FISH TISSUE CONTAMINATION IN MAINE LAKES
DATA REPORT

Regional Environmental Monitoring and Assessment Program (REMAP)

State of Maine Department of Environmental Protection
September 1995

FISH TISSUE CONTAMINATION IN MAINE LAKES

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by

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I. INTRODUCTION

Since the late 1970's, high levels of mercury and other contaminants have been found in some Maine fish, including fish caught in remote lakes. In 1991, studies were begun to investigate why Maine's bald eagle populations are reproducing much more slowly than those in other parts of the United States. These studies revealed some of the highest concentrations of mercury and polychlorinated biphenyls (PCBs) in nesting eaglets ever reported in the literature. In addition, high levels of mercury and other contaminants have recently been found in fish from many states and provinces, resulting in fish consumption advisories.

These findings increased concern about the potential risks to fish and wildlife resources, and to human health. Exposure to high levels of mercury, for example, is known to cause neurological and reproductive disorders in humans and wildlife. PCBs are known to be carcinogenic. These and other toxic substances accumulate in living tissue, and concentrations are magnified at higher trophic levels in the food chain. There is growing evidence that contamination of fish in remote lakes is due to long range transport of airborne toxics from more highly developed and industrial areas to the south and west of Maine, including New England. Previously, there were very few data to determine the extent of the problem, or to identify the sources and mechanisms of contamination.

In 1993, the Maine Department of Environmental Protection (DEP) initiated a study to measure levels of contamination in fish populations in the State's lakes and ponds, in order to determine the potential risks to both ecological and human health. The Fish Tissue Contamination in Maine Lakes project was funded by the U.S. Environmental Protection Agency (EPA) as part of the Regional Environmental Monitoring and Assessment Program (REMAP). DEP worked in cooperation with EPA New England, the Maine Department of Inland Fisheries and Wildlife (DIFW), the Maine Department of Human Services Health and Environmental Testing Laboratory (HETL), and the National Biological Survey and Sawyer Environmental Chemistry Laboratories at the University of Maine at Orono (UMO).

II. GOALS AND OBJECTIVES

The primary goal of this study was to estimate the levels of contamination in fish populations, and the risk these levels pose to human and wildlife consumers. Secondary goals were to identify factors that affect the distribution of contaminants in fish tissue, to gather evidence relating to likely sources, and to provide insights useful in managing the problem. The study expands upon EPA's Environmental Monitoring and Assessment Program (EMAP), and uses a more intensive sampling protocol. (EMAP is a federal research program designed to monitor the long term status and trends of the nations' ecological resources.)

The primary objective was to determine concentrations of cadmium, lead, mercury, PCBs and selected pesticides in fish collected from Maine lakes. The project enabled DEP to estimate the relative number of lakes impacted and to assess contaminant distribution patterns. Correlations with factors that may affect a fish's or lake's sensitivity to contamination will be examined secondarily. These factors include species, size, age, geography, geology, water and sediment chemistry, hydrology, trophic state and air flow patterns. The results will be used to develop preventive actions and management techniques.

Future research programs will benefit from this project in a number of ways. Valuable data related to Maine's fishery resources was collected. The information will supplement a U.S. Fish and Wildlife study on contaminants in Maine eagles, and will help to determine ecological risks from food chain biomagnification. Contaminant data will also be added to a national database which can be accessed across the United States. The project has demonstrated how EPA's sampling design, developed for the national Environmental Monitoring and Assessment Program (EMAP), can be used on a regional level.

III. EXPERIMENTAL DESIGN

From a population of 1800 Maine lakes that have been surveyed by the Maine Department of Inland Fisheries and Wildlife (DIFW) and have principal fisheries, one hundred and fifty lakes were selected using the EMAP sampling design. This method is based on the requirements for probability sampling used in statistical analyses, and ensures that the lakes were chosen randomly and represent all geographic areas of the state. All lakes in Maine have been assigned unique "MIDAS" (Maine Information Display Analysis System) numbers that are used throughout this study.

During the summers of 1993 and 1994, fish, water samples and sediment samples were collected from 125 of the target lakes for chemical analyses. Additional physical and chemical measurements were recorded in the field. The remaining target lakes were not sampled due to limitations such as accessibility and availability of desired fish species. The data obtained will be compared with existing information on geography, geology, land use, water quality and air transport regions to identify sources of contamination and other factors that affect the distribution of contaminants in fish. This will be done, in part, using a geographic information system (GIS).

Locations of the study lakes are shown in Figure 1. Descriptions of lake locations, including town, county, latitude and longitude, are listed in Table 1. Morphometric information for each lake, including surface area, drainage area, maximum depth, mean depth, flushing rate and shoreline length, is shown in Table 2.

Figure 1. Location of Study Lakes (insert map)

.pdf Editor's note: There was no map supplied with this document.

Table 1. Lake Location Data. LAT = latitude, LONG = longitude, S = source of latitude/longitude data (G = Corrected Global Positioning System (GPS) data, U = Uncorrected GPS data, D = Department of Environmental Protection determination), TOPO QUAD = 15' U.S. Geological Survey Topographical map quadrant, ATLAS = Maine Delorme Atlas map number.

LAKE	MIDAS	TOWN	COUNTY	LAT	LONG	S	TOPO QUAD	ATLAS
ALLEN P	4516	T35 MD	HANCOCK	44 57 44	68 05 07	G	LEAD MOUNTAIN	34
ALLIGATOR P	0502	TA R11 WELS	PISCATAQUIS	45 37 50	69 12 30	D	JO-MARY MOUNTAIN	42
ANASAGUNTICOOK L	3604	HARTFORD	OXFORD	44 25 13	70 19 22	G	CANTON	11
BALCH & STUMP PONDS	3898	NEWFIELD	YORK	43 37 00	70 59 04	G	NEWFIELD	02
BASKAHEGAN L	1078	BROOKTON TWP	WASHINGTON	45 30 32	67 50 02	G	DANFORTH	45
BAUNEAG BEG L	3992	NORTH BERWICK	YORK	43 21 46	70 44 23	G	NORTH BERWICK	02
BEAVER P	3124	DENMARK	OXFORD	43 59 47	70 49 26	G	HIRAM	04
BELDEN P	5730	PALERMO	WALDO	44 24 48	69 23 08	G	PALERMO	13
BEN ANNIS P	2282	HERMON	PENOBSCOT	44 46 25	68 56 35	G	BANGOR	22
BOTTLE L	4702	LAKEVILLE PLT	PENOBSCOT	45 18 36	68 03 17	G	SPRINGFIELD	35
BRACKETT L	1068	WESTON	AROOSTOOK	45 44 44	67 51 34	G	DANFORTH	45
BRADBURY (BARKER) L	9763	NEW LIMERICK	AROOSTOOK	46 08 10	68 00 31	G	SMYRNA MILLS	53
BRAINARD P	5306	READFIELD	KENNEBEC	44 22 15	69 54 59	G	AUGUSTA	12
BRANCH L (SOUTH)	2144	SEBOEIS PLT	PENOBSCOT	45 23 27	68 40 43	G	LINCOLN	43
BRANCH P (EAST)	2822	T07 R11 WELS	PISCATAQUIS	46 15 31	69 09 27	G	SPIDER LAKE	56
BRANCH P (UPPER MID)	4492	AURORA	HANCOCK	44 54 00	68 14 45	D	LEAD MOUNTAIN	24
BUBBLE P	4452	BAR HARBOR	HANCOCK	44 20 44	68 14 20	G	ACADIA NATL PARK	16
BUNKER P (BIG)	0362	SHIRLEY	PISCATAQUIS	45 19 36	69 34 59	G	GREENVILLE	31
BURDEN P	0834	BOWERBANK	PISCATAQUIS	45 20 42	69 14 44	G	SEBEC LAKE	42
BURNT MEADOW P	5572	BROWNFIELD	OXFORD	43 55 28	70 53 09	G	BROWNFIELD	04
BURNT P	4288	DEDHAM	HANCOCK	44 44 41	68 31 41	G	ORLAND	23
CANADA FALLS L	2516	PITTSTON ACAD	SOMERSET	45 52 15	70 00 01	G	PENOBSCOT LAKE	48
CARLTON BOG (POND)	0041	TROY	WALDO	44 42 14	69 16 21	G	BURNHAM	22
CEDAR L	2004	T03 R09 NWP	PENOBSCOT	45 31 14	68 48 32	G	NORCROSS	43
CHAIN OF PONDS	5064	TWP	FRANKLIN	45 21 08	70 41 50	G	CHAIN OF PONDS	38
CHANDLER L	1994	T09 R08 WELS	AROOSTOOK	46 27 13	68 42 12	G	GRAND LAKE SEBOEIS	57
CHASE L	2752	T09 R10 WELS	PISCATAQUIS	46 24 26	69 02 18	G	SPIDER LAKE	56
CHASE P (FIRST)	1538	T14 R09 WELS	AROOSTOOK	46 53 28	68 53 46	G	FISH RIVER LAKE	63
CHUB P	5100	HOBBSTOWN TWP	SOMERSET	45 27 30	70 18 20	G	SPENCER LAKE	39
CHURCHILL L	2856	T09 R12 WELS	PISCATAQUIS	46 26 41	69 18 10	G	CHURCHILL LAKE	56
COBBOSSEECONTEE L	5236	WINTHROP	KENNEBEC	44 15 10	69 56 30	G	GARDINER	12
CROSS L	1674	T17 R05 WELS	AROOSTOOK	47 05 16	68 18 32	G	SQUARE LAKE	68

Table 1 (continued). Lake Location Data.

LAKE	MIDAS	TOWN	COUNTY	LAT	LONG	S	TOPO QUAD	ATLAS
CRYSTAL (BEALS) P	3626	TURNER	ANDROSCOGGIN	44 16 55	70 16 10	G	BUCKFIELD	11
DAMARISCOTTA L	5400	JEFFERSON	LINCOLN	44 10 45	69 28 30	G	JEFFERSON	13
DEBSCONEAG L (4TH)	0582	T01 R10 WELS	PISCATAQUIS	45 45 04	69 04 43	G	HARRINGTON LAKE	50
DIMMICK P (LITTLE)	0240	CARATUNK	SOMERSET	45 13 45	69 52 25	D	BINGHAM	30
DUCK L	4746	T04 ND	HANCOCK	45 09 00	68 05 35	D	NICATOUS LAKE	34
EAGLE L	1634	EAGLE LAKE	AROOSTOOK	47 02 24	68 33 10	G	EAGLE LAKE	67
EAST P	5349	SMITHFIELD	SOMERSET	44 36 39	69 46 53	G	NORRIDGEWOCK	20
EMBDEN P	0078	EMBDEN	SOMERSET	44 55 54	69 56 58	G	ANSON	30
FIELDS P	4282	ORRINGTON	PENOBSCOT	44 43 47	68 44 06	G	ORLAND	23
FISH P	2524	THORNDIKE TWP	SOMERSET	45 44 46	70 07 27	G	LONG POND	40
FISHER P (BIG)	2940	T02 R12 WELS	PISCATAQUIS	45 46 43	69 17 05	G	RAGGED LAKE	50
FLYING P	5182	VIENNA	KENNEBEC	44 31 16	69 59 36	G	NORRIDGEWOCK	20
FOLSOM P	2222	LINCOLN	PENOBSCOT	45 20 25	68 26 37	G	WINN	44
FOREST L	3712	WINDHAM	CUMBERLAND	43 49 12	70 19 42	G	GRAY	05
GRAHAM L	4350	MARIAVILLE	HANCOCK	44 35 38	68 26 15	G	ELLSWORTH	24
GRAND L (WEST)	1150	T05 ND BPP	WASHINGTON	45 13 56	67 48 06	U	WABASSUS LAKE	35
GRANGER P	3126	DENMARK	OXFORD	43 57 06	70 46 50	G	HIRAM	04
GREENWOOD P (LITTLE)	0886	ELLIOTTSVILLE PLT	PISCATAQUIS	45 22 07	69 24 50	G	SEBEC LAKE	41
HAY L	2178	T06 R08 WELS	PENOBSCOT	46 09 10	68 43 18	G	SHIN POND	51
HICKS P	3484	GREENWOOD	OXFORD	44 18 24	70 39 16	G	GREENWOOD	10
HODGDON P	4628	MOUNT DESERT	HANCOCK	44 19 32	68 23 51	G	ACADIA NATL PARK	16
HORSESHOE L	4788	T35 MD	HANCOCK	45 01 05	68 03 52	G	NICATOUS LAKE	35
HOSMER P	4808	CAMDEN	KNOX	44 12 53	69 07 44	G	WEST ROCKPORT	14
INDIAN P (BIG)	0324	LITTLE SQUAW TWP	PISCATAQUIS	45 26 20	69 44 12	G	GREENVILLE	41
JACOB BUCK P	4322	BUCKSPORT	HANCOCK	44 38 45	68 44 40	D	ORLAND	23
JERRY P	2190	T05 R07 WELS	PENOBSCOT	46 05 50	68 40 33	G	SHIN POND	51
JUMP P	5740	PALERMO	WALDO	44 24 09	69 23 55	U	PALERMO	13
KEENE L	1424	CALAIS	WASHINGTON	45 06 38	67 10 30	D	ROBBINSTON	37
KEEWAYDIN L	3272	STONEHAM	OXFORD	44 15 54	70 50 13	G	EAST STONEHAM	10
KINGSBURY P	0262	MAYFIELD TWP	SOMERSET	45 06 38	69 39 19	G	KINGSBURY	31
KNIGHT P	3884	SOUTH BERWICK	YORK	43 15 21	70 45 49	G	SOMERSWORTH	02
LAMBERT L	1332	LAMBERT LAKE TWP	WASHINGTON	45 32 56	67 33 15	G	FOREST	46
LILY P	5288	SIDNEY	KENNEBEC	44 27 54	69 42 20	G	VASSALBORO	13
LONG P	2536	LONG POND TWP	SOMERSET	45 37 20	70 02 08	G	LONG POND	40
LONG P	4598	GREAT POND PLT	HANCOCK	44 55 25	68 15 59	U	GREAT POND	34

Table 1 (continued). Lake Location Data.

LAKE	MIDAS	TOWN	COUNTY	LAT	LONG	S	TOPO QUAD	ATLAS
LOVEWELL P	3254	FRYEBURG	OXFORD	44 00 07	70 55 36	U	FRYEBURG	04
MACHIAS L (FOURTH)	1148	T42 MD BPP	WASHINGTON	45 07 39	68 00 26	G	WABASSUS LAKE	35
MEDDYBEMPS L	0177	MEDDYBEMPS	WASHINGTON	45 04 27	67 21 43	G	CALAIS	36
MOLUNKUS L	3038	T01 R05 WELS	AROOSTOOK	45 39 40	68 18 18	G	MATTAWAMKEAG	44
MONSON P	1820	FORT FAIRFIELD	AROOSTOOK	46 42 15	67 48 05	D	MARS HILL	65
MOOSELEUK L	1990	T10 R09 WELS	PISCATAQUIS	46 30 33	68 54 18	G	MOOSELEUK LAKE	57
NEQUASSET P	5222	WOOLWICH	SAGADAHOC	43 57 04	69 46 13	G	BATH	06
NORTH P	3500	NORWAY	OXFORD	44 15 38	70 35 11	G	WEST PARIS	10
NORTH P	3616	SUMNER	OXFORD	44 19 43	70 24 01	U	WEST SUMNER	11
ORANGE L	1364	WHITING	WASHINGTON	44 46 08	67 14 56	G	GARDNER LAKE	26
OSSIPEE L (LITTLE)	5024	WATERBORO	YORK	43 35 48	70 42 26	G	BUXTON	02
OTTER P	3338	CHAIN OF PONDS TWP	FRANKLIN	45 21 57	70 44 53	G	ARNOLD POND	38
OTTER P	3972	PARMACHENEE TWP	OXFORD	45 10 51	70 58 53	U	CUPSUPTIC	28
PASSAGASSAWAUKEAG L	5496	BROOKS	WALDO	44 30 48	69 07 51	G	BROOKS	22
PATTEE P	5458	WINSLOW	KENNEBEC	44 32 01	69 33 49	G	WATERVILLE	21
PEASE P	5198	WILTON	FRANKLIN	44 35 55	70 10 34	U	WILTON	19
PENNINGTON P	1612	T15 R06 WELS	AROOSTOOK	46 56 10	68 31 11	G	WINTERVILLE	63
PINE P (BIG)	2920	T03 R13 WELS	PISCATAQUIS	45 52 01	69 25 37	G	RAGGED LAKE	49
PITCHER P	4848	NORTHPORT	WALDO	44 20 14	69 02 24	G	LINCOLNVILLE	14
PLEASANT L	0159	ALEXANDER	WASHINGTON	45 03 59	67 29 10	G	CALAIS	36
PLEASANT L	1100	T06 R01 NBPP	WASHINGTON	45 21 33	67 55 10	U	SCRAGGLY LAKE	45
PLEASANT P	3252	FRYEBURG	OXFORD	44 00 24	70 53 25	U	FRYEBURG	04
PORTLAND L	1008	BRIDGEWATER	AROOSTOOK	46 24 04	67 49 28	G	BRIDGEWATER	59
PURGATORY P (LITTLE)	5250	LITCHFIELD	KENNEBEC	44 12 56	69 56 47	G	GARDINER	12
RANGE P (LOWER)	3760	POLAND	ANDROSCOGGIN	44 02 25	70 21 31	U	POLAND	05
ROACH P (SECOND)	0452	T01 R12 WELS	PISCATAQUIS	45 40 34	69 16 36	G	FIRST ROACH POND	42
ROBERTS & WADLEY PDS	5034	LYMAN	YORK	43 32 06	70 38 34	U	BUXTON	02
ROCKY P	4330	ORLAND	HANCOCK	44 35 17	68 35 52	G	ORLAND	23
ROUND (GREY) P	5500	PLYMOUTH	PENOBSCOT	44 44 26	69 13 30	G	BROOKS	22
ROUND P	3818	LIVERMORE	ANDROSCOGGIN	44 25 57	70 13 15	G	LIVERMORE FALLS	11
ROUND P	5684	UNION	KNOX	44 12 03	69 17 36	G	UNION	14
ROWE P	0202	PLEASANT RIDGE PLT	SOMERSET	45 07 32	69 59 29	U	BINGHAM	30
SANDY RIVER P (MID)	3566	SANDY RIVER PLT	FRANKLIN	44 53 52	70 33 16	U	RANGELEY	19
SANDY RIVER P(LOWER)	3564	SANDY RIVER PLT	FRANKLIN	44 53 52	70 32 34	U	RANGELEY	19
SAWYER P	0386	GREENVILLE	PISCATAQUIS	45 28 34	69 33 20	G	GREENVILLE	41

Table 1 (continued). Lake Location Data.

LAKE	MIDAS	TOWN	COUNTY	LAT	LONG	S	TOPO QUAD	ATLAS
SECOND L	1134	T37 MD BPP	WASHINGTON	45 00 52	67 47 34	G	WABASSUS LAKE	35
SENNEBEC P	5682	APPLETON	KNOX	44 15 26	69 15 59	G	WASHINGTON	14
SEWALL P	9943	ARROWSIC	SAGADAHOC	43 52 07	69 46 48	G	ORRS ISLAND	06
SHIN P (LOWER)	2198	T05 R07 WELS	PENOBSCOT	46 05 09	68 33 50	G	SHIN POND	51
SLY BROOK L (SECOND)	1644	NEW CANADA PLT	AROOSTOOK	47 07 11	68 31 19	G	EAGLE LAKE	67
SPENCER P	0404	E MIDDLESEX CANAL	PISCATAQUIS	45 44 34	69 33 31	G	MOOSEHEAD LAKE	41
SQUAW P (BIG)	0334	LITTLE SQUAW TWP	PISCATAQUIS	45 27 22	69 40 44	G	GREENVILLE	41
SUNDAY P	3316	MAGALLOWAY PLT	OXFORD	44 47 56	70 57 12	G	OQUOSSOC	18
SYMMES P	3892	NEWFIELD	YORK	43 38 56	70 52 43	G	NEWFIELD	02
THIRD L	2704	T07 R10 WELS	PISCATAQUIS	46 14 42	69 01 54	G	TELOS LAKE	56
TOGUE P	1530	T15 R09 WELS	AROOSTOOK	46 56 01	68 53 30	G	FISH RIVER LAKE	63
TOGUS P	9931	AUGUSTA	KENNEBEC	44 19 28	69 39 31	G	VASSALBORO	13
TRAVEL P	5456	JEFFERSON	LINCOLN	44 15 14	69 31 49	G	VASSALBORO	13
TRICKEY P	2514	ALDER BROOK TWP	SOMERSET	45 48 16	70 07 10	G	PENOBSCOT LAKE	48
UMBAGOG L	3102	MAGALLOWAY PLT	OXFORD	44 47 25	71 00 47	U	ERROL	17
UMCOLCUS L	3080	T07 R05 WELS	AROOSTOOK	46 17 16	68 25 49	G	OXBOW	58
VARNUM P	3680	WILTON	FRANKLIN	44 39 27	70 14 23	U	FARMINGTON	19
WADLEIGH P	0572	T01 R11 WELS	PISCATAQUIS	45 44 43	69 11 24	G	JO-MARY MOUNTAIN	42
WEBBER P	5408	VASSALBORO	KENNEBEC	44 24 13	69 39 53	G	VASSALBORO	13
WELLS P	3970	PARMACHENEE TWP	OXFORD	45 10 45	70 58 56	U	CUPSUPTIC	28
WEYMOUTH P	5478	CORINNA	PENOBSCOT	44 58 09	69 19 33	G	PITTSFIELD	32
WIGHT P	4662	PENOBSCOT	HANCOCK	44 27 48	68 40 33	G	BLUE HILL	15
WOOD P (LITTLE BIG)	2630	DENNISTOWN PLT	SOMERSET	45 38 12	70 20 40	G	ATTEAN	39

Table 2. Lake Morphometric Information. ELV = elevation (feet), SA = surface area (acres and hectares), Z = maximum depth (feet), Zm = average depth (feet), SL = shoreline length (feet), LT = lake type as determined by the Department of Inland Fisheries and Wildlife (1 = Oligotrophic, 2 = Eutrophic, 3 = Mesotrophic, 4 = Dystrophic), ST = lake stratification indicator (Y=yes, N=no), VOL = volume (cubic meters), DA = drainage area (square miles and square kilometers), RF = runoff factor, FR = flushing rate (number flushes per year), and DAM = Department of Inland Fisheries and Wildlife impoundment class (1 = no functional dam present; all natural flowage, 2 = > 50% area man-made flowage, 3 = < 50% area man-made flowage). An asterisk indicates the data are taken from the Department of Environmental Protection Lake Inventory Report. Missing data are indicated by "-".

LAKE	MIDAS	ELV	SA	SA*	Z	Zm	SL	LT	ST	DA	DA*	VOL*	RF*	FR*	DAM
		FT	ACRES	HA	FT	FT	FT			MI2	KM2	M3		#/YR	
ALLEN P	4516	425	83	40	27	12	12437	3	1	2	5	1164081	0.60	2.8	1
ALLIGATOR P	502	1494	47	19	26	15	6475	2	2	0.32	0.83	748224	0.69	0.8	1
ANASAGUNTICOOK L	3604	402	568	240	54	29	25766	2	1	15	39	20167715	0.56	1.1	3
BALCH & STUMP PONDS	3898	557	704	210	44	12	78144	2	1	14	37	8114012	0.58	2.7	3
BASKAHEGAN L	1078	417	6944	2676	22	-	-	2	2	123	319	89919136	0.57	2.0	1
BAUNEAG BEG L	3992	205	200	76	29	9	27033	2	1	18	46	2416279	0.51	9.6	3
BEAVER P	3124	397	128	32	8	5	10154	3	2	2	6	424674	0.61	7.9	1
BELDEN P	5730	350	24	-	30	12	-	3	1	1	-	-	-	-	1
BEN ANNIS P	2282	122	25	15	9	6	-	2	2	10	27	232681	0.51	58.8	1
BOTTLE L	4702	298	281	105	42	16	25011	2	1	8	20	4441954	0.48	2.1	1
BRACKETT L	1068	446	576	229	25	15	-	2	2	7	19	9513420	0.56	1.1	1
BRADBURY (BARKER) L	9763	449	38	16	45	20	7867	1	1	17	43	890349	0.51	24.5	1
BRAINARD P	5306	270	20	-	13	9	-	2	2	2	-	-	-	-	1
BRANCH L (SOUTH)	2144	227	2035	787	28	11	73787	2	2	12	31	27348704	0.51	0.6	3
BRANCH P (EAST)	2822	910	45	-	9	4	6070	2	2	2	-	-	-	-	1
BRANCH P (UPPER MID)	4492	341	467	188	55	23	-	1	1	4	10	11361966	0.58	0.5	1
BUBBLE P	4452	331	32	13	39	21	7392	3	2	1	2	641427	0.64	1.9	3
BUNKER P (BIG)	362	1090	10	3	23	6	3022	3	1	1	3	53338	0.66	32.4	1
BURDEN P	834	639	197	73	32	12	13068	3	1	17	43	2402595	0.58	10.5	1
BURNT MEADOW P	5572	374	63	27	45	17	7920	2	1	4	10	1380386	0.62	4.5	1
BURNT P	4288	328	315	123	27	22	-	3	2	-	8	6265944	0.58	0.7	1
CANADA FALLS L	2516	1235	2627	923	24	9	-	2	2	182	471	22005836	0.61	13.1	2
CARLTON BOG (POND)	41	203	430	167	8	4	-	2	2	23	59	1477071	0.51	20.1	2
CEDAR L	2004	500	685	264	25	20	28759	2	2	5	14	12535933	0.51	0.6	1
CHAIN OF PONDS	5064	1273	700	282	106	24	86338	1	1	65	167	24093787	0.62	4.3	3
CHANDLER L	1994	824	401	168	19	14	30911	2	2	5	12	5742808	0.52	1.1	1

Table 2 (continued). Lake Morphometric Information.

LAKE	MIDAS	ELV FT	SA ACRES	SA* HA	Z FT	Zm FT	SL FT	LT	ST	DA MI2	DA* KM2	VOL* M3	RF*	FR* #/YR	DAM
CHASE L	2752	819	403	169	31	15	26557	3	1	47	121	7471588	0.58	9.5	1
CHASE P (FIRST)	1538	995	12	4	37	18	3303	1	1	4	11	202901	0.54	28.6	1
CHUB P	5100	1095	24	13	19	10	4933	2	1	0	1	353967	0.46	0.8	1
CHURCHILL L	2856	922	2923	1064	62	20	86035	1	1	298	772	68105013	0.51	5.8	3
COBBOSSEECONTEE L	5236	165	5543	2120	100	37	-	2	1	131	339	157000000	0.51	1.1	3
CROSS L	1674	578	2515	1027	46	20	88735	3	2	164	425	64470338	0.50	3.3	1
CRYSTAL (BEALS) P	3626	328	47	14	39	16	5280	3	1	1	1	641132	0.54	1.1	1
DAMARISCOTTA L	5400	54	4381	1752	114	30	-	3	1	57	147	176000000	0.59	0.5	3
DEBSCONEAG L (4TH)	582	634	227	85	150	69	17043	1	1	6	15	15779428	0.53	0.5	1
DIMMICK P (LITTLE)	240	1390	41	19	14	8	5500	2	2	4	11	382641	0.66	19.4	1
DUCK L	4746	519	1222	-	88	34	38222	1	1	6	-	-	-	-	1
EAGLE L	1634	574	5581	2259	136	44	-	1	1	762	1974	308000000	0.50	3.2	1
EAST P	5349	263	1823	698	27	18	-	2	-	-	17	33682695	0.47	0.2	3
EMBDEN P	78	416	1568	627	158	61	52800	1	1	22	58	113000000	0.53	0.3	3
FIELDS P	4282	109	182	72	31	13	-	2	2	3	38	2372520	0.51	8.2	3
FISH P	2524	1503	211	86	58	20	14847	1	1	6	16	4867056	0.56	1.8	1
FISHER P (BIG)	2940	1150	60	25	11	4	9233	2	2	1	2	292187	0.56	2.9	1
FLYING P	5182	345	360	156	80	27	34320	3	1	15	39	11861943	0.51	1.7	3
FOLSOM P	2222	221	282	153	19	7	-	2	2	14	36	2870616	0.49	6.2	2
FOREST L	3712	276	210	82	38	12	16373	2	1	3	9	3200000	0.53	1.4	3
GRAHAM L	4350	102	7865	3421	47	17	-	2	2	499	1292	130000000	0.58	5.8	2
GRAND L (WEST)	1150	298	14340	5834	128	37	-	1	1	226	585	686000000	0.56	0.5	3
GRANGER P	3126	524	126	51	28	12	15110	3	2	1	3	1998206	0.61	1.0	3
GREENWOOD P (LITTLE)	886	683	61	31	38	18	11914	1	1	1	3	1468234	0.61	1.1	1
HAY L	2178	653	588	252	34	9	35405	3	2	6	15	10553987	0.53	0.8	1
HICKS P	3484	683	93	37	18	7	17106	3	2	10	25	787756	0.59	18.9	3
HODGDON P	4628	50	35	17	22	11	-	2	1	1	3	525508	0.63	3.9	1
HORSESHOE L	4788	454	202	80	20	12	18957	2	2	2	5	2600843	0.58	1.1	1
HOSMER P	4808	212	53	22	16	9	-	3	2	2	6	569233	0.62	6.8	3
INDIAN P (BIG)	324	1209	280	108	68	31	15097	1	1	5	12	10310244	0.76	0.9	1
JACOB BUCK P	4322	205	190	73	52	22	-	1	1	3	7	4251229	0.53	0.8	1
JERRY P	2190	717	272	95	13	8	23801	3	2	4	11	2233448	0.56	2.7	1
JUMP P	5740	312	29	13	42	20	-	3	1	1	4	618792	0.56	3.3	1

Table 2 (continued). Lake Morphometric Information.

LAKE	MIDAS	ELV FT	SA ACRES	SA* HA	Z FT	Zm FT	SL FT	LT	ST	DA MI2	DA* KM2	VOL* M3	RF*	FR* #/YR	DAM
KEENE L	1424	195	115	36	37	16	9504	3	1	1	4	1650251	0.61	1.3	1
KEEWAYDIN L	3272	676	307	10.6	52	17	21120	2	1	9	2	513396	0.06	0.3	3
KINGSBURY P	262	929	390	156	62	19	24955	3	1	13	33	9338331	0.61	2.2	3
KNIGHT P	3884	101	49	20	18	9	7392	3	2	0	1	545139	0.51	0.9	1
LAMBERT L	1332	419	605	218	60	20	42860	3	1	6	17	14327659	0.58	0.7	1
LILY P	5288	146	44	11	30	16	-	3	1	0	1	488154	0.46	1.0	1
LONG P	2536	1157	3053	1224	44	9	-	3	2	558	1445	32482792	0.46	20.3	1
LONG P	4598	390	271	103	36	19	27456	3	1	3	8	4758374	0.58	0.9	1
LOVEWELL P	3254	357	1120	44.7	45	17	39283	2	1	9	2	2608098	0.06	0.1	1
MACHIAS L (FOURTH)	1148	311	1539	620	26	13	80363	3	2	66	172	20551197	0.56	4.7	1
MEDDYBEMPS L	177	170	6765	2718	38	14	-	2	2	45	116	118000000	0.62	0.6	3
MOLUNKUS L	3038	354	1050	436	38	15	57024	2	2	35	91	18502362	0.52	2.5	3
MONSON P	1820	550	160	37	15	8	-	3	2	15	38	729505	0.51	26.3	2
MOOSELEUK L	1990	846	422	279	6	4	69207	2	2	92	237	3017339	0.58	45.2	1
NEQUASSET P	5222	17	392	172	63	30	27760	3	1	21	53	13268687	0.58	2.3	3
NORTH P	3500	487	175	67	10	6	15230	3	2	1	3	1230516	0.57	1.5	3
NORTH P	3616	510	164	63	50	17	7920	2	1	2	4	3515648	0.56	0.7	3
ORANGE L	1364	76	234	93	24	12	1584	3	2	19	50	2627014	0.66	12.6	3
OSSIPEE L (LITTLE)	5024	311	564	182	74	21	31680	2	1	6	17	12368135	0.61	0.8	3
OTTER P	3338	1373	30	9	8	5	4065	2	2	0	0	117888	0.61	2.3	1
OTTER P	3972	1633	14	6	18	12	3007	2	2	0	0	195576	0.71	1.8	1
PASSAGASSAWAUKEAG L	5496	304	118	46	40	22	-	3	1	3	9	2528995	0.55	1.9	1
PATTEE P	5458	141	712	202	27	15	-	2	2	17	44	8927903	0.46	2.3	1
PEASE P	5198	377	109	44	19	14	9850	2	2	2	6	1646084	0.58	2.2	1
PENNINGTON P	1612	904	45	21	5	3	8166	2	2	1	4	107056	0.51	17.5	1
PINE P (BIG)	2920	1097	164	65	33	10	17118	3	1	5	13	2041822	0.51	3.3	1
PITCHER P	4848	204	367	146	38	16	-	3	2	9	23	5757304	0.58	2.3	3
PLEASANT L	159	232	339	140	36	17	18000	3	1	3	8	7353291	0.62	0.7	3
PLEASANT L	1100	319	1574	618	92	34	61396	1	1	21	54	55947024	0.50	0.5	0
PLEASANT P	3252	362	239	9	15	7	15231	3	2	14	4	194929	0.06	1.2	1
PORTLAND L	1008	446	41	-	53	17	6389	3	1	1	-	-	-	-	1
PURGATORY P (LITTLE)	5250	177	44	-	20	11	10736	2	2	-	-	-	-	-	3

Table 2 (continued). Lake Morphometric Information.

LAKE	MIDAS	ELV FT	SA ACRES	SA* HA	Z FT	Zm FT	SL FT	LT	ST	DA MI2	DA* KM2	VOL* M3	RF*	FR* #/YR	DAM
RANGE P (LOWER)	3760	306	290	118	41	15	35811	2	1	14	35	4832601	0.51	3.7	3
ROACH P (SECOND)	452	1271	970	360	46	18	49538	3	2	25	65	20417504	0.66	2.1	3
ROBERTS & WADLEY PDS	5034	271	203	85	22	5	50361	3	2	9	24	1408090	0.58	10.1	3
ROCKY P	4330	312	153	63	14	11	-	2	2	2	5	1643134	0.57	1.8	1
ROUND (GREY) P	5500	269	134	50	30	12	-	2	1	3	7	1503429	0.47	2.1	1
ROUND P	3818	474	161	64	32	18	14520	3	1	2	4	3083691	0.55	0.7	1
ROUND P	5684	34	250	98	34	17	-	2	1	116	300	4194556	0.61	43.7	1
ROWE P	202	1203	205	87	43	14	20608	3	1	2	5	3529364	0.56	0.8	1
SANDY RIVER P (MID)	3566	1700	70	28	58	18	10456	3	1	4	9	1346368	0.56	3.8	1
SANDY RIVER P(LOWER)	3564	1690	17	7	21	6	4349	2	1	4	11	99626	0.56	64.1	1
SAWYER P	386	1245	67	25	23	9	8976	3	1	1	2	589213	0.58	2.2	3
SECOND L	1134	247	102	-	-	-	-	-	-	5	-	-	-	-	9
SENNEBEC P	5682	87	532	215	57	19	26400	3	1	106	275	11526079	0.60	14.2	3
SEWALL P	9943	15	46	18	11	9	-	2	2	0	1	393842	0.60	1.7	3
SHIN P (LOWER)	2198	778	638	262	25	99	37304	3	2	23	60	8010000	0.56	4.2	1
SLY BROOK L (SECOND)	1644	637	13	7	21	9	3115	3	1	3	7	137983	0.50	25.2	1
SPENCER P	404	1045	980	415	16	5	35536	3	2	21	54	6096428	0.61	5.4	3
SQUAW P (BIG)	334	1486	91	36	96	29	8557	1	1	1	4	3226843	0.76	0.8	3
SUNDAY P	3316	1409	30	10	50	24	5057	3	1	1	2	722690	0.61	1.9	1
SYMMES P	3892	499	36	12	30	14	5908	2	1	1	3	560201	0.61	3.3	3
THIRD L	2704	751	474	183	37	11	34956	1	1	32	83	6299085	0.56	7.4	3
TOGUE P	1530	1189	388	130	85	43	22574	1	1	4	9	15606269	0.56	0.3	1
TOGUS P	9931	180	660	260	49	20	40656	2	1	5	12	13909671	0.51	0.5	1
TRAVEL P	5456	204	102	37	6	5	-	2	2	14	36	407027	0.57	50.9	1
TRICKEY P	2514	1400	23	9	28	11	4295	3	1	1	2	259088	0.61	4.8	1
UMBAGOG L	3102	1245	7850	2938	48	14	-	2	2	600	1554	93980660	0.56	9.2	3
UMCOLCUS L	3080	882	630	290	17	10	42158	2	2	15	38	8124429	0.61	2.9	1
VARNUM P	3680	756	331	127	75	38	26000	1	1	4	11	14237806	0.61	0.5	3
WADLEIGH P	572	913	225	94	90	33	20606	1	1	41	105	8790434	0.61	7.3	1
WEBBER P	5408	118	1201	485	41	18	36500	2	1	28	71	23084128	0.51	1.6	3
WELLS P	3970	1630	7	3	16	10	2112	2	2	0	0	62602	0.71	2.4	1
WEYMOUTH P	5478	296	87	29	15	8	-	2	2	1	3	612195	0.47	2.0	1
WIGHT P	4662	67	135	81	21	13	-	3	1	11	27	2721329	0.58	5.9	3
WOOD P (LITTLE BIG)	2630	1244	713	288	80	25	41804	1	1	39	101	22682656	0.46	2.0	1

IV. METHODS

The following section summarizes equipment and protocols used in field sampling and chemical analyses. Details can be found in the "Project Work/Quality Assurance Plan, Fish Tissue Contamination in the State of Maine", by the Maine Department of Environmental Protection, Maine Department of Inland Fisheries and Wildlife and USEPA Region I Environmental Services Division, December 20, 1993 ("Project Work/QA Plan"). Quality assurance/quality control procedures are discussed in Section VI of this report.

