

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 mi<sup>2</sup>.

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 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
OCT													
27...	1015	50	1.0	.60	750	6.6	69	7.1	103	17.2	35	8.97	3.04
27...	1020	--	4.0	--	750	.2	2	6.9	111	16.3	--	--	--
27...	1025	--	8.5	--	750	.1	1	7.5	434	13.1	--	--	--
APR													
05...	0945	62	1.0	.70	753	9.6	92	7.3	99	12.9	33	8.39	3.02
05...	0950	--	4.0	--	753	9.4	90	7.2	99	12.8	--	--	--
05...	0955	--	8.3	--	753	.5	4	7.1	146	9.9	--	--	--
JUN													
25...	1200	30	1.0	.60	758	9.7	125	9.0	112	28.3	34	8.60	3.11
25...	1205	--	4.0	--	758	.1	2	7.1	151	17.1	--	--	--
25...	1210	--	7.0	--	758	.2	2	7.3	224	12.0	--	--	--
AUG													
23...	0945	25	1.0	.80	756	6.5	82	7.5	103	26.6	30	7.92	2.59
23...	0950	--	4.0	--	756	.2	2	6.8	156	20.5	--	--	--
23...	0955	--	8.0	--	756	.1	1	7.2	371	12.8	--	--	--

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)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat fltrd 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)
OCT													
27...	2.78	6.30	35	43	5.58	<.2	16.9	3.9	85	.74	.058	E.013	E.001
27...	--	--	--	--	--	--	--	--	--	.88	.200	E.012	.002
27...	--	--	--	--	--	--	--	--	--	1.5	.620	<.016	E.001
APR													
05...	1.68	7.80	30	37	8.55	<.2	13.5	7.4	86	.51	E.006	<.016	<.002
05...	--	--	--	--	--	--	--	--	--	.48	E.006	<.016	<.002
05...	--	--	--	--	--	--	--	--	--	.68	.023	E.009	E.001
JUN													
25...	2.08	8.16	32	39	7.47	<.2	16.2	4.7	84	.82	<.010	<.016	<.002
25...	--	--	--	--	--	--	--	--	--	.64	.107	<.016	<.002
25...	--	--	--	--	--	--	--	--	--	1.8	1.15	E.015	.005
AUG													
23...	2.39	6.50	31	38	6.93	<.2	15.8	5.1	55	.75	E.005	<.016	<.002
23...	--	--	--	--	--	--	--	--	--	.70	.034	<.016	E.001
23...	--	--	--	--	--	--	--	--	--	7.0	5.20	.035	.002

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	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)
OCT													
27...	<.006	.042	7.1	12.1	.9	34	<2	<.04	<.8	.222	E.3	530	.09
27...	<.006	.046	--	--	--	--	--	--	--	--	--	1,150	--
27...	<.006	.071	--	--	--	--	--	--	--	--	--	3,160	--
APR													
05...	<.006	.044	6.7	6.8	E.4	64	<2	<.04	<.8	.264	1.1	480	.19
05...	<.006	.045	--	--	--	--	--	--	--	--	--	480	--
05...	<.006	.044	--	--	--	--	--	--	--	--	--	540	--
JUN													
25...	<.006	.040	10.0	40.5	<.1	--	--	--	--	--	--	140	--
25...	<.006	.043	--	--	--	--	--	--	--	--	--	2,420	--
25...	.044	.099	--	--	--	--	--	--	--	--	--	14,200	--
AUG													
23...	<.006	.049	9.3	9.1	E.5	--	--	--	--	--	--	210	--
23...	<.006	.055	--	--	--	--	--	--	--	--	--	1,160	--
23...	E.005	.167	--	--	--	--	--	--	--	--	--	56,100	--

Date	Manganese, water, unfltrd recover-able, ug/L (01055)	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)
OCT						
27...	329	E.02	.3	.33	E.2	<.16
27...	910	--	--	--	--	--
27...	2,740	--	--	--	--	--
APR						
05...	194	.04	E.2	.27	<.4	<.16
05...	197	--	--	--	--	--
05...	402	--	--	--	--	--
JUN						
25...	62.3	--	--	--	--	--
25...	4,040	--	--	--	--	--
25...	4,680	--	--	--	--	--
AUG						
23...	80.0	--	--	--	--	--
23...	2,830	--	--	--	--	--
23...	9,740	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

