



Water-Data Report 2011

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

Lower Delaware Basin
Brandywine-Christina Subbasin

LOCATION.--Lat 39°52'11", long 75°35'37" referenced to North American Datum of 1927, Delaware County, PA, Hydrologic Unit 02040205, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run, and 1,200 ft downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1911 to September 1953, October 1962 to current year. Prior to October 1911, monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18(M), 1919-20, 1922-31(M), 1932-33, 1934(M), 1936, 1938(P), 1939(M), 1942, 1944-46(M), WDR PA-98-1: 1996-97 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.45 ft above National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, non-recording gage at same site and datum. Satellite and landline telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Pennsylvania Department of Environmental Protection, Chester County Water Resources Authority, and the City of Wilmington, Delaware.

REMARKS.--Records good. No estimated daily discharges. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 14.64 ft, gage datum, discharge, about 16,400 ft³/s.

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7,870	187	1,420	249	253	678	686	595	347	186	109	468
2	1,390	183	1,040	294	550	515	656	578	333	180	112	436
3	481	184	421	295	709	459	569	561	303	176	108	298
4	422	549	342	258	427	429	551	820	296	175	173	265
5	727	878	358	252	404	423	624	726	297	169	134	291
6	549	320	338	237	542	685	639	570	303	165	117	2,250
7	398	256	324	245	511	2,840	511	566	295	164	123	5,790
8	333	236	312	236	549	868	553	520	282	237	129	6,060
9	311	223	298	225	510	653	962	495	280	271	185	1,910
10	283	215	294	231	424	2,260	615	474	275	171	268	1,150
11	269	209	303	226	352	6,480	559	458	276	155	141	908
12	367	201	770	247	353	2,070	735	441	426	158	115	1,070
13	387	199	1,290	270	345	1,400	1,590	431	322	149	108	737
14	446	196	503	212	374	1,200	856	423	282	142	532	635
15	652	195	387	233	709	1,060	678	537	278	140	415	578
16	316	200	341	227	501	1,410	1,080	717	262	134	244	537
17	276	267	301	217	569	1,100	4,070	1,330	323	126	157	492
18	257	264	289	325	1,200	921	1,340	872	275	124	401	464
19	246	216	283	419	1,220	824	1,110	636	252	124	1,250	437
20	243	206	275	442	572	741	1,060	660	245	128	840	425
21	218	199	271	329	494	867	907	650	241	126	271	414
22	203	196	269	252	478	787	793	538	280	119	334	400
23	199	196	266	232	425	720	941	598	249	115	229	656
24	196	192	258	240	416	908	998	548	241	111	194	5,420
25	196	191	257	255	1,450	738	867	491	244	214	289	1,370
26	191	219	258	252	1,070	662	700	462	220	545	236	770
27	215	207	254	341	588	625	646	434	213	161	390	660
28	241	191	262	319	658	592	753	411	223	133	11,500	1,420
29	208	188	259	270	---	569	1,020	384	217	133	3,170	1,520
30	196	186	243	253	---	556	645	370	195	128	1,120	916
31	192	---	253	242	---	574	---	356	---	115	593	---
Total	18,478	7,349	12,739	8,325	16,653	34,614	27,714	17,652	8,275	5,174	23,987	38,747
Mean	596	245	411	269	595	1,117	924	569	276	167	774	1,292
Max	7,870	878	1,420	442	1,450	6,480	4,070	1,330	426	545	11,500	6,060
Min	191	183	243	212	253	423	511	356	195	111	108	265

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911-1953, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1963-1973												
Mean	219	301	348	444	570	605	530	435	364	309	278	230
Max	666	625	827	1,020	1,130	1,366	1,043	946	1,144	802	1,089	1,050
(WY)	(1972)	(1972)	(1973)	(1936)	(1971)	(1920)	(1973)	(1952)	(1972)	(1919)	(1933)	(1971)
Min	67.7	98.3	114	145	214	247	226	175	149	91.1	82.1	59.4
(WY)	(1964)	(1942)	(1966)	(1966)	(1934)	(1931)	(1963)	(1926)	(1963)	(1963)	(1930)	(1932)

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**SUMMARY STATISTICS**

Water Years 1911-1953, 1963-1973		
Annual mean	385	
Highest annual mean	625	1928
Lowest annual mean	218	1932
Highest daily mean	9,590	Aug 24 1933
Lowest daily mean	42	Sep 12 1966
Annual seven-day minimum	45	Sep 7 1966
Maximum peak flow	a23,800	Jun 22 1972
Maximum peak stage	16.56	Jun 22 1972
Instantaneous low flow	4.9	Oct 2 1942
Annual runoff (cfsm)	1.34	
Annual runoff (inches)	18.23	
10 percent exceeds	700	
50 percent exceeds	274	
90 percent exceeds	118	

a From rating curve extended above 9,000 ft³/s on basis of area-velocity study.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	316	355	515	534	554	686	640	499	417	326	262	333
Max	924	1,044	1,634	1,664	1,308	1,713	1,509	1,097	1,459	1,153	774	1,292
(WY)	(1997)	(2004)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(2003)	(1975)	(2011)	(2011)
Min	99.5	105	112	106	144	195	183	249	153	88.8	64.0	80.2
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(1981)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)

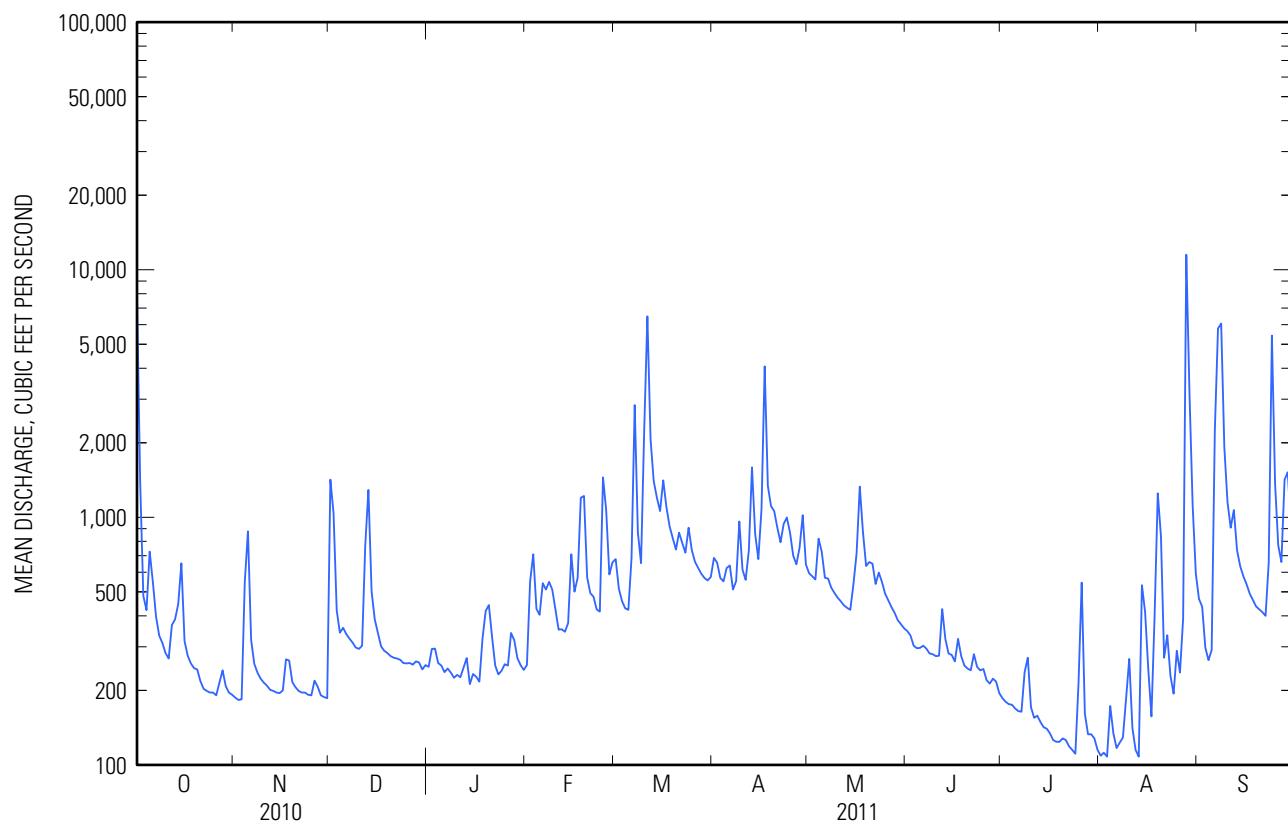
SUMMARY STATISTICS

	Calendar Year 2010			Water Year 2011			Water Years 1974 - 2011		
Annual total	181,687			219,707					
Annual mean	498			602			453		
Highest annual mean							754		
Lowest annual mean							152		
Highest daily mean	7,870			Oct 1			11,500		
Lowest daily mean	88			Sep 22			Aug 28		
Annual seven-day minimum	95			Sep 20			108		
Maximum peak flow							120		
 							Jul 28		
Maximum peak stage							15.23		
Instantaneous low flow							Aug 28		
10 percent exceeds	982			108			17.15		
50 percent exceeds	333			Aug 3			Sep 17, 1999		
90 percent exceeds	138			342			8.4		
 							311		
 							36		
 							Aug 17, 2002		
 							b18,300		
 				Aug 28			b26,900		
 							Sep 17, 1999		

a Also Aug 13.

b From rating curve extended above 18,100 ft³/s on basis of area-velocity study at gage height 16.56 ft.

