2	10.6	600	6	<.020	1.20	<.040
DEC 08...	12.6	--	4.3	30	--	14.3	<.2	11.5	152	2	<.020	1.60	<.040
08...	12.5	--	4.2	30	--	14.4	<.2	11.5	150	4	<.020	1.58	<.040
JAN 2004 20...	12.4	--	4.5	29	--	17.3	<.2	12.4	146	10	<.020	1.90	<.040
FEB 19...	11.5	--	4.4	29	--	12.9	<.2	11.4	110	2	<.020	1.82	<.040
MAR 16...	12.8	--	4.4	31	--	12.1	<.2	11.3	82	6	<.020	1.58	<.040
APR 12...	11.7	--	4.3	30	--	11.1	<.2	10.7	110	6	<.020	1.36	<.040
MAY 20...	12.5	--	4.3	36	--	10.2	<.2	8.6	126	2	.050	.96	<.040
JUN 16...	11.6	--	4.2	31	--	8.6	<.2	8.6	130	26	.040	1.00	<.040
JUL 07...	15.9	--	4.9	43	--	1.3	<.2	10.9	132	<2	<.020	1.32	<.040
AUG 12...	13.0	--	4.4	40	--	10.7	<.2	9.2	102	<2	<.020	1.29	<.040
SEP 01...	12.6	--	4.2	42	--	10.0	<.2	8.8	124	<2	.040	.83	<.040

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd as P (70507) mg/L	Phosphorus, water, unfltrd (00665) mg/L	Total nitrogen, water, unfltrd (00600) mg/L	Organic carbon, water, unfltrd (00680) mg/L	BOD, water, unfltrd 5 day, 20 degC (00310) mg/L	Fecal coliform, M-FC 0.45µMF col/100 mL (31616)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Arsenic, water, fltrd, µg/L (01000)	Cadmium, water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Cyanide, amenable to chlorination, wat unf mg/L (00722)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2003													
09...	<.01	.014	.53	--	1.1	300	<10	20	<4.0	<.20	<4	<4	--
NOV													
20...	--	--	.95	--	2.6	2200	150	900	<4.0	<.20	<4	4	--
DEC													
09...	.01	.010	.48	--	2.1	20	30	100	<4.0	<.20	<4	<4	--
JAN 2004													
22...	<.01	<.010	.80	--	.5	30	10	50	<4.0	<.20	<4	<4	--
FEB													
17...	.01	.012	.80	--	.9	10	<10	60	<4.0	<.20	<4	<4	--
MAR													
23...	.01	.011	.72	--	.9	20	20	170	<4.0	<.20	<4	<4	--
APR													
08...	.01	.017	.51	--	.2	20	30	100	<4.0	<.20	<4	<4	--
MAY													
25...	.01	.018	1.4	--	.8	60	<10	10	<4.0	<.20	<4	<4	--
JUN													
17...	<.01	.015	.93	--	.9	100	<10	20	<4.0	<.20	<4	<4	--
JUL													
21...	.02	.028	1.1	--	.8	100	30	120	<4.0	<.20	<4	<4	--
AUG													
16...	<.01	.012	.48	--	.7	180	<10	20	<4.0	<.20	<4	<4	--
SEP													
15...	.01	.012	.65	--	.4	40	<10	<10	<4.0	<.20	<4	<4	--
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2003													
16...	.03	.038	1.7	--	1.6	1900	30	120	<4.0	<.20	<4	<4	--
NOV													
13...	.02	.025	1.6	--	1.0	340	10	120	<4.0	<.20	<4	<4	--
DEC													
08...	.02	.014	1.8	--	1.4	60	30	60	<4.0	<.20	<4	<4	--
08...	.02	.019	1.8	--	1.6	80	30	60	<4.0	<.20	<4	<4	--
JAN 2004													
20...	.01	.016	2.2	--	--	20	10	80	<4.0	<.20	<4	<4	--
FEB													
19...	.02	.018	2.1	--	4.1	120	<10	80	<4.0	<.20	<4	<4	--
MAR													
16...	.01	.017	1.9	--	1.1	30	<10	40	<4.0	<.20	<4	<4	--
APR													
12...	.01	.052	1.6	--	1.2	140	<10	130	<4.0	<.20	<4	<4	--
MAY													
20...	.03	.065	1.6	--	1.4	1200	30	240	<4.0	<.20	<4	<4	--
JUN													
16...	.02	.067	1.7	--	.3	4800	20	750	<4.0	<.20	<4	4	--
JUL													
07...	.02	.019	1.9	--	1.3	200	10	80	<4.0	<.20	<4	<4	--
AUG													
12...	.01	.017	1.4	--	.5	360	<10	50	<4.0	<.20	<4	<4	--
SEP													
01...	.04	.048	1.3	--	.9	1200	10	120	<4.0	<.20	<4	<4	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd, recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd, recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd, recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd, recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd, µg/L (32730)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)											
OCT 2003 09...	20	50	<1.0	<1.0	2.3	3.1	<4.0	<4.0	<5.0	<5.0	<5
NOV 20...	250	1240	<1.0	1.3	9.0	35	<4.0	<4.0	<5.0	6.1	<5
DEC 09...	110	240	<1.0	<1.0	<2.0	2.8	<4.0	<4.0	<5.0	<5.0	<5
JAN 2004 22...	80	180	<1.0	<1.0	<2.0	<2.0	<4.0	<4.0	<5.0	<5.0	<5
FEB 17...	50	130	<1.0	<1.0	<2.0	<2.0	<4.0	<4.0	<5.0	<5.0	<5
MAR 23...	70	200	<1.0	<1.0	<2.0	3.2	<4.0	<4.0	<5.0	<5.0	<5
APR 08...	150	260	<1.0	<1.0	<2.0	3.7	<4.0	<4.0	<5.0	<5.0	<5
MAY 25...	<20	<20	<1.0	<1.0	7.0	7.8	<4.0	<4.0	<5.0	<5.0	<5
JUN 17...	<20	20	<1.0	<1.0	3.9	7.0	<4.0	<4.0	<5.0	<5.0	<5
JUL 21...	180	290	<1.0	<1.0	2.2	4.6	<4.0	<4.0	<5.0	<5.0	<5
AUG 16...	<20	30	<1.0	<1.0	3.3	4.0	<4.0	<4.0	<5.0	<5.0	<5
SEP 15...	<20	<20	<1.0	<1.0	8.6	10	<4.0	5.9	<5.0	<5.0	<5
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)											
OCT 2003 16...	310	530	<1.0	<1.0	11	18	<4.0	<4.0	<5.0	<5.0	<5
NOV 13...	220	540	<1.0	<1.0	17	29	<4.0	<4.0	<5.0	<5.0	<5
DEC 08...	220	290	<1.0	<1.0	31	33	<4.0	<4.0	<5.0	<5.0	<5
08...	150	300	<1.0	<1.0	32	32	<4.0	<4.0	<5.0	<5.0	<5
JAN 2004 20...	100	290	<1.0	<1.0	28	32	<4.0	<4.0	<5.0	<5.0	<5
FEB 19...	80	220	<1.0	<1.0	19	24	<4.0	<4.0	<5.0	<5.0	<5
MAR 16...	90	210	<1.0	<1.0	17	22	<4.0	<4.0	<5.0	<5.0	<5
APR 12...	120	490	<1.0	<1.0	22	31	<4.0	<4.0	<5.0	<5.0	<5
MAY 20...	270	1120	<1.0	<1.0	29	67	<4.0	<4.0	<5.0	5.1	<5
JUN 16...	220	1700	<1.0	2.2	33	100	<4.0	<4.0	<5.0	7.5	<5
JUL 07...	90	310	<1.0	<1.0	25	38	<4.0	<4.0	<5.0	<5.0	<5
AUG 12...	90	360	<1.0	<1.0	9.4	16	<4.0	<4.0	<5.0	<5.0	<5
SEP 01...	170	610	<1.0	<1.0	15	23	<4.0	<4.0	<5.0	<5.0	<5