A. Fish Collection

Fish species were targeted for collection based on trophic level considerations. For each lake, the primary objective was to collect a predator and an omnivore. A hierarchal order of species preference was developed according to distribution and desirability as game fish. In an effort to obtain specimens from different lakes that were of comparable age, target fish sizes (lengths) were chosen based on available length/age relationships, legal length limit, "desirability" as game species, and likelihood of capture. Where possible, larger fish near the top of the target size range were selected. Stocked hatchery fish were collected only if they had been in the lake at least one year. Ten predators and five omnivores of the same species were collected from each lake when possible, but in some cases, fewer fish were obtained.

The order of priority was as follows:

Predators

Cold water species:

1. Lake Trout (Salvelinus namaycush)	Size 16-22 in
2. Cusk/Burbot (Lota lota)	Size 14-20 in
3. Landlocked Salmon (Salmo salar)	Size 14-18 in
4. Brown Trout (Salmo trutta)	Size 12-18 in
5. Brook Trout (Salvelinus fontinalis)	Size 8-14 in

Warm water species:

1. Smallmouth Bass(Micropterus dolomieui)	Size 10-16 in
2. Largemouth Bass (Micopterus salmoides)	Size 12-16 in
3. Chain Pickerel (Esox niger)	Size 14-22 in
4. Yellow perch (Perca flavescens)	Size 8-12 in
5. White perch (Morone americana)	Size 8-12 in

Omnivores

1. White Sucker (Catostomus commersoni) Size 14-18 in
2. Brown Bullhead (Ictalurus nebulosus) Size 8-12 in

The following are fish species codes used in this report:

BKT - Brook Trout
BNT - Brown Trout
BUL - Brown Bullhead
CSK - Cusk (Burbot)
LKT - Lake Trout
LLS - Landlocked Salmon
LMB - Largemouth Bass
PKL - Chain Pickerel
SMB - Smallmouth Bass
WHS - White perch
WHS - White Sucker
YLP - Yellow perch

Fish were collected by angling, gill nets, trap nets, dip nets or beach seines. Care was taken to keep fish clean and free of contamination. Upon capture, fish were immediately killed if alive. The length and weight of each fish were measured and recorded on field data sheets. Any anomalies, such as tumors, lesions and parasites, were also noted. Samples of scales, pectoral fin rays, pectoral spines, or opercula for age analysis were taken from each fish and labeled. Fish were rinsed in lake water and wrapped in aluminum foil, labeled with an identification number, and kept on ice in a cooler. Upon returning from the field, fish were immediately frozen for later analyses. Fish were handled according to the chain of custody procedure detailed in Appendix 1 of the Project Work/QA Plan. The age of each fish was determined in the lab by the Maine Department of Inland Fisheries and Wildlife using scales, pectoral fin rays, pectoral spines, or opercula, depending on the species. All fish collection field data are listed in Appendix A.

B. Fish Tissue Analyses

To determine potential risks to human consumers as well as wildlife consumers, both fillets and whole fish were analyzed for contaminants. Fish from each lake were divided into three samples: whole fish predators, whole fish omnivores and predator fillets. Fillets were taken only from predators, since these are the species most commonly eaten by people. Each sample contained 1-5 whole fish or fillets of the same species. The fish or fillets in each sample were ground, combined into a composite and homogenized. An aliquot of each sample was then extracted to be analyzed. Predator fillets were analyzed for mercury and percent moisture by the National Biological Survey Laboratory at the University of Maine in Orono. Whole fish were analyzed by the Maine Department of Human Services, Health and Environmental Testing Laboratory (HETL) for the following:

Metals:	Organic Compounds		Others:
mercury	total PCBs	dieldrin	lipids
cadmium	aldrin	endosulfan I	% moist
lead	alpha BHC	endosulfan II	
	delta BHC	endosulfan sulfate	
	gamma BHC	endrin	
	chlordane	endrin aldehyde	
	DDD 4,4'	heptachlor	
	DDE	heptachlor epoxide	
	DDT	toxaphene	

All fish processing was done by the lab performing the analyses. Detailed descriptions of analytical methods may be found in Appendix 2 of the Project Work/QA Plan.

C. Water Quality Sampling and Analyses

Field measurements and water samples were collected at the deepest part of each lake as determined from the Department of Inland Fisheries and Wildlife bathymetric maps. The latitude and longitude of sampling stations were recorded using a Trimble Pathfinder Professional Global Positioning System (GPS). A YSI 6000 Multiprobe with an Omnidata PC-286LX was used to measure and record profiles for temperature, dissolved oxygen, pH and specific conductance at one, two or five meter intervals. Transparency was determined using a Secchi disk and a water scope.

Kemmerer or Van Dorn water bottles were used to collect water samples. Water samples for total alkalinity and dissolved organic carbon (DOC) were collected at one meter below the surface, at the top of the hypolimnion (in stratified lakes) and at one meter above the bottom. Total alkalinity was measured using drop count titration (bromcresol green-methyl red endpoint) in the field. For dissolved anions, dissolved cations, true color, air equilibrated pH and acid

neutralizing capacity (ANC), samples were collected at one meter below the surface and at one meter above the bottom. Total phosphorus samples were collected from a core of the epilimnion, at the top of the hypolimnion (in stratified lakes), and at one meter above the bottom. The epilimnetic core was taken using a ten meter section of Tygon tubing (1/2-5/8 inch diameter). Water samples were labeled, placed on ice in a cooler, and handled according to the chain of custody protocols outlined in Appendix 1 of the Project Work/QA Plan.

Water samples for total phosphorus and dissolved organic carbon (DOC) were analyzed by the Maine Health and Environmental Testing Laboratory. Water samples for anions (Cl, NO_3, SO_4), cations (Ca, Mg, Na, K), true color, air equilibrated pH and acid neutralizing capacity (ANC) were analyzed by the Sawyer Environmental Chemistry Laboratory at the University of Maine, Orono. A complete list of analytical methods may be found in Appendix 2 of the Project Work/QA Plan.

D. Sediment Sampling and Analyses

A sediment sample was collected from the deep hole of each study lake with an Ekman dredge. This was done after all other samples and measurements had been taken, to ensure that disturbed sediments in the water column did not influence water quality results. The top two centimeters of sediment were carefully transferred with an acid-washed plastic spoon equally into three Nalgene sample bottles. Care was taken to avoid sediment which was in contact with the sides of the dredge. Additional dredge samples were collected until all three sample bottles were filled. Sediment appearance, depth, and the number of dredges were recorded. The samples were labeled and placed in a cooler on ice. Sediment was frozen at the lab. All sediment samples were handled according to the chain of custody protocols outlined in Appendix 1 of the Project Work/QA Plan.

Prior to chemical analyses, sediment samples were dried and homogenized. Sediment was analyzed for total organic carbon (TOC) and percent solids by U.S. EPA Region I, New England Regional Laboratory (NERL). The Maine Health and Environmental Testing Laboratory performed analyses for mercury, cadmium, lead, grain size and percent solids. A complete description of analytical methods may be found in Appendix 2 of the Project Work/QA Plan.

V. DATA

A. Fish Tissue

Concentrations of mercury, cadmium and lead in all fish composites are found in Table 3. A preliminary examination of the mercury data revealed that high concentrations in fish were found to be widespread throughout the state. The Maine Department of Human Services has established the human consumption level of concern for mercury at 0.43 parts per million. One or more fish composites from approximately 65% of the lakes sampled were equal to or exceeded this concentration. Approximately 49% of the predator fillet composites, 48% of the whole predator composites and 11% of the omnivore composites exceeded the state level of concern. Mercury levels in fish composites from 9% of the study lakes exceeded the Federal Food and Drug Administration action level of 1.0 parts per million.

Many of the predator fillets were also analyzed individually for mercury as part of a Master of Science research project at the University of Maine, Orono supported by this project (Craig P. Stafford, MS Thesis, December, 1994. "Mercury Contamination in Maine Predatory Fishes"). Maximum concentrations in individual fillets measured well over 3.0 ppm. Maximum levels of mercury in the composites were 1.2 ppm, 1.8 ppm and 2.5 ppm respectively for whole omnivores, whole predators and predator fillets.

Organic compounds detected in predator and omnivore whole fish composites are summarized in Table 4. A preliminary examination of this data revealed the most common contaminants detected in fish to be DDE (99.6% of the samples), DDD (95% of the samples), and DDT (82% of the samples). Other compounds detected in a large number of samples were alpha-BHC (65%), alpha-chlordane (53%), gamma-BHC (49%), aroclor 1260 (29%), aroclor 1254 (27%) and gamma chlordane (25%). Complete results of the analysis for organic compounds are listed in Appendix B.

B. Water Quality and Sediment Results

Water quality measurements are presented in Tables 5-8. Lake field data, including Secchi disk transparency, alkalinity, and weather conditions are found in Table 5. Table 6 includes cation, anion, air equilibrated pH, acid neutralizing capacity (ANC) and true color data. Total phosphorus and dissolved organic carbon results are presented in Tables 7 and 8, respectively. Temperature, dissolved oxygen, pH and specific conductance profiles for each lake are located in Appendix C. Concentrations of mercury, cadmium and lead in sediments appear in Table 9, along with total organic carbon and percent solids data.

Table 3. Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites. SPEC = species, CODE = composite type (PF = predator fillets, PW = predator whole fish, OW = omnivore whole fish), N = number of fish in the composite, YR = year sampled, ND = not detected, K = trace detected at detection level. NA indicates the sample was not analyzed for the given parameter. All values are reported on a wet weight basis.

LAKE	MIDAS	SPEC	CODE	N	HG	CD	PB	YR
					PPM	PPM	PPM	
ALLEN P	4516	PKL	PF	3	1.080	NA	NA	93
ALLEN P	4516	PKL	PW	2	0.830	0.019 K	0.210	93
ALLEN P	4516	WHS	OW	5	0.190	0.064	0.130	93
ALLIGATOR P	502	BKT	PF	2	0.025	NA	NA	94
ANASAGUNTICOOK L	3604	SMB	PF	5	0.570	NA	NA	93
ANASAGUNTICOOK L	3604	SMB	PW	5	0.530	0.019	0.064	93
ANASAGUNTICOOK L	3604	WHS	OW	5	0.540	0.044	0.160	93
BALCH & STUMP PONDS	3898	LMB	PF	5	0.770	NA	NA	93
BALCH & STUMP PONDS	3898	LMB	PW	5	0.590	0.019 ND	0.044	93
BALCH & STUMP PONDS	3898	BUL	OW	2	0.300	0.019 K	0.300	93
BAUNEAG BEG L	3992	LMB	PF	4	0.750	NA	NA	93
BAUNEAG BEG L	3992	LMB	PW	4	0.740	0.019 ND	0.071	93
BAUNEAG BEG L	3992	WHS	OW	5	0.280	0.025	0.200	93
BEAVER P	3124	LMB	PF	5	0.270	NA	NA	93
BEAVER P	3124	LMB	PW	5	0.310	0.019 ND	0.043	93
BEAVER P	3124	BUL	OW	5	0.130	0.025	0.150	93
BELDEN P	5730	SMB	PF	3	0.660	NA	NA	93
BELDEN P	5730	SMB	PW	2	0.480	0.019 ND	0.048	93
BELDEN P	5730	WHS	OW	3	0.120	0.019 K	0.034	93
BEN ANNIS P	2282	BLC	PF	5	0.180	NA	NA	93
BEN ANNIS P	2282	BLC	PW	4	1.300	0.019 ND	0.043	93
BEN ANNIS P	2282	WHS	OW	5	0.090	0.019 K	0.047	93
BOTTLE L	4702	WHP	PF	5	1.050	NA	NA	93
BOTTLE L	4702	WHP	PW	5	0.770	0.052	0.046	93
BOTTLE L	4702	WHS	OW	5	0.240	0.049	0.230	93
BRACKETT L	1068	SMB	PF	5	0.310	NA	NA	93
BRACKETT L	1068	SMB	PW	5	0.260	0.028	0.050	93
BRACKETT L	1068	WHS	OW	5	0.083	0.082	0.160	93
BRACKETT L	1078	SMB	PF	5	0.790	NA	NA	93
BRACKETT L	1078	SMB	PW	5	0.560	0.029	0.052	93
BRACKETT L	1078	WHS	OW	5	0.002	0.054	0.170	93
BRADBURY (BARKER) L	9763	YLP	PF	2	0.810	NA	NA	93
BRADBURY (BARKER) L	9763	BNT	PW	1	0.340	0.019 ND	0.020 ND	93
BRADBURY (BARKER) L	9763	WHS	OW	5	0.240	0.020	0.059	93
BRAINARD P	5306	YLP	PF	5	0.230	NA	NA	93
BRAINARD P	5306	YLP	PW	5	0.120	0.019 ND	0.054	93
BRAINARD P	5306	WHS	OW	5	0.630	0.019 ND	0.036	93
BRANCH L (SOUTH)	2144	SMB	PF	5	0.580	NA	NA	93
BRANCH L (SOUTH)	2144	SMB	PW	5	0.560	0.019 ND	0.050	93
BRANCH L (SOUTH)	2144	WHS	OW	5	0.470	0.096	0.270	93
BRANCH P (EAST)	2822	BKT	PF	5	0.570	NA	NA	93
BRANCH P (EAST)	2822	BKT	PW	5	0.680	0.019 ND	0.027	93
BRANCH P (EAST)	2822	WHS	OW	5	0.200	0.019 ND	0.070	93

Table 3 (continued). Mercury, Cadmium , and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM	PB PPM	YR
BRANCH P (UPPER MID)	4492	LLS	PF	3	0.430	NA	NA	93
BRANCH P (UPPER MID)	4492	LLS	PW	3	0.320	0.022	0.023	93
BRANCH P (UPPER MID)	4492	WHS	OW	5	0.150	0.140	0.077	93
BUBBLE P	4452	BKT	PF	2	0.100	NA	NA	93
BUBBLE P	4452	BKT	PW	2	0.450	0.071	0.044	93
BUNKER P (BIG)	362	WHS	OW	5	0.160	0.019 K	0.15	93
BURDEN P	834	BKT	PF	5	0.490	NA	NA	93
BURDEN P	834	BKT	PW	5	0.440	0.019 K	0.049	93
BURDEN P	834	WHS	OW	5	0.150	0.055	0.310	93
BURNT MEADOW P	5572	LMB	PF	5	0.770	NA	NA	93
BURNT MEADOW P	5572	LMB	PW	5	0.440	0.019 ND	0.058	93
BURNT MEADOW P	5572	WHS	OW	4	0.086	0.057	0.230	93
BURNT P	4288	BKT	PF	5	0.410	NA	NA	93
BURNT P	4288	BKT	PW	5	0.250	0.035	0.021	93
BURNT P	4288	WHS	OW	5	0.130	0.095	0.250	93
CANADA FALLS L	2516	BKT	PF	4	0.790	NA	NA	93
CANADA FALLS L	2516	BKT	PW	3	0.590	0.019 ND	0.037	93
CANADA FALLS L	2516	WHS	OW	5	0.230	0.030	0.063	93
CARLTON BOG (POND)	41	YLP	PF	5	0.290	NA	NA	93
CARLTON BOG (POND)	41	YLP	PW	5	0.250	0.019 ND	0.120	93
CARLTON BOG (POND)	41	WHS	OW	5	0.017	0.019 ND	0.090	93
CEDAR L	2004	WHP	PF	4	0.910	NA	NA	93
CEDAR L	2004	WHP	PW	4	0.640	0.240	0.130	93
CEDAR L	2004	WHS	OW	5	0.530	0.410	0.420	93
CHAIN OF PONDS	5064	LKT	PF	5	0.910	NA	NA	93
CHAIN OF PONDS	5064	LKT	PW	5	0.760	0.019 ND	0.034	93
CHAIN OF PONDS	5064	WHS	OW	5	0.250	0.026	0.100	93
CHANDLER L	1994	BKT	PF	5	0.250	NA	NA	93
CHANDLER L	1994	BKT	PW	4	0.230	0.019 ND	0.037	93
CHANDLER L	1994	WHS	OW	5	0.350	0.019 ND	0.130	93
CHASE L	2752	LLS	PF	5	0.430	NA	NA	93
CHASE L	2752	LLS	PW	5	0.380	0.019 K	0.026	93
CHASE L	2752	WHS	OW	5	0.410	0.090	0.120	93
CHASE P (FIRST)	1538	BKT	PF	2	0.130	NA	NA	93
CHASE P (FIRST)	1538	WHS	OW	5	0.067	0.019 K	0.074	93
CHUB P	5100	YLP	PF	5	0.180	NA	NA	93
CHUB P	5100	YLP	PW	5	0.150	0.019 K	0.150	93
CHUB P	5100	WHS	OW	5	0.002 ND	0.019 ND	0.038	93
CHURCHILL L	2856	BKT	PF	5	0.260	NA	NA	93
CHURCHILL L	2856	BKT	PW	4	0.370	0.022	0.044	93
CHURCHILL L	2856	WHS	OW	5	0.170	0.083	0.440	93
COBBOSSEECONTEE L	5236	BNT	PF	5	0.290	NA	NA	93
COBBOSSEECONTEE L	5236	BNT	PW	5	0.780	0.019 ND	0.020 K	93
COBBOSSEECONTEE L	5236	WHS	OW	5	0.100	0.019 ND	0.062	93
CROSS L	1674	LLS	PF	5	0.390	NA	NA	93
CROSS L	1674	LLS	PW	5	0.470	0.019 ND	0.020 ND	93
CROSS L	1674	WHS	OW	5	0.210	0.034	0.110	93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM	PB PPM	YR
CRYSTAL (BEALS) P	3626	WHP	PF	5	0.410	NA	NA	93
CRYSTAL (BEALS) P	3626	WHP	PW	5	0.350	0.019 K	0.130	93
CRYSTAL (BEALS) P	3626	WHS	OW	5	0.130	0.026	0.130	93
DAMARISCOTTA L	5400	LLS	PF	4	0.210	NA	NA	93
DAMARISCOTTA L	5400	LLS	PW	4	0.220	0.019 ND	0.020 ND	93
DAMARISCOTTA L	5400	WHS	OW	5	0.220	0.019 ND	0.027	93
DEBSCONEAG L (4TH)	582	LKT	PF	2	0.430	NA	NA	93
DEBSCONEAG L (4TH)	582	LKT	PW	1	0.210	0.019 K	0.020 ND	93
DEBSCONEAG L (4TH)	582	WHS	OW	5	0.240	0.081	0.210	93
DIMMICK P (LITTLE)	240	BKT	PF	4	0.050	NA	NA	93
DIMMICK P (LITTLE)	240	BKT	PW	3	0.180	0.094	0.054	93
DIMMICK P (LITTLE)	240	WHS	OW	5	0.210	0.056	0.071	93
DUCK L	4746	LLS	PF	5	0.220	NA	NA	93
DUCK L	4746	LLS	PW	5	0.210	0.044	0.020 ND	93
DUCK L	4746	WHS	OW	5	1.200	0.230	0.480	93
EAGLE L	1634	CSK	PF	5	0.440	NA	NA	93
EAGLE L	1634	CSK	PW	5	0.270	0.019 ND	0.020 K	93
EAGLE L	1634	WHS	OW	5	0.300	0.047	0.230	93
EAST P	5349	SMB	PF	4	0.940	NA	NA	93
EAST P	5349	SMB	PW	3	0.800	0.019 K	0.062	93
EAST P	5349	BUL	OW	5	0.060	0.035	0.100	93
EMBDEN P	78	LKT	PF	3	0.570	NA	NA	93
EMBDEN P	78	LKT	PW	3	0.850	0.019	0.020	93
EMBDEN P	78	WHS	OW	3	0.220	0.120	0.260	93
FIELDS P	4282	PKL	PF	5	0.960	NA	NA	93
FIELDS P	4282	PKL	PW	5	0.470	0.019 ND	0.029	93
FIELDS P	4282	WHS	OW	5	0.240	0.041	0.180	93
FISH P	2524	BKT	PF	3	0.360	NA	NA	93
FISH P	2524	BKT	PW	2	0.570	0.019 K	0.030	93
FISH P	2524	WHS	OW	5	0.120	0.032	0.230	93
FISHER P (BIG)	2940	BKT	PF	5	0.360	NA	NA	93
FISHER P (BIG)	2940	BKT	PW	5	0.420	0.019 K	0.052	93
FISHER P (BIG)	2940	WHS	OW	5	0.028	0.019 K	0.150	93
FLYING P	5182	BNT	PF	4	0.350	NA	NA	93
FLYING P	5182	BNT	PW	4	0.320	0.019 ND	0.023	93
FLYING P	5182	WHS	OW	5	0.220	0.028	0.250	93
FOLSOM P	2222	SMB	PF	5	0.710	NA	NA	93
FOLSOM P	2222	SMB	PW	5	0.720	0.019 ND	0.150	93
FOLSOM P	2222	WHS	OW	5	0.069	0.600	0.075	93
FOREST L	3712	PKL	PF	5	1.220	NA	NA	93
FOREST L	3712	PKL	PW	5	0.800	0.032	0.054	93
GRAHAM L	4350	SMB	PF	3	0.710	NA	NA	93
GRAHAM L	4350	SMB	PW	2	0.750	0.019 ND	0.059	93
GRAHAM L	4350	WHS	OW	5	0.830	0.035	0.160	93
GRAND L (WEST)	1150	LKT	PF	2	0.280	NA	NA	93
GRAND L (WEST)	1150	LKT	PW	2	0.470	0.019 K	0.022	93
GRAND L (WEST)	1150	WHS	OW	4	0.230	0.150	0.190	93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM	PB PPM	YR
GRANGER P	3126	LMB	PF	5	0.730	NA	NA	93
GRANGER P	3126	LMB	PW	5	0.420	0.025	0.086	93
GRANGER P	3126	BUL	OW	2	0.120	0.019 ND	0.210	93
GREENWOOD P (LITTLE)	886	BKT	PF	3	0.240	NA	NA	93
GREENWOOD P (LITTLE)	886	WHS	OW	5	0.044	0.091	0.640	93
HAY L	2178	LLS	PF	2	0.240	NA	NA	93
HAY L	2178	LLS	PW	2	0.400	0.019 ND	0.087	93
HAY L	2178	WHS	OW	5	0.072	0.022	0.082	93
HICKS P	3484	LMB	PF	5	0.900	NA	NA	93
HICKS P	3484	LMB	PW	5	0.570	0.019 ND	0.020 ND	93
HICKS P	3484	WHS	OW	5	0.700	0.034	0.150	93
HODGDON P	4628	SMB	PF	4	2.500	NA	NA	93
HODGDON P	4628	SMB	PW	3	1.800	0.030	0.059	93
HODGDON P	4628	WHS	OW	5	0.120	0.056	0.170	93
HORSESHOE L	4788	WHP	PF	3	0.800	NA	NA	93
HORSESHOE L	4788	WHP	PW	2	0.420	0.046	0.120	93
HORSESHOE L	4788	WHS	OW	5	0.150	0.069	0.320	93
HOSMER P	4808	LMB	PF	3	0.071	NA	NA	94
HOSMER P	4808	LMB	PW	3	0.360	0.010	0.024	94
HOSMER P	4808	WHS	OW	5	0.069	0.027	0.120	93
INDIAN P (BIG)	324		PF	4	0.090	NA	NA	93
INDIAN P (BIG)	324	BKT	PW	4	0.064	0.120	0.070	93
INDIAN P (BIG)	324	WHS	OW	5	0.160	0.150	0.210	93
JACOB BUCK P	4322	WHP	PF	4	0.770	NA	NA	93
JACOB BUCK P	4322	WHP	PW	5	1.073	0.042	0.074	93
JACOB BUCK P	4322	WHS	OW	5	0.240	0.110	0.210	93
JERRY P	2190	BKT	PF	5	0.620	NA	NA	93
JERRY P	2190	BKT	PW	5	0.610	0.019 ND	0.023	93
JERRY P	2190	WHS	OW	5	0.200	0.044	0.160	93
JUMP P	5740	LMB	PF	5	0.430	NA	NA	93
JUMP P	5740	LMB	PW	5	0.360	0.022	0.079	93
JUMP P	5740	WHS	OW	2	0.160	0.510	0.110	93
KEENE L	1424	LLS	PF	3	0.350	NA	NA	93
KEENE L	1424	LLS	PW	2	0.380	0.019 K	0.050	93
KEENE L	1424	WHS	OW	5	0.074	0.067	0.160	93
KEEWAYDIN L	3272	SMB	PF	2	0.890	NA	NA	93
KEEWAYDIN L	3272	SMB	PW	2	0.760	0.021	0.063	93
KEEWAYDIN L	3272	WHS	OW	5	0.260	0.084	0.170	93
KINGSBURY P	262	LLS	PF	5	0.340	NA	NA	93
KINGSBURY P	262	LLS	PW	5	0.550	0.031	0.025	93
KINGSBURY P	262	WHS	OW	5	0.340	0.095	0.130	93
KNIGHT P	3884	WHP	PF	5	0.280	NA	NA	93
KNIGHT P	3884	WHP	PW	5	0.340	0.019 K	0.220	93
KNIGHT P	3884	WHS	OW	5	0.160	0.019 ND	0.180	93
LAMBERT L	1332	LLS	PF	5	0.450	NA	NA	93
LAMBERT L	1332	LLS	PW	5	0.390	0.019	0.020 ND	93
LAMBERT L	1332	WHS	OW	5	0.280	0.064	0.076	93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM	PB PPM	YR
LILY P	5288	LMB	PF	5	0.370	NA	NA	93
LILY P	5288	LMB	PW	5	0.260	0.019 ND	0.037	93
ROWE P	202	LLS	PF	5	0.220	NA	NA	93
ROWE P	202	LLS	PW	5	0.250	0.019 ND	0.027	93
LONG P	2536	YLP	PF	4	0.210	NA	NA	93
LONG P	2536	YLP	PW	3	0.280	0.032	0.075	93
LONG P	2536	WHS	OW	5	0.600	0.130	0.190	93
LONG P	4598	BKT	PF	5	0.400	NA	NA	93
LONG P	4598	BKT	PW	4	0.620	0.019 ND	0.020	93
LONG P	4598	WHS	OW	5	0.190	0.041	0.093	93
LOVEWELL P	3254	BNT	PF	5	0.450	NA	NA	93
LOVEWELL P	3254	BNT	PW	5	0.560	0.047	0.029	93
LOVEWELL P	3254	WHS	OW	5	0.130	0.086	0.110	93
MACHIAS L (FOURTH)	1148	PKL	PF	5	1.120	NA	NA	93
MACHIAS L (FOURTH)	1148	PKL	PW	5	1.200	0.019 K	0.022	93
MACHIAS L (FOURTH)	1148	WHS	OW	5	0.750	0.062	0.130	93
MEDDYBEMPS L	177	SMB	PF	5	0.320	NA	NA	93
MEDDYBEMPS L	177	SMB	PW	5	0.210	0.021	0.027	93
MOLUNKUS L	3038	SMB	PF	5	1.120	NA	NA	93
MOLUNKUS L	3038	SMB	PW	5	0.700	0.022	0.045	93
MOLUNKUS L	3038	WHS	OW	5	0.210	0.079	0.160	93
MONSON P	1820	BKT	PW	1	0.340	0.019 ND	0.020	93
MONSON P	1820	WHS	OW	5	0.280	0.019 ND	0.070	93
MOOSELEUK L	1990	BKT	PF	5	0.480	NA	NA	93
MOOSELEUK L	1990	BKT	PW	5	0.420	0.019 ND	0.024	93
MOOSELEUK L	1990	WHS	OW	5	0.300	0.069	0.058	93
NEQUASSET P	5222	BNT	PF	3	0.370	NA	NA	93
NEQUASSET P	5222	BNT	PW	3	0.550	0.019 K	0.021	93
NEQUASSET P	5222	WHS	OW	5	0.160	0.024	0.076	93
NORTH P	3500	LMB	PF	5	0.540	NA	NA	93
NORTH P	3500	LMB	PW	5	0.480	0.019	0.029	93
NORTH P	3500	BUL	OW	5	0.280	0.009	0.029	94
NORTH P	3616	SMB	PF	4	0.620	NA	NA	93
NORTH P	3616	SMB	PW	4	0.320	0.019 K	0.082	93
NORTH P	3616	WHS	OW	5	0.120	0.053	0.260	93
ORANGE L	1364	PKL	PF	5	0.860	NA	NA	93
ORANGE L	1364	PKL	PW	5	0.520	0.019 ND	0.044	93
ORANGE L	1364	WHS	OW	5	0.220	0.050	0.130	93
OSSIPEE L (LITTLE)	5024	LKT	PF	3	0.770	NA	NA	93
OSSIPEE L (LITTLE)	5024	LKT	PW	3	0.300	0.025	0.110	93
OSSIPEE L (LITTLE)	5024	WHS	OW	3	0.160	0.046	0.530	93
OTTER P	3338	BKT	PF	4	0.160	NA	NA	93
OTTER P	3338	BKT	PW	3	0.230	0.019 ND	0.047	93
OTTER P	3338	WHS	OW	5	0.150	0.019 ND	0.110	93
OTTER P	3972	BKT	PF	3	0.130	NA	NA	93
OTTER P	3972	BKT	PW	3	0.390	0.019 ND	0.045	93
OTTER P	3972	WHS	OW	5	0.590	0.019 ND	0.170	93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM	PB PPM	YR
PASSAGASSAWAUKEAG L	5496	WHP	PF	5	0.550	NA	NA	93
PASSAGASSAWAUKEAG L	5496	WHP	PW	5	0.370	0.020	0.091	93
PASSAGASSAWAUKEAG L	5496	WHS	OW	5	0.170	0.027	0.120	93
PATTEE P	5458	WHP	PF	5	0.380	NA	NA	93
PATTEE P	5458	WHP	PW	5	0.550	0.019 K	0.081	93
PATTEE P	5458	WHS	OW	5	0.170	0.019 ND	0.087	93
PEASE P	5198	LMB	PF	5	0.360	NA	NA	93
PEASE P	5198	LMB	PW	5	0.350	0.019 ND	0.053	93
PEASE P	5198	WHS	OW	5	0.240	0.019 K	0.069	93
PENNINGTON P	1612	BKT	PF	2	0.080	NA	NA	93
PENNINGTON P	1612	BKT	PW	2	0.160	0.033	0.059	93
PINE P (BIG)	2920	BKT	PF	1	0.670	NA	NA	93
PINE P (BIG)	2920	BKT	PW	1	0.580	0.019 ND	0.026	93
PINE P (BIG)	2920	WHS	OW	5	0.120	0.036	0.140	93
PITCHER P	4848	SMB	PF	5	0.670	NA	NA	93
PITCHER P	4848	SMB	PW	5	0.570	0.019	0.092	93
PITCHER P	4848	WHS	OW	5	0.180	0.100	0.260	93
PLEASANT L	159	SMB	PF	5	0.480	NA	NA	93
PLEASANT L	159	SMB	PW	5	0.420	0.019 K	0.027	93
PLEASANT L	159	WHS	OW	5	0.130	0.065	0.120	93
PLEASANT L	1100	LLS	PF	5	0.410	NA	NA	93
PLEASANT L	1100	LLS	PW	5	0.270	0.019 K	0.020 ND	93
PLEASANT L	1100	WHS	OW	5	0.330	0.073	0.070	93
PLEASANT P	3252	PKL	PF	5	0.600	NA	NA	93
PLEASANT P	3252	PKL	PW	5	0.810	0.019	0.036	93
PLEASANT P	3252	WHS	OW	5	0.330	0.093	0.210	93
PORTLAND L	1008	BKT	PF	5	0.560	NA	NA	93
PORTLAND L	1008	BKT	PW	5	0.450	0.019 ND	0.054	93
PORTLAND L	1008	WHS	OW	5	0.057	0.019 ND	0.100	93
PURGATORY P (LITTLE)	5250	YLP	PF	5	0.230	NA	NA	93
PURGATORY P (LITTLE)	5250	YLP	PW	5	0.190	0.019 ND	0.160	93
RANGE P (LOWER)	3760	BNT	PF	3	1.250	NA	NA	93
RANGE P (LOWER)	3760	BNT	PW	3	0.420	0.240	0.057	93
RANGE P (LOWER)	3760	WHS	OW	5	0.170	0.020	0.170	93
ROACH P (SECOND)	452	BKT	PF	5	0.220	NA	NA	93
ROACH P (SECOND)	452	BKT	PW	5	0.330	0.019 ND	0.028	93
ROACH P (SECOND)	452	WHS	OW	5	0.100	0.032	0.084	93
ROBERTS & WADLEY PDS	5034	LMB	PF	5	0.520	NA	NA	93
ROBERTS & WADLEY PDS	5034	LMB	PW	4	0.590	0.019 K	0.120	93
ROBERTS & WADLEY PDS	5034	BUL	OW	5	0.360	0.027	0.150	94
ROCKY P	4330	WHP	PF	5	0.680	NA	NA	93
ROCKY P	4330	WHP	PW	5	1.200	0.042	0.130	93
ROCKY P	4330	WHS	OW	5	0.160	0.062	0.320	93
ROUND (GREY) P	5500	LMB	PF	4	0.510	NA	NA	93
ROUND (GREY) P	5500	LMB	PW	4	0.540	0.019 ND	0.053	93
ROUND (GREY) P	5500	WHS	OW	5	0.110	0.033	0.120	93
ROUND P	3818	SMB	PF	5	0.440	NA	NA	93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM		CD PPM		PB PPM		YR
ROUND P	3818	SMB	PW	4	0.420		0.019	K	0.150		93
ROUND P	3818	WHS	OW	5	0.093		0.029		0.190		93
ROUND P	5684	SMB	PF	1	0.570		NA		NA		93
ROUND P	5684	SMB	PW	1	0.770		0.025		0.045		93
ROUND P	5684	WHS	OW	5	0.200		0.022		0.100		93
ROWE P	202	WHS	OW	5	0.510		0.062		0.200		93
SANDY RIVER P (MID)	3566	BKT	PF	5	0.370		NA		NA		93
SANDY RIVER P (MID)	3566	BKT	PW	5	0.330		0.024		0.024		93
SANDY RIVER P (MID)	3566	WHS	OW	5	0.120		0.039		0.058		93
SANDY RIVER P(LOWER)	3564	BKT	PF	3	0.100		NA		NA		93
SANDY RIVER P(LOWER)	3564	BKT	PW	3	0.180		0.034		0.027		93
SANDY RIVER P(LOWER)	3564	WHS	OW	5	0.180		0.055		0.091		93
SAWYER P	386	WHS	OW	5	0.120		0.019	K	0.052		93
SECOND L	1134	PKL	PF	5	0.580		NA		NA		93
SECOND L	1134	PKL	PW	3	0.420		0.019	K	0.020	K	93
SECOND L	1134	WHS	OW	5	0.150		0.019	K	0.100		93
SENNEBEC P	5682	WHP	PF	3	0.410		NA		NA		94
SENNEBEC P	5682	WHP	PW	4	0.710		0.040		0.120		94
SENNEBEC P	5682	WHS	OW	5	0.420		0.026		0.130		93
SEWALL P	9943	YLP	PF	5	0.190		NA		NA		93
SEWALL P	9943	YLP	PW	5	0.160		0.019	K	0.310		93
SHIN P (LOWER)	2198	LLS	PF	5	0.470		NA		NA		93
SHIN P (LOWER)	2198	LLS	PW	5	0.360		0.019	ND	0.020	ND	93
SHIN P (LOWER)	2198	WHS	OW	5	0.200		0.045		0.083		93
SLY BROOK L (SECOND)	1644	BKT	PF	5	0.370		NA		NA		93
SLY BROOK L (SECOND)	1644	BKT	PW	5	0.940		0.019	ND	0.036		93
SLY BROOK L (SECOND)	1644	WHS	OW	5	0.110		0.019	ND	0.063		93
SPENCER P	404	BKT	PF	3	0.140		NA		NA		93
SPENCER P	404	BKT	PW	3	0.130		0.019	ND	0.034		93
SPENCER P	404	WHS	OW	5	0.002	ND	0.019	ND	0.091		93
SQUAW P (BIG)	334	BKT	PF	5	0.260		NA		NA		93
SQUAW P (BIG)	334	BKT	PW	5	0.220		0.035		0.039		93
SQUAW P (BIG)	334	WHS	OW	2	0.061		0.053		0.092		93
SUNDAY P	3316	BKT	PF	5	0.410		NA		NA		93
SUNDAY P	3316	BKT	PW	5	0.570		0.019	K	0.020	K	93
SUNDAY P	3316	WHS	OW	5	0.170		0.020		0.130		93
SYMMES P	3892	YLP	PF	5	0.180		NA		NA		93
SYMMES P	3892	YLP	PW	5	0.210		0.019	ND	0.100		93
THIRD L	2704	BKT	PF	2	0.360		NA		NA		93
THIRD L	2704	YLP	PW	4	0.710		0.019	K	0.026		93
THIRD L	2704	WHS	OW	5	0.170		0.031		0.077		93
TOGUE P	1530	LKT	PF	5	0.110		NA		NA		93
TOGUE P	1530	LKT	PW	5	0.390		0.030		0.021		93
TOGUE P	1530	WHS	OW	5	0.170		0.033		0.091		93
TOGUS P	9931	BNT	PF	5	0.120		NA		NA		93
TOGUS P	9931	BNT	PW	5	0.120		0.019	ND	0.021		93
TOGUS P	9931	WHS	OW	5	0.251		0.019	ND	0.059		93

Table 3 (continued). Mercury, Cadmium, and Lead Concentrations in Fish Tissue Composites.

