

Z 802

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HYDROGRAPHIC, CHEMICAL AND PLANKTOLOGICAL DATA
FROM THE NORTH-WEST AFRICAN UPWELLING AREA OB-
TAINED FROM FEBRUARY TO APRIL 1983

('OSTATLANTIK-BIOZIRKEL')

by

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ABSTRACT

The volume presents hydrographic, chemical and planktological data obtained during leg 4 and 5 of cruise No. 64 undertaken by R.V. 'Meteor' to the north-west African upwelling area in 1983. Together with temperature and salinity profiles nutrients, oxygen, pH, alkalinity and chlorophyll a concentrations were measured. Zooplankton standing stock and metabolic activity were determined in the euphotic zones of 24 stations. These measurements were carried out in four different size classes (20-100, 100-500, 500-1000 and > 1000 μm). Parameters of zooplankton standing stock were lipids, carbohydrates, proteins, dry weight, carbon and nitrogen. For metabolic activity respiration, nitrogen and phosphorus excretion were measured.

ZUSAMMENFASSUNG

Dieser Band enthält die hydrographischen, chemischen und planktologischen Meßdaten, die auf dem 4. und 5. Fahrtabschnitt der 'Meteor'-Reise Nr. 64 in das Nordwest-Afrikanische Auftriebsgebiet 1983 gewonnen wurden. In Kombination mit Temperatur- und Salzgehaltsmessungen wurden Nährsalze, Sauerstoff, pH, Alkalinität und der Chlorophyll a - Gehalt bestimmt. Der Bestand und die Stoffwechselaktivität des Zooplanktons wurde in der euphotischen Zone von 24 Stationen gemessen. Die Zooplanktonuntersuchungen wurden in vier verschiedenen Größenklassen (20-100, 100-500, 500-1000 und > 1000 μm) durchgeführt. Der Bestand wurde mittels der Lipide, Kohlenhydrate, Proteine, Trockengewichte sowie Kohlenstoff- und Stickstoffwerte bestimmt. Die Stoffwechselaktivität wurde über Respirations- und Exkretionsraten (Stickstoff, Phosphor) gemessen.

CONTENTS

	page
Foreword	1
Station maps	2
Table of station positions	5
List of sampling frequency on long-term stations	8
<u>Hydrographic and chemical data</u>	9
Description of methods	10
List of determinations	12
Key to the data sheet	15
Data sheets	16
<u>Zooplankton standing stock</u>	75
Description of methods	76
List of determinations	79
Key to the data sheet	81
Data sheets	82
<u>Zooplankton metabolism</u>	101
Description of methods	102
Key to the data sheet	103
Data sheets	104



FOREWORD

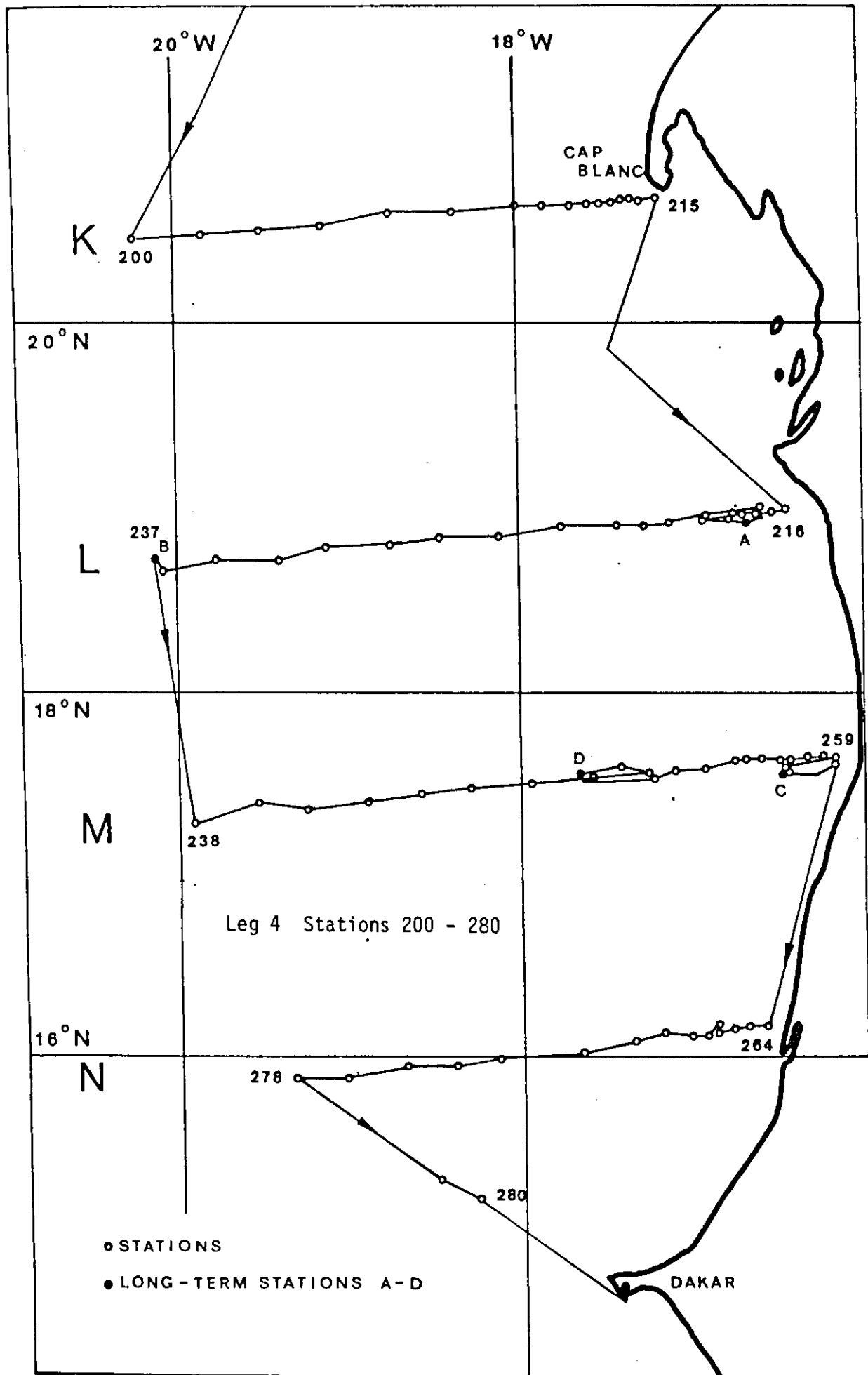
During the research programme 'Ostatlantik-Biozirkel' R.V. 'Meteor' worked in the north-west African upwelling area from January to April 1983.

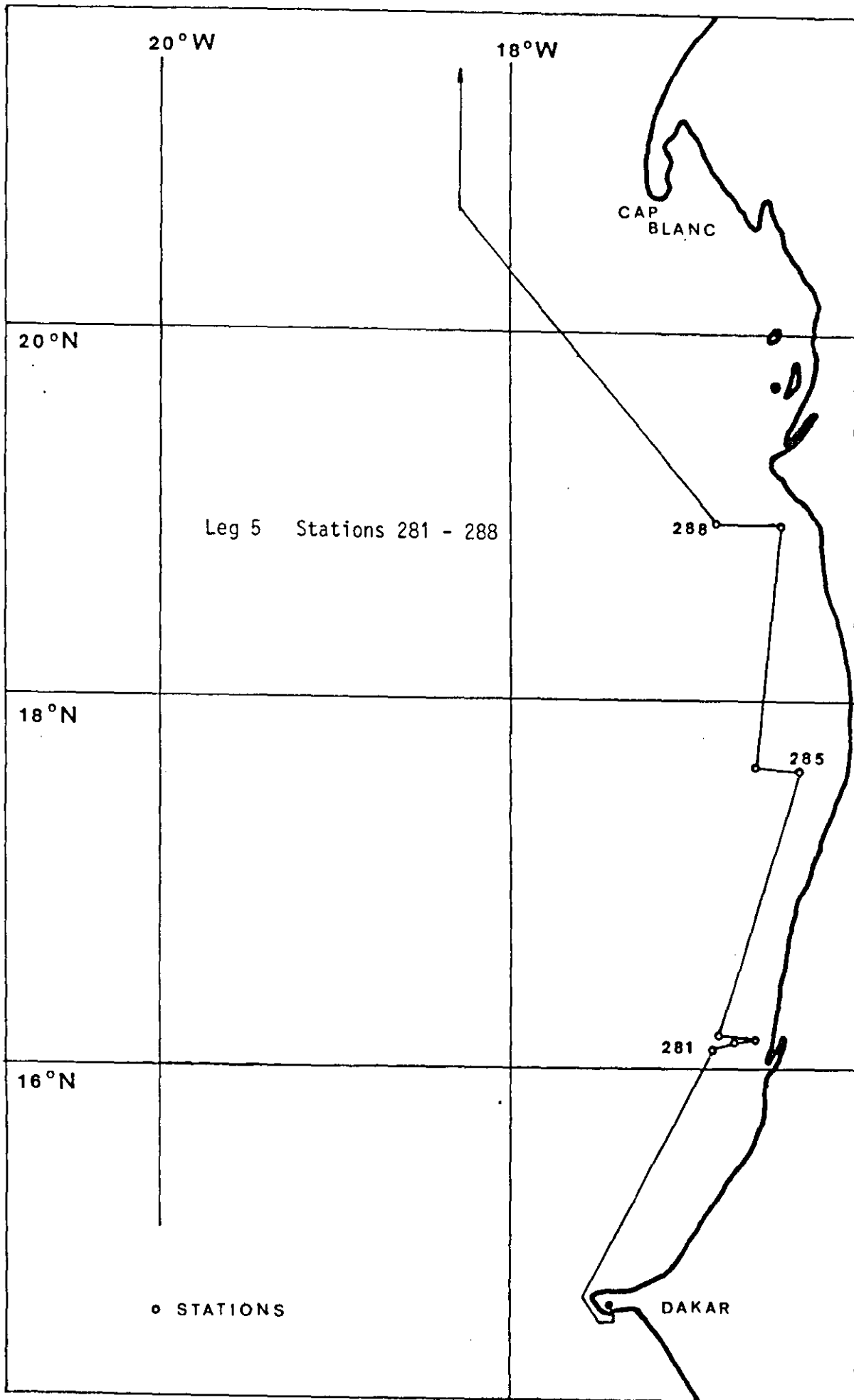
Our biological programme carried out during leg 4 and 5 (27.2. - 9.4.) aimed at investigating zooplankton standing stock and activity in relation to hydrographic regime. Bearing in mind the significance of organism size in ecological processes, biomass and metabolism of zooplankton were determined separately in four different size classes. The size classes chosen were 20-100, 100-500, 500-1000 and $> 1000 \mu\text{m}$.

Part 1 of this data report contains the hydrographic parameters, nutrients, oxygen, pH, alkalinity and chlorophyll a measurements, part 2 the zooplankton standing stock given in biochemical constituents and part 3 the data for zooplankton metabolism.

We wish to thank all those who helped us in preparing the expedition, carrying out the measurements, processing the data and presenting them in the data sheets of this volume. Our special thanks go to Prof. G. Siedler and Dr. H. Weikert, the coordinators of the expedition, to Prof. D. Schnack, cruise leader of leg 4 and 5, and to K.G. Barthel, B. Hartung, R. Laschefski, R. Neuhaus, W. Roock, H. Vogel, R. Werner, U. Wolf as well as to the captain, officers and crew of R.V. 'Meteor'.

We also gratefully acknowledge the financial support from the 'DEUTSCHE FORSCHUNGSGEMEINSCHAFT' for the expedition and subsequent processing of the data.





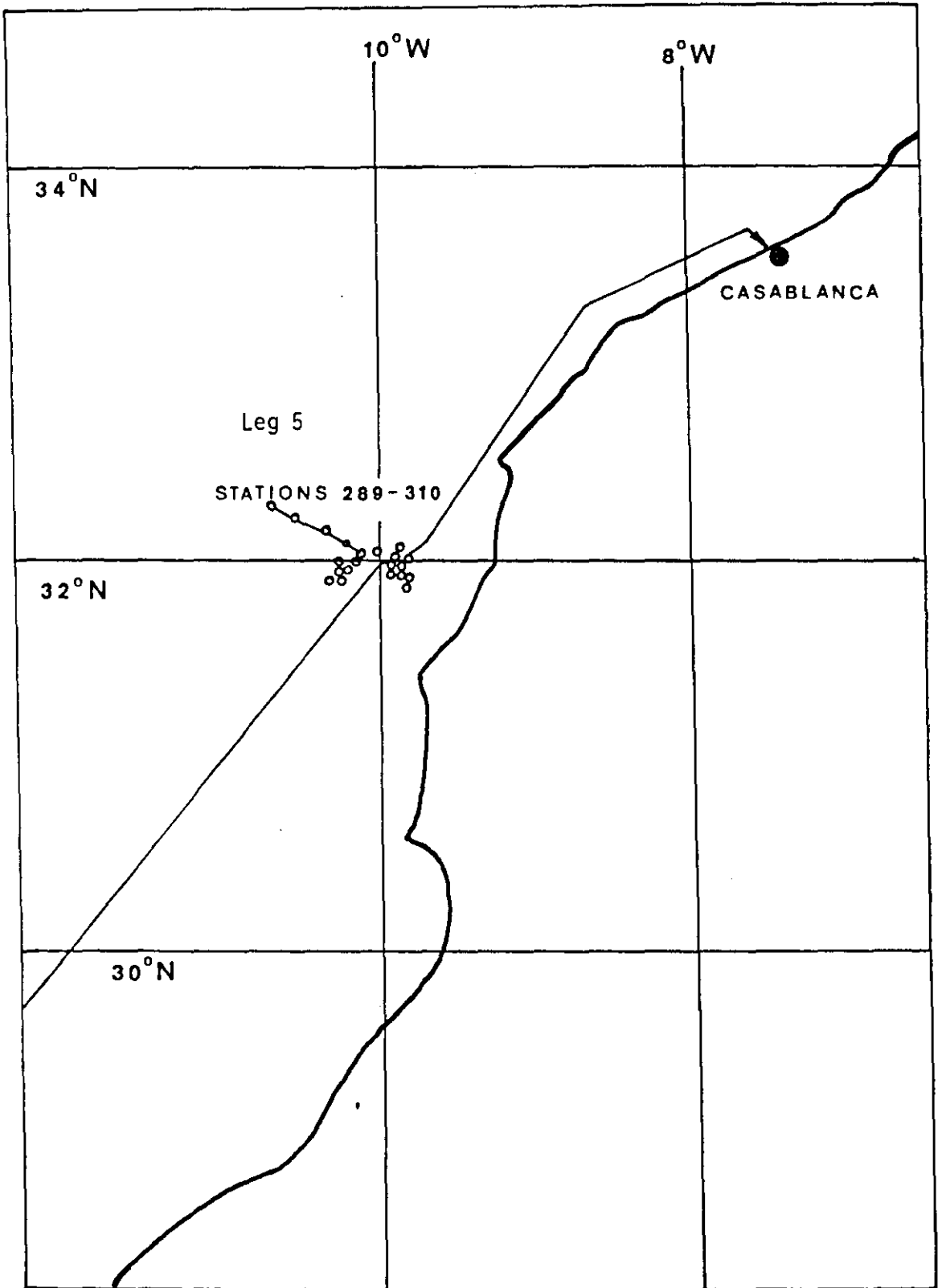


Table of Station Positions

Date	Stat. No.	Time GMT	Position		Depth m
			Latitude	Longitude	
28.2.	197	0900-0930	24° 36.3' N	18° 02.8' W	2660
1.3.	198	1030-1124	24 29.8	18 05.6	2620
	199	0918-1000	21 03.6	19 52.5	3730
	200	1454-1906	20 26.0	20 14.2	3735
	201	2212-2248	20 27.9	19 50.7	3550
2.3.	202	0024-0400	20 29.7	19 29.8	3015
	203	0642-0724	20 31.0	19 08.0	3160
	204	0942-1412	20 34.6	18 44.0	2760
	205	1642-1718	20 34.9	18 21.9	1272
	206	1930-2300	20 36.4	18 00.9	754
3.3.	207	0018-0600	20 37.0	17 50.7	465
	208	0700-1224	20 38.5	17 40.7	210
	209	1312-1324	20 38.2	17 34.7	75
	210	1406-1418	20 38.6	17 29.8	75
	211	1448-1454	20 38.9	17 24.9	70
	212	1524-1542	20 39.8	17 23.0	55
	213	1554-1648	20 40.0	17 20.2	48
	214	1724-1824	20 39.1	17 16.2	43
	215	1854-2018	20 40.0	17 10.3	36
4.3.	216	0906-1006	18 59.5	16 25.5	22
	217	1042-1054	18 59.7	16 30.4	42
	218	1130-1312	18 59.3	16 36.3	74
	219	1348-1400	18 57.8	16 41.0	110
	220	1442-1454	18 57.0	16 46.2	175
	221	1600-1942	18 56.6	16 54.7	820
4.- 7.3.	222	2100-0700	18 58.4	16 40.0	101
7.3.	223	0800-0854	18 59.9	16 35.6	71
	224	1000-1100	18 57.6	16 45.3	196
	225	1200-1408	18 56.9	16 55.3	875
	226	1528-1854	18 55.3	17 07.0	1535
	227	1942-2106	18 55.0	17 15.8	1940
	228	2154-2348	18 54.8	17 25.1	2180
8.3.	229	0124-0312	18 54.0	17 45.6	2445
	230	0454-0818	18 50.6	18 05.8	2615
	231	1000-1330	18 49.5	18 26.4	2800
	232	1512-1712	18 48.5	18 45.8	2935
	233	1900-2100	18 46.9	19 07.4	3060
8.- 9.3.	234	2236-0200	18 43.7	19 25.6	3140
	235	0348-0542	18 43.2	19 46.1	3185
	236	0724-1500	18 40.0	20 05.0	3215
9.-12.3.	237	1530-1800	18 42.3	20 07.2	3225

