DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	PIKE POND	Lake Area (ha):	4.65
Town:	STARK	Maximum depth (m):	8.8
County:	Coos	Mean depth (m):	2.7
River Basin:	Connecticut	Volume (m^3):	125500
Latitude:	44°37'55" N	Relative depth:	3.6
Longitude:	71°21'08" W	Shore configuration:	1.05
Elevation (ft):	1175	Areal water load (m/yr):	22.07
Shore length (m):	800	Flushing rate (yr^{-1}):	8.20
Watershed area (ha):	150.2	P retention coeff.:	0.47
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:		8 March 1994	11 August 1993
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 65%	CHRYSOSPHAERELLA 70%
	#2		DINOBRYON 20%
	#3	(ALL ALGAE SPARSE)	
PHYTOPLANKTON ABUNDANCE (cells/mL)			720
CHLOROPHYLL-A (µg/L)			3.77
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 41%	NAUPLIUS LARVA 24%
	#2	ROTIFER SPP. 27%	STALKED CILIATE SPP 21%
	#3		KERATELLA 19%
ROTIFERS/LITER		20	30
MICROCRUSTACEA/LITER		2	24
ZOOPLANKTON ABUNDANCE (#/L)		22	70
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			3.5
BOTTOM DISSOLVED OXYGEN (mg/L)		5.2	0.5
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.2
Hypolimnion volume (m^3) : 6000
Anoxic volume (m^3) : 4500

CHEMICAL:

Lake: PIKE POND
Town: STARK

	8 March 1994		11 August 1993		
DEPTH (m)	2.0	4.0	1.0	4.5	7.5
pH (units)	5.8	5.8	6.2	6.0	5.8
A.N.C. (Alkalinity)	4.0	3.0	1.2	1.4	2.9
NITRATE NITROGEN	0.10	0.06	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.19	0.21	0.34	0.36	0.48
TOTAL PHOSPHORUS	0.003	0.005	0.016	0.013	0.017
CONDUCTIVITY (µmhos/cm)	27.2	28.4	21.6	22.0	24.7
APPARENT COLOR (cpu)	24	20	8	16	44
MAGNESIUM			0.29		
CALCIUM			1.6		
SODIUM			1.2		
POTASSIUM			< 0.40		
CHLORIDE	< 2	< 2	< 3		< 3
SULFATE	6	6	6		4
TN : TP	97	54	21		28
CALCITE SATURATION INDEX			4.8		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