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued



01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to current year.

pH: October 1965 to September 1966, December 1971 to current year.

WATER TEMPERATURES: October 1964 to current year.

DISSOLVED OXYGEN: October 1971 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1963 to September 1978.

TURBIDITY: October 2005 to current year.

INSTRUMENTATION.--Water-quality monitor since August 1971.

REMARKS.--Specific conductance and water temperature records rated good. pH, dissolved oxygen, and turbidity records rated fair. The reporting precision of the turbidity probe in low turbidity water is +/-0.3 FNU. The lowest reportable value, 0 FNU, does not necessarily indicate a condition of zero turbidity. Except for turbidity, data collection of specific conductance, water temperature, pH, and dissolved oxygen suspended during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the equipment.

Analyses for pH, water temperature, specific conductance, and dissolved oxygen were performed on site. All other sample analyses were performed at the Pennsylvania Department of Environmental Protection laboratory in Harrisburg, Pa. Some values for filtered parameters exceed values for the corresponding unfiltered parameter. These results are within the limits of analytical precision and methods.

Explanations of sample characteristics are available from the USGS NWISWeb Help System pages: <http://waterdata.usgs.gov/nwis/help>

COOPERATION.--Water-quality samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) in cooperation with that agency.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 701 microsiemens/cm, Mar 18, 2007; minimum, 42 microsiemens/cm, Nov 26, 1979.

pH: Maximum, 9.8, Apr 9, 1975; minimum, 6.1, Feb 22, 1976.

WATER TEMPERATURE: Maximum, 31.2°C, Jul 23, 2011; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec 5, 1976; minimum, 3.0 mg/L, Jun 21, 1984.

TURBIDITY: Maximum 980 FNU, Sep 30, 2010; minimum, 0 FNU, many days.

EXTREMES FOR CURRENT YEAR.--

TURBIDITY: Maximum, 750 FNU, Oct. 1; minimum, 0.1 FNU, Sept. 22.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 1 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; -, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Discharge, instantaneous, ft ³ /s (00061)		Dissolved oxygen, water, unfiltered, mg/L (00300)		Osmotic pressure, water, unfiltered, milliosmoles per kilogram (82550)		pH, water, unfiltered, standard units (00400)		pH, water, unfiltered, field, standard units (00403)		Specific conductance, water, unfiltered, µS/cm at 25 °C (90095)		Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)		Temperature, water, °C (00010)		Biochemical oxygen demand, water, unfiltered, 5 days at 20 °C, mg/L (00310)		
		1000	180	12.1	5.0	7.4	7.8	360	351	7.7	.8	1500	254	15.3	9.0	7.6	7.7	445	446	.5
11-02-2010	1000																			
01-25-2011	1500																			
03-08-2011	1430																			
05-18-2011	1500																			
07-20-2011	1500																			
09-12-2011	1600																			

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Dissolved solids dried at 180 °C, water, filtered, mg/L as CaCO ₃ (70300)			Calcium, Suspended solids, water, unfiltered, mg/L as CaCO ₃ (00900)			Magnesium, water, unfiltered, recoverable, mg/L (00916)			Sodium, water, unfiltered, recoverable, mg/L (00927)			Bromide, water, filtered, mg/L as CaCO ₃ (00417)			Chloride, water, filtered, mg/L (00940)		
		Hardness, water, mg/L as CaCO ₃ (00900)	Solids, water, mg/L (00530)	unfiltered, mg/L (00916)	unfiltered, mg/L (00927)	water, mg/L (00929)	endpoint (pH 4.5) titration, mg/L as CaCO ₃ (00417)	fixed	water, mg/L (71870)	water, mg/L (00940)									
11-02-2010	1000	228	120	< 5	29.3	11.8	18.8	74	< .1	43.3									
01-25-2011	1500	254	110	< 5	27.1	10.6	33.2	63	< .1	70.4									
03-08-2011	1430	200	79	16	18.8	7.7	19.9	48	< .1	46.1									
05-18-2011	1500	178	83	16	20.6	7.6	14.3	52	< .1	28.2									
07-20-2011	1500	212	110	< 5	27.2	10.6	20.3	70	< .1	40.9									
09-12-2011	1600	22	88	12	22.0	8.1	14.6	55	< .1	30.9									

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Orthophosphate, Nitrate, Nitrite, Phosphate, Phosphorus, Total nitrogen, Fecal coliform, M-FC MF						Aluminum, water, filtered, µg/L (01106)		
		Sulfate, water, filtered, mg/L (00945)	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate, water, unfiltered, mg/L as N (00620)	Nitrite, water, unfiltered, mg/L as N (00615)	Orthophosphate, water, unfiltered, mg/L as P (70507)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	(0.45 micron) method, col/100 mL (31616)	water, filtered, µg/L (01106)
11-02-2010	1000	23.2	<.020	3.10	<.040	.09	.113	3.4	10	< 10
01-25-2011	1500	22.9	.040	4.34	<.040	.08	.102	4.5	10	--
03-08-2011	1430	15.7	.060	2.23	<.040	.09	.117	2.7	100	< 10
05-18-2011	1500	13.8	.140	2.15	<.040	.06	.114	2.8	3,800	25
07-20-2011	1500	18.5	.040	2.64	<.040	.16	.179	3.3	150	11
09-12-2011	1600	17.1	.050	2.26	<.040	.05	.100	2.8	2,000	11

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Barium, water, unfiltered, recoverable, µg/L (01007)	Cadmium, water, filtered, µg/L (01025)	Copper, water, filtered, µg/L (01040)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, filtered, µg/L (01046)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, filtered, µg/L (01049)	Lead, water, unfiltered, recoverable, µg/L (01051)
11-02-2010	1000	M	M	< 0.20	< 4	< 4	50	120	< 1.0	< 1.0
01-25-2011	1500	M	M	--	--	< 4	--	170	--	< 1.0
03-08-2011	1430	400	M	< 0.20	< 4	< 4	40	750	< 1.0	M
05-18-2011	1500	500	M	< 0.20	< 4	< 4	100	820	< 1.0	M
07-20-2011	1500	M	M	< 0.20	10	20	50	150	M	M
09-12-2011	1600	600	M	< 0.20	< 4	< 4	40	790	< 1.0	M

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 5 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Manganese, water, filtered, recoverable, µg/L (01056)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Nickel, water, filtered, µg/L (01065)	Nickel, water, unfiltered, recoverable, µg/L (01067)	Strontium, water, micrograms per liter (01082)	Zinc, water, filtered, µg/L (01090)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Arsenic, water, filtered, µg/L (01000)	Boron, water, unfiltered, recoverable, micrograms per liter (01022)
11-02-2010	1000	20	20	< 4.0	< 4.0	130	--	--	< 3.0	< 200
01-25-2011	1500	--	40	--	< 4.0	150	--	M	--	< 200
03-08-2011	1430	20	40	< 4.0	< 4.0	90	M	M	< 3.0	< 200
05-18-2011	1500	20	50	< 4.0	< 4.0	100	M	M	< 3.0	< 200
07-20-2011	1500	20	30	< 4.0	< 4.0	150	--	--	< 3.0	< 200
09-12-2011	1600	20	50	< 4.0	< 4.0	100	M	10	< 3.0	< 200

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO
SEPTEMBER 2011**

Part 6 of 6

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MF, membrane filter; N, nitrogen; P, phosphorus; col/100 mL, colonies per 100 milliliters; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; -, no data; <, less than; M, presence verified but not quantified]

Date	Sample start time	Selenium, water, unfiltered, µg/L (01147)
11-02-2010	1000	< 7
01-25-2011	1500	< 7
03-08-2011	1430	< 7
05-18-2011	1500	< 7
07-20-2011	1500	< 7
09-12-2011	1600	< 7