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Press- ure, osmotic water, unfltrd mosm/kg (82550)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unfl- lab, µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
OCT 2003 02...	1600	1028	9813	310	--	13.8	8.2	7.8	282	287	15.2	90	--
DEC 02...	1130	1028	9813	520	--	12.9	7.9	7.9	229	234	5.1	81	--
FEB 2004 19...	1250	1028	9813	290	--	17.2	8.3	8.1	362	367	2.5	95	--
APR 08...	1220	1028	9813	330	--	13.0	8.0	8.0	438	436	10.7	120	--
JUN 24...	1140	1028	9813	170	--	9.5	8.3	8.2	358	351	24.3	110	--
AUG 18...	1250	1028	9813	260	--	9.6	8.4	8.3	272	281	23.9	87	--
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
OCT 2003 01...	1600	1028	9813	28	--	12.2	8.4	8.4	679	619	14.0	270	--
DEC 02...	1250	1028	9813	43	--	13.5	8.4	8.4	651	647	7.1	270	--
FEB 2004 25...	1210	1028	9813	37	--	16.7	8.4	8.4	787	785	5.4	260	--
APR 06...	1230	1028	9813	44	--	16.8	8.2	8.4	677	692	8.2	250	--
JUN 14...	1240	1028	9813	29	--	10.4	8.2	8.3	681	672	15.8	230	--
AUG 19...	1210	1028	9813	30	--	10.5	8.2	8.4	668	649	17.8	250	--
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
OCT 2003 06...	1130	1028	9813	2860	--	10.8	7.8	8.0	354	366	13.2	130	--
DEC 10...	1245	1028	9813	3300	--	17.1	7.8	7.7	360	373	3.5	130	--
FEB 2004 12...	1130	1028	9813	4900	--	14.0	7.7	7.6	372	376	3.5	120	--
APR 13...	1210	1028	9813	7690	--	12.5	7.7	7.8	353	364	10.1	120	--
JUN 15...	1250	1028	9813	1880	--	8.8	7.8	7.7	408	402	22.2	120	--
AUG 24...	1120	1028	9813	4960	--	8.9	7.7	7.4	258	260	21.4	96	--



**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover- able, mg/L (00916)	Magnesium, water, recovered, mg/L (00925)	Magnesium, water, unfltrd recover- able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
OCT 2003 02...	23.1	--	7.8	63	--	--	--	24.0	200	<2	<.020	1.89	<.040
DEC 02...	20.5	--	7.3	59	--	--	--	19.5	182	6	.020	1.75	<.040
FEB 2004 19...	23.4	--	8.9	54	--	--	--	27.5	220	<2	<.020	2.26	.070
APR 08...	29.8	--	10.2	59	--	--	--	24.7	268	<2	<.020	1.64	<.200
JUN 24...	27.8	--	9.0	71	--	--	--	29.7	256	4	.040	1.47	<.040
AUG 18...	22.7	--	7.4	67	--	--	--	20.5	220	2	<.020	.92	<.040
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
OCT 2003 01...	58.0	--	30.3	205	--	--	<.2	26.0	454	<2	<.020	2.09	<.040
DEC 02...	56.2	--	30.8	206	--	--	<.2	26.2	446	<2	<.020	2.16	<.040
FEB 2004 25...	56.1	--	29.4	202	--	--	<.2	26.0	506	<2	.020	2.11	<.200
APR 06...	54.8	--	28.5	192	--	--	<.2	25.7	470	6	<.020	2.09	<.200
JUN 14...	49.5	--	26.8	201	--	--	<.2	24.8	528	10	.020	2.08	<.200
AUG 19...	51.9	--	28.4	196	--	--	<.2	23.7	428	<2	<.020	1.86	<.200
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
OCT 2003 06...	32.9	--	12.3	75	--	--	<.2	45.0	310	2	.060	3.39	<.040
DEC 10...	31.7	--	12.9	71	--	--	<.2	42.5	246	<2	.100	3.14	<.040
FEB 2004 12...	32.2	--	10.2	69	--	--	<.2	28.1	240	<2	.210	3.36	.060
APR 13...	28.7	--	11.7	65	--	--	<.2	35.7	216	40	.210	2.30	.100
JUN 15...	30.0	--	12.0	71	--	--	<.2	46.2	274	10	.110	3.24	.140
AUG 24...	24.5	--	8.3	61	--	--	<.2	24.1	178	20	.040	2.82	<.040

