



Water-Data Report 2009

## 01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°24'29", long 74°20'35" referenced to North American Datum of 1983, Old Bridge Township, Middlesex County, NJ, Hydrologic Unit 02030105, at bridge on County Route 516 (Old Bridge Road), 1.6 mi southeast of Old Bridge, and 1.7 mi upstream from mouth.

DRAINAGE AREA.--15.6 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1969, 1971, 1979-81, 1986-95, 1997-2003, 2005-09.

GAGE.--Reference point only.

### DISCHARGE MEASUREMENTS WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Date	Discharge, in ft <sup>3</sup> /s
Dec 9, 2008	10.8
Mar 12, 2009	13.9
Jun 25, 2009	26.8
Aug 24, 2009	4.82

## 01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 2008 to August 2009.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 9.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 6

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Time	Medium name	Sample type	Baro- metric pres- sure, mm Hg (00025)	Temper- ature, air, deg C (00020)	UV absorb- ance, 254 nm, wat flt units /cm (50624)	UV absorb- ance, 280 nm, wat flt units /cm (61726)	Instan- taneous dis- charge, ft <sup>3</sup> /s (00061)
Dec 09...	1000	Surface water	Regular	772	6.1	.043	.033	11
Mar 12...	1100	Surface water	Regular	774	8.3	.030	.022	14
Jun 25...	1045	Surface water	Regular	758	22.5	.246	.190	27
Aug 24...	0959	<i>QC sample - Artificial</i>	<i>Field Blank</i>	--	--	--	--	--
24...	1000	Surface water	Regular	764	22.3	.126	.096	4.8

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 6

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif- ic conduc- tance, wat unf μS/cm @ 25 degC (00095)	Temper- ature, water, deg C (00010)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dis- solved solids dried @ 180degC wat flt mg/L (70300)	Dis- solved solids, sum of consti- tuents, mg/L (70301)	Hard- ness, water, mg/L as CaCO3 (00900)	Sus- pended solids, water, unfltrd mg/L (00530)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
Dec 09...	12.7	89	--	263	.6	1.4	127	--	48	2	12.7	3.86	2.55
Mar 12...	8.8	71	--	458	6.2	1.5	233	--	52	4	13.8	4.29	2.58
Jun 25...	5.2	56	8.0	221	18.9	20	132	E115	38	13	10.4	2.85	2.36
Aug 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	4.5	52	5.4	446	22.9	16	254	--	55	9	15.4	3.89	4.20

## 01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 6

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Total carbon, suspnd sedimnt total, mg/L (00694)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water, fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)
Dec 09...	20.3	<8	.2	35.7	.12	<.04	9.2	39.8	.27	.163	.14	E.003	E.02
Mar 12...	59.0	--	.3	102	E.10	<.04	8.4	41.3	.24	.143	.15	E.004	.05
Jun 25...	22.2	E4	3.3	37.0	E.09	M	8.0	28.0	.54	.208	.18	.010	.26
Aug 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 24...	51.4	<8	1.5	108	E.09	<.04	9.1	30.4	.37	.154	.29	E.003	.18

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 6

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Phosphorus, water, fltrd, mg/L as P (00666)	Phosphorus, water, unfltrd, mg/L as P (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Barium, water, unfltrd recoverable, µg/L (01007)	Beryllium, water, unfltrd recoverable, µg/L (01012)	Cadmium, water, unfltrd, µg/L (01027)	Chromium, water, unfltrd recoverable, µg/L (01034)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recoverable, µg/L (01051)
Dec 09...	<.008	E.004	.41	E.43	--	--	--	--	--	--	--	--	--
Mar 12...	<.008	E.005	.40	.44	44.2	.42	.26	.68	--	<4.0	663	--	.94
Jun 25...	E.005	.070	.73	.99	--	--	--	--	--	--	--	--	--
Aug 24...	--	--	--	--	--	--	--	--	<1.0	--	--	<.06	--
Aug 24...	<.008	.037	.66	.84	54.0	.12	.08	E.40	--	E2.2	3,280	--	1.37

## 01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 5 of 6

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Manganese, water, unfltrd recover- able, µg/L (01055)	Mercury water, fltrd, µg/L (71890)	Mercury water, unfltrd recover- able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover- able, µg/L (01067)	Silver, water, unfltrd recover- able, µg/L (01077)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover- able, µg/L (01092)	Arsenic water, fltrd, µg/L (01000)	Arsenic water, unfltrd µg/L (01002)	Boron, water, unfltrd recover- able, µg/L (01022)	Selen- ium, water, unfltrd µg/L (01147)	Organic carbon, suspnd sedimnt total, mg/L (00689)
Dec 09...	--	--	--	--	--	--	--	--	--	--	--	--	.22
Mar 12...	270	--	<.010	--	7.7	<.06	--	43.4	.18	E.17	39	<.12	.28
Jun 25...	--	--	--	--	--	--	--	--	--	--	--	--	3.24
Aug 24...	--	<.010	--	<.12	--	--	<2.0	--	<.06	--	--	--	--
24...	354	--	<.010	--	5.4	<.06	--	24.6	.51	1.2	71	E.08	1.51

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO**  
**SEPTEMBER 2009**

Part 6 of 6

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Date	Organic carbon, water, fltrd, mg/L (00681)
Dec 09...	1.8
Mar 12...	1.5
Jun 25...	6.4
Aug 24...	--
24...	4.1

## 01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 7

[Remark codes: &lt;, less than; E, estimated.]

