

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'49", long 79°05'32", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, and 1.8 mi southwest of Chapel Hill.

DRAINAGE AREA.--30 mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
NOV													
01...	0930	40	1.0	0.90	758	4.0	39	6.6	106	14.4	30	7.44	2.65
01...	0935	--	4.0	--	758	3.9	38	6.5	106	14.2	--	--	--
01...	0940	--	8.4	--	758	2.9	28	6.5	112	13.9	--	--	--
APR													
04...	0900	62	1.0	0.70	752	4.6	44	6.1	66	12.6	21	5.38	1.90
04...	0905	--	3.0	--	752	4.2	39	5.9	64	10.6	--	--	--
04...	0910	--	7.6	--	752	1.9	17	6.0	79	9.8	--	--	--
JUN													
27...	0915	40	1.0	0.90	751	9.9	125	7.8	89	26.5	30	7.88	2.62
27...	0920	--	4.0	--	751	0.2	2	6.2	94	13.6	--	--	--
27...	0925	--	8.0	--	751	0.4	4	6.6	157	10.8	--	--	--
AUG													
15...	1130	38	1.0	0.90	758	8.6	112	7.3	89	28.3	31	8.18	2.50
15...	1135	--	4.0	--	758	0.2	2	6.0	128	15.0	--	--	--
15...	1140	--	8.1	--	758	0.3	2	6.4	220	11.5	--	--	--
Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
NOV													
01...	3.52	5.18	--	--	5.97	12.4	9.4	84	0.84	0.224	0.27	0.021	0.009
01...	--	--	--	--	--	--	--	--	0.76	0.230	0.27	0.020	0.010
01...	--	--	--	--	--	--	--	--	0.94	0.317	0.29	0.021	0.010
APR													
04...	1.65	4.30	18	22	3.68	9.9	6.8	56	0.62	E.009	0.149	0.006	E.005
04...	--	--	--	--	--	--	--	--	0.69	0.199	0.228	0.006	0.017
04...	--	--	--	--	--	--	--	--	1.1	0.470	0.150	0.009	0.018
JUN													
27...	2.02	5.68	28	34	5.54	14.6	4.7	77	0.69	<0.015	<0.022	<0.002	<0.007
27...	--	--	--	--	--	--	--	--	1.2	0.483	<0.022	0.005	0.012
27...	--	--	--	--	--	--	--	--	3.0	2.01	--	0.023	0.299
AUG													
15...	2.40	5.74	29	35	5.45	14.4	3.9	72	0.70	<0.015	<0.022	<0.002	E.004
15...	--	--	--	--	--	--	--	--	0.55	E.012	<0.022	0.003	<0.007
15...	--	--	--	--	--	--	--	--	4.0	2.78	E.016	0.019	0.251

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
NOV													
01...	--	9.7	1.9	<0.1	80	<2	<0.2	<0.8	<3.4	E1.2	430	<1	156
01...	--	--	--	--	--	--	--	--	--	--	510	--	189
01...	--	--	--	--	--	--	--	--	--	--	970	--	347
APR													
04...	0.090	9.4	E26.0	<0.1	170	<2	<0.2	<0.8	<3.4	1.5	700	<1	153
04...	0.082	--	--	--	--	--	--	--	--	--	840	--	332
04...	0.159	--	--	--	--	--	--	--	--	--	2,500	--	965
JUN													
27...	0.045	9.2	9.7	0.5	--	--	--	--	--	--	730	--	76.2
27...	0.056	--	--	--	--	--	--	--	--	--	4,640	--	3,220
27...	0.41	--	--	--	--	--	--	--	--	--	990	--	814
AUG													
15...	0.053	13.0	E19.7	<0.1	--	--	--	--	--	--	350	--	84.5
15...	0.042	--	--	--	--	--	--	--	--	--	2,850	--	3,200
15...	0.38	--	--	--	--	--	--	--	--	--	26,800	--	4,820

Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
NOV						
01...	0.02	E1	<2.0	<3	<0.3	<25
01...	--	--	--	--	--	--
01...	--	--	--	--	--	--
APR						
04...	0.03	<2	<2.0	<3	<0.3	E14
04...	--	--	--	--	--	--
04...	--	--	--	--	--	--
JUN						
27...	--	--	--	--	--	--
27...	--	--	--	--	--	--
27...	--	--	--	--	--	--
AUG						
15...	--	--	--	--	--	--
15...	--	--	--	--	--	--
15...	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

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