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Ortho-phosphate, water, unfltrd as P (70507) mg/L	Phos-phorus, water, unfltrd (00665) mg/L	Total nitro-gen, water, unfltrd (00600) mg/L	Organic carbon, water, unfltrd (00680) mg/L	BOD, water, unfltrd 5 day, 20 degC (00310) mg/L	Fecal coli-form, M-FC 0.45µMF col/100 mL (31616)	Alum-inum, water, fltrd (01106) µg/L	Alum-inum, water, unfltrd recover-able, (01105) µg/L	Arsenic water, fltrd, (01000) µg/L	Cadmium water, fltrd, (01025) µg/L	Copper, water, fltrd, (01040) µg/L	Copper, water, unfltrd recover-able, (01042) µg/L	Cyanide amen-able to chlor-ination wat unf (00722) mg/L
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
OCT 2003 02...	.07	.087	2.2	4.2	--	--	--	<200	--	--	--	<10	--
DEC 02...	.05	.051	2.1	3.6	--	--	--	200	--	--	--	<10	--
FEB 2004 19...	.04	.046	2.6	2.4	--	--	--	<200	--	--	--	<10	--
APR 08...	.02	.057	2.1	3.2	--	--	--	<200	--	--	--	<10	--
JUN 24...	.06	.088	1.9	3.4	--	--	--	<200	--	--	--	10	--
AUG 18...	.01	.087	1.6	4.5	--	--	--	<200	--	--	--	<10	--
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
OCT 2003 01...	.02	.014	2.2	1.6	--	--	--	<200	--	--	--	<10	<1.00
DEC 02...	.02	.015	2.2	1.3	--	--	--	<200	--	--	--	<10	<1.00
FEB 2004 25...	<.01	.012	2.2	1.3	--	--	--	<200	--	--	--	<10	<1.00
APR 06...	.02	.019	2.3	1.4	--	--	--	<200	--	--	--	<10	<1.00
JUN 14...	.02	.030	2.1	1.6	--	--	--	<200	--	--	--	<10	<1.00
AUG 19...	<.01	.013	1.9	1.4	--	--	--	<200	--	--	--	<10	<1.00
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
OCT 2003 06...	.14	.155	3.8	2.7	--	--	--	<200	--	--	--	<10	<1.00
DEC 10...	.10	.124	3.5	2.1	--	--	--	<200	--	--	--	<10	<1.00
FEB 2004 12...	.10	.113	4.0	3.0	--	--	--	270	--	--	--	<10	<1.00
APR 13...	.14	.286	3.5	3.4	--	--	--	1200	--	--	--	<10	<1.00
JUN 15...	.25	.251	3.6	2.8	--	--	--	<200	--	--	--	30	<1.00
AUG 24...	.08	.101	3.3	3.0	--	--	--	370	--	--	--	<10	<1.00

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover- able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)											
OCT 2003 02...	--	120	--	<1.0	--	10	--	<50	--	<10	--
DEC 02...	--	260	--	<1.0	--	10	--	<50	--	<10	--
FEB 2004 19...	--	110	--	<1.0	--	10	--	<50	--	110	--
APR 08...	--	130	--	<1.0	--	40	--	<50	--	<10	--
JUN 24...	--	140	--	<1.0	--	20	--	<50	--	190	--
AUG 18...	--	160	--	<1.0	--	20	--	<50	--	<10	--
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)											
OCT 2003 01...	--	60	--	<1.0	--	10	--	<50	--	<10	<5
DEC 02...	--	50	--	<1.0	--	<10	--	<50	--	<10	<5
FEB 2004 25...	--	60	--	<1.0	--	10	--	<50	--	<10	<5
APR 06...	--	80	--	<1.0	--	10	--	<50	--	<10	<5
JUN 14...	--	160	--	<1.0	--	10	--	<50	--	120	<5
AUG 19...	--	80	--	<1.0	--	<10	--	<50	--	<10	<5
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)											
OCT 2003 06...	--	150	--	<1.0	--	40	--	<50	--	20	<5
DEC 10...	--	140	--	<1.0	--	60	--	<50	--	<10	<5
FEB 2004 12...	--	320	--	<1.0	--	50	--	<50	--	10	<5
APR 13...	--	1750	--	5.0	--	220	--	<50	--	30	<5
JUN 15...	--	150	--	<1.0	--	60	--	<50	--	100	<5
AUG 24...	--	490	--	1.6	--	90	--	<50	--	20	<5