LAKE	MIDAS	SPEC	CODE	N	HG PPM	CD PPM		PB PPM		YR
TRAVEL P	5456	LMB	PF	4	0.820	NA		NA		93
TRAVEL P	5456	LMB	PW	3	0.940	0.019	ND	0.085		93
TRAVEL P	5456	WHS	OW	5	0.320	0.020		0.170		93
TRICKEY P	2514	WHS	OW	5	0.200	0.019	K	0.060		93
UMBAGOG L	3102	YLP	PF	5	0.290	NA		NA		93
UMBAGOG L	3102	YLP	PW	5	0.700	0.026		0.100		93
UMBAGOG L	3102	WHS	OW	5	0.300	0.041		0.110		93
UMCOLCUS L	3080	BKT	PF	4	0.430	NA		NA		93
UMCOLCUS L	3080	BKT	PW	5	0.510	0.019		0.046		93
UMCOLCUS L	3080	WHS	OW	5	0.150	0.270		0.160		93
VARNUM P	3680	LKT	PF	5	0.160	NA		NA		93
VARNUM P	3680	LKT	PW	5	0.310	0.019	K	0.020	K	93
VARNUM P	3680	WHS	OW	5	0.310	0.038		0.140		93
WADLEIGH P	572	LKT	PF	5	0.410	NA		NA		93
WADLEIGH P	572	LKT	PW	5	0.510	0.019	ND	0.020	K	93
WADLEIGH P	572	WHS	OW	5	0.590	0.043		0.150		93
WEBBER P	5408	BNT	PF	4	0.180	NA		NA		93
WEBBER P	5408	BNT	PW	4	0.340	0.019	ND	0.021		93
WEBBER P	5408	WHS	OW	5	0.170	0.019	ND	0.079		93
WELLS P	3970	WHS	OW	5	0.700	0.019	K	0.470		93
WEYMOUTH P	5478	YLP	PF	5	0.190	NA		NA		93
WEYMOUTH P	5478	YLP	PW	5	0.160	0.019	ND	0.066		93
WEYMOUTH P	5478	WHS	OW	5	0.074	0.019	ND	0.150		93
WIGHT P	4662	LMB	PF	5	0.490	NA		NA		93
WIGHT P	4662	LMB	PW	4	0.750	0.019	ND	0.045		93
WIGHT P	4662	WHS	OW	5	0.244	0.041		0.072		93
WOOD P (LITTLE BIG)	2630	YLP	PF	5	0.250	NA		NA		93
WOOD P (LITTLE BIG)	2630	YLP	PW	5	0.360	0.027		0.061		93
WOOD P (LITTLE BIG)	2630	WHS	OW	5	0.260	0.076		0.150		93

Table 4. Summary of Organic Compounds Detected in Whole Fish Composites. The table below lists the number and percent of fish composite samples with detectable concentrations of each organic compound. Complete results of analyses for organic compounds in fish are found in Appendix B.

Compound	Number of Positive Samples	Number of Samples Analyzed	Percent of Positive Samples	Detection Limit (ppb)	Concentration Range (ppb wet weight)
Aldrin	27	234	11.5	0.10 - 0.50	0.10 - 0.55
A-BHC	153	235	65.1	0.10 - 0.50	0.11 - 8.33
B_BHC	29	235	12.3	0.10 - 0.50	0.15 - 2.00
D-BHC	12	235	5.1	0.10 - 0.50	0.29 - 1.25
G-BHC	116	235	49.4	0.10 - 0.50	0.12 - 7.90
A-Chlordane	125	235	53.2	0.10 - 0.50	0.10 - 8.00
G-Chlordane	60	235	25.5	0.10 - 0.50	0.11 - 5.70
Dieldrin	8	181	4.4	1.0 - 5.0	1.0 - 2.5
Endosulfan I	2	181	1.1	1.0 - 5.0	1.1 - 5.1
Endosulfan II	2	181	1.1	1.0 - 5.0	2.3 - 2.5
Endosulfan Sulfate	20	181	11.0	1.0 - 5.0	1.0 - 12.2
Endrin	2	181	1.1	1.0 - 5.0	1.7 - 5.4
Endrin Aldehyde	1	181	0.6	1.0 - 5.0	1.6
Endrin Ketone	4	181	2.2	1.0 - 5.0	1.6 - 2.7
Heptachlor	7	235	3.0	0.10 - 1.30	0.15 - 0.40
Heptachlor Epoxide	1	181	0.6	1.0 - 5.0	2.3
DDE	234	235	99.6	0.10	0.24 - 382
DDT	191	234	81.6	0.10 - 0.50	0.12 - 30
DDD	223	235	94.9	0.10	0.10 - 410
Toxaphene	1	235	0.4	10 - 40	20
Aroclor 1221	0	235	0	10 - 50	-
Aroclor 1232	0	235	0	10 - 50	-
Aroclor 1242	0	235	0	10 - 50	-
Aroclor 1248	0	235	0	10 - 50	-
Aroclor 1254	63	235	26.8	10 - 50	10 - 186
Aroclor 1260	69	234	29.5	10 - 50	8.7 - 126
Aroclor 1268	0	235	0	10 - 50	-

Table 5. Lake Field Sampling Data. REG = Department of Inland Fisheries and Wildlife geographic region, WD = wind direction, WV = wind velocity estimate (mph), W = weather conditions (0 = clear, 1 = cloudy bright, 2 = heavy overcast), SD = Secchi transparency (meters), Zs = depth of surface alkalinity sample (meters), TAs = surface alkalinity (mg/l), Zm = depth of metalimnetic alkalinity sample (meters), TAm = metalimnetic alkalinity (mg/l), Zb = depth of bottom alkalinity sample (meters), TAb = bottom alkalinity (mg/l), Z-SED = depth of sediment samples (meters), and N = number of sediment dredge samples collected. Missing data or lakes not sampled at a given depth are indicated by "-".

LAKE	MIDAS	REG	DATE	TIME	WD	WV MPH	W	SD M	Zs M	TAs MG/L	Zm M	TAm MG/L	Zb M	TAb MG/L	Z-SED M	N
ALLEN P	4516	C	8/12/93	1630	S	4	0	4.3	1.0	5.0	6.5	8.0	4.4	4.0	8.0	5
ALLIGATOR P	502	E	8/31/94	1300	W	7	2	3.1	1.0	7.0	5.0	7.0	-	-	6.0	5
ANASAGUNTICOOK L	3604	A	8/27/93	1120	S	1	1	7.0	1.0	3.0	10.0	3.0	12.5	5.0	14.0	2
BALCH & STUMP PONDS	3898	A	9/7/93	1415	E	1	2	5.5	1.0	3.0	11.0	7.0	12.8	9.0	13.0	2
BASKAHEGAN L	1078	F	8/16/93	1120	SE	15	0	4.0	1.0	3.0	6.0	3.0	-	-	7.0	3
BAUNEAG BEG L	3992	A	8/25/93	1220	N	5	1	4.4	1.0	3.0	7.4	6.0	-	-	8.0	2
BEAVER P	3124	A	8/19/93	1300	S	2	1	2.1	1.0	7.0	2.0	7.0	-	-	2.0	2
BELDEN P	5730	B	8/17/93	1230	S	6	2	5.2	1.0	10.0	6.0	8.0	8.0	17.0	9.0	3
BEN ANNIS P	2282	B	8/31/93	930	S	5	2	0.4	1.0	21.0	-	-	-	-	2.0	1
BOTTLE L	4702	F	8/13/93	1100	SE	2	0	5.2	1.0	7.0	9.1	14.0	11.0	18.0	12.0	3
BRACKETT L	1068	F	8/17/93	1120	S	10	0	5.6	1.0	8.0	6.0	8.0	-	-	7.0	6
BRADBURY (BARKER) L	9763	B	8/10/93	900	SW	2	2	5.2	-	-	-	-	-	-	14.0	3
BRADBURY (BARKER) L	9763	G	8/10/93	825	SW	2	2	5.2	1.0	32.0	-	-	13.0	22.0	14.0	3
BRAINARD P	5306	B	8/9/93	1400	S	7	1	2.7	3.0	15.0	1.0	18.0	-	-	4.0	2
BRANCH L (SOUTH)	2144	F	8/6/93	-	NW	5	0	5.8	1.0	4.0	-	-	22.5	4.0	8.0	4
BRANCH P (EAST)	2822	E	9/8/93	1100	SW	5	0	2.3	1.0	8.0	1.5	8.0	-	-	2.0	3
BRANCH P (UPPER MID)	4492	C	8/26/93	1100	NW	5	0	8.5	1.0	5.0	-	-	14.0	5.0	15.0	4
BUBBLE P	4452	C	8/10/93	1530	S	12	0	10.8	1.0	4.0	7.0	4.0	10.0	4.0	11.0	5
BUNKER P (BIG)	362	E	8/9/93	1200	SW	4	1	2.5	-	-	-	-	-	-	7.0	3
BURDEN P	834	E	8/26/93	900	NW	8	0	3.5	1.0	2.0	5.5	2.0	7.0	2.0	8.0	3
BURNT MEADOW P	5572	A	8/23/93	1250	S	5	1	6.1	1.0	2.0	9.0	2.0	12.0	3.0	13.0	2
BURNT P	4288	C	9/29/93	1313	SW	11	0	5.9	1.0	9.0	7.0	7.0	-	-	7.0	6
CANADA FALLS L	2516	E	8/28/93	1000	N	8	2	2.7	1.0	5.0	6.0	5.0	-	-	7.0	5
CARLTON BOG (POND)	41	B	8/11/93	1315	S	5	2	1.3	1.0	8.0	-	-	-	-	1.0	2

Table 5 (continued). Lake Field Sampling Data.

LAKE	MIDAS	REG	DATE	TIME	WD	WV MPH	W	SD M	Zs M	TAs MG/L	Zm M	TAm MG/L	Zb M	TAb MG/L	Z-SED M	N
CEDAR L	2004	F	8/12/93	1030	S	5	2	6.8	1.0	3.0	6.1	3.0	-	-	7.0	4
CHAIN OF PONDS	5064	D	8/16/93	1420	NW	3	1	3.2	1.0	3.0	7.0	3.0	29.0	4.0	30.0	3
CHANDLER L	1994	G	8/8/93	1040	N	1	0	4.6	1.0	5.0	4.0	5.0	5.0	5.0	5.0	3
CHASE L	2752	G	8/8/93	1345	NW	3	1	4.6	1.0	14.0	4.0	14.0	7.5	14.0	8.0	3
CHASE P (FIRST)	1538	G	8/6/93	1128	NW	3	1	7.0	1.0	19.0	5.0	19.0	11.0	19.0	12.0	3
CHUB P	5100	E	8/19/93	1200	S	2	1	3.2	1.0	3.0	3.0	3.0	4.0	3.0	4.0	3
CHURCHILL L	2856	G	8/3/93	1628	SE	7	1	3.0	1.0	12.0	10.0	10.0	19.0	12.0	20.0	3
COBBOSSEECONTEE L	5236	B	8/25/93	1415	W	4	0	2.5	1.0	13.0	9.0	18.0	26.0	18.0	27.0	2
CROSS L	1674	G	8/2/93	1530	S	4	2	2.7	1.0	19.0	12.0	22.0	13.0	30.0	14.0	3
CRYSTAL (BEALS) P	3626	B	8/10/93	1330	S	5	1	5.6	1.0	19.0	5.0	18.0	11.0	35.0	12.0	2
DAMARISCOTTA L	5400	B	8/27/93	1130	S	5	0	7.0	30.0	6.0	13.0	5.0	1.0	6.0	31.0	1
DEBSCONEAG L (4TH)	582	E	8/27/93	1030	SW	10	0	8.4	1.0	3.0	5.0	3.0	34.2	2.0	35.0	3
DIMMICK P (LITTLE)	240	D	8/4/93	1215	W	5	0	3.6	0.0	6.0	4.0	6.0	-	-	4.0	3
DUCK L	4746	F	8/4/93	1343	-	-	1	10.0	1.0	3.0	19.0	2.0	23.0	2.0	-	-
EAGLE L	1634	G	8/4/93	1105	S	6	1	6.4	95.0	15.0	8.0	16.0	1.0	15.0	0.0	0
EAST P	5349	B	8/4/93	1000	-	0	1	2.3	1.0	6.0	5.6	5.4	-	-	7.0	2
EMBDEN P	78	D	8/17/93	1135	SW	10	2	9.9	1.0	3.0	9.0	3.0	-	-	0.0	0
FIELDS P	4282	C	8/11/93	1115	SW	10	2	4.7	1.0	5.0	5.0	6.0	10.0	12.0	11.0	4
FISH P	2524	E	8/24/93	1030	-	0	2	3.9	1.0	3.0	5.5	4.0	16.2	4.0	17.0	3
FISHER P (BIG)	2940	E	8/31/93	1500	SE	5	2	1.9	1.0	3.0	1.4	3.0	-	-	2.0	3
FLYING P	5182	B	8/24/93	1030	SW	3	1	7.0	1.0	7.0	8.0	7.0	21.0	8.0	22.0	1
FOLSOM P	2222	F	8/18/93	950	E	1	2	4.1	1.0	4.0	4.5	6.0	-	-	5.0	4
FOREST L	3712	A	8/13/93	1200	S	3	2	5.8	1.0	3.0	9.0	9.0	11.0	14.0	12.0	2
GRAHAM L	4350	C	8/9/93	1430	SW	10	0	0.6	1.0	4.0	6.0	5.0	11.0	5.0	12.0	4
GRAND L (WEST)	1150	C	8/16/93	1337	S	17	0	8.4	1.0	4.0	37.0	5.0	19.0	6.0	38.0	4
GRANGER P	3126	A	8/19/93	1100	S	2	0	5.5	1.0	5.0	7.0	5.0	-	-	8.0	2
GREENWOOD P (LITTLE)	886	E	8/5/93	1445	E	10	2	7.5	1.0	2.0	10.0	3.0	3.0	2.0	11.0	3
HAY L	2178	F	8/19/93	1030	S	3	1	5.2	1.0	9.0	7.0	9.0	-	-	8.0	4
HICKS P	3484	A	8/20/93	1315	S	3	1	4.3	1.0	8.0	4.0	8.0	-	-	5.0	2

Table 5 (continued). Lake Field Sampling Data.

LAKE	MIDAS	REG	DATE	TIME	WD	WV MPH	W	SD M	Zs M	TAs MG/L	Zm M	TAm MG/L	Zb M	TAb MG/L	Z-SED M	N
HODGDON P	4628	C	8/10/93	1125	S	8	0	5.5	1.0	4.0	3.0	3.0	6.0	3.0	6.0	4
HORSESHOE L	4788	C	8/25/93	1600	NW	11	1	5.5	1.0	5.0	3.0	5.0	5.0	5.0	6.0	4
HOSMER P	4808	B	8/19/93	1315	SE	7	2	3.8	4.0	7.0	1.0	6.0	-	-	5.0	2
INDIAN P (BIG)	324	E	9/7/93	900	S	5	0	7.5	1.0	4.0	10.0	4.0	11.7	4.0	17.0	3
JACOB BUCK P	4322	C	8/24/93	1330	S	7	1	6.7	1.0	3.0	7.0	3.0	14.0	3.0	15.0	4
JERRY P	2190	F	8/24/93	920	S	2	1	1.8	1.0	5.0	3.0	5.0	-	-	4.0	3
JUMP P	5740	B	8/17/93	1000	S	4	2	6.7	1.0	8.0	7.0	6.0	11.0	14.0	12.0	2
KEENE L	1424	C	8/17/93	1300	-	-	-	5.8	1.0	5.0	5.0	4.0	11.0	6.0	-	5
KEEWAYDIN L	3272	A	8/18/93	1330	SW	2	1	6.1	1.0	4.0	10.0	4.0	14.0	5.0	14.0	2
KINGSBURY P	262	E	8/23/93	1000	SW	5	0	7.2	1.0	2.0	6.0	2.0	15.5	2.0	16.0	3
KNIGHT P	3884	A	8/24/93	1340	S	10	1	3.2	1.0	4.0	3.4	4.0	-	-	4.0	2
LAMBERT L	1332	F	8/11/93	1045	SE	12	0	7.5	1.0	6.0	10.1	6.0	16.7	6.0	18.0	4
LILY P	5288	B	8/16/93	1300	S	12	1	5.5	1.0	31.0	6.0	35.0	8.0	41.0	9.0	2
LONG P	2536	E	9/2/93	1200	N	9	0	3.1	1.0	4.0	10.0	5.0	11.9	5.0	12.0	3
LONG P	4598	C	8/12/93	1300	SO	8	0	6.9	1.0	6.0	5.0	6.0	9.0	6.0	11.0	4
LOVEWELL P	3254	A	8/30/93	1400	N	1	1	5.5	1.0	2.0	9.0	5.0	12.0	6.0	13.0	2
MACHIAS L (FOURTH)	1148	C	8/25/93	1145	S	11	1	3.7	3.0	1.0	4.0	3.5	3.0	6.0	7.0	4
MEDDYBEMPS L	177	C	8/6/93	1600	NW	12	0	5.8	1.0	4.0	9.0	4.0	15.0	10.0	16.0	3
MOLUNKUS L	3038	F	8/10/93	1006	SW	8	1	4.4	1.0	7.0	8.0	7.0	-	-	10.0	3
MONSON P	1820	G	9/24/93	1230	NW	15	0	1.5	1.0	67.0	2.0	66.0	-	-	3.0	6
MOOSELEUK L	1990	G	8/8/93	1700	NW	1	1	1.5	1.0	16.0	-	-	-	-	1.0	4
NEQUASSET P	5222	B	8/23/93	1300	SW	7	0	5.6	1.0	4.0	10.0	4.0	19.0	3.0	20.0	2
NORTH P	3500	A	8/20/93	1100	S	0	1	2.7	1.0	9.0	2.0	9.0	-	-	3.0	2
NORTH P	3616	A	8/31/93	1330	S	5	2	7.6	1.0	2.0	11.0	2.0	15.0	2.0	16.0	2
ORANGE L	1364	C	8/13/93	1045	SW	4	0	4.0	6.0	13.0	4.0	5.0	1.0	4.0	7.0	4
OSSIPEE L (LITTLE)	5024	A	9/2/93	1230	SE	2	1	7.9	1.0	4.0	12.0	3.0	20.7	6.0	21.0	2
OTTER P	3338	D	8/16/93	1115	SW	5	0	2.1	1.0	3.0	2.0	3.0	-	-	3.0	3
OTTER P	3972	D	8/10/93	1030	W	5	0	3.2	1.0	4.0	3.0	4.0	-	-	4.0	3
PASSAGASSAWAUKEAG L	5496	B	8/18/93	1045	SW	5	2	6.4	1.0	10.0	8.0	10.0	11.0	22.0	12.0	2
PATTEE P	5458	B	8/4/93	1330	S	10	1	3.8	7.0	28.0	1.0	19.0	-	-	8.0	2
PEASE P	5198	D	8/6/93	1010	S	3	0	4.4	1.0	4.0	4.0	4.0	-	-	5.0	3
PENNINGTON P	1612	G	8/6/93	1615	NW	1	1	1.0	0.5	30.0	-	-	-	-	1.0	3
PINE P (BIG)	2920	E	8/18/93	1200	N	2	2	3.0	1.0	3.0	3.0	3.0	8.0	4.0	9.0	3

Table 5 (continued). Lake Field Sampling Data.

LAKE	MIDAS	REG	DATE	TIME	WD	WV MPH	W	SD M	Zs M	TAs MG/L	Zm M	TAm MG/L	Zb M	TAb MG/L	Z-SED M	N
PITCHER P	4848	B	8/18/93	1300	S	7	2	5.5	10.0	4.0	1.0	4.0	-	-	7.0	2
PLEASANT L	159	C	8/26/93	1515	NW	15	0	7.9	1.0	6.0	9.0	7.0	11.0	7.0	13.0	4
PLEASANT L	1100	F	8/5/93	1100	S	1	2	7.4	1.0	5.0	20.0	5.0	28.8	4.0	30.0	3
PLEASANT P	3252	A	8/30/93	1120	N	1	1	3.8	1.0	3.0	2.8	3.0	-	-	4.0	2
PORTLAND L	1008	G	8/9/93	1410	SW	9	1	4.7	-	-	-	-	-	-	0.0	0
PORTLAND L	1008	G	8/9/93	1415	SW	7	1	4.7	1.0	74.0	2.0	74.0	13.0	106	14.0	3
PURGATORY P (LITTLE)	5250	B	8/9/93	1200	S	7	1	5.2	5.0	16.0	1.0	16.0	-	-	6.0	2
RANGE P (LOWER)	3760	A	8/17/93	1300	SE	5	2	5.8	1.0	9.0	9.0	10.0	13.0	25.0	14.0	2
ROACH P (SECOND)	452	E	8/31/93	1000	S	20	2	3.2	1.0	3.0	9.2	3.0	-	-	10.0	3
ROBERTS & WADLEY PDS	5034	A	9/2/93	1410	S	10	1	2.3	1.0	1.0	5.2	1.0	-	-	7.0	2
ROCKY P	4330	C	9/15/93	1300	S	8	0	3.7	1.0	6.0	4.0	5.0	-	-	4.0	0
ROUND (GREY) P	5500	B	8/11/93	1030	S	10	2	6.1	1.0	13.0	6.0	15.0	7.0	17.0	8.0	2
ROUND P	3818	B	8/10/93	1100	SW	8	2	6.8	1.0	7.0	7.0	8.0	8.0	8.0	10.0	2
ROUND P	5684	B	8/5/93	1330	NW	10	1	3.6	1.0	10.0	10.0	14.0	-	-	11.0	2
ROWE P	202	D	8/5/93	1034	N	7	1	3.4	1.0	3.0	7.0	3.0	11.5	4.0	12.0	3
SANDY RIVER P (MID)	3566	D	8/9/93	1050	W	5	0	4.0	1.0	3.0	6.0	2.0	15.0	3.0	16.0	3
SANDY RIVER P(LOWER)	3564	D	8/9/93	1345	NW	8	0	2.4	1.0	2.0	4.0	2.0	-	-	5.0	3
SAWYER P	386	E	7/4/93	1300	NE	5	0	3.0	1.0	5.0	5.0	6.0	6.5	7.0	8.0	3
SECOND L	1134	C	8/7/93	1205	SW	8	0	6.4	1.0	14.0	6.0	16.0	18.0	17.0	18.0	3
SENNEBEC P	5682	B	8/19/93	900	S	1	2	4.6	17.0	7.0	10.0	6.0	1.0	6.0	18.0	2
SEWALL P	9943	B	8/23/93	1500	S	10	0	1.6	1.0	3.0	2.0	3.0	-	-	3.0	2
SHIN P (LOWER)	2198	F	8/19/93	1330	S	3	1	5.3	1.0	8.0	4.5	8.0	-	-	5.0	4
SLY BROOK L (SECOND)	1644	G	8/7/93	1228	S	2	1	3.8	1.0	18.0	3.0	14.0	5.0	14.0	6.0	3
SPENCER P	404	E	8/3/93	1130	E	4	1	1.0	1.0	9.0	3.0	8.0	-	-	4.0	3
SQUAW P (BIG)	334	E	8/25/93	1000	N	10	1	5.7	1.0	5.0	5.5	4.0	25.2	4.0	26.0	3
SUNDAY P	3316	D	8/12/93	1200	NE	7	0	2.7	1.0	3.0	3.0	2.0	13.0	7.0	14.0	3
SYMMES P	3892	A	9/8/93	1245	S	1	2	3.7	1.0	3.0	7.0	5.0	8.7	5.0	9.0	2
THIRD L	2704	F	8/24/93	1215	S	1	1	2.4	1.0	16.0	8.8	18.0	9.4	20.0	10.0	3
TOGUE P	1530	G	8/5/93	1330	NW	9	1	9.4	25.0	13.0	6.0	12.0	1.0	12.0	26.0	3
TOGUS P	9931	B	8/12/93	900	S	6	2	2.8	14.0	16.0	9.0	11.0	1.0	8.0	15.0	2
TRAVEL P	5456	B	8/6/93	1330	W	3	2	2.0	1.0	6.0	-	-	-	-	2.0	2
TRICKEY P	2514	E	8/24/93	1330	SE	4	1	3.6	1.0	6.0	2.5	6.0	5.9	7.0	7.0	3
UMBAGOG L	3102	D	8/11/93	1110	S	5	1	4.9	1.0	2.0	12.0	2.0	-	-	13.0	3

Table 5 (continued). Lake Field Sampling Data.

LAKE	MIDAS	REG	DATE	TIME	WD	WV MPH	W	SD M	Zs M	TAs MG/L	Zm M	TAm MG/L	Zb M	TAb MG/L	Z-SED M	N
UMCOLCUS L	3080	G	8/9/93	1035	S	4	0	2.9	1.0	6.0	4.0	7.0	-	-	5.0	0
VARNUM P	3680	D	8/7/93	1215	NW	5	1	7.6	1.0	5.0	7.0	5.0	17.0	5.0	21.0	3
WADLEIGH P	572	E	8/27/93	1200	NW	10	0	4.1	1.0	5.0	5.0	4.0	21.0	2.0	22.0	3
WEBBER P	5408	B	8/12/93	1230	S	8	2	1.1	1.0	12.0	9.0	15.0	11.0	17.0	12.0	2
WELLS P	3970	D	8/10/93	1230	W	5	0	2.9	1.0	3.0	3.0	2.0	-	-	4.0	3
WEYMOUTH P	5478	B	8/31/93	1300	S	7	2	4.2	1.0	34.0	3.0	34.0	-	-	4.0	1
WEYMOUTH P	5478	B	8/31/93	1330	SW	10	2	4.2	1.0	33.0	3.0	36.0	-	-	4.0	1
WIGHT P	4662	C	8/11/93	1442	SE	6	1	3.9	1.0	6.0	4.0	6.0	6.0	11.0	7.0	4
WOOD P (LITTLE BIG)	2630	E	9/1/93	1030	N	5	0	4.0	1.0	5.0	6.0	4.0	14.4	5.0	15.0	3

Table 6. Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data. Z=sample depth, TY=sample type (SG= surface grab, BG=bottom grab), PH=air equilibrated pH, ANC=acid neutralizing capacity, COL=true (filtered) color, CT=the sum of positive ions, AN=the sum of negative ions, and RATIO=the ratio of positive to negative ions. EH indicates the sample exceeded the recommended holding time.

LAKE	MIDAS	Z	TY	PH	ANC	COL	CA	MG	K	NA	CL	NO3	SO4	CT	AN	RATIO
		M			UEQ/L	PCU	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	
ALLEN P	4516	1.0	SG	7.24	106	26	103	39	16.1	70	41	0	55	228	202	1.13
ALLEN P	4516	6.5	BG	7.52	180	46	151	44	17.9	68	41	0	40	280	261	1.07
ALLIGATOR P	502	1.0	SG	7.24	92.7	-	89	21	14.6	39	12	0	50	164	155	1.06
ALLIGATOR P	502	5.0	BG	7.25	91.0	-	89	20	14.3	38	12	0	50	161	153	1.05
ANASAGUNTICOOK L	3604	1.0	SG	7.45	163	12	174	44	17.1	83	57	0	86	319	306	1.04
ANASAGUNTICOOK L	3604	12.5	BG	7.60	229	22	203	47	16.9	77	52	0	60	343	341	1.01
BALCH & STUMP PONDS	3898	1.0	SG	7.58	188	10	192	49	14.8	207	186	0	56	463	430	1.08
BALCH & STUMP PONDS	3898	12.8	BG	7.83	383	41	265	58	19.9	214	195	1.2	11	558	590	0.95
BASKAHEGAN L	1078	1.0	SG	7.06	78.8	37	97	44	10.5	61	48	0	56	212	183	1.16
BASKAHEGAN L	1078	6.0	BG	7.10	82.2	40	99	45	12.8	68	46	1.1	57	225	186	1.21
BAUNEAG BEG L	3992	1.0	SG	7.57	200	27	235	108	24.3	460	481	0 EH	91	826	772	1.07
BAUNEAG BEG L	3992	7.4	BG	7.67	276	61	216	88	27.1	369	369	0.1 EH	56	700	701	1.00
BEAVER P	3124	1.0	SG	7.40	127	12	105	44	7.2	74	30	0 EH	64	230	221	1.04
BEAVER P	3124	2.0	BG	7.39	124	12	105	44	6.9	74	31	0 EH	65	229	220	1.04
BELDEN P	5730	1.0	SG	7.60	221	18	179	69	15.9	95	55	0	71	359	347	1.04
BELDEN P	5730	8.0	BG	7.75	324	43	255	70	23.5	100	53	1.0	70	449	448	1.00
BEN ANNIS P	2282	1.0	SG	8.10	659	135	559	160	26.6	328	322	0.4	17	1073	998	1.08
BOTTLE L	4702	1.0	SG	7.44	146	19	138	49	14.6	75	41	0	65	276	252	1.10
BOTTLE L	4702	11.0	BG	7.74	295	90	202	58	18.2	74	43	0.3	33	352	371	0.95
BRACKETT L	1068	1.0	SG	7.53	172	5	174	51	11.0	81	66	0	71	318	309	1.03
BRACKETT L	1068	6.0	BG	7.53	175	6	156	39	8.2	59	48	0	52	261	275	0.95
BRADBURY (BARKER) L	9763	1.0	SG	8.28	948	19	878	133	14.3	140	81	8.0	55	1165	1092	1.07
BRADBURY (BARKER) L	9763	13.0	BG	8.13	675	25	634	93	15.6	98	101	14.0	82	840	872	0.96
BRAINARD P	5306	1.0	SG	8.01	500	35	421	109	16.9	151	102	0	72	698	674	1.04
BRAINARD P	5306	3.0	BG	8.01	525	51	418	106	36.8	139	111	0	54	700	690	1.01
BRANCH L (SOUTH)	2144	1.0	SG	7.24	118	12	88	39	11.0	52	20	0	55	189	193	0.98
BRANCH L (SOUTH)	2144	6.8	BG	7.22	122	12	86	39	10.2	50	19	0	54	187	195	0.96
BRANCH P (EAST)	2822	1.0	SG	8.03	619	63	564	137	6.9	44	21	0.2	65	751	705	1.06

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
BRANCH P (EAST)	2822	1.5	BG	7.99	591	90	564	135	7.2	42	22	0.1	66	748	679	1.10
BRANCH P (UPPER MID)	4492	1.0	SG	7.30	107	16	105	44	14.8	79	46	0.5 EH	70	243	224	1.09
BRANCH P (UPPER MID)	4492	14.0	BG	7.27	102	11	104	42	15.1	82	47	0 EH	72	243	221	1.10
BUBBLE P	4452	1.0	SG	7.13	65.0	3	103	44	6.9	151	139	0	91	305	295	1.03
BUBBLE P	4452	10	BG	7.14	60.2	4	101	44	7.4	149	140	0	90	301	290	1.04
BUNKER P (BIG)	362	1.0	SG	7.19	100	36	102	43	8.2	42	9	0.9	58	195	168	1.16
BUNKER P (BIG)	362	6.0	BG	7.48	160	38	142	44	13.3	36	21	0.3	53	236	234	1.01
BURDEN P	834	1.0	SG	7.17	85.1	24	85	47	10.0	43	18	0	54	185	157	1.18
BURDEN P	834	7.0	BG	7.33	119	39	105	49	12.5	43	21	0.2	48	209	188	1.11
BURNT MEADOW P	5572	1.0	SG	7.41	126	9	130	35	11.8	177	157	0 EH	62	353	345	1.02
BURNT MEADOW P	5572	12.0	BG	7.54	178	21	174	36	14.6	194	185	0 EH	49	418	412	1.01
BURNT P (1)	4288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANADA FALLS L	2516	1.0	SG	7.67	261	55	252	84	8.4	37	14	0	61	382	336	1.14
CANADA FALLS L	2516	6.0	BG	7.70	278	56	261	86	8.9	38	14	1.1	61	394	354	1.11
CARLTON BOG (POND)	41	1.0	SG	7.61	251	119	174	106	6.4	90	36	0 EH	46	377	333	1.13
CEDAR L	2004	1.0	SG	7.17	71.0	5	95	28	8.7	46	20	0	76	177	167	1.06
CEDAR L	2004	6.1	BG	7.16	72.4	6	96	28	8.9	46	19	0	76	178	167	1.07
CHAIN OF PONDS	5064	1.0	SG	7.61	220	41	200	93	16.9	60	34	0	87	369	341	1.08
CHAIN OF PONDS	5064	29	BG	7.50	179	43	172	79	17.9	47	27	13.7	78	315	298	1.06
CHANDLER L	1994	1.0	SG	7.50	140	9	178	57	9.7	47	56	0 EH	80	291	276	1.05
CHANDLER L	1994	4.0	BG	7.39	139	30	175	55	8.7	45	56	0 EH	80	283	275	1.03
CHASE L	2752	1.0	SG	7.87	410	34	407	94	6.9	42	10	0	106	550	526	1.04
CHASE L	2752	7.5	BG	7.83	395	40	423	95	7.7	41	11	2.0	104	567	512	1.11
CHASE P (FIRST)	1538	1.0	SG	8.10	552	6	469	119	4.3	42	13	0 EH	79	634	644	0.98
CHASE P (FIRST)	1538	11.0	BG	8.12	590	10	473	128	5.6	43	15	0 EH	64	649	669	0.97
CHUB P	5100	1.0	SG	7.48	163	13	137	63	8.9	45	26	0	63	255	252	1.01
CHUB P	5100	3.0	BG	7.49	164	13	138	65	7.7	43	22	0	64	254	250	1.01
CHURCHILL L	2856	1.0	SG	7.69	285	39	271	92	9.2	33	10	0.9	78	406	374	1.09
CHURCHILL L	2856	19.0	BG	7.71	286	37	274	93	9.2	33	10	0.8	78	410	375	1.09

(1) Sample exceeded holding time by approximately 90 days - not analyzed.