Date	Stat. No.	Time GMT	Position		Depth m
			Latitude	Longitude	
13.3.	238	0248-0506	17° 18.1' N	19° 54.8' W	3225
	239	0742-1130	17 25.5	19 32.0	3295
	240	1312-1824	17 23.0	19 15.6	3285
	241	2042-2236	17 24.7	18 54.0	3240
14.3.	242	0024-0312	17 27.8	18 33.8	3100
	243	0024-0618	17 28.9	18 17.0	3050
	244	0836-1518	17 30.5	17 56.2	2790
	245	1736-1918	17 33.0	17 35.3	3492
	246	2112-2336	17 34.0	17 15.0	2110
15.3.	247	0054-0112	17 34.1	17 25.1	2315
16.3.	248	0248-2248	17 32.0	17 40.0	2335
17.3.	249	0130-0412	17 33.5	17 13.4	2070
	250	0518-0830	17 34.9	17 05.0	1860
	251	0936-1500	17 36.0	16 55.0	1440
	252	1612-1730	17 37.8	16 44.5	854
	253	1806-1936	17 38.4	16 40.3	492
	254	2012-2124	17 38.5	16 35.0	240
	255	2154-2342	17 39.1	16 29.0	140
	18.3.	256	0018-0130	17 39.3	16 26.0
257		0224-0317	17 39.7	16 18.8	65
258		0400-0448	17 40.0	16 14.0	56
259		0524-1136	17 40.0	16 09.0	18
260		1218-1406	17 38.1	16 27.2	105
261		1442-1548	17 38.1	16 26.0	103
18.-20.3.		262	1554-1830	17 36.0	16 26.0
	263	2024-2054	17 39.6	16 09.4	25
21.3.	264	0642-0742	16 10.0	16 35.3	30
	265	0818-1042	16 08.8	16 41.0	63
	266	1112-1200	16 08.9	16 45.3	88
	267	1236-1448	16 07.5	16 51.4	204
	268	1530-1630	16 10.8	16 50.9	200
	269	1712-1854	16 07.0	16 55.0	445
	270	1936-2300	16 07.0	17 00.8	758
21.-22.3.	271	2336-0242	16 08.0	17 10.6	1660
	272	0348-0542	16 05.2	17 21.0	2300
	273	0736-1248	16 01.4	17 39.5	2800
	274	1512-1718	15 59.8	18 04.2	3025
	275	1900-2312	15 57.2	18 23.7	3143
22.3.	276	0042-0300	15 56.7	18 42.0	3175
	277	0436-0748	15 53.2	19 02.8	3325
	278	0924-1412	15 53.4	19 21.6	3475
	279	2024-2112	15 19.1	18 29.6	2890
	280	2230-2312	15 11.7	18 17.8	2720

Date	Stat. No.	Time GMT	Position		Depth m
			Latitude	Longitude	
27.3.	281	0354-0800	16° 07.1' N	16° 49.6' W	100
	282	0900-0942	16 09.8	16 42.1	73
	283	1036-1130	16 09.3	16 34.5	26
	284	1430-1900	16 09.6	16 48.3	100
28.3.	285	0630-1148	17 39.0	16 20.2	87
	286	1624-2036	17 39.2	16 35.0	250
29.3.	287	0612-1330	19 00.2	16 26.4	25
29.-30.3.	288	1600-1648	18 59.0	16 48.5	250
4.4.	289	1930-2136	32 01.7	09 56.5	750
4.- 5.4.	290	2312-0542	32 02.6	10 03.0	1540
	291	0806-0848	31 58.7	09 49.0	80
	292	0912-1224	31 58.4	09 49.3	67
	293	1248-1353	31 55.9	09 46.2	44
	294	1442-1548	31 58.3	09 50.0	70
	295	1812-1918	31 54.6	10 12.9	730
	296	2200-2318	31 59.9	09 51.4	120
5.- 6.4.	297	2354-0400	32 01.5	09 57.5	1175
	298	0412-0712	32 01.7	10 01.5	1550
	299	0806-1124	32 06.2	10 08.7	1490
	300	1218-1324	32 09.0	10 18.0	2305
	301	1446-1612	32 13.5	10 29.2	2575
	302	1718-1812	32 16.5	10 39.2	3219
6.- 7.4.	303	2124-0648	31 55.9	10 12.2	810
	304	0648-0718	31 56.7	10 06.7	955
	305	0854-1736	32 02.0	09 53.7	490
	306	1830-1900	31 56.5	09 50.0	67
7.- 8.4.	307	2130-0536	31 58.0	10 13.2	900
	308	0612-0700	31 56.5	10 11.8	990
	309	0736-0836	31 54.6	10 12.9	730
	310	1105-1148	32 02.0	09 53.7	490

Sampling frequency (date and time in GMT) at long-term stations
A - D

Station No.	222 (A)	237 (B)	248 (C)	262 (D)
	<u>4.3.83</u>	<u>9.3.83</u>	<u>15.3.83</u>	<u>18.3.83</u>
			10.00	
		16.00	16.00	
	21.00	22.00	22.00	22.00
			23.00	
	<u>5.3.83</u>	<u>10.3.83</u>	<u>16.3.83</u>	<u>19.3.83</u>
	5.00	4.00	4.00	
	9.00	10.00	10.00	9.00
	16.00	16.00	16.00	16.00
	21.00	22.00		
	<u>6.3.83</u>	<u>11.3.83</u>		<u>20.3.83</u>
	4.00	4.00		3.00
	10.00	9.00		9.00
	16.00	16.00		16.00
	21.00	21.00		
	<u>7.3.83</u>	<u>12.3.83</u>		
	3.00	3.00		
		9.00		

HYDROGRAPHIC AND CHEMICAL DATA

Hydrographic and chemical data

Description of methods

Temperature, salinity and depth were measured with a Howaldt Bathysonde (temperature ± 0.01 °C, salinity ± 0.03 ‰, depth ± 1 dbar; SY and MEINCKE 1981). Density (σ_t) was calculated from salinity and temperature values.

Water samples were taken with 10 l Niskin bottles which were combined with the Bathysonde to form a rosette sampler. Subsamples from the Niskin bottles were drawn for the analysis of nutrients, oxygen content, alkalinity, pH and chlorophyll a.

The concentrations of the nutrients NO_3 , PO_4 and SiO_4 were determined with an AKEA-autoanalyzer following the methods of GRASSHOFF (1976).

Oxygen content was determined by the Winkler titration technique. Alkalinity and pH followed the procedures outlined in GRASSHOFF (1976).

Oxygen saturation values were calculated using the formula given in the INTERNATIONAL OCEANOGRAPHIC TABLES.

For the measurement of chlorophyll a 0.5 to 1 l water was filtered through Whatman GF/C glassfiber filters (\emptyset 2.5 cm). Determination of chlorophyll was carried out soon after sampling on board. The analysis followed the spectrophotometric method (UNESCO 1966) with the modification given by DERENBACH (1969).

Literature

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Kieler Meeresforsch. 25, 166 - 171

GRASSHOFF, K., 1976: Methods of seawater analysis.

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INTERNATIONAL OCEANOGRAPHIC TABLES. Edited by the National Institute of Oceanography of Great Britain and UNESCO, 1973, Vol. 2, 157 p.

SY, A., MEINCKE, J., 1981: A comparison of hydrographic features in the equatorial Atlantic during FGGE using a conventional CTD and a towed system, p. 55 - 60 in: Mc CREARY, J.P., D.W. MOORE and J.M. WITTE (Eds): Recent progress in equatorial oceanography. A report of the final meeting

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UNESCO, 1966: Determination of photosynthetic pigments in seawater. Monographs on oceanographic methodology I.

UNESCO, Paris, 69 p.

LIST OF HYDROGRAPHIC AND CHEMICAL

DETERMINATIONS

Abbreviations

T	Temperature
S	Salinity
O	Oxygen content
P	PO ₄ -P concentration
N	NO ₃ -N concentration
Si	SiO ₄ -Si concentration
pH	pH values
A	Alkalinity
Chl	Chlorophyll <u>a</u> concentration

Key to the data sheet

TIME: Sampling time (GMT)
TEMP.: Temperature °C
SALIN: Salinity ‰
SIGMA-T: Density σ_t
O2: Oxygen content (ml dm^{-3})
O2%: Oxygen saturation in %
PO4: PO_4 -P concentration ($\mu\text{M dm}^{-3}$)
NO3: NO_3 -N concentration ($\mu\text{M dm}^{-3}$)
SI04: SiO_4 -Si concentration ($\mu\text{M dm}^{-3}$)
PH: pH value
ALAKAL: Alkalinity (mäquiv. dm^{-3})
CHLA: Chlorophyll a content ($\mu\text{g dm}^{-3}$)

INT VALUE (0 - 50 M): Integrated values of the upper 50 m
of the water column
Units are
 1 m^{-2} oxygen
 mM m^{-2} nutrients
 mg m^{-2} chlorophyll a

STATION: 204 DATE: 2. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.96	36.44	26.15	4.95	94.5	0.06	1.1	1.1	8.29		0.27
10	19.20	36.70	26.29	4.94	94.9	0.06	1.1	1.5	8.29		0.35
20	19.91	37.07	26.38	4.93	96.2	0.06	1.1	1.5	8.28		0.06
30	19.87	37.09	26.41	4.86	94.8	0.06	1.1	1.8	8.28		0.13
50	19.63	37.13	26.50	4.74	92.0	0.08	1.1	1.8	8.27		0.08
75	19.47	37.17	26.58	4.73	91.6	0.11	2.0	2.0	8.27		
150	17.50	36.80	26.80	3.75	69.8	0.41	10.5	4.0	8.21		
250	14.50	36.28	27.10	3.29	57.5	0.86	16.1	6.6	8.17		
350	12.65	35.97	27.25	2.30	38.6	1.41	25.2	11.5	8.07		
450	11.29	35.74	27.34	1.95	31.8	1.76	30.1	15.3	8.02		
550	9.81	35.59	27.48	1.87	29.5	2.06		20.0	7.99		
INT.VALUE(0-50M):				243.8		3.2	55.0	79.5			8.0
1%-LIGHTLEVEL:				55M							

STATION: 206 DATE: 2. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.70			5.95		0.29	4.9	1.0	8.23		5.77
10	18.36			6.11		0.37	4.7	1.3	8.25		7.07
20	17.97			5.28		0.52	7.4	2.1			3.92
30	17.93			5.03		0.55	8.0	2.7	8.20		1.22
50	17.84			4.90		0.55	9.3	3.5			0.51
75	17.61			4.53		0.64	10.9	3.8	8.19		
150	14.92			1.56		1.37	25.8	8.8	8.01		
250	13.49			1.70		1.44	25.9	9.8	8.02		
350	11.97			1.77		1.60	28.5	11.7	7.99		
450	10.88			1.97		1.77	30.4	14.4	8.01		
550	9.88			1.90		1.89	33.2	17.3	7.99		
INT.VALUE(0-50M):				267.8		24.0	359.0	114.0			159.0

STATION: 213 DATE: 3. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.88	36.38	26.38	5.91	110.5	0.71	1.6	0.7	8.29		1.53
10	17.91	36.39	26.38	5.98	111.9	0.71	1.4	0.1	8.29		1.60
20	17.19	36.33	26.51	4.64	85.6	1.19	7.8	2.4	8.19		1.44
30	16.94	36.39	26.62	4.53	83.2	1.27	8.8	3.0	8.16		0.92
40	16.54	36.38	26.71	3.49	63.6	1.69	10.8	9.0	8.11		1.25
INT.VALUE(0-40M):				198.4		43.8	175.5	68.5			53.4

STATION: 215 DATE: 3. 3.1983 TIME: 19.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.52	36.69	26.46	5.87	111.3	0.33	1.4	1.2	8.26		9.18
10	18.23	36.67	26.52	5.50	103.7	0.37	1.9	3.8	8.25		8.05
20	17.65	36.57	26.58	4.59	85.6	0.83	4.6	3.1	8.20		6.59
30	17.48	36.65	26.69	4.28	79.6	1.21	4.9	6.0	8.18		10.43
INT.VALUE(0-30M):				152.6		19.7	95.3	98.5			247.3

STATION: 217 DATE: 4. 3.1983 TIME: 11.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.67	36.23	26.07	6.58	124.8	0.10	0.2	1.6	8.35		4.56
10	18.62	36.24	26.09	6.39	121.1	0.15	0.3	1.1	8.35		4.48
20	17.20	36.24	26.44	6.27	115.6	0.21	0.8	1.3	8.35		4.80
30	16.09	36.04	26.55	5.42	97.7	0.36	1.4	1.6	8.33		1.09
50	15.50	36.06	26.71	5.52	98.4	0.39	2.4	1.6	8.33		
75	15.41	36.07	26.73	3.37	59.9	1.27	10.5	6.0	8.14		0.04
INT.VALUE(0-50M):				296.5		13.3	56.8	73.3			121.3

STATION: 218 DATE: 4. 3.1983 TIME: 12.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.00			5.38		0.47	4.9	2.0	8.28		
10	18.35			5.19		0.59	5.7	2.4	8.28		
20	18.26			5.18		0.59	5.7	2.3	8.27		
30	17.99			4.83		0.64	7.6	3.3	8.26		
50	15.57			2.20		1.60	20.8	9.1	8.06		
75	15.30			2.02		1.66	19.2	10.2	8.06		
INT.VALUE(0-50M):				225.5		39.5	258.5	196.5			

STATION: 221 DATE: 4. 3.1983 TIME: 17.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.45			5.16		0.52	4.6	1.3	8.27		0.81
10	19.95			4.71		0.56	6.5	2.5	8.24		0.86
20	18.37			3.85		0.98	12.6	4.2	8.18		0.39
30	18.08			3.15		1.13	16.0	4.6	8.15		0.38
50	17.75			1.84		1.42	23.4	6.9	8.03		0.20
75	15.56			1.34		1.63	26.2	8.3	8.02		0.15
150	14.16			1.54		1.75	27.4	10.3	8.01		
250	13.51			1.54		1.69	27.7	10.3	7.99		
350	12.42			1.46		1.84	29.2	12.1	7.98		
450	11.06			1.57		1.96	31.1	14.7	7.98		
550	10.85			1.43		2.13	32.3	17.2	7.97		
INT.VALUE(0-50M):				178.2		49.1	683.3	208.5			24.1

STATION: 222/ 1 DATE: 4. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.68			5.70		0.19	0.1		8.32		1.20
10	19.77			5.66		0.19	0.1		8.32		1.24
20	18.70			5.58		0.38	2.6		8.29		1.31
30	18.03			4.94		0.58	6.2		8.24		1.37
40	17.31			3.94		0.96	12.3	4.6	8.08		0.47
50	16.30			2.52		1.26	18.5	6.5	8.10		0.29
60	15.74			2.11		1.43	20.8	7.8	8.05		
70	15.37			1.87		1.61	22.6	9.1	8.04		
80	15.19			1.76		1.64	22.3	9.4	8.02		
90	15.33			1.84		1.64	22.9	10.0	8.01		
100	15.38			1.86		1.64	21.4	10.7	7.99		
INT.VALUE(0-50M):				242.4		28.4	305.0				51.3

STATION: 222/ 2 DATE: 5. 3.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.89			5.68		0.32	2.7	1.7	8.31		1.27
10	18.84			5.48		0.38	3.0	1.7	8.30		1.32
20	18.69			5.44		0.39	3.6	1.7	8.29		1.18
30	15.88			4.74		0.64	6.7	3.5	8.28		1.18
40	16.63			2.58		1.28	20.3	6.5	8.10		0.63
50	15.97			2.00		1.43	23.6	8.5	8.06		0.35
60	15.55			2.16		1.49	23.3	6.7	8.06		0.31
70	15.04			1.88		1.64	25.5	10.0	8.04		0.25
80	15.05			1.80		1.64	25.2	10.2	8.03		
90	15.14			2.20		1.62	25.2	10.4	8.04		
100	15.16			1.94		1.67	24.9	10.7	8.03		
INT.VALUE(0-50M):				221.3		40.0	466.8	185.0			51.1

STATION: 222/ 3 DATE: 5. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.62			5.45		0.54	5.7	2.6	8.30		1.36
10	18.57			5.38		0.47	4.2	2.2	8.29		1.49
20	18.01			4.91		0.64	7.5	2.6	8.26		1.16
30	17.57			4.31		0.85	10.8	3.7	8.22		0.88
40	17.56			4.32		0.82	11.1	4.0	8.22		1.24
50	17.51			4.19		0.89	12.0	3.9	8.21		0.83
60	16.25			2.42		1.40	21.1	7.1	8.09		0.25
70	15.53			1.88		1.61	24.4	8.4	8.06		0.25
80	15.01			1.76		1.69	25.3	9.9	8.04		
90	15.03			1.72		1.72	25.9	10.3	8.03		
100	15.01			1.52		1.72	25.9	10.5	8.03		
INT.VALUE(0-50M):				237.6		35.1	428.3	158.5			58.3



STATION: 222/ 4 DATE: 5. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.49	36.29	25.90	5.49	105.8	0.29	2.4	1.6	8.28		1.59
10	19.44	36.28	25.91	5.48	105.5	0.35	2.4	1.3	8.28		1.62
20	19.22	36.27	25.96	5.38	103.1	0.38	3.4	1.7	8.26		1.42
30	17.98	36.20	26.22	4.03	75.4	0.80	11.4	3.2	8.16		0.46
40	17.28	36.17	26.37	3.37	62.2	1.11	16.8	4.9	8.11		0.41
50	15.78	36.05	26.63	1.89	33.9	1.53	24.5	8.1	8.02		0.07
60	15.18	36.00	26.73	1.80	31.9	1.64	25.2	9.5	8.01		
70	15.07	35.99	26.75	1.86	32.8	1.62	24.2	9.8	8.01		
80	15.00	35.98	26.76	1.75	30.9	1.66	25.4	10.2	8.00		
90	14.98	35.99	26.77	1.71	30.1	1.66	25.6	10.4	8.00		
100	14.91	35.99	26.78	1.66	29.2	1.72	25.6	10.4	8.00		
INT.VALUE(0-50M):				219.6		35.4	474.5	160.3			47.4

STATION: 222/ 5 DATE: 5. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.05	36.26	25.99	6.89	131.7	0.41	4.0	2.2	8.24		1.73
10	18.99	36.30	26.04	4.59	87.6	0.59	8.0	2.7	8.20		1.28
20	17.25	36.17	26.38	3.29	60.7	1.06	17.2	5.1	8.09		0.35
30	16.39	36.12	26.54	2.83	51.3	1.35	22.7	7.4	8.04		0.27
40	16.17	36.04	26.54	2.19	89.5	1.41	24.0	7.4	8.02		0.26
50	15.91	36.05	26.60	2.54	45.6	1.47	24.7	8.3	8.02		0.20
60	15.75	36.01	26.61	1.86	33.3	1.50	25.7	8.3	8.01		0.25
70	15.33	35.99	26.69	1.96	34.8	1.54	25.8	8.7	8.00		0.13
80	15.19	35.99	26.72	1.81	32.0	1.65	26.0	10.0	7.98		0.13
90	15.11	36.00	26.75	1.79	31.6	1.66	26.0	10.3	7.97		
100	14.97	35.98	26.76	1.72	30.3	1.69	26.3	10.5	7.97		
INT.VALUE(0-50M):				182.0		53.1	852.5	277.3			32.4