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, µS/cm (90095)	Specif. conductance, wat unfl lab, µS/cm (00095)	Temperature, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, unfltrd, mg/L (00915)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
OCT 2003	01...	1028	9813	59	--	12.1	7.4	7.3	179	166	13.2	59	--
DEC	03...	1028	9813	69	--	14.2	7.0	7.4	171	177	2.7	56	--
FEB 2004	24...	1028	9813	64	--	13.8	7.1	7.5	177	177	4.1	54	--
APR	06...	1028	9813	72	--	13.8	6.7	7.4	177	182	4.8	58	--
JUN	14...	1028	9813	50	--	9.8	7.1	6.6	185	183	16.9	57	--
AUG	19...	1028	9813	51	--	9.4	7.3	6.6	183	179	20.1	59	--
Date	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium water, unfltrd, mg/L (00925)	Magnesium water, recover-able, mg/L (00927)	ANC, wat unfl fixed end pt lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chloride water, unfltrd, mg/L (00940)	Fluoride water, unfltrd, mg/L (00951)	Sulfate water, unfltrd, mg/L (00945)	Residue on evap. at 105degC, wat flt pending, mg/L (00515)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia water, unfltrd, mg/L as N (00610)	Nitrate water, unfltrd, mg/L as N (00620)	Nitrite water, unfltrd, mg/L as N (00615)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
OCT 2003	01...	12.7	--	6.6	30	--	--	10.7	152	<2	<.020	4.31	<.040
DEC	03...	12.8	--	5.9	24	--	--	11.7	172	16	<.020	4.86	<.040
FEB 2004	24...	12.3	--	5.7	22	--	--	10.9	6	<2	<.020	5.06	<.040
APR	06...	12.6	--	6.4	25	--	--	12.1	78	6	<.020	4.23	<.040
JUN	14...	12.8	--	6.1	37	--	--	10.5	178	2	.020	4.40	<.040
AUG	19...	13.7	--	6.0	36	--	--	9.9	138	<2	<.020	4.37	<.040
Date	Ortho-phosphate water, unfltrd as P (70507)	Phosphorus water, unfltrd, mg/L (00665)	Total nitrogen water, unfltrd, mg/L (00600)	Organic carbon water, unfltrd, mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC, mg/L (00310)	Fecal coliform, M-FC col/100 mL (31616)	Aluminum water, unfltrd, µg/L (01106)	Aluminum water, recover-able, µg/L (01105)	Arsenic water, unfltrd, µg/L (01000)	Cadmium water, unfltrd, µg/L (01025)	Copper water, unfltrd, µg/L (01040)	Copper water, unfltrd recover-able, µg/L (01042)	Cyanide amenable to chlorination, wat unfl mg/L (00722)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
OCT 2003	01...	.02	.018	4.5	1.9	--	--	<200	--	--	--	<10	--
DEC	03...	.02	.015	5.0	1.3	--	--	<200	--	--	--	<10	--
FEB 2004	24...	.01	.018	5.2	1.2	--	--	<200	--	--	--	<10	--
APR	06...	.02	.023	4.5	2.1	--	--	<200	--	--	--	<10	--
JUN	14...	.03	.028	4.5	2.1	--	--	<200	--	--	--	<10	--
AUG	19...	.01	.018	4.4	1.7	--	--	<200	--	--	--	<10	--
Date	Iron water, unfltrd recover-able, µg/L (01046)	Iron water, unfltrd, µg/L (01045)	Lead water, unfltrd, µg/L (01049)	Lead water, unfltrd recover-able, µg/L (01051)	Manganese water, unfltrd, µg/L (01056)	Manganese water, unfltrd recover-able, µg/L (01055)	Nickel water, unfltrd, µg/L (01065)	Nickel water, unfltrd recover-able, µg/L (01067)	Zinc water, unfltrd, µg/L (01090)	Zinc water, unfltrd recover-able, µg/L (01092)	Phenolic compounds, unfltrd, µg/L (32730)		
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
OCT 2003	01...	--	160	--	<1.0	--	20	--	<50	--	<10	--	--
DEC	03...	--	180	--	<1.0	--	30	--	<50	--	<10	--	--
FEB 2004	24...	--	140	--	<1.0	--	30	--	<50	--	<10	--	--
APR	06...	--	280	--	<1.0	--	60	--	<50	--	<10	--	--
JUN	14...	--	260	--	<1.0	--	40	--	<50	--	30	--	--
AUG	19...	--	200	--	<1.0	--	30	--	<50	--	20	--	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS LAKE ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, meters (00098)	Transparency Secchi disc, meters (00078)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, unfltrd recover, mg/L (00916)	Magnesium, water, unfltrd recover, mg/L (00927)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)														
JUL 2004	1140	1028	9813	17.0	--	.1	6.5	61	7.3	18	6.0	.7	24	
13...	1150	1028	9813	1.0	.4	8.2	7.2	41	22.9	17	5.8	.6	16	
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)														
JUL 2004	1000	1028	9813	4.5	--	5.0	7.1	84	23.7	32	9.4	1.9	29	
12...	1020	1028	9813	1.0	.4	8.9	8.9	86	26.3	32	9.8	1.9	25	
01447100 Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)														
JUL 2004	1300	1028	9813	1.0	.3	7.2	7.0	99	23.5	15	4.8	.8	10	
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)														
SEP 2004	1220	1028	9813	12.0	--	.5	8.4	246	12.6	72	17.7	6.8	80	
07...	1230	1028	9813	1.0	.4	11.2	9.3	187	23.6	60	15.0	5.5	46	
01472124 Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)														
SEP 2004	1000	1028	9813	5.0	--	.7	7.9	215	16.3	39	11.9	2.4	59	
14...	1010	1028	9813	1.0	2.3	8.8	7.9	63	23.1	18	4.6	1.6	15	
0148064640 Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)														
SEP 2004	1245	1028	9813	4.0	--	.5	8.1	180	22.1	68	16.6	6.3	61	
14...	1255	1028	9813	1.0	.5	12.5	9.2	170	23.6	68	16.6	6.4	56	
Date		Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phyton, uncorr, mg/L (32230)	Aluminum, water, fltrd, μg/L (01106)	Aluminum, unfltrd recover, μg/L (01105)	Copper, water, fltrd, μg/L (01040)	Copper, unfltrd recover, μg/L (01042)	Iron, water, unfltrd recover, μg/L (01046)	Iron, unfltrd recover, μg/L (01045)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)														
JUL 2004	3.5	6	.580	.099	1.1	5.1	.007	16	24	<4	<4	2830	3200	
13...	4.6	14	<.020	.021	.57	4.1	--	20	32	<4	<4	50	80	
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)														
JUL 2004	5.3	<2	<.020	.026	.56	5.4	.007	--	--	<4	<4	--	--	
12...	6.3	2	<.020	.018	.21	5.0	--	35	39	<4	<4	80	140	
01447100 Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)														
JUL 2004	4.1	4	<.020	.018	.35	5.5	.007	31	34	<4	<4	100	160	
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)														
SEP 2004	3.4	4	2.26	.549	2.9	5.6	--	11	56	<4	<4	1620	1990	
07...	14.3	10	.050	.067	1.6	8.4	--	17	100	<4	<4	640	650	
01472124 Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)														
SEP 2004	<1.0	26	2.09	.036	3.0	9.5	--	12	94	<4	<4	18800	22300	
14...	5.3	6	<.020	.021	.23	3.5	--	<10	19	<4	<4	100	220	
0148064640 Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)														
SEP 2004	8.9	8	.850	.063	1.6	6.6	--	<10	100	<4	<4	60	640	
14...	9.1	22	<.020	.078	1.6	8.7	--	<10	73	<4	<4	30	270	

