



Water-Data Report 2013

01480743 BEAVER CREEK AT REECEVILLE, PA

Lower Delaware Basin
Brandywine-Christina Subbasin

LOCATION.--Lat 40°01'58.86", long 75°47'22.15" referenced to North American Datum of 1983, Chester County, PA, Hydrologic Unit 02040205, 500 ft upstream of Beaver Creek Reservoir, 4.2 mi north of Coatesville.

DRAINAGE AREA.--2.63 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2001; October 2005; December 2012.

REMARKS.--Samples were collected as part of the Chester County Biological Monitoring project.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Chester County Water Resources Authority.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 1 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, unfiltered, laboratory, µS/cm at 25°C (90095)	Specific conductance, unfiltered, water, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Caffeine-13C, surrogate, Schedule/ab code 2033/8033, water, filtered, percent recovery (99584)	Deca-fluoro-biphenyl, surrogate, Schedule/ab code 2033/8033, water, filtered, percent recovery (99585)
12-04-2012	1200	2.0	14.7	7.5	7.7	276	273	10.4	76.1	44.2

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 2 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Fluoranthene-d10, surrogate, Schedule/ab code 2033/8033, water, filtered, percent recovery (99586)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, inflection-point, fixed endpoint titration, (pH 4.5) laboratory, mg/L as CaCO ₃ (90410)	ANC, water, unfiltered, inflection-point, titration method, field, mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)
12-04-2012	1200	77.9	25.9	8.98	3.01	11.1	37.6	44	26.5	< .04

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)		Nitrate plus nitrite, water, filtered, mg/L as N (00631)		Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)
				Ammonia, water, filtered, mg/L as N (00608)	Ammonia, water, filtered, mg/L as N (00608)	Nitrite, water, filtered, mg/L as N (00613)	Nitrite, water, filtered, mg/L as N (00613)		
12-04-2012	1200	9.14	23.3	0.30	< .010	7.57	0.008	< .004	< .02

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Iron, water, filtered, µg/L (01046)	Manganese, water, filtered, µg/L (01056)	Boron, water, filtered, µg/L (01020)	1,4-Dichlorobenzene, water, filtered, recoverable, µg/L (34572)	Bromacil, water, filtered, recoverable, µg/L (04029)	Camphor, water, filtered, recoverable, µg/L (62070)	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82680)	Chlorpyrifos, water, filtered, recoverable, µg/L (38933)	Diazinon, water, filtered, recoverable, µg/L (39572)

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 5 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Metalaxyl, water, filtered, recoverable, µg/L (50359)	Metolachlor, water, filtered, recoverable, µg/L (39415)	DEET, water, filtered, recoverable, µg/L (62082)	p-Cresol, water, filtered, recoverable, µg/L (62084)	Prometon, water, filtered, recoverable, µg/L (04037)	1-Methylnaphthalene, water, filtered, recoverable, µg/L (62054)	2,6-Dimethylnaphthalene, water, filtered, recoverable, µg/L (62055)	2-Methylnaphthalene, water, filtered, recoverable, µg/L (62056)	3-beta-Coprosanol, water, filtered, recoverable, µg/L (62057)

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 6 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	3-Methyl-1H-indole, water, filtered, recoverable, µg/L (62058)	4-Cumyl-phenol, water, filtered, recoverable, µg/L (62060)	4-n-Octyl-phenol, water, filtered, recoverable, µg/L (62061)	4-Nonyl-phenol (sum of all isomers), water, filtered, recoverable, µg/L (62085)	4-Nonyl-phenol diethoxylate (sum of all isomers), water, filtered, recoverable, µg/L (62083)	4-tert-Octyl-phenol diethoxylate, water, filtered, recoverable, µg/L (61705)	4-tert-Octyl-phenol, water, filtered, recoverable, µg/L (62062)	5-Methyl-1H-benzotriazole, water, filtered, recoverable, µg/L (62063)	9,10-Anthraquinone, water, filtered, recoverable, µg/L (62066)
12-04-2012	1200	< .036	< .060	< .06	< 2	< 5.0	< 1.0	< .14	< 1.2	< .16

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 7 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Acetophenone, water, filtered, recoverable, µg/L (62064)	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, µg/L (62065)	Anthracene, water, filtered, recoverable, µg/L (34221)	Benzo[a]pyrene, water, filtered, recoverable, µg/L (34248)	Benzo-phenone, water, filtered, recoverable, µg/L (62067)	beta-Sitosterol, water, filtered, recoverable, µg/L (62068)	beta-Stigmasterol, water, filtered, recoverable, µg/L (62086)	Caffeine, water, filtered, recoverable, µg/L (50305)	Cholesterol, water, filtered, recoverable, µg/L (62072)
12-04-2012	1200	< .4	< .028	< .010	< .06	0.05	< 4	< 2.6	< .06	< 2.0