STATION: 222/ 6 DATE: 6. 3.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.08	36.27	25.99	5.32	101.7	0.34	3.3	2.2	8.29		1.18
10	19.08	36.26	25.98	5.26	100.6	0.28	5.0	1.8	8.29		1.18
20	19.01	36.27	26.01	5.33	101.8	0.31	4.0	2.2	8.28		1.00
30	18.54	36.29	26.15	5.07	96.0	0.38	4.3	2.2	8.26		0.82
40	18.29	36.24	26.17	4.71	88.7	0.53	7.5	2.4	8.23		0.44
50	17.76	36.20	26.27	3.68	68.6	1.09	12.7	4.0	8.16		0.19
60	16.60	36.11	26.49	1.62	29.5	1.56	21.3	6.7	8.08		0.31
70	15.38	35.99	26.68	1.72	30.6	1.78	24.7	8.6	8.03		0.30
80	15.22	36.00	26.72	1.77	31.4	1.84	24.7	9.7	8.01		0.19
90	15.02	35.99	26.76	1.74	30.7	1.88	24.7	10.3	8.00		
100	14.94	35.99	26.78	1.33	23.2	1.88	24.7	11.0	7.97		
INT.VALUE(0-50M):				248.9		22.2	283.8	118.0			41.3

STATION: 222/ 7 DATE: 6. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.84	36.26	26.05	5.30	100.9	0.47	4.4	2.4	8.27		1.66
10	18.84	36.25	26.04	5.30	100.9	0.48	4.6	1.6	8.26		1.59
20	18.76	36.25	26.06	5.21	99.0	0.56	5.8	2.2	8.26		1.36
30	17.27	36.13	26.34	3.22	59.4	1.19	16.6	4.7	8.12		0.85
40	16.12	36.02	26.53	2.40	43.3	1.47	22.0	6.8	8.06		0.30
50	15.36	35.98	26.68	1.75	31.1	1.75	25.4	8.9	8.00		0.20
60	15.00	35.98	26.76	1.75	30.9	1.81	25.1	9.5	7.99		0.20
70	14.99	35.99	26.77	1.64	28.9	1.84	26.1	10.4	7.99		0.67
80	15.00	35.98	26.76	1.67	29.4	1.84	26.1	10.4	7.98		0.27
90	15.00	35.98	26.76	1.66	29.3	1.81	25.4	10.2	7.98		
95	15.00	35.98	26.76	1.66	29.3	1.88			7.96		
INT.VALUE(0-50M):				196.6		48.1	638.5	211.5			50.5

STATION: 222/ 8 DATE: 6. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.22	36.27	25.96	5.40	103.5	0.29	3.6	2.0	8.27	2.416	
10	19.02	36.27	26.01	5.37	102.6	0.29	3.9	1.8	8.26	2.416	
20	18.41	36.22	26.13	4.75	89.7	0.60	7.2	2.0	8.20	2.416	
30	17.73	36.19	26.27	4.02	74.9	0.95	12.5	3.5	8.15	2.416	
40	16.93	36.13	26.42	3.00	55.0	1.11	16.1	5.3	8.10	2.416	
50	16.70	36.12	26.47	2.78	50.7	1.22	19.0	6.1	8.06	2.416	
60	15.93	36.04	26.59	1.94	34.9	1.40	22.0	7.7	8.06	2.403	
70	15.46	36.00	26.67	1.93	34.4	1.47	23.0	7.8	8.02	2.403	
80	15.09	36.00	26.75	1.78	31.4	1.54	24.3	8.7	7.99	2.403	
90	14.81	35.96	26.78	1.57	27.6	1.62	23.6	9.2	7.98	2.403	
100	14.82	35.96	26.78	2.58	45.3	1.66	24.9	9.6	7.98	2.403	

INT.VALUE(0-50M): 212.4 37.1 499.3 167.0

STATION: 222/ 9 DATE: 6. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.90	36.25	26.02	5.21	99.3	0.40	4.3	2.9	8.27	2.416	
10	18.91	36.24	26.01	5.25	100.0	0.49	4.3	2.0	8.27	2.416	
20	18.90	36.22	26.00	5.14	97.9	0.40	4.0	2.0	8.26	2.416	
30	18.08	36.22	26.21	4.48	84.0	0.70	9.0	2.6	8.21	2.416	
40	17.35	36.17	26.35	3.59	66.4	1.22	19.3	6.0	8.07	2.403	
50	16.56	36.10	26.49	2.59	47.1	1.47	23.0	7.9	8.04	2.403	
60	15.69	36.01	26.62	1.83	32.7	1.47	22.3	7.9	8.04	2.403	
70	15.34	36.01	26.70	1.93	34.3	1.47	22.3	8.0	8.03	2.403	
80	14.99	35.99	26.77	1.67	29.4	1.62	24.3	10.4	8.01	2.403	
90	14.95	35.97	26.76	1.60	28.2	1.62	23.7	10.7	8.01	2.403	
100	14.87	35.98	26.79	1.63	28.7	1.68	24.3	10.9	7.99	2.403	

INT.VALUE(0-50M): 223.6 37.2 502.5 182.3

STATION: 222/10 DATE: 7. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.11	36.27	25.98	5.36	102.5	0.20	1.7	1.4	8.30	2.430	
10	19.10	36.27	25.99	5.22	99.9	0.26	2.4	1.4	8.29	2.430	0.68
20	18.59	36.32	26.16	5.14	97.4	0.31	3.5	1.6	8.26	2.430	
30	18.04	36.22	26.22	4.01	75.2	0.61	8.0	2.7	8.23	2.430	
40	17.82	36.23	26.28	4.24	79.1	0.82	10.6	3.5	8.20	2.430	
50	16.43	36.18	26.58	4.16	72.6	0.87	13.1	3.9	8.18	2.416	
60	16.38	36.13	26.55	4.47	81.1	1.22	19.5	6.5	8.10	2.416	0.25
70	15.39	36.00	26.68	1.91	33.9	1.36	21.6	7.6	8.08	2.403	
80	14.97	35.98	26.76	1.67	29.2	1.51	24.4	10.0	8.05	2.403	
90	14.88	35.98	26.78	1.65	29.0	1.68	25.4	10.2	8.04	2.403	
100	14.80	35.98	26.80	1.78	31.3	1.59	24.4	10.5	8.04	2.403	
INT.VALUE(0-50M):				234.1		25.2	317.3	118.5			

STATION: 224 DATE: 7. 3.1983 TIME: 11.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.73	36.30	25.85	5.58	108.0			0.7	8.32	2.430	
10	19.72	36.30	25.85	5.57	107.8	0.12		0.5	8.32	2.430	
20	19.70	36.29	25.85	5.56	107.6	0.12		0.5	8.31	2.430	
30	19.02	36.28	26.02	4.70	89.8	0.51	4.8	0.9	8.25	2.430	
40	18.41	36.21	26.12	4.97	93.8	0.60	5.4	1.2	8.24	2.430	
50	17.43	36.18	26.34	2.77	51.3	1.11	16.0	5.0	8.12	2.416	
60	16.60	36.07	26.46	2.50	45.5	1.35	20.4	6.3	8.06	2.416	
75	15.99	36.10	26.62	1.63	29.3	1.32	20.7	6.2	8.05	2.416	
100	14.53	35.93	26.82	1.46	25.5	1.62	26.2	9.3	8.01	2.403	
150	13.96	35.91	26.93	1.39	24.0	1.65	27.2	10.2	8.00	2.403	
190	13.72	35.89	26.97	1.39	23.9	1.68	27.9	11.6	7.99	2.403	
INT.VALUE(0-50M):				249.8				60.0			

STATION: 225 DATE: 7. 3.1983 TIME: 13.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.94	36.23	26.00	6.19	118.0	0.06		1.5	8.32	2.416	5.91
10	18.70	36.28	26.10	6.02	114.3	0.12		1.8	8.32	2.416	4.25
20	16.72	36.17	26.50	4.01	73.2	0.99		4.8	8.17	2.403	0.30
30	16.37	36.12	26.55	3.35	60.8	1.14		5.9	8.12	2.403	0.74
50	15.50	36.03	26.68	1.72	30.6	1.47		8.6	8.02	2.389	0.89
75	15.11	36.05	26.79	2.00	35.4	1.47		9.2	8.03	2.389	
100	14.67	36.01	26.85	1.69	29.6	1.50		9.7	8.02	2.389	
125	14.29	35.98	26.91	1.65	28.6	1.53		9.9	8.04	2.389	
150	14.01	35.94	26.94	1.53	26.4	1.59		10.8	8.02	2.389	
250	13.12	35.91	27.11	1.47	24.9	1.59		12.8	8.01	2.389	
350	11.73	35.74	27.25	1.25	20.6	1.79		15.8	7.98	2.389	
INT.VALUE(0-50M):				199.2		43.1		247.3			99.3

STATION: 226/ 1 DATE: 7. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.16	36.25	25.96								5.41
10	18.96	36.29	26.04	6.14	117.2	0.03	0.4	1.3	8.33	2.403	6.51
20	17.67	36.18	26.28	5.99	111.5	0.09	0.4	1.1	8.33	2.403	
30	16.86	36.06	26.39	4.18	76.5	0.78	11.2	3.3	8.01	2.367	
40	16.21	36.00	26.50	1.66	30.0	1.31	23.5	6.6	8.02	2.367	
50	16.00	36.00	26.54	1.36	24.5	1.43	29.9	7.5	8.01	2.367	
60	15.68	36.00	26.62	1.26	22.5	1.44	26.3	7.5	8.01	2.367	
75	15.64	36.06	26.67	1.31	23.4	1.44	26.4	8.1	8.01	2.367	
100	14.80	35.97	26.79	1.42	24.9	1.53	27.7	9.2	8.00	2.367	
125	14.37	35.89	26.83	1.37	23.8	1.56	27.7	9.9	8.00	2.367	
150	14.01	35.89	26.90	1.41	24.4	1.56	28.7	10.3	8.00	2.367	
INT.VALUE(0-50M):				217.2		29.4	501.1	167.0			

STATION: 226/ 2 DATE: 7. 3.1983 TIME: 19.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.14	36.25	25.96	5.98	114.5	0.01	0.1	2.2	8.37	2.403	4.52
10	19.07	36.21	25.95	5.96	113.9	0.01	0.1	1.5	8.36	2.389	4.97
20	18.09	36.18	26.18	4.65	87.2	0.48	6.7	2.9	8.28	2.351	
60	16.00	36.05	26.58	1.91	34.4	1.29	23.8	7.9	8.25	2.351	
150	13.94	35.88	26.91	1.40	24.1	1.44	27.3	10.6	8.03	2.367	
250	12.55	35.78	27.12	1.23	20.6	1.59	30.8	12.8	8.03	2.367	
350	11.74	35.74	27.25	1.26	20.7	1.65	30.3	14.1	7.99	2.367	
450	10.57	35.61	27.37	1.23	19.7	1.71	32.9	14.1	8.00	2.367	
550	9.90	35.55	27.44	1.46	23.1	1.89	34.0	18.0	7.98	2.351	
650	8.52	35.40	27.55	1.60	24.5	2.10	36.4	21.6	7.96	2.351	
750	7.45	35.30	27.63	1.86	27.8	2.19	36.8	22.7	7.96	2.351	
INT.VALUE(0-60M):				244.0		38.0	644.1	258.3			

STATION: 227 DATE: 7. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.94	36.24	26.01	5.20	99.2	0.24	4.4	2.0	8.30	2.403	
10	18.93	36.25	26.02	5.13	97.8	0.26	4.2	2.0	8.30	2.403	
20	18.82	36.21	26.01	5.16	98.2	0.27	5.3	2.0	8.28	2.403	
30	18.34	36.26	26.17	5.13	96.7	0.63	8.8	2.2	8.24	2.403	
40	17.44	36.17	26.33	4.87	90.2	0.72	11.2	2.9	8.23	2.403	
50	17.21	36.14	26.36	4.49	82.8	0.72	11.2	3.1	8.22	2.403	
60	16.92	36.10	26.40	2.71	49.7	0.93	15.8	4.4	8.18	2.389	
75	15.91	36.02	26.58	1.72	30.9	1.26	21.4	7.3	8.10	2.389	
100	15.40	36.04	26.71	1.51	26.8	1.44	26.3	8.6	8.05	2.367	
125	14.62	35.96	26.83	1.34	23.4	1.47	28.0	9.0	8.05	2.367	
150	14.00	35.90	26.91	1.49	25.7	1.52	27.7	9.5	8.04	2.367	
INT.VALUE(0-50M):				251.5		23.6	373.5	116.5			

STATION: 230/ 1 DATE: 8. 3.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.99	36.23	25.72	5.45	106.0	0.16	0.1	1.0	8.34	2.389	
10	20.00	36.22	25.71	5.46	106.2	0.16	0.1	1.0	8.34	2.389	
20	19.99	36.22	25.72	5.47	106.3	0.16	0.1	1.0	8.34	2.389	
30	19.31	36.31	25.96	5.16	99.1	0.28	2.3	1.2	8.29	2.403	
40	19.36	36.62	26.19	4.88	94.0	0.31	3.0	1.4	8.30	2.403	
50	19.25	36.61	26.21	4.71	90.5	0.41	3.7	1.7	8.30	2.403	
60	18.70	36.57	26.32	2.72	51.7	0.57	8.0	2.6	8.25	2.403	
75	16.91	36.40	26.64	1.70	31.2	1.29	22.3	6.2	8.07	2.389	
100	15.49	36.14	26.77	1.45	25.8	1.51	26.0	8.1	8.06	2.367	
125	14.62	36.00	26.86	1.47	25.7	1.64	27.3	9.1	8.04	2.367	
150	13.87	35.90	26.94	1.35	23.3	1.70	28.3	10.0	8.04	2.351	
INT.VALUE(0-50M):				260.5		12.0	74.0	59.5			

STATION: 230/ 2 DATE: 8. 3.1983 TIME: 08.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	13.79	35.89	26.95	1.44	24.8	1.70	28.3	10.0	7.97	2.351	
250	12.32	35.73	27.13	1.38	23.0	1.83	30.3	12.4	7.93	2.337	
350	11.49	35.67	27.24	1.49	24.4	1.86	31.0	13.8	7.95	2.337	
450	10.53	35.59	27.36			1.95	33.3	14.1	7.96	2.337	
550	9.37	35.46	27.46	1.31	20.4	2.28	38.0	19.8	7.91	2.337	
650	8.46	35.39	27.55	1.68	25.7	2.36	38.7	22.4	7.89	2.337	
750	7.67	35.41	27.69	1.91	28.7	2.36	38.7	24.3	7.92	2.337	

STATION: 232 DATE: 8. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.82	36.20	25.48	5.29	104.4	0.03	0.1	1.4	8.30	2.416	0.22
10	20.82	36.21	25.49	5.23	103.2	0.06	0.1	1.2	8.30	2.416	0.09
20	20.71	36.22	25.52	5.27	103.8	0.03	0.1	1.2	8.30	2.416	0.33
30	19.72	36.36	25.89	5.35	103.6	0.11	0.1	1.5	8.31	2.416	0.68
50	18.55	36.47	26.28	3.32	62.9	0.75	11.9	4.1	8.32	2.416	0.03
75	16.52	36.21	26.58	2.05	37.3	1.30	22.5	7.8	8.34	2.416	0.00
100	15.38	36.09	26.76	1.71	30.4	1.31	23.4	8.0	8.21	2.403	
150	14.78	36.14	26.93	1.65	29.0	1.41	23.8	8.3	8.06		
250	12.95	35.86	27.10	1.66	28.0	1.66	28.4	11.4	8.09		
350	12.18	35.82	27.23						8.09		
INT.VALUE(0-50M):				245.1		10.1	123.0	95.0			16.1

STATION: 233 DATE: 8. 3.1983 TIME: 20.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.91			5.21		0.03	0.1	1.4	8.37	2.416	0.43
10	20.89			5.23		0.13	0.1	1.1	8.37	2.416	0.24
20	20.91			5.23		0.09	0.1	1.2	8.37	2.416	0.41
30	19.67			5.45		0.09	0.1	1.4	8.40	2.416	0.53
40	19.67			5.43		0.16	0.9	1.2	8.34	2.430	0.66
50	19.33			4.96		0.20	0.9	1.6	8.34	2.430	0.36
60	19.20			4.86		0.30	3.1	1.6	8.33	2.430	0.44
75	18.10			3.76		0.75	13.1	3.4	8.24	2.416	
100	16.69			2.01		1.16	21.3	6.4	8.13	2.403	
125	15.65			1.87		1.53	24.4	7.4	8.12	2.389	
150	14.70			1.69		1.53	27.2	9.1	8.08	2.351	
INT.VALUE(0-50M):				264.3		5.6	17.0	64.8			22.9

STATION: 234 DATE: 9. 3.1983 TIME: 00.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.62			5.27		0.13	0.3	0.7	8.33	2.403	0.24
10	20.63			5.21				0.5	8.32	2.403	
20	20.66			5.23				0.6	8.32	2.403	0.23
30	20.40			5.29				1.1	8.30	2.403	0.64
50	18.38			4.19				2.6	8.20	2.403	
75	18.35			3.57		0.73	12.2	3.6	8.17	2.403	
100	16.90			2.20		1.17	20.8	5.8	8.09	2.389	
125	16.00			2.04		1.20	22.1	6.7	8.07	2.389	
150	15.43			1.97		1.30	24.0	7.4	8.06	2.389	
250	13.48			1.83		1.43	27.8	9.8	8.03	2.367	
350	12.10			1.84		1.71	30.7	12.1	8.00	2.367	
INT.VALUE(0-50M):				252.2				56.5			