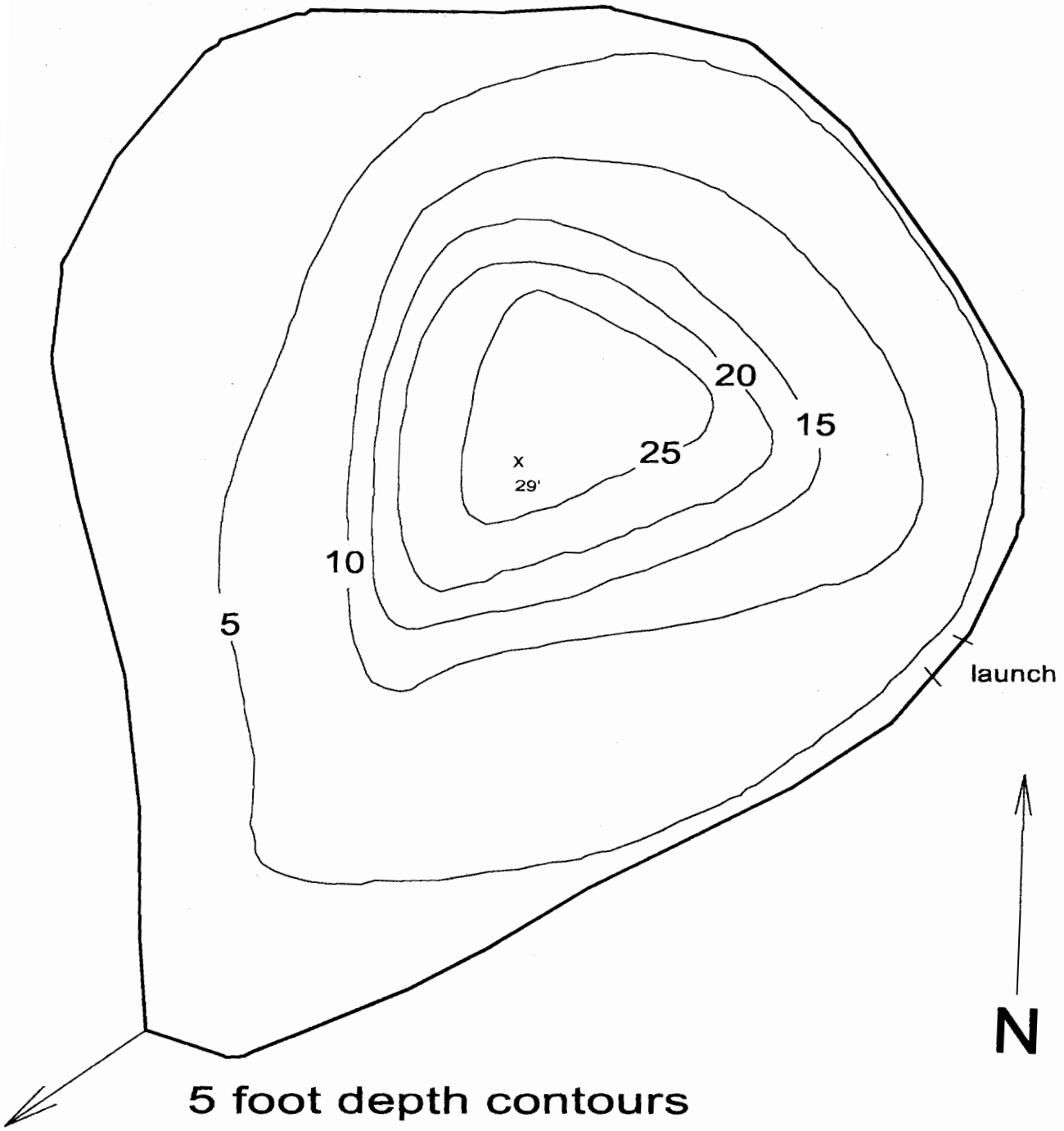
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
4	2	3	0	9	Meso.

COMMENTS:

1. An unimproved, shallow-water launch area was available.
2. Approximately 50% of the shoreline was developed with cottages.
3. The dominant genera of wholewater phytoplankton was Merismopedia (60%).

Pike Pond

Stark



5 foot depth contours

0 0.1

Km

FIELD DATA SHEET

LAKE: PIKE POND
DATE: 08/11/93

TOWN: STARK
WEATHER: SUNNY & WARM(80'S); LT. BREEZE

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	23.0	8.5	98 %
	1.0	22.0	8.4	95 %
	2.0	21.5	8.0	90 %
	3.0	20.0	8.6	93 %
	4.0	15.5	11.2	111 %
	5.0	11.0	8.2	74 %
	6.0	8.0	2.0	17 %
	7.0	6.5	0.4	3 %
	8.0	6.5	0.5	4 %

