

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°40'41", long 74°55'05" referenced to North American Datum of 1983, Union Township, Hunterdon County, NJ, Hydrologic Unit 02030105, 800 ft downstream from Rocky Run, 0.3 mi upstream from bridge on Van Syckel Road, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1979, 1981-83, 1985-93, 1995-97, 1999, and 2003 to current year.

GAGE.--Reference point only.

DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Date	Discharge, in ft³/s
Nov 3, 2011	43.5
Feb 7, 2012	26.4
May 29, 2012	13.0
Aug 2, 2012	8.37

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-97, 2003 to current year.

REMARKS.--NJ Department of Environmental Protection Watershed Management Area 08.

COOPERATION.--

COOPERATION: Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection and the New Jersey Water Supply Authority. Determinations of concentrations of ammonia in filtered water, dissolved orthophosphate, and suspended solids in unfiltered water were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory (DHSS-ECL).

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per cm (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per cm (61726)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-03-2011	1200	755	14.0	0.086	0.065	44	12.9	108	7.7
02-07-2012	1200	754	7.0	.028	.021	26	13.7	105	7.7
05-29-2012	1000	751	30.0	.063	.048	13	9.0	99	7.8
08-02-2012	1030	--	29.0	.090	.068	8.4	9.1	102	7.7

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 5

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Date	Sample start time	Specific conductance, water, unfiltered, μS/cm at 25°C (00095)	Temperature, water, °C (00010)	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)	Dissolved solids, water, filtered, sum of constituents, mg/L (70301)	Hardness, water, mg/L as CaCO ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)
11-03-2011	1200	189	7.5	1.0	109	113	59.7	1.0	14.5
02-07-2012	1200	196	4.2	1.4	129	117	60.8	3.0	14.5
05-29-2012	1000	209	20.3	.9	149	124	66.7	< 1.0	16.3
08-02-2012	1030	208	20.8	1.1	120	E 124	68.0	< 1.0	16.8

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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; E, estimated]

Date	Sample start time	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (90410)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO ₂ (00955)
11-03-2011	1200	5.73	1.38	12.3	40.6	0.14	23.0	0.07	< .03	15.2
02-07-2012	1200	6.00	1.29	13.7	33.5	.08	24.4	.08	< .03	16.2
05-29-2012	1000	6.29	1.32	13.1	43.2	.17	24.7	.08	< .03	17.1
08-02-2012	1030	6.30	1.54	12.7	42.4	.18	23.0	.10	< .03	16.5

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 5

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Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)
11-03-2011	1200	13.0	0.19	< .010	0.866	< .004	< .017	0.010	0.013
02-07-2012	1200	15.8	.09	.018	1.20	.009	< .017	.006	.009
05-29-2012	1000	14.8	.12	.015	1.01	.014	< .017	.014	.018
08-02-2012	1030	17.2	.19	E .008	.865	.015	.020	.017	.021

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 5 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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; E, estimated]

Date	Sample start time	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Boron, water, filtered, µg/L (01020)	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-03-2011	1200	1.1	< 1.1	8.9	0.12	2.56
02-07-2012	1200	1.3	< 1.3	7.9	< .10	1.04
05-29-2012	1000	1.1	< 1.2	10	.16	2.12
08-02-2012	1030	1.1	1.1	12	.18	2.57