

Water-Data Report 2009

01409525 LUCAS BRANCH AT SWEETWATER, NJ

MULLICA RIVER BASIN

LOCATION.--Lat 39°37'04", long 74°37'47" referenced to North American Datum of 1983, Mullica Township, Atlantic County, NJ, Hydrologic Unit 02040301, at bridge on Pleasant Mills Road (County Route 643), 0.2 mi upstream from mouth, 0.5 mi southeast of Sweetwater, and 2.3 mi northwest of Weekstown.

DRAINAGE AREA.—3.94 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-78, 2009.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 14.

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, 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 5

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

Date	Time	Baro-metric pressure, air, mm Hg (00025)	Temper-ature, air, deg C (00020)	UV absorb-ance, 254 nm, wat flt /cm (50624)	UV absorb-ance, 280 nm, wat flt /cm (61726)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, µS/cm @ 25 degC (00095)	Turbdty, white light, det ang 90+/-30	Dis-solved solids, dried @ 180degC wat flt mg/L (70300)	Dis-solved solids, water, mg/L as CaCO ₃ (00900)	
Dec 02...	1000	763	11.0	.349	.255	9.2	76	4.1	91	7.0	.9	60	6
Feb 18...	1000	762	4.5	.282	.202	8.9	65	4.2	97	2.0	.6	37	4
May 05...	0900	758	12.5	.427	.312	3.3	30	4.1	82	11.7	.5	47	3
Aug 10...	0900	760	25.5	.744	.554	2.5	27	4.0	65	19.5	1.2	51	2

01409525 LUCAS BRANCH AT SWEETWATER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 5

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

Date	Sus-				Total				Inor-				Ammonia
	suspended solids, water, unfiltrd	Calcium water, filtrd,	Magnes- ium, water, filtrd,	Potas- sium, water, filtrd,	Sodium, water, filtrd,	carbon, suspnd sedimentt	Chlor- ide, water, filtrd,	Fluor- ide, water, filtrd,	carbon, suspnd sedimentt	Silica, water, filtrd,	Sulfate water, filtrd,	org-N, water, filtrd,	Ammonia water, filtrd,
	mg/L (00530)	mg/L (00915)	mg/L (00925)	mg/L (00935)	mg/L (00930)	mg/L (00694)	mg/L (00940)	mg/L (00950)	mg/L (00688)	SiO ₂ mg/L (00955)	mg/L (00945)	as N mg/L (00623)	as N mg/L (00608)
Dec 02...	1	.90	.904	.40	3.36	.3	5.68	<.08	<.04	10.9	13.6	1.1	.014
Feb 18...	2	.51	.599	.24	2.95	.2	4.69	E.05	<.04	7.7	12.1	.27	.012
May 05...	2	.41	.436	.12	2.97	E.2	5.49	<.08	<.04	6.3	7.02	.35	<.010
Aug 10...	2	.23	.267	.09	2.34	.2	5.12	<.08	<.04	7.7	3.24	.66	<.010

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 5

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

Date	Nitrate + nitrite water, filtrd, mg/L as N (00631)	Ortho- phosphate, water, filtrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, filtrd, mg/L as P (00666)	Phos- phorus, water, unfiltrd mg/L as P (00665)	Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd mg/L (00600)	Alum- inum, water, filtrd, mg/L (01106)	Barium, water, unfiltrd recover -able, μg/L (01007)	Beryll- ium, water, unfiltrd recover -able, μg/L (01012)	Cadmium water, unfiltrd recover -able, μg/L (01027)	Chrom- ium, water, unfiltrd recover -able, μg/L (01034)	Copper, water, unfiltrd recover -able, μg/L (01042)
Dec 02...	.13	E.004	E.01	E.005	E.006	1.3	E1.3	963	--	--	--	--	--
Feb 18...	.11	<.002	<.02	<.008	<.008	.38	--	--	18.9	.19	.09	E.37	<4.0
May 05...	<.04	E.005	E.01	E.005	E.005	--	--	--	--	--	--	--	--
Aug 10...	<.04	E.005	E.01	<.008	E.005	--	--	--	11.7	.08	.06	.42	<4.0

01409525 LUCAS BRANCH AT SWEETWATER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 4 of 5

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

Date	Mangan-										Boron, water, unfltrd (01022)	Selen- ium, water, unfltrd (01147)	Organic carbon, susnd sedimt (00689)
	Iron, water, unfltrd (01046)	Iron, water, recover -able, (01045)	Lead, water, unfltrd (01051)	ese, water, unfltrd (01055)	Mercury water, unfltrd (71900)	Nickel, water, unfltrd (01067)	Silver, water, unfltrd (01077)	Zinc, water, unfltrd (01092)	Arsenic water, filtrd, (01000)	Arsenic water, unfltrd (01002)			
Dec 02...	391	--	--	--	--	--	--	--	--	--	--	--	.28
Feb 18...	--	176	1.08	8.2	<.010	1.8	<.06	23.5	.32	.43	<14	E.10	.22
May 05...	--	--	--	--	--	--	--	--	--	--	--	--	.18
Aug 10...	--	519	1.86	3.5	<.010	1.2	<.06	9.9	.57	.54	E14	.13	.25