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
COBBOSSEECONTEE L	5236	1.0	SG	7.91	391	10	373	83	28.9	183	180	0 EH	92	668	663	1.01
COBBOSSEECONTEE L	5236	26.0	BG	7.99	364	28	380	84	33.2	179	178	0 EH	69	676	611	1.11
CROSS L	1674	1.0	SG	8.05	505	17	476	162	16.9	89	84	0 EH	141	744	730	1.02
CROSS L	1674	13.0	BG	8.15	531	24	524	170	19.2	88	84	0.8 EH	130	801	746	1.07
CRYSTAL (BEALS) P	3626	1.0	SG	8.01	525	10	549	86	28.6	251	227	0	125	914	877	1.04
CRYSTAL (BEALS) P	3626	11.0	BG	8.22	860	47	709	104	37.8	274	264	0	41	1125	1165	0.97
DAMARISCOTTA L	5400	1.0	SG	7.44	145	10	135	67	23.5	155	140	0	82	382	367	1.04
DAMARISCOTTA L	5400	30.0	BG	7.38	125	20	129	65	22.8	148	134	9.6	81	364	350	1.04
DEBSCONEAG L (4TH)	582	1.0	SG	7.39	121	8	131	31	10.0	42	12	0	69	214	202	1.06
DEBSCONEAG L (4TH)	582	34.2	BG	7.40	125	9	140	33	10.2	44	13	5.0	73	227	216	1.05
DIMMICK P (LITTLE)	240	1.0	SG	-	-	-	138	262	4.6	28	-	-	-	-	-	-
DIMMICK P (LITTLE)	240	4.0	BG	7.73	299	30	129	252	6.6	29	17	1.2	91	417	408	1.02
DUCK L	4746	1.0	SG	6.94	50.0	4	78	27	10.2	62	34	0	85	178	169	1.05
DUCK L	4746	23.0	BG	6.95	44.2	5	76	26	11.5	64	35	1.8	85	177	166	1.07
EAGLE L	1634	1.0	SG	7.98	436	26	406	114	10.7	63	36	0.4 EH	100	594	572	1.04
EAGLE L	1634	95.0	BG	7.96	420	26	390	114	11.5	61	38	8.9 EH	99	577	566	1.02
EAST P	5349	1.0	SG	7.52	172	11	146	53	14.3	113	101	0	56	325	329	0.99
EAST P	5349	5.6	BG	7.55	179	7	149	53	13.8	111	99	0	58	327	336	0.97
EMBDEN P	78	1.0	SG	7.38	129	6	135	42	11.5	57	37	0	82	246	248	0.99
EMBDEN P	78	167	BG	7.35	121	7	138	43	11.3	56	35	7.7	82	248	246	1.01
FIELDS P	4282	1.0	SG	7.32	107	20	120	59	12.3	118	102	0	81	310	290	1.07
FIELDS P	4282	10.0	BG	7.53	176	37	141	63	13.3	112	97	0	66	330	339	0.97
FISH P	2524	1.0	SG	7.58	206	19	188	65	7.9	32	8	0	62	292	276	1.06
FISH P	2524	16.2	BG	7.63	235	32	200	66	8.2	30	9	0.6	55	303	300	1.01
FISHER P (BIG)	2940	1.0	SG	7.21	89.3	15	103	49	8.4	31	12	0	73	191	174	1.10
FISHER P (BIG)	2940	1.4	BG	7.20	89.8	15	102	48	10.2	31	14	0	72	191	176	1.09
FLYING P	5182	1.0	SG	7.67	225	10	236	55	16.9	152	136	0 EH	85	459	446	1.03
FLYING P	5182	21	BG	7.71	254	20	244	57	17.1	139	128	13.8 EH	77	457	473	0.97
FOLSOM P	2222	1.0	SG	7.17	94.0	32	104	39	15.3	67	30	0	64	226	188	1.20
FOLSOM P	2222	4.5	BG	7.33	129	44	122	44	16.4	66	31	0	58	247	218	1.14
FOREST L	3712	1.0	SG	6.82	39.7	7	90	42	14.6	451	466	0	69	598	575	1.04
FOREST L	3712	11.0	BG	7.46	185	46	112	43	16.9	462	457	0.6	27	634	670	0.95

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
GRAHAM L	4350	1.0	SG	7.25	97.0	37	108	52	14.3	94	72	0	60	269	229	1.17
GRAHAM L	4350	11.0	BG	7.36	123	38	118	53	16.4	95	72	1.3	56	282	252	1.12
GRAND L (WEST)	1150	1.0	SG	7.21	100	5	106	37	11.8	60	34	0	73	216	207	1.04
GRAND L (WEST)	1150	37.0	BG	7.21	96.4	6	108	37	11.8	61	34	1.0	73	218	204	1.06
GRANGER P	3126	1.0	SG	7.20	79.7	5	85	35	7.7	93	65	0 EH	62	221	207	1.07
GRANGER P	3126	7.0	BG	7.26	91.9	6	92	36	11.0	94	68	0 EH	64	233	224	1.04
GREENWOOD P (LITTLE)	886	1.0	SG	6.98	63.0	4	57	42	6.1	37	19	0	77	142	159	0.89
GREENWOOD P (LITTLE)	886	10.0	BG	7.23	100	6	74	47	7.4	37	21	0	68	165	189	0.87
HAY L	2178	1.0	SG	7.55	190	16	160	85	8.7	47	29	0	67	301	286	1.05
HAY L	2178	7.0	BG	7.57	197	17	163	89	8.7	46	27	0.2	68	306	292	1.05
HICKS P	3484	1.0	SG	7.55	178	11	181	39	9.2	81	51	0 EH	74	310	303	1.02
HICKS P	3484	4.0	BG	7.56	177	12	181	39	9.7	80	49	0 EH	73	310	299	1.04
HODGDON P	4628	1.0	SG	6.96	59.0	16	74	64	9.5	198	180	0	74	346	313	1.11
HODGDON P	4628	6.0	BG	7.01	64.0	19	74	66	10.0	198	178	0	73	348	315	1.11
HORSESHOE L	4788	1.0	SG	7.24	98.0	8	91	38	16.1	76	39	0 EH	69	221	206	1.07
HORSESHOE L	4788	5.0	BG	7.24	98.7	10	90	38	16.4	76	39	0 EH	68	221	206	1.07
HOSMER P	4808	1.0	SG	7.59	206	7	142	67	12.5	174	137	0	52	396	395	1.00
HOSMER P	4808	4.0	BG	7.61	204	9	149	69	14.3	181	144	0	52	413	400	1.03
INDIAN P (BIG)	324	1.0	SG	7.56	197	7	173	92	8.9	36	16	0	90	309	303	1.02
INDIAN P (BIG)	324	11.7	BG	7.55	191	8	176	92	8.4	33	16	3.6	90	310	301	1.03
INDIAN P (BIG)	334	1.0	SG	7.61	201	10	178	81	9.7	36	14	0	85	305	300	1.02
INDIAN P (BIG)	334	25.2	BG	7.63	224	17	188	81	12.3	41	23	13.5	80	323	341	0.95
JACOB BUCK P	4322	1.0	SG	7.22	86.4	9	107	48	9.7	99	83	0 EH	80	264	249	1.06
JACOB BUCK P	4322	14.0	BG	7.27	97.6	11	109	49	10.5	95	84	0.1 EH	77	263	259	1.02
JERRY P	2190	1.0	SG	7.23	128	72	135	62	7.4	40	16	0	59	244	203	1.20
JERRY P	2190	3.0	BG	7.24	131	74	135	61	7.4	40	17	0	58	243	206	1.18
JUMP P	5740	1.0	SG	7.47	159	15	143	57	22.5	82	85	0	53	304	297	1.02
JUMP P	5740	11.0	BG	7.67	266	40	216	63	27.1	82	56	1.7	60	388	384	1.01
KEENE L	1424	1.0	SG	7.21	99.8	7	107	41	7.9	91	71	0	65	248	236	1.05
KEENE L	1424	11.0	BG	7.31	119	15	103	44	8.7	86	70	0	59	242	248	0.98
KEEWAYDIN L	3272	1.0	SG	7.05	63.5	10	78	27	11.0	81	57	0	70	197	191	1.04
KEEWAYDIN L	3272	14.0	BG	7.03	94.5	15	84	30	12.8	75	51	0	58	202	204	0.99

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
KINGSBURY P	262	1.0	SG	7.26	79.3	7	85	48	8.9	81	66	0	63	223	208	1.07
KINGSBURY P	262	15.5	BG	7.24	91.3	16	84	49	10.0	79	64	3.5	63	222	222	1.00
KNIGHT P	3884	1.0	SG	7.72	264	18	193	86	21.7	220	172	0 EH	58	521	494	1.06
KNIGHT P	3884	3.4	BG	7.72	260	18	189	86	19.9	218	168	0 EH	58	512	486	1.05
LAMBERT L	1332	1.0	SG	7.41	137	13	147	43	8.7	85	66	0	65	284	268	1.06
LAMBERT L	1332	16.8	BG	7.43	144	17	150	43	9.2	86	66	1.3	65	288	276	1.04
LILY P	5288	1.0	SG	8.32	1120	13	1517	192	40.1	483	502	0	544	2232	2166	1.03
LILY P	5288	8.0	BG	8.39	1400	19	1617	190	44.0	461	469	0	430	2312	2299	1.01
LONG P	2536	1.0	SG	7.59	210	30	190	83	8.2	45	16	0.1	73	327	299	1.09
LONG P	2536	11.9	BG	7.78	272	39	217	90	10.2	45	19	0	65	362	356	1.02
LONG P	4598	1.0	SG	7.28	107	9	104	40	12.0	83	52	0	67	240	226	1.06
LONG P	4598	9.0	BG	7.39	128	12	114	41	13.0	83	50	0	58	251	236	1.06
LOVEWELL P	3254	1.0	SG	7.13	77.3	8	102	32	16.4	196	166	0.5	65	347	309	1.12
LOVEWELL P	3254	12.0	BG	7.60	187	39	137	35	17.6	171	142	0.1	28	359	357	1.01
MACHIAS L (FOURTH)	1148	1.0	SG	7.01	74.9	48	86	32	14.3	75	41	0 EH	53	208	169	1.23
MACHIAS L (FOURTH)	1148	6.0	BG	7.01	75.1	49	87	32	15.6	80	46	0 EH	53	215	174	1.24
MEDDYBEMPS L	177	1.0	SG	7.25	103	22	127	45	8.9	104	97	0	64	285	264	1.08
MEDDYBEMPS L	177	15.0	BG	7.37	131	25	135	48	9.5	104	97	0	62	296	290	1.02
MOLUNKUS L	3038	1.0	SG	7.51	177	41	176	77	10.2	43	27	0	63	306	267	1.15
MOLUNKUS L	3038	8.0	BG	7.52	181	43	182	79	11.3	44	29	3.6	63	316	277	1.14
MONSON P (2)	1820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MOOSELEUK L	1990	1.0	SG	7.85	402	10	364	104	10.0	47	10	0 EH	85	525	497	1.06
NEQUASSET P	5222	1.0	SG	7.28	97.6	13	90	72	15.1	152	120	0 EH	89	330	307	1.08
NEQUASSET P	5222	19.0	BG	7.30	106	18	95	70	16.9	147	124	8.5 EH	89	329	328	1.00
NORTH P	3500	1.0	SG	7.64	214	13	207	61	32.5	126	129	0 EH	68	426	411	1.04
NORTH P	3500	2.0	BG	7.63	212	12	202	61	30.9	119	120	0 EH	68	413	400	1.03
NORTH P	3616	1.0	SG	7.29	106	4	124	35	11.0	52	32	0	87	223	225	0.99
NORTH P	3616	15.0	BG	7.36	120	9	125	36	10.0	49	31	0	80	220	231	0.95
ORANGE L	1364	1.0	SG	7.05	74.6	32	88	53	9.7	125	112	0	60	276	247	1.12

(2) No sample collected.

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
ORANGE L	1364	6.0	BG	7.52	184	65	134	60	11.5	123	109	0	38	328	331	0.99
OSSIPEE L (LITTLE)	5024	1.0	SG	7.62	203	5	214	61	21.0	224	240	0	61	520	504	1.03
OSSIPEE L (LITTLE)	5024	20.7	BG	7.79	325	23	255	58	21.2	211	218	0.9	37	546	581	0.94
OTTER P	3338	1.0	SG	7.41	133	12	111	54	24.3	44	14	0.1	69	233	216	1.08
OTTER P	3338	2.0	BG	7.40	134	12	110	53	22.5	41	22	0	71	227	227	1.00
OTTER P	3972	1.0	SG	7.63	227	12	197	89	10.5	40	13	0	97	336	337	1.00
OTTER P	3972	3.0	BG	7.63	227	12	193	89	12.5	42	12	0	96	337	335	1.01
PASSAGASSAWAUKEAG L	5496	1.0	SG	7.57	200	8	175	71	23.3	145	124	0	78	414	402	1.03
PASSAGASSAWAUKEAG L	5496	11.0	BG	7.86	382	48	237	76	27.1	139	122	0.6	32	478	537	0.89
PATTEE P	5458	1.0	SG	7.99	488	22	436	152	18.2	151	145	0	113	757	746	1.02
PATTEE P	5458	7.0	BG	8.18	740	54	544	156	19.7	147	139	0	67	867	946	0.92
PEASE P	5198	1.0	SG	7.69	268	7	274	84	34.5	284	300	0	77	676	645	1.05
PEASE P	5198	40.0	BG	7.69	267	9	274	83	34.5	283	292	0	76	675	635	1.06
PENNINGTON P	1612	1.0	SG	8.20	755	9	674	157	8.4	121	92	0	85	960	932	1.03
PINE P (BIG)	2920	1.0	SG	7.25	127	49	127	60	11.0	37	11	0	62	234	200	1.17
PINE P (BIG)	2920	8.0	BG	7.48	205	73	167	67	12.8	36	14	0	53	284	272	1.04
PITCHER P	4848	1.0	SG	7.16	83.6	12	81	45	12.0	98	80	0	62	237	226	1.05
PITCHER P	4848	10.0	BG	7.21	94.6	15	86	45	14.6	103	84	0	62	248	241	1.03
PLEASANT L	159	1.0	SG	7.32	106	7	116	50	10.2	146	144	0 EH	63	322	313	1.03
PLEASANT L	159	11.0	BG	7.45	146	9	133	55	11.0	144	139	0 EH	53	343	338	1.01
PLEASANT L	1100	1.0	SG	7.32	132	13	114	43	12.0	63	31	0	72	232	235	0.99
PLEASANT L	1100	28.0	BG	7.32	137	16	115	44	13.0	64	33	3.5	74	237	248	0.96
PLEASANT P	3252	1.0	SG	7.35	135	23	134	41	15.1	161	123	0.2	57	351	315	1.11
PLEASANT P	3252	2.8	BG	7.36	135	24	130	41	14.8	163	127	0.8	58	349	321	1.09
PORTLAND L	1008	1.0	SG	8.60	2010	13	1886	207	12.5	43	133	0 EH	64	2149	2207	0.97
PORTLAND L	1008	13.0	BG	8.52	3020	12	2670	289	19.7	57	145	0 EH	90	3035	3255	0.93
PURGATORY P (LITTLE)	5250	1.0	SG	7.97	439	13	439	62	16.1	170	161	0	64	687	664	1.03
PURGATORY P (LITTLE)	5250	5.0	BG	8.03	509	15	501	67	21.7	167	161	0	61	756	731	1.03
RANGE P (LOWER)	3760	1.0	SG	7.56	232	7	226	67	16.1	162	144	0	77	471	453	1.04
RANGE P (LOWER)	3760	13.0	BG	7.80	405	19	286	72	19.4	155	137	0	29	532	571	0.93
ROACH P (SECOND)	452	1.0	SG	7.55	178	15	144	61	15.9	49	16	0	53	269	247	1.09
ROACH P (SECOND)	452	9.2	BG	7.57	178	15	142	60	15.6	47	16	0	54	265	248	1.07

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z	TY	PH	ANC	COL	CA	MG	K	NA	CL	NO3	SO4	CT	AN	RATIO
		M			UEQ/L	PCU	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	UEQ/L	
ROBERTS & WADLEY PDS	5034	1.0	SG	6.73	44.1	85	55	27	11.3	93	71	0	39	187	154	1.21
ROBERTS & WADLEY PDS	5034	5.2	BG	6.53	40.1	112	55	26	12.0	80	65	3.6	38	174	147	1.19
ROCKY P	4330	1.0	SG	7.10	74.1	9	81	37	9.2	84	60	0 EH	57	211	191	1.10
ROCKY P	4330	4.0	BG	7.08	67.7	9	78	37	9.2	85	61	0 EH	57	210	186	1.13
ROUND (GREY) P	5500	1.0	SG	7.94	414	11	336	144	12.3	108	102	0	93	600	609	0.99
ROUND (GREY) P	5500	7.0	BG	7.97	441	11	345	145	12.0	108	123	0	42	610	606	1.01
ROUND P	3818	1.0	SG	7.65	214	4	229	67	22.2	181	166	0	103	499	483	1.03
ROUND P	3818	8.0	BG	7.70	238	6	242	65	21.0	174	155	0	90	502	483	1.04
ROUND P	5684	1.0	SG	7.57	202	33	178	72	21.2	117	96	0	87	388	385	1.01
ROUND P	5684	10.0	BG	7.60	231	42	180	74	18.7	135	125	0	63	408	419	0.97
ROWE P	202	1.0	SG	7.17	82.8	6	87	39	8.2	39	14	0	71	174	168	1.04
ROWE P	202	11.5	BG	7.53	165	14	125	48	11.8	42	22	0	55	227	242	0.94
SANDY RIVER P (MID)	3566	1.0	SG	7.18	80.8	11	126	39	11.0	139	110	0	103	314	294	1.07
SANDY RIVER P (MID)	3566	15.0	BG	7.42	136	15	167	46	12.5	160	145	17.0	92	385	390	0.99
SANDY RIVER P(LOWER)	3564	1.0	SG	7.25	92.6	8	135	42	8.4	127	107	0	114	313	314	1.00
SANDY RIVER P(LOWER)	3564	4.0	BG	7.23	90.2	12	127	40	8.9	107	83	0	106	283	279	1.01
SAWYER P	386	1.0	SG	7.39	129	9	119	61	13.6	87	73	0	83	280	285	0.98
SAWYER P	386	6.5	BG	7.59	229	6	167	76	16.9	91	78	0	64	351	371	0.95
SECOND L	1134	1.0	SG	7.79	321	14	268	77	14.8	77	48	0	58	436	427	1.02
SECOND L	1134	18.0	BG	7.89	396	20	326	90	15.9	79	49	14.9	53	512	513	1.00
SENNEBEC P	5682	1.0	SG	7.56	200	35	173	71	18.7	134	99	0	67	397	366	1.08
SENNEBEC P	5682	17.0	BG	7.49	179	43	151	61	19.9	109	90	10.9	65	341	345	0.99
SEWALL P	9943	1.0	SG	7.03	70.3	43	146	327	49.6	1557	1872	2.4 EH	178	2081	2123	0.98
SEWALL P	9943	2.0	BG	7.01	69.5	40	149	328	49.9	1562	1870	2.1 EH	178	2089	2120	0.99
SHIN P (LOWER)	2198	1.0	SG	7.53	181	13	176	61	6.1	50	28	0	74	293	283	1.04
SHIN P (LOWER)	2198	4.5	BG	7.52	181	12	175	59	6.4	50	28	0	72	291	281	1.03
SLY BROOK L (SECOND)	1644	1.0	SG	8.04	490	17	389	115	5.9	60	15	0 EH	66	570	571	1.00
SLY BROOK L (SECOND)	1644	5.0	BG	7.92	388	35	328	88	8.2	46	13	0 EH	57	470	458	1.03
SPENCER P	404	1.0	SG	7.58	219	21	213	70	10.2	52	13	0	100	345	332	1.04
SPENCER P	404	3.0	BG	7.59	221	20	204	66	8.2	47	11	0	95	325	327	0.99
SUNDAY P	3316	1.0	SG	7.17	116	70	133	63	25.6	47	9	0	101	269	226	1.19
SUNDAY P	3316	13.0	BG	7.83	376	44	282	84	30.7	61	17	0	69	458	462	0.99

Table 6 (continued). Cation, Anion, Air Equilibrated pH, Acid Neutralizing Capacity (ANC), and True (filtered) Color Data.

LAKE	MIDAS	Z M	TY	PH	ANC UEQ/L	COL PCU	CA UEQ/L	MG UEQ/L	K UEQ/L	NA UEQ/L	CL UEQ/L	NO3 UEQ/L	SO4 UEQ/L	CT UEQ/L	AN UEQ/L	RATIO
SYMMES P	3892	1.0	SG	7.48	161	39	148	55	16.6	118	82	0	67	338	310	1.09
SYMMES P	3892	8.7	BG	7.73	305	50	227	54	21.0	102	74	0	45	405	424	0.95
THIRD L	2704	1.0	SG	7.85	413	67	414	112	6.4	40	22	0	74	572	509	1.12
THIRD L	2704	9.4	BG	7.87	460	84	428	109	15.6	61	41	0.6	68	614	570	1.08
TOGUE P	1530	1.0	SG	7.89	336	7	328	57	6.9	36	10	0 EH	83	428	429	1.00
TOGUE P	1530	25.0	BG	7.89	341	7	339	58	7.4	37	12	2.3 EH	87	442	442	1.00
TOGUS P	9931	1.0	SG	7.57	194	8	180	58	23.8	195	183	0.8	67	458	445	1.03
TOGUS P	9931	14.0	BG	7.73	275	25	209	62	24.0	181	165	0	50	476	490	0.97
TRAVEL P	5456	1.0	SG	7.25	132	131	104	59	10.5	166	104	0	75	339	311	1.09
TRICKEY P	2514	1.0	SG	7.95	489	21	483	74	5.4	36	8	0	74	598	571	1.05
TRICKEY P	2514	5.9	BG	8.03	606	21	569	85	7.4	38	13	0	70	699	689	1.01
UMBAGOG L	3102	1.0	SG	7.31	118	13	119	53	11.0	47	21	1.3	82	229	222	1.03
UMBAGOG L	3102	12.0	BG	7.35	127	20	127	56	13.3	48	23	1.9	80	245	232	1.06
UMCOLCUS L	3080	1.0	SG	7.48	186	46	183	72	8.9	42	14	0	66	305	266	1.15
UMCOLCUS L	3080	4.0	BG	7.52	194	48	186	73	7.7	40	12	0	65	307	271	1.13
VARNUM P	3680	1.0	SG	7.86	347	2	332	43	18.2	57	32	0	93	450	472	0.95
VARNUM P	3680	17.0	BG	7.87	353	4	335	44	18.7	57	33	2.5	91	455	480	0.95
WADLEIGH P	572	1.0	SG	7.51	172	35	173	46	11.3	47	11	0	58	277	241	1.15
WADLEIGH P	572	21.0	BG	7.37	122	41	144	40	12.3	37	15	9.2	57	233	203	1.15
WEBBER P	5408	1.0	SG	7.73	307	8	284	77	28.4	146	125	0	93	535	525	1.02
WEBBER P	5408	11.0	BG	7.91	404	15	344	85	29.7	143	119	0	73	601	596	1.01
WELLS P	3970	1.0	SG	6.62	26.6	16	46	14	4.1	8	5	0	38	73	70	1.05
WELLS P	3970	3.0	BG	6.64	28.3	19	57	17	5.4	11	7	0	46	92	81	1.13
WEYMOUTH P	5478	1.0	SG	8.33	1062	7	908	178	18.9	91	94	0	86	1196	1242	0.96
WEYMOUTH P	5478	3.0	BG	8.33	1052	7	903	176	18.9	88	95	0	85	1186	1232	0.96
WIGHT P	4662	1.0	SG	7.27	112	27	130	63	9.2	175	149	0	72	377	333	1.13
WIGHT P	4662	6.0	BG	7.57	206	37	171	76	12.5	176	145	0.2	58	435	409	1.06
WOOD P (LITTLE BIG)	2630	1.0	SG	7.59	205	47	195	89	5.4	27	7	1.6	69	316	283	1.12
WOOD P (LITTLE BIG)	2630	14.2	BG	7.54	185	39	186	85	5.9	26	10	8.8	69	303	273	1.11

Table 7. Total Phosphorus. TP = total phosphorus, Z = depth and TY = water sample type (BG = bottom grab, EC = epilimnetic core, MG = metalimnetic grab, and SG = surface grab).

LAKE	MIDAS	DATE	Z M	TP PPM	TY
ALLEN P	4516	8/12/93	1.1	0.007	SG
ALLEN P	4516	8/12/93	4.5	0.007	EC
ALLEN P	4516	8/12/93	6.5	0.021	BG
ALLIGATOR P	502	8/31/94	5.0	0.008	EC
ALLIGATOR P	502	8/31/94	5.0	0.007	BG
ANASAGUNTICOOK L	3604	8/27/93	6.0	0.011	EC
ANASAGUNTICOOK L	3604	8/27/93	10.0	0.006	MG
ANASAGUNTICOOK L	3604	8/27/93	12.5	0.012	BG
BALCH & STUMP PONDS	3898	9/7/93	5.0	0.011	EC
BALCH & STUMP PONDS	3898	9/7/93	11.0	0.027	MG
BALCH & STUMP PONDS	3898	9/7/93	12.8	0.170	BG
BASKAHEGAN L	1078	8/16/93	6.0	0.013	BG
BASKAHEGAN L	1078	8/16/93	7.0	0.010	EC
BAUNEAG BEG L	3992	8/25/93	4.0	0.020	EC
BAUNEAG BEG L	3992	8/25/93	7.4	0.067	BG
BEAVER P	3124	8/19/93	2.0	0.012	EC
BELDEN P	5730	8/17/93	3.0	0.008	EC
BELDEN P	5730	8/17/93	6.0	0.024	MG
BELDEN P	5730	8/17/93	8.0	0.039	BG
BEN ANNIS P	2282	8/31/93	1.0	0.042	EC
BEN ANNIS P	2282	8/31/93	1.0	0.042	SG
BOTTLE L	4702	8/13/93	4.0	0.006	EC
BOTTLE L	4702	8/13/93	9.1	0.018	MG
BOTTLE L	4702	8/13/93	11.0	0.028	BG
BRACKETT L	1068	8/17/93	6.0	0.011	BG
BRACKETT L	1068	8/17/93	7.0	0.009	EC
BRADBURY (BARKER) L	9763	8/10/93	3.0	0.007	EC
BRADBURY (BARKER) L	9763	8/10/93	3.0	0.014	MG
BRADBURY (BARKER) L	9763	8/10/93	13.0	0.009	BG
BRAINARD P	5306	8/9/93	3.0	0.039	EC
BRAINARD P	5306	8/9/93	3.0	0.082	BG
BRANCH L (SOUTH)	2144	8/6/93	1.0	0.012	EC
BRANCH L (SOUTH)	2144	8/6/93	6.8	0.011	BG
BRANCH P (EAST)	2822	9/8/93	1.5	0.010	SG
BRANCH P (EAST)	2822	9/8/93	2.5	0.013	EC
BRANCH P (UPPER MID)	4492	8/26/93	1.0	0.004	SG
BRANCH P (UPPER MID)	4492	8/26/93	10.0	0.003	EC
BRANCH P (UPPER MID)	4492	8/26/93	14.0	0.005	BG
BUBBLE P	4452	8/10/93	1.0	0.003	SG
BUBBLE P	4452	8/10/93	10.0	0.003	EC
BUBBLE P	4452	8/10/93	10.5	0.003	BG
BUNKER P (BIG)	362	8/9/93	1.0	0.016	SG
BUNKER P (BIG)	362	8/9/93	2.0	0.014	EC
BUNKER P (BIG)	362	8/9/93	6.0	0.023	BG
BURDEN P	834	8/26/93	1.0	0.009	SG
BURDEN P	834	8/26/93	5.5	0.008	EC

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	Z M	TP PPM	TY
BURDEN P	834	8/26/93	7.0	0.012	BG
BURNT MEADOW P	5572	8/23/93	4.0	0.012	EC
BURNT MEADOW P	5572	8/23/93	9.0	0.008	MG
BURNT MEADOW P	5572	8/23/93	12.0	0.019	BG
BURNT P	4288	9/29/93	7.0	0.006	EC
BURNT P	4288	9/29/93	7.0	0.005	BG
CANADA FALLS L	2516	8/28/93	1.0	0.010	SG
CANADA FALLS L	2516	8/28/93	6.0	0.010	EC
CANADA FALLS L	2516	8/28/93	6.0	0.013	BG
CARLTON BOG (POND)	41	8/11/93	1.0	0.038	EC
CARLTON BOG (POND)	41	8/11/93	1.0	0.032	SG
CEDAR L	2004	8/12/93	6.1	0.007	BG
CEDAR L	2004	8/12/93	7.0	0.004	EC
CHAIN OF PONDS	5064	8/16/93	7.0	0.011	EC
CHAIN OF PONDS	5064	8/16/93	7.0	0.006	MG
CHAIN OF PONDS	5064	8/16/93	29.0	0.014	BG
CHANDLER L	1994	8/8/93	4.0	0.007	MG
CHANDLER L	1994	8/8/93	5.0	0.029	EC
CHANDLER L	1994	8/8/93	5.0	0.009	BG
CHASE L	2752	8/8/93	4.0	0.014	EC
CHASE L	2752	8/8/93	4.0	0.006	MG
CHASE L	2752	8/8/93	7.5	0.010	BG
CHASE P (FIRST)	1538	8/6/93	5.0	0.005	EC
CHASE P (FIRST)	1538	8/6/93	5.0	0.005	MG
CHASE P (FIRST)	1538	8/6/93	11.0	0.030	BG
CHUB P	5100	8/19/93	1.0	0.011	SG
CHUB P	5100	8/19/93	3.0	0.021	BG
CHUB P	5100	8/19/93	4.0	0.012	EC
CHURCHILL L	2856	8/3/93	10.0	0.006	EC
CHURCHILL L	2856	8/3/93	10.0	0.007	MG
CHURCHILL L	2856	8/3/93	19.0	0.006	BG
COBBOSSEECONTEE L	5236	8/25/93	6.0	0.014	EC
COBBOSSEECONTEE L	5236	8/25/93	9.0	0.027	MG
COBBOSSEECONTEE L	5236	8/25/93	26.0	0.097	BG
CROSS L	1674	8/2/93	10.0	0.012	EC
CROSS L	1674	8/2/93	12.0	0.019	MG
CROSS L	1674	8/2/93	13.0	0.037	BG
CRYSTAL (BEALS) P	3626	8/10/93	4.0	0.005	EC
CRYSTAL (BEALS) P	3626	8/10/93	5.0	0.015	MG
CRYSTAL (BEALS) P	3626	8/10/93	11.0	0.072	BG
DAMARISCOTTA L	5400	8/27/93	8.0	0.008	EC
DAMARISCOTTA L	5400	8/27/93	13.0	0.008	MG
DAMARISCOTTA L	5400	8/27/93	30.0	0.017	BG
DEBSCONEAG L (4TH)	582	8/27/93	1.0	0.008	SG
DEBSCONEAG L (4TH)	582	8/27/93	5.0	0.012	EC
DEBSCONEAG L (4TH)	582	8/27/93	34.2	0.005	BG
DIMMICK P (LITTLE)	240	8/4/93	4.0	0.004	EC
DIMMICK P (LITTLE)	240	8/4/93	4.0	0.007	BG

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	Z M	TP PPM	TY
DUCK L	4746	8/4/93	10.0	0.013	EC
DUCK L	4746	8/4/93	19.0	0.004	MG
DUCK L	4746	8/4/93	23.0	0.004	BG
EAGLE L	1634	8/4/93	8.0	0.005	EC
EAGLE L	1634	8/4/93	8.0	0.004	MG
EAGLE L	1634	8/4/93	95.0	0.017	BG
EAST P	5349	8/4/93	5.6	0.100	EC
EAST P	5349	8/4/93	5.6	0.024	BG
EMBDEN P	78	8/17/93	9.0	0.004	EC
EMBDEN P	78	8/17/93	9.0	0.004	MG
EMBDEN P	78	8/17/93	50.9	0.004	BG
FIELDS P	4282	8/11/93	1.0	0.011	SG
FIELDS P	4282	8/11/93	6.0	0.017	EC
FIELDS P	4282	8/11/93	10.0	0.081	BG
FISH P	2524	8/24/93	1.0	0.009	SG
FISH P	2524	8/24/93	5.5	0.010	EC
FISH P	2524	8/24/93	16.2	0.015	BG
FISHER P (BIG)	2940	8/31/93	1.0	0.010	SG
FISHER P (BIG)	2940	8/31/93	1.4	0.013	EC
FISHER P (BIG)	2940	8/31/93	1.4	0.010	BG
FLYING P	5182	8/24/93	5.0	0.004	EC
FLYING P	5182	8/24/93	8.0	0.011	MG
FLYING P	5182	8/24/93	21.0	0.010	BG
FOLSOM P	2222	8/18/93	4.5	0.020	BG
FOLSOM P	2222	8/18/93	5.0	0.012	EC
FOREST L	3712	8/13/93	5.0	0.013	EC
FOREST L	3712	8/13/93	9.0	0.024	MG
FOREST L	3712	8/13/93	11.0	0.034	BG
GRAHAM L	4350	8/9/93	1.0	0.013	SG
GRAHAM L	4350	8/9/93	10.0	0.021	EC
GRAHAM L	4350	8/9/93	11.0	0.034	BG
GRAND L (WEST)	1150	8/16/93	1.0	0.004	SG
GRAND L (WEST)	1150	8/16/93	10.0	0.004	EC
GRAND L (WEST)	1150	8/16/93	37.0	0.025	BG
GRANGER P	3126	8/19/93	6.0	0.009	EC
GRANGER P	3126	8/19/93	7.0	0.008	BG
GREENWOOD P (LITTLE)	886	8/5/93	3.0	0.005	EC
GREENWOOD P (LITTLE)	886	8/5/93	3.0	0.004	MG
GREENWOOD P (LITTLE)	886	8/5/93	10.0	0.006	BG
HAY L	2178	8/19/93	7.0	0.016	MG
HAY L	2178	8/19/93	8.0	0.012	BG
HICKS P	3484	8/20/93	4.0	0.009	EC
HICKS P	3484	8/20/93	4.0	0.007	BG
HODGDON P	4628	8/10/93	1.0	0.006	SG
HODGDON P	4628	8/10/93	6.0	0.018	EC
HODGDON P	4628	8/10/93	6.0	0.007	BG
HORSESHOE L	4788	8/25/93	1.0	0.010	SG
HORSESHOE L	4788	8/25/93	3.0	0.006	EC

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	Z M	TP PPM	TY
HORSESHOE L	4788	8/25/93	5.0	0.006	BG
HOSMER P	4808	8/19/93	4.0	0.013	EC
HOSMER P	4808	8/19/93	4.0	0.012	BG
INDIAN P (BIG)	324	9/7/93	7.0	0.003	EC
INDIAN P (BIG)	324	9/7/93	10.0	0.010	MG
INDIAN P (BIG)	324	9/7/93	11.7	0.009	BG
JACOB BUCK P	4322	8/24/93	1.0	0.003	SG
JACOB BUCK P	4322	8/24/93	7.0	0.004	EC
JACOB BUCK P	4322	8/24/93	14.0	0.008	BG
JERRY P	2190	8/24/93	3.0	0.016	BG
JERRY P	2190	8/24/93	3.9	0.015	EC
JUMP P	5740	8/17/93	3.0	0.007	EC
JUMP P	5740	8/17/93	7.0	0.011	MG
JUMP P	5740	8/17/93	11.0	0.038	BG
KEENE L	1424	8/17/93	1.0	0.006	SG
KEENE L	1424	8/17/93	5.0	0.008	EC
KEENE L	1424	8/17/93	11.0	0.025	BG
KEEWAYDIN L	3272	8/18/93	6.0	0.010	EC
KEEWAYDIN L	3272	8/18/93	10.0	0.009	MG
KEEWAYDIN L	3272	8/18/93	14.0	0.020	BG
KINGSBURY P	262	8/23/93	1.0	0.005	SG
KINGSBURY P	262	8/23/93	6.0	0.004	EC
KINGSBURY P	262	8/23/93	15.5	0.014	BG
KNIGHT P	3884	8/24/93	3.4	0.018	BG
KNIGHT P	3884	8/24/93	4.0	0.023	EC
LAMBERT L	1332	8/11/93	6.0	0.005	EC
LAMBERT L	1332	8/11/93	10.1	0.006	MG
LAMBERT L	1332	8/11/93	16.8	0.007	BG
LILY P	5288	8/16/93	5.0	0.008	EC
LILY P	5288	8/16/93	6.0	0.013	MG
LILY P	5288	8/16/93	8.0	0.029	BG
LONG P	2536	9/2/93	1.0	0.010	SG
LONG P	2536	9/2/93	10.0	0.008	EC
LONG P	2536	9/2/93	11.9	0.024	BG
LONG P	4598	8/12/93	1.0	0.005	SG
LONG P	4598	8/12/93	6.5	0.020	EC
LONG P	4598	8/12/93	9.0	0.009	BG
LOVEWELL P	3254	8/30/93	4.0	0.003	EC
LOVEWELL P	3254	8/30/93	9.0	0.010	MG
LOVEWELL P	3254	8/30/93	12.0	0.011	BG
MACHIAS L (FOURTH)	1148	8/25/93	1.0	0.009	SG
MACHIAS L (FOURTH)	1148	8/25/93	3.5	0.009	EC
MACHIAS L (FOURTH)	1148	8/25/93	6.0	0.008	BG
MEDDYBEMPS L	177	8/6/93	1.0	0.007	SG
MEDDYBEMPS L	177	8/6/93	9.0	0.010	EC
MEDDYBEMPS L	177	8/6/93	15.0	0.010	BG
MOLUNKUS L	3038	8/10/93	8.0	0.010	EC
MOLUNKUS L	3038	8/10/93	8.0	0.008	BG

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	ZM	TP PPM	TY
MONSON P	1820	9/24/93	3.0	0.021	EC
MOOSELEUK L	1990	8/8/93	1.0	0.009	EC
MOOSELEUK L	1990	8/8/93	1.0	0.007	SG
NEQUASSET P	5222	8/23/93	7.0	0.006	EC
NEQUASSET P	5222	8/23/93	10.0	0.007	MG
NEQUASSET P	5222	8/23/93	19.0	0.022	BG
NORTH P	3500	8/20/93	2.0	0.012	BG
NORTH P	3500	8/20/93	3.0	0.021	EC
NORTH P	3616	8/31/93	6.0	0.005	EC
NORTH P	3616	8/31/93	15.0	0.007	BG
ORANGE L	1364	8/13/93	1.0	0.012	SG
ORANGE L	1364	8/13/93	5.0	0.010	EC
ORANGE L	1364	8/13/93	6.0	0.020	BG
OSSIPEE L (LITTLE)	5024	9/2/93	6.0	0.005	EC
OSSIPEE L (LITTLE)	5024	9/2/93	12.0	0.005	MG
OSSIPEE L (LITTLE)	5024	9/2/93	20.7	0.092	BG
OTTER P	3338	8/16/93	2.0	0.011	BG
OTTER P	3338	8/16/93	3.0	0.011	EC
OTTER P	3338	8/16/93	7.0	0.014	BG
OTTER P	3972	8/10/93	3.0	0.012	BG
OTTER P	3972	8/10/93	3.5	0.008	EC
PASSAGASSAWAUKEAG L	5496	8/18/93	5.0	0.006	EC
PASSAGASSAWAUKEAG L	5496	8/18/93	8.0	0.024	MG
PASSAGASSAWAUKEAG L	5496	8/18/93	11.0	0.024	BG
PATTEE P	5458	8/4/93	7.0	0.030	EC
PATTEE P	5458	8/4/93	7.0	0.040	BG
PEASE P	5198	8/6/93	4.0	0.013	BG
PEASE P	5198	8/6/93	5.0	0.010	EC
PENNINGTON P	1612	8/6/93	0.5	0.011	SG
PINE P (BIG)	2920	8/18/93	1.0	0.012	SG
PINE P (BIG)	2920	8/18/93	3.0	0.011	EC
PINE P (BIG)	2920	8/18/93	8.0	0.015	BG
PITCHER P	4848	8/18/93	9.0	0.008	EC
PITCHER P	4848	8/18/93	10.0	0.011	BG
PLEASANT L	159	8/26/93	1.0	0.002	SG
PLEASANT L	159	8/26/93	9.0	0.006	EC
PLEASANT L	159	8/26/93	11.0	0.012	BG
PLEASANT L	1100	8/5/93	10.0	0.007	EC
PLEASANT L	1100	8/5/93	20.0	0.006	MG
PLEASANT L	1100	8/5/93	28.8	0.010	BG
PLEASANT P	3252	8/30/93	2.8	0.011	BG
PLEASANT P	3252	8/30/93	3.5	0.014	EC
PORTLAND L	1008	8/9/93	2.0	0.009	EC
PORTLAND L	1008	8/9/93	2.0	0.008	EC
PORTLAND L	1008	8/9/93	13.0	0.039	BG
PURGATORY P (LITTLE)	5250	8/9/93	5.0	0.011	EC
PURGATORY P (LITTLE)	5250	8/9/93	5.0	0.016	BG
RANGE P (LOWER)	3760	8/17/93	5.0	0.011	EC

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	ZM	TP PPM	TY
RANGE P (LOWER)	3760	8/17/93	9.0	0.011	MG
RANGE P (LOWER)	3760	8/17/93	13.0	0.020	BG
ROACH P (SECOND)	452	8/31/93	1.0	0.006	SG
ROACH P (SECOND)	452	8/31/93	9.2	0.006	EC
ROACH P (SECOND)	452	8/31/93	9.2	0.006	BG
ROBERTS & WADLEY PDS	5034	9/2/93	2.0	0.031	EC
ROBERTS & WADLEY PDS	5034	9/2/93	5.2	0.034	BG
ROCKY P	4330	9/15/93	4.0	0.010	EC
ROCKY P	4330	9/15/93	4.0	0.009	BG
ROUND (GREY) P	5500	8/11/93	5.0	0.012	EC
ROUND (GREY) P	5500	8/11/93	6.0	0.024	MG
ROUND (GREY) P	5500	8/11/93	7.0	0.035	BG
ROUND P	3818	8/10/93	1.0	0.010	SG
ROUND P	3818	8/10/93	7.0	0.009	EC
ROUND P	3818	8/10/93	8.0	0.013	BG
ROUND P	5684	8/5/93	4.0	-	EC
ROUND P	5684	8/5/93	10.0	0.065	BG
ROWE P	202	8/5/93	7.0	0.008	EC
ROWE P	202	8/5/93	8.0	0.012	MG
ROWE P	202	8/5/93	11.5	0.013	BG
SANDY RIVER P (MID)	3566	8/9/93	6.0	0.008	EC
SANDY RIVER P (MID)	3566	8/9/93	6.0	0.008	MG
SANDY RIVER P (MID)	3566	8/9/93	15.0	0.023	BG
SANDY RIVER P(LOWER)	3564	8/9/93	4.0	0.014	BG
SANDY RIVER P(LOWER)	3564	8/9/93	5.0	0.011	EC
SAWYER P	386	7/4/93	5.0	0.012	EC
SAWYER P	386	7/4/93	5.0	0.017	MG
SAWYER P	386	7/4/93	6.5	0.028	BG
SECOND L	1134	8/7/93	1.0	0.005	SG
SECOND L	1134	8/7/93	6.0	0.008	EC
SECOND L	1134	8/7/93	18.0	0.011	BG
SENNEBEC P	5682	8/19/93	6.0	0.012	EC
SENNEBEC P	5682	8/19/93	10.0	0.015	MG
SENNEBEC P	5682	8/19/93	17.0	0.025	BG
SEWALL P	9943	8/23/93	2.0	0.034	EC
SEWALL P	9943	8/23/93	2.0	0.037	BG
SHIN P (LOWER)	2198	8/19/93	4.5	0.010	BG
SHIN P (LOWER)	2198	8/19/93	5.5	0.013	EC
SLY BROOK L (SECOND)	1644	8/7/93	3.0	0.009	EC
SLY BROOK L (SECOND)	1644	8/7/93	3.0	0.012	MG
SLY BROOK L (SECOND)	1644	8/7/93	5.0	0.015	BG
SPENCER P	404	8/3/93	3.0	0.020	EC
SPENCER P	404	8/3/93	3.0	0.021	BG
SQUAW P (BIG)	334	8/25/93	1.0	0.006	SG
SQUAW P (BIG)	334	8/25/93	5.5	0.004	EC
SQUAW P (BIG)	334	8/25/93	25.2	0.028	BG
SUNDAY P	3316	8/12/93	3.0	0.014	EC
SUNDAY P	3316	8/12/93	3.0	0.017	MG

Table 7 (continued). Total Phosphorus.