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October				November				December			
1	172	96	118	380	355	365	361	173	289	---	---	---
2	231	147	191	360	354	357	227	169	194	---	---	---
3	277	231	258	366	356	358	---	---	---	---	---	---
4	293	277	286	357	278	337	---	---	---	---	---	---
5	296	266	282	278	230	245	---	---	---	---	---	---
6	283	268	271	290	254	277	---	---	---	---	---	---
7	305	281	294	334	290	309	---	---	---	---	---	---
8	313	301	306	328	313	322	---	---	---	---	---	---
9	314	307	309	336	328	333	---	---	---	---	---	---
10	320	307	314	343	336	340	---	---	---	---	---	---
11	328	314	321	345	342	343	---	---	---	---	---	---
12	330	289	322	348	343	346	---	---	---	---	---	---
13	292	278	287	348	344	346	---	---	---	---	---	---
14	293	281	287	345	338	341	---	---	---	---	---	---
15	288	262	272	350	339	342	---	---	---	---	---	---
16	314	266	288	362	342	346	---	---	---	---	---	---
17	327	308	317	360	335	344	---	---	---	---	---	---
18	334	320	327	351	305	320	---	---	---	---	---	---
19	357	320	332	325	304	312	---	---	---	---	---	---
20	352	331	343	350	319	331	---	---	---	---	---	---
21	344	327	333	367	330	341	---	---	---	---	---	---
22	346	337	341	374	344	356	---	---	---	---	---	---
23	361	346	353	382	341	355	---	---	---	---	---	---
24	373	357	361	353	335	346	---	---	---	---	---	---
25	377	361	368	350	336	342	---	---	---	---	---	---
26	387	363	374	356	338	345	---	---	---	---	---	---
27	383	350	363	354	334	343	---	---	---	---	---	---
28	372	348	358	360	332	347	---	---	---	---	---	---
29	356	333	344	360	331	347	---	---	---	---	---	---
30	350	333	341	363	340	350	---	---	---	---	---	---
31	360	347	351	---	---	---	---	---	---	---	---	---
Month	387	96	310	382	230	336	361	169	242	---	---	---

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	---	---	---	360	337	343	313	305	308	293	283	289
2	---	---	---	354	337	348	313	303	308	298	289	294
3	---	---	---	355	351	353	308	305	306	301	292	296
4	---	---	---	353	346	349	309	302	306	300	268	293
5	---	---	---	348	342	346	307	303	304	282	264	270
6	---	---	---	345	300	337	309	287	295	294	279	288
7	---	---	---	312	208	231	306	288	300	299	289	295
8	---	---	---	292	228	267	312	305	310	301	289	297
9	---	---	---	307	292	301	315	265	285	304	298	301
10	---	---	---	318	166	280	309	270	289	307	300	304
11	---	---	---	200	140	162	320	301	310	309	300	306
12	---	---	---	247	200	227	314	301	309	311	303	307
13	---	---	---	266	247	258	301	222	242	309	307	308
14	---	---	---	277	266	272	279	241	265	311	308	309
15	---	---	---	283	276	281	297	278	290	312	285	307
16	---	---	---	283	252	271	299	223	286	287	264	274
17	---	---	---	278	252	266	223	145	169	287	214	245
18	---	---	---	288	278	285	246	194	228	269	214	240
19	---	---	---	297	288	293	260	245	254	285	269	277
20	---	---	---	303	297	301	268	259	264	293	284	288
21	---	---	---	308	301	303	276	267	271	297	283	290
22	---	---	---	308	296	299	281	273	278	301	293	298
23	---	---	---	306	300	304	282	275	280	312	288	303
24	---	---	---	307	293	301	275	257	263	298	285	289
25	---	---	---	304	293	299	274	265	271	306	296	300
26	335	298	314	311	304	307	287	269	280	312	305	308
27	347	335	344	314	311	312	291	285	289	314	311	313
28	364	343	351	317	313	316	300	276	291	318	313	315
29	---	---	---	316	313	314	276	214	230	321	315	317
30	---	---	---	317	309	314	286	252	274	---	---	---
31	---	---	---	312	309	311	---	---	---	---	---	---
Month	364	298	336	360	140	295	320	145	278	321	214	294

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
				June			July			August		
1	327	323	326	349	333	339	359	354	356	250	243	246
2	331	326	328	350	340	344	367	358	361	251	239	246
3	333	326	329	356	338	344	373	362	367	270	251	262
4	333	327	330	351	334	344	389	362	372	276	268	273
5	337	326	332	352	337	344	367	314	326	286	275	282
6	341	325	331	368	338	345	340	326	334	277	166	216
7	331	324	328	361	344	353	352	337	346	182	123	150
8	331	325	328	373	311	354	362	352	358	200	115	151
9	340	317	334	331	275	300	363	308	338	246	200	227
10	348	330	340	350	312	337	327	277	305	257	243	250
11	346	330	337	369	342	353	304	283	298	269	257	263
12	337	313	328	370	351	359	337	304	324	278	246	261
13	324	286	302	372	353	361	352	334	343	274	256	269
14	332	310	320	384	347	360	347	248	305	283	273	279
15	332	321	325	374	355	364	258	232	242	291	280	285
16	330	298	323	380	344	363	291	258	280	295	287	290
17	332	310	322	360	345	355	301	277	285	297	291	294
18	333	324	328	368	357	360	325	230	293	301	293	296
19	331	317	325	371	358	363	238	176	204	308	299	302
20	336	327	331	367	356	363	237	171	196	308	302	304
21	340	330	334	361	355	357	305	237	275	308	304	306
22	337	323	330	362	355	358	347	277	302	320	307	311
23	331	321	327	364	355	360	331	280	308	321	232	308
24	332	319	326	361	354	358	345	327	333	232	125	148
25	344	327	334	367	218	348	345	256	315	220	166	194
26	338	329	335	295	207	259	331	256	308	264	220	248
27	338	328	334	295	274	282	348	203	326	277	264	271
28	345	313	335	326	288	306	203	84	103	276	175	230
29	345	337	340	351	326	341	182	122	162	249	218	232
30	346	333	338	358	350	354	224	182	202	267	232	249
31	---	---	---	359	356	359	244	224	236	---	---	---
Month	348	286	329	384	207	345	389	84	294	321	115	255

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median	
October				November				December				January	
1	7.0	6.5	6.7	7.8	7.6	7.7	7.7	7.4	7.6	---	---	---	
2	7.2	6.8	7.1	7.8	7.6	7.7	7.4	7.4	7.4	---	---	---	
3	7.3	7.1	7.3	7.9	7.6	7.7	---	---	---	---	---	---	
4	7.4	7.3	7.3	7.7	7.3	7.6	---	---	---	---	---	---	
5	7.5	7.4	7.4	7.4	7.2	7.3	---	---	---	---	---	---	
6	7.4	7.3	7.4	7.6	7.1	7.3	---	---	---	---	---	---	
7	7.4	7.3	7.3	8.0	7.1	7.5	---	---	---	---	---	---	
8	7.4	7.3	7.4	8.1	7.5	7.6	---	---	---	---	---	---	
9	7.4	7.3	7.4	8.2	7.6	7.6	---	---	---	---	---	---	
10	7.4	7.3	7.4	8.0	7.5	7.6	---	---	---	---	---	---	
11	7.4	7.3	7.4	8.0	7.5	7.6	---	---	---	---	---	---	
12	7.5	7.3	7.3	8.2	7.6	7.7	---	---	---	---	---	---	
13	7.4	7.2	7.3	8.2	7.6	7.7	---	---	---	---	---	---	
14	7.4	7.2	7.3	8.2	7.6	7.7	---	---	---	---	---	---	
15	7.2	7.1	7.2	7.9	7.6	7.7	---	---	---	---	---	---	
16	7.2	7.1	7.2	7.7	7.6	7.7	---	---	---	---	---	---	
17	7.3	7.1	7.2	7.9	7.6	7.8	---	---	---	---	---	---	
18	7.8	7.2	7.2	7.8	7.6	7.7	---	---	---	---	---	---	
19	7.8	7.6	7.7	7.8	7.6	7.7	---	---	---	---	---	---	
20	7.9	7.7	7.8	8.0	7.7	7.8	---	---	---	---	---	---	
21	7.9	7.7	7.8	8.0	7.7	7.8	---	---	---	---	---	---	
22	7.9	7.7	7.8	8.0	7.7	7.8	---	---	---	---	---	---	
23	7.9	7.7	7.8	8.0	7.7	7.8	---	---	---	---	---	---	
24	8.0	7.7	7.8	8.1	7.7	7.9	---	---	---	---	---	---	
25	8.0	7.7	7.8	7.9	7.7	7.8	---	---	---	---	---	---	
26	7.8	7.6	7.7	7.9	7.6	7.8	---	---	---	---	---	---	
27	7.6	7.6	7.6	8.0	7.7	7.8	---	---	---	---	---	---	
28	7.7	7.5	7.6	8.1	7.7	7.9	---	---	---	---	---	---	
29	7.8	7.6	7.7	8.1	7.8	7.9	---	---	---	---	---	---	
30	7.8	7.6	7.6	8.1	7.7	7.8	---	---	---	---	---	---	
31	7.8	7.6	7.7	---	---	---	---	---	---	---	---	---	
Max	8.0	7.7	7.8	8.2	7.8	7.9	7.7	7.4	7.6	---	---	---	
Min	7.0	6.5	6.7	7.4	7.1	7.3	7.4	7.4	7.4	---	---	---	