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MISCELLANEOUS LAKE ANALYSES

Date	Lead, water, fltrd, µg/L (01049)	Lead, unfltrd water, recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, unfltrd water, recover- able, µg/L (01055)	Zinc, water, fltrd, µg/L (01090)	Zinc, unfltrd water, recover- able, µg/L (01092)
01427252	Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)					
JUL 2004						
13...	<1.0	<1.0	2220	2400	<5.0	<5.0
13...	<1.0	<1.0	30	60	<5.0	<5.0
01446590	Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)					
JUL 2004						
12...	<1.0	<1.0	--	--	<5.0	<5.0
12...	<1.0	<1.0	<2.0	20	<5.0	<5.0
01447100	Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)					
JUL 2004						
12...	<1.0	<1.0	30	90	<5.0	<5.0
01464640	Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)					
SEP 2004						
07...	<1.0	<1.0	2550	2570	<5.0	<5.0
07...	<1.0	<1.0	30	40	<5.0	<5.0
01472124	Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)					
SEP 2004						
14...	--	--	5630	6100	<5.0	<5.0
14...	<1.0	<1.0	5.5	60	<5.0	<5.0
0148064640	Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)					
SEP 2004						
14...	<1.0	<1.0	250	530	<5.0	<5.0
14...	<1.0	<1.0	5.2	80	<5.0	<5.0

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

**REMARKS.**--Samples were collected using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 100 animal (approximate) subsamples.

**BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES**

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	11/03/03	08/19/03	08/19/03	08/21/03	10/27/03	10/24/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	--	--	--	--	--	6
Nemertea (PROBOSCIS WORMS)						
Enopla						
Hoploneurata						
Tetrastemmatidae						
<i>Prostoma</i>	--	--	--	2	--	3
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancyliidae						
<i>Ferrissia</i>	1	2	--	--	--	--
Hydrobiidae						
<i>Ammicola</i>	--	--	--	--	2	--
Bivalvia (CLAMS)						
Veneroidea						
Corbiculidae						
<i>Corbicula fluminea</i>	--	--	--	--	--	--
Sphaeriidae						
<i>Pisidium</i>	1	--	--	--	--	--
<i>Sphaerium</i>	--	4	3	1	--	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)						
Lumbriculida						
Lumbriculidae	--	4	--	6	3	12
Tubificida						
Naididae	--	--	--	--	--	--
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	3	1	2	1	1	--
Crustacea						
Copepoda						
Cyclopidae	1	--	--	--	--	--
Amphipoda (SCUDS)						
Crangonyctidae						
<i>Crangonyx</i>	--	--	--	--	--	--
Gammaridae						
<i>Gammarus</i>	--	--	--	--	--	1
Insecta						
Ephemeroptera (MAYFLIES)						
Baetidae						
<i>Acentrella</i>	3	5	6	20	3	1
<i>Baetis</i>	1	7	16	1	--	1
<i>Centroptilum</i>	--	--	1	--	--	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/24/03	09/09/03	09/10/03	09/12/03	09/08/03	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Platyhelminthes
					Turbellaria (FLATWORMS)
					Tricladida
24	10	2	1	2	Planariidae
					Nemertea (PROBOSCIS WORMS)
					Enopla
					Hoplonemertea
					Tetrastemmatidae
1	--	--	--	7	<i>Prostoma</i>
					Mollusca
					Gastropoda (SNAILS)
					Basommatophora
					Ancyliidae
--	--	--	1	--	<i>Ferrissia</i>
					Hydrobiidae
--	3	--	--	--	<i>Ammicola</i>
					Bivalvia (CLAMS)
					Veneroida
					Corbiculidae
--	--	--	8	--	<i>Corbicula fluminea</i>
1	--	--	--	--	Sphaeriidae
--	--	--	--	1	<i>Pisidium</i>
--	1	--	6	--	<i>Sphaerium</i>
					Annelida
					Oligochaeta (AQUATIC EARTHWORMS)
					Lumbriculida
1	--	2	--	--	Lumbriculidae
					Tubificida
--	--	--	--	2	Naididae
					Arthropoda
					Acariformes
4	--	--	--	5	Hydrachnidia (WATER MITES)
					Crustacea
					Copepoda
--	--	--	--	--	Cyclopidae
					Amphipoda (SCUDS)
					Crangonyctidae
3	--	--	--	--	<i>Crangonyx</i>
					Gammaridae
2	--	3	5	--	<i>Gammarus</i>
					Insecta
					Ephemeroptera (MAYFLIES)
					Baetidae
--	--	1	4	18	<i>Acentrella</i>
1	43	12	15	16	<i>Baetis</i>
--	--	--	--	--	<i>Centroptilum</i>