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 8 of 10

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Cotinine, water, filtered, recoverable, µg/L (62005)	D-Limonene, water, filtered, recoverable, µg/L (62073)	Fluoranthene, water, filtered, recoverable, µg/L (34377)	Hexahydrohexamethylcyclopentabenzopyran, water, filtered, recoverable, µg/L (62075)	Indole, water, filtered, recoverable, µg/L (62076)	Isoborneol, water, filtered, recoverable, µg/L (62077)	Iso-phorone, water, filtered, recoverable, µg/L (34409)	Isopropylbenzene, water, filtered, recoverable, µg/L (62078)	Iso-quinoline, water, filtered, recoverable, µg/L (62079)
12-04-2012	1200	< .800	< .08	< .024	< .052	< .08	< .08	< .032	< .30	< .046

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WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

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[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Menthol, water, filtered, recoverable, µg/L (62080)	Methyl salicylate, water, filtered, recoverable, µg/L (62081)	Naphthalene, water, filtered, recoverable, µg/L (34443)	Phenanthrene, water, filtered, recoverable, µg/L (34462)	Phenol, water, filtered, recoverable, µg/L (34466)	Pyrene, water, filtered, recoverable, µg/L (34470)	Tetrachloroethene, water, filtered, recoverable, µg/L (34476)	Tribromomethane, water, filtered, recoverable, µg/L (34288)	Tributyl phosphate, water, filtered, recoverable, µg/L (62089)
12-04-2012	1200	< .32	< .044	< .040	0.006	< .16	< .042	< .12	< .10	< .16

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Part 10 of 10

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Date	Sample start time	Triclosan, water, filtered, recoverable, μg/L (62090)	Triethyl citrate, water, filtered, recoverable, μg/L (62091)	Triphenyl phosphate, water, filtered, recoverable, μg/L (62092)	Tris(2-butoxy-ethyl) phosphate, water, filtered, recoverable, μg/L (62093)	Tris(2-chloro-ethyl) phosphate, water, filtered, recoverable, μg/L (62087)	Tris(di-chloro-isopropyl) phosphate, water, filtered, recoverable, μg/L (62088)
12-04-2012	1200	< .20	< .16	< .12	< .8	< .10	< .16

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued**ECOLOGICAL RECORDS**

PERIOD OF RECORD.--November 2001; October 2005; December 2012.

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 mm. Each sample covered a total area of 2.4 m².

Date	12/04/12
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	14
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoploneurata	
Tetrastemmatidae	
<i>Prostoma</i>	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	3
Planorbidae	
<i>Menetus dilatatus</i>	1
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	1
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	6
Tubificida	

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

Date	12/04/12
Benthic Macroinvertebrate	Count
Naididae	4
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	44
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	34
Caenidae	
<i>Caenis</i>	1
Ephemerellidae	
<i>Ephemerella</i>	17
<i>Eurylophella</i>	29
<i>Serratella</i>	113
Heptageniidae	
<i>Maccaffertium</i>	51
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	1
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	150
Nemouridae	16
Perlidae	
<i>Agetina</i>	3
Taeniopterygidae	
<i>Strophopteryx</i>	130

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

Date	12/04/12
Benthic Macroinvertebrate	Count
<i>Taeniopteryx</i>	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<i>Nigronia</i>	1
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	5
Glossosomatidae	
<i>Glossosoma</i>	17
Hydropsychidae	
<i>Cheumatopsyche</i>	290
<i>Diplectronea</i>	3
<i>Hydropsyche</i>	66
Hydroptilidae	
<i>Hydroptila</i>	14
Leptoceridae	
<i>Oecetis</i>	2
Philopotamidae	
<i>Chimarra</i>	134
Uenoidae	
<i>Neophylax</i>	13
Coleoptera (BEETLES)	
Dryopidae	
<i>Helichus</i>	4
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	9
<i>Macronychus</i>	1

01480743 BEAVER CREEK AT REECEVILLE, PA—Continued

Date	12/04/12
Benthic Macroinvertebrate	Count
<i>Microcylloepus</i>	1
<i>Optioservus</i>	61
<i>Oulimnius</i>	11
<i>Stenelmis</i>	11
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	14
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	277
Simuliidae (BLACK FLIES)	
<i>Prosimulium</i>	1905
<i>Simulium</i>	196
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	11
<i>Dicranota</i>	28
<i>Tipula</i>	13
Total Organisms	3710