LAKE	MIDAS	DATE	Z M	TP PPM	TY
SUNDAY P	3316	8/12/93	13.0	0.028	BG
SYMMES P	3892	9/8/93	2.0	0.020	EC
SYMMES P	3892	9/8/93	7.0	0.140	MG
SYMMES P	3892	9/8/93	8.7	0.200	BG
THIRD L	2704	8/24/93	4.0	0.007	EC
THIRD L	2704	8/24/93	8.8	0.018	MG
THIRD L	2704	8/24/93	9.4	0.022	BG
TOGUE P	1530	8/5/93	6.0	0.003	EC
TOGUE P	1530	8/5/93	6.0	0.003	MG
TOGUE P	1530	8/5/93	25.0	0.005	BG
TOGUS P	9931	8/12/93	8.0	0.015	EC
TOGUS P	9931	8/12/93	9.0	0.055	MG
TOGUS P	9931	8/12/93	14.0	0.130	BG
TRAVEL P	5456	8/6/93	1.0	0.032	SG
TRAVEL P	5456	8/6/93	1.0	0.036	EC
TRICKEY P	2514	8/24/93	1.0	0.005	SG
TRICKEY P	2514	8/24/93	2.5	0.006	EC
TRICKEY P	2514	8/24/93	5.9	0.022	BG
UMBAGOG L	3102	8/11/93	10.0	0.006	EC
UMBAGOG L	3102	8/11/93	12.0	0.007	BG
UMCOLCUS L	3080	8/9/93	4.0	0.011	EC
UMCOLCUS L	3080	8/9/93	4.0	0.012	BG
VARNUM P	3680	8/7/93	7.0	0.005	EC
VARNUM P	3680	8/7/93	7.0	0.003	MG
VARNUM P	3680	8/7/93	17.0	-	BG
WADLEIGH P	572	8/27/93	1.0	0.004	SG
WADLEIGH P	572	8/27/93	5.0	0.005	EC
WADLEIGH P	572	8/27/93	21.0	0.010	BG
WEBBER P	5408	8/12/93	7.0	0.021	EC
WEBBER P	5408	8/12/93	9.0	0.070	MG
WEBBER P	5408	8/12/93	11.0	0.280	BG
WELLS P	3970	8/10/93	3.0	0.011	BG
WELLS P	3970	8/10/93	4.0	0.018	EC
WEYMOUTH P	5478	8/31/93	3.0	0.013	EC
WEYMOUTH P	5478	8/31/93	3.0	0.015	EC
WIGHT P	4662	8/11/93	1.0	0.009	SG
WIGHT P	4662	8/11/93	4.5	0.023	EC
WIGHT P	4662	8/11/93	6.0	0.021	BG
WOOD P (LITTLE BIG)	2630	9/1/93	1.0	0.006	SG
WOOD P (LITTLE BIG)	2630	9/1/93	6.0	0.007	EC
WOOD P (LITTLE BIG)	2630	9/1/93	14.4	0.005	BG

Table 8. Dissolved Organic Carbon. DOC = dissolved organic carbon, Z = depth, TY = water sample type (BG = bottom grab, MG = metalimnetic grab, and SG = surface grab). ND flag= not detected and EH flag = holding time exceeded.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
ALLEN P	4516	8/12/93	6.5	3.9	BG
ALLEN P	4516	8/12/93	4.0	4.1	MG
ALLEN P	4516	8/12/93	1.0	7.0	SG
ALLIGATOR P	502	8/31 94	1.0	1.0 ND	SG
ALLIGATOR P	502	8/31/94	5.0	2.0	BG
ANASAGUNTICOOK L	3604	8/27/93	12.5	2.5	BG
ANASAGUNTICOOK L	3604	8/27/93	10.0	2.6	MG
ANASAGUNTICOOK L	3604	8/27/93	1.0	1.3	SG
BALCH & STUMP PONDS	3898	9/7/93	12.8	1.4	BG
BALCH & STUMP PONDS	3898	9/7/93	11.0	3.4	MG
BALCH & STUMP PONDS	3898	9/7/93	1.0	1.0 ND	SG
BASKAHEGAN L	1078	8/16/93	6.0	8.0	BG
BASKAHEGAN L	1078	8/16/93	1.0	8.1	SG
BAUNEAG BEG L	3992	8/25/93	7.4	4.8	BG
BAUNEAG BEG L	3992	8/25/93	1.0	5.3	SG
BEAVER P	3124	8/19/93	2.0	3.7	BG
BEAVER P	3124	8/19/93	1.0	3.3	SG
BELDEN P	5730	8/17/93	8.0	1.7	BG
BELDEN P	5730	8/17/93	6.0	1.1	MG
BELDEN P	5730	8/17/93	1.0	3.3	SG
BEN ANNIS P	2282	8/31/93	1.0	28.7	SG
BOTTLE L	4702	8/13/93	11.0	-	BG
BOTTLE L	4702	8/13/93	9.1	3.4	MG
BOTTLE L	4702	8/13/93	1.0	8.2	SG
BRACKETT L	1068	8/17/93	6.0	2.5	BG
BRACKETT L	1068	8/17/93	1.0	3.3	SG
BRADBURY (BARKER) L	9763	8/10/93	13.0	2.2	BG
BRADBURY (BARKER) L	9763	8/10/93	3.0	1.0 ND	MG
BRADBURY (BARKER) L	9763	8/10/93	1.0	4.2	SG
BRAINARD P	5306	8/9/93	3.0	6.7	BG
BRAINARD P	5306	8/9/93	1.0	4.4	SG
BRANCH L (SOUTH)	2144	8/6/93	6.8	5.1	BG
BRANCH L (SOUTH)	2144	8/6/93	1.0	5.4	SG
BRANCH P (EAST)	2822	9/8/93	1.5	12.6	BG
BRANCH P (EAST)	2822	9/8/93	1.0	13.3	SG
BRANCH P (UPPER MID)	4492	8/26/93	14.0	5.3	BG
BRANCH P (UPPER MID)	4492	8/26/93	10.0	5.3	MG
BRANCH P (UPPER MID)	4492	8/26/93	1.0	4.3	SG
BUBBLE P	4452	8/10/93	10.0	-	BG
BUBBLE P	4452	8/10/93	7.0	-	MG
BUBBLE P	4452	8/10/93	1.0	-	SG
BUNKER P (BIG)	362	8/9/93	6.0	8.1	BG
BUNKER P (BIG)	362	8/9/93	2.0	9.1	MG
BUNKER P (BIG)	362	8/9/93	1.0	10.1	SG
BURDEN P	834	8/26/93	7.0	6.2	BG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
BURDEN P	834	8/26/93	5.5	6.2	MG
BURDEN P	834	8/26/93	1.0	5.0	SG
BURNT MEADOW P	5572	8/23/93	12.0	4.3	BG
BURNT MEADOW P	5572	8/23/93	9.0	1.0 ND	MG
BURNT MEADOW P	5572	8/23/93	1.0	3.8	SG
BURNT P	4288	9/29/93	7.0	1.0 ND	BG
BURNT P	4288	9/29/93	1.0	1.0 ND	SG
CANADA FALLS L	2516	8/28/93	6.0	9.1	BG
CANADA FALLS L	2516	8/28/93	1.0	9.4	SG
CANADA FALLS L	2524	8/24/93	16.2	4.6	BG
CARLTON BOG (POND)	41	8/11/93	1.0	18.4	SG
CEDAR L	2004	8/12/93	6.1	2.0	BG
CEDAR L	2004	8/12/93	1.0	2.3	SG
CHAIN OF PONDS	5064	8/16/93	29.0	5.0	BG
CHAIN OF PONDS	5064	8/16/93	7.0	5.7	MG
CHAIN OF PONDS	5064	8/16/93	1.0	5.3	SG
CHANDLER L	1994	8/8/93	5.0	1.0 ND	BG
CHANDLER L	1994	8/8/93	4.0	6.5	MG
CHANDLER L	1994	8/8/93	1.0	3.3	SG
CHASE L	2752	8/8/93	7.5	4.2	BG
CHASE L	2752	8/8/93	4.0	2.5	MG
CHASE L	2752	8/8/93	1.0	4.1	SG
CHASE P (FIRST)	1538	8/6/93	11.0	1.2	BG
CHASE P (FIRST)	1538	8/6/93	5.0	1.5	MG
CHASE P (FIRST)	1538	8/6/93	1.0	1.0 ND	SG
CHUB P	5100	8/19/93	3.0	6.0	BG
CHUB P	5100	8/19/93	1.0	8.2	SG
CHURCHILL L	2856	8/3/93	19.0	3.0	BG
CHURCHILL L	2856	8/3/93	10.0	3.9	MG
CHURCHILL L	2856	8/3/93	1.0	2.4	SG
COBBOSSEECONTEE L	5236	8/25/93	26.0	3.9	BG
COBBOSSEECONTEE L	5236	8/25/93	9.0	1.0 ND	MG
COBBOSSEECONTEE L	5236	8/25/93	1.0	2.8	SG
CROSS L	1674	8/2/93	13.0	1.0 ND	BG
CROSS L	1674	8/2/93	12.0	6.2	MG
CROSS L	1674	8/2/93	1.0	1.3	SG
CRYSTAL (BEALS) P	3626	8/10/93	11.0	2.0	BG
CRYSTAL (BEALS) P	3626	8/10/93	5.0	2.0	MG
CRYSTAL (BEALS) P	3626	8/10/93	1.0	2.0	SG
DAMARISCOTTA L	5400	8/27/93	30.0	1.1	BG
DAMARISCOTTA L	5400	8/27/93	13.0	3.4	MG
DAMARISCOTTA L	5400	8/27/93	1.0	4.1	SG
DEBSCONEAG L (4TH)	582	8/27/93	34.2	3.3	BG
DEBSCONEAG L (4TH)	582	8/27/93	5.0	1.4	MG
DEBSCONEAG L (4TH)	582	8/27/93	1.0	2.5	SG
DIMMICK P (LITTLE)	240	8/4/93	4.0	4.9	BG
DUCK L	4746	8/4/93	23.0	3.1	BG
DUCK L	4746	8/4/93	19.0	3.7	MG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
DUCK L	4746	8/4/93	1.0	3.1	SG
EAGLE L	1634	8/4/93	95.0	2.9	BG
EAGLE L	1634	8/4/93	8.0	1.5	MG
EAGLE L	1634	8/4/93	1.0	1.0 ND	SG
EAST P	5349	8/4/93	5.6	1.0 ND	BG
EAST P	5349	8/4/93	1.0	2.6	SG
EMBDEN P	78	8/17/93	9.0	1.0 ND	BG
EMBDEN P	78	8/17/93	1.0	1.5	SG
FIELDS P	4282	8/11/93	10.0	1.0 ND	BG
FIELDS P	4282	8/11/93	6.0	1.0 ND	MG
FIELDS P	4282	8/11/93	1.0	1.0 ND	SG
FISH P	2524	8/24/93	5.5	3.8	MG
FISH P	2524	8/24/93	1.0	4.5	SG
FISH P	2536	9/2/93	11.9	7.1	BG
FISHER P (BIG)	2940	8/31/93	1.4	6.4	BG
FISHER P (BIG)	2940	8/31/93	1.0	3.3	SG
FLYING P	5182	8/24/93	21.0	1.0 ND	BG
FLYING P	5182	8/24/93	8.0	1.2	MG
FLYING P	5182	8/24/93	1.0	3.2	SG
FOLSOM P	2222	8/18/93	4.5	10.2	BG
FOLSOM P	2222	8/18/93	1.0	8.9	SG
FOREST L	3712	8/13/93	11.0	1.8	BG
FOREST L	3712	8/13/93	9.0	2.2	MG
FOREST L	3712	8/13/93	1.0	2.6	SG
GRAHAM L	4350	8/9/93	11.0	8.5	BG
GRAHAM L	4350	8/9/93	6.0	4.9 EH	MG
GRAHAM L	4350	8/9/93	1.0	1.6	SG
GRAND L (WEST)	1150	8/16/93	37.0	4.8	BG
GRAND L (WEST)	1150	8/16/93	19.0	4.1	MG
GRAND L (WEST)	1150	8/16/93	1.0	4.8	SG
GRANGER P	3126	8/19/93	7.0	2.4	BG
GRANGER P	3126	8/19/93	1.0	2.4	SG
GREENWOOD P (LITTLE)	886	8/5/93	10.0	3.7	BG
GREENWOOD P (LITTLE)	886	8/5/93	3.0	2.5	MG
GREENWOOD P (LITTLE)	886	8/5/93	1.0	2.5	SG
HAY L	2178	8/19/93	7.0	3.2	BG
HAY L	2178	8/19/93	1.0	3.5	SG
HICKS P	3484	8/20/93	4.0	1.7	BG
HICKS P	3484	8/20/93	1.0	1.0	SG
HODGDON P	4628	8/10/93	6.0	6.6	BG
HODGDON P	4628	8/10/93	3.0	7.2	MG
HODGDON P	4628	8/10/93	1.0	6.4	SG
HORSESHOE L	4788	8/25/93	5.0	3.1	BG
HORSESHOE L	4788	8/25/93	3.0	3.0	MG
HORSESHOE L	4788	8/25/93	1.0	2.3	SG
HOSMER P	4808	8/19/93	4.0	5.2 EH	BG
HOSMER P	4808	8/19/93	1.0	5.3	SG
INDIAN P (BIG)	324	9/7/93	11.7	1.0 ND	BG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
INDIAN P (BIG)	324	9/7/93	10.0	2.7	MG
INDIAN P (BIG)	324	9/7/93	1.0	1.5	SG
JACOB BUCK P	4322	8/24/93	14.0	5.4	BG
JACOB BUCK P	4322	8/24/93	7.0	1.4	MG
JACOB BUCK P	4322	8/24/93	1.0	2.6	SG
JERRY P	2190	8/24/93	3.0	8.9	BG
JERRY P	2190	8/24/93	1.0	13.9	SG
JUMP P	5740	8/17/93	11.0	2.3	BG
JUMP P	5740	8/17/93	7.0	2.2	MG
JUMP P	5740	8/17/93	1.0	4.8	SG
KEENE L	1424	8/17/93	11.0	5.0	BG
KEENE L	1424	8/17/93	5.0	3.9	MG
KEENE L	1424	8/17/93	1.0	3.2	SG
KEEWAYDIN L	3272	8/18/93	14.0	2.5	BG
KEEWAYDIN L	3272	8/18/93	10.0	2.9	MG
KEEWAYDIN L	3272	8/18/93	1.0	2.2	SG
KINGSBURY P	262	8/23/93	15.5	4.2	BG
KINGSBURY P	262	8/23/93	6.0	3.2	MG
KINGSBURY P	262	8/23/93	1.0	3.3	SG
KNIGHT P	3884	8/24/93	3.4	-	BG
KNIGHT P	3884	8/24/93	1.0	-	SG
LAMBERT L	1332	8/11/93	16.8	4.2	BG
LAMBERT L	1332	8/11/93	10.1	2.7	MG
LAMBERT L	1332	8/11/93	1.0	2.7	SG
LILY P	5288	8/16/93	8.0	6.2	BG
LILY P	5288	8/16/93	6.0	7.8	MG
LILY P	5288	8/16/93	1.0	1.0 ND	SG
LONG P	2536	9/2/93	10.0	6.3	MG
LONG P	2536	9/2/93	1.0	5.2	SG
LONG P	4598	8/12/93	9.0	3.4	BG
LONG P	4598	8/12/93	5.0	3.6	MG
LONG P	4598	8/12/93	1.0	5.6	SG
LOVEWELL P	3254	8/30/93	12.0	1.8	BG
LOVEWELL P	3254	8/30/93	9.0	1.0 ND	MG
LOVEWELL P	3254	8/30/93	1.0	1.0 ND	SG
MACHIAS L (FOURTH)	1148	8/25/93	6.0	7.5	BG
MACHIAS L (FOURTH)	1148	8/25/93	3.0	7.1	MG
MACHIAS L (FOURTH)	1148	8/25/93	1.0	7.5	SG
MEDDYBEMPS L	177	8/6/93	15.0	2.0	BG
MEDDYBEMPS L	177	8/6/93	9.0	3.3	MG
MEDDYBEMPS L	177	8/6/93	1.0	5.3	SG
MOLUNKUS L	3038	8/10/93	8.0	5.8	BG
MOLUNKUS L	3038	8/10/93	1.0	7.7	SG
MONSON P	1820	9/24/93	1	7.3	MG
MONSON P	1820	9/24/93	2	6.2	MG
MOOSELEUK L	1990	8/8/93	1.0	4.9	SG
NEQUASSET P	5222	8/23/93	19.0	1.7	BG
NEQUASSET P	5222	8/23/93	10.0	3.6	MG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
NEQUASSET P	5222	8/23/93	1.0	2.6	SG
NORTH P	3500	8/20/93	2.0	4.3	BG
NORTH P	3500	8/20/93	1.0	4.5	SG
NORTH P	3616	8/31/93	15.0	1.8	BG
NORTH P	3616	8/31/93	11.0	1.0 ND	MG
NORTH P	3616	8/31/93	1.0	1.0 ND	SG
ORANGE L	1364	8/13/93	6.0	10.4	BG
ORANGE L	1364	8/13/93	4.0	6.4	MG
ORANGE L	1364	8/13/93	1.0	7.3	SG
OSSIPEE L (LITTLE)	5024	9/2/93	20.7	2.7	BG
OSSIPEE L (LITTLE)	5024	9/2/93	12.0	1.5	MG
OSSIPEE L (LITTLE)	5024	9/2/93	1.0	1.1	SG
OTTER P	3338	8/16/93	2.0	4.4	BG
OTTER P	3338	8/16/93	1.0	4.8	SG
OTTER P	3972	8/10/93	3.0	4.2	BG
OTTER P	3972	8/10/93	1.0	4.9	SG
PASSAGASSAWAUKEAG L	5496	8/18/93	11.0	3.8	BG
PASSAGASSAWAUKEAG L	5496	8/18/93	8.0	1.0 ND	MG
PASSAGASSAWAUKEAG L	5496	8/18/93	1.0	1.0 ND	SG
PATTEE P	5458	8/4/93	1.0	1.0 ND	SG
PATTEE P	5478	8/31/93	3.0	3.9	BG
PEASE P	5198	8/6/93	4.0	2.4	BG
PEASE P	5198	8/6/93	1.0	2.4	SG
PENNINGTON P	1612	8/6/93	0.5	3.6	SG
PINE P (BIG)	2920	8/18/93	8.0	9.7	BG
PINE P (BIG)	2920	8/18/93	3.0	12.8 EH	MG
PINE P (BIG)	2920	8/18/93	1.0	10.6	SG
PITCHER P	4848	8/18/93	10.0	3.3	BG
PITCHER P	4848	8/18/93	1.0	2.5	SG
PLEASANT L	159	8/26/93	11.0	1.0 ND	BG
PLEASANT L	159	8/26/93	9.0	2.4	MG
PLEASANT L	159	8/26/93	1.0	2.3	SG
PLEASANT L	1100	8/5/93	28.8	-	BG
PLEASANT L	1100	8/5/93	20.0	-	MG
PLEASANT L	1100	8/5/93	1.0	-	SG
PLEASANT P	3252	8/30/93	2.8	2.4	BG
PLEASANT P	3252	8/30/93	1.0	1.0 ND	SG
PORTLAND L	1008	8/9/93	13.0	1.0 ND	BG
PORTLAND L	1008	8/9/93	2.0	1.0 ND	MG
PORTLAND L	1008	8/9/93	1.0	1.8	SG
PURGATORY P (LITTLE)	5250	8/9/93	5.0	1.5	BG
PURGATORY P (LITTLE)	5250	8/9/93	1.0	2.0	SG
RANGE P (LOWER)	3760	8/17/93	13.0	1.0 ND	BG
RANGE P (LOWER)	3760	8/17/93	9.0	2.2	MG
RANGE P (LOWER)	3760	8/17/93	1.0	1.8	SG
ROACH P (SECOND)	452	8/31/93	9.2	2.6	BG
ROACH P (SECOND)	452	8/31/93	1.0	4.4	SG
ROBERTS & WADLEY PDS	5034	9/2/93	5.2	4.1	BG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
ROBERTS & WADLEY PDS	5034	9/2/93	1.0	5.0	SG
ROCKY P	4330	9/15/93	4.0	1.0 ND	BG
ROCKY P	4330	9/15/93	1.0	1.0 ND	SG
ROUND (GREY) P	5500	8/11/93	7.0	1.0 ND	BG
ROUND (GREY) P	5500	8/11/93	6.0	2.6	MG
ROUND (GREY) P	5500	8/11/93	1.0	1.0 ND	SG
ROUND P	3818	8/10/93	8.0	1.0 ND	BG
ROUND P	3818	8/10/93	7.0	1.2	MG
ROUND P	3818	8/10/93	1.0	1.0 ND	SG
ROUND P	5684	8/5/93	10.0	1.0 ND	BG
ROUND P	5684	8/5/93	1.0	-	SG
ROWE P	202	8/5/93	11.5	2.4	BG
ROWE P	202	8/5/93	7.0	1.9	MG
ROWE P	202	8/5/93	1.0	2.0	SG
SANDY RIVER P (MID)	3566	8/9/93	15.0	2.2	BG
SANDY RIVER P (MID)	3566	8/9/93	6.0	3.1	MG
SANDY RIVER P (MID)	3566	8/9/93	1.0	1.0 ND	SG
SANDY RIVER P(LOWER)	3564	8/9/93	4.0	1.9	BG
SANDY RIVER P(LOWER)	3564	8/9/93	1.0	5.2	SG
SAWYER P	386	7/4/93	6.5	6.5	BG
SAWYER P	386	7/4/93	5.0	4.5	MG
SAWYER P	386	7/4/93	1.0	4.3	SG
SECOND L	1134	8/7/93	18.0	1.7	BG
SECOND L	1134	8/7/93	6.0	1.0 ND	MG
SECOND L	1134	8/7/93	1.0	2.4	SG
SENNEBEC P	5682	8/19/93	17.0	5.7	BG
SENNEBEC P	5682	8/19/93	10.0	5.7	MG
SENNEBEC P	5682	8/19/93	1.0	5.4	SG
SEWALL P	9943	8/23/93	2.0	5.7	BG
SEWALL P	9943	8/23/93	1.0	5.6	SG
SHIN P (LOWER)	2198	8/19/93	4.5	5.5	BG
SHIN P (LOWER)	2198	8/19/93	1.0	4.8	SG
SLY BROOK L (SECOND)	1644	8/7/93	5.0	1.2	BG
SLY BROOK L (SECOND)	1644	8/7/93	3.0	1.0 ND	MG
SLY BROOK L (SECOND)	1644	8/7/93	1.0	1.0 ND	SG
SPENCER P	404	8/3/93	3.0	10.0	BG
SPENCER P	404	8/3/93	1.0	10.0	SG
SQUAW P (BIG)	334	8/25/93	25.2	4.3	BG
SQUAW P (BIG)	334	8/25/93	5.5	3.5	MG
SQUAW P (BIG)	334	8/25/93	1.0	4.2	SG
SUNDAY P	3316	8/12/93	13.0	6.5	BG
SUNDAY P	3316	8/12/93	3.0	14.9	MG
SUNDAY P	3316	8/12/93	1.0	11.8	SG
SYMMES P	3892	9/8/93	8.7	1.6	BG
SYMMES P	3892	9/8/93	7.0	6.4	MG
SYMMES P	3892	9/8/93	1.0	1.7	SG
THIRD L	2704	8/24/93	9.4	14.7	BG
THIRD L	2704	8/24/93	8.8	13.9	MG

Table 8 (continued). Dissolved Organic Carbon.

LAKE	MIDAS	DATE	Z M	DOC PPM	TY
THIRD L	2704	8/24/93	1.0	14.3	SG
TOGUE P	1530	8/5/93	25.0	1.0 ND	BG
TOGUE P	1530	8/5/93	6.0	1.0 ND	MG
TOGUE P	1530	8/5/93	1.0	(1)	SG
TOGUS P	9931	8/12/93	14.0	2.6	BG
TOGUS P	9931	8/12/93	9.0	4.0	MG
TOGUS P	9931	8/12/93	1.0	3.6	SG
TRAVEL P	5456	8/6/93	1.0	7.8	SG
TRAVEL P	5458	8/4/93	7.0	3.3	BG
TRICKEY P	2514	8/24/93	5.9	8.1	BG
TRICKEY P	2514	8/24/93	2.5	9.0	MG
TRICKEY P	2514	8/24/93	1.0	8.4	SG
UMBAGOG L	3102	8/11/93	12.0	4.9	BG
UMBAGOG L	3102	8/11/93	1.0	2.0	SG
UMCOLCUS L	3080	8/9/93	4.0	3.1	BG
UMCOLCUS L	3080	8/9/93	1.0	3.0	SG
VARNUM P	3680	8/7/93	17.0	5.9 EH	BG
VARNUM P	3680	8/7/93	7.0	1.2	MG
VARNUM P	3680	8/7/93	1.0	4.7	SG
WADLEIGH P	572	8/27/93	21.0	9.4	BG
WADLEIGH P	572	8/27/93	5.0	5.4	MG
WADLEIGH P	572	8/27/93	1.0	6.7	SG
WEBBER P	5408	8/12/93	11.0	3.2	BG
WEBBER P	5408	8/12/93	9.0	3.6	MG
WEBBER P	5408	8/12/93	1.0	5.7	SG
WELLS P	3970	8/10/93	3.0	3.6	BG
WELLS P	3970	8/10/93	1.0	3.7	SG
WEYMOUTH P	5478	8/31/93	1.0	4.6	SG
WEYMOUTH P	5478	8/31/93	1.0	5.5	SG
WIGHT P	4662	8/11/93	6.0	1.0 ND	BG
WIGHT P	4662	8/11/93	4.0	1.0 ND	MG
WIGHT P	4662	8/11/93	1.0	3.0	SG
WOOD P (LITTLE BIG)	2630	9/1/93	14.4	7.1	BG
WOOD P (LITTLE BIG)	2630	9/1/93	6.0	4.8	MG
WOOD P (LITTLE BIG)	2630	9/1/93	1.0	5.6	SG

(1) Sample bottle cracked - sample not analyzed.

Table 9. Sediment Analysis Results. TOC = total organic carbon, HG = mercury, CD = cadmium and PB = lead. 'EPA' indicates the analysis was performed by the U.S. Environmental Protection Agency New England Regional Laboratory, and 'HETL' indicates the analysis was performed by the Maine Health and Environmental Testing Laboratory.

LAKE	MIDAS	TOC PPM (EPA)	% SOLIDS (EPA)	% SOLIDS (HETL)	% SILT (HETL)	HG PPM (HETL)	CD PPM (HETL)	PB PPM (HETL)
ALLEN P	4516	150000	22	15	24	0.23	1.40	62
ALLIGATOR P	502	-	-	6	28	0.19	2.00	110
ANASAGUNTICOOK L	3604	110000	29	21	56	0.12	1.20	70
BALCH & STUMP PONDS	3898	390000	12	14	54	0.12	1.50	180
BASKAHEGAN L	1078	130000	22	34	38	0.16	0.70	41
BAUNEAG BEG L	3992	170000	16	14	31	0.27	1.00	120
BEAVER P	3124	95000	31	26	40	0.03	0.70	47
BELDEN P	5730	150000	27	19	35	0.12	1.20	62
BEN ANNIS P	2282	650000	9	10	26	0.18	1.50	61
BOTTLE L	4702	110000	25	20	31	0.19	1.10	52
BRACKETT L	1068	24000	70	58	14	0.002 ND	0.42	26
BRADBURY (BARKER) L	9763	150000	29	22	31	0.21	0.80	34
BRAINARD P	5306	110000	25	23	42	0.14	0.56	34
BRANCH L (SOUTH)	2144	65000	36	33	21	0.10	0.97	66
BRANCH P (EAST)	2822	480000	7	7	13	0.12	1.10	31
BRANCH P (UPPER MID)	4492	150000	22	21	22	0.16	1.40	60
BUBBLE P	4452	110000	20	17	22	0.27	5.20	160
BUNKER P (BIG)	362	130000	20	16	40	0.19	0.68	31
BURDEN P	834	71000	38	15	50	0.12	1.10	57
BURNT MEADOW P	5572	140000	21	17	50	0.07	1.30	70
BURNT P	4288	160000	24	8	73	0.10	1.70	74
CANADA FALLS L	2516	42000	52	49	62	0.05	0.30	13
CARLTON BOG (POND)	41	460000	12	8	8	0.16	1.20	46
CEDAR L	2004	110000	29	23	25	0.21	0.89	69
CHAIN OF PONDS	5064	60000	42	30	55	0.19	0.70	46
CHANDLER L	1994	-	-	11	19	0.12	1.60	72
CHASE L	2752	120000	24	18	41	0.33	1.40	43
CHASE P (FIRST)	1538	280000	16	14	27	0.20	1.70	78
CHUB P	5100	370000	10	10	11	0.17	1.40	72

Table 9 (continued). Sediment Analysis Results.

LAKE	MIDAS	TOC PPM (EPA)	% SOLIDS (EPA)	% SOLIDS (HETL)	% SILT (HETL)	HG PPM (HETL)	CD PPM (HETL)	PB PPM (HETL)
CHURCHILL L	2856	120000	28	21	32	0.27	1.10	48
COBBOSSEECONTEE L	5236	140000	24	13	41	0.08	0.98	86
CROSS L	1674	53000	37	29	47	0.12	0.62	33
CRYSTAL (BEALS) P	3626	95000	23	19	28	0.09	0.74	84
DAMARISCOTTA L	5400	64000	26	24	55	0.12	1.20	76
DEBSCONEAG L (4TH)	582	140000	21	18	24	0.34	1.70	74
DIMMICK P (LITTLE)	240	120000	27	24	29	0.19	0.70	33
DUCK L	4746	140000	21	17	22	0.13	1.40	100
EAGLE L	1634	50000	38	32	28	0.09	0.60	27
EAST P	5349	64000	42	36	44	0.08	0.60	46
EMBDEN P	78	86000	28	21	53	0.21	2.50	180
FIELDS P	4282	90000	29	25	47	0.21	0.60	56
FISH P	2524	-	-	11	44	0.12	1.10	79
FISHER P (BIG)	2940	380000	-	9	20	0.12	1.10	48
FLYING P	5182	110000	30	22	48	0.14	0.90	100
FOLSOM P	2222	240000	20	14	59	0.15	1.30	53
FOREST L	3712	150000	22	10	35	0.29	1.20	160
GRAHAM L	4350	43000	47	41	53	0.11	0.20	20
GRAND L (WEST)	1150	81000	25	18	26	0.20	1.80	96
GRANGER P	3126	110000	27	20	48	0.05	0.81	51
GREENWOOD P (LITTLE)	886	140000	22	17	22	0.19	1.60	79
HAY L	2178	85000	32	24	45	0.18	0.84	30
HICKS P	3484	110000	27	21	26	0.06	1.10	32
HODGDON P	4628	140000	23	20	23	0.22	1.20	57
HORSESHOE L	4788	98000	29	25	34	0.05	1.00	50
HOSMER P	4808	56000	45	32	44	0.12	0.68	30
INDIAN P (BIG)	324	73000	30	20	43	0.10	1.30	63
JACOB BUCK P	4322	190000	23	19	26	0.19	1.20	85
JERRY P	2190	160000	25	20	50	0.11	1.20	45
JUMP P	5740	170000	22	17	44	0.08	2.10	66
KEENE L	1424	140000	16	12	37	0.21	1.80	94
KEEWAYDIN L	3272	170000	19	13	40	0.24	1.50	140

Table 9 (continued). Sediment Analysis Results.

LAKE	MIDAS	TOC PPM (EPA)	% SOLIDS (EPA)	% SOLIDS (HETL)	% SILT (HETL)	HG PPM (HETL)	CD PPM (HETL)	PB PPM (HETL)
KINGSBURY P	262	93000	33	25	35	0.14	1.10	85
KNIGHT P	3884	240000	15	13	52	0.37	1.60	200
LAMBERT L	1332	110000	27	20	23	0.31	1.40	68
LILY P	5288	290000	13	11	25	0.16	1.00	90
LONG P	2536	110000	18	32	58	0.15	0.88	42
LONG P	4598	120000	20	17	20	0.21	1.30	110
LOVEWELL P	3254	76000	40	30	52	0.13	2.10	66
MACHIAS L (FOURTH)	1148	180000	23	16	46	0.12	1.10	54
MEDDYBEMPS L	177	100000	-	23	30	0.18	1.10	68
MOLUNKUS L	3038	46000	58	46	8	0.22	1.10	25
MONSON P (1)	1820	-	-	-	-	-	-	-
MOOSELEUK L	1990	49000	51	41	1	0.04	0.34	5
NEQUASSET P	5222	48000	39	34	50	0.10	0.70	58
NORTH P	3500	160000	14	12	11	0.07	1.10	53
NORTH P	3616	150000	20	15	39	0.12	2.10	170
ORANGE L	1364	210000	20	19	25	0.22	1.20	63
OSSIPEE L (LITTLE)	5024	200000	13	10	57	0.10	2.80	390
OTTER P	3338	86000	12	5	14	0.11	0.70	22
OTTER P	3972	350000	9	5	55	0.21	2.00	100
PASSAGASSAWAUKEAG L	5496	120000	26	18	53	0.06	1.10	54
PATTEE P	5458	130000	24	17	35	0.23	1.10	72
PEASE P	5198	77000	29	26	35	0.13	0.80	54
PENNINGTON P	1612	250000	14	10	16	0.09	1.70	54
PINE P (BIG)	2920	150000	25	18	43	0.29	1.10	52
PITCHER P	4848	110000	35	25	45	0.21	1.20	76
PLEASANT L	159	100000	24	23	26	0.11	0.93	51
PLEASANT L	1100	91000	20	13	47	0.27	1.40	94
PLEASANT P	3252	38000	53	38	67	0.12	0.82	29
PORTLAND L	1008	150000	27	10	51	0.20	1.10	130

(1) Sample improperly collected - not analyzed.

