

Water-Data Report 2013

01480742 BEAVER CREEK TRIBUTARY AT REECEVILLE, PA

Lower Delaware Basin
Brandywine-Christina Subbasin

LOCATION.--Lat 40°01'57", long 75°47'28" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02040205, 25 ft upstream of confluence with Beaver Creek, 2,000 ft downstream of Swienhart Road, 4.2 mi north of Coatesville.

DRAINAGE AREA.--0.86 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--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, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25°C (90095)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery (99584)	Decafluoro biphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery (99585)
12-04-2012	1500	0.47	13.4	8.0	7.9	298	300	10.6	75.3	42.0

**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/lab 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, titration method, 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	1500	76.9	26.0	10.5	3.25	11.9	41.0	44	33.3	< .04

01480742 BEAVER CREEK TRIBUTARY 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		Nitrate plus nitrite, water, filtered, mg/L as N		Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)
				(00625)	(00608)	(00631)	(00613)		
12-04-2012	1500	10.6	25.0	0.25	< .010	6.01	0.009	0.005	< .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)

01480742 BEAVER CREEK TRIBUTARY 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,	4-Cumyl-phenol,	4-n-Octyl-phenol,	4-Nonyl-phenol (sum of all isomers),	4-Nonyl-phenol diethoxylate (sum of all isomers),	4-tert-Octyl-phenol diethoxylate,	4-tert-Octyl-phenol,	5-Methyl-1H-benzotriazole,	9,10-Anthraquinone,
		water, filtered, recoverable, µg/L (62058)	water, filtered, recoverable, µg/L (62060)	water, filtered, recoverable, µg/L (62061)	water, filtered, recoverable, µg/L (62085)	water, filtered, recoverable, µg/L (62083)	water, filtered, recoverable, µg/L (61705)	water, filtered, recoverable, µg/L (62062)	water, filtered, recoverable, µg/L (62063)	water, filtered, recoverable, µg/L (62066)
12-04-2012	1500	< .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	Acetyl hexamethyl tetrahydro naphthalene,	Anthracene,	Benzo[a]pyrene,	Benzo-phenone,	beta-Sitosterol,	beta-Stigmasterol,	Caffeine,	Cholesterol,	
		water, filtered, recoverable, µg/L (62064)	water, filtered, recoverable, µg/L (34221)	water, filtered, recoverable, µg/L (34248)	water, filtered, recoverable, µg/L (62067)	water, filtered, recoverable, µg/L (62068)	water, filtered, recoverable, µg/L (62086)	water, filtered, recoverable, µg/L (50305)	water, filtered, recoverable, µg/L (62072)	
12-04-2012	1500	< .4	< .028	< .010	< .06	0.05	< 4	< 2.6	< .06	< 2.0

01480742 BEAVER CREEK TRIBUTARY 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	1500	< .800	< .08	< .024	< .052	< .08	< .08	< .032	< .30	< .046

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 9 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	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	1500	< .32	< .044	< .040	0.006	< .16	< .042	< .12	< .10	< .16

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 10 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	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-butoxyethyl) phosphate, water, filtered, recoverable, µg/L (62093)	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, µg/L (62087)	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, µg/L (62088)
12-04-2012	1500	< .20	< .16	< .12	< .8	< .10	< .16

01480742 BEAVER CREEK TRIBUTARY AT REECEVILLE, PA—Continued

01480742 BEAVER CREEK TRIBUTARY AT REECEVILLE, PA—Continued

ECOLOGICAL RECORDS

PERIOD OF RECORD.--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
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	3
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	1
Physidae	4
Planorbidae	
<i>Menetus dilatatus</i>	1
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	1
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	2
Tubificida	
Naididae	11
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	50
Crustacea	
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<i>Lirceus</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	17
Ephemerellidae	
<i>Ephemerella</i>	2
<i>Eurylophella</i>	33
<i>Serratella</i>	43
Heptageniidae	
<i>Maccaffertium</i>	19
Leptophlebiidae	
<i>Habrophlebiodes</i>	1
Odonata (DRAGONFLIES AND DAMSELFLIES)	

01480742 BEAVER CREEK TRIBUTARY AT REECEVILLE, PA—Continued

Date	12/04/12
Benthic Macroinvertebrate	Count
Gomphidae	4
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	94
Nemouridae	13
Taeniopterygidae	
<i>Strophopteryx</i>	454
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	12
Glossosomatidae	
<i>Glossosoma</i>	15
Hydropsychidae	
<i>Cheumatopsyche</i>	112
<i>Diplectrona</i>	9
<i>Hydropsyche</i>	12
Leptoceridae	
<i>Mystacides</i>	1
Philopotamidae	
<i>Chimarra</i>	37
Uenoidae	
<i>Neophylax</i>	84
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	10
<i>Macronychus</i>	4
<i>Optioservus</i>	155
<i>Oulimnius</i>	5
<i>Stenelmis</i>	4
Psephenidae (WATER PENNIES)	
<i>Ectopria</i>	6
<i>Psephenus</i>	16
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	3
Chironomidae (MIDGES)	181
Simuliidae (BLACK FLIES)	
<i>Prosimulium</i>	2713
<i>Simulium</i>	31
Tipulidae (CRANE FLIES)	3
<i>Antocha</i>	17
<i>Dicranota</i>	11
Total Organisms	4195