STATION: 235 DATE: 9. 3.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.67			5.23		0.02	0.1	0.6	8.30	2.389	
10	20.69			5.25		0.03	0.1	0.6	8.30	2.389	
20	20.69			5.27		0.05	0.1	0.9	8.30	2.389	0.29
30	20.85			5.27		0.06	0.1	0.9	8.30	2.389	0.37
40	20.55			5.29		0.16	0.1	1.1	8.32	2.389	
50	19.31			5.16		0.19	0.1	1.1	8.28	2.389	0.95
60	20.15			5.19		0.13	0.1	1.1	8.24	2.839	
75	18.87			4.73		0.47	9.4	1.1	8.22	2.839	
100	17.75			2.71		0.98	17.7	4.5	8.10	2.839	
125	15.62			2.44		1.31	21.3	5.8	8.08	2.839	
150	15.58			2.06		1.39	23.9	7.1	8.03	2.367	
INT.VALUE(0-50M):				262.8		4.0	5.0	43.5			

STATION: 236/ 1 DATE: 9. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.12			5.13		0.14	0.1	0.5	8.32	2.367	0.30
10	21.25			5.13		0.06	0.1	0.5	8.32	2.367	0.08
20	20.82			5.23		0.06	0.1	0.7	8.32	2.389	0.43
30	19.45			5.45		0.09	0.1	1.1	8.31	2.403	0.56
40	19.47			5.33		0.09	0.1	0.7	8.29	2.403	0.55
50	19.45			4.91		0.20	1.5	0.8	8.25	2.416	0.19
60	19.31			4.89		0.27	2.3	1.2	8.25	2.416	
75	19.23			4.24		0.38	3.9	1.2	8.24	2.416	
100	19.19			4.02		0.57	8.7	2.5	8.16	2.403	
125	17.31			2.46		1.18	21.3	5.6	8.05	2.389	
150	16.29			2.28		1.23	19.4	6.5	8.04	2.389	
INT.VALUE(0-50M):				261.7		4.9	12.0	36.5			19.2
1% - LIGHTLEVEL:				37M							

STATION: 236/ 2 DATE: 9. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	15.30			2.02		0.95	24.8	8.7	8.08	2.367	
250	15.64			1.86		1.17	29.3	10.4	8.02	2.351	
350	12.79			3.16					8.01	2.351	
450	10.77			1.76		1.53	34.5	15.0	7.99	2.351	
550	9.26			1.58		1.86	37.4	19.4	7.96	2.337	
650	8.50			1.95		1.92	37.7	21.3	7.97	2.337	
750	7.70			2.20		2.05	37.4	23.5	7.98	2.337	

STATION: 237/ 1 DATE: 9. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.45			5.13		0.03	0.2	1.4	8.33	2.389	0.32
10	21.47			5.21		0.03	0.2	1.2	8.33	2.403	0.06
20	21.25			5.23		0.09	0.2	1.6	8.33	2.403	0.21
30	21.34			5.43		0.03	0.2	1.3	8.32	2.403	0.54
40	19.64			5.39		0.03	0.2	1.7	8.32	2.416	0.65
50	19.22			4.91		0.22	0.2	1.8	8.28	2.416	1.09
60	19.22			4.91		0.23	2.4	2.0	8.24	2.430	0.56
75	18.87			4.76		0.31	5.5	2.5	8.23	2.430	0.11
100	17.36			2.90		0.71	14.7	5.1	8.13	2.416	
125	16.49			2.35		1.04	18.6	6.9	8.07	2.403	
150	15.82			2.16		1.12	20.8	7.7	8.05	2.403	
INT.VALUE(0-50M):				262.7		3.1	10.0	74.5			22.3

STATION: 237/ 2 DATE: 9. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.28	36.21	25.36			0.06	0.2	0.9	8.30	2.389	0.07
20	21.26	36.21	25.36	5.13	102.1	0.03	0.2	0.7	8.30	2.389	
40	19.29	36.69	26.26	5.27	101.4	0.08	0.2	0.7	8.29	2.430	0.71
50	19.30	36.75	26.30	5.03	96.9	0.12	0.8	0.9	8.28	2.430	0.88
100	18.16	36.69	26.55	3.12	58.8	0.62	12.5	3.9	8.14	2.403	
150	16.35	36.43	26.79	2.75	49.9	0.88	17.1	5.2	8.10	2.403	
250	13.62	35.99	27.06	2.16	37.0	1.26	23.8	8.0	8.05	2.389	
350	12.10	35.80	27.23	2.08	34.5	1.46	26.0	9.7	8.01	2.367	
450	10.74	35.63	27.35	1.86	29.9	1.72	30.8	13.4	7.96	2.367	
550	9.25	35.41	27.44	1.53	23.8	2.11	35.7	17.9	7.92	2.351	
650	8.03	35.30	27.55	1.96	29.6	2.14	36.0	20.3	7.93	2.351	
INT.VALUE(0-50M):						3.1	13.0	38.5			22.0

STATION: 237/ 3 DATE: 10. 3.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.30	36.24	25.38	5.23	104.2	0.02	0.2	1.0	8.34	2.403	
10	21.30	36.23	25.38	5.21	103.8	0.02	0.2	1.0	8.34	2.403	
20	21.30	36.23	25.38	5.23	104.2	0.02	0.2	0.9	8.34	2.403	0.17
30	19.94	36.60	26.02	5.49	106.9	0.02	0.2	1.2	8.35	2.403	0.32
40	19.31	36.63	26.21	5.52	106.2	0.03	0.2	1.1	8.33	2.430	0.75
50	19.17	36.68	26.28	5.09	97.7	0.15	0.9	1.1	8.31	2.430	1.06
60	19.14	36.69	26.30	4.95	95.0	0.17	2.6	1.1	8.30	2.430	0.59
75	19.05	36.71	26.34	4.85	92.9	0.20	4.6	1.3	8.29	2.430	0.29
100	18.54	36.69	26.45	3.78	71.7	0.56	9.4	3.0	8.22	2.416	
125	17.98	36.68	26.56	3.09	58.0	0.76	13.0	3.5	8.19	2.416	
150	16.61	36.37	26.68	2.60	47.4	0.82	17.0	5.2	8.15	2.403	
INT.VALUE(0-50M):			266.2		1.8	13.5	52.5				

STATION: 237/ 4 DATE: 10. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.32	36.07	25.24	5.11	101.7	0.02	0.2	0.7	8.35	2.403	0.05
20	21.27	36.11	25.28	5.18	103.0	0.02	0.2	0.7	8.35	2.403	0.55
40	19.40	36.63	26.18	5.33	102.7	0.06	0.2	0.9	8.33	2.430	1.04
50	19.40	36.75	26.27	5.11	98.6	0.15	0.3	0.9	8.32	2.430	0.81
100	18.74	36.71	26.42	3.74	71.2	0.58	9.9	2.5	8.13	2.403	
150	16.04	36.30	26.77	2.28	41.1	1.13	20.3	5.9	8.10	2.403	
250	13.36	35.93	27.07	2.06	35.1	1.40	25.2	8.3	8.07	2.389	
350	11.84	35.76	27.25	2.16	35.6	1.59	27.6	10.2	8.06	2.367	
450	10.61	35.58	27.34	1.46	23.4	1.97	33.6	14.4	7.96	2.351	
550	9.50	35.46	27.44	1.51	23.6	2.18	36.1	17.0	7.95	2.351	
650	8.35	35.32	27.51	1.86	28.3	2.26	36.7	19.5	7.96	2.351	
INT.VALUE(0-50M):			260.1		2.3	10.5	39.0	30.0			

STATION: 237/ 5 DATE: 10. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.52	36.04	25.16	5.12	102.3	0.09	0.3	2.6	8.33		
10	21.51	36.03	25.16	5.16	103.0	0.09	0.2	2.0	8.33		0.16
20	21.37	36.03	25.20	5.18	103.2	0.08	0.2	1.9	8.33		
30	20.71	36.44	25.69	5.33	105.1	0.08	0.2	1.9	8.33		0.15
40	19.50	36.56	26.10	5.39	104.1	0.12	0.2	1.9	8.32		0.50
50	19.09	36.58	26.23	4.53	86.8	0.36	3.3	1.9	8.26		0.70
60	19.17	36.71	26.30	4.77	91.6	0.39	4.6	2.5	8.26		
75	18.99	36.70	26.34	4.63	88.6	0.39	5.8	2.5	8.25		
100	17.96	36.62	26.55	2.99	56.1	0.79	14.2	4.7	8.15		
125	17.02	36.54	26.72	2.91	53.6	0.86	15.5	4.9	8.14		
150	15.89	36.55	26.99	2.57	46.3	1.00	18.8	5.0	8.12		
INT.VALUE(0-50M):				258.8		6.0	26.3	101.9			

STATION: 237/ 6 DATE: 10. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.37	36.02	25.19	5.15	102.3	0.04	0.2	1.6	8.40		
20	19.91	36.54	25.98	5.49	106.8	0.04	0.2	1.5	8.39		0.39
50	19.29	36.74	26.30	5.00	96.3	0.16	2.7	0.9	8.35		0.33
100	17.28	36.53	26.64	2.58	47.7	0.92	17.0	5.8	8.21		
150	15.66	36.25	26.81	2.16	38.7	1.12	21.5	7.5	8.16		
250	13.51	35.84	26.97	2.05	35.0	1.36	24.5	9.4	8.15		
350	12.18	35.79	27.20	1.97	32.7	1.56	28.1	11.5	8.12		
450	10.69	35.58	27.32	1.69	27.2	1.76	30.6	13.9	8.08		
550	9.14	35.39	27.44	1.51	23.4	2.20	36.7	20.3	8.02		
650	8.18	35.30	27.52	1.87	28.4	2.24	35.5	22.7	8.03		
750	7.27	35.32	27.62	2.25	33.4	2.32	35.2	25.0	8.05		
INT.VALUE(0-50M):				263.0		3.8	47.5	67.3			

STATION: 237/ 7 DATE: 11. 3.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.37	36.08	25.23								
10	21.37	36.08	25.23	5.16	102.8	0.09	0.2	1.3	8.33	2.367	
20	21.32	36.10	25.26	5.21	103.7	0.04	0.2	1.2	8.33	2.367	
30	20.19	36.50	25.87	5.45	106.5	0.04	0.2	1.5	8.32	2.367	0.44
40	19.54	36.58	26.11	5.43	104.9	0.04	0.2	1.7	8.30	2.403	0.63
50	19.42	36.70	26.23	5.23	100.9	0.09	0.2	1.5	8.28	2.416	0.95
60	19.31	36.72	26.28	5.03	96.8	0.11	0.8	1.6	8.27	2.416	0.45
75	19.20	36.72	26.30	4.91	94.3	0.19	1.9	1.7	8.26	2.403	0.22
100	18.39	36.65	26.46	3.82	72.3	0.57	5.6	3.8	8.19	2.403	
125	17.24	36.50	26.63	2.67	49.4	0.91	9.8	6.2	8.11	2.389	
150	16.44	36.37	26.72	2.42	44.0	1.25	11.7	7.3	8.06	2.389	

STATION: 237/ 8 DATE: 11. 3.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
200	14.78	36.16	26.94	2.48	43.6	1.51	19.6	8.3	8.17	2.351	
500	10.13	35.53	27.38	1.62	25.7	1.88	32.6	17.9	8.05	2.337	
800	7.05	35.20	27.61	2.38	35.2	2.14	34.3	27.4	8.04	2.337	
1100	6.20	35.32	27.82	3.20	46.4	1.83	29.6	25.0	8.10	2.337	
1400	5.01	35.33	27.97	4.27	60.2	1.63	25.8	26.7	8.15	2.337	
1700	4.08	35.28	28.04	4.87	67.1	1.51	24.6	28.0	8.16	2.337	
2000	3.57	35.25	28.07	5.02	68.2	1.44	23.4	29.0	8.18	2.351	
2600	3.25	35.23	28.08	5.42	73.1	1.48	22.5	37.9	8.16	2.351	
2900	2.98	35.21	28.09	5.48	73.4	1.51	22.5	41.7	8.16	2.367	
3200	2.78	35.14		5.29	70.5	1.53	23.7	48.7	8.14	2.389	

STATION: 237/ 9 DATE: 11. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.36	36.02	25.19	5.21	103.7	0.07	0.1	2.3	8.32	2.367	
20	21.35	36.04	25.21	5.19	103.3	0.03	0.1	1.8	8.32	2.367	0.28
50	19.32	36.72	26.27	5.00	96.3	0.18	1.4	1.9	8.26	2.416	0.91
100	17.52	36.58	26.62	2.79	51.9	0.90	15.8	5.3	8.10	2.367	
150	15.16	36.09	26.81	1.74	30.8	1.37	24.5	8.4	7.98	2.351	
250	13.17	35.87	27.07	1.92	32.6	1.51	27.0	10.5	7.95	2.351	
350	11.93	35.75	27.22	1.90	31.4	1.71	29.6	12.3	7.92	2.337	
450	10.56	35.75	27.48	1.56	25.0	1.96	32.9	14.8	7.87	2.337	
550	9.23	35.40	27.43	1.52	23.6	2.29	36.9	19.5	7.82	2.323	
650	8.29	35.31	27.51	1.87	28.4	2.32	36.6	21.7	7.82	2.323	
750	7.37	35.23	27.59	2.26	33.6	2.38	36.1	23.7	7.83	2.323	
INT.VALUE(0-50M):				257.0		4.3	24.5	97.8			
1%-LIGHTLEVEL: 54M											

STATION: 237/10 DATE: 11. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.47	36.04	25.18	5.15	102.8	0.08	0.1	3.4	8.31	2.389	0.25
20	20.31	36.48	25.83	5.40	105.8	0.06	0.1	2.5	8.31	2.389	
50	19.27	36.73	26.29	5.01	96.4	0.21	2.0	2.7	8.23	2.389	0.68
100	17.80	36.58	26.55	2.74	51.2	0.90	16.1	8.5	8.07	2.403	
150	15.95	36.27	26.76	2.21	39.8	1.26	21.1	11.0	8.01	2.389	
250	13.95	36.03	27.03	2.22	38.3	1.31	23.7	13.2	7.97	2.367	
350	12.14	35.78	27.20	1.89	31.4	1.62	29.0	17.5	7.91	2.367	
450	10.77	35.61	27.33	1.87	30.1	1.76	33.0	19.7	7.88	2.351	
550	9.37	35.42	27.43	1.84	28.7	2.24	35.1	28.2	7.81	2.337	
650	8.32	35.31	27.51	1.88	28.6	2.34	36.9	31.0	7.81	2.337	
750	7.30	35.23	27.60	2.28	33.9	2.41	37.8	34.9	7.80	2.337	
INT.VALUE(0-50M):				261.1		5.5	33.5	139.3	22.2		

STATION: 237/11 DATE: 11. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.46	36.05	25.19	4.48	89.4	0.08	0.1	2.3	8.35	2.367	0.11
10	21.46	36.04	25.18	5.09	101.5	0.03	0.1	1.7	8.35	2.367	0.48
20	20.66	36.41	25.68	5.40	106.4	0.01	0.1	1.7	8.36	2.403	0.52
30	19.90	36.55	25.99	4.95	96.3	0.03	0.1	1.5	8.35	2.416	0.62
40	19.26	36.64	26.23	4.93	94.8	0.16	0.7	2.2	8.30	2.416	1.44
50	19.19	36.66	26.26	4.90	94.1	0.21	2.4	1.7	8.30	2.416	
60	19.10	36.70	26.32	4.84	92.8	0.26	3.4	1.9	8.29	2.416	0.30
75	18.82	36.67	26.36	4.49	85.6	0.39	5.8	2.8	8.27	2.416	0.45
100	18.36	36.55	26.39	3.42	64.6	0.61	11.2	4.7	8.20	2.416	
125	16.74	36.39	26.67	2.36	43.2	0.95	17.5	6.8	8.14	2.403	
150	15.89	36.34	26.83	2.42	43.5	0.95	17.8	6.8	8.15	2.403	
INT.VALUE(0-50M):				249.1		3.9	22.5	92.5			20.8

STATION: 237/12 DATE: 12. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.37	36.04	25.20	5.24	104.4	0.07	0.1	1.9	8.32	2.367	
20	21.30	36.03	25.22	5.23	104.0	0.12	0.1	1.7	8.32	2.367	0.30
50	19.20	36.72	26.30	4.90	94.2	0.38	4.1	2.3	8.25	2.403	
100	17.53	36.48	26.54	2.64	49.1	0.95	17.4	6.0	8.09	2.367	
150	16.00	36.36	26.82	2.60	46.9	1.01	19.0	6.5	8.07	2.367	
250	13.39	35.90	27.04	1.98	33.8	1.40	27.0	9.8	7.97	2.351	
350	12.14	35.77	27.20	1.91	31.7	1.56	29.0	11.9	7.94	2.337	
450	10.52	35.57	27.34	1.56	25.0	1.86	32.6	15.2	7.89	2.337	
550	9.21	35.39	27.43	1.57	24.4	2.13	37.2	19.6	7.83	2.323	
650	8.32	35.30	27.50	1.86	28.3	2.19	38.1	22.1	7.83	2.323	
750	7.35	35.22	27.58	2.24	33.3	2.19	37.0	24.6	7.84	2.323	
INT.VALUE(0-50M):				287.9		9.3	65.0	96.5			

STATION: 237/13 DATE: 12. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.35	36.03	25.20	5.20	103.5	0.12	0.1	1.5	8.36	2.403	
10	21.34	36.02	25.20	5.16	102.7	0.03	0.1	1.3	8.36	2.403	
20	21.35	36.03	25.20	5.15	102.5	0.06	0.1	0.9	8.36	2.367	
30	20.38	36.41	25.76	5.42	106.3	0.06	0.1	1.0	8.35	2.403	0.33
40	19.34	36.59	26.17	5.30	102.0	0.12	0.1	1.2	8.36	2.416	1.04
50	19.47	36.70	26.22	5.35	103.3	0.12	0.1	1.6	8.35	2.416	0.65
60	19.33	36.71	26.26	5.09	98.0	0.16	0.6	1.6	8.33	2.416	
75	19.10	36.73	26.34	4.72	90.5	0.37	7.9	2.2	8.32	2.403	0.28
100	18.47	36.63	26.42	3.52	66.7	0.69	11.0	4.2	8.24	2.403	
125	17.36	36.51	26.61	2.54	47.1	1.04	17.4	5.6	8.25	2.403	
150	16.03	36.32	26.78	2.21	39.9	1.24	20.3	6.9	8.15	2.389	
INT.VALUE(0-50M):				263.2		4.1	5.0	60.0			

