03105810 CONNOQUENESSING CREEK AT RENFREW, PA

Upper Ohio-Beaver Basin
Connoquenessing Subbasin

LOCATION.--Lat 40°48′21″, long 79°57′55″ referenced to North American Datum of 1927, Butler County, PA, Hydrologic Unit 05030105, at bridge on SR 3006 at Renfrew, and 0.8 mi upstream from Thorn Creek.

DRAINAGE AREA.--137 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--1989 to current year.

GAGE.--Non-recording gage. Datum of gage is 920 ft above National Geodetic Vertical Datum of 1929, from topographic map.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Pennsylvania Department of Environmental Protection.

DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Date	Discharge, in ft^3/s
Dec 18, 2012	722
Apr 1, 2013	236
May 16, 2013	69.4
Jul 24, 2013	70.5
Sep 25, 2013	44.5

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 03105810, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/03105810.2013.pdf

03105810 CONNOQUENESSING CREEK AT RENFREW, PA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--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. Occasionally, values for filtered parameters may exceed values for the corresponding unfiltered parameter. These results are within the limits of analytical precision and methods.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/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; 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, millios-moles per kilogram (82550)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conduc-tance, water, unfiltered, laboratory, µS/cm at 25°C (90095)	Specific conduc-tance, water, unfiltered, µS/cm at 25°C (00095)	Tempera-ture, water, °C (00010)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)
11-20-2012	**1330**	18	12.8	10	7.8	7.7	938	928	5.8	684
01-16-2013	**1245**	399	13.0	8.0	7.5	7.5	647	642	4.0	354
03-14-2013	**1100**	425	13.4	8.0	7.0	7.6	435	431	3.0	266
05-16-2013	**1045**	69	9.9	< 1.0	7.6	7.8	694	679	11.8	88
07-24-2013	**1130**	70	8.6	10	7.7	8.0	598	608	20.9	400
09-25-2013	**1330**	44	11.0	9.0	7.9	8.1	521	760	14.7	308

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/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; M, presence verified but not quantified]

Date	Sample start time	Hardness, water, mg/L as $CaCO_3$ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, unfiltered, recover-able, mg/L (00916)	Magne-sium, water, unfiltered, recover-able, mg/L (00927)	Sodium, water, unfiltered, recover-able, mg/L (00929)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as $CaCO_3$ (00417)	Bromide, water, filtered, mg/L (71870)	Chloride, water, filtered, mg/L (00940)	Sulfate, water, filtered, mg/L (00945)
11-20-2012	**1330**	290	< 5	94.5	12.0	51.1	74	0.2	185	86.0
01-16-2013	**1245**	91	8	26.1	6.2	81.8	35	.1	150	37.5
03-14-2013	**1100**	99	< 5	28.2	6.9	38.3	35	M	80.8	36.7
05-16-2013	**1045**	190	6	58.5	10.0	47.2	61	< 0.025	135	60.8
07-24-2013	**1130**	160	6	49.8	9.4	52.2	77	.1	103	50.3
09-25-2013	**1330**	150	< 5	43.7	9.5	39.8	86	.1	72.3	46.2

03105810 CONNOQUENESSING CREEK AT RENFREW, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/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; M, presence verified but not quantified]

Date	Sample start time	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate, water, unfiltered, mg/L as N (00620)	Nitrite, water, unfiltered, mg/L as N (00615)	Orthophos-phate, water, unfiltered, mg/L as P (70507)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	Aluminum, water, unfiltered, recover-able, µg/L (01105)	Barium, water, unfiltered, recover-able, µg/L (01007)	Copper, water, unfiltered, recover-able, µg/L (01042)
11-20-2012	**1330**	0.060	2.95	< .040	0.09	0.106	3.1	< 200	M	< 4
01-16-2013	**1245**	.040	1.96	< .040	.03	.038	2.1	< 200	M	< 4
03-14-2013	**1100**	.020	1.77	< .040	.02	.032	1.9	< 200	M	< 4
05-16-2013	**1045**	.020	1.91	< .040	< .01	.076	2.2	M	M	< 4
07-24-2013	**1130**	.040	1.88	< .040	.08	.105	2.1	< 200	M	< 4
09-25-2013	**1330**	.020	1.20	< .040	.03	.251	1.5	< 200	M	< 4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 4

[ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; ft^3/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; M, presence verified but not quantified]

Date	Sample start time	Iron, water, unfiltered, recover-able, µg/L (01045)	Lead, water, unfiltered, recover-able, µg/L (01051)	Manga-nese, water, unfiltered, recover-able, µg/L (01055)	Nickel, water, unfiltered, recover-able, µg/L (01067)	Strontium, water, unfiltered, recover-able, micro-grams per liter (01082)	Zinc, water, unfiltered, recover-able, µg/L (01092)	Boron, water, unfiltered, recover-able, micro-grams per liter (01022)	Selenium, water, unfiltered, µg/L (01147)
11-20-2012	**1330**	410	< 1.0	130	< 50	220	< 10	< 200	< 7
01-16-2013	**1245**	440	< 1.0	70	< 50	120	< 10	< 200	< 7
03-14-2013	**1100**	360	< 1.0	80	< 50	120	< 10	< 200	< 7
05-16-2013	**1045**	560	< 1.0	120	< 4.0	60	M	< 200	< 7
07-24-2013	**1130**	430	< 1.0	60	< 50	200	20	< 200	< 7
09-25-2013	**1330**	360	< 1.0	50	< 50	190	10	< 200	< 7