

Water-Data Report 2006

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 39°56'49", long 74°47'27" referenced to North American Datum of 1983, Lumberton Township, Burlington County, NJ, Hydrologic Unit 02040202, at bridge on Eayrestown-Newbolds Road, 0.1 mi north of Eayrestown, 1.4 mi southeast of Lumberton, and 1.3 mi southwest of Newbolds Corner.

DRAINAGE AREA.--66.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2005 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia plus organic nitrogen (00623), filtered nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Statewide Status and Low-Level Mercury Assessment special study site, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 19. The samples on Sep. 27, 2005 were for the low-level mercury assessment.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005**

Date	Time	Sample type	Turbidity		Disolved oxygen, percent of saturation	pH, water, unfldrd field, std units	Specif. conductance, uS/cm	Temper-ature, air, deg C	Temper-ature, water, deg C	Mercury water filrd, low level, ng/L
			white light, det ang 90+/-30 corrctd	Baro-metric pres-sure, sure, NTRU (63676)						
Sep 27...	1130	Field Blank	--	--	--	--	--	--	--	.05
Sep 27...	1200	Environmental	4.2	761	7.0	77	6.7	159	21.5	20.1 1.44

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

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

Date	Time	Sample type	Turbdty white light, det ang 90+/-30 corrcrd	UV absorb- ance, wat flt units	UV absorb- ance, wat flt units	Baro- metric pres- sure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)
Nov 30...	1100	Environmental	13	.413	.319	760	7.8	74	6.4	126	15.9	12.9
Feb 22...	1000	Environmental	2.7	.373	.287	764	10.8	80	6.1	120	7.1	3.0
Jun 06...	1100	Environmental	6.4	.862	.679	760	5.0	54	5.9	116	23.2	19.2
Aug 30...	1015	Field Blank	--	--	--	--	--	--	--	--	--	--
30...	1030	Environmental	13	.356	.270	760	5.9	68	6.2	121	19.7	22.3

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

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

Date	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, mg/L (00915)	Magnes- ium, water, mg/L (00925)	Potas- sium, water, mg/L (00935)	Sodium, water, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, mg/L (00940)	Fluor- ide, water, mg/L (00950)	Silica, water, mg/L (00955)	Sulfate water, mg/L (00945) (70301)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)
Nov 30...	32	8.65	2.48	4.60	6.09	13	11.4	.19	4.9	13.8	64	87	56
Feb 22...	24	6.64	1.89	1.55	9.24	6	15.3	E.09	5.0	13.5	60	68	2
Jun 06...	24	6.63	1.81	2.22	8.06	7	14.4	E.08	5.9	11.2	58	96	9
Aug 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	26	6.92	2.19	2.78	8.40	8	13.8	E.09	5.4	18.4	64	86	12

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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

Date	Ammonia + org-N, water, filtrd, mg/L (00623)	Ammonia water, filtrd, mg/L (00608)	Nitrite + nitrate water, filtrd, mg/L (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Ortho- phosphate, water, filtrd, mg/L (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfiltrd, mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, filtrd, mg/L (00681)
Nov 30...	.79	.063	.73	.21	1.5	1.7	.200	.25	.68	1.3	<.1	1.3	14.1
Feb 22...	.44	.101	.74	.15	1.2	1.3	.019	.034	.056	.9	<.1	.8	8.2
Jun 06...	.78	.224	.53	.14	1.3	1.4	.115	.107	.19	1.6	<.1	1.5	15.9
Aug 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	.51	.144	.38	.17	.88	1.1	.052	.072	.186	1.5	<.1	1.5	7.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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