Table 9 (continued). Sediment Analysis Results.

LAKE	MIDAS	TOC PPM (EPA)	% SOLIDS (EPA)	% SOLIDS (HETL)	% SILT (HETL)	HG PPM (HETL)	CD PPM (HETL)	PB PPM (HETL)
PURGATORY P (LITTLE)	5250	270000	12	12	25	0.06	0.70	42
RANGE P (LOWER)	3760	240000	16	15	39	0.26	1.80	160
ROACH P (SECOND)	452	150000	22	17	35	0.11	1.60	61
ROBERTS & WADLEY PDS	5034	250000	18	11	63	0.10	1.40	83
ROCKY P	4330	130000	22	18	38	0.09	1.50	45
ROUND (GREY) P	5500	150000	23	17	48	0.13	1.40	75
ROUND P	3818	140000	23	16	44	0.34	1.10	67
ROUND P	5684	52000	41	36	49	0.24	0.40	30
ROWE P	202	100000	25	21	34	0.14	1.00	59
SANDY RIVER P (MID)	3566	130000	26	20	45	0.15	1.30	50
SANDY RIVER P(LOWER)	3564	100000	30	21	66	0.15	1.00	36
SAWYER P	386	86000	28	24	53	0.11	0.68	45
SECOND L	1134	260000	14	12	31	0.16	1.10	62
SENNEBEC P	5682	73000	45	32	53	0.14	0.54	40
SEWALL P	9943	250000	17	15	51	0.002 ND	1.00	64
SHIN P (LOWER)	2198	44000	25	22	49	0.12	1.20	48
SLY BROOK L (SECOND)	1644	130000	21	15	30	0.17	0.80	52
SPENCER P	404	-	-	6	23	0.14	1.60	64
SQUAW P (BIG)	334	150000	19	13	63	0.09	1.20	68
SUNDAY P	3316	270000	16	12	22	0.42	1.70	94
SYMMES P	3892	260000	12	6	53	0.13	0.87	70
THIRD L	2704	130000	23	18	60	0.38	1.20	42
TOGUE P	1530	130000	18	17	10	0.19	1.20	96
TOGUS P	9931	130000	19	17	51	0.24	1.70	110
TRAVEL P	5456	180000	21	19	29	0.18	1.20	45
TRICKEY P	2514	230000	14	9	38	0.17	1.20	72
UMBAGOG L	3102	70000	33	27	46	0.09	2.20	38
UMCOLCUS L (2)	3080	-	-	-	-	-	-	-
VARNUM P	3680	-	-	19	58	0.19	1.90	140

(2) No sample taken - rocky lake bottom.

Table 9 (continued). Sediment Analysis Results.

LAKE	MIDAS	TOC PPM (EPA)	% SOLIDS (EPA)	% SOLIDS (HETL)	% SILT (HETL)	HG PPM (HETL)	CD PPM (HETL)	PB PPM (HETL)
WADLEIGH P	572	150000	25	14	39	0.21	1.40	60
WEBBER P	5408	49000	41	30	45	0.09	0.32	40
WELLS P	3970	470000	11	7	63	0.25	3.00	140
WEYMOUTH P	5478	190000	9	9	48	0.05	1.60	85
WIGHT P	4662	150000	20	20	19	0.30	1.20	67
WOOD P (LITTLE BIG)	2630	110000	24	24	14	0.28	1.40	52

VI. QUALITY ASSURANCE/QUALITY CONTROL

A. Field Sampling

Field crews from each Department of Inland Fisheries and Wildlife geographic region collected one set of water and sediment sample duplicates during the sampling season. The sampling season included the period from July to September. A sample duplicate is a second sample obtained following the same procedures as for the first sample. It provides information on the homogeneity of the matrix and the consistency with which samples are collected, preserved and analyzed. Sediment sample duplicates were not necessarily taken from the same lakes as water sample duplicates.

Duplicates were assigned unique identification numbers for use in laboratory analyses. Pre-labeled containers were identified as additional samples, not as duplicates, to reduce analytical bias. The duplicate results were not averaged with the sample, but were maintained in the data base as quality control indicators.

Duplicate water samples were collected for anions and cations, total phosphorous and dissolved organic carbon. Duplicate readings at the 1 meter depth were recorded in the field for specific conductance, pH, temperature and dissolved oxygen along with water quality profiles. Duplicate sediment samples were collected for mercury, cadmium, lead, total organic carbon, grain size and percent moisture.

Equipment blanks were collected after routine decontamination of field sampling equipment. Deionized water was poured into, or over, equipment and collected in the same containers used for project samples. Equipment blanks provide information as to whether the source of contamination is the matrix or the equipment used to collect the sample. They also indicate if there is any cross-contamination between sample sites due to insufficient decontamination.

Equipment blank samples were noted as such in field records. They were generally not designated on container labels. However, to avoid confusion in the lab, the equipment blanks for sediment collection equipment were labeled as such. After routine decontamination of equipment upon completion of sampling a lake, each team submitted one equipment blank for each of the following parameters and pieces of equipment:

Metals (Hg, Cd, Pb), Organics & DOC
Ekman dredge
sediment sampling utensil

Mg, Ca, DOC
water bottle

Total Phosphorous
water "core" tubing

Collection of one set of field duplicate samples for each region ensured that duplicates were collected from a minimum of 5% of the project lakes for all parameters sampled, as required in the Project Work/QA Plan. The data quality objective for water profile duplicates and other aqueous samples was no more than a 30% relative percent difference. For sediment duplicates, the objective was a relative percent difference of less than 50%. These goals applied only if both duplicate values were greater than two times the reporting limit. Table 10 presents a summary of all duplicate sample results in relation to the data quality objectives.

All 1 meter water profile duplicates had a relative percent difference less than 30%, except one sample each for specific conductance and pH. It should be noted that some erratic pH readings were recorded which are not reflected in the 1 meter duplicate results. These readings appeared to occur mostly at depths of 7 meters or more. They were not apparently related to a specific instrument, although a small crack was discovered in one of the pH probes after the field season was over. It is possible that the questionable data were due to operator error, especially if insufficient time was allowed for sonde readings to stabilize before they were electronically logged by field staff. All water sample field duplicates met the stated data quality objective with the exception of one calcium sample and one dissolved organic carbon sample.

A somewhat higher number of sediment field duplicates did not meet the objective of 50% relative percent difference; however this is not surprising considering that this matrix is generally much less homogeneous than water. Samples which fell outside the goal include one each for mercury, cadmium, lead and percent silt, two for percent solids and three for total organic carbon. Overall, duplicate results indicate that the quality of the data obtained is good. Complete results of field duplicate analyses appear in Tables 11 - 14. These include water profile duplicates, anion and cation duplicates, total phosphorus/dissolved organic carbon duplicates, and sediment duplicates, respectively.

Table 10. Summary of Field Duplicate Sample Results.

The number and percent of samples which met data quality objectives are listed for duplicate samples having both values greater than 2 times the reporting limit. DQO = Data Quality Objective, N = total number of duplicate samples and RPD = relative percent difference.

Lake Profile 1 meter duplicates (Data Quality Objective = 30% or less RPD)

	# Meeting DQO	N	% Meeting DQO
Temperature	87	87	100%
Dissolved Oxygen	87	87	100%
pH	83	84	98.8%
Specific Conductance	83	84	98.8%

Water Quality Field Duplicates (Data Quality Objective = 30% or less RPD)

	# Meeting DQO	N	% Meeting DQO
pH	29	29	100%
Acid Neutralizing Capacity	29	29	100%
True Color	29	29	100%
Ca	28	29	96.6%
Mg	29	29	100%
K	29	29	100%
Na	29	29	100%
Cl	29	29	100%
NO3	4	4	100%
SO4	29	29	100%
Dissolved Organic Carbon	2	3	66.7%
Total Phosphorus	7	7	100%

Sediment Field Duplicates (Data Quality Objective = 50% or less RPD)

	# Meeting DQO	N	% Meeting DQO
Hg	6	7	85.7%
Cd	6	7	85.7%
Pb	6	7	85.7%
Total Organic Carbon	4	7	57.1%
Percent Solids (EPA)	7	7	100%
Percent Solids (HETL)	5	7	71.4%
Percent Silt	6	7	85.7%

Table 11. Water Quality Profile Duplicate Results. D = duplicate analysis, K = specific conductance ,D.O. = dissolved oxygen and RPD = relative percent difference.

LAKE: ALLEN P	MIDAS: 4516			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.6	8.5	6.85	21
D 0.9	24.2	8.4	6.80	18
RPD	1.6	1.2	0.7	15.4
LAKE: ALLIGATOR P	MIDAS: 4516			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	18.1	9.1	6.88	12
D 1.0	18.1	9.2	6.78	13
RPD	0	-1.1	1.5	8.0
LAKE: BALCH & STUMP PONDS	MIDAS: 3898			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.9	8.23	6.90	50
D 1.0	23.8	7.84	6.61	49
RPD	0.4	4.9	4.3	2.0
LAKE: BASKAHEGAN L	MIDAS: 1078			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	8.29	6.35	19
D 1.0	23.4	8.21	5.30	22
RPD	0.0	1.0	18.0	-14.6
LAKE: BELDEN P	MIDAS: 5730			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.8	8.13	6.93	34
D 1.0	23.8	8.01	6.70	30
RPD	0.0	1.5	3.4	12.5
LAKE: BEN ANNIS P	MIDAS: 2282			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.8	9.37	8.39	98
D 1.1	22.8	9.36	8.43	98
RPD	0.0	0.1	-0.5	0.0

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: BOTTLE L	MIDAS: 4702			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23	8.43	7.17	29
D 1.0	23.1	8.23	5.87	28
RPD	-0.4	2.4	19.9	3.5

LAKE: BRACKETT L	MIDAS: 1068			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.1	22.9	8.68	6.50	34
D 1.0	22.9	8.62	6.09	35
RPD	0.0	0.7	6.5	-2.9

LAKE: BRADBURY (BARKER) L	MIDAS: 9763			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.5	8.33	7.73	115
D 1.0	22.5	8.21	7.83	116
RPD	0.0	1.5	-1.3	-0.9

LAKE: BRAINARD P	MIDAS: 5306			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.9	8.49	7.34	66
D 1.0	24.8	8.34	7.26	65
RPD	0.4	1.8	1.1	1.5

LAKE: BRANCH L (SOUTH)	MIDAS: 2144			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.9	23.5	8.47	6.97	17
D 0.9	23.6	8.27	6.53	19
RPD	-0.4	2.4	6.5	-11.1

LAKE: BRANCH P (EAST)	MIDAS: 2822			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	18.3	8.27	7.07	62
D 1.0	18.4	8.26	7.09	62
RPD	-0.5	0.1	-0.3	0.0

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: BRANCH P (UPPER MID MIDAS: 4492

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.6	8.67	5.45	20
D 0.9	22.6	6.54	5.37	18
RPD	0.0	28.0	1.5	10.5

LAKE: BUBBLE P MIDAS: 4452

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.5	8.4	6.50	-
D 1.0	21.5	8.0	-	-
			-	-
RPD	0.0	4.9		

LAKE: BUNKER P (BIG) MIDAS: 0362

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.1	8.51	7.04	18
D 1.0	22.1	8.51	6.67	17
RPD	0.0	0.0	5.4	5.7

LAKE: BURNT P MIDAS: 4288

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	16.5	9.76	6.48	20
D 1.0	16.5	9.69	6.33	20
RPD	0.0	0.70	2.3	0.0

LAKE: CANADA FALLS L MIDAS: 2516

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.5	7.97	6.86	29
D 1.0	23.5	7.89	6.78	28
RPD	0.0	1.0	1.2	3.5

LAKE: CARLTON BOG (POND) MIDAS: 0041

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.3	7.06	6.81	35
D 1.0	23.3	7.17	6.70	35
RPD	0.0	-1.5	1.6	0.0

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: CEDAR L	MIDAS: 2004			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.9	8.45	6.84	18
D 1.0	21.9	8.40	6.66	20
RPD	0.0	0.6	2.7	-10.5
LAKE: CHANDLER L	MIDAS: 1994			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22	8.70	6.80	30
D 1.0	22	8.44	6.65	30
RPD	0.0	3.0	2.2	0.0
LAKE: CHASE L	MIDAS: 2752			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.9	8.75	7.14	53
D 1.0	22.5	8.43	6.02	53
RPD	1.8	3.7	17.0	0.0
LAKE: CHASE P (FIRST)	MIDAS: 1538			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.9	21.1	8.66	7.19	61
D 1.0	20.8	8.36	6.72	61
RPD	1.4	3.5	6.8	0.0
LAKE: CHUB P	MIDAS: 5100			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.8	9.77	7.18	21
D 1.0	23.7	9.76	6.95	21
RPD	0.4	0.1	3.3	0.0
LAKE: CHURCHILL L	MIDAS: 2856			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.9	21.6	8.62	8.15	37
D 1.0	21.5	8.55	7.04	33
RPD	0.5	0.8	14.6	11.4

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: COBBOSSEECONTEE L	MIDAS: 5236			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.6	9.06	8.36	67
D 1.0	23.5	8.82	8.15	63
RPD	0.4	2.7	2.5	6.2
LAKE: CRYSTAL (BEALS) P	MIDAS: 3626			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.9	8.53	7.63	89
D 1.0	23.7	8.40	7.54	74
RPD	0.8	1.5	1.2	18.4
LAKE: DAMARISCOTTA L	MIDAS: 5400			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.6	8.78	7.18	37
D 1.0	24.8	8.64	6.89	35
RPD	-0.8	1.6	4.1	5.6
LAKE: DEBSCONEAG L (4TH)	MIDAS: 0582			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.5	8.57	6.96	18
D 1.0	22.7	8.56	6.82	16
RPD	-0.9	0.1	2.0	11.8
LAKE: DIMMICK P (LITTLE)	MIDAS: 0240			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.2	23.4	8.33	7.11	32
D 0.2	23.5	8.29	7.12	35
RPD	-0.4	0.5	-0.1	-9.0
LAKE: DUCK L	MIDAS: 4746			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.2	22.6	8.82	6.59	20
D 1.1	22.7	8.55	6.14	19
RPD	-0.4	3.1	7.1	5.1

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: EAGLE L	MIDAS: 1634			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.2	20.7	8.66	7.05	53
D 1.1	20.8	8.35	7.05	54
RPD	-0.5	3.6	0.0	-1.9
LAKE: EAST P	MIDAS: 5349			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.1	24.3	10.66	8.85	36
D 1.0	24.3	10.10	8.64	35
RPD	0.0	5.4	2.4	2.8
LAKE: EMBDEN P	MIDAS: 0078			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.2	22.9	8.76	7.22	22
D 0.1	22.7	8.58	6.95	20
RPD	0.9	2.1	3.8	9.5
LAKE: FISH P	MIDAS: 2524			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	20.8	8.79	7.29	23
D 1.0	20.8	8.74	7.16	22
RPD	0.0	0.6	1.8	4.4
LAKE: FISHER P (BIG)	MIDAS: 2940			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.1	8.56	6.84	15
D 1.0	21.1	8.45	6.55	17
RPD	0.0	1.3	4.3	-12.5
LAKE: FLYING P	MIDAS: 5182			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.7	8.52	7.36	42
D 1.0	22.7	8.35	6.90	41
RPD	0.0	2.0	6.5	2.4

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: FOLSOM P	MIDAS: 2222			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.6	8.06	6.43	22
D 1.0	23.6	7.94	5.45	22
RPD	0.0	1.5	16.5	0.0
LAKE: GREENWOOD P (LITTLE	MIDAS: 0886			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.1	8.70	6.91	14
D 1.0	23.1	8.48	6.61	15
RPD	0.0	2.6	4.4	-6.9
LAKE: HAY L	MIDAS: 2178			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.7	8.59	7.21	30
D 1.0	22.7	8.54	6.18	28
RPD	0.0	0.6	15.4	6.9
LAKE: HODGDON P	MIDAS: 4628			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.5	8.10	6.50	-
D 1.0	23.0	8.00	-0	-
			-	-
RPD	2.2	1.2		
LAKE: HOSMER P	MIDAS: 4808			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.9	8.65	7.47	38
D 1.0	23.8	8.55	7.21	41
RPD	0.4	1.2	3.5	-7.6
LAKE: INDIAN P (BIG)	MIDAS: 0324			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	20.9	8.70	7.05	27
D 1.0	21.0	8.57	6.87	25
RPD	-0.5	1.5	2.6	7.7

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: JERRY P	MIDAS: 2190			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.1	8.22	6.61	25
D 1.0	21.1	8.19	6.68	24
RPD	0.0	0.4	-1.1	4.1
LAKE: JUMP P	MIDAS: 5740			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	8.38	7.00	31
D 1.0	23.4	8.29	6.66	26
RPD	0.0	1.1	5.0	17.5
LAKE: KINGSBURY P	MIDAS: 0262			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.9	8.59	6.73	17
D 1.0	22.1	8.53	6.55	17
RPD	-0.9	0.7	2.7	0.0
LAKE: LAMBERT L	MIDAS: 1332			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.9	9.07	7.10	30
D 1.0	22.0	8.82	7.06	31
RPD	-0.5	2.8	0.6	-3.3
LAKE: LILY P	MIDAS: 5288			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.8	8.79	7.83	227
D 1.0	24.7	8.59	7.82	188
RPD	0.4	2.3	0.1	18.8
LAKE: LONG P	MIDAS: 2536			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.7	8.3	6.89	26
D 1.0	21.7	8.22	6.88	27
RPD	0.0	1.0	0.1	-3.8

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: MOLUNKUS L	MIDAS: 3038			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.1	22.9	8.17	6.98	29
D 1.0	22.8	7.99	6.65	29
RPD	0.4	2.2	4.8	0.0
LAKE: MOOSELEUK L	MIDAS: 1990			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.4	24.4	8.94	8.87	54
D 0.4	24.4	8.90	8.52	54
RPD	0.0	0.4	4.0	0.0
LAKE: NEQUASSET P	MIDAS: 5222			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	8.71	7.12	31
D 1.0	23.2	8.49	6.55	29
RPD	0.9	2.6	8.3	6.7
LAKE: NORTH P	MIDAS: 3616			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.9	8.51	7.04	25
D 1.0	23.9	8.31	6.60	25
RPD	0.0	2.4	6.5	0.0
LAKE: ORANGE L	MIDAS: 1364			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.9	22.4	8.23	6.33	23
D 0.9	22.5	8.12	6.32	24
RPD	-0.4	1.3	0.2	-4.3
LAKE: OTTER P	MIDAS: 3338			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.2	23.9	8.86	6.90	18
D 0.2	23.9	8.48	6.82	20
RPD	0.0	4.4	1.2	-10.5

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: PASSAGASSAWAUKEAG L MIDAS: 5496

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	8.70	7.20	42
D 1.0	23.4	8.56	6.99	34
RPD	0.0	1.6	3.0	21.1

LAKE: PATTEE P MIDAS: 5458

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.9	25.7	8.61	8.73	61
D 1.0	25.6	8.47	8.69	63
RPD	0.4	1.6	0.5	-3.2

LAKE: PINE P (BIG) MIDAS: 2920

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.4	8.38	6.85	18
D 1.0	22.4	8.34	6.63	17
RPD	0.0	0.5	3.3	5.7

LAKE: PITCHER P MIDAS: 4848

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.7	8.16	6.88	23
D 1.0	23.8	8.11	6.60	20
RPD	-0.4	0.6	4.2	14.0

LAKE: PLEASANT L MIDAS: 1100

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	8.79	6.37	19
D 0.9	23.4	8.60	3.60	24
RPD	0.0	2.2	55.6	-23.3

LAKE: PLEASANT L MIDAS: 1100

DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.4	8.78	7.26	24
D 1.0	22.4	8.5	7.31	25
RPD	0.0	3.2	-0.7	-4.1

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: PORTLAND L	MIDAS: 1008			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.1	9.11	8.02	202
D 1.0	24.1	8.96	7.30	203
RPD	0.0	1.7	9.4	-0.5

LAKE: PURGATORY P (LITTLE	MIDAS: 5250			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24.7	8.21	7.76	68
D 1.0	24.9	8.09	7.68	62
RPD	-0.8	1.5	1.0	9.2

LAKE: ROACH P (SECOND)	MIDAS: 0452			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.4	8.41	6.87	22
D 1.0	21.4	8.23	6.87	21
RPD	0.0	2.2	0.0	4.7

LAKE: ROBERTS & WADLEY PD	MIDAS: 5034			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	6.95	5.94	21
D 1.0	23.2	6.59	5.77	21
RPD	0.9	5.3	2.9	0.0

LAKE: ROCKY P	MIDAS: 4330			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	20.3	9.21	5.94	22
D 1.0	20.4	9.05	5.32	22
RPD	-0.5	1.8	11.0	0.0

LAKE: ROUND (GREY) P	MIDAS: 5500			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.2	8.48	7.60	59
D 1.0	23.2	8.41	7.56	46
RPD	0.0	0.8	0.5	24.8

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: ROUND P	MIDAS: 3818			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.6	8.32	7.24	53
D 1.0	23.6	8.23	7.05	41
RPD	0.0	1.1	2.7	25.5
LAKE: ROUND P	MIDAS: 5684			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1.1	25.3	8.70	7.01	28
D 1.0	25.3	8.61	7.01	29
RPD	0.0	1.0	0.0	-3.5
LAKE: SENNEBEC P	MIDAS: 5682			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.5	7.95	6.91	36
D 1.0	23.5	7.82	6.59	30
RPD	0.0	1.6	4.7	18.2
LAKE: SEWALL P	MIDAS: 9943			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.4	9.14	7.00	257
D 1.0	23.3	9.14	6.85	260
RPD	0.4	0.0	2.2	-1.2
LAKE: SHIN P (LOWER)	MIDAS: 2198			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.9	8.44	6.13	30
D 1.0	22.7	8.43	5.86	31
RPD	0.9	0.1	4.5	-3.3
LAKE: SLY BROOK L (SECOND)	MIDAS: 1644			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.4	9.29	7.89	54
D 1.0	22.3	8.86	7.09	54
RPD	0.4	4.7	10.7	0.0

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: SPENCER P	MIDAS: 0404			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.6	8.28	7.31	32
D 1.0	22.7	8.31	7.29	32
RPD	-0.4	-0.4	0.3	0.0
LAKE: SQUAW P (BIG)	MIDAS: 0334			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	20.4	8.92	7.37	25
D 1.0	20.4	8.92	7.04	23
RPD	0.0	0.0	4.6	8.3
LAKE: SUNDAY P	MIDAS: 3316			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
0.2	21.6	9.53	6.74	23
D 0.1	21.3	9.01	6.60	21
RPD	1.4	5.6	2.1	9.1
LAKE: SYMMES P	MIDAS: 3892			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.7	6.46	6.33	36
D 1.0	22.7	6.35	6.30	35
RPD	0.0	1.7	0.5	2.8
LAKE: THIRD L	MIDAS: 2704			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21	8.18	7.52	52
D 1.0	20.9	7.94	6.83	54
RPD	0.5	3.0	9.6	-3.8
LAKE: TOGUE P	MIDAS: 1530			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.5	9.01	7.74	42
D 1.0	21.3	8.75	8.09	43
RPD	0.9	2.9	-4.4	-2.4

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: TOGUS P	MIDAS: 9931			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.1	8.77	8.76	39
D 1.0	23.1	8.67	8.68	35
RPD	0.0	1.1	0.9	10.8
LAKE: TRAVEL P	MIDAS: 5456			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	25.5	7.81	7.70	25
D 1.0	25.5	7.75	7.66	26
RPD	0.0	0.8	0.5	-3.9
LAKE: TRICKEY P	MIDAS: 2514			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	20.1	8.96	7.54	48
D 1.0	20.1	8.92	7.54	47
RPD	0.0	0.4	0.0	2.1
LAKE: UMCOLCUS L	MIDAS: 3080			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.3	8.25	6.94	28
D 1.0	22.3	8.12	6.69	27
RPD	0.0	1.6	3.7	3.6
LAKE: WADLEIGH P	MIDAS: 0572			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	23.3	8.58	6.93	21
D 1.0	23.1	8.58	6.80	19
RPD	0.9	0.0	1.9	10.0
LAKE: WEBBER P	MIDAS: 5408			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	22.9	9.45	9.09	56
D 1.0	22.9	9.33	9.06	40
RPD	0.0	1.3	0.3	33.3

Table 11 (continued). Water Quality Profile Duplicate Results.

LAKE: WEYMOUTH P	MIDAS: 5478			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	24	8.79	8.08	108
D 1.0	24	8.80	8.07	111
RPD	0.0	-0.1	0.1	-2.7
LAKE: WIGHT P	MIDAS: 4662			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
3	23	8.2	-	-
D 3.0	22.5	8.1	-	-
RPD	2.2	1.2	-	-
LAKE: WOOD P (LITTLE BIG)	MIDAS: 2630			
DEPTH(M)	TEMP(C)	D.O.(MG/L)	PH	K(uS/CM)
1	21.6	8.14	6.90	24
D 1.0	21.5	8.10	6.71	23
RPD	0.5	0.5	2.8	4.3

Table 12. Anion and Cation Field Duplicate Results. PH = air equilibrated pH, ANC = acid neutralizing capacity, COL = true (filtered) color, SUM AN = the sum of positive ions, SUM CAT = the sum of negative ions, and RATIO = the ration of positive to negative ions. A 'D' in the REP column indicates a duplicate analysis, and missing data are indicated by "-". RPD = relative percent difference.

LAKE	MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
EQUIPMENT BLANK	-	8/19/95	-		5.77	1.8	0	1	0	0.3	0	3	0	0	3	5	0.70
EQUIPMENT BLANK	-	8/26/95	-		6.33	10.0	0	3	1	0.3	1	2	0	0	6	12	0.49
EQUIPMENT BLANK	-	9/3/95	-		6.36	8.1	0	8	2	0.5	4	10	0	2	16	20	0.78
EQUIPMENT BLANK	-	9/3/95	-		5.91	1.0	0	1	0	0.3	1	6	0	0	4	6	0.64
EQUIPMENT BLANK	-	8/30/95	-		6.99	46.5	1	13	7	3.8	14	14	0.6	3	38	64	0.60
BASKAHEGAN L	1078	8/26/93	1.0		7.06	78.8	37	97	44	10.5	61	48	0	56	212	183	1.16
	1078	8/26/93	1.0	D	7.09	82.6	38	97	44	11	63	51	0	56	215	190	1.13
RPD					-0.42	-4.71	-3	0	0	-4.65	-3.23	-6.06	-	0	-1.41	-3.75	2.62
BASKAHEGAN L	1078	8/26/93	6.0		7.10	82.2	40	99	45	12.8	68	46	1.1	57	225	186	1.21
	1078	8/26/93	6.0	D	7.09	80.4	39	10	44	11	62	48	0.8	56	218	185	1.17
RPD					0.14	2.20	3.00	163.3	2.25	15.13	9.23	-4.26	31.58	1.77	3.16	0.54	3.36
BRANCH P (EAST)	2822	9/14/93	1.0		8.03	619	63	56	137	6.9	44	21	0.2	65	751	705	1.06
	2822	9/14/93	1.0	D	7.96	576	63	56	135	6.6	43	21	0.8	66	748	664	1.13
RPD					0.88	7.2	0	0	1.47	4.44	2.3	0	-120	-1.53	0.4	5.99	-6.39
BRANCH P (EAST)	2822	9/14/93	1.5		7.99	591	90	56	135	7.2	42	22	0.1	66	748	679	1.10
	2822	9/14/93	1.5	D	8.00	597	90	56	135	7.4	43	22	0	67	749	686	1.09
RPD					-0.13	-1.01	0	0	0	-2.74	-2.35	0	200	-1.5	-0.13	-1.03	0.91

Table 12 (continued). Anion and Cation Field Duplicate Results.

LAKE	MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
BUBBLE P	4452	8/16/93	1.0		7.13	65	3	10	44	6.9	15	139	0	91	305	295	1.03
	4452	8/16/93	1.0	D	7.15	63	3	10	43	6.9	15	138	0	91	306	292	1.05
RPD					-0.28	3.13	0	0	2.3	0	0	0.72	-	0	-0.33	1.02	-1.92
BUNKER P (BIG)	362	8/16/93	1.0		7.19	100	36	10	43	8.2	42	9	0.9	58	195	168	1.16
	362	8/16/93	1.0	D	7.18	98.6	37	10	43	8.4	42	10	0.8	58	195	167	1.16
RPD					0.14	1.41	-3	0	0	-2.41	0	-10.53	11.76	0	0	0.6	0
CHAIN OF PONDS	5064	8/19/93	29.0		7.50	179	43	17	79	17.9	47	27	13	78	315	298	1.06
	5064	8/19/93	29.0	D	7.49	181	43	16	80	17.4	47	26	13	77	312	298	1.05
RPD					0.13	-1.11	0	6.06	-1.26	2.83	0	3.77	0	1.29	0.96	0	0.95
CRYSTAL (BEALS) P	3626	8/12/93	1.0		8.01	525	10	54	86	28.6	25	227	0	12	914	877	1.04
	3626	8/12/93	1.0	D	8.02	525	10	54	85	28.9	25	229	0	12	910	877	1.04
RPD					-0.12	0	0	0	1.17	-1.04	0	-0.88	-	0	0.44	0	0
DIMMICK P (LITTLE)	240	8/19/93	4.0		7.73	299	30	12	252	6.6	29	17	1.2	91	417	408	1.02
	240	8/19/93	4.0	D	7.74	298	30	13	253	6.6	29	16	1.1	91	418	406	1.03
RPD					-0.13	0.34	0	-8	-0.4	0	0	6.06	8.7	0	-0.24	0.49	-0.98
FOLSOM P	2222	8/26/93	1.0		7.17	94	32	10	39	15.3	67	30	0	64	226	188	1.20
	2222	8/26/93	1.0	D	7.15	94	32	10	39	15.1	68	32	0	64	227	190	1.19
RPD					0.28	0	0	0	0	1.32	-1.48	-6.45	-	0	-0.44	-1.06	0.84

Table 12 (continued). Anion and Cation Field Duplicate Results.

LAKE		MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
JACOB BUCK P		4322	8/30/93	1.0		7.22	86.4	9	10	48	9.7	99	83	0	80	264	249	1.06
		4322	8/30/93	1.0	D	7.21	87.0	8	10	48	10	98	85	0	79	264	251	1.05
	RPD					0.14	-0.69	12	0	0	-3.05	1.02	-2.38	-	1.26	0	-0.8	0.95
JACOB BUCK P		4322	8/30/93	14.0		7.27	97.6	11	10	49	10.5	95	84	0.1	77	263	259	1.02
		4322	8/30/93	14.0	D	7.30	104.6	12	10	49	10.7	94	84	0.8	76	262	265	0.99
	RPD					-0.41	-6.92	-9	0	0	-1.89	1.06	0	-156	1.31	0.38	-2.29	2.99
NORTH P		3500	8/30/93	1.0		7.64	214	13	20	61	32.5	12	129	0	68	426	411	1.04
		3500	8/30/93	1.0	D	7.64	216	13	20	60	33.2	12	127	0	68	425	411	1.03
	RPD					0	-0.93	0	0	1.65	-2.13	0	1.56	-	0	0.24	0	0.97
NORTH P		3616	9/14/93	1.0		7.29	106	4	12	35	11	52	32	0	87	223	225	0.99
		3616	9/14/93	1.0	D	7.30	107	4	12	35	10.2	51	31	0	89	218	227	0.96
	RPD					-0.14	-0.94	0	0	0	7.55	1.94	3.17	-	-2.27	2.27	-0.88	3.08
NORTH P		3616	9/14/93	15.0		7.36	120	9	12	36	10	49	31	0	80	220	231	0.95
		3616	9/14/93	15.0	D	7.36	122	9	12	36	10	48	29	0	79	221	230	0.96
	RPD					0	-1.65	0	0	0	0	2.06	6.67	-	1.26	-0.45	0.43	-1.05
OSSIPEE L (LITTLE)		5024	9/14/93	20.0		7.79	325	23	25	58	21.2	21	218	0.9	37	546	581	0.94
		5024	9/14/93	20.0	D	7.80	324	23	25	61	21	20	215	0.9	37	544	577	0.94
	RPD					-0.13	0.31	0	0	-5.04	0.95	4.88	1.39	0	0	0.37	0.69	0

Table 12 (continued). Anion and Cation Field Duplicate Results.

LAKE	MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
OTTER P	3338	8/19/93	1.0		7.41	133	12	11	54	24.3	44	14	0.1	69	233	216	1.08
	3338	8/19/93	1.0	D	7.39	132	13	10	52	24.5	44	15	4.4	69	230	220	1.04
RPD					0.27	0.75	-8	9.52	3.77	-0.82	0	-6.9	-191	0	1.3	-1.83	3.77
OTTER P	3338	8/19/93	2.0		7.40	134	12	11	53	22.5	41	22	0	71	227	227	1.00
	3338	8/19/93	2.0	D	7.40	132	12	11	53	24.5	46	23	0.2	71	235	226	1.04
RPD					0	1.5	0	0	0	-8.51	-11.5	-4.44	-200	0	-3.46	0.44	-3.92
PENNINGTON P	1612	8/16/93	1.0		8.20	755	9	67	157	8.4	12	92	0	85	960	932	1.03
	1612	8/16/93	1.0	D	8.18	754	9	65	156	8.4	12	90	0	85	943	929	1.02
RPD					0.24	0.13	0	3.03	0.64	0	0	2.2	-	0	1.79	0.32	0.98
PITCHER P	4848	8/26/93	1.0		7.16	83.6	12	81	45	12	98	80	0	62	237	226	1.05
	4848	8/26/93	1.0	D	7.16	84.6	12	82	45	12.5	99	80	0	62	238	227	1.05
RPD					0	-1.19	0	-1.23	0	-4.08	-1.02	0	-	0	-0.42	-0.44	0
ROBERTS & WADLEY	5034	9/14/93	1.0		6.73	44.1	85	55	27	11.3	93	71	0	39	187	154	1.21
	5034	9/14/93	1.0	D	6.73	45	85	55	27	11.3	92	72	0	39	186	156	1.19
RPD					0	-2.02	0	0	0	0	1.08	-1.4	-	0	0.54	-1.29	1.67
ROBERTS & WADLEY	5034	9/14/93	5.2		6.53	40.1	11	55	26	12	80	65	3.6	38	174	147	1.19
	5034	9/14/93	5.2	D	6.57	41.2	11	55	26	12	80	64	3.5	38	174	147	1.18
RPD					-0.61	-2.71	0	0	0	0	0	1.55	2.82	0	0	0	0.84

Table 12 (continued). Anion and Cation Field Duplicate Results.

LAKE		MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
ROUND (GREY)		5500	8/12/93	1.0		7.94	414	11	33	144	12.3	10	102	0	93	600	609	0.99
		5500	8/12/93	1.0	D	7.94	417	11	33	145	12.5	10	100	0	93	600	610	0.98
	RPD					0	-0.72	0	0	-0.69	-1.61	0	1.98	-	0	0	-0.16	1.02
SANDY RIVER		3566	8/19/93	15.0		7.42	136	15	16	46	12.5	16	145	17	92	385	390	0.99
		3566	8/19/93	15.0	D	7.42	138	15	16	46	12.5	16	146	16	92	384	393	0.98
	RPD					0	-1.46	0	0	0	0	0	-0.69	6.06	0	0.26	-0.77	1.02
SEWALL P		9943	8/30/93	1.0		7.03	70.3	43	14	327	49.6	15	187	2.4	17	2081	212	0.98
		9943	8/30/93	1.0	D	7.02	70.4	43	14	327	49.6	15	187	2.2	17	2077	212	0.98
	RPD					0.14	-0.14	0	0	0	0	0	0	8.7	0	0.19	0	0
TOGUS P		9931	8/26/93	1.0		7.57	194	8	18	58	23.8	19	183	0.8	67	458	445	1.03
		9931	8/26/93	1.0	D	7.56	194	8	18	58	24	19	182	0.4	67	458	443	1.03
	RPD					0.13	0	0	0	0	-0.84	0	0.55	66.67	0	0	0.45	0

Table 12 (continued). Anion and Cation Field Duplicate Results.