Date	1-Naphthol, water, fltrd 0.7µ GF µg/L (49295)	2,6-Diethyl-aniline, water, fltrd 0.7µ GF µg/L (82660)	2Chloro-2',6'-diethyl acet-anilide, wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl-6-methyl-aniline, wat flt µg/L (61620)	3,4-Di-chloro-aniline, water, fltrd, µg/L (61625)	3,5-Di-chloro-aniline, water, fltrd, µg/L (61627)	4-Chloro-2-methyl-phenol, wat flt µg/L (61633)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-Endo-sulfan, water, fltrd, µg/L (34362)	Atra-zine, water, fltrd, µg/L (39632)	Azin-phos-methyl oxon, water, fltrd, µg/L (61635)
Jun 25...	E.02	<.006	<.010	E.006	<.010	<.004	<.004	E.008	<.010	<.008	<.006	E.006	<.04

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 7

[Remark codes: &lt;, less than; E, estimated.]

Date	Azin-phos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Ben-flur-alin, water, fltrd 0.7µ GF µg/L (82673)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd 0.7µ GF µg/L (82674)	Chlor-pyrifos, water, fltrd, µg/L (61636)	Chlor-pyrifos, water, fltrd, µg/L (38933)	cis-Per-methrin, fltrd 0.7µ GF µg/L (82687)	cis-Propi-cona-zole, water, fltrd, µg/L (79846)	Cyana-zine, water, fltrd, µg/L (04041)	Cyflu-thrin, water, fltrd, µg/L (61585)	Cyper-methrin, water, fltrd, µg/L (61586)	DCPA, water, fltrd 0.7µ GF µg/L (82682)	Desulf-inyl-fipro-nil amide, wat flt µg/L (62169)
Jun 25...	<.120	<.014	E.188	<.060	<.05	<.010	<.014	E.006	<.040	<.016	<.020	<.006	E.002

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 7

[Remark codes: &lt;, less than; E, estimated.]

Date	Desulf-inyl-fipro-nil, water, fltrd µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Di-chlor-ovos, water, fltrd, µg/L (38775)	Dicro-tophos, water, fltrd, µg/L (38454)	Diel-drin, water, fltrd, µg/L (39381)	Dimeth-oate, water, fltrd 0.7µ GF µg/L (82662)	Disulf-oton sulfone, water, fltrd, µg/L (61640)	Disul-foton, water, fltrd 0.7µ GF µg/L (82677)	Endo-sulfan sulfate, water, fltrd, µg/L (61590)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethion monoxon, water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Etho-prop, water, fltrd 0.7µ GF µg/L (82672)
Jun 25...	E.004	<.005	<.02	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.012	<.016

01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 7

[Remark codes: <, less than; E, estimated.]

Date	Fenami-phos sulfone water, fltrd, µg/L (61645)	Fenami-phos oxide, water, fltrd, µg/L (61646)	Fenami-phos, water, fltrd, µg/L (61591)	Fipro-nil sulfide, water, fltrd, µg/L (62167)	Fipro-nil sulfone, water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Fonofos, water, fltrd, µg/L (04095)	Hexa-zinone, water, fltrd, µg/L (04025)	Ipro-dione, water, fltrd, µg/L (61593)	Isofen-phos, water, fltrd, µg/L (61594)	lambda-Cyhalo-thrin, water, fltrd, µg/L (61595)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)
Jun 25...	<.053	<.08	<.03	E.005	E.007	E.018	<.010	<.008	<.014	<.006	<.010	<.080	<.020

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 5 of 7

[Remark codes: <, less than; E, estimated.]

Date	Meta-laxyl, water, fltrd, µg/L (61596)	Methid-athion, water, fltrd, µg/L (61598)	Methyl para-oxon, water, fltrd, µg/L (61664)	Methyl para-thion, water, fltrd, 0.7µ GF µg/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd, 0.7µ GF µg/L (82671)	Myclo-butanil, water, fltrd, µg/L (61599)	Oxy-fluor-fen, water, fltrd, µg/L (61600)	Pendi-meth-alin, water, fltrd, 0.7µ GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water, fltrd, 0.7µ GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)
Jun 25...	E.012	<.006	<.01	<.008	E.009	<.016	<.002	<.010	<.006	<.012	<.03	<.020	<.05

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 6 of 7

[Remark codes: <, less than; E, estimated.]

Date	Phosmet water, fltrd, µg/L (61601)	Prome-ton, water, fltrd, µg/L (04037)	Prome-tryn, water, fltrd, µg/L (04036)	Pro-panil, water, fltrd, 0.7µ GF µg/L (82679)	Propar-gite, water, fltrd, 0.7µ GF µg/L (82685)	Propy-zamide, water, fltrd, 0.7µ GF µg/L (82676)	Sima-zine, water, fltrd, µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7µ GF µg/L (82670)	Teflu-thrin, water, fltrd, µg/L (61606)	Ter-bufos oxon sulfone, water, fltrd, µg/L (61674)	Terbu-fos, water, fltrd, 0.7µ GF µg/L (82675)	Ter-buthyl-azine, water, fltrd, µg/L (04022)	Thio-bencarb water, fltrd, 0.7µ GF µg/L (82681)
Jun 25...	<.200	.01	<.006	<.014	<.02	<.004	<.010	<.02	<.010	<.04	<.02	<.01	<.016

01406040 DEEP RUN AT ROUTE 516, NEAR OLD BRIDGE, NJ—Continued

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO  
SEPTEMBER 2009**

Part 7 of 7

[Remark codes: <, less than; E, estimated.]

Date	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribu-phos, water, fltrd, µg/L (61610)	Tri-fluralin, water, fltrd 0.7µ GF µg/L (82661)
<b>Jun</b> 25...	E.01	<.035	<.012