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median	
February				March				April				May	
1	---	---	---	7.7	7.6	7.6	8.3	7.6	7.8	8.0	7.5	7.7	
2	---	---	---	7.7	7.6	7.7	8.6	7.6	8.0	8.2	7.5	7.7	
3	---	---	---	7.7	7.6	7.7	8.9	7.6	8.2	8.4	7.4	7.7	
4	---	---	---	7.7	7.6	7.7	9.1	7.6	8.2	8.0	7.4	7.5	
5	---	---	---	7.8	7.6	7.7	8.7	7.6	8.3	7.9	7.5	7.6	
6	---	---	---	7.7	7.5	7.6	8.9	7.6	8.3	8.0	7.5	7.7	
7	---	---	---	7.5	7.5	7.5	8.9	7.6	8.4	8.0	7.5	7.7	
8	---	---	---	7.6	7.5	7.6	8.8	7.7	7.8	8.0	7.5	7.7	
9	---	---	---	7.7	7.6	7.6	8.3	7.6	7.9	8.0	7.5	7.7	
10	---	---	---	7.6	7.3	7.6	8.3	7.5	7.9	8.1	7.5	7.7	
11	---	---	---	7.4	7.2	7.3	8.3	7.6	8.0	8.0	7.5	7.8	
12	---	---	---	7.6	7.4	7.5	8.0	7.5	7.6	8.1	7.5	7.7	
13	---	---	---	7.6	7.5	7.5	7.6	7.5	7.5	8.1	7.5	7.8	
14	---	---	---	7.6	7.5	7.6	7.7	7.5	7.6	7.8	7.5	7.6	
15	---	---	---	7.6	7.6	7.6	7.7	7.5	7.6	7.7	7.5	7.6	
16	---	---	---	7.6	7.6	7.6	7.6	7.4	7.6	7.6	7.4	7.5	
17	---	---	---	7.6	7.4	7.5	7.4	7.2	7.3	7.5	7.4	7.4	
18	---	---	---	7.6	7.5	7.5	7.5	7.4	7.4	7.5	7.4	7.4	
19	---	---	---	7.6	7.5	7.6	7.5	7.4	7.5	7.6	7.4	7.5	
20	---	---	---	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.4	7.5	
21	---	---	---	7.6	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5	
22	---	---	---	7.7	7.5	7.6	7.7	7.5	7.6	7.6	7.4	7.5	
23	---	---	---	7.6	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5	
24	---	---	---	7.7	7.5	7.6	7.8	7.5	7.6	7.6	7.4	7.5	
25	---	---	---	7.8	7.6	7.6	7.9	7.5	7.6	7.7	7.4	7.5	
26	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.5	7.7	7.7	7.4	7.6	
27	7.6	7.6	7.6	7.9	7.6	7.7	8.1	7.5	7.7	7.8	7.5	7.6	
28	7.6	7.6	7.6	7.9	7.6	7.7	7.9	7.4	7.6	7.9	7.5	7.6	
29	---	---	---	8.0	7.6	7.8	7.6	7.3	7.4	8.0	7.5	7.7	
30	---	---	---	8.1	7.6	7.8	8.0	7.4	7.6	---	---	---	
31	---	---	---	8.0	7.6	7.8	---	---	---	---	---	---	
Max	7.6	7.6	7.6	8.1	7.6	7.8	9.1	7.7	8.4	8.4	7.5	7.8	
Min	7.6	7.5	7.5	7.4	7.2	7.3	7.4	7.2	7.3	7.5	7.4	7.4	

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
				June			July			August		
1	8.6	7.5	8.0	8.3	7.6	7.8	8.0	7.4	7.5	7.2	7.0	7.1
2	8.6	7.6	8.2	8.2	7.6	7.8	8.1	7.4	7.6	7.1	7.0	7.1
3	8.7	7.6	8.2	8.2	7.5	7.7	7.7	7.4	7.5	7.2	7.0	7.1
4	8.6	7.6	8.2	8.2	7.5	7.7	7.6	7.4	7.4	7.3	7.1	7.2
5	8.6	7.6	8.1	8.2	7.5	7.7	7.9	7.3	7.5	7.3	7.1	7.2
6	8.7	7.7	8.2	8.2	7.5	7.7	7.9	7.3	7.5	7.2	6.8	7.0
7	8.7	7.6	8.4	8.1	7.5	7.6	7.9	7.3	7.5	6.9	6.6	6.7
8	8.7	7.6	8.2	8.0	7.4	7.6	7.9	7.3	7.5	6.8	6.5	6.6
9	8.5	7.5	8.0	7.7	7.2	7.4	7.6	7.3	7.4	6.9	6.8	6.8
10	8.3	7.5	7.8	8.0	7.4	7.6	7.7	7.3	7.4	7.0	6.9	6.9
11	7.8	7.5	7.6	8.1	7.4	7.6	7.8	7.3	7.5	7.0	6.9	6.9
12	7.7	7.5	7.5	8.1	7.4	7.6	8.0	7.4	7.5	7.1	6.9	7.0
13	7.7	7.4	7.6	8.0	7.4	7.6	7.9	7.4	7.5	7.1	7.0	7.0
14	7.8	7.5	7.6	8.1	7.4	7.6	7.5	7.2	7.3	7.3	7.0	7.1
15	7.9	7.6	7.7	8.0	7.5	7.6	7.3	7.2	7.2	7.2	7.0	7.1
16	7.8	7.6	7.7	8.2	7.5	7.7	7.5	7.2	7.3	7.3	7.1	7.1
17	7.8	7.6	7.7	8.2	7.5	7.6	7.6	7.2	7.4	7.4	7.1	7.2
18	7.9	7.6	7.7	8.3	7.5	7.6	7.4	7.1	7.3	7.5	7.2	7.3
19	8.0	7.6	7.7	8.3	7.4	7.7	7.1	6.9	7.0	7.6	7.2	7.4
20	8.0	7.6	7.7	8.2	7.5	7.7	7.0	6.9	7.0	7.5	7.3	7.4
21	8.0	7.6	7.7	8.2	7.5	7.7	7.2	7.0	7.1	7.7	7.3	7.5
22	8.0	7.6	7.7	8.2	7.5	7.7	7.3	7.2	7.2	7.7	7.3	7.4
23	7.9	7.5	7.6	8.2	7.4	7.6	7.4	7.1	7.3	7.3	7.0	7.1
24	8.0	7.5	7.7	8.1	7.4	7.6	7.5	7.2	7.3	7.0	6.4	6.6
25	8.1	7.6	7.7	8.0	7.1	7.5	7.3	7.0	7.2	6.9	6.7	6.8
26	8.2	7.6	7.8	7.4	7.0	7.2	7.4	7.0	7.2	7.2	6.9	7.0
27	8.1	7.6	7.7	7.6	7.2	7.3	7.2	7.0	7.2	7.2	7.0	7.1
28	8.1	7.5	7.7	7.6	7.3	7.4	7.0	6.4	6.6	7.2	6.9	7.0
29	8.2	7.5	7.7	7.8	7.3	7.5	6.9	6.6	6.8	7.2	7.0	7.0
30	8.2	7.6	7.8	8.0	7.4	7.5	7.2	6.9	7.0	7.2	7.1	7.1
31	---	---	---	8.0	7.4	7.5	7.2	7.0	7.1	---	---	---
Max	8.7	7.7	8.4	8.3	7.6	7.8	8.1	7.4	7.6	7.7	7.3	7.5
Min	7.7	7.4	7.5	7.4	7.0	7.2	6.9	6.4	6.6	6.8	6.4	6.6