Date	BOD, water, unfiltrd 5 day, 20 degC mg/L (00310)	Arsenic water, filtrd, ug/L (01000)	Arsenic water, unfiltrd recover -able, ug/L (01002)	Barium, water, unfiltrd recover -able, ug/L (01007)	Beryll- ium, water, unfiltrd recover -able, ug/L (01012)	Boron, water, unfiltrd recover -able, ug/L (01020)	Boron, water, unfiltrd recover -able, ug/L (01022)	Cadmium water, unfiltrd recover -able, ug/L (01027)	Chrom- ium, water, unfiltrd recover -able, ug/L (01034)	Copper, water, unfiltrd recover -able, ug/L (01040)	Copper, water, unfiltrd recover -able, ug/L (01042)	Iron, water, unfiltrd recover -able, ug/L (01045)	Lead, water, filtrd, ug/L (01049)	
Nov 30...	E1.1	--	--	--	--	20	--	--	--	--	--	--	--	--
Feb 22...	<1.0	.39	.51	34.7	.09	14	17	.09	.59	--	.8	545	--	--
Jun 06...	E1.4	--	--	--	--	20	--	--	--	--	--	--	--	--
Aug 30...	--	<.12	--	--	--	--	--	--	--	<.40	--	--	--	<.08
30...	E1.6	.76	1.2	43.0	E.06	21	18	.24	.71	--	1.3	1,490	--	--

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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

Date	Mangan-		Mercury		Nickel		Silver,		Zinc,	
	Lead, water, unfltrd recover -able, ug/L (01051)	ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen-ium, water, unfltrd recover -able, ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
Nov 30...	--	--	--	--	--	--	--	--	--	--
Feb 22...	.66	28.7	--	<.010	--	1.38	.13	<.16	--	15
Jun 06...	--	--	--	--	--	--	--	--	--	--
Aug 30...	--	--	<.010	--	<.06	--	--	--	<.60	--
30...	1.43	24.9	--	<.010	--	1.39	.14	<.16	--	13

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

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

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)				2,4-DB water, fltrd, 0.7u GF ug/L (39732)				CIAT, water, fltrd, 0.7u GF ug/L (38746)				CEAT, water, fltrd, 0.7u GF ug/L (04040)				OIET, water, fltrd, 0.7u GF ug/L (04038)				3-Hydroxy carbo-furan, wat flt ug/L (50355)				Aci-fluor-fen, water, fltrd ug/L (49308)				Aldi-carb sulfone, water, fltrd ug/L (49315)				Aldi-carb oxide, water, fltrd ug/L (49313)				Aldi-carb sulfide, water, fltrd ug/L (49314)				Aldi-carb, water, fltrd ug/L (49312)				Atra-zine, water, fltrd ug/L (39632)			
		2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-DB water, fltrd, 0.7u GF ug/L (39732)	CIAT, water, fltrd, 0.7u GF ug/L (38746)	CEAT, water, fltrd, 0.7u GF ug/L (04040)	OIET, water, fltrd, 0.7u GF ug/L (04038)	3-Hydroxy carbo-furan, wat flt ug/L (50355)	Aci-fluor-fen, water, fltrd ug/L (49308)	Aldi-carb sulfone, water, fltrd ug/L (49315)	Aldi-carb oxide, water, fltrd ug/L (49313)	Aldi-carb sulfide, water, fltrd ug/L (49314)	Aldi-carb, water, fltrd ug/L (49312)																																					
Jun 06...	1100	<.190	<.04	<.02	E.01	<.08	<.032	<.008	<.028	<.02	<.100	<.15	.087																																				

