

Water-Data Report 2013

01494990 BIG ELK CREEK NEAR LEWISVILLE, PA

Upper Chesapeake Basin
Chester-Sassafras Subbasin

LOCATION.--Lat 39°43'48", long 75°50'54" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02060002, at bridge on Lewisville Road, 1.5 mi east of Lewisville, Pa., and 9.2 mi north of Elkton, Md.

DRAINAGE AREA.--41.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--1989 to current year.

GAGE.--Non-recording gage. Datum of gage is 275 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 ft³/s
Oct 24, 2012	16.4
Oct 24, 2012	15.2
Dec 19, 2012	31.0
Jan 31, 2013	263
Mar 28, 2013	47.1
May 15, 2013	36.3
Jul 1, 2013	299
Aug 22, 2013	46.6

01494990 BIG ELK CREEK NEAR LEWISVILLE, 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; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; 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)	pH, water, field, standard units (00400)	pH, water, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, μS/cm at 25°C (90095)	Specific conductance, water, unfiltered, laboratory, μS/cm at 25°C (00095)	Temperature, water, °C (00010)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO ₃ (00900)
11-05-2012	0930	14	12.2	7.5	7.4	226	226	7.8	144	67
01-14-2013	1100	12	12.8	6.4	7.4	232	228	7.9	134	65
03-12-2013	0930	27	11.4	7.3	7.5	217	213	8.8	138	62
05-06-2013	1000	10	12.0	7.7	7.7	222	210	14.1	144	65
07-01-2013	1000	319	8.2	7.0	7.3	108	112	21.5	104	72
09-04-2013	1030	18	9.5	7.7	7.6	227	231	20.3	154	75

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 4

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; 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	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, unfiltered, recoverable, mg/L (00916)	Magnesium, water, unfiltered, recoverable, mg/L (00927)	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)	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate, water, unfiltered, mg/L as N (00620)
11-05-2012	0930	8	15.2	7.1	31	--	28.7	13.2	< .020	4.81
01-14-2013	1100	< 5	14.6	6.9	26	--	33.0	12.8	< .020	4.69
03-12-2013	0930	< 5	13.7	6.8	26	--	30.4	12.0	< .020	4.56
05-06-2013	1000	< 5	14.0	7.2	32	--	30.2	11.9	< .020	4.29
07-01-2013	1000	1,330	11.4	10.5	26	< 0.025	8.7	5.9	.150	1.36
09-04-2013	1030	< 5	16.8	7.9	33	M	26.1	11.8	.030	4.72

01494990 BIG ELK CREEK NEAR LEWISVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 4

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; 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	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)	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, unfiltered, recoverable, µg/L (01055)
11-05-2012	0930	< .040	0.04	0.039	5.8	< 200	< 4	90	< 1.0	30
01-14-2013	1100	< .040	< .01	.014	5.1	< 200	< 4	80	< 1.0	20
03-12-2013	0930	< .040	< .01	.021	5.0	300	< 4	420	< 1.0	40
05-06-2013	1000	< .040	< .01	.014	4.7	< 200	< 4	140	< 1.0	40
07-01-2013	1000	< .040	.13	.820	4.4	35,600	40	53,400	M	1,520
09-04-2013	1030	< .040	.03	.041	4.7	< 200	20	120	< 1.0	20

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 4

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; 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	Nickel, water, unfiltered, recoverable, µg/L (01067)	Zinc, water, unfiltered, recoverable, µg/L (01092)
11-05-2012	0930	< 50	< 10
01-14-2013	1100	< 50	< 10
03-12-2013	0930	< 50	< 10
05-06-2013	1000	< 50	< 10
07-01-2013	1000	< 50	160
09-04-2013	1030	< 50	20