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued
**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	
October				November				December				January	
1	20.2	18.3	19.4	10.2	8.9	9.5	11.1	7.4	9.7	---	---	---	
2	18.3	16.7	17.3	9.0	7.5	8.3	9.8	6.6	7.9	---	---	---	
3	16.9	15.5	16.1	8.4	6.8	7.7	---	---	---	---	---	---	
4	16.1	14.3	15.2	10.1	7.8	8.7	---	---	---	---	---	---	
5	14.3	14.0	14.2	10.4	9.4	9.8	---	---	---	---	---	---	
6	14.8	13.8	14.3	9.7	8.5	9.0	---	---	---	---	---	---	
7	15.6	13.9	14.8	8.8	7.5	8.1	---	---	---	---	---	---	
8	15.6	14.2	15.0	8.1	7.0	7.7	---	---	---	---	---	---	
9	15.7	14.3	15.1	9.3	7.8	8.6	---	---	---	---	---	---	
10	15.4	14.2	15.0	10.1	8.6	9.3	---	---	---	---	---	---	
11	15.9	14.3	15.1	9.5	8.0	8.9	---	---	---	---	---	---	
12	17.1	15.6	16.3	8.2	6.9	7.6	---	---	---	---	---	---	
13	15.7	13.1	13.9	7.8	6.3	7.1	---	---	---	---	---	---	
14	13.3	11.6	12.1	7.8	6.4	7.2	---	---	---	---	---	---	
15	12.6	11.5	12.0	9.0	7.3	8.3	---	---	---	---	---	---	
16	12.8	11.5	12.2	10.5	8.9	9.6	---	---	---	---	---	---	
17	12.9	11.3	12.2	11.8	10.5	11.2	---	---	---	---	---	---	
18	12.9	11.8	12.4	10.9	9.4	10.1	---	---	---	---	---	---	
19	12.9	12.4	12.6	9.4	7.5	8.7	---	---	---	---	---	---	
20	12.5	11.9	12.2	7.7	6.8	7.3	---	---	---	---	---	---	
21	12.8	11.6	12.1	7.4	6.4	6.9	---	---	---	---	---	---	
22	12.1	10.7	11.5	8.6	6.9	7.8	---	---	---	---	---	---	
23	11.3	9.6	10.6	8.9	8.0	8.5	---	---	---	---	---	---	
24	12.6	10.7	11.7	8.6	7.7	8.2	---	---	---	---	---	---	
25	14.0	11.8	12.9	7.7	7.0	7.3	---	---	---	---	---	---	
26	15.6	13.9	14.7	7.8	7.0	7.5	---	---	---	---	---	---	
27	17.3	15.6	16.6	7.2	5.3	6.2	---	---	---	---	---	---	
28	17.5	16.2	17.1	5.4	4.5	5.0	---	---	---	---	---	---	
29	16.2	13.0	14.6	4.8	3.8	4.4	---	---	---	---	---	---	
30	13.0	11.2	11.9	7.4	4.2	5.5	---	---	---	---	---	---	
31	11.2	10.1	10.7	---	---	---	---	---	---	---	---	---	
Month	20.2	9.6	13.9	11.8	3.8	8.0	11.1	6.6	8.8	---	---	---	

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	---	---	---	7.5	6.0	6.8	7.4	6.4	6.9	15.0	13.5	14.5
2	---	---	---	6.6	4.9	5.9	8.2	6.2	7.2	16.0	14.1	14.9
3	---	---	---	6.0	4.0	4.9	10.0	7.0	8.5	18.8	15.5	17.0
4	---	---	---	5.6	3.6	4.7	12.9	9.4	10.9	18.8	14.5	16.7
5	---	---	---	8.3	5.5	6.8	12.9	10.8	12.4	14.7	12.9	14.0
6	---	---	---	9.5	8.3	8.8	10.8	8.8	9.9	15.4	12.7	14.2
7	---	---	---	9.3	6.6	7.5	11.7	9.4	10.5	16.3	13.9	15.2
8	---	---	---	6.9	5.3	6.3	11.5	9.0	10.2	16.8	14.2	15.6
9	---	---	---	6.6	5.6	6.0	10.4	8.3	9.3	17.1	14.6	16.0
10	---	---	---	9.3	6.2	7.3	11.8	10.0	10.8	17.5	14.7	16.3
11	---	---	---	9.9	8.7	9.3	16.0	11.2	13.1	18.1	15.5	16.9
12	---	---	---	8.7	7.3	7.9	16.1	13.4	15.2	18.5	16.1	17.5
13	---	---	---	8.1	6.8	7.5	13.4	10.6	11.5	18.0	16.5	17.3
14	---	---	---	7.7	6.5	7.0	13.8	10.1	11.8	17.4	15.8	16.4
15	---	---	---	7.9	5.9	6.9	14.3	12.3	13.3	17.0	15.4	16.1
16	---	---	---	9.1	7.3	8.1	13.6	11.1	11.8	18.3	16.7	17.4
17	---	---	---	10.9	8.5	9.6	13.0	11.1	12.0	18.1	16.1	16.8
18	---	---	---	12.1	9.7	10.7	12.8	11.6	12.1	16.9	15.9	16.3
19	---	---	---	12.4	11.1	11.8	12.0	10.8	11.2	17.5	16.2	16.9
20	---	---	---	11.5	8.9	9.9	14.1	10.8	12.1	17.1	16.2	16.6
21	---	---	---	9.8	8.4	9.0	14.5	12.8	13.7	18.6	15.5	17.1
22	---	---	---	10.0	8.4	9.2	13.8	10.9	11.8	18.4	17.2	17.7
23	---	---	---	9.8	7.5	8.6	11.6	10.1	10.6	17.8	16.4	17.0
24	---	---	---	7.5	6.7	7.0	16.3	11.6	13.6	20.0	17.2	18.4
25	---	---	---	7.5	5.4	6.5	18.7	15.5	17.0	21.1	18.5	19.9
26	5.0	3.5	4.3	7.6	5.6	6.8	20.2	17.6	18.8	21.9	19.4	20.7
27	7.0	4.7	5.8	8.1	5.9	7.1	20.0	19.0	19.5	22.1	20.1	21.2
28	7.7	6.5	7.1	7.7	5.8	6.7	19.6	18.5	19.2	22.7	20.5	21.6
29	---	---	---	7.9	5.2	6.7	18.5	15.7	17.1	23.3	21.2	22.2
30	---	---	---	7.7	6.2	7.0	15.7	13.9	14.8	---	---	---
31	---	---	---	7.3	6.9	7.0	---	---	---	---	---	---
Month	7.7	3.5	5.7	12.4	3.6	7.6	20.2	6.2	12.6	23.3	12.7	17.2

Water-Data Report 2011

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	25.4	23.4	24.4	24.2	21.2	22.8	29.1	25.8	27.3	21.2	20.0	20.7
2	24.5	22.2	23.4	24.5	21.3	23.0	27.9	25.2	26.5	20.8	18.2	19.0
3	22.2	20.1	21.0	24.7	22.4	23.5	26.3	24.5	25.3	20.8	18.3	19.4
4	20.4	18.6	19.4	24.8	23.0	23.9	24.5	22.6	23.6	22.4	20.4	21.4
5	19.5	18.7	19.1	25.7	22.6	24.2	24.9	21.9	23.3	22.5	21.8	22.1
6	21.1	18.4	19.8	26.1	23.7	24.9	25.7	23.1	24.3	21.9	18.2	19.9
7	22.2	20.0	21.1	26.2	23.8	25.1	26.4	24.1	25.2	20.4	18.0	18.7
8	23.9	20.8	22.4	25.7	23.8	24.9	27.1	24.7	25.9	20.6	19.8	20.4
9	25.5	22.9	24.2	25.6	22.4	24.1	26.1	24.4	25.1	20.8	19.6	20.2
10	25.6	23.8	24.7	26.6	23.4	25.1	25.1	22.9	24.1	21.5	20.2	20.8
11	24.8	23.2	24.0	27.3	24.0	25.8	25.6	22.9	24.2	21.1	20.1	20.4
12	23.2	21.6	22.1	28.1	25.3	26.8	25.3	21.9	23.6	20.7	19.3	20.1
13	21.9	20.8	21.4	27.1	25.3	26.2	23.9	22.0	23.1	20.9	19.5	20.3
14	21.1	19.5	20.4	26.1	23.3	24.6	23.1	21.2	22.0	21.2	19.5	20.4
15	21.7	18.9	20.3	25.4	22.8	24.3	22.0	21.2	21.5	21.0	18.8	20.1
16	20.9	19.9	20.5	26.3	22.7	24.4	22.7	21.2	21.9	18.8	16.6	17.2
17	21.8	19.6	20.6	26.6	22.8	24.7	24.2	21.1	22.7	16.7	15.4	15.8
18	22.7	20.7	21.7	27.3	23.7	25.5	23.6	22.1	22.7	16.3	14.6	15.5
19	23.5	21.2	22.4	28.7	25.2	26.8	22.8	21.0	21.9	16.3	14.9	15.7
20	23.9	22.1	22.9	28.4	25.6	27.1	23.2	20.9	22.0	16.5	15.9	16.2
21	23.6	21.9	22.7	29.6	26.1	27.8	23.4	22.2	22.7	17.7	16.4	17.0
22	24.4	22.3	23.4	31.0	27.5	29.2	23.5	21.9	22.7	19.1	17.7	18.3
23	24.3	23.2	23.7	31.2	28.3	29.6	22.4	20.6	21.7	19.4	18.6	18.8
24	24.7	22.8	23.6	30.2	28.3	29.2	22.6	20.1	21.4	20.6	19.4	20.1
25	24.1	22.4	23.3	28.7	24.5	27.7	22.0	21.3	21.7	20.2	19.4	19.9
26	23.4	21.6	22.6	26.9	23.8	25.4	23.8	21.2	22.5	20.4	19.4	19.9
27	22.7	21.5	22.1	27.5	24.9	26.2	23.6	21.9	23.0	20.6	19.6	20.1
28	22.7	21.0	21.8	26.5	24.7	25.5	21.9	21.0	21.6	21.1	20.1	20.6
29	24.5	21.7	23.0	27.1	24.3	25.8	21.0	19.7	20.4	21.0	19.7	20.5
30	24.3	21.7	23.1	28.8	25.6	27.1	21.1	19.4	20.3	19.7	18.3	18.9
31	---	---	---	28.6	25.5	27.1	21.4	19.3	20.4	---	---	---
Month	25.6	18.4	22.2	31.2	21.2	25.8	29.1	19.3	23.1	22.5	14.6	19.3