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

Part 5 of 5

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

Date	Organic carbon, water, filtrd, mg/L (00681)
Dec 02...	9.8
Feb 18...	7.9
May 05...	11.1
Aug 10...	18.2

01409525 LUCAS BRANCH AT SWEETWATER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 4

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

Date	Mois-ture, <2 mm, wsv nat bed sed percent (49282)	Total carbon, bed sedimnt total, (00693)	Inor-ganic carbon, bed sedimnt total, (00686)	Phos-phorus, bed sedimnt total, mg/kg (00668)	Cadmium bed sedimnt recover -able, µg/g (01028)	Chrom-ium, bed sedimnt recover -able, µg/g (01029)	Cobalt bed sedimnt recover -able, µg/g (01038)	Copper, bed sedimnt recover -able, µg/g (01043)	Iron, bed sedimnt total digest, µg/g (01170)	Lead, bed sedimnt recover -able, µg/g (01052)	Mangan-ese, bed sedimnt recover -able, µg/g (01053)	Mercury bed sedimnt recover -able, µg/g (71921)	Nickel, bed sedimnt recover -able, µg/g (01068)
Aug 10...	20	2.9	<.2	20	.020	4.5	.2	<2	920	32	5.2	<.007	1.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 4

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

Date	Zinc, bed sedimnt recover -able, µg/g (01093)	Arsenic bed sedimnt recover -able, µg/g (64847)	Sele-nium, bed sedimnt recover -able, µg/g (64848)	p-Cresol, bed sed wsv nat field, µg/kg (49451)	PCBs, bed bed sed bed sed µg/kg (39519)	1,2-Di-methyl- naphth- ene, bed sed bed sed bed sed µg/kg (49403)	1,6-Di-methyl- naphth- ene, bed sed bed sed bed sed µg/kg (49404)	1Methyl- -9H-fluor- ene, bed sed bed sed bed sed µg/kg (49398)	1-Methyl- phenan-threne, bed sed bed sed bed sed µg/kg (49410)	1-Methyl- pyrene, bed sed bed sed bed sed µg/kg (49388)	236Tri- methyl- naphth- ene, bed sed bed sed bed sed µg/kg (49405)	2,6-Di- methyl- naphth- ene, bed sed bed sed bed sed µg/kg (49406)	2-Ethyl- naphth- alene bed sed <2 mm wsv nat wsv nat µg/kg (49948)
Aug 10...	9.4	.4	<.1	<50	<5.00	<50	<50	<50	<50	<50	<50	<50	<50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 4

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

Date	2-Methyl-anthra-cene, bed sed <2 mm, bs <2mm µg/kg (49435)	4H-Cyclo-penta- phenan-threne, bed sed wsv nat wsv nat µg/kg (49411)	9H-Fluor-ene, bed sed wsv nat wsv nat µg/kg (49399)	Ace-naphth-ylene, bed sed bed sed bed sed µg/kg (49429)	Ace-naphth-ylene, bed sed bed sed bed sed µg/kg (49428)	Anthra-cene, bed sed <2 mm, wsv nat field, µg/kg (49434)	Benzo-[a]-anthra-cene, bed sed <2 mm, wsv nat bed sed <2 mm, wsv nat µg/kg (49436)	Benzo-[a]-pyrene, bed sed bed sed bed sed µg/kg (49389)	Benzo-[b]-anthene, bed sed <2 mm, bed sed bed sed µg/kg (49458)	Benzo-[b]-peryl-ene, bed sed <2 mm, bed sed bed sed µg/kg (49408)	Benzo-[ghi]-anthene, bed sed <2 mm, bed sed bed sed µg/kg (49397)	Benzo-[k]-anthene, bed sed <2 mm, bed sed bed sed µg/kg (49450)	Chry-sene, bed sed <2 mm, wsv nat field, µg/kg (49461)	Dibenzo-[a,h]-anthra-cene, bed sed bed sed bed sed µg/kg (49461)
Aug 10...	<50	<50	<50	<50	<50	<50	<50	E2	<50	<50	<50	E1	<50	

01409525 LUCAS BRANCH AT SWEETWATER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 4 of 4

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

Date	Fluor-anthene bed sed <2 mm wsv nat field, 10... μg/kg (49466)	Indeno-[1,2,- 3-cd]- pyrene, bed sed <2 mm bed sed wsv nat field, <2 mm μg/kg (49390)	Iso-phorone bed sed <2 mm wsv nat field, <2 mm μg/kg (49400)	Naphth-alene, bed sed <2 mm wsv nat field, <2 mm μg/kg (49402)	Phenan-threne, bed sed <2 mm, wsv nat field, <2 mm μg/kg (49409)	Phenan-threne, dine, bed sed <2 mm, wsv nat field, <2 mm μg/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, <0.0625 μg/kg (49387)	Bed sedimnt dry svd sve dia percent mm .0
Aug 10...	E4	<50	<50	<50	<50	<50	E5	.0