STATION: 238 DATE: 13. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.84	35.82	24.91	5.09	102.1	0.08	0.9	2.4	8.35	2.337	
10	21.85	35.81	24.90	5.13	102.9	0.01	0.6	2.0	8.35	2.337	
20	21.85	35.81	24.90	5.13	102.9	0.04	0.6	2.0	8.35	2.337	
30	21.81	35.83	24.92	5.11	102.5	0.08	0.3	1.7	8.35	2.337	
50	19.49	36.64	26.17	5.25	101.4	0.10	0.3	1.8	8.34	2.367	
75	19.10	36.70	26.32	4.66	89.4	0.31	5.6	2.6	8.28	2.367	
100	17.40	36.46	26.56	2.53	46.9	1.01	18.3	5.7	8.15	2.367	
125	16.10	36.31	26.78	2.30	41.5	1.14	20.3	7.2	8.15	2.351	
150	15.76	36.27	26.81	2.30	41.2	1.21	21.4	7.3	8.14	2.367	
250	12.62	35.72	27.06	1.53	25.6	1.83	31.3	11.7	8.05	2.351	
350	11.42	35.62	27.22	1.37	22.4	2.06	35.2	14.4	8.01	2.323	
INT.VALUE(0-50M):				257.2		3.3	24.8	96.5			

STATION: 239 DATE: 13. 3.1983 TIME: 08.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.68	35.83	24.96	5.09	101.8	0.03	0.1	1.2	8.35	2.351	0.28
10	21.68	35.83	24.96	5.11	102.2	0.03	0.1	1.0	8.35	2.351	0.32
20	21.68	35.83	24.96	5.11	102.2	0.06	0.1	1.0	8.35	2.351	0.25
30	21.68	35.83	24.96	5.19	103.8	0.08	0.1	1.0	8.35	2.351	0.27
40	20.22	36.55	25.90	5.29	103.5	0.14	0.1	1.1	8.35	2.389	1.06
50	19.73	36.57	26.05	5.22	101.2	0.14	0.1	1.8	8.35	2.389	0.86
60	19.02	36.54	26.21	4.08	78.0	0.56	7.3	1.6	8.26	2.367	0.26
75	17.61	36.36	26.43	1.89	35.2	1.44	23.7	7.5	7.92	2.323	0.10
100	16.05	36.16	26.66	1.83	33.0	1.50	25.1	7.5	8.08	2.351	
125	15.55	36.16	26.77	1.85	33.0	2.39	37.5	21.9	8.09	2.337	
INT.VALUE(0-50M):				258.6		4.0	5.0	56.5			24.6
1% - LIGHTLEVEL: 50M											

STATION: 240/ 1 DATE: 13. 3.1983 TIME: 13.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.43	36.17	25.29	5.22	104.2	0.05	0.1	1.0	8.32	2.351	0.31
10	21.43	36.17	25.29	5.19	103.6	0.03	0.1	1.0	8.32	2.351	0.30
20	21.29	36.18	25.33	5.19	103.3	0.09	0.1	1.0	8.32	2.351	0.36
30	21.27	36.18	25.34	5.19	103.3	0.11	0.1	0.8	8.32	2.351	0.53
40	21.26	36.18	25.34	5.17	102.9	0.12	0.1	0.7	8.32	2.351	0.42
50	21.06	36.25	25.45	5.01	99.4	0.13	0.1	1.2	8.31	2.351	0.85
60	19.86	36.45	25.92	5.01	97.3	0.16	0.6	1.4	8.32	2.389	0.47
75	17.50	36.14	26.29	2.40	44.5	1.14	18.1	6.9	8.32	2.389	0.34
100	16.25	36.25	26.68	1.91	34.6	1.30	21.4	6.6	8.03	2.389	
125	14.65	35.96	26.82	1.66	29.1	1.56	25.6	8.3	8.05	2.351	
150	13.94	35.85	26.89	1.63	28.1	1.62	26.9	9.2	8.05	2.337	
INT.VALUE(0-50M):				258.6		4.5	5.0	46.0			22.0

STATION: 240/ 2 DATE: 13. 3.1983 TIME: 17.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	14.24	35.91	26.87	1.98	34.4	1.71	25.8	10.0	8.07	2.323	
250	12.93	35.82	27.08	1.72	29.0	1.96	27.8	11.0	8.06	2.308	
350	11.39	35.64	27.24	1.46	23.8	2.16	31.7	14.2	8.03	2.308	
450	10.08	35.48	27.35	1.48	23.5	2.37	34.2	16.3	8.01	2.293	
550	9.06	35.34	27.41	1.74	26.9	2.66	37.2	20.3	7.97	2.293	
650	8.26	35.27	27.49	1.66	25.2	2.71	38.1	22.3	7.97	2.293	
750	7.49	35.22	27.56	1.71	25.5	2.79	38.1	24.3	7.97	2.293	

STATION: 241 DATE: 13. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.52	36.11	25.22	5.04	100.7	0.07	0.3	1.3	8.36	2.323	0.22
10	21.52	36.11	25.22	5.15	102.9	0.12	0.1	1.3	8.36	2.323	0.24
20	21.52	36.12	25.22	5.15	102.9	0.11	0.1	0.8	8.36	2.337	0.20
30	21.19	36.18	25.36	5.16	102.5	0.12	0.1	1.2	8.36	2.351	0.31
40	19.86	36.26	25.78	4.91	95.3	0.30	1.1	1.4	8.32	2.351	1.20
50	19.46	36.27	25.89	4.60	88.6	0.49	4.5	2.8	8.29	2.351	0.56
60	19.21	36.27	25.96	4.30	82.4	0.55	5.9	1.8	8.28	2.351	0.39
75	17.64	36.28	26.36	2.07	38.5	1.24	19.4	5.3	8.13	2.351	
100	16.47	36.25	26.63	1.84	33.5	1.41	22.5	6.9	8.10	2.351	
125	15.27	36.09	26.78	1.72	30.5	1.54	25.1	7.9	8.10	2.377	
150	14.06	35.87	26.88	1.67	28.9	1.70	27.5	9.1	8.08	2.377	
INT.VALUE(0-50M):				251.6		9.2	38.5	67.5			23.4

STATION: 244 DATE: 14. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.33	36.07	25.78	5.34	102.5	0.21	3.9	2.1	8.32	2.351	0.67
10	19.31	36.07	25.78	5.33	102.2	0.21	3.9	2.4	8.31	2.351	0.36
20	18.88	36.04	25.87	4.20	79.9	0.51	9.2	3.1	8.25	2.351	1.03
30	17.60	36.00	26.16	3.66	67.9	0.91	15.7	4.3	8.18	2.351	0.68
40	17.38	36.03	26.24	3.91	72.3	1.01	16.5	4.6	8.17	2.351	0.33
50	17.07	35.99	26.28	3.26	59.9	1.09	18.5	5.5	8.14	2.351	0.62
60	16.94	35.98	26.31	3.15	57.7	1.12	19.3	6.1	8.13	2.351	0.61
75	16.70	35.95	26.34	3.16	57.6	1.12	19.6	6.1	8.13	2.351	
100	16.12	35.95	26.48	1.57	28.3	1.41	24.9	8.2	8.05	2.351	
125	15.04	35.83	26.63	1.43	25.2	1.51	28.0	9.6	8.04	2.337	
150	14.46	35.78	26.72	1.39	24.2	1.55	28.3	9.8	8.04	2.337	

INT.VALUE(0-50M): 214.0 33.0 565.0 181.3 33.2
 1%-LIGHTLEVEL: 50M

STATION: 244 DATE: 14. 3.1983 TIME: 13.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	14.68	35.96	26.81	1.82	31.9	1.67	27.4	9.1	8.00	2.367	
250	12.43	35.67	27.06	1.58	26.4	1.89	31.1	11.9	7.97	2.351	
350	11.16	35.54	27.20	1.53	24.8	2.13	35.0	14.6	7.93	2.351	
450	10.10	35.44	27.32	1.25	19.8	2.21	36.1	16.7	7.91	2.351	
550	9.19	35.36	27.41	1.28	19.9	2.37	36.9	19.4	7.91	2.351	
650	8.26	35.26	27.48	1.46	22.2	2.48	38.6	22.5	7.89	2.337	
750	7.42	35.19	27.55	1.50	22.4	2.56	38.0	25.7	7.89	2.337	

STATION: 245 DATE: 14. 3.1983 TIME: 18.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.89	36.09	25.64	5.62	109.0	0.48	2.5	0.3	8.32	2.351	
10	19.89	36.06	25.62	5.51	104.9	0.41	2.6	0.3	8.32	2.351	
20	19.34	36.04	25.75	5.13	98.4	0.48	4.8	0.3	8.30	2.389	
30	18.65	36.03	25.92	4.21	79.7	0.82	11.0	2.7	8.23	2.389	
40	18.19	35.98	26.00	3.83	71.9	0.97	14.5	3.9	8.19	2.389	
50	17.53	35.91	26.11	3.16	58.5	1.17	18.1	5.7	8.16	2.367	
60	17.03	35.89	26.22	2.08	38.2	1.38	22.3	7.1	8.09	2.367	
75	16.09	35.81	26.38	1.54	27.7	1.54	24.8	8.7	8.07	2.367	
100	15.86	35.88	26.48	1.70	30.5	1.59	25.8	8.7	8.06	2.367	
125	15.23	35.78	26.55	1.42	25.1	1.66	27.6	9.2	8.05	2.367	
150	14.89	35.76	26.61	1.37	24.1	1.73	28.4	9.5	8.04	2.351	
INT.VALUE(0-50M):				195.7		35.2	431.8	102.0			

STATION: 246 DATE: 14. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.26	36.03	25.50	5.49	107.2	0.25	1.1	1.5	8.34	2.403	1.35
10	20.26	36.03	25.50	5.49	107.2	0.23	1.1	1.5	8.34	2.403	1.22
20	19.43	36.02	25.71	4.54	87.3	0.69	9.4	3.2	8.24	2.389	1.09
30	18.09	35.98	26.02	3.84	71.9	0.94	14.4	4.7	8.20	2.389	
40	17.50	35.92	26.12	2.82	52.2	1.20	19.4	6.2	8.15	2.389	
50	16.40	35.80	26.30	2.84	51.4	1.53	24.7	8.6	8.08	2.389	0.35
75	15.45	35.78	26.50	1.71	30.4	1.57	26.1	9.2	8.06	2.367	
100	15.05	35.74	26.56	1.43	25.2	1.61	26.7	8.8	8.06	2.367	
150	14.88	35.80	26.65	1.42	25.0	1.61	27.2	9.0	8.06	2.367	
250	13.42	35.80	26.96	1.45	24.7	1.66	29.2	10.3	8.05	2.367	
350	11.73	35.58	27.13	1.19	19.6	1.86	32.2	13.1	8.02	2.351	
INT.VALUE(0-50M):				208.6		39.6	572.0	206.5			46.4

STATION: 248/ 1 DATE: 15. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.97	36.05	25.59	5.50	106.8	0.25	2.0	1.3	8.34	2.389	
10	19.95	36.04	25.59	5.44	105.6	0.25	2.0	1.3	8.34	2.389	1.08
20	19.93	36.03	25.59	5.40	104.8	0.27	2.0	1.3	8.34	2.389	0.99
30	19.01	36.03	25.83	4.60	87.7	0.56	6.3	2.1	8.30	2.389	0.83
50	16.70	35.83	26.25	1.93	35.2	1.42	23.5	7.4	8.12	2.367	0.19
75	16.14	35.89	26.43	2.09	37.3	1.52	24.9	8.2	8.10	2.367	0.10
100	15.39	35.81	26.54	1.48	26.3	1.67	28.5	8.9	8.08	2.367	
125	14.85	35.75	26.61	1.38	24.2	1.70	28.4	9.1	8.08	2.367	
150	14.40	35.72	26.69	1.37	23.8	1.75	29.7	9.7	8.07	2.367	
250	12.98	35.75	27.01	1.37	23.1	1.82	31.2	10.5	8.06	2.367	
350	11.47	35.58	27.18	1.31	21.4	2.03	34.1	12.4	8.03	2.367	
INT.VALUE(0-50M):				224.4		29.1	406.5	138.0			

STATION: 248/ 2 DATE: 15. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.87	36.06	24.63	5.55	107.6	0.34	2.0	2.9	8.28	2.367	1.07
10	19.80	36.02	25.61	5.49	106.2	0.33	2.4	2.0	8.28	2.367	1.08
20	19.58	36.00	25.66	5.40	104.1	0.38	2.8	2.1	8.28	2.367	0.99
30	18.29	35.90	25.91	4.25	79.9	0.85	12.3	3.6	8.18	2.337	0.97
40	17.39	35.72	26.00	2.86	52.8	1.27	20.0	6.8	8.09	2.351	0.26
50	17.09	35.83	26.16	2.66	48.8	1.37	20.9	7.0	8.07	2.351	0.18
60	16.48	35.90	26.35	2.49	45.2	1.57	23.2	7.1	8.05	2.351	
75	15.96	35.76	26.37	2.17	39.0	1.54	24.2	9.1	8.03	2.351	
100	15.19	35.75	26.54	1.46	25.8	1.75	28.5	9.8	7.98	2.337	
125	14.87	35.79	26.64	1.38	24.2	1.77	29.3	9.8	7.98	2.337	
150	14.47	35.76	26.70	1.39	24.2	1.77	29.9	10.8	7.99	2.337	
INT.VALUE(0-50M):				221.3		36.9	488.5	196.8			

STATION: 248/ 3 DATE: 15. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.18	36.05	25.34	5.52	107.6	0.42	1.7	1.3	8.35	2.367	1.01
10	20.20	36.02	25.51	5.45	106.2	0.17	1.9	1.3	8.35	2.367	1.04
20	19.34	36.05	25.76	4.98	95.6	0.53	5.3	1.9	8.32	2.367	1.02
30	18.77	36.01	25.87	4.41	83.7	0.76	10.1	2.8	8.28	2.367	0.76
50	17.23	35.92	26.19	2.31	42.6	1.34	21.6	6.6	8.15	2.351	
75	16.07	35.80	26.37	1.58	28.4	1.58	25.2	8.8	8.10	2.337	
100	15.76	35.86	26.49	1.76	31.5	1.63	26.1	8.6	8.10	2.337	
125	15.09	35.77	26.58	1.38	24.3	1.65	27.5	8.6	8.10	2.337	
150	14.47	35.70	26.66	1.42	24.7	1.70	29.6	9.7	8.08	2.337	
250	13.19	35.74	26.96	1.44	24.4	1.76	29.9	10.2	8.09	2.337	
350	11.50	35.59	27.18	1.29	21.1	1.97	33.9	13.2	8.06	2.337	
INT.VALUE(0-50M):				221.3		34.5	447.5	146.5			29.4

STATION: 248/ 4 DATE: 15. 3.1983 TIME: 23.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.82	36.05	25.63	5.47	105.9	0.35	2.5	1.2	8.29	2.367	0.96
10	19.82	36.05	25.63	5.45	105.5	0.35	2.8	1.4	8.29	2.367	0.95
20	19.76	36.04	25.64	5.40	104.4	0.35	2.8	1.4	8.29	2.367	1.18
30	18.80	35.93	25.81	4.89	92.8	0.53	5.7	2.2	8.27	2.367	1.16
40	17.33	35.89	26.14	2.84	52.4	1.27	18.6	5.2	8.11	2.351	
50	17.09	35.99	26.28	3.48	64.0	1.20	19.7	6.2	8.13	2.351	
60	16.81	35.98	26.34	3.09	56.5	1.30	20.8	6.4	8.10	2.351	0.12
75	16.15	35.90	26.43	2.17	39.1	1.47	24.7	7.9	8.06	2.351	
100	15.48	35.81	26.52	2.04	36.3	1.59	26.7	9.5	8.04	2.337	
125	14.76	35.80	26.67	1.34	23.5	1.65	28.6	9.5	8.03	2.337	
150	14.53	35.82	26.74	1.39	24.3	1.62	28.6	9.5	8.03	2.337	
INT.VALUE(0-50M):				230.7		32.8	409.3	138.5			21.5

STATION: 248/ 5 DATE: 16. 3.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.02	36.05	25.58	5.53	107.5	0.24	1.3	1.5	8.27	2.367	0.83
10	19.99	36.05	25.59	5.59	108.6	0.24	1.3	1.3	8.27	2.367	0.99
20	19.19	36.04	25.79	5.13	98.2	0.42	4.5	2.0	8.25	2.367	1.15
30	18.48	35.99	25.93	4.48	84.6	0.71	11.5	2.6	8.18	2.367	0.48
40	17.29	35.97	26.21	3.43	63.3	1.03	15.7	4.3	8.14	2.351	0.19
50	16.64	35.78	26.22	2.26	41.1	1.34	22.7	7.0	8.06	2.351	0.22
60	16.20	35.81	26.35	1.59	28.7	1.53	25.1	8.4	8.02	2.351	0.13
75	15.94	35.79	26.40	1.52	27.3	1.53	25.3	8.4	8.03	2.351	0.20
100	15.47	35.86	26.56	1.53	27.2	1.63	26.1	9.2	8.01	2.337	
125	14.90	35.74	26.59	1.37	24.1	1.71	28.0	9.7	8.00	2.337	
150	14.35	35.71	26.69	1.39	24.1	1.67	26.9	9.4	8.00	2.337	
INT.VALUE(0-50M):				225.2		31.9	450.0	145.0			33.0

STATION: 248/ 6 DATE: 16. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.06	36.04	25.56	5.50	107.0	0.31	1.6	1.4	8.31		0.85
10	20.06	36.04	25.56	5.45	106.0	0.32	1.6	1.2	8.31		0.93
20	20.04	36.04	25.57	5.44	105.8	0.34	1.6	0.6	8.31		1.09
30	19.28	36.05	25.77	4.82	92.4	0.53	5.1	1.5	8.31		0.95
50	17.59	35.95	26.12	3.03	56.2	1.25	18.1	5.3	8.13		0.13
75	15.84	35.78	26.41	1.42	25.2	1.71	26.4	8.6	8.04		0.12
100	15.30	35.75	26.51	1.35	23.9	1.75	27.5	9.2	8.05		
125	14.90	35.75	26.60	1.35	23.7	1.75	27.5	8.8	8.04		
150	14.65	35.77	26.67	1.39	24.3	1.84	28.8	9.4	8.04		
250	13.07	35.72	26.97	1.41	23.9	1.87	29.9	10.3	8.03		
350	11.75	35.39	26.98	1.31	21.5	2.03	31.2	12.6	8.00		
INT.VALUE(0-50M):				239.1		28.6	297.5	101.0			39.9

