

Water-Data Report 2011

**015499001 Roaring Branch near Roaring Branch, PA**

West Branch Susquehanna Basin  
Lower West Branch Susquehanna Subbasin

LOCATION.--Lat 41°33'15.55", long 76°57'55.62", referenced to World Geodetic System of 1984, Lycoming County, PA, Hydrologic Unit 02050206.

DRAINAGE AREA.--30.6 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--August 2011 to September 2011.

REMARKS.--Analyses for pH, water temperature, specific conductance, and dissolved oxygen were performed on site. Analyses for major ions, nutrients, and trace metals were performed at the USGS National Water Quality Laboratory in Denver, Colorado. Radiochemical analyses for gross alpha and gross beta were performed at the Eberline Services Laboratory in Richmond, California.

COOPERATION.--Water-quality samples were collected and analyzed in cooperation with the Williamsport Municipal Water Authority as part of the Lycoming Creek Basin Ambient Water-Quality Snapshot Project.

**WATER-QUALITY DATA**

**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 1 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; R, radchem non-detect, below sslc]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft <sup>3</sup> /s (00061)	Dissolved oxygen, unfiltered, mg/L (00300)	Dissolved oxygen, unfiltered, water, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, unfiltered, water, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)
08-01-2011	1030	742	23.0	2.2	9.5	110	6.8	106	21.5

015499001 Roaring Branch near Roaring Branch, PA—Continued

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

Part 2 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; R, radchem non-detect, below ssLc]

Date	Sample start time	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	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, incremental titration method, field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)
08-01-2011	1030	.8	79	11.8	2.17	1.35	4.17	33	41

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

Part 3 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; R, radchem non-detect, below ssLc]

Date	Sample start time	Bromide, water, filtered, mg/L (71870)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)
08-01-2011	1030	.013	6.32	.07	1.68	8.37	.11	< .010	.05	< .001

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

Part 4 of 7

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Date	Sample start time	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Aluminum, water, filtered, µg/L (01106)	Barium, water, filtered, µg/L (01005)	Beryllium, water, filtered, µg/L (01010)	Cadmium, water, filtered, µg/L (01025)	Chromium, water, filtered, µg/L (01030)
08-01-2011	1030	< .004	< .02	< .02	4.2	33.6	< .006	< .016	< .06

## 015499001 Roaring Branch near Roaring Branch, PA—Continued

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 5 of 7

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Date	Sample start time	Cobalt, water, filtered, µg/L (01035)	Copper, water, filtered, µg/L (01040)	Iron, water, filtered, µg/L (01046)	Lead, water, filtered, µg/L (01049)	Lithium, water, filtered, µg/L (01130)	Manganese, water, filtered, µg/L (01056)	Molybdenum, water, filtered, µg/L (01060)	Nickel, water, filtered, µg/L (01065)	Silver, water, filtered, µg/L (01075)
08-01-2011	1030	.025	.72	< 3.2	< .015	.59	2.37	.106	.22	< .005

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 6 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; R, radchem non-detect, below ssLc]

Date	Sample start time	Strontium, water, filtered, µg/L (01080)	Zinc, water, filtered, µg/L (01090)	Antimony, water, filtered, µg/L (01095)	Arsenic, water, filtered, µg/L (01000)	Boron, water, filtered, µg/L (01020)	Selenium, water, filtered, µg/L (01145)	Gross alpha radio-activity, 30-day count, water, filtered, Th-230 curve, picocuries per liter (62639)	Gross alpha radio-activity, 72-hour count, water, filtered, Th-230 curve, picocuries per liter (62636)	Gross beta radio-activity, 30-day count, water, filtered, Cs-137 curve, picocuries per liter (62645)
08-01-2011	1030	56.7	< 1.4	.045	.39	8	.05	R -.2	.5	1.8

**015499001 Roaring Branch near Roaring Branch, PA—Continued****WATER-QUALITY DATA  
WATER YEAR OCTOBER 2010 TO SEPTEMBER  
2011**

Part 7 of 7

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<b>Date</b>	<b>Sample start time</b>	<b>Gross beta radio- activity, 72-hour count, water, filtered, Cs-137 curve, picocuries per liter (62642)</b>	<b>Uranium (natural), water, filtered, µg/L (22703)</b>
<b>08-01-2011</b>	<b>1030</b>	1.2	.021