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

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

Date	Bendio-carb, water, fltrd, ug/L (50299)				Bensulfuron-methyl, water, fltrd, ug/L (50300)				Ben-tazon, water, fltrd, ug/L (61693)				Bromo-cil, water, fltrd, ug/L (38711)				Bromoxynil, water, fltrd, ug/L (04029)				Cafeine, water, fltrd, ug/L (49311)				Car-baryl, water, fltrd, ug/L (50305)				Carbo-furan, water, fltrd, ug/L (49310)				Chlor-amben methyl, water, fltrd, ug/L (49309)				Chloro-phenyl, water, fltrd, ug/L (61188)				Chloro-phenyl, water, fltrd, ug/L (50306)				Clopyralid, water, fltrd, ug/L (04039)				Clopypalid, water, fltrd, ug/L (49305)			
	Bendio-carb, water, fltrd, ug/L (50299)	Benomyl, water, fltrd, ug/L (50300)	Bensulfuron-methyl, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd, ug/L (38711)	Bromo-cil, water, fltrd, ug/L (04029)	Bromo-cil, water, fltrd, ug/L (49311)	Bromoxynil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd, ug/L (49311)	Cafeine, water, fltrd, ug/L (49311)	Cafeine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, ug/L (49310)	Car-baryl, water, fltrd, ug/L (49310)	Carbo-furan, water, fltrd, ug/L (49309)	Carbo-furan, water, fltrd, ug/L (49309)	Chlor-amben methyl, water, fltrd, ug/L (49309)	Chloro-phenyl, water, fltrd, ug/L (61188)	Chloro-phenyl, water, fltrd, ug/L (50306)	Chloro-phenyl, water, fltrd, ug/L (04039)	Chloro-phenyl, water, fltrd, ug/L (49305)																																	
Jun 06...	<.08	<.022	<.02	<.02	<.02	<.04	<.018	E.01	E.003	<.02	<.032	<.04	<.07																																							

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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

Date	Dacthal	Di-										
	mono-	chlor-	Dinoseb	Diphen-	Diuron,	Fenuron	Flumet-	meturon	Imaza-	Imaze-	Imida-	
Cyclo-	acid, water,	Dicamba	prop, water,	water,	amid, water,	water,	sulam,	water,	quin,	thapyr,	cloprid	
Date	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	
	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	
	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
	(04031)	(49304)	(38442)	(49302)	(49301)	(04033)	(49300)	(49297)	(61694)	(38811)	(50356)	(61695)
Jun 06...	<.01	<.03	<.04	<.03	<.04	<.01	<.02	<.10	<.04	<.02	<.04	<.04
												<.020

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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

Date	N-(4-											
	Linuron	MCPA,	MCPB,	Meta-	Methio-	Meth-	Chloro-	Nico-	Norflur	Ory-		
water,	water,	water,	water,	laxyl,	carb,	omyl,	phenyl)	neburon	sul-	azon,	zalin,	Oxamyl,
fltrd	fltrd	fltrd	fltrd	water,	water,	water,	-N'-	water,	water,	water,	water,	water,
0.7u GF	0.7u GF	0.7u GF	0.7u GF	fltrd,	0.7u GF	0.7u GF	methyl-	fltrd,	water,	fltrd,	fltrd,	fltrd
ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	urea,	0.7u GF	fltrd,	0.7u GF	0.7u GF	0.7u GF
(38478)	(38482)	(38487)	(50359)	(38501)	(38501)	(49296)	(61697)	(61692)	(49294)	(50364)	(49293)	(38866)
Jun 06...	<.01	<.07	<.10	<.03	<.034	<.070	<.07	<.04	<.01	<.04	M	<.02
												<.05

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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

Date	Pic-	Propri-	Pro-	Sulfo-	Tebu-	Tri-	
	loram,	Propham	con-	poxur,	met-	thiuron	Terba-
water,	water,	zole,	water,	water,	water,	water,	water,
fltrd	fltrd	water,	fltrd	water,	fltrd,	water,	fltrd
0.7u GF	0.7u GF	fltrd,	0.7u GF	fltrd,	0.7u GF	fltrd,	0.7u GF
ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(49291)	(49236)	(50471)	(38538)	(38548)	(50337)	(82670)	(04032)
Jun 06...	<.03	<.030	<.01	<.008	<.02	<.090	<.026
							<.03

01465854 SOUTH BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

[Remark codes: <, less than.]

Date	Time	Enter-		Fecal	
		cocci, m-E	MF, water, water, col/	E coli, m-TEC	coli- form, ECbroth water, MPN/
		100 mL (31649)	100 mL (31633)	100 mL (31615)	
May					
03...	1110	16.7	40	40	20
10...	1035	14.0	80	280	<20
17...	1115	14.6	170	230	220
24...	1040	15.5	30	<10	40
31...	1100	21.3	30	100	110