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
October				November				December				January
1	8.8	7.1	7.6	12.3	11.1	11.6	12.1	9.8	10.7	---	---	---
2	9.6	7.7	9.3	12.9	11.6	12.1	11.4	10.2	11.1	---	---	---
3	10.2	9.5	9.9	13.1	11.9	12.4	---	---	---	---	---	---
4	10.5	9.9	10.2	12.2	10.5	11.4	---	---	---	---	---	---
5	11.0	10.5	10.8	10.6	10.3	10.5	---	---	---	---	---	---
6	11.0	10.5	10.8	11.4	10.1	10.9	---	---	---	---	---	---
7	10.9	10.3	10.5	12.2	10.4	11.6	---	---	---	---	---	---
8	10.8	10.2	10.5	12.4	11.6	11.9	---	---	---	---	---	---
9	10.9	10.3	10.5	11.7	9.6	11.1	---	---	---	---	---	---
10	11.0	10.3	10.6	12.2	11.2	11.6	---	---	---	---	---	---
11	11.0	10.3	10.6	12.3	11.2	11.7	---	---	---	---	---	---
12	10.6	9.9	10.3	12.9	11.7	12.2	---	---	---	---	---	---
13	11.3	10.2	10.9	13.1	12.0	12.5	---	---	---	---	---	---
14	11.6	11.0	11.3	13.3	12.0	12.6	---	---	---	---	---	---
15	11.6	11.2	11.4	13.1	11.7	12.3	---	---	---	---	---	---
16	11.7	11.1	11.3	11.8	10.9	11.5	---	---	---	---	---	---
17	11.9	11.1	11.5	11.7	10.4	11.0	---	---	---	---	---	---
18	11.9	10.8	11.2	12.1	10.5	11.2	---	---	---	---	---	---
19	11.1	10.3	10.7	12.6	11.1	11.8	---	---	---	---	---	---
20	11.6	10.4	10.9	13.4	11.7	12.5	---	---	---	---	---	---
21	11.5	10.5	11.0	13.6	12.1	12.7	---	---	---	---	---	---
22	11.8	10.6	11.2	13.4	12.0	12.6	---	---	---	---	---	---
23	12.2	11.1	11.6	12.8	11.5	12.0	---	---	---	---	---	---
24	12.2	10.9	11.5	13.2	11.3	12.1	---	---	---	---	---	---
25	11.8	10.5	11.0	12.5	11.6	12.0	---	---	---	---	---	---
26	10.6	9.5	10.1	12.6	11.3	11.9	---	---	---	---	---	---
27	9.5	8.7	9.1	13.3	11.6	12.4	---	---	---	---	---	---
28	9.7	8.4	9.0	13.9	12.5	13.2	---	---	---	---	---	---
29	10.4	9.0	9.7	14.4	13.0	13.6	---	---	---	---	---	---
30	11.6	9.9	10.7	14.0	12.1	13.2	---	---	---	---	---	---
31	11.9	10.7	11.2	---	---	---	---	---	---	---	---	---
Month	12.2	7.1	10.5	14.4	9.6	12.0	12.1	9.8	10.9	---	---	---

Water-Data Report 2011

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	---	---	---	12.7	11.8	12.3	13.4	11.5	12.4	11.5	9.9	10.6
2	---	---	---	12.9	12.4	12.7	13.9	11.5	12.6	11.5	9.8	10.5
3	---	---	---	13.4	12.4	13.0	14.1	11.4	12.6	11.5	9.4	10.3
4	---	---	---	13.6	12.9	13.3	14.0	10.6	12.2	10.0	8.7	9.4
5	---	---	---	12.9	11.8	12.6	12.5	9.5	11.0	11.3	9.9	10.5
6	---	---	---	11.8	11.0	11.4	14.2	10.7	12.3	11.6	9.9	10.6
7	---	---	---	12.1	10.8	11.6	14.4	10.8	12.5	11.2	9.6	10.3
8	---	---	---	12.7	12.1	12.5	12.2	10.4	11.3	11.2	9.4	10.3
9	---	---	---	12.9	12.4	12.6	13.0	11.0	11.9	11.1	9.4	10.2
10	---	---	---	12.5	10.6	11.9	12.9	10.6	11.7	11.2	9.2	10.2
11	---	---	---	11.2	10.1	10.5	12.1	10.1	11.0	11.0	9.1	10
12	---	---	---	11.9	11.2	11.6	10.1	8.7	9.4	11.1	9.0	10
13	---	---	---	12.2	11.6	11.9	10.5	9.7	10.2	11.1	9.0	9.9
14	---	---	---	12.5	11.9	12.2	10.9	10.1	10.6	10.2	9.0	9.6
15	---	---	---	12.6	12.0	12.3	10.8	9.8	10.3	10.2	9.2	9.6
16	---	---	---	12.0	11.5	11.8	10.6	9.9	10.3	9.5	8.8	9.1
17	---	---	---	11.6	11.1	11.4	10.2	9.2	9.9	9.4	8.8	9.2
18	---	---	---	11.3	10.6	11.0	10.8	10.0	10.4	9.5	9.2	9.4
19	---	---	---	11.1	10.5	10.8	11.0	10.5	10.7	9.7	9.1	9.4
20	---	---	---	12.0	10.8	11.4	11.0	10.1	10.7	9.7	9.1	9.4
21	---	---	---	11.8	11.3	11.5	10.8	10.0	10.4	9.9	9.1	9.5
22	---	---	---	11.8	11.1	11.4	11.4	10.2	10.8	9.6	8.8	9.2
23	---	---	---	11.5	11.0	11.3	11.4	10.8	11.1	9.8	9.1	9.4
24	---	---	---	12.4	11.4	11.9	11.0	9.7	10.6	9.7	8.8	9.2
25	---	---	---	12.8	12.0	12.3	10.7	9.2	9.9	9.6	8.5	9.0
26	13.4	12.8	13.1	12.8	11.9	12.3	10.6	8.8	9.5	9.7	8.3	8.9
27	13.0	12.3	12.7	12.8	11.8	12.2	10.4	8.5	9.3	9.8	8.1	8.9
28	12.3	11.8	12.0	13.2	11.6	12.3	10.1	8.4	9.1	9.9	8.0	8.8
29	---	---	---	13.3	11.9	12.5	9.6	8.7	9.2	10.2	7.8	8.9
30	---	---	---	13.4	11.6	12.5	11.2	9.6	10.3	---	---	---
31	---	---	---	12.8	11.5	12.1	---	---	---	---	---	---
Month	13.4	11.8	12.6	13.6	10.1	12.0	14.4	8.4	10.8	11.6	7.8	9.7