STATION: 248/ 7 DATE: 16. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.38	36.05	25.48	5.60	109.6	0.56	1.1	0.8	8.34	2.367	0.95
10	20.36	36.06	25.49	5.34	104.4	0.48	1.1	0.8	8.34	2.367	0.87
20	20.17	36.03	25.52	5.89	114.8	0.29	1.1	0.6	8.33	2.367	1.41
30	20.10	36.04	25.55	5.42	104.5	0.40	2.0	0.8	8.32	2.367	1.00
40	18.56	36.00	25.92	4.40	83.2	0.80	10.9	2.5	8.23	2.351	0.66
50	18.00	35.95	26.02	3.53	66.0	1.39	16.9	4.4	8.17	2.337	0.36
60	17.35	35.95	26.18	2.58	47.6	1.36	21.4	5.5	8.12	2.337	0.12
75	15.94	35.77	26.38	1.52	27.3	1.57	25.1	7.4	8.09	2.337	0.20
100	15.23	35.73	26.51	1.33	23.5	1.80	29.1	8.9	8.05	2.337	
125	15.07	35.80	26.60	1.40	24.7	1.79	29.7	9.0	8.04	2.337	
150	14.69	35.77	26.66	1.37	24.0	1.76	30.6	8.8	8.05	2.337	
INT.VALUE(0-50M):				256.8		29.7	241.0	73.0			46.2

STATION: 249 DATE: 17. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5				5.93		0.26	0.1	1.1	8.31	2.389	2.04
10	20.39			5.59		0.18	0.1	0.6	8.31	2.389	2.03
20	18.71			5.01		0.66	8.3	2.5	8.22	2.389	1.10
30	18.01			3.88		1.01	15.8	4.4	8.14	2.367	0.49
50	17.36			2.88		1.25	20.8	6.1	8.09	2.367	0.22
75	16.33			1.85		1.56	26.0	8.4	8.03	2.367	0.15
100	15.47			1.55		1.66	28.3	9.0	8.02	2.351	
125	15.11			1.69		1.66	28.7	9.0	8.01	2.351	
150	14.85			1.55		1.66	28.8	9.2	8.01	2.351	
250	13.60			1.83		1.66	29.4	9.7	8.02	2.351	
350	11.87			1.86		1.66	29.9	10.1	8.03	2.351	
INT.VALUE(0-50M):				223.6		37.6	529.5	164.8			51.1



STATION: 250 DATE: 17. 3.1983 TIME: 07.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.58			5.71		0.14	0.1	0.2	8.34	2.389	0.93
10	20.39			5.67		0.21	0.1	0.6	8.34	2.389	1.26
20	20.34			5.69		0.14	0.1	0.8	8.34	2.389	1.11
30	18.80			4.49		0.69	10.1	3.2	8.23	2.367	1.12
40	18.11			3.78		1.03	16.5	5.1	8.17	2.367	0.97
50	18.01			3.69		1.01	17.0	5.2	8.17	2.367	0.58
60	17.69			3.20		1.14	19.1	5.5	8.14	2.367	0.37
75	17.12			2.30		1.35	23.0	7.0	8.10	2.367	
100	16.23			2.03		1.46	25.3	7.6	8.08	2.351	
125	15.14			1.37		1.63	28.7	8.9	8.06	2.351	
150	14.66			1.46		1.68	29.2	9.0	8.04	2.351	
INT.VALUE(0-50M):				243.5		26.3	353.5	123.0			51.4

STATION: 251 DATE: 17. 3.1983 TIME: 11.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.45	36.23	25.60	5.56	109.0	0.43	0.3	1.0	8.34	2.351	1.52
10	20.46	36.23	25.60	5.53	108.5	0.29	0.3	0.8	8.34	2.351	1.46
20	20.37	36.22	25.61	5.36	104.9	0.35	1.1	0.8	8.33	2.367	
30	19.16	36.15	25.88	4.17	79.8	0.87	8.6	1.3	8.25	2.351	0.53
40	18.10	36.16	26.16	3.62	67.9	0.89	11.3	2.1	8.23	2.351	0.26
50	18.06	36.21	26.21	4.46	83.6	0.91	11.6	2.5	8.21	2.367	
60	17.97	36.23	26.24	4.80	89.8	1.07	14.9	3.2	8.18	2.367	0.10
75	17.48	36.19	26.34	3.80	70.4	1.17	15.7	3.4	8.18	2.351	0.17
100	15.79	35.92	26.53	1.71	30.6	1.68	24.8	8.2	8.07	2.351	
125	15.09	35.91	26.68	1.32	23.3	1.81	27.9	8.8	8.05	2.337	
150	14.33	35.86	26.81	1.37	23.8	1.84	28.1	9.0	8.05	2.337	
INT.VALUE(0-50M):				237.0		31.1	272.5	68.0			40.9

STATION: 252 DATE: 17. 3.1983 TIME: 17.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.19	36.22	25.66	5.57	108.7	0.49	2.6	1.6	8.30	2.389	1.89
10	20.22	36.23	25.66	5.68	110.9	0.41	2.0	1.6	8.31	2.389	1.93
20	19.58	36.18	25.79	5.69	109.8	0.45	5.0	2.2	8.30	2.389	2.30
30	18.80	36.04	25.89	5.52	99.7	0.65	6.1	2.8	8.29	2.367	1.63
40	18.04	36.10	26.13	4.67	87.5	0.65	6.1	2.8	8.20	2.367	1.98
50	17.49	36.08	26.25	3.91	72.5	0.89	10.5	4.5	8.15	2.367	1.49
60	17.12	36.08	26.34	2.08	38.3	1.14	14.3	5.3	8.12	2.367	0.72
75	16.12	36.01	26.52	1.40	25.2	1.66	24.5	8.1	8.06	2.351	0.40
100	15.00	35.92	26.71	1.23	21.7	1.86	28.9	9.8	8.02	2.351	
125	14.55	35.89	26.79	1.22	21.3	1.89	29.8	10.0	8.01	2.337	
150	14.27	35.90	26.86	1.40	24.3	1.96	30.1	11.4	8.02	2.337	
INT.VALUE(0-50M):				260.1		28.8	259.0	124.5			95.3

STATION: 253 DATE: 17. 3.1983 TIME: 19.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.61	36.18	25.79	5.60	108.1	0.45	5.4	1.6	8.30	2.367	1.89
10	19.60	36.17	25.78	5.63	108.6	0.46	5.4	1.4	8.30	2.367	1.94
20	19.29	36.18	25.87	5.57	106.9	0.49	5.4	1.4	8.29	2.367	2.65
30	19.24	36.18	25.88	5.36	102.7	0.74	4.9	1.4	8.29	2.367	2.26
50	17.48	36.11	26.27	5.35	99.1	1.11	15.7	5.1	8.15	2.351	0.92
75	15.97	35.97	26.53	2.05	36.9	1.55	24.0	8.3	8.06	2.351	0.41
100	14.88	35.91	26.73	1.30	22.9	1.81	28.3	10.6	8.02	2.337	
125	14.38	35.85	26.79	1.39	24.2	1.78	28.3	10.0	8.03	2.337	
150	14.16	35.86	26.85	1.15	19.9	1.83	29.1	10.0	8.02	2.323	
250	13.12	35.85	27.06	1.31	22.2	1.87	30.3	11.2	8.01	2.323	
350	11.96	35.75	27.22	1.31	21.7	2.06	33.1	13.8	7.98	2.323	
INT.VALUE(0-50M):				273.8		34.0	365.5	108.5			98.3

STATION: 254 DATE: 17. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.62	36.21	25.81	5.57	107.5	0.46	4.0	1.6	8.30	2.367	1.39
10	19.62	36.20	25.80	5.55	107.2	0.44	4.0	1.2	8.30	2.367	1.33
20	18.80	36.18	26.00	4.75	90.3	0.75	9.1	1.8	8.24	2.367	1.25
30	18.11	36.16	26.16	3.96	74.3	1.02	13.7	3.9	8.19	2.351	0.87
40	17.29	36.12	26.33	3.12	57.6	1.25	18.3	5.1	8.14	2.351	0.29
50	16.93	36.07	26.38	2.80	51.3	1.34	20.3	6.0	8.11	2.351	0.37
60	16.71	36.07	26.43	2.70	49.3	1.42	21.1	6.7	8.11	2.351	0.50
75	16.61	36.05	26.44	2.55	46.4	1.48	22.3	7.2	8.08	2.351	0.52
100	16.11	36.01	26.53	2.17	39.1	1.61	24.3	8.0	8.07	2.351	
125	14.61	35.89	26.77	1.30	22.7	1.88	29.7	10.4	8.01	2.351	
150	14.24	35.88	26.85								
INT.VALUE(0-50M):				215.8		43.7	572.5	223.9			46.4

STATION: 255 DATE: 17. 3.1983 TIME: 23.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.24	36.20	25.90	5.36	102.8	0.53	4.8	1.8	8.31		1.44
10	19.22	36.18	25.89	5.19	99.4	0.59	5.7	1.8	8.29		1.50
20	17.67	36.13	26.24	3.64	67.7	1.08	15.7	4.7	8.17		0.79
30	17.17	36.11	26.35	3.02	55.6	1.24	18.8	5.1	8.15		0.44
40	16.65	36.09	26.46	2.55	46.5	1.41	22.0	8.1	8.12		0.29
50	16.14	36.03	26.53	2.31	41.7	1.42	22.0	8.1	8.07		0.24
60	15.00	35.93	26.70	1.39	24.5	1.59	24.6	10.4	8.03		0.18
75	14.89	35.91	26.73	1.24	21.8	1.88	29.0	12.1	8.02		0.09
100	14.87	35.91	26.73	1.12	19.7	1.89	29.0	12.8	8.00		
125	14.80	35.92	26.76	1.09	19.1	2.03	29.3	12.8	8.00		
INT.VALUE(0-50M):				182.8		52.9	735.8	246.5			38.5

STATION: 256 DATE: 18. 3.1983 TIME: 01.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.98	36.20	25.96	5.19	99.0	0.64	6.6	1.8	8.28	2.367	1.30
10	18.99	36.20	25.96	5.11	97.5	0.67	6.3	1.4	8.28	2.367	1.29
20	18.96	36.20	25.97	5.06	96.5	0.68	7.2	4.1	8.27	2.351	0.95
30	17.60	36.14	26.27	3.65	67.8	1.13	16.1	5.1	8.17	2.351	0.56
40	17.01	36.14	26.41	2.84	52.2	1.37	20.4	6.1	8.12	2.351	0.19
50	16.44	36.08	26.50	2.47	44.8	1.55	23.0	7.8	8.08	2.351	0.27
60	15.88	36.01	26.58	2.00	35.9	1.68	25.3	8.0	8.05	2.351	0.08
75	15.47	36.01	26.67	1.67	29.7	1.81	27.1	9.2	8.03	2.337	0.12
95	14.90	35.95	26.76	1.26	22.2	1.97	28.8	11.5	7.98	2.337	
INT.VALUE(0-50M):				205.2		49.4	648.8	216.0			37.8

STATION: 257 DATE: 18. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.57	36.18	26.05				4.9	1.8	8.31	2.367	7.60
10	18.14	36.18	26.16				9.7	2.3	8.26	2.367	3.63
20	17.51	36.16	26.31				16.6	3.7	8.19	2.367	0.56
30	16.74	36.11	26.45				22.4	5.5	8.13	2.351	0.39
40	16.29	36.08	26.54				23.0	6.3	8.12	2.351	0.31
50	16.03	36.06	26.58				24.9	7.3	8.08	2.351	
60	15.38	36.01	26.69				27.1	13.7	8.01	2.351	0.23
70	15.35	36.00	26.69				27.7	14.3	8.00	2.337	0.33
INT.VALUE(0-50M):				56.7			854.0	222.3			99.9

STATION: 258 DATE: 18. 3.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.40	36.16	26.08	5.13	96.8	0.59	7.4	5.1	8.28	2.367	7.74
10	18.39	36.17	26.09	4.79	90.4	0.64	7.7	4.9	8.28	2.367	8.03
20	17.13	36.14	26.38	3.75	69.0	0.98	14.6	4.0	8.21	2.367	3.48
30	16.26	36.09	26.55	2.42	43.8	1.53	23.5	6.1	8.11	2.367	0.73
40	15.59	36.04	26.67	1.22	21.8	1.83	27.4	13.7	8.02	2.351	0.66
50	15.54	36.02	26.67	0.97	17.3	1.93	27.9	16.0	8.00	2.351	0.32
INT.VALUE(0-50M):				153.2		62.3	907.8	393.0			168.6

STATION: 259 DATE: 18. 3.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.70	36.17	26.27	4.60	85.6	0.68	6.7	6.1	8.13	2.430	20.67
10	17.53	36.10	26.25	3.95	73.3	0.95	10.5	7.1	8.10	2.416	18.59
15	16.06	36.08	26.59	1.57	28.3	1.82	24.4	12.1	7.92	2.403	2.95
INT.VALUE(0-15M):				58.2		14.4	163.8	111.5			255.4

STATION: 260 DATE: 18. 3.1983 TIME: 14.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.36	36.24	25.90	5.40	103.8	0.57	4.3	1.5	8.26	2.367	1.63
10	19.22	36.21	25.91	5.41	103.7	0.54	4.6	1.4	8.27	2.389	1.90
20	18.98	36.23	25.99	5.10	97.3	0.69	6.8	1.6	8.24	2.389	1.64
30	17.93	36.12	26.17	4.07	76.1	1.02	13.5	3.9	8.17	2.367	0.81
40	17.52	36.14	26.29	3.53	65.5	1.17	16.8	4.5	8.14	2.367	
50	17.40	36.14	26.32	3.39	62.7	1.21	17.7	4.5	8.13	2.367	0.37
60	17.18	36.11	26.35	3.20	59.0	1.26	18.5	5.0	8.12	2.367	0.20
75	16.72	36.07	26.43	2.62	47.8	1.43	20.9	6.0	8.09	2.367	
100	14.88	35.92	26.74	1.25	22.0	1.92	29.1	11.4	7.98	2.351	
125	13.87	35.88	26.93	1.26	21.7	1.93	29.7	10.9	8.00	2.351	
150	13.73	35.85	26.93	1.29	22.1	1.93	30.3	11.2	8.00	2.351	
INT.VALUE(0-50M):				225.0		43.2	526.3	144.3			58.8

STATION: 262/ 1 DATE: 18. 3.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.21	36.21	25.91	5.22	100.0	0.64	4.7	2.9	8.27	2.367	
10	19.17	36.23	25.94	5.10	97.7	0.59	5.6	2.9	8.27	2.367	
20	18.37	36.19	26.11	4.44	83.7	0.79	10.0	4.1	8.21	2.367	
30	18.09	36.17	26.17	4.21	79.0	0.87	10.9	4.4	8.19	2.367	
40	17.94	36.15	26.19	4.14	77.4	0.90	11.1	4.4	8.18	2.367	
50	17.81	36.15	26.22	3.76	70.1	0.99	13.7	5.0	8.16	2.389	
60	17.45	36.13	26.30	3.39	62.8	1.09	15.9	5.0	8.13	2.367	
75	16.70	36.11	26.46	2.54	46.4	1.33	20.3	5.0	8.06	2.367	
90	15.01	35.95	26.73			1.67	26.1	6.1	8.00	2.351	
INT.VALUE(0-50M):				224.1		39.8	265.5	197.5			

STATION: 262/ 2 DATE: 19. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.03	36.20	25.95	5.43	103.7	0.37	3.9	2.2	8.31	2.367	3.28
10	19.03	36.21	25.96	5.43	103.7	0.45	3.6	1.9	8.31	2.367	3.05
20	19.04	36.21	25.96	5.42	103.5	0.44	3.9	1.9	8.31	2.367	2.82
30	18.98	36.20	25.96	5.34	101.9	0.46	4.0	2.1	8.30	2.367	2.42
40	18.65	36.18	26.03	4.93	93.5	0.59	6.9	5.6	8.26	2.367	0.63
50	17.13	36.11	26.36	3.10	57.1	1.26	18.1	5.8	8.14	2.351	0.98
60	16.72	36.12	26.47	2.62	47.8	1.37	21.0	6.7	8.12	2.351	0.27
75	16.16	36.09	26.58	2.09	37.7	1.53	23.9	9.6	8.08	2.351	0.25
100	15.05	35.96	26.73	1.38	24.4	1.81	26.7	12.6	8.03	2.351	
INT.VALUE(0-50M):				253.9		27.4	294.8	155.8			111.1

STATION: 262/ 3 DATE: 19. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.08	36.19	25.93	5.89	112.6	0.36	1.4	1.7	8.32	2.367	
10	19.21	36.17	25.88	5.83	111.7	0.38	1.7	1.5	8.32	2.367	
20	18.50	36.20	26.09	4.60	87.0	0.79	8.6	3.1	8.22	2.367	
30	16.91	36.10	26.41	2.87	52.6	1.33	19.9	6.2	8.09	2.351	
40	16.55	36.09	26.46	2.49	45.3	1.44	21.9	6.7	8.07	2.351	
50	16.07	36.06	26.57	2.15	38.8	1.53	23.9	7.6	8.05	2.351	
60	15.09	35.94	26.71	1.34	23.7	1.81	27.8	10.9	7.99	2.351	
75	15.00	35.94	26.73	1.22	21.5	1.88	28.3	11.8	7.97	2.337	
90	14.55	35.90	26.80	1.16	20.3	1.91	28.8	12.2	7.96	2.337	
INT.VALUE(0-50M):				198.3		48.8	646.8	222.0			

STATION: 262/ 4 DATE: 20. 3.1983 TIME: 03.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.59	36.18	26.05	5.24	99.2	0.41	4.4	1.7	8.29	2.367	
10	18.61	36.19	26.05	5.31	100.6	0.41	4.4	1.5	8.28	2.367	
20	18.37	36.19	26.11	5.02	94.7	0.49	5.0		8.24	2.367	
30	17.79	36.17	26.24	3.94	73.5	1.02	12.2		8.20	2.367	
40	16.95	36.06	26.37	3.16	57.9	1.25	17.8	3.5	8.14	2.351	
50	16.52	36.09	26.49	2.56	46.6	1.39	20.6	5.8	8.12	2.351	
60	16.19	36.07	26.55	2.35	42.5	1.54	22.8	7.7	8.01	2.351	
75	15.98	36.05	26.59	2.09	37.6	1.59	23.6	8.1	8.07	2.351	
95	14.92	35.94	26.74	1.46	25.7	1.83	27.8	11.7	8.03	2.337	
INT.VALUE(0-50M):				213.1		40.8	519.0	138.0			