SECCHI DISK (m): 3.5

BOTTOM DEPTH (m): 8.5

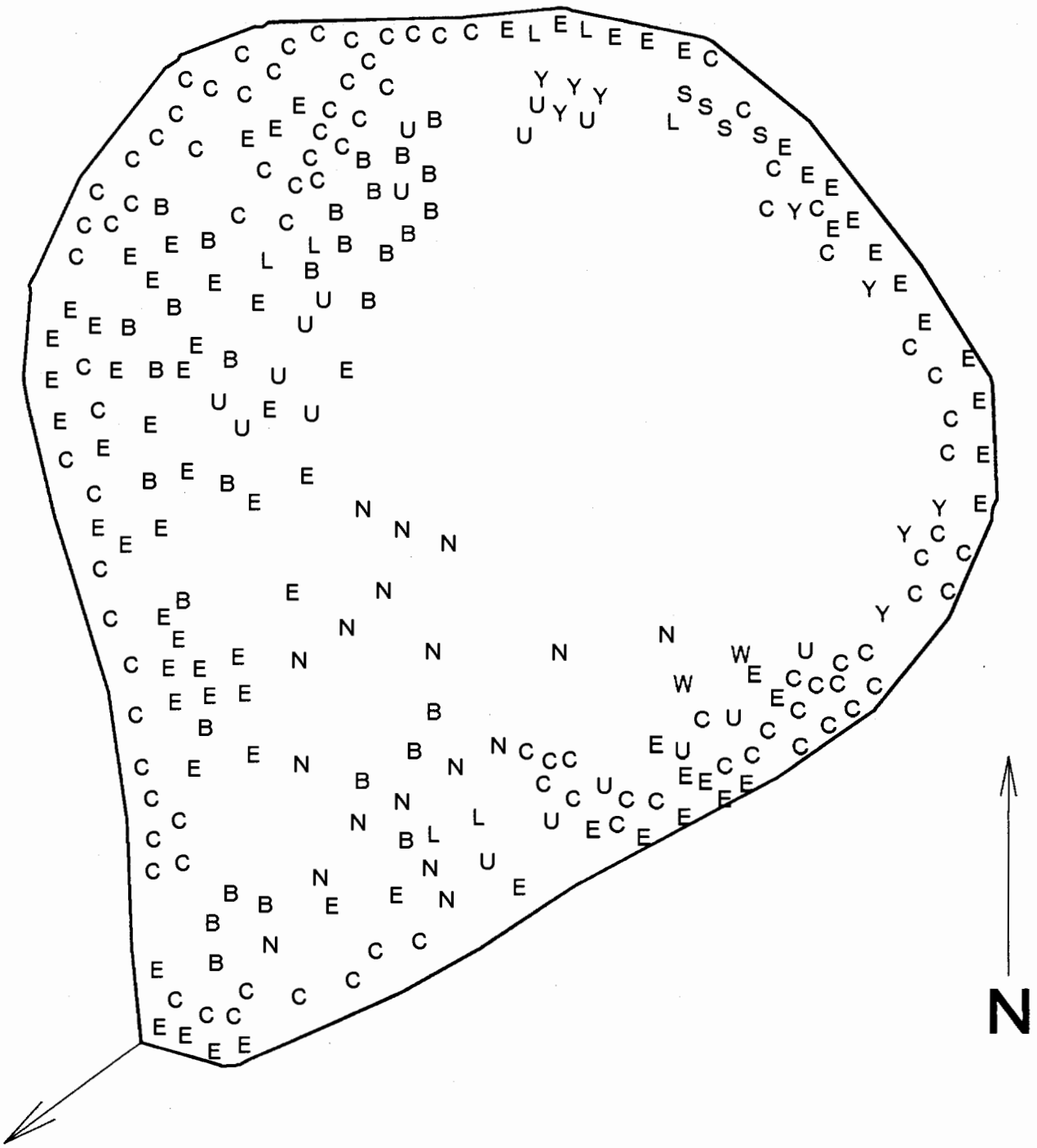
TIME: 1430

COMMENTS:

*Dissolved oxygen values are in mg/L

Pike Pond

Stark



0 0.1

Km

III-200

AQUATIC PLANT SURVEY

LAKE: PIKE POND TOWN: STARK DATE: 08/11/93

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
E	Eriocaulon septangulare	Pipewort	Common
U	Utricularia	Bladderwort	Common
N	Nymphaea	White water lily	Scattered
C	Cyperaceae	non-flowering sedge	Common
B	Brasenia schreberi	Water shield	Scattered
L	Lobelia dortmanna	Water lobelia	Scattered
Y	Nuphar	Yellow water lily	Sparse
S	Sparganium	Bur reed	Sparse
W	Potamogeton	Pondweed	Sparse

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. One great blue heron was observed.