LAKE		MIDAS	DATE	DEPTH	REP	PH	ANC ueq/l	COL PCU	CA ueq/l	MG ueq/l	K ueq/l	NA ueq/l	CL ueq/l	NO3 ueq/l	SO4 ueq/l	SUM AN	SUM CAT	RATIO
WEYMOUTH P		5478	9/3/91	1.0		8.33	1062	7	90	178	18.9	91	94	0	86	1196	124	0.96
		5478	9/3/91	1.0	D	8.34	1063	7	90	178	19.2	90	96	0	86	1190	124	0.96
	RPD					-0.12	-0.09	0	0	0	-1.57	1.1	-2.11	-	0	0.5	0	0
WEYMOUTH P		5478	9/3/91	3.0		8.33	1052	7	90	176	18.9	88	95	0	85	1186	123	0.96
		5478	9/3/91	3.0	D	8.34	1052	7	90	173	18.2	87	94	0	83	1186	122	0.97
	RPD					-0.12	0	0	0	1.72	3.77	1.14	1.06	-	2.38	0	0.82	-1.04
WIGHT P		4662	8/16/93	1.0		7.27	112	27	13	63	9.2	17	149	0	72	377	333	1.13
		4662	8/16/93	1.0	D	7.28	112	27	13	63	8.9	17	148	0	72	375	332	1.13
	RPD					-0.12	0	0	0	1.72	3.77	1.14	1.06	-	2.38	0	0.82	-1.04

Table 13. Total Phosphorus (TP) and Dissolved Organic Carbon (DOC) Field Duplicate Results. Z=depth, TY=sample type (C=epilimnetic core sample, G=grab sample), NA=not analyzed, ND=not detected at the level indicated, EH=sample exceeded holding time, EQUIP. BLANK= equipment blank and 'RPD'= relative percent difference.

LAKE	MIDAS	DATE	DOC Z (M)	DOC 1 MG/L	DOC 2 MG/L	DOC RPD	TP Z (M)	TP TY	TP 1 MG/L	TP 2 MG/L	TP RPD
BRANCH P (EAST)	2822	-	-	-	-	-	1.5	G	0.010	0.008	22.2
BRANCH P (EAST)	2822	-	-	-	-	-	2.5	C	0.013	0.011	16.7
JACOB BUCK P	4322	8/24/93	1.0	2.6	2.9	-10.9	1.0	G	0.003	0.005	-50.0
JACOB BUCK P	4322	8/24/93	7.0	1.4	1.5	-6.9	7.0	C	0.004	0.004	0.0
JACOB BUCK P	4322	8/24/93	14.0	5.4	1.2	127.3	14.0	G	0.008	0.010	-22.2
OTTER P	3338	-	-	-	-	-	3.0	C	0.011	0.013	-16.7
PORTLAND L	1008	8/9/93	1.0	1.8	2.5	-32.6	2.0	G	0.008	0.007	13.3
PORTLAND L	1008	8/9/93	2.0	1.0 ND	3.2	-104.8	13.0	G	0.039	0.042	-7.4
PORTLAND L	1008	8/9/93	13.0	1.0 ND	2.5	-85.7	-	-	-	-	-
WEYMOUTH P	5478	8/31/93	3.0	3.9	5.6	-35.8	3.0	-	0.015	0.008	60.9
EQUIP. BLANK		8/26/93	NA	1.0 ND	NA	-	-	-	-	-	-
EQUIP. BLANK		-	NA	1.0 ND,EH	NA	-	-	-	-	-	-
EQUIP. BLANK		-	NA	1.0 ND,EH	NA	-	-	-	-	-	-
EQUIP. BLANK		8/8/93	NA	1.0 ND	NA	-	-	-	-	-	-
EQUIP. BLANK		8/30/93	NA	1.0 ND,EH	NA	-	-	-	-	-	-
EQUIP. BLANK		9/2/93	NA	1.0 ND	NA	-	-	-	-	-	-
EQUIP. BLANK		8/31/93	NA	1.0 ND	NA	-	-	-	-	-	-
EQUIP. BLANK		8/30/93	NA	-	-	-	G	0.001	-	-	-
EQUIP. BLANK		8/30/93	6.0	-	-	-	C	0.002	-	-	-
EQUIP. BLANK		9/13/93	NA	-	-	-	G	0.015	-	-	-
EQUIP. BLANK		9/3/93	NA	-	-	-	G	0.003	-	-	-
EQUIP. BLANK		9/3/93	NA	-	-	-	G	0.008	-	-	-
EQUIP. BLANK		8/26/93	NA	-	-	-	G	0.009	-	-	-
EQUIP. BLANK		8/19/93	NA	-	-	-	G	0.002	-	-	-

Table 14. Sediment Field QA/QC Results. TOC= total organic carbon (ppm), % SOLID EPA = % solids determined by EPA, % SOLID HETL = % solids determined by HETL, % SILT= % silt detemined by HETL, a 'D' in the REP column indicates a duplicate analysis, a 'T' in the REP column indicates a triplicate analysis, a 'B' in the REP column indicates a field blank, and ND = not detected. All metals are reported on a dry weight basis.

REP	MIDAS	LAKE	TOC PPM	% SOLID EPA	% SOLID HETL	% SILT	HG MG/L	CD MG/L	PB MG/L
	1078	BASKAHEGAN L1	25003.76	22.2	33.6	38.4	0.160	0.70	41
T	1078	BASKAHEGAN L	122674.15	22.0	30.1	42.2	0.210	0.70	44
	RPD		1.9	0.9	11.0	-9.4	-27.0	0	-7.1
T	1078	BASKAHEGAN L	58371.89	49.6	-	-	-	-	-
	9763	BRADBURY (BARKER) L	150923.39	28.7	21.7	30.9	0.210	0.80	34
D	9763	BRADBURY (BARKER) L	-	-	20.7	18.8	0.260	0.80	35
	RPD		-	-	4.7	48.7	-21.3	0	-2.9
	2822	BRANCH P (EAST)	482487.54	6.8	7.4	12.6	0.120	1.10	31
D	2822	BRANCH P (EAST)	820633.54	4.5	7.7	10.6	0.140	1.10	31
	RPD		-51.9	42.1	-4.0	17.2	-15.4	0	0
	4322	JACOB BUCK P	185452.73	22.6	18.6	26.0	0.190	1.20	85
D	4322	JACOB BUCK P	118097.04	21.9	18.7	28.9	0.130	1.20	100
	RPD		44.4	3.0	-0.5	-10.6	37.5	0	-16.2

Table 14 (continued). Sediment Field QA/QC Results.

REP	MIDAS	LAKE	TOC PPM	% SOLID EPA	% SOLID HETL	% SILT	HG MG/L	CD MG/L	PB MG/L
	3616	NORTH P	147351.67	20.3	15.3	38.9	0.120	2.10	170
D	3616	NORTH P	157515.64	20.0	15.1	38.2	0.140	1.70	170
	RPD		-6.7	1.2	1.32	1.82	-15.4	21.1	0
	3338	OTTER P	85879.69	12.4	4.9	14.2	0.110	0.70	22
D	3338	OTTER P	-	-	7.3	13.5	0.120	0.70	16
	RPD		-	-	-39.3	5.1	-8.7	0	31.58
	1008	PORTLAND L	151546.84	27.3	10.1	50.6	0.200	1.10	130
D	1008	PORTLAND L	244456.61	12.2	-	-	-	-	-
	RPD		-46.9	76.6	-	-	-	-	-
	0334	SQUAW P (BIG)	146868.18	19.3	13.3	62.9	0.087	1.20	68
D	0334	SQUAW P (BIG)	458729.46	6.0	-	-	-	-	-
	RPD		-103	105	-	-	-	-	-
	5478	WEYMOUTH P	186307.33	9.2	8.8	48.4	0.048	1.60	85
D	5478	WEYMOUTH P	383454.56	8.5	9.2	9.6	0.089	0.90	49
	RPD		-69.2	7.6	-4.4	134	-59.9	56.0	53.7
B	BLANK		-	-	-	-	0.004 ND	0.0001 ND	0.00056

B. Split Samples

A split sample is one for which a sufficient quantity of material is collected and split into two separate samples for analysis by two different laboratories. The two samples are treated identically regarding homogenization or mixing, preservation and other sample treatments in the field. Split sample analyses provide information regarding consistency in analytical procedures and laboratory biases. This information indicates a level of confidence in that the data generated are comparable to other data generated by the same methods. To evaluate the consistency between split samples, a data quality objective of less than 50% relative percent difference was used for all parameters. The goal was applied only when values for both samples were greater than two times the reporting limit. In some cases, the two labs involved used different reporting limits for a given parameter. When this occured, the least sensitive limit was used to determine if the objective was met. Split samples were analyzed for the following parameters:

Predator Fillets (split between National Biological Survey and EPA)

mercury
percent moisture

Whole-Fish (split between Maine HETL and EPA)

mercury
cadmium
lead
chlorinated organic compounds and selected pesticides
percent lipids
percent moisture

Sediment (split between Maine HETL and EPA)

mercury
cadmium
lead
percent solids

Table 15 provides a summary of split sample results. Overall, there was excellent agreement between laboratories. For cadmium and lead in whole fish, and for mercury in sediment, measured values were very low, and a comparison between labs using the 50% difference objective was not appropriate. Approximately 67% of organic split samples met the project data quality goal. Since considerable variation is expected in the analysis of organic compounds, this level of agreement between laboratories is acceptable, and provides verification that the data set is of good quality.

Table 15. Summary of Split Sample Results. The number and percent meeting data quality objectives are listed for split samples having both values greater than 2 times the reporting limit. DQO = data quality objective (less than 50% relative percent difference for all split samples).

	Number of Split Samples	Number Meeting DQO	Percent Meeting DQO
Predator Fillets			
mercury	9	9	100%
percent moisture	10	10	100%
Whole-Fish			
mercury	12	10	83%
cadmium (1)	-	-	-
lead (2)	-	-	-
organic compounds	101	68	67%
percent lipids	22	22	100%
percent moisture	22	22	100%
Sediment			
mercury (2)	-	-	-
cadmium	14	14	100%
lead	14	13	93%
percent solids	122	112	92%

(1) Only 1 sample with both values greater than 2 times reporting limit (relative percent difference = 62%).
(2) No samples with both values greater than 2 times reporting limit.

In a large number of fish samples, certain organic compounds were found at very low levels or were not detected at all. Only samples which had both values greater than twice the reporting limit were included in the summary information. Total PCB's for the EPA New England Regional Laboratory were estimated by adding the values for aroclors 1254 and 1260, as these were the only aroclors detected. The EPA lab analyzed samples for each aroclor separately. In contrast, the Maine Health and Environmental Testing Laboratory identified a single "best fit" aroclor for each sample. The resulting values therefore represent total PCB's, and are comparable to the EPA data. Comparisons of split sample results for individual parameters appear in Tables 16 - 20. Complete results of EPA laboratory analyses appear in Appendix D.

Table 16. Mercury and Percent Moisture in Predator Fillets - Comparison of Split Sample Results. Relative percent difference (RPD) is listed for split samples having both values greater than two times the reporting limit. EPA = analyzed by U.S. Environmental Protection Agency, UMO = analyzed by National Biological Survey Laboratory, University of Maine at Orono, and RPD = relative percent difference. Mercury results are reported on a wet weight basis.

		Mercury (ug/g .)			Percent Moisture		
LAKE	MIDAS	EPA	UMO	RPD	EPA	UMO	RPD
BRANCH L (SOUTH)	2144	0.75	0.58	25.6	78.2	79.3	-1.4
BURNT MEADOW P	5572	0.76	0.77	-1.3	79.5	80.4	-1.1
CEDAR L	2004	1.22	0.91	29.1	78.8	79.4	-0.8
FIELDS P	4282	1.00	1.00	0	80.8	80.2	0.7
FISH P	2524	0.47	0.36	26.5	76.0	77.6	-2.1
HORSESHOE L	4788	0.73	0.80	-9.2	76.8	78.4	-2.1
MOLUNKUS L	3038	1.15	1.12	2.6	80.6	79.3	1.6
ROCKY P	4330	0.65	0.68	-4.5	79.2	79.4	-0.3
SQAW P (BIG)	0334	0.31	0.26	17.5	76.6	76.6	0.0

Table 17 . Metals in Whole Fish - Comparison of Split Sample Results. Relative percent difference (RPD) is listed for split samples having both values greater than two times the reporting limit. EPA = analyzed by the U.S. Environmental Protection Agency, and HETL = analyzed by the Maine Health and Environmental Testing Laboratory. No lead samples had both values greater than 2 times the reporting limit. Only 1 cadmium sample had both values greater than 2 times the reporting limit. Metals results are reported on a wet weight basis.

LAKE	**MIDAS**	**FISH NO**	**EPA HG PPM**	**HETL HG PPM**	**RPD**
MERCURY					
TRAVEL P	5456	6	0.33	0.32	3.1
ANASAGUNTICOOK L	3604	80	0.25	0.54	-73.4
EAGLE L	1634	100	0.25	0.27	-7.7
MACHIAS L (4TH)	1148	120	0.86	1.20	-33.0
BAUNEAG BEG L	3992	130	0.39	0.74	-61.9
FOREST L	3712	140	0.73	0.80	-9.2
JUMP P	5740	150	0.30	0.36	-18.2
KNIGHT P	3884	170	0.23	0.34	-38.6
OSSIPEE L (LITTLE)	5024	180	0.23	0.30	-26.4
LOVEWELL P	3254	190	0.47	0.56	-17.5
NORTH P	3500	200	0.36	0.48	-28.6
PLEASANT L	1100	210	0.32	0.27	16.9
CADMIUM					
WOOD P (LITTLE BIG)	2630	110	0.040	0.076	-62.1

Table 18. Organic Compounds (ug/g wet weight), Percent Moisture and Percent Lipids in Whole Fish - Comparison of Split Sample Results. EPA = analyzed by the U.S. Environmental Protection Agency New England Regional Laboratory, HETL = analyzed by the Maine Health and Environmental Testing Laboratory, and RPD = relative percent difference. Only samples with both values greater than 2 times the reporting limit are listed.

EPA CODES:
L=estimated value is below calibration range
P=the confirmation value exceeded 35% difference and is less than 100%-the lower value is reported

HETL CODES:
NA3 - not analyzed due to fat
NA4 - not analyzed (miscellaneous)
L - results exceed calibration linearity
C - continuing calibration checks outside limits
E - endrin/DDT breakdown products exceed limits
R - surrogate recovery outside acceptance range
S - spike recovery outside limits
B - reagent blank contamination
D - duplicate sample precision outside limits
M - miscellaneous

A-BHC

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASAGUNTICOOK L	3604	80	0.570	0.500	13.1
CHASE P (FIRST)	1538	50	0.396	0.200	65.8
KINGSBURY P	262	90	0.480	0.260	59.5
KNIGHT P	3884	170	0.210 P	0.360	-52.6
LOVEWELL P	3254	190	0.230 P	0.460	-66.7
NORTH P	3500	200	0.210 P	0.310 B	-38.5
PATTEE P	5458	60	0.565	0.390	36.7
PLEASANT L	1100	210	1.400	0.320	126
TOGUE P	1530	220	0.970	0.340 S	96.2
VARNUM P	3680	70	0.250	0.230	8.3
WOOD P (LITTLE BIG)	2630	110	0.109 L	0.290	-90.7

G-BHC

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASAGUNTICOOK L	3604	80	0.213	0.310	-37.1
OSSIPEE L (LITTLE)	5024	180	0.240 P	0.290	-18.9
TOGUE P	1100	210	0.400	0.500	-22.2
TOGUE P	1530	220	0.200	0.330	-49.1

A-CHLORDANE

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASAGUNTICOOK L	3604	80	1.220	1.020	17.9
CHASE P (FIRST)	1538	50	0.328	0.210	43.9
EAGLE L	1634	100	0.830	0.680	19.9
FOREST L	3712	140	1.300	0.670	64.0
KINGSBURY P	262	90	0.738	0.620	17.4
KNIGHT P	3884	170	1.500	0.520	97.0
PATTEE P	5458	60	0.894	1.000	-11.2
PLEASANT L	1100	210	2.500	0.630	120
TOGUE P	1530	220	1.200	0.380	104

Table 18 (continued). Organic Compounds (ug/g wet weight), Percent Moisture and Percent Lipids in Whole Fish - Comparison of Split Sample Results.

G-CHLORDANE

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASAGUNTICOOK L	3604	80	0.353 P	0.270	26.7
LOVEWELL P	3254	190	0.600	0.530	12.4
PATTEE P	5458	60	0.248	1.000	-121

DDD

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASAGUNTICOOK L	3604	80	16.90	31.80 L	-61.2
BAUNEAG BEG L	3992	130	11.17 P	13.40	-18.2
CHASE P (FIRST)	1538	50	2.50	3.41	-30.8
COBBOSSEECONTEE L	5236	40	3.85	10.80	-94.9
EAGLE L	1634	100	29.00	64.70	-76.2
FOREST L	3712	140	17.00	31.70	-60.4
GRANGER P	3126	160	1.30	0.81	46.5
HOSMER P	4808	24	28.70	20.60	32.9
JUMP P	5740	150	1.20	1.09	9.6
KEENE L	1424	30	1.94	2.52 C,S	-26.0
KINGSBURY P	262	90	4.83 P	4.86	-0.6
KNIGHT P	3884	170	6.70	7.75	-14.5
LOVEWELL P	3254	190	60.00	102 L,M,S	-51.9
MACHIAS L (FOURTH)	1148	120	0.73	1.05 C	-35.4
NORTH P	3500	200	3.80	2.40	45.2
OSSIPEE L (LITTLE)	5024	180	81.00	53.80	40.4
PATTEE P	5458	60	2.30	3.05	-28.0
PLEASANT L	1100	210	8.30	3.80	74.4
TOGUE P	1530	220	1.30	0.80	47.6
TRAVEL P	5456	6	5.17	6.58	-24.0
VARNUM P	3680	70	5.22	5.92	-12.6

DDE

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASTIGUNTICOOK L	3604	80	38.22	54.00 B	-34.2
BAUNEAG BEG L	3992	130	22.12	27.50 L	-21.7
CHASE P (FIRST)	1538	50	6.96	8.61	-21.2
COBBOSSEECONTEE L	5236	40	22.38	36.00	-46.7
EAGLE L	1634	100	210	209 L,S	0.6
FOREST L	3712	140	44.00	56.30	-24.5
GRANGER P	3126	160	8.80	6.48	30.4
HOSMER P	4808	24	83.50	20.80 C	120
JUMP P	5740	150	4.30	3.99	7.5
KEENE L	1424	30	5.42	5.48	-1.1
KINGSBURY P	262	90	21.22	17.10	21.5
KNIGHT P	3884	170	21.00	39.10 L	-60.2
LOVEWELL P	3254	190	160	65.00	84.4
MACHIAS L (FOURTH)	1148	120	2.26	0.69 B,C,D	106
NORTH P	3500	200	17.00	16.40 B,L	3.6
OSSIPEE L (LITTLE)	5024	180	160	79.10	67.7
PATTEE P	5458	60	5.11	7.66	-39.9
PLEASANT L	1100	210	41.00	35.10.L	15.5
TOGUE P	1530	220	18.00	19.30 L	-7.0

Table 18 (continued). Organic Compounds (ug/g wet weight), Percent Moisture and Percent Lipids in Whole Fish - Comparison of Split Sample Results.

TRAVEL P	5456	6	5.02	6.75	-29.4
VARNUM P	3680	70	13.34	12.20	8.9
WOOD P (LITTLE BIG)	2630	110	4.70	4.26	9.8

DDT

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASTIGUNTICOOK L	3604	80	2.56	1.98 B	25.6
BAUNEAG BEG L	3992	130	2.38	1.64	36.8
CHASE P (FIRST)	1538	50	0.63	0.21	100
EAGLE L	1634	100	2.80	5.41	-63.6
FOREST L	3712	140	1.30	5.48	-123
HOSMER P	4808	24	13.70	6.34	73.5
JUMP P	5740	150	0.35	0.55	-44.4
KINGSBURY P	262	90	1.34	0.79	51.6
KNIGHT P	3884	170	0.56 P	0.57	-1.8
LOVEWELL P	3254	190	9.10	11.80	-25.8
MACHIAS L (FOURTH)	1148	120	0.63 P	0.79 C	-22.7
NORTH P	3500	200	0.50	0.53 B	-5.8
OSSIPEE L (LITTLE)	5024	180	8.50	0.83 S	164
PLEASANT L	1100	210	4.20	0.61	149
TOGUE P	1530	220	2.60	0.63 S	122
TRAVEL P	5456	6	0.90 P	0.61	38.8
VARNUM P	3680	70	0.52 P	0.69	-27.3
WOOD P (LITTLE BIG)	2630	110	0.31 P	0.89	-96.7

TOTAL PCB'S

LAKE	MIDAS	FISH NO.	EPA (1)	HETL (2)	RPD
ANASTIGUNTICOOK L	3604	80	39.7	35.0	12.6
BAUNEAG BEG L	3992	130	38.5	30.0	24.7
COBBOSSEECONTEE L	5236	40	35.5	24.0	38.8
EAGLE L	1634	100	31.9	33.0	-3.4
FOREST L	3712	140	80.0	68.0	16.2
HOSMER P	4808	24	32.8	18.0	58.3
KNIGHT P	3884	170	37.0	38.0	-2.7
LOVEWELL P	3254	190	65.0	178	-93
NORTH P	3500	200	38.0	26.0	37.5
OSSIPEE L (LITTLE)	5024	180	81.0	186	-78.7
PLEASANT L	1100	210	36.0	29.0	21.5
TOGUE P	1530	220	12.5	20.0	-46.2
VARNUM P	3680	70	21.0	14.0	39.8

(1) Value estimated from sum of aroclors 1254 and 1260. No other aroclors were detected.

(2) Only one 'best fit' aroclor identified per sample. Reported value represents either aroclor 1254 or aroclor 1260 results, as no other aroclors were detected.

Table 18 (continued). Organic Compounds (ug/g wet weight), Percent Moisture and Percent Lipids in Whole Fish - Comparison of Split Sample Results.

PERCENT SURROGATE RECOVERY

LAKE	MIDAS	FISH NO.	EPA	HETL
ANASTIGUNTICOOK L	3604	80	73	60
BAUNEG BEG L	3992	130	62	65
CHASE P (FIRST)	1538	50	75	77
COBBOSSEECONTEE L	5236	40	68	68
EAGLE L	1634	100	58	61
FOREST L	3712	140	67	75
GRANGER P	3126	160	69	60
HOSMER P	4808	24	76	48
JUMP P	5740	150	59	42
KEENE L	1424	30	74	78
KINGSBURY P	262	90	70	49
KNIGHT P	3884	170	54	50
LOVEWELL P	3254	190	63	69
MACHIAS L (FOURTH)	1148	120	68	52
NORTH P	3500	200	81	60
OSSIPEE L (LITTLE)	5024	180	77	98
PATTEE P	5458	60	74	71
PLEASANT L	1100	210	87	39
TOGUE P	1530	220	80	63
TRAVEL P	5456	6	75	56
VARNUM P	3680	70	64	62
WOOD P (LITTLE BIG)	2630	110	68	51

PERCENT MOISTURE

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASTIGUNTICOOK L	3604	80	73	73	0.1
BAUNEG BEG L	3992	130	75	72	3.5
CHASE P (FIRST)	1538	50	77	77	0.4
COBBOSSEECONTEE L	5236	40	69	68	0.9
EAGLE L	1634	100	79	79	0.3
FOREST L	3712	140	77	77	0.5
GRANGER P	3126	160	77	77	0.3
HOSMER P	4808	24	72	74	-2.1
JUMP P	5740	150	75	71	5.8
KEENE L	1424	30	78	80	-2.4
KINGSBURY P	262	90	72	72	-0.3
KNIGHT P	3884	170	72	72	-0.4
LOVEWELL P	3254	190	73	75	-2.2
MACHIAS L (FOURTH)	1148	120	76	78	-2.5
NORTH P	3500	200	73	73	0
OSSIPEE L (LITTLE)	5024	180	71	71	0.4
PATTEE P	5458	60	72	72	0.7
PLEASANT L	1100	210	68	67	0.9
TOGUE P	1530	220	74	73	2.0
TRAVEL P	5456	6	75	76	-0.9
VARNUM P	3680	70	77	79	-2.8
WOOD P (LITTLE BIG)	2630	110	77	78	-1.0

Table 18 (continued). Organic Compounds (ug/g wet weight), Percent Moisture and Percent Lipids in Whole Fish - Comparison of Split Sample Results.

PERCENT LIPIDS

LAKE	MIDAS	FISH NO.	EPA	HETL	RPD
ANASTIGUNTICOOK L	3604	80	8.0	7.8	2.3
BAUNEG BEG L	3992	130	2.6	2.9	-9.9
CHASE P (FIRST)	1538	50	2.8	3.3	-15.8
COBBOSSEECONTEE L	5236	40	11.7	12.5	-6.6
EAGLE L	1634	100	1.7	1.4	17.7
FOREST L	3712	140	1.0	1.7	-48.7
GRANGER P	3126	160	1.1	1.0	5.7
HOSMER P	4808	24	6.9	4.9	34.5
JUMP P	5740	150	1.3	1.4	-9.2
KEENE L	1424	30	1.1	1.6	-34.1
KINGSBURY P	262	90	6.0	6.5	-7.5
KNIGHT P	3884	170	2.6	3.4	-24.3
LOVEWELL P	3254	190	4.6	5.5	-17.7
MACHIAS L (FOURTH)	1148	120	1.0	0.7	38.1
NORTH P	3500	200	2.8	2.9	-5
OSSIPEE L (LITTLE)	5024	180	8.8	8.7	0.9
PATTEE P	5458	60	7.6	7.9	-3.5
PLEASANT L	1100	210	11.2	10.0	11.1
TOGUE P	1530	220	5.0	5.3	-4.7
TRAVEL P	5456	6	3.8	3.9	-2.9
VARNUM P	3680	70	2.8	2.8	-0.4
WOOD P (LITTLE BIG)	2630	110	1.5	1.0	41.0

Table 19. Metals in Sediment (dry weight) - Comparison of Split Sample Results. EPA = analyzed by the U.S. Environmental Protection Agency New England Regional Laboratory, HETL = analyzed by the Maine Health and Environmental Testing Laboratory, and RPD = relative percent difference. Only samples with both values greater than 2 times the reporting limit are included. No mercury samples had both values greater than 2 times the reporting limit.

CADMIUM

LAKE	MIDAS	EPA CD PPM	HETL CD PPM	RPD
ALLEN P	4516	1.240	1.400	-12.1
ANASAGUNTICOOK L	3604	1.060	1.200	-12.4
BASKAHEGAN L	1078	0.785	0.700	11.4
BRANCH L (SOUTH)	2144	0.924	0.970	-4.9
FIELDS P	4282	0.628	0.600	4.6
HAY L	2178	0.879	0.840	4.5
HORSESHOE L	4788	0.772	1.000	-25.7
JERRY P	2190	1.120	1.200	-6.9
LONG P	4598	1.100	1.300	-16.7
LOVEWELL P	3254	1.630	2.100	-25.2
MOOSELEUK L	1990	0.272	0.340	-22.2
ROBERTS AND WADLEY P	5034	1.270	1.400	-9.7
SHIN P (LOWER)	2198	1.070	1.200	-11.5
SYMMES P	3892	0.749	0.870	-14.9

LEAD

LAKE	MIDAS	EPA PB PPM	HETL PB PPM	RPD
ALLEN P	4516	52.8	62.0	-16.0
ANASAGUNTICOOK L	3604	59.6	70.0	-16.0
BASKAHEGAN L	1078	46.5	41.0	12.6
BRANCH L (SOUTH)	2144	60.7	66.0	-8.4
FIELDS P	4282	44.2	56.0	-23.6
HAY L	2178	30.9	30.0	3.0
HORSESHOE L	4788	34.7	50.0	-36.1
JERRY P	2190	41.9	45.0	-7.1
LONG P	4598	90.6	110.0	-19.3
LOVEWELL P	3254	69.3	66.0	4.9
MOOSELEUK L	1990	37.6	5.0	153
ROBERTS AND WADLEY P	5034	78.4	83.0	-5.7
SHIN P (LOWER)	2198	42.1	48.0	-13.1
SYMMES P	3892	48.9	70.0	-35.5

Table 20. Sediment Percent Solids - Comparison of Split Sample Results. EPA = analyzed by the U.S. EPA New England Regional Laboratory, HETL = analyzed by the Maine Health and Environmental Testing Laboratory, and RPD = relative percent difference.

LAKE	MIDAS	EPA	HETL	RPD
ALLEN P	4516	21.5	15.2	34.5
ANASAGUNTICOOK L	3604	28.6	20.7	32.0
BALCH & STUMP PONDS	3898	11.7	14.4	-20.7
BASKAHEGAN L	1078	22.2	33.6	-40.8
BASKAHEGAN L	1078	22.0	30.1	-30.9
BAUNEAG BEG L	3992	16.1	14.0	13.8
BEAVER P	3124	31.2	25.5	20.2
BELDEN P	5730	27.3	19.3	34.3
BEN ANNIS P	2282	8.6	9.5	-10.4
BOTTLE L	4702	25.1	19.7	24.3
BRACKETT L	1068	70.1	58.0	18.9
BRADBURY (BARKER) L	9763	28.7	21.7	27.7
BRAINARD P	5306	24.8	22.6	9.4
BRANCH P (EAST)	2822	6.8	7.4	-8.1
BRANCH P (EAST)	2822	4.5	7.7	-53.5
BRANCH P (UPPER MID)	4492	21.9	21.0	4.3
BUBBLE P	4452	20.2	16.6	19.8
BUNKER P (BIG)	362	20.4	16.2	22.9
BURDEN P	834	37.5	14.5	88.5
BURNT MEADOW P	5572	21.2	16.9	22.5
BURNT P	4288	24.2	8.3	97.8
CANADA FALLS L	2516	52.3	48.8	7.0
CARLTON BOG (POND)	41	11.6	7.8	39.1
CHAIN OF PONDS	5064	41.6	29.8	33.1
CHASE L	2752	24.2	18.4	27.0
CHUB P	5100	9.7	9.5	1.8
CHURCHILL L	2856	28.2	21.1	28.7
COBBOSSEECONTEE L	5236	24.5	13.4	58.5
CRYSTAL (BEALS) P	3626	22.8	18.9	18.5
DAMARISCOTTA L	5400	26.1	23.9	8.9
DEBSCONEAG L (4TH)	582	20.7	18.0	13.8
DIMMICK P (LITTLE)	240	26.9	23.8	12.1
DUCK L	4746	20.8	16.8	21.2
EAST P	5349	41.9	36.4	14.1
EMBDEN P	78	27.8	21.0	27.9
FIELDS P	4282	28.9	25.0	14.4
FLYING P	5182	29.7	22.2	28.9
FOREST L	3712	21.8	10.2	72.3
GRAHAM L	4350	46.6	41.1	12.6
GRANGER P	3126	26.5	20.0	28.0
GREENWOOD P (LITTLE)	886	22.4	17.2	26.1
HICKS P	3484	27.0	21.3	23.7
HODGDON P	4628	23.1	20.1	14.1
HORSESHOE L	4788	28.7	24.6	15.5
HOSMER P	4808	44.9	31.6	34.7

Table 20 (continued). Sediment Percent Solids - Comparison of Split Sample Results.

LAKE	MIDAS	EPA	HETL	RPD
INDIAN P (BIG)	324	29.8	19.7	40.8
JACOB BUCK P	4322	22.6	18.6	19.3
JACOB BUCK P	4322	21.9	18.7	15.8
JUMP P	5740	22.4	16.6	29.7
KEEWAYDIN L	3272	18.9	12.9	37.8
KINGSBURY P	262	33.0	24.8	28.4
KNIGHT P	3884	15.3	12.5	20.2
LILLY P	83	13.4	10.1	27.9
LILY P	5288	12.9	11.4	12.5
LONG P	2536	17.5	31.7	-57.7
LONG P	4598	19.6	17.1	13.7
LOVEWELL P	3254	40.4	29.5	31.1
MACHIAS L (FOURTH)	1148	23.4	13.8	38.6
MOLUNKUS L	3038	57.6	45.5	23.4
NEQUASSET P	5222	38.6	34.2	12.2
NORTH P	3500	14.3	11.6	21.1
NORTH P	3616	20.3	15.3	28.1
NORTH P	3616	20.0	15.1	28.2
OSSIPEE L (LITTLE)	5024	12.9	10.0	25.4
OTTER P	3338	12.4	4.9	86.6
OTTER P	3972	8.7	5.2	49.9
PASSAGASSAWAUKEAG L	5496	26.2	17.7	38.5
PATTEE P	5458	23.7	17.4	30.5
PEASE P	5198	29.1	26.2	10.4
PINE P (BIG)	2920	24.7	18.3	29.7
PITCHER P	4848	34.5	24.8	32.8
PLEASANT L	159	24.1	22.5	6.7
PLEASANT L	1100	19.6	12.6	43.7
PLEASANT P	3252	52.6	38.2	31.8
PORTLAND L	1008	27.3	10.1	92.1
PURGATORY P (LITTLE)	5250	12.5	11.8	5.6
RANGE P (LOWER)	3760	16.0	14.9	7.2
ROACH P (SECOND)	452	21.7	16.8	25.4
ROBERTS & WADLEY PDS	5034	18.0	10.9	49.1
ROCKY P	4330	21.6	18.3	16.4
ROUND (GREY) P	5500	23.5	17.4	29.7
ROUND P	3818	23.1	16.1	35.7
ROUND P	5684	41.2	35.6	14.5
ROWE P	202	25.1	20.6	19.8
SANDY RIVER P (MID)	3566	25.6	20.2	23.7
SANDY RIVER P(LOWER)	3564	30.4	20.7	37.9
SAWYER P	386	28.4	23.8	17.5
SECOND L	1134	13.9	11.9	15.6
SENNEBEC P	5682	45.1	31.9	34.4
SEWALL P	9943	17.0	14.6	15.1
SQUAW P (BIG)	334	19.3	13.3	36.7
SUNDAY P	3316	15.5	12.0	25.5

Table 20 (continued). Sediment Percent Solids - Comparison of Split Sample Results.

LAKE	MIDAS	EPA	HETL	RPD
SYMMES P	3892	11.6	6.4	57.4
THIRD L	2704	22.7	18.0	23.0
TOGUS P	9931	18.6	16.9	9.7
TRAVEL P	5456	21.2	19.4	9.0
TRICKEY P	2514	13.5	8.7	43.3
UMBAGOG L	3102	32.7	26.6	20.5
WADLEIGH P	572	24.8	14.2	54.5
WEBBER P	5408	40.6	30.2	29.5
WELLS P	3970	10.9	7.4	38.2
WEYMOUTH P	5478	9.2	8.8	4.2
WEYMOUTH P	5478	8.5	9.2	-7.9
WIGHT P	4662	19.5	20.1	-3.0
WOOD P (LITTLE BIG)	2630	24.0	24.2	-0.7

C. Laboratory QA/QC Sample Results - Duplicates, Spiked Samples and Reference Samples

Details of all laboratory quality assurance/quality control procedures may be found in Appendices 2, 3 and 4 of the Project Work/QA Plan. The following is a general description of laboratory QA/QC samples included in this study:

Laboratory Blanks: Laboratory blanks were used for each analyte requiring sample preparation to indicate the control of contamination. Blanks were made from reagent grade water, and were prepared in the same manner as the samples.

Quality Control (QC) Standards: Reference samples containing known amounts of appropriate analytes were prepared to check for accuracy during analyses. QC samples were used to estimate the degree of agreement between a measured value and the expected value of the analyte in a spiked sample.

Analytical Replicates: Analytical replicates are samples which are collected and prepared as one sample, but analyzed separately. Analytical replicates were used to estimate precision, or the degree of agreement among repeated, independent measurements using the same analytical process.

Determination of Method Detection Limit (MDL): The method detection limit is the minimum concentration of a substance that can be measured and reported with 99% confidence that the concentration of that substance is greater than zero. The MDL was measured for each analyte on a regular basis to assess instrument performance.

1. Maine Health And Environmental Testing Laboratory - Inorganic Compounds

Routinely, the Maine Health and Environmental Testing Lab analyzes spikes in 1 of 20 samples (5%) and duplicates in 1 of 20 samples (5%), for an overall 10% QC effort. For this project, the frequency was expected to be twice that level, or 10% each for spikes and duplicate samples. The higher level was surpassed except for Pb and Cd in sediments, however the analysis of known reference samples more than make up for this shortfall. Data quality objectives for laboratory duplicates, spiked samples and reference tissue are listed in Table 21, and reporting limits are listed in Table 22. Table 23 summarizes the frequency of duplicate samples, spiked samples and reference samples analyzed.

All duplicate samples met the project data quality objectives with the exception of one fish sample for cadmium, two fish samples for lead, and one water sample for dissolved organic carbon. In all these cases, at least one duplicate value was at or near the detection limit. Spiked sample results were all in compliance with project goals. Results for three reference tissue

samples analyzed for lead were outside acceptable limits, however standards and other reference samples run on the same dates were within specifications.

All laboratory blanks were at or below the detection limit. The blank values are given in ppb while the fish values are given in mg/kg wet weight. Thus for a value of lead of ND 1.0 ppb, the resulting value (with a 300 ml blank water sample and a 150 gram fish sample) for fish would be ND 0.02 mg/kg. For cadmium ND 0.1 ppb (with a 300 ml water blank sample and 150 gram fish sample) the resulting cadmium concentration would be ND 0.02 mg/kg.