**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	11/03/03	08/19/03	08/19/03	08/21/03	10/27/03	10/24/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Ephemeroptera (MAYFLIES)						
Caenidae						
<i>Caenis</i>	--	--	--	--	--	--
Ephemerellidae						
<i>Attenella</i>	--	--	--	9	--	--
<i>Dannella</i>	--	26	2	--	5	1
<i>Ephemerella</i>	11	--	--	--	--	--
<i>Serratella</i>	19	--	6	2	13	2
Heptageniidae						
<i>Epeorus</i>	10	--	2	6	--	6
<i>Stenonema</i>	4	9	21	14	9	1
Isonychiidae						
<i>Isonychia</i>	1	11	1	--	--	--
Leptophlebiidae						
<i>Paraleptophlebia</i>	5	--	--	--	--	--
Tricorythidae						
<i>Tricorythodes</i>	--	--	--	--	--	--
Odonata (DRAGONFLIES AND DAMSELFLIES)						
Gomphidae						
<i>Lanthus</i>	1	--	--	1	--	--
Plecoptera (STONEFLIES)						
Nemouridae						
1	1	--	--	--	--	--
Perlidae						
<i>Acroneuria</i>	--	--	1	2	--	--
<i>Agnatina</i>	--	3	--	--	1	2
<i>Paragnetina</i>	--	--	--	--	1	--
<i>Perlesta</i>	--	--	--	--	1	--
Perlodidae						
<i>Isoperla</i>	7	--	--	--	--	--
Taeniopterygidae						
<i>Taenionema</i>	2	--	--	--	--	--
<i>Taeniopteryx</i>	3	--	--	--	1	6
Megaloptera						
Corydalidae (FISHFLIES AND DOBSONFLIES)						
<i>Corydalus</i>	--	--	2	1	1	--
<i>Nigronia</i>	--	--	--	1	--	--
Trichoptera (CADDISFLIES)						
Apataniidae						
<i>Apatania</i>	4	--	--	3	--	--
Brachycentridae						
<i>Brachycentrus</i>	--	--	1	--	--	--
<i>Micrasema</i>	--	--	--	--	1	--
Glossosomatidae						
<i>Protoptila</i>	--	--	1	--	1	--

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/24/03	09/09/03	09/10/03	09/12/03	09/08/03	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Ephemeroptera (MAYFLIES)
					Caenidae
--	1	--	--	--	<i>Caenis</i>
1	--	--	--	--	Ephemerellidae
--	6	--	--	--	<i>Attenella</i>
--	--	--	--	--	<i>Dannella</i>
--	--	--	--	--	<i>Ephemerella</i>
--	--	--	--	1	<i>Serratella</i>
--	--	--	--	2	Heptageniidae
--	1	--	--	--	<i>Epeorus</i>
2	14	--	5	--	<i>Stenonema</i>
					Isonychiidae
--	1	--	--	4	<i>Isonychia</i>
					Leptophlebiidae
1	--	--	--	--	<i>Paraleptophlebia</i>
					Tricorythidae
1	--	--	1	1	<i>Tricorythodes</i>
					Odonata (DRAGONFLIES AND DAMSELFLIES)
--	--	--	--	--	Gomphidae
--	--	--	--	--	<i>Lanthus</i>
					Plecoptera (STONEFLIES)
--	--	--	--	--	Nemouridae
					Perlidae
--	--	--	--	--	<i>Acroneuria</i>
--	--	--	--	--	<i>Agnatina</i>
--	--	--	--	--	<i>Paragnetina</i>
--	--	--	--	--	<i>Perlesta</i>
					Perlodidae
--	--	--	--	--	<i>Isoperla</i>
					Taeniopterygidae
--	--	--	--	--	<i>Taenionema</i>
--	--	--	--	--	<i>Taeniopteryx</i>
					Megaloptera
					Corydalidae (FISHFLIES AND DOBSONFLIES)
--	--	--	--	2	<i>Corydalus</i>
--	--	--	--	--	<i>Nigronia</i>
					Trichoptera (CADDISFLIES)
					Apataniidae
--	--	--	--	--	<i>Apatania</i>
					Brachycentridae
--	--	--	--	--	<i>Brachycentrus</i>
--	--	--	--	--	<i>Micrasema</i>
					Glossosomatidae
--	--	--	--	--	<i>Protoptila</i>

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	11/03/03	08/19/03	08/19/03	08/21/03	10/27/03	10/24/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)						
Hydropsychidae						
<i>Cheumatopsyche</i>	--	8	11	6	11	4
<i>Hydropsyche</i>	10	12	10	2	13	14
<i>Macrostemum</i>	--	--	--	--	1	--
<i>Potamyia</i>	2	--	--	--	--	--
Hydroptilidae						
<i>Hydroptila</i>	1	--	--	1	--	--
<i>Leucotrichia</i>	--	2	--	--	--	--
Lepidostomatidae						
<i>Lepidostoma</i>	1	--	4	2	5	--
Leptoceridae						
<i>Mystacides</i>	1	--	--	--	--	--
Odontoceridae						
<i>Psilotreta</i>	1	--	--	--	--	--
Philopotamidae						
<i>Chimarra</i>	--	1	1	1	18	4
<i>Wormaldia</i>	--	1	--	--	--	--
Polycentropodidae						
<i>Polycentropus</i>	1	--	--	--	--	--
Rhyacophilidae						
<i>Rhyacophila</i>	1	3	--	--	--	--
Lepidoptera (MOTHS AND BUTTERFLIES)						
Pyralididae						
<i>Petrophila</i>	--	--	--	--	2	--
Coleoptera (BEETLES)						
Elmidae (RIFFLE BEETLES)						
<i>Macronychus</i>	--	--	--	2	--	--
<i>Optioservus</i>	2	4	6	4	2	3
<i>Oulimnius</i>	--	--	1	1	--	2
<i>Promoresia</i>	5	--	--	--	--	--
<i>Stenelmis</i>	--	8	8	8	7	2
Psephenidae (WATER PENNIES)						
<i>Psephenus</i>	1	--	2	3	--	2
Diptera (TRUE FLIES)						
Chironomidae (MIDGES)						
	20	29	6	17	23	23
Empididae (DANCE FLIES)						
<i>Chelifera</i>	--	--	2	--	--	--
<i>Hemerodromia</i>	1	--	--	1	--	1
Simuliidae (BLACK FLIES)						
<i>Prosimulium</i>	1	--	--	--	--	--
<i>Simulium</i>	1	--	--	4	--	--
Tipulidae (CRANE FLIES)						
<i>Antocha</i>	--	--	--	--	--	2
<i>Tipula</i>	1	--	--	--	--	--
Total organisms	128	141	116	122	125	100
Total Taxa	34	20	24	28	23	23