Water-Data Report 2011

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued

**DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	11.6	7.3	9.3	10.6	7.9	9.0	10.3	6.7	7.9	9.2	8.5	8.8
2	11.8	7.3	9.4	10.6	7.9	9.0	10.4	6.7	8.0	9.5	8.5	9.1
3	12.3	7.8	9.9	10.4	7.6	8.8	8.9	6.8	7.6	9.5	8.7	9.1
4	12.4	8.3	10.2	10.4	7.6	8.8	8.9	6.9	7.8	9.3	8.4	8.8
5	12.1	8.4	10.0	10.5	7.5	8.7	10.2	7.5	8.5	9.2	8.1	8.6
6	12.5	8.6	10.4	10.4	7.4	8.7	10.1	7.5	8.4	8.8	8.2	8.5
7	12.4	8.1	10.2	10.0	7.3	8.4	9.9	7.2	8.2	8.6	7.7	8.1
8	12.2	7.9	9.8	9.6	7.3	8.1	9.8	7.1	8.2	8.4	6.4	7.3
9	11.5	7.2	9.2	9.1	7.1	7.9	8.6	7.0	7.7	8.6	8.3	8.5
10	10.6	6.9	8.6	9.8	7.0	8.2	9.4	7.5	8.2	8.9	8.4	8.6
11	9.0	6.8	7.9	10.1	7.1	8.3	9.9	7.2	8.3	9.0	8.4	8.7
12	8.8	7.3	7.9	9.8	6.8	8.1	10.7	7.4	8.6	9.0	8.6	8.8
13	9.2	7.5	8.3	9.4	6.7	7.9	10.3	7.6	8.6	9.1	8.6	8.8
14	9.6	8.0	8.7	10.4	7.0	8.4	8.2	7.7	8.0	9.2	8.3	8.8
15	9.9	8.2	8.9	10.1	7.3	8.5	8.7	8.1	8.3	9.0	8.3	8.7
16	9.5	8.0	8.7	10.8	7.4	8.7	9.5	8.0	8.6	10.0	8.7	9.4
17	9.6	8.2	8.8	10.9	7.4	8.7	9.9	7.8	8.6	10.3	9.0	9.7
18	9.8	8.0	8.8	11.0	7.3	8.7	8.4	7.7	8.1	10.7	9.2	10.0
19	9.8	7.9	8.7	10.9	7.0	8.4	8.2	7.8	8.0	10.9	9.6	10.1
20	9.8	7.7	8.6	10.5	6.8	8.3	8.3	7.8	8.0	10.4	9.4	9.9
21	9.6	7.8	8.6	10.8	6.9	8.3	8.7	7.6	8.0	10.7	9.3	9.9
22	9.6	7.8	8.6	10.6	6.6	8.0	8.9	7.9	8.3	11.1	9.0	9.9
23	9.4	7.4	8.3	10.4	6.3	7.8	9.5	7.9	8.6	9.6	8.5	9.1
24	9.6	7.6	8.4	10.1	6.2	7.7	9.9	8.1	8.8	8.5	6.7	7.5
25	9.8	7.6	8.6	9.5	6.4	7.5	8.6	7.7	8.1	9.1	8.4	8.8
26	10.2	7.8	8.9	8.2	7.0	7.5	9.5	7.7	8.4	9.3	8.7	8.9
27	10.1	8.0	8.9	8.8	6.6	7.5	8.2	7.5	7.9	9.3	8.7	8.9
28	10.2	8.1	8.9	8.7	6.7	7.5	8.0	6.4	6.7	8.7	8.3	8.5
29	10.3	8.0	8.9	9.6	6.9	8.0	8.5	6.7	8.0	8.6	8.4	8.5
30	10.3	7.7	8.9	9.8	6.9	8.0	9.4	8.5	8.9	9.2	8.5	8.9
31	---	---	---	10.0	6.8	8.0	9.2	8.6	8.9	---	---	---
Month	12.5	6.8	9.0	11.0	6.2	8.2	10.7	6.4	8.2	11.1	6.4	8.9

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	
October				November				December				January	
1	750	44	140	2.0	1.0	1.4	96	1.9	38	4.2	1.8	2.2	
2	59	17	33	2.1	0.9	1.3	100	28	51	7.6	2.2	3.3	
3	29	11	18	2.1	1.0	1.4	29	8.3	16	7.8	2.5	3.2	
4	39	10	18	26	1.3	7.2	8.3	3.5	5.0	3.2	2.3	2.6	
5	83	9.6	17	26	6.3	13	4.3	2.2	2.8	4.6	2.3	2.9	
6	190	7.2	14	6.3	3.5	4.7	2.7	2.2	2.4	5.0	2.3	2.8	
7	27	5.1	8.5	3.8	2.1	2.6	3.5	2.1	2.5	50	2.4	4.9	
8	28	5.9	10	2.6	1.7	2.1	4.7	2.3	2.8	4.2	2.6	3.1	
9	20	5.0	7.2	2.6	1.6	1.9	4.7	2.5	3.1	22	2.2	3.3	
10	12	2.9	4.9	2.3	1.7	2.0	4.3	2.6	3.1	3.1	2.2	2.6	
11	12	2.9	4.0	2.5	1.6	2.0	3.9	2.4	2.9	3.1	2.4	2.7	
12	11	3.2	5.6	2.8	1.8	2.2	33	2.6	12	3.3	2.5	2.8	
13	10	4.1	6.1	---	---	---	43	16	29	3.5	2.4	2.9	
14	14	3.6	5.5	---	---	---	16	6.9	10	3.7	2.6	3.1	
15	17	4.5	8.8	---	---	---	9.6	4.5	5.4	3.4	2.7	2.9	
16	66	1.4	5.9	2.0	0.9	1.3	5.1	3.1	3.7	3.5	2.7	3.0	
17	2.7	1.3	1.9	2.6	1.5	1.9	7.9	2.4	3.1	4.0	2.8	3.1	
18	2.7	1.3	1.8	2.8	1.6	2.2	3.0	2.0	2.3	10	2.9	5.8	
19	2.6	1.4	1.9	3.5	1.4	2.0	2.5	1.8	2.1	10	5.7	7.4	
20	2.2	1.1	1.6	2.8	1.6	1.9	3.5	1.7	2.2	10	6.6	8.3	
21	2.2	1.1	1.5	2.6	1.5	1.9	3.0	1.8	2.2	8.3	5.0	6.2	
22	1.9	1.0	1.4	2.9	1.5	1.8	2.8	1.9	2.3	11	3.5	5.7	
23	2.0	1.0	1.4	3.4	1.6	2.0	3.3	2.0	2.5	7.2	3.1	4.3	
24	2.7	1.1	1.6	21	1.6	2.6	3.5	2.0	2.5	14	3.0	5.4	
25	2.1	1.0	1.6	2.7	1.6	2.0	3.5	2.0	2.5	12	4.2	7.7	
26	3.6	1.3	1.8	3.5	1.6	1.8	5.5	2.0	2.8	160	3.7	12	
27	3.6	1.4	1.9	2.4	1.4	1.6	4.7	2.1	2.7	230	4.6	14	
28	3.8	1.5	2.2	1.7	1.3	1.5	2.8	1.8	2.2	9.8	2.9	5.3	
29	2.3	1.2	1.7	1.9	1.4	1.5	2.4	1.8	2.0	4.4	2.7	3.3	
30	3.3	1.1	1.6	2.2	1.2	1.5	3.0	0.6	1.9	5.8	2.7	4.1	
31	2.1	1.0	1.4	---	---	---	2.6	1.7	2.0	10	2.9	5.8	
Month	750	1.0	11	26	0.9	2.6	100	0.6	7.3	230	1.8	4.7	