All mercury equipment blanks were at or below the detection limit. For cadmium, 6 out of 61 equipment blanks were above the detection limit. The worst case cadmium equipment blank value was 0.4 ppb. This value translates (for a 300 ml water blank sample and a 150 gm fish sample) into .001 mg/kg or ND.019 mg/kg. For lead, 7 out of 61 equipment blanks were above the detection limit. The worst case lead blank was 10 ppb (for a 300 ml water blank sample and a 150 gram fish sample). The lead contribution for this blank would be .02 mg/kg, or at the detection limit.

Results for all QA/QC samples with respect to the project data quality objectives are summarized in Table 24. The QA/QC results appear in full in Appendix E.

Table 21. Data Quality Objectives For Inorganic Compounds - Maine Health and Environmental Testing Laboratory.

All fish results are reported on a wet weight basis. Project goals required QA/QC samples to be analyzed at a frequency of 10%. Blanks are considered to be within project goals if measured values are at or below detection limit. Total P = total phosphorus, DOC = dissolved organic carbon. All values expressed in %.

Parameter	Duplicates (+- diff. from mean)	Spikes (100%+-)	Reference Material (true value +-)
FISH			1974 Mussel (1)
Hg	20	30(- only)	30
Cd	20	25	30
Pb	20	25	30
SEDIMENTS			Reference Sediment
Hg	15	20	20
Cd	15	25	20
Pb	15	25	20
WATER			
Total P	15	15	-
DOC	15	20	-

(1) The data quality objective for EPA Dried Fish also used as reference material was the EPA confidence limit for the material.

Table 22. Reporting Limits for Inorganic Compounds - Maine Health and Environmental Testing Laboratory.

Parameter	Matrix	Reporting Limit
Mercury	Fish/Sediment	0.002 mg/kg
Cadmium	Fish/Sediment	0.019 mg/kg
Lead	Fish/Sediment	0.020 mg/kg
Dissolved Organic Carbon	Water	1.0 ppm
Total Phosphorus	Water	1.0 ppb
Grain Size	Sediment	2%

Table 23. Frequency of QA/QC Samples Analyzed - Maine Health and Environmental Testing Laboratory. Total P=total phosphorus, DOC=dissolved organic carbon.

Parameter	Number of Samples	10% of Samples	Number of Duplicates	Number of Spiked Samples	Number of Reference Samples
FISH					
Hg	235	24	37	30	18
Cd	235	24	64	30	50 (1)
Pb	235	24	57	30	39 (1)
SEDIMENT					
Grain Size	132	13	16	-	-
Hg	136	14	16	19	16
Cd	132	13	39	12	22
Pb	136	14	38	11	20
WATER					
Total P	346	35	48	53	-
DOC	340	34	40	44	-

(1) The number of samples includes known fish samples in a water matrix.

Table 24. Summary of Inorganic QA/QC Sample Results - Maine Health and Environmental Testing Laboratory. The following table presents the number and percent of QA/QC samples which met project data quality objectives. NA = not analyzed.

Parameter	Duplicate Samples	Spiked Samples	Reference Samples
FISH			
Hg	37/37=100%	30/30=100%	18/18=100%
Cd	63/64=98.4%	30/30=100%	50/50=100% (1)
Pb	55/57=96.5%	30/30=100%	36/39=92.3% (1)
SEDIMENT			
Grain Size	16/16=100%		
Hg	16/16=100%	19/19=100%	16/16=100%
Cd	39/39=100%	12/12=100%	22/22=100%
Pb	38/38=100%	11/11=100%	20/20=100%
WATER			
Total P	48/48=100%	53/53=100%	NA
DOC	39/40=97.5%	44/44=100%	NA

Parameter	Blanks
SAMPLE BLANKS (TISSUE)	
Hg	16/16=100%
Cd	11/11=100%
Pb	8/8=100%
EQUIPMENT BLANKS	
Hg	61/61=100%
Cd	55/61=90.2%
Pb	54/61=88.5%

(1) Includes known fish samples in water matrix.

2. Maine Health And Environmental Testing Laboratory - Organic Compounds

Blanks, duplicates and spikes were to be analyzed at a frequency of 1 each for every 10 samples. The standard reference material (SRM) samples were to be analyzed 3 times during the project. Standards and endrin/DDT breakdown mixes were to be analyzed every 12 hours. Fourteen duplicates for percent moisture and percent lipids were to be analyzed for the project. The required frequencies were met or exceeded in all cases, as shown in Table 25.

The standard linearity curves were to have a correlation coefficient of 0.99 or better. The continuing calibration check standard should be within +/- 25 % of the true value. The target value for blanks was to be less than the reporting level. The endrin and the DDT breakdown was to be less than 20 % and their sum was to be less than 30 %. Duplicate values were to be within 50 % of each other. The recoveries for all analytes except endrin aldehyde were to be from 15-140 % of the true value. Recovery of the endrin aldehyde was to be between 5 and 140 %. The criteria for duplicate percent lipids and percent moisture were not established before the project was completed, but an acceptance criteria of less than 20 % difference from the mean was established after the project was complete. Reporting limits for organic compounds are listed in Table 26.

The Maine Health and Environmental Testing Laboratory encountered a number of problems during the course of the project. The major difficulty was the degradation of fish tissue. Sample extracts were cleaned up on florisil with three solvent mixtures. The first fraction was eluted with hexane, the second with 2.5% methylene chloride/hexane mixture and the third fraction contained 50 % methylene chloride /hexane/ acetonitrile. The third fraction is referred to as the "50 % fraction". The analytes seen in the 50% fraction follow: endrin, dieldrin, endrin aldehyde, endrin ketone, endosulfan I, endosulfan II, endosulfan sulfate and heptachlor epoxide.

The samples were divided into sets of seven fish. The first six sets of fish did not have any apparent problems with the cleanup in the third fraction of the florisil elutant. From this point on, many of the fish extracts formed a precipitate in the third fraction when placed in the freezer. One of these samples was analyzed on the mass spectrometer and found to contain high levels of aldehydes and other oxidation products of fats. Some of the samples in the middle batches may have undergone significant degradation before they were extracted. Since aldehydes appeared to chromatograph into the pesticide region, identification of compounds in the 50 % fraction was especially difficult. In addition, high concentrations of oxidized fatty materials in some samples caused endrin breakdown of over 30% or absorbed the standards so that they fell considerably outside the 25% range on the low side. The back extraction with acetonitrile for fat removal was very labor intensive.

There were 54 fish composite samples which were not analyzed for the 50% fraction due to large amounts of oxidized fat in the extract. Some of the samples were not analyzed due to oxidized fat of other samples in the batch. For 15 study lakes, no fish composites were analyzed for the 50% fraction. The samples which which were not analyzed are listed in Table 27 by lake, MIDAS number and species.

When samples were suspected to be degraded, they were re-extracted, and the amount of sample was reduced from 50g to 10g. This corrected the problem in most cases. Some of the samples were then analyzed with an increased detection limit. Most of the reported data appear to be valid even though some of the data quality objectives were not met, however the fact that a fairly large percentage of the samples could not be analyzed for the 50 % fraction leaves a significant gap in the data package. The

percentage of analytes outside the goals for standard reference tissue appears to be fairly high, but the values for most of the analytes are close to the detection limits when using a 10 g sample.

In the future, samples should be analyzed as soon as possible after extraction. The identification of compounds in the 50 % fraction should be confirmed by GC/MS analysis, which would probably increase the reporting limit for most compounds, but would give the analyst more confidence in the results. An automated gel permeation system would be very helpful in reducing the labor involved in the cleanup process, but probably wouldn't help with aldehydes and other oxidation products.

Another problem encountered was with the splitting of the injection. The column became contaminated quite often, therefore the injection system had to be changed frequently. Because of the frequent changes required in the injector, the splitter often developed leaks. Part way through the project, the splitter was changed from the glass type to a glass lined metal type with vespel ferrules, which helped solve some of the problems. The use of dual injection ports with simultaneous injections would further help reduce the chance of leaks, since a smaller amount of sample is injected onto the port.

The evaporation of the solvent with Kuderna Danish apparatus was difficult due to the cooling effect of the solvent recovery system. The use of acetonitrile caused additional evaporation problems. A rotovap was used to concentrate the third fraction. This appeared to work satisfactorily, because the analytes in this fraction are fairly high boiling compounds. This process could be improved by using a Kuderna Danish apparatus with a recovery system that does not cool the solvent for collection until the solvent is away from the evaporating apparatus. A Turbovap System could also be used for concentration. A Florisil cleanup that does not use acetonitrile would make evaporation easier.

Table 28 summarizes the results with respect to the project data quality objectives. Data that did not meet the objectives were flagged in the results package for each sample. The percentage of samples not meeting objectives is relatively high in some cases, especially for the standard reference material (SRM) samples. The targets may be too tight, and should be evaluated against other laboratories performances on this or other SRM's. Table 29 contains results of percent moisture and percent lipids duplicate samples. Standard reference material analysis results are found in Table 30. Surrogate recoveries are listed in Table 31. Results of the remaining duplicate and spiked sample analyses for organic compounds appear in Appendix F.

Table 25. Frequency of Organic QA/QC Sample Analysis - Maine Health and Environmental Testing Laboratory. SRM=standard reference material

FREQUENCY	PROJECT GOAL	ACTUAL
Standards:	Every 12 Hrs	Every 12 Hrs
Endrin/DDT Breakdown:	Every 12 Hrs	Every 12 Hrs
Blanks:	1 For 10 Samples	1 For 7 Samples
Duplicates:	1 For 10 Samples	1 For 7 Samples
Spikes:	1 For 10 Samples	1 For 7 Samples
SRM:	4 Per Project	5 Per Project
Surrogates:	All Samples	All Samples
% Moisture Duplicates:	14 Per Project	23 Per Project
% Lipid Duplicates:	14 Per Project	23 Per Project

Table 26. Reporting Limits for Organic Compounds - Maine Health and Environmental Testing Laboratory. Reporting limits listed are for 50g samples. For 10g samples, limits are 5 times higher.

Parameter	Reporting Limit
a-BHC	0.0001 mg/kg
b-BHC	0.0001 mg/kg
d-BHC	0.0001 mg/kg
a-Chlordane	0.0001 mg/kg
g-Chlordane	0.0001 mg/kg
Dieldrin	0.001 mg/kg
Endosulfan I	0.001 mg/kg
Endosulfan II	0.001 mg/kg
Endosulfan Sulfate	0.001 mg/kg
Endrin	0.001 mg/kg
Endrin Aldehyde	0.001 mg/kg
Endrin Ketone	0.001 mg/kg
Heptachlor Epoxide	0.001 mg/kg
Heptachlor	0.0001 mg/kg
g-BHC	0.0001 mg/kg
P,P'-DDE	0.0001 mg/kg
P,P'-DDT	0.0001 mg/kg
P,P'-DDD	0.0001 mg/kg
Toxaphene	0.002 mg/kg
Aroclors	0.010 mg/kg

Table 27. Fish Composite Samples Not Analyzed for the 50% Organic Fraction. An asterisk indicates that no fish composites were analyzed for the 50% fraction from a given lake.

LAKE	MIDAS	SPECIES
BALCH & STUMP PONDS	3898	LMB
BRAINARD P	5306*	WHS
BRAINARD P	5306*	YLP
BRANCH L (SOUTH)	2144	WHS
BRANCH P (UPPER MID)	4492	LLS
BURDEN P	834	BKT
CEDAR L	2004	WHS
CHAIN OF PONDS	5064*	WHS
CHANDLER L	1994	WHS
CHASE L	2752*	LLS
CHASE L	2752*	WHS
COBBOSSEECONTEE L	5236	BNT
DAMARISCOTTA L	5400*	LLS
DAMARISCOTTA L	5400*	WHS
DIMMICK P (LITTLE)	240	WHS
DUCK L	4746*	LLS
DUCK L	4746*	WHS
EAGLE L	1634	CSK
EMBDEN P	78	LKT
FIELDS P	4282	PKL
FLYING P	5182*	BNT
FLYING P	5182*	WHS
GRAHAM L	4350	WHS
GRANGER P	3126	LMB
HICKS P	3484	LMB
HODGDON P	4628	WHS
HORSESHOE L	4788*	WHS
JERRY P	2190*	BKT
JERRY P	2190*	WHS
KEEWAYDIN L	3272*	WHS
LILY P	5288*	LMB
MACHIAS L (FOURTH)	1148*	PKL
MACHIAS L (FOURTH)	1148*	WHS
MEDDYBEMPS L	177	SMB
MOLUNKUS L	3038	SMB
MOOSELEUK L	1990	WHS
NEQUASSET P	5222	WHS
NORTH P	3500	LMB
PATTEE P	5458*	WHP
PATTEE P	5458*	WHS
PEASE P	5198	WHS
PINE P (BIG)	2920	BKT
PLEASANT P	3252*	PKL
PLEASANT P	3252*	WHS
PORTLAND L	1008	BKT
SANDY RIVER P(LOWER)	3564	WHS

Table 27 (continued). Fish Composite Samples Not Analyzed for the 50% Organic Fraction.

LAKE	MIDAS	SPECIES
SUNDAY P	3316	BKT
SYMMES P	3892*	YLP
THIRD L	2704	WHS
TOGUS P (1)	9931	WHS
UMBAGOG L	3102	WHS
VARNUM P	3680	LKT
WELLS P	3970*	WHS
WOOD P (LITTLE BIG)	2630	WHS

(1) For Togus Pond, a white sucker composite sample containing four fish was not analyzed, but a fifth white sucker was analyzed individually.

Table 28. Data Quality Objectives And Summary of Organics Results - Maine Health and Environmental Testing Laboratory

	PROJECT GOAL	% NOT MEETING GOAL
Standards	+25% to -25% True Value	5.8%
Endrin/DDT Breakdown	<20%,<20%,Sum <30%	1.6%
Blanks	< Reporting Level	3.0 %
Spikes	15-140 %	12.5%
Spikes(Endrin Aldehyde)	5-140 %	Included in 12.5%
Srms	(1)	28%
Surrogate Recovery	28.7-95.4 %	1.3%
Duplicates	< 50 % Diff From Mean	4.5%
% Moisture Duplicates	< 20 % Diff From Mean	0 %
% Lipids Duplicates	< 20% Diff From Mean	0 %

(1) Requirements for SRM's: The values should be between 30-160 % of the true value except for pp'DDT, which should fall between 0 and 1.0 ng/g.

Table 29. Duplicate Sample Results for Percent Moisture and Percent Lipids - Maine Health and Environmental Testing Laboratory. RPD = relative percent difference.

	MIDAS	% Moist. Value 1	% Moist. Value 2	RPD	% Lipids Value 1	% Lipids Value 2	RPD
BALCH AND STUMP PONDS	3898	76	77	1.0	1.0	1.0	1.0
BEAVER P	3124	77	72	6.7	1.4	1.3	6.7
BRAINARD P	5306	69	68	1.6	73.3	73.9	0.8
CEDAR L	2004	73	73	0.3	2.8	3.1	8.5
CHAIN OF PONDS	5064	77	77	0.1	2.6	2.7	4.2
CROSS L	1674	75	73	2.7	4.3	4.3	1.2
CRYSTAL (BEALS) P	3626	71	72	1.5	3.5	4.0	15.0
GRAHAM L	4350	73	72	1.4	1.8	1.6	11.8
LILY P	5288	74	72	2.2	2.9	3.0	3.7
LONG P	2536	80	79	1.1	1.4	1.4	2.9
ORANGE L	1364	76	76	0.7	1.5	1.5	0.7
PASSAGASSAWAUKEAG L	5496	71	74	5.0	2.2	2.3	4.5
PEASE P	5198	74	73	0.5	1.9	1.9	1.6
ROACH P (SECOND)	0452	74	74	0.8	3.2	3.2	0.6
ROBERTS AND WADLEIGH P	0572	72	71	1.8	4.2	5.1	19.7
ROCKY P	4330	71	74	4.4	3.4	3.3	3.0
SHIN P (LOWER)	2198	71	69	2.4	5.9	5.7	2.8
SUNDAY P	3316	65	75	13.6	3.9	3.8	1.8
SYMMES P	3892	67	69	1.8	5.8	5.7	2.8
TOGUE P	1530	78	79	0.8	3.0	3.2	6.5
WELLS P	3970	79	79	0.5	1.0	1.0	2.1
WEYMOUTH P	5478	71	72	2.0	3.7	4.0	6.2
WOOD P (LITTLE BIG)	2630	77	73	5.2	3.3	2.9	13.4

Table 30. Organic Compound Results For Standard Reference Material - Maine Health and Environmental Testing Laboratory (1974 Mussel Samples).

Chlordane	Batch Number	True Value (ppb)	Sample Value (ppb)
	0	3.2	0.6
	14	3.2	1.8
	22	3.2	3.4
	28	3.2	3.7
	32	3.2	1.1

Dieldrin	Batch Number	True Value (ppb)	Sample Value (ppb)
	0	1.0	1.5
	14	1.0	0.3
	22	1.0	3.0
	28	1.0	2.9
	32	1.0	1.0

	Batch	True	Sample
DDE	Number	Value (ppb)	Value (ppb)
	0	5.9	9.5
	14	5.9	2.9
	22	5.9	2.8
	28	5.9	6.6
	32	5.9	9.2
	Batch	True	Sample
DDD	Number	Value (ppb)	Value (ppb)
	0	8.4	2.6
	14	8.4	1.5
	22	8.4	1.5
	28	8.4	6.9
	32	8.4	5.2
	Batch	True	Sample
DDT	Number	Value (ppb)	Value (ppb)
	0	0.3	1.0
	14	0.3	1.5
	22	0.3	3.0
	28	0.3	4.6
	32	0.3	0

Table 31. Surrogate Recoveries For Organic Compounds in Fish. Average % Recovery = 62, Standard Deviation = 11, Upper Confidence Limit = 95, Lower Confidence Limit = 29; FISH ID = Maine Health and Environmental Testing Lab fish identification number, and % REC = percent surrogate recovery.

LAKE	MIDAS	FISH ID	% REC
ALLEN P	4516	53	71
ALLEN P	4516	147	52
ANASAGUNTICOOK L	3604	80	60
ANASAGUNTICOOK L	3604	187	72
BALCH & STUMP PONDS	3898	117	55
BALCH & STUMP PONDS	3898	136	73
BASKAHEGAN L	1078	13	58
BASKAHEGAN L	1078	148	61
BAUNEAG BEG L	3992	23	56
BAUNEAG BEG L	3992	130	65
BEAVER P	3124	157	61
BEAVER P	3124	169	55
BELDEN P	5730	44	78
BELDEN P	5730	186	58
BEN ANNIS P	2282	16	66
BEN ANNIS P	2282	167	54
BOTTLE L	4702	72	60
BOTTLE L	4702	193	67
BRACKETT L	1068	20	57
BRACKETT L	1068	141	59
BRADBURY (BARKER) L	9763	31	65

Table 31 (continued). Surrogate Recoveries For Organic Compounds in Fish.

LAKE	MIDAS	FISH ID	% REC
BRADBURY (BARKER) L	9763	211	67
BRAINARD P	5306	62	69
BRAINARD P	5306	129	38
BRANCH L (SOUTH)	2144	65	61
BRANCH L (SOUTH)	2144	208	74
BRANCH P (EAST)	2822	107	74
BRANCH P (EAST)	2822	184	63
BRANCH P (UPPER MID)	4492	46	92
BRANCH P (UPPER MID)	4492	123	79
BUBBLE P	4452	137	67
BUNKER P (BIG)	386	4	66
BUNKER P (BIG)	362	45	51
BURDEN P	834	39	67
BURDEN P	834	127	79
BURNT MEADOW P	5572	7	72
BURNT MEADOW P	5572	146	60
BURNT P	4288	54	72
BURNT P	4288	131	77
CANADA FALLS L	2516	11	45
CANADA FALLS L	2516	173	69
CARLTON BOG (POND)	41	9	56
CARLTON BOG (POND)	41	163	21
CEDAR L	2004	66	66
CEDAR L	2004	196	61
CHAIN OF PONDS	5064	108	70
CHAIN OF PONDS	5064	192	63
CHANDLER L	1994	63	69
CHANDLER L	1994	179	49
CHASE L	2752	68	65
CHASE L	2752	199	51
CHASE P (FIRST)	1538	50	77
CHUB P	5100	15	59
CHUB P	5100	178	52
CHURCHILL L	2856	32	77
CHURCHILL L	2856	158	78
COBBOSSEECONTEE L	5236	40	68
COBBOSSEECONTEE L	5236	114	58
CROSS L	1674	69	63
CROSS L	1674	227	52
CRYSTAL (BEALS) P	3626	37	59
CRYSTAL (BEALS) P	3626	162	56
DAMARISCOTTA L	5400	102	62
DAMARISCOTTA L	5400	198	84
DEBSCONEAG L (4TH)	582	85	67
DEBSCONEAG L (4TH)	582	229	64
DIMMICK P (LITTLE)	240	104	58
DIMMICK P (LITTLE)	240	221	68
DUCK L	4746	106	54
DUCK L	4746	197	53
EAGLE L	1634	100	66

Table 31 (continued). Surrogate Recoveries For Organic Compounds in Fish.

LAKE	MIDAS	FISH ID	% REC
EAGLE L	1634	214	53
EAST P	5349	142	65
EAST P	5349	166	52
EMBDEN P	78	74	68
EMBDEN P	78	112	63
FIELDS P	4282	49	97
FIELDS P	4282	126	67
FISH P	2524	41	62
FISH P	2524	134	50
FISHER P (BIG)	2940	27	61
FISHER P (BIG)	2940	151	56
FLYING P	5182	89	61
FLYING P	5182	118	59
FOLSOM P	2222	14	69
FOLSOM P	2222	135	63
FOREST L	3712	140	75
GRAHAM L	4350	64	73
GRAHAM L	4350	143	59
GRAND L (WEST)	1150	86	60
GRAND L (WEST)	1150	228	60
GRANGER P	3126	128	67
GRANGER P	3126	160	60
GREENWOOD P (LITTLE)	886	22	52
HAY L	2178	43	73
HAY L	2178	213	66
HICKS P	3484	71	63
HICKS P	3484	119	67
HODGDON P	4628	145	54
HODGDON P	4628	230	61
HORSESHOE L	4788	57	68
HORSESHOE L	4788	195	54
HOSMER P	4808	24	48
HOSMER P	4808	235	71
INDIAN P (BIG)	324	2	75
INDIAN P (BIG)	324	33	69
JACOB BUCK P	4322	47	41
JACOB BUCK P	4322	152	48
JERRY P	2190	103	64
JERRY P	2190	201	59
JUMP P	5740	10	67
JUMP P	5740	150	42
KEENE L	1424	30	78
KEENE L	1424	181	41
KEEWAYDIN L	3272	59	81
KEEWAYDIN L	3272	159	58
KINGSBURY P	262	90	49
KINGSBURY P	262	206	71
KNIGHT P	3884	42	63
KNIGHT P	3884	170	50
LAMBERT L	1332	83	68

Table 31 (continued). Surrogate Recoveries For Organic Compounds in Fish.

LAKE	MIDAS	FISH ID	% REC
LAMBERT L	1332	217	65
LILY P	5288	122	62
LONG P	4598	35	79
LONG P	2536	94	59
LONG P	4598	153	55
LONG P	2536	219	60
LOVEWELL P	3254	97	65
LOVEWELL P	3254	190	69
MACHIAS L (FOURTH)	1148	61	68
MACHIAS L (FOURTH)	1148	120	52
MEDDYBEMPS L	177	121	51
MOLUNKUS L	3038	91	56
MOLUNKUS L	3038	224	64
MONSON P	1820	78	61
MONSON P	1820	225	59
MOOSELEUK L	1990	56	69
MOOSELEUK L	1990	172	67
NEQUASSET P	5222	111	61
NEQUASSET P	5222	185	60
NORTH P	3616	38	59
NORTH P	3616	133	74
NORTH P	3500	200	60
NORTH P	3500	234	75
ORANGE L	1364	1	78
ORANGE L	1364	155	58
OSSIPEE L (LITTLE)	5024	79	59
OSSIPEE L (LITTLE)	5024	180	98
OTTER P	3338	25	51
OTTER P	3972	75	55
OTTER P	3338	188	57
OTTER P	3972	191	68
PASSAGASSAWAUKEAG L	5496	17	68
PASSAGASSAWAUKEAG L	5496	149	56
PATTEE P	5458	60	71
PATTEE P	5458	124	72
PEASE P	5198	67	69
PEASE P	5198	183	57
PENNINGTON P	1612	139	63
PINE P (BIG)	2920	19	59
PINE P (BIG)	2920	231	57
PITCHER P	4848	26	70
PITCHER P	4848	171	59
PLEASANT L	159	48	66
PLEASANT L	1100	84	65
PLEASANT L	159	138	70
PLEASANT L	1100	210	65
PLEASANT P	3252	58	60
PLEASANT P	3252	116	65
PORTLAND L	1008	52	68
PORTLAND L	1008	125	78

Table 31 (continued). Surrogate Recoveries For Organic Compounds in Fish.

LAKE	MIDAS	FISH ID	% REC
PURGATORY P (LITTLE)	5250	177	39
RANGE P (LOWER)	3760	77	61
RANGE P (LOWER)	3760	207	30
ROACH P (SECOND)	452	3	78
ROACH P (SECOND)	452	176	73
ROBERTS & WADLEY PDS	5034	226	55
ROBERTS & WADLEY PDS	5034	233	85
ROCKY P	4330	55	63
ROCKY P	4330	115	53
ROUND (GREY) P	5500	21	63
ROUND (GREY) P	5500	144	59
ROUND P	5684	8	61
ROUND P	3818	28	63
ROUND P	3818	164	58
ROUND P	5684	174	64
ROWE P	202	87	66
ROWE P	202	204	86
SANDY RIVER P (MID)	3566	105	72
SANDY RIVER P (MID)	3566	205	68
SANDY RIVER P(LOWER)	3564	99	38
SANDY RIVER P(LOWER)	3564	218	62
SECOND L	1134	51	70
SECOND L	1134	132	78
SENNEBEC P	5682	81	53
SENNEBEC P	5682	232	72
SEWALL P	9943	182	47
SHIN P (LOWER)	2198	96	31
SHIN P (LOWER)	2198	215	67
SLY BROOK L (SECOND)	1644	29	78
SLY BROOK L (SECOND)	1644	165	45
SPENCER P	404	12	60
SPENCER P	404	175	67
SQUAW P (BIG)	334	5	73
SQUAW P (BIG)	334	156	76
SUNDAY P	3316	82	47
SUNDAY P	3316	223	62
SYMMES P	3892	203	38
THIRD L	2704	92	48
THIRD L	2704	216	53
TOGUE P	1530	88	54
TOGUE P	1530	220	63
TOGUS P	9931	95	51
TOGUS P	9931	109	50
TOGUS P	9931	202	34
TRAVEL P	5456	6	69
TRAVEL P	5456	154	58
TRICKEY P	2514	73	65
UMBAGOG L	3102	93	53
UMBAGOG L	3102	212	45
UMCOLCUS L	3080	34	87

Table 31 (continued). Surrogate Recoveries For Organic Compounds in Fish.

LAKE	MIDAS	FISH ID	% REC
UMCOLCUS L	3080	168	58
VARNUM P	3680	70	62
VARNUM P	3680	113	71
WADLEIGH P	572	76	47
WADLEIGH P	572	222	36
WEBBER P	5408	98	59
WEBBER P	5408	194	59
WELLS P	3970	101	55
WEYMOUTH P	5478	18	65
WEYMOUTH P	5478	189	46
WIGHT P	4662	36	69
WIGHT P	4662	161	66
WOOD P (LITTLE BIG)	2630	110	51
WOOD P (LITTLE BIG)	2630	209	57

3. University of Maine - National Biological Survey Laboratory, (Midwest Ecological Science Center)

Each laboratory batch consisted of 16 samples, including at least one reference sample (albacore tuna), a reagent blank, a fish tissue duplicate and a spiked fish tissue sample. For reference samples analyzed in 1993 and early 1994, 52 out of 55 (95%) fell within the accepted mercury concentration range of 0.95 $\pm$ 0.10 ug/g dry weight. Only 3 out of 12 reference samples analyzed in late 1994 and 1995 were within the accepted range of 0.80 $\pm$ 0.07 ug/g. The latter 12 samples were analyzed on a different instrument which experienced problems and has since been replaced. The mean value for 1994-1995 reference samples was 0.72 ug/g, which is within the accepted range.

Only 3 of 161 mercury duplicate values had a relative percent difference greater than 20%. Percent moisture duplicates all had values with less than 10% relative percent difference. Recoveries for all spiked samples were between 92% and 117%, and were well within the 30% data quality objective. All blanks were less than the detection limit of 0.03 ug/g of mercury. Table 32 summarizes these results. A complete listing of QA/QC sample results appears in Appendix G.

Table 32. Summary of QA/QC Results For Mercury and Percent Moisture in Predator Fillets. The following table lists the number and percent of QA/QC samples which met project data quality objectives. Measured values of all lab blanks were at or below detection limit.

Parameter	Duplicate Samples	Spiked Samples	Reference Samples
Hg	158/161=98%	37/37=100%	55/67=82%
% moisture	185/185=100%	(1)	(1)

(1) Not applicable

4. University of Maine - Sawyer Environmental Chemistry Laboratory

Replicates were analyzed at a frequency of at least 5% of the total samples received. Four concentrations of QC standards were analyzed for each cation during the analytical run. These also served as the calibration check standards specified by the project QA/QC plan. Two concentrations of chloride and sulfate and one concentration of nitrate were analyzed daily. Matrix spikes were not required by the project QA/QC plan, and were not run on REMAP samples. Measured values of all lab blanks were at or below the detection limit.

All samples were analyzed for anions and cations within recommended holding times with the exception of nitrate analyses. Many nitrate samples (47%) exceeded the holding time of 7 days. The maximum holding time for nitrate samples was 20 days, however most samples were analyzed within 14 days of collection. Nitrate analysis was routinely performed as part of the anion/cation series, but was not specifically requested for this project. The extended nitrate holding times are therefore of minimal concern regarding the project objectives. Low level nitrate values (less than 1.0 ueq/l) are also not statistically significant, as they can produce artificially high coefficients of variation. These data are flagged in Appendix H.

The following equations were used for precision and accuracy calculations:

$$\text{Accuracy} = \frac{\text{Determined Value - Reference Value}}{\text{Reference Value}} \times 100$$

$$\text{Precision (CV)} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

$$\text{Ion \% Difference (IPD)} = \frac{\text{Sum of Anions - Sum of Cations}}{\text{Sum of Anions + Sum of Cations}} \times 100$$

When the Sum of Ions was less than 50 ueq/l, the sample was reanalyzed if the IPD was greater than $\pm$ 60%. When the Sum of Ions was greater than or equal to 50 ueq/l but less than 100 ueq/l, the sample was reanalyzed if the IPD was greater than $\pm$ 30%. When the Sum of Ions was greater than or equal to 100 ueq/l, the sample was reanalyzed if the IPD was greater than $\pm$ 15%.

Target holding times, method detection limits, and precision and accuracy objectives are shown in Table 33. Table 34 contains a summary of QA/QC sample results. Complete QA/QC sample results are found in Appendix H.

Table 33. Anion and Cation Target Holding Times, Method Detection Limits, and Precision and Accuracy Objectives. Reporting limits for all anions and cations are the same as detection limis.

ANALYTE	HOLDING TIME	DETECTION LIMIT	CONC. RANGE	PRECISION OBJECTIVE	ACCURACY OBJECTIVE
Ca	6 months	0.02 mg/l	$\leq$ 0.4 mg/l	$\pm$ 0.02 mg/l	$\pm$ 0.02 mg/l
			> 0.4 mg/l	$\pm$ 5%	$\pm$ 4%
Mg	6 months	0.01 mg/l	$\leq$ 0.20 mg/l	$\pm$ 0.01 mg/l	$\pm$ 0.01 mg/l
			> 0.20 mg/l	$\pm$ 5%	$\pm$ 4%
Na	6 months	0.02 mg/l	$\leq$ 0.45 mg/l	$\pm$ 0.02 mg/l	$\pm$ 0.02 mg/l
			> 0.45 mg/l	$\pm$ 5%	$\pm$ 4%

Table 33. (cont.) Anion and Cation Target Holding Times, Method Detection Limits, and Precision and Accuracy Objectives.

ANALYTE	HOLDING TIME	DETECTION LIMIT	CONC. RANGE	PRECISION OBJECTIVE	ACCURACY OBJECTIVE
K	6 months	0.04 mg/l	$\leq$ 0.80 mg/l	$\pm$ 0.04 mg/l	$\pm$ 0.03 mg/l
			> 0.80 mg/l	$\pm$ 5%	$\pm$ 4%
Cl	28 days	3.0 ueq/l	$\leq$ 20 ueq/l	$\pm$ 3.0 ueq/l	$\pm$ 5.0 ueq/l
			> 20 ueq/l	$\pm$ 5%	$\pm$ 7%
NO3	7 days	1.0 ueq/l	$\leq$ 10 ueq/l	$\pm$ 1.0 ueq/l	$\pm$ 2.0 ueq/l
			> 10 ueq/l	$\pm$ 5%	$\pm$ 7%
SO4	28 days	3.0 ueq/l	$\leq$ 20 ueq/l	$\pm$ 3.0 ueq/l	$\pm$ 5.0 ueq/l
			> 20 ueq/l	$\pm$ 5%	$\pm$ 7%

Table 34. Summary of QA/QC Results for Anions and Cations.

The following table lists the number and percent of QA/QC samples which met project data quality objectives. All blanks were analyzed at or below detection limit. Spiked samples were not required in the Project/QA Plan.

Parameter	Duplicate Samples	Known Samples
Ca	31/31=100%	96/96=100%
Mg	31/31=100%	96/96=100%
Na	30/31=96.8%	95/95=100%
K	30/31=96.8%	98/98=100%
NO3	25/26=96.2%	18/18=100%
SO4	31/31=100%	35/35=100%
Cl	28/31=90.3%	26/35=74.3%

5. U.S. Environmental Protection Agency, Region I - New England Regional Laboratory

The results of QA/QC sample analyses performed by the EPA New England Regional Laboratory (NERL) appear in Appendix D. Table 35 below lists reporting limits for all parameters. A summary of metals results in fish and sediment is provided in Table 36. For organic compounds, the frequency of QA/QC sample analysis and a summary of results are found in Tables 37 and 38.

Table 35. Reporting Limits for EPA New England Regional Laboratory. Reporting limits are based on samples reported on a wet weight basis. Reporting limits for organic compounds are based on the low QA/QC standard.

Parameter	Reporting Limit
Mercury	0.10 ug/g
Cadmium	0.05 ug/g - 0.10 ug/g (dependent on sample size)
Lead	0.25 ug/g - 0.40 ug/g (dependent on sample size)
Pesticides	0.10 ng/g (for 50 g sample)
Toxaphene	1.0 ng/g (for 50 g sample)
PCB's	2.0 ng/g (for 50 g sample)

Table 36. Summary of EPA Laboratory QA/QC Results For Metals Analyses. The following table lists the number and percent of QA/QC samples which met data quality objectives. Lead values for all duplicate fish samples were below the detection limit.

	Duplicates Spikes		Spike Recovery	Reference Samples	Reference Recovery	Blanks
FILLETS						
Hg	-	2/2=100%	92%, 97%	-	-	-
WHOLE FISH						
Hg	2/2=100%	2/2=100%	102-111%	1/1=100%	89%	-
Cd	3/4=75%	3/3=100%	89-102%	2/2=100%	97%, 109%	2/2=100%
Pb	4/4=100%	3/3=100%	79-83%	2/2=100%	98%, 106%	2/2=100%
SEDIMENT						
Hg	6/6=100%	2/2=100%	96%, 96%	1/1=100%	100%	-
Cd	2/2=100%	2/2=100%	95%-98%	2/2=100%	95%, 104%	2/2=100%
Pb	1/1=100%	1/1=100%	96% 1/1=100%	88%	1/1=100%	

Table 37. Frequency of EPA Laboratory QA/QC Sample Analysis For Organic Compounds. SRM = standard reference material.

Frequency		Frequency Goal	Actual
Standards	:	every 12 hours	every 12 hours
Endrin/DDT Breakdown:		every 12 hours	every 12 hours
Blanks:		1 for 10 samples	2 for 22 samples
Duplicates:		1 for 10 samples	2 for 22 samples
Spikes:		1 for 10 samples	4 for 22 samples (1)
SRM's:		4 per project	2 for 22 samples
Surrogate Recovery:		all samples	22 for 22 samples
% Moisture Duplicates:		14 per project	none analyzed
% Lipids Duplicates:		14 per project	none analyzed

(1) 1 spike for toxaphene, 2 spikes for PCB's (1 with no recovery)

Table 38. EPA Data Quality Objectives and Summary of QA/QC Results For Organic Compounds. SRM = standard reference material samples.

		Data Quality Objective	% Not Meeting Data Quality Objectives
Standards	:	$\pm$ 25% of true value	0%
Endrin/DDT Breakdown	:	<20%, <20%, SUM<30%	0%
Blanks:		< reporting level	0%
Spikes:		15-140%	12.5% (1/8)
SRM's:		(1)	0%
Surrogate Recovery	:	54-87%	0% outside 29-95%
Duplicates:		< 50% diff. from mean	6.4% (3/47)
% Moisture Duplicates:		< 20% diff from mean	0%
% Lipids Duplicates:		< 20% diff. from mean	0%

(1) Requirements for SRM's: The values should fall between 30% and 160% of the true value except for DDT, which should fall between 0 and 1.0 ng/g.