STATION: 262/ 5 DATE: 20. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.58	36.19	26.06	4.94	93.5	0.52	5.7	2.3	8.28	2.367	
10	18.34	36.19	26.12	4.39	82.7	0.75	9.4	2.9	8.24	2.367	
20	17.77	36.16	26.24	3.62	68.8	1.06	14.2	4.7	8.16	2.367	
30	17.23	36.14	26.36	3.06	56.4	1.32	18.3	6.3	8.13	2.351	
40	16.47	36.06	26.48	2.42	44.0	1.46	20.8	7.3	8.10	2.351	
50	16.34	36.05	26.50	2.33	42.2	1.57	21.4	7.4	8.10	2.351	
60	16.12	36.07	26.57	2.02	36.4	1.69	23.3	7.9	8.08	2.337	
75	15.64	36.03	26.65	1.73	30.9	1.86	25.0	8.7	8.05	2.337	
95	14.89	35.94	26.75	1.29	22.7	2.17	27.2	11.4	7.99	2.337	
INT.VALUE(0-50M):				178.2		55.8	753.3	259.0			

STATION: 262/ 6 DATE: 20. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.79	36.27	25.81	6.61	128.0	0.25	1.0	1.9	8.36	2.389	
10	19.46	36.17	25.82	6.52	125.5	0.20	1.2	1.2	8.36	2.389	
20	19.34	36.19	25.86	6.61	126.9	0.19	1.2	1.7	8.36	2.389	
30	18.58	36.16	26.04	5.09	96.4	0.53	6.4	1.9	8.25	2.389	
40	17.67	36.15	26.26	3.71	69.0	1.01	15.1	4.5	8.16	2.367	
50	17.03	36.12	26.39	2.98	54.7	1.27	19.7	6.0	8.11	2.367	
60	16.62	36.05	26.44	2.58	47.0	1.46	22.0	7.2	8.09	2.367	
75	16.22	36.07	26.55	2.13	35.5	1.50	23.8	7.3	8.05	2.367	
95	15.06	35.99	26.75	1.40	24.7	1.84	28.1	11.5	7.99	2.351	
INT.VALUE(0-50M):				267.2		27.1	342.0	134.3			

STATION: 264 DATE: 21. 3.1983 TIME: 07.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.99	35.99	26.30	3.13	57.8	1.42	20.8	9.0	8.26	2.483	
10	16.82	35.98	26.34	2.37	43.3	1.52	23.0	8.6	8.04	2.470	6.64
20	15.69	35.93	26.56	0.86	15.4	1.96	27.8	13.1	7.97	2.457	
27	15.66	35.92	26.56	0.84	15.0	2.04	27.6	13.9	7.97	2.457	
INT.VALUE(0-27M):				51.6		45.9	611.4	292.0			

STATION: 265 DATE: 21. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.56	36.05	25.96	6.67	126.1	0.28	0.3	0.9	8.34	2.483	23.40
10	18.06	36.03	26.07	4.89	91.6	0.67	7.0	2.3	8.24	2.470	13.75
20	16.76	36.00	26.36	2.12	38.7	1.50	21.1	7.0	8.07	2.470	
30	15.90	35.94	26.52	1.30	23.3	1.70	25.7	8.7	8.01	2.470	1.72
40	15.74	35.93	26.55	1.24	22.2	1.78	26.2	9.6	8.01	2.470	1.53
50	15.42	35.91	26.61	0.86	15.3	1.92	26.2	13.5	7.98	2.470	2.03
60	15.41	35.91	26.61	0.84	14.9	1.99	26.5	13.9	7.98	2.470	2.30
INT.VALUE(0-50M):				137.7		66.5	915.8	344.5			398.6

STATION: 266 DATE: 21. 3.1983 TIME: 12.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.16	36.04	25.80	6.35	121.4	0.31	0.8	0.9	8.35	2.470	11.37
10	18.16	36.04	25.80	5.55	105.3	0.44	3.0	1.3	8.31	2.470	10.15
20	18.13	36.04	26.06	3.75	70.3	0.85	11.2	3.0	8.19	2.470	3.63
30	16.48	36.01	26.44	1.77	32.2	1.66	26.0	7.0	8.05	2.457	0.63
40	15.51	35.94	26.61	1.39	24.8	1.66	26.0	7.9	8.06	2.457	0.75
50	15.28	35.93	26.66	1.29	22.9	1.79	28.8	8.3	8.03	2.433	0.32
60	15.10	35.92	26.69	1.27	22.4	1.90	29.3	8.7	8.02	2.433	0.34
75	14.89	35.92	26.74	1.26	22.2	1.85	29.9	9.0	8.03	2.433	0.22
INT.VALUE(0-50M):				164.9		56.3	804.5	237.0			213.2

STATION: 267 DATE: 21. 3.1983 TIME: 14.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	19.80			5.78		0.48	2.7	1.3	8.32	2.457	8.24
10	18.79			4.81		0.61	7.3	1.9	8.27	2.457	7.45
20	18.08			2.90		1.14	16.2	4.2	8.15	2.433	1.82
30	17.03			1.64		1.56	23.1	7.0	8.06	2.433	1.19
40	16.47			1.29		1.69	25.4	8.5	8.03	2.433	0.60
50	16.20			1.52		1.72	25.6	8.9	8.04	2.433	0.37
75	14.98			1.38		1.79	27.9	9.3	8.03	2.417	0.21
100	14.95			1.39		1.82	28.2	9.5	8.03	2.417	0.25
125	14.59			1.39		1.86	28.5	10.2	8.04	2.417	
150	14.48			1.40		1.90	28.5	10.6	8.03	2.417	
210	13.68			1.48		1.98	29.9	11.6	8.04	2.403	
INT.VALUE(0-50M):				145.3		60.7	850.0	265.5			155.6

STATION: 269 DATE: 21. 3.1983 TIME: 18.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.40	35.95	25.92	3.61	68.0	1.02	13.5	4.9	8.08	2.457	1.68
10	18.12	35.98	26.02	3.22	60.4	1.17	16.1	5.4	8.06	2.457	1.56
20	17.76	35.96	26.09	3.01	56.0	1.31	18.6	6.0	8.03	2.433	0.98
30	17.07	35.93	26.24	2.43	44.6	1.41	20.9	6.6	8.00	2.433	0.94
50	15.75	35.90	26.53	1.45	25.9	1.70	25.1	8.5	7.95	2.433	0.57
75	14.49	35.84	26.76	1.53	26.7	1.84	27.9	9.9	7.93	2.417	0.31
100	13.92	35.72	26.79	1.49	25.7	1.88	28.7	10.5	7.91	2.417	
150	13.68	35.74	26.86	1.59	27.3	1.87	29.0	10.9	7.91	2.417	
250	13.40	35.76	26.93	1.51	25.7	1.91	29.6	11.2	7.90	2.417	
350	11.64	35.71	27.25	1.38	22.7	2.17	33.5	15.1	7.85	2.417	
450	11.00	35.68	27.34	1.30	21.0	2.32	34.9	16.7	7.83	2.417	
INT.VALUE(0-50M):				132.3		67.7	972.5	321.3			53.9

STATION: 270 DATE: 21. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.24	36.06	25.53	5.04	98.3	0.58	3.2	0.9	8.30	2.457	1.63
10	19.76	36.08	25.67	4.27	82.6	0.76	7.5	1.7	8.25	2.457	4.86
20	17.50	35.98	26.17	2.42	44.8	1.48	20.0	5.5	8.13	2.483	1.95
30	17.06	35.95	26.25	2.21	40.6	1.55	22.0	6.4	8.10	2.483	1.78
50	16.56	35.92	26.35	1.72	31.3	1.70	24.4	7.3	8.07	2.417	1.41
75	15.50	35.91	26.59	1.36	24.2	1.83	28.1	8.1	8.05	2.417	
100	14.61	35.85	26.74	1.35	23.6	1.87	29.3	8.8	8.04	2.417	
125	14.03	35.79	26.82								
150	13.63	35.76	26.89	1.60	27.4	1.91	29.6	9.8	8.05	2.417	
250	12.74	35.72	27.04	1.58	20.0	1.96	30.7	11.1	8.04	2.417	
350	11.95	35.72	27.19	1.25	20.7	2.14	33.6	13.0	8.01	2.417	
INT.VALUE(0-50M):			144.4		65.1	854.2	243.5				109.0

STATION: 271/ 1 DATE: 22. 3.1983 TIME: 00.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.80	36.09	25.40	5.55	109.4	0.30	1.2	1.2	8.26	2.417	2.60
10	20.79	36.10	25.41	5.55	109.4	0.19	1.2	0.8	8.26	2.433	2.77
20	20.74	35.96	25.32	5.48	107.9	0.30	1.7	0.8	8.25	2.433	3.01
30	19.16	36.05	25.80	4.93	94.3	0.32	2.9	2.4	8.23	2.433	3.80
40	18.34	36.00	25.98	2.99	56.3	1.09	15.1	2.3	8.11	2.417	1.46
50	17.46	35.92	26.13	2.13	39.4	1.40	19.7	5.8	8.06	2.417	1.42
60	16.99	36.05	26.35	1.58	29.0	1.59	23.2	6.2	8.02	2.417	
75	16.11	36.07	26.57	1.28	23.1	1.71	26.1	7.5	7.99	2.403	
100	14.84	35.92	26.75	1.18	20.6	1.87	29.3	9.0	7.99	2.403	
125	14.12	35.85	26.85	1.33	23.0	1.93	30.2	9.3	8.00	2.403	
150	13.66	35.80	26.91	1.52	26.0	1.93	29.9	10.4	7.99	2.403	
INT.VALUE(0-50M):			228.0		27.8	313.5	99.0				130.1

STATION: 271/ 2 DATE: 22. 3.1983 TIME: 02.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	13.72	35.78	26.88	1.47	25.2	1.85	29.8	10.1	8.01	2.403	
250	12.51	35.70	27.07	1.60	26.8	1.90	31.0	11.0	8.00	2.403	
350	11.81	35.73	27.23	1.19	19.6	2.07	34.5	12.8	7.97	2.403	
450	10.75	35.63	27.35	1.12	18.0	2.28	37.4	15.3	7.95	2.389	
550	9.72	35.53	27.45	1.25	19.7	2.44	38.4	18.7	7.95	2.389	
650	8.48	35.41	27.56	1.47	22.5	2.60	39.7	21.5	7.95	2.389	
750	7.68	35.32	27.61	1.87	28.0	2.69	40.6	23.7	7.94	2.389	

STATION: 272 DATE: 22. 3.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.47	36.14	25.25	5.39	107.6	0.13	0.1	0.6	8.33	2.433	0.08
10	21.46	36.13	25.25	5.38	107.4	0.13	0.1	0.4	8.33	2.433	0.53
20	21.47	36.13	25.24	5.35	106.8	0.13	0.1	0.6	8.33	2.433	0.45
30	19.36	36.07	25.77	4.14	79.5	0.60	6.1	0.6	8.23	2.433	4.72
50	17.48	36.15	26.30	2.13	39.5	1.35	21.0	4.6	8.09	2.417	0.63
75	15.50	35.92	26.60	1.12	19.9	1.77	24.5	7.5	8.05	2.417	0.39
125	14.76	36.04	26.86	1.60	28.1	1.79	28.6	7.9	8.03	2.417	
150	14.07	35.94	26.93	1.61	27.9	1.79	28.9	8.8	8.01	2.417	
250	12.78	35.77	27.07	1.49	25.1	1.89	31.5	10.8	8.01	2.403	
350	11.91	35.74	27.22	1.35	22.3	2.08	33.5	12.1	7.98	2.403	
INT.VALUE(0-50M):				217.7		25.8	304.0	68.5			86.2

STATION: 273 DATE: 22. 3.1983 TIME: 09.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	20.15	36.18	25.64	4.31	84.0	0.47	5.6	1.1	8.27	2.417	1.99
10	19.60	36.14	25.76	3.97	76.6	0.62	7.7	0.7	8.25	2.417	2.96
20	19.57	36.11	25.74	3.04	58.6	0.96	13.8	1.7	8.17	2.417	3.67
30	18.86	36.06	25.89	1.53	29.1	1.64	25.6	5.5	8.02	2.417	2.17
50	15.64	35.97	26.60	1.31	23.4	1.83	29.1	7.1	8.02	2.417	0.36
75	14.78	35.92	26.76	1.26	22.1	1.95	29.4	8.0	8.03	2.403	
100	13.97	35.79	26.84	1.52	26.2	1.86	29.7	8.6	8.04	2.403	
125	13.55	35.74	26.89	1.85	31.6	1.89	30.0	9.1	8.04	2.403	
150	13.11	35.72	26.96	1.43	24.2	1.92	30.3	9.5	8.05	2.403	
250	12.20	35.71	27.14	1.19	19.8	2.11	32.4	10.6	8.02	2.403	
350	11.35	35.69	27.29	1.28	20.9	2.16	34.4	12.7	7.99	2.389	
INT.VALUE(0-50M):				128.6		60.7	912.8	184.0			105.0

STATION: 274 DATE: 22. 3.1983 TIME: 16.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	21.46	36.14	25.26	5.28	105.4	0.27	0.9	1.9	8.25	2.470	0.95
10	20.79	36.07	25.39	5.19	102.3	0.33	0.9	1.5	8.25	2.470	0.82
20	19.38	36.19	25.85	4.87	93.6	0.57	3.2	1.1	8.21	2.470	0.53
30	19.05	36.11	25.88	4.42	84.4	0.70	11.2	1.7	8.18	2.470	0.33
50	17.59	36.36	26.44	1.96	36.5	1.41	21.5	5.8	8.02	2.470	0.05
75	14.71	35.92	26.78	1.24	21.7	1.83	28.8	8.6	7.98	2.470	
100	14.46	35.92	26.83	1.44	25.1	1.83	28.5	9.0	7.98	2.433	
125	14.33	35.96	26.89	1.70	29.6	1.77	28.2	9.3	7.99	2.433	
150	13.99	35.96	26.96	1.65	28.5	1.76	28.2	9.5	7.98	2.433	
250	12.47	35.81	27.16	1.40	23.4	1.98	32.7	11.6	7.94	2.417	
350	11.29	35.69	27.30	1.28	20.9	2.19	35.3	14.2	7.92	2.417	
INT.VALUE(0-50M):				213.1		34.9	428.5	120.0			24.1

STATION: 275/ 1 DATE: 22. 3.1983 TIME: 20.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	22.33	35.98	24.89	5.17	104.7	0.17	0.1	0.5	8.34	2.457	0.24
10	22.33	35.98	24.89	5.17	104.7	0.15	0.1	0.5	8.34	2.457	0.29
20	21.84	36.18	25.18	5.25	105.5	0.32	0.1	0.9	8.33	2.470	0.59
30	21.26	36.21	25.36	5.30	105.5	0.28	0.1	0.9	8.33	2.470	1.30
40	20.94	36.21	25.45	5.29	104.7	0.28	0.1	1.0	8.33	2.470	1.15
50	20.74	36.21	25.51	5.17	101.9	0.45	0.6	1.0	8.33	2.470	0.89
60	19.47	36.30	25.91	3.74	72.0	0.61	6.5	1.3	8.27	2.470	1.45
75	17.60	36.24	26.34	1.95	36.2	1.47	22.2	5.1	8.12	2.457	0.16
100	15.49	36.10	26.74	1.50	26.7	1.75	27.6	7.7	8.08	2.433	
125	14.23	35.88	26.85	1.48	25.7	1.90	29.3	8.9	8.07	2.433	
150	14.01	35.89	26.90	1.58	27.3	1.87	29.3	9.1	8.07	2.433	
INT. VALUE(0-50M):				261.9		13.5	7.5	40.5			38.8

STATION: 275/ 2 DATE: 22. 3.1983 TIME: 23.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
150	14.19	35.99	26.94	1.60	27.8	1.68	28.3	10.2	7.95	2.417	
250	12.37	35.76	27.14	1.52	25.4	1.98	32.6	12.3	7.91	2.417	
350	11.11	35.65	27.30	1.19	19.3	2.24	36.7	15.2	7.87	2.403	
450	9.87	35.35	27.29	1.21	19.0	2.46	39.1	18.4	7.84	2.403	
550	8.78	35.42	27.52	1.45	22.3	2.67	40.0	21.2	7.83	2.403	
650	7.84	35.33	27.60	1.61	24.2	2.94	41.2	24.2	7.83	2.389	
750	6.91	35.26	27.68	1.95	28.7	2.99	40.9	26.3	7.84	2.389	

STATION: 276 DATE: 23. 3.1983 TIME: 01.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	22.73	35.99	24.78	5.07	103.4	0.21	0.1	2.6	8.26	2.417	0.15
10	22.53	35.99	24.84	5.15	104.7	0.15	0.1	2.2	8.26	2.451	
20	21.98	36.00	25.00	5.14	103.5	0.15	0.1	2.2	8.26	2.451	0.26
30	20.38	36.42	25.76	5.34	104.7	0.15	0.1	2.0	8.28	2.451	0.83
50	18.59	36.44	26.25	4.52	85.7	0.44	2.9	2.4	8.23	2.453	0.96
75	16.84	36.45	26.78	2.00	36.7	1.42	21.6	6.8	8.03	2.431	0.25
100	15.12	36.01	26.75	1.42	25.1	1.75	27.3	8.9	7.98	2.417	
125	14.82	36.10	26.89	1.76	30.9	1.69	25.9	8.8	8.01	2.417	
150	14.48	36.10	26.96	1.71	29.9	1.73	26.8	9.5	8.00	2.417	
250	12.49	35.83	27.17	1.63	27.3	1.96	31.7	11.5	7.96	2.417	
350	11.32	35.70	27.30	1.66	27.1	2.23	34.0	13.9	7.93	2.403	
INT.VALUE(0-50M):				253.4		10.9	33.0	112.0			27.2