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	13	3.8	8.0	7.7	4.8	6.0	3.0	1.5	1.9	4.3	2.4	3.3
2	21	3.0	11	5.1	3.3	4.1	2.5	1.6	2.0	4.7	2.6	3.6
3	20	9.3	14	3.9	2.7	3.1	3.2	1.5	1.8	17	3.3	6.3
4	9.3	5.2	7.0	3.0	2.3	2.7	2.4	1.5	1.9	18	3.2	7.4
5	8.7	4.8	6.3	3.6	2.4	2.8	3.5	2.1	2.5	38	3.5	7.7
6	85	5.7	9.5	110	2.9	16	4.2	2.1	2.8	38	2.2	3.8
7	6.7	4.2	5.1	150	43	100	5.0	1.9	2.2	5.7	2.8	3.4
8	6.3	4.4	5.1	43	8.8	20	3.9	1.9	2.3	4.2	2.2	3.2
9	7.5	4.2	5.4	9.4	4.9	6.4	7.8	3.9	5.7	3.6	2.2	3.0
10	6.0	3.8	4.8	200	4.9	59	4.9	3.0	3.7	12	2.9	5.8
11	6.2	3.5	4.0	170	52	100	4.5	2.1	2.6	4.5	2.4	3.1
12	4.8	3.4	4.0	78	16	42	12	2.1	4.0	4.6	2.0	2.9
13	4.6	3.4	3.7	37	9.1	14	38	12	27	5.8	2.2	2.8
14	38	3.4	6.0	18	7.1	9.0	26	5.8	13	8.5	2.4	3.5
15	24	12	17	---	---	---	16	3.2	4.6	56	3.1	7.5
16	13	7.6	9.8	20	4.7	12	150	3.0	21	39	6.8	17
17	19	6.2	8.4	12	5.9	8.0	170	41	93	47	11	35
18	53	19	36	8.1	4.3	5.3	41	7.4	18	34	7.8	16
19	130	25	46	5.2	3.7	4.5	11	4.1	6.1	8.7	4.1	6.1
20	25	9.0	14	4.5	2.9	3.6	9.3	4.1	4.8	8.2	4.4	5.9
21	10	7.6	8.6	5.6	3.1	4.3	5.4	3.6	4.5	11	4.2	6.2
22	10	7.2	8.8	5.0	3.1	3.9	4.8	2.6	3.4	5.2	3.1	4.1
23	13	7.0	8.5	4.0	2.9	3.4	6.9	2.6	4.0	5.9	4.3	4.9
24	11	6.4	7.5	5.9	3.8	4.4	7.5	4.7	6.2	6.5	3.8	5.0
25	89	6.7	42	4.0	3.2	3.6	7.8	3.6	4.8	5.3	3.1	4.1
26	63	12	32	5.0	3.1	3.6	24	3.2	8.5	6.7	3.0	3.9
27	12	5.1	7.6	4.0	2.9	3.3	6.6	2.8	3.7	4.7	2.9	3.7
28	7.6	4.9	6.0	---	---	---	22	2.8	5.5	4.5	2.7	3.5
29	---	---	---	---	---	---	40	11	26	4.2	2.5	3.3
30	---	---	---	---	---	---	11	3.4	5.9	---	---	---
31	---	---	---	2.4	1.4	1.7	---	---	---	---	---	---
Month	130	3.0	12	200	1.4	17	170	1.5	9.8	56	2.0	6.4

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
				June			July			August		
1	16	2.3	4.4	5.5	1.3	2.5	2.7	0.8	1.4	14	7.7	10
2	6.8	3.4	4.9	3.3	1.3	2.1	2.1	0.8	1.4	120	6.8	12
3	4.3	2.4	3.1	5.8	1.3	2.2	3.4	0.8	1.4	11	4.3	6.1
4	9.6	2.4	3.8	3.0	1.4	2.3	6.1	1.4	2.6	6.5	3.5	4.5
5	4.4	2.8	3.4	130	2.9	36	3.4	1.4	2.1	9.6	2.7	4.0
6	4.7	2.7	3.4	160	1.1	13	2.3	1.0	1.6	230	9.6	73
7	12	2.9	4.1	2.7	1.1	1.7	2.1	0.9	1.5	410	35	95
8	7.8	3.5	4.4	26	1.1	4.8	2.3	0.8	1.4	350	35	120
9	---	---	---	26	5.7	14	24	0.7	7.6	55	18	32
10	---	---	---	21	2.1	3.9	24	4.0	9.7	58	8.9	17
11	---	---	---	3.1	1.2	1.9	8.2	1.9	3.1	10	6.8	8.3
12	---	---	---	2.5	1.1	1.6	3.5	1.0	1.9	18	6.7	9.7
13	---	---	---	2.1	0.7	1.4	6.6	0.9	1.7	18	3.6	6.2
14	---	---	---	3.2	0.8	1.3	53	1.7	23	4.9	1.7	2.9
15	---	---	---	2.2	0.8	1.3	36	6.3	13	4.1	1.5	2.6
16	9.5	3.3	4.7	4.4	0.8	1.6	8.0	3.5	5.3	3.8	1.1	2.2
17	9.7	4.3	6.6	2.0	0.8	1.3	5.3	2.6	3.7	2.2	1.0	1.5
18	8.0	3.0	4.5	36	1.1	3.7	34	3.0	16	3.1	0.8	1.2
19	6.5	3.0	4.2	2.2	0.3	1.2	450	16	120	1.8	0.6	1.0
20	6.1	2.7	3.8	2.6	0.6	1.1	220	16	80	1.8	0.5	0.8
21	6.2	2.6	4.4	2.7	0.5	1.2	65	5.0	13	1.7	0.4	0.7
22	6.1	3.7	4.5	1.9	0.6	1.2	13	6.1	8.9	1.7	0.1	0.5
23	6.9	2.6	3.7	4.3	0.9	1.4	14	3.0	5.2	150	0.2	8.3
24	4.2	2.2	3.1	7.3	1.4	3.3	4.9	2.6	3.4	620	63	180
25	4.8	2.0	3.1	240	1.7	22	51	2.5	17	420	39	92
26	52	1.7	4.1	500	9.3	98	24	3.4	7.8	260	7.3	62
27	3.7	1.6	2.6	10	3.5	5.7	670	2.6	18	240	4.9	14
28	13	2.0	4.1	10	2.4	3.7	670	66	150	100	5.5	43
29	6.5	1.7	2.8	4.4	1.9	2.8	570	38	67	42	19	31
30	7.6	1.4	2.4	4.6	1.7	2.3	40	21	30	280	9.1	21
31	---	---	---	2.8	1.2	1.7	21	13	17	---	---	---
Month	52	1.4	3.9	500	0.3	7.8	670	0.7	21	620	0.1	29

	Max	Min	Mean
Year	750	0.1	11

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA—Continued**CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--October 2005 to current year.

INSTRUMENTATION.--Precipitation gage interfaced with data collection platform.

REMARKS.--Records rated poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY SUM VALUES
[>, greater than]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.07	0.00	1.66	0.00	0.01	0.00	0.29	0.00	0.00	0.00	0.02	0.00
2	0.00	0.00	0.00	0.06	1.20	0.13	0.00	0.00	0.00	0.00	0.00	0.00
3	0.08	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.12	0.00
4	0.64	1.81	0.00	0.00	0.04	0.00	0.00	0.64	0.00	0.00	0.02	0.00
5	0.25	0.01	0.00	0.00	0.34	0.00	0.23	0.01	0.00	0.00	0.00	0.75
6	0.00	0.00	0.00	0.00	0.00	2.03	0.00	0.07	0.00	0.00	0.04	2.94
7	0.00	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.05	0.79
8	0.00	0.00	0.00	0.00	0.39	0.00	0.84	0.00	0.00	0.69	0.00	0.23
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	>0.01	0.00
10	0.00	0.00	0.00	0.00	0.00	3.19	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.06	0.00	0.00	0.24	0.00	0.00	0.18	0.00	0.00	0.09
12	>0.01	0.01	1.68	0.00	0.00	0.00	1.07	0.00	0.28	0.00	0.00	0.00
13	0.00	0.00	0.01	0.00	0.00	0.00	0.15	0.01	0.00	0.00	0.36	0.00
14	>0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.00	>0.01	0.00
15	0.00	0.00	0.00	0.06	0.00	0.03	0.00	1.95	0.00	0.00	0.02	0.11
16	0.00	0.45	0.00	0.00	0.00	0.69	2.29	0.17	0.59	0.00	0.00	0.00
17	0.00	0.42	0.01	0.00	0.00	0.00	0.03	0.93	0.49	0.00	0.00	0.00
18	0.01	0.00	0.00	0.67	0.00	0.00	0.00	0.18	0.00	0.00	>0.01	0.00
19	0.32	0.00	0.00	0.11	0.00	0.00	0.11	0.32	0.00	0.00	>0.01	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.06
21	0.00	0.00	0.04	0.00	0.00	0.59	0.00	0.00	0.13	0.00	0.29	0.02
22	0.00	0.00	0.01	0.00	0.17	0.00	0.01	0.00	0.27	0.00	0.00	0.03
23	0.00	0.00	0.16	0.00	0.04	0.34	0.40	0.10	0.00	0.00	0.00	1.49
24	0.00	0.00	0.00	0.00	0.03	0.05	0.03	0.00	0.10	0.00	0.00	0.00
25	0.00	0.16	0.00	0.00	1.00	0.00	0.02	0.00	0.00	>0.01	0.66	0.00
26	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.56	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.01	0.00
28	0.01	0.00	0.00	0.02	0.55	0.00	0.30	0.00	>0.01	0.08	2.42	0.70
29	0.07	0.00	0.00	0.01	---	0.00	0.00	0.00	0.00	0.01	0.00	0.02
30	0.00	0.57	0.00	0.13	---	0.04	0.00	0.00	0.00	0.00	0.00	0.04
31	0.00	---	0.00	0.09	---	0.13	---	0.00	---	0.00	0.00	---
Total	7.03	3.52	3.63	1.15	3.84	7.51	5.81	4.78	2.48	0.79	9.05	7.27