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

BIOLOGICAL DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2004  
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/24/03	09/09/03	09/10/03	09/12/03	09/08/03	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Trichoptera (CADDISFLIES)
					Hydropsychidae
3	3	11	26	5	<i>Cheumatopsyche</i>
4	--	7	10	8	<i>Hydropsyche</i>
--	--	--	--	--	<i>Macrostemum</i>
--	--	--	--	--	<i>Potamyia</i>
					Hydroptilidae
--	--	--	--	--	<i>Hydroptila</i>
5	1	--	--	1	<i>Leucotrichia</i>
					Lepidostomatidae
--	--	--	--	--	<i>Lepidostoma</i>
					Leptoceridae
--	--	--	--	--	<i>Mystacides</i>
					Odontoceridae
--	--	--	--	--	<i>Psilotreta</i>
					Philopotamidae
2	24	11	1	--	<i>Chimarra</i>
--	--	1	--	--	<i>Wormaldia</i>
					Polycentropodidae
--	--	--	--	--	<i>Polycentropus</i>
					Rhyacophilidae
--	--	--	--	1	<i>Rhyacophila</i>
					Lepidoptera (MOTHS AND BUTTERFLIES)
					Pyralididae
--	1	--	--	--	<i>Petrophila</i>
					Coleoptera (BEETLES)
					Elmidae (RIFPLE BEETLES)
--	--	--	--	--	<i>Macronychus</i>
4	2	10	2	1	<i>Optioservus</i>
--	--	9	--	1	<i>Oulimnius</i>
--	--	--	--	--	<i>Promoresia</i>
5	21	9	45	--	<i>Stenelmis</i>
					Psephenidae (WATER PENNIES)
--	1	3	--	--	<i>Psephenus</i>
					Diptera (TRUE FLIES)
32	5	27	2	40	Chironomidae (MIDGES)
					Empididae (DANCE FLIES)
--	--	2	--	--	<i>Chelifera</i>
2	--	--	--	2	<i>Hemerodromia</i>
					Simuliidae (BLACK FLIES)
--	--	--	--	--	<i>Prosimulium</i>
7	8	10	2	7	<i>Simulium</i>
					Tipulidae (CRANE FLIES)
1	--	--	--	1	<i>Antocha</i>
--	--	--	--	--	<i>Tipula</i>
107	146	120	134	128	Total organisms
22	18	16	16	22	Total Taxa

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

**REMARKS.**--Samples were collected using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 200 animal (approximate) subsamples.

**BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES**

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/10/02	11/20/02	11/20/02	11/20/02	11/14/02	11/14/02	11/14/02
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Platyhelminthes							
Turbellaria (FLATWORMS)							
Tricladida							
Planariidae	--	--	--	1	8	3	2
Mollusca							
Gastropoda (SNAILS)							
Basommatophora							
Ancyliidae							
<i>Ferrissia</i>	--	--	--	--	--	--	8
Hydrobiidae							
<i>Amnicola</i>	--	--	--	--	1	--	--
Lymnaeidae							
<i>Fossaria</i>	--	--	--	--	--	10	1
Physidae							
<i>Physa</i>	--	--	--	--	2	3	1
Planorbidae							
<i>Gyraulus</i>	--	--	--	--	--	7	--
<i>Planorbella</i>	--	--	--	--	--	3	14
Pleuroceridae							
<i>Elimia</i>	--	--	--	--	--	--	4
Bivalvia (CLAMS)							
Sphaeriidae							
<i>Sphaerium</i>	6	--	--	2	--	--	2
Annelida							
Oligochaeta (AQUATIC EARTHWORMS)							
Lumbricina							
Lumbriculida	1	--	2	--	--	1	4
Lumbriculidae							
Lumbriculidae	--	3	--	--	22	1	--
Tubificida							
Enchytraeidae	--	--	--	--	--	1	--
Naididae	--	--	4	1	--	--	--
Tubificidae	1	--	--	--	--	--	--
Arthropoda							
Acariformes							
Hydrachnidia (WATER MITES)	4	--	--	--	--	--	3
Crustacea							
Amphipoda (SCUDS)							
Gammaridae							
<i>Gammarus</i>	--	--	--	--	29	--	--
Decapoda							
Cambaridae (CRAYFISH)	--	1	--	--	--	--	--
Insecta							
Ephemeroptera (MAYFLIES)							
Caenidae							
<i>Caenis</i>	9	--	--	--	--	8	22
Ephemerellidae							
<i>Drunella</i>	2	--	--	--	--	--	--
<i>Ephemerella</i>	26	29	--	--	14	8	6
<i>Eurylophella</i>	2	1	23	1	--	1	--
<i>Serratella</i>	8	--	--	20	14	1	3

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES  
PENNSYLVANIA WATER-QUALITY NETWORK**

**BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES**

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/10/02	11/20/02	11/20/02	11/20/02	11/14/02	11/14/02	11/14/02
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
<b>Ephemeroptera (MAYFLIES)</b>							
Heptageniidae	--	--	--	--	1	2	--
<i>Epeorus</i>	2	49	--	5	--	--	--
<i>Leucrocuta</i>	1	5	--	3	1	--	--
<i>Stenacron</i>	--	--	1	--	--	--	1
<i>Stenonema</i>	10	1	10	10	6	2	20
Isonychiidae							
<i>Isonychia</i>	--	1	--	--	--	9	4
Leptophlebiidae							
<i>Habrophlebia</i>	--	--	4	--	--	--	--
<i>Paraleptophlebia</i>	21	21	5	24	--	--	--
<b>Odonata (DRAGONFLIES AND DAMSELFLIES)</b>							
Coenagrionidae							
<i>Argia</i>	--	--	--	--	--	3	4
Gomphidae							
<i>Lanthus</i>	--	2	2	1	--	--	2
<b>Plecoptera (STONEFLIES)</b>							
Capniidae							
<i>Allocaupnia</i>	4	--	--	--	1	2	1
<i>Paracapnia</i>	4	--	4	1	--	--	--
Chloroperlidae							
<i>Sweltsa</i>	--	5	--	6	--	--	--
Leuctridae							
<i>Leuctra</i>	--	3	--	--	--	--	--
Nemouridae							
<i>Amphinemura</i>	--	--	--	1	--	--	--
Peltoperlidae							
<i>Tallaperla</i>	--	3	1	6	--	--	--
Perlidae							
<i>Acroneuria</i>	--	3	2	3	--	--	5
<i>Agnatina</i>	--	3	--	--	1	--	--
Perlodidae							
<i>Isoperla</i>	--	--	--	1	--	--	--
Pteronarcyidae							
<i>Pteronarcys</i>	--	--	--	1	--	--	--
Taeniopterygidae							
<i>Taenionema</i>	5	--	--	--	1	7	2
<i>Taeniopteryx</i>	4	--	6	6	--	--	19
<b>Megaloptera</b>							
<b>Corydalidae (FISHFLIES AND DOBSONFLIES)</b>							
<i>Nigronia</i>	1	1	2	3	--	--	--
<b>Trichoptera (CADDISFLIES)</b>							
Apataniidae							
<i>Apatania</i>	--	--	--	--	--	1	5
Brachycentridae							
<i>Brachycentrus</i>	--	--	--	--	--	1	--
<i>Micrasema</i>	--	--	--	6	--	--	--
Glossosomatidae							
<i>Agapetus</i>	--	--	--	2	--	--	--
<i>Glossosoma</i>	--	--	--	--	2	--	--
Helicopsychidae							
<i>Helicopsyche</i>	--	--	--	--	2	--	--

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PENNSYLVANIA WATER-QUALITY NETWORK**

**BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES**

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/10/02	11/20/02	11/20/02	11/20/02	11/14/02	11/14/02	11/14/02
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
<b>Trichoptera (CADDISFLIES)</b>							
Hydropsychidae							
<i>Cheumatopsyche</i>	14	3	--	4	16	57	41
<i>Diplectrona</i>	--	14	8	10	--	--	--
<i>Hydropsyche</i>	21	5	6	5	9	30	8
Hydroptilidae							
<i>Hydroptila</i>	--	--	3	4	--	1	--
Lepidostomatidae							
<i>Lepidostoma</i>	7	12	11	14	9	1	--
Leptoceridae							
<i>Setodes</i>	2	--	--	--	--	--	--
Limnephilidae							
<i>Hydatophylax</i>	--	--	1	--	--	--	--
Odontoceridae							
<i>Psilotreta</i>	5	--	--	1	--	--	--
Philopotamidae							
<i>Chimarra</i>	1	--	7	--	32	23	7
<i>Dolophilodes</i>	--	5	1	3	--	--	--
Polycentropodidae							
<i>Polycentropus</i>	--	--	--	--	2	--	--
Rhyacophilidae							
<i>Rhyacophila</i>	2	2	2	11	--	--	--
Uenoidae							
<i>Neophylax</i>	2	2	--	1	--	--	--
<b>Coleoptera (BEETLES)</b>							
Elmidae (RIFFLE BEETLES)							
<i>Optioservus</i>	35	--	--	--	39	--	21
<i>Oulimnius</i>	--	--	--	3	--	--	--
<i>Promoresia</i>	--	--	1	37	--	--	1
<i>Stenelmis</i>	4	--	--	--	1	--	15
Hydrophilidae							
<i>Berosus</i>	--	--	--	--	--	2	--
Psephenidae (WATER PENNIES)							
<i>Psephenus</i>	6	--	--	--	10	3	6
<b>Diptera (TRUE FLIES)</b>							
Athericidae							
<i>Atherix</i>	1	--	2	--	--	--	--
Ceratopogonidae (BITING MIDGES)							
<i>Chironomidae (MIDGES)</i>	40	29	66	46	14	17	13
Empididae (DANCE FLIES)							
<i>Hemerodromia</i>	--	--	1	--	--	1	2
Muscidae							
<i>Limnophora</i>	--	--	--	1	--	--	--
Simuliidae (BLACK FLIES)							
<i>Tipulidae (CRANE FLIES)</i>	--	--	1	--	--	--	--
<i>Antocha</i>	3	--	--	--	1	--	--
<i>Dicranota</i>	2	2	--	3	--	--	--
<i>Hexatoma</i>	2	--	--	2	--	--	--
<i>Limnophila</i>	--	1	--	--	--	--	--
<i>Tipula</i>	--	--	--	--	--	2	2
<b>Total Organisms</b>	<b>258</b>	<b>206</b>	<b>176</b>	<b>251</b>	<b>238</b>	<b>211</b>	<b>250</b>
<b>Total Taxa</b>	<b>34</b>	<b>26</b>	<b>26</b>	<b>38</b>	<b>25</b>	<b>30</b>	<b>33</b>