STATION: 277 DATE: 23. 3.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	22.68	35.90	24.73	5.07	103.3	0.15	0.1	1.6	8.28	2.417	0.29
10	22.68	35.90	24.73	5.09	103.7	0.15	0.1	1.1	8.28	2.417	0.18
20	22.55	35.92	24.78	5.10	103.7	0.18	0.1	1.3	8.28	2.417	0.29
30	19.50	36.40	25.98	5.28	101.8	0.26	0.1	1.3	8.30	2.417	0.37
50	16.80	36.39	26.65	2.62	48.0	1.24	17.2	5.1	8.12	2.433	0.54
75	14.80	35.93	26.76	1.01	17.7	2.02	30.4	9.7	7.98	2.417	0.15
100	14.09	35.85	26.86	1.13	19.5	2.07	30.4	10.2	7.98	2.417	
125	13.80	35.79	26.87	1.26	21.7	2.02	30.4	10.4	7.99	2.417	
150	13.65	35.77	26.89	1.30	22.3	2.07	30.4	10.6	7.99	2.417	
250	12.59	35.77	27.11	1.65	27.7	2.02	30.1	11.0	8.01	2.417	
350	11.75	35.44	27.02	1.41	23.2	2.15	33.0	12.8	7.79	2.403	
INT.VALUE(0-50M):				232.7		20.4	176.0	103.8			17.4

STATION: 278 DATE: 23. 3.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	22.64	36.00	24.82	5.05	102.9	0.17	0.6	1.3	8.27	2.431	0.26
10	22.63	36.00	24.82	5.05	102.9	0.13	0.3	1.2	8.26	2.453	0.19
20	22.42	36.10	24.96	5.12	104.0	0.14	0.1	1.2	8.24	2.453	0.19
30	21.32	36.35	25.45	5.34	106.5	0.18	0.1	0.9	8.25	2.453	0.22
50	18.59	36.35	26.18	3.66	69.4	0.88	10.1	3.3	8.14	2.453	1.08
75	15.05	35.90	26.68	0.89	15.7	2.10	31.1	9.5	7.94	2.417	0.31
100	14.67	35.85	26.73	0.94	16.5	2.14	35.3	9.9	7.95	2.417	
125	14.37	35.82	26.77	1.03	17.9	2.14	34.7	9.9	7.95	2.417	
150	14.14	35.80	26.81	1.20	20.8	2.14	34.7	10.2	7.95	2.417	
250	13.05	35.75	27.00	1.40	23.7	2.09	35.0	10.7	7.95	2.417	
350	12.89	35.76	27.04	1.13	19.9	2.30	35.6	12.8	7.93	2.417	
INT.VALUE(0-50M):				243.7		15.2	110.3	77.3			19.4

STATION: 281 DATE: 27. 3.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.24			4.67		0.76	7.6	3.9	8.25	2.403	0.96
10	18.24			4.61		0.69	7.6	3.8	8.25	2.403	5.07
20	18.18			3.74		0.81	1.8	4.7	8.19	2.403	5.99
30	16.25			2.10		1.80	21.6	8.6	8.06	2.389	5.87
40	14.84			1.25		1.80	24.9	10.6	8.03	2.389	0.39
50	14.79			1.21		1.84	25.3	11.9	8.02	2.389	0.46
60	14.78			1.17		1.84	25.3	11.9	8.01	2.389	0.37
75	14.77			1.18		1.84	25.4	11.2	8.01	2.389	0.49
100	14.71			1.18		1.85	25.8	11.7	8.01	2.389	
INT.VALUE(0-50M):				146.6		64.2	813.5	356.3			170.0

STATION: 284/ 1 DATE: 27. 3.1983 TIME: 15.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.02	35.98	26.04	4.23	79.1	0.90	11.8	4.9	8.12	2.403	4.51
10	18.03	35.97	26.03	4.30	80.5	0.89	12.1	4.9	8.12	2.403	4.47
20	17.97	35.95	26.03	4.20	78.5	0.89	12.2	4.8	8.13	2.403	4.35
30	16.67	35.94	26.34	2.09	38.1	1.44	21.1	7.4	8.02	2.389	1.21
40	15.93	35.91	26.41	1.44	25.9	1.68	24.7	9.3	7.96	2.389	0.65
50	14.88	35.85	26.68	1.17	20.6	1.80	26.3	11.7	7.95	2.389	0.51
60	14.86	35.87	26.70	1.17	20.6	1.85	26.1	11.6	7.95	2.389	0.30
75	14.85	35.87	26.71	1.16	20.4	1.88	26.3	11.7	7.95	2.389	0.46
INT.VALUE(0-50M):			147.2		62.5	890.8	347.0			132.1	

STATION: 284/ 2 DATE: 27. 3.1983 TIME: 18.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.76	35.88	26.03	3.92	72.9	1.14	15.3	6.9	8.07	2.389	4.76
10	17.74	35.89	26.04	3.52	65.5	1.17	15.8	6.7	8.07	2.389	4.42
20	16.76	35.87	26.27	2.07	37.8	1.46	21.1	7.7	8.01	2.389	1.04
30	15.81	35.88	26.50	1.62	29.0	1.68	24.1	9.3	7.98	2.389	0.69
40	15.34	35.90	26.62	1.48	26.3	1.74	25.3	9.3	7.97	2.389	0.59
50	15.06	35.94	26.71	1.40	24.7	1.77	25.4	10.2	7.96	2.389	0.55
60	15.07			1.34		1.85	26.0	10.2	7.95	2.389	
75	14.89			1.30		1.85	26.0	10.4	7.95	2.389	0.30
INT.VALUE(0-50M):			114.5		75.0	1065.3	416.0			94.8	

STATION: 288/ 1 DATE: 29. 3.1983 TIME: 21.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.63			4.42		0.89	8.4	3.1	8.17	2.374	5.54
10	18.63			4.48		0.86	9.6	4.0	8.17	2.374	5.29
20	18.63			4.47		0.91	9.9	6.8	8.17	2.374	5.35
30	18.63			4.37		0.99	9.9	8.8	8.17	2.374	5.26
40	17.90			3.24		1.20	10.1	10.7	8.10	2.360	2.82
50	16.70			2.44		1.49	16.1	10.8	8.04	2.360	0.74
75	14.99			1.42		1.77	20.1	11.6	7.96	2.347	0.28
100	14.42			1.33		1.89	26.7	12.2	7.96	2.347	
125	14.16			1.41		1.91	27.7	14.4	7.97	2.347	
150	14.01			1.38		1.79	27.8	17.4	7.97	2.347	
250	13.42			1.31		1.87	28.5	32.8	7.96	2.347	
INT.VALUE(0-50M):				199.9		51.6	514.5	370.3			219.2

STATION: 288/ 2 DATE: 30. 3.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	18.40			4.55		0.81	10.4	2.0	8.17	2.374	6.82
10	18.39			4.56		0.82	10.3	2.0	8.17	2.374	7.01
20	18.06			4.22		0.99	13.1	4.1	8.14	2.374	5.21
30	17.18			2.81		1.33	18.6	6.2	8.06	2.360	1.50
40	16.77			2.65		1.45	20.1	6.9	8.05	2.360	1.19
50	16.24			2.19		1.59	22.0	7.4	8.01	2.347	0.49
75	15.16			1.50		1.67	25.3	9.6	7.97	2.347	0.21
100	14.53			1.43		1.77	26.9	9.8	7.97	2.347	
125	14.17			1.39		1.77	27.4	9.9	7.97	2.347	
150	13.85			1.44		1.81	28.3	10.2	7.97	2.330	
250	13.60			1.27		1.88	29.8	11.3	7.96	2.330	
INT.VALUE(0-50M):				176.1		57.9	783.3	239.0			185.2

STATION: 290/ 1 DATE: 4. 4.1983 TIME: 24.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.66	36.66	26.89	5.69	104.1	0.23	0.1	1.2	8.31	2.417	0.54
10	16.66	36.66	26.89	5.67	103.8	0.10	0.1	1.2	8.31	2.431	0.69
20	16.67	36.65	26.88	5.64	103.2	0.09	0.1	1.6	8.31	2.417	0.60
30	16.67	36.66	26.89	5.66	103.6	0.09	0.1	1.6	8.31	2.417	0.64
40	16.67	36.66	26.89	5.67	103.8	0.09	0.1	1.8	8.31	2.431	0.62
50	16.68	36.65	26.88	5.60	102.5	0.09	0.1	1.8	8.29	2.431	0.48
60	16.68	36.67	26.90	5.56	101.8	0.10	0.1	2.4	8.29	2.431	0.74
75	16.46	36.72	26.99	5.32	97.0	0.13	0.9	2.5	8.29	2.431	0.35
100	15.78	36.61	27.06	5.08	91.3	0.26	3.5	3.2	8.27	2.417	
125	14.92	36.46	27.14	4.90	86.5	0.39	6.3	5.0	8.24	2.403	
INT.VALUE(0-50M):			283.0		5.1	5.0	77.0				30.2

STATION: 290/ 2 DATE: 5. 4.1983 TIME: 05.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.72	36.68	26.90	5.61	102.8	0.04	0.1	1.4	8.33	2.417	0.48
20	16.73	36.68	26.89	5.61	102.8	0.03	0.1	0.8	8.32	2.417	0.35
50	16.74	36.68	26.89	5.60	102.6	0.04	0.1	0.8	8.31	2.417	0.50
100	16.65	36.75	26.97	5.41	99.0	0.06	0.7	1.6	8.26	2.417	
150	13.80	36.23	27.21	4.62	79.6	0.63	10.7	4.1	8.22	2.389	
250	12.77	36.09	27.32	4.56	76.7	0.75	13.0	4.9	8.19	2.374	
350	11.88	35.98	27.41	4.61	76.2	0.83	13.5	5.9	8.17	2.374	
450	11.26	35.92	27.48	4.58	74.7	0.81	14.8	5.7	8.18	2.374	
550	10.80	35.90	27.55	4.15	67.0	1.14	19.1	9.2	8.11	2.360	
650	10.27	35.88	27.63	3.80	60.6	1.27	19.9	10.9	8.11	2.360	
750	9.78	35.86	27.70	3.96	62.5	1.32	21.7	12.1	8.09	2.374	

STATION: 294 DATE: 5. 4.1983 TIME: 13.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	15.91	36.60	27.03	5.48	98.8	0.39	2.6	2.0	8.27	2.403	2.50
10	15.88	36.60	27.03	5.47	98.5	0.24	2.4	2.0	8.27	2.403	2.64
20	15.81	36.60	27.05	5.51	99.1	0.26	2.4	2.0	8.27	2.403	2.87
30	15.81	36.61	27.06	5.51	99.1	0.26	2.4	2.0	8.27	2.403	2.36
40											1.96
50											1.33
60											0.35
INT.VALUE(0-30M):				164.8		8.6		60.0			79.1

STATION: 295 DATE: 5. 4.1983 TIME: 15.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	15.96	36.59	27.01	5.59	100.9	0.16	1.3	2.5	8.17	2.403	
10	15.95	36.59	27.01	5.59	100.9	0.16	1.3	2.3	8.17	2.403	
20	15.78	36.59	27.05	5.52	99.2	0.19	1.6	2.3	8.17	2.417	
30	15.77	36.59	27.05	5.43	97.6	0.30	2.3	2.3	8.16	2.417	
40	15.70	36.59	27.07	5.36	96.2	0.30	3.0	2.3	8.16	2.417	
50	15.60	36.58	27.08	4.75	85.1	0.32	3.5	2.3	8.15	2.417	
75	13.39	36.20	27.28	4.52	71.2	0.72	11.7	4.8	8.06	2.389	
100	13.00	36.14	27.31	4.46	75.6	0.78	13.2	5.0	8.05	2.389	
INT.VALUE(0-50M):				270.8		11.9	106.0	116.5			

STATION: 296 DATE: 5. 4.1983 TIME: 23.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.19	36.62	26.98	5.67	102.8	0.16	0.1	2.3	8.31	2.431	1.87
10	16.19	36.62	26.98	5.79	105.0	0.12	0.1	1.9	8.31	2.431	1.94
20	16.19	36.63	26.98	5.72	103.7	0.11	0.1	2.1	8.31	2.431	2.02
30	16.19	36.62	26.98	5.72	103.7	0.15	0.1	2.1	8.30	2.431	2.17
40	16.14	36.62	26.99	5.67	102.7	0.16	0.1	2.3	8.30	2.417	2.25
50	16.11	36.63	27.00	5.67	102.6	0.11	0.1	2.3	8.30	2.417	2.24
60	16.07	36.63	27.01	5.43	98.2	0.13	0.5	2.9	8.29	2.417	1.81
75	15.46	36.58	27.11	5.01	89.5	0.31	4.1	5.5	8.26	2.417	0.59
100	13.42	36.23	27.29	4.54	77.6	0.78	11.6	5.9	8.20	2.403	
115	12.92	36.14	27.33	4.46	75.4	0.83	13.0	6.1	8.19	2.403	
INT.VALUE(0-50M):				285.5		6.9	5.0	108.0			104.2

STATION: 297/ 1 DATE: 6. 4.1983 TIME: 01.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.74	36.69	26.90	5.67	103.9	0.15	0.1	1.8	8.31	2.431	0.52
10	16.75	36.68	26.89	5.67	104.0	0.10	0.1	1.2	8.31	2.431	0.27
20	16.75	36.67	26.88	5.66	103.8	0.08	0.1	1.1	8.31	2.431	0.22
30	16.75	36.67	26.88	5.68	104.1	0.10	0.1	1.2	8.31	2.431	0.41
40	16.74	36.68	26.89	5.67	103.9	0.10	0.1	1.3	8.31	2.431	0.54
50	16.73	36.67	26.89	5.67	103.9	0.10	0.1	1.4	8.31	2.431	0.59
60	16.70	36.69	26.91	5.62	102.9	0.09	0.1	1.5	8.31	2.431	0.59
75	16.72	36.68	26.90	5.43	99.5	0.28	0.8	1.5	8.29	2.431	0.66
100	15.73	36.60	27.07	5.12	92.0	0.33	4.0	2.4	8.25	2.431	
125	14.52	36.39	27.18	4.76	83.3	0.38	4.5	2.6	8.23	2.417	
150	13.52	36.22	27.26			0.51	8.0	3.9	8.23	2.417	
INT.VALUE(0-50M):				283.6		5.2	5.0	65.5			20.6

STATION: 297/ 2 DATE: 6. 4.1983 TIME: 04.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.78	36.71	26.90	5.67	104.0	0.08	0.1	2.0	8.30	2.431	
50	16.82	36.75	26.92	5.59	102.7	0.05	0.1	1.8	8.28	2.431	
100	15.87	36.62	27.05	5.10	91.9	0.23	3.5	2.6	8.25	2.417	
150	13.42	36.20	27.27	4.53	77.4	0.68	11.4	5.2	8.20	2.403	
200	12.98	36.13	27.31	4.47	75.7	0.77	12.7	5.3	8.19	2.374	
300	12.21	36.03	27.38	4.45	74.1	0.88	14.2	6.3	8.17	2.374	
400	11.53	35.94	27.45	4.65	76.3	0.93	15.2	6.6	8.16	2.374	
500	11.21	35.93	27.50	4.29	69.9	1.23	17.0	8.6	8.14	2.374	
600	10.77	35.90	27.56	4.03	65.0	1.21	19.0	9.3	8.12	2.374	
800	9.78	35.87	27.71	3.39	53.5	1.46	22.3	13.8	8.08	2.389	
1000	8.95	35.94	27.90	3.88	60.2	1.52	22.5	15.8	8.07	2.389	

STATION: 298 DATE: 6. 4.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	16.93	36.72	26.88	5.60	103.0	0.19	0.1	2.2	8.30	2.417	
50	17.09	36.78	26.88	5.55	102.5	0.11	0.1	1.3	8.29	2.417	
100	16.61	36.80	27.01	5.26	96.2	0.22	1.4	2.2	8.28	2.417	
150	14.77	36.39	27.12	4.76	83.8	0.50	7.5	3.1	8.23	2.389	
200	13.59	36.24	27.26	4.45	76.4	0.77	11.5	4.4	8.21	2.374	
300	12.53	36.07	27.33	4.48	75.1	0.93	14.3	5.7	8.19	2.374	
400	11.58	35.95	27.44	4.55	74.7	1.02	15.6	6.6	8.18	2.374	
500	11.11	35.93	27.52	4.31	70.1	1.17	17.8	8.5	8.15	2.374	
600	10.67	35.90	27.57	3.96	63.8	1.35	20.3	10.9	8.13	2.374	
800	9.57	35.86	27.74	3.64	57.2	1.60	23.8	14.5	8.13	2.374	
1000	8.83	35.87	27.89	3.72	57.5						

STATION: 299 DATE: 6. 4.1983 TIME: 10.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.19	36.86	26.92	5.56	102.9	0.07	0.1	1.6	8.29	2.431	
50	17.18	36.87	26.93	5.53	102.3	0.03	0.1	1.1	8.29	2.431	
100	16.62	36.78	27.00	5.30	97.0	0.11	1.0	1.3	8.26	2.417	
150	16.05	36.65	27.03	5.18	93.7	0.16	2.4	2.0	8.25	2.417	
200	14.85	36.43	27.14	4.75	83.7	0.51	7.6	3.1	8.20	2.403	
300	13.04	36.13	27.29	4.59	77.8	0.74	12.3	4.7	8.18	2.403	
400	11.96	36.00	27.41	4.36	72.2	0.94	15.8	6.5	8.14	2.389	
600	10.85	35.92	27.56	4.11	66.4	1.17	19.0	9.1	8.12	2.389	
800	9.63	36.40	28.15	3.61	57.0	1.53	23.8	14.1	8.06	2.389	
1000	9.02	35.94	27.89	3.75	58.2	1.56	23.8	15.6	8.06	2.389	

STATION: 303 DATE: 7. 4.1983 TIME: 01.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.14	36.79	26.88	5.59	103.3	0.36	0.1	2.6	8.29	2.417	0.38
10	17.14	36.80	26.89	5.59	103.3	0.16	0.1	2.3	8.29	2.431	0.31
20	17.14	36.80	26.89	5.54	102.4	0.11	0.1	2.3	8.29	2.431	
30	17.14	36.80	26.89	5.60	103.5	0.11	0.1	2.3	8.29	2.431	0.08
50	17.15	36.81	26.89	5.57	103.0	0.11	0.1	2.3	8.29	2.431	0.14
75	17.17	36.83	26.90	5.54	102.5	0.11	0.1	2.1	8.29	2.431	0.24
100	17.06	36.85	26.94	5.35	98.8	0.16	0.1	2.5	8.28	2.431	
125	16.73	36.79	26.98	5.30	97.2	0.24	0.9	2.7	8.27	2.431	
150	16.54	36.75	26.99	5.30	96.8	0.51	1.6	2.5	8.26	2.431	
250	14.05	36.31	27.22	4.48	77.6	0.66	10.9	2.6	8.18	2.403	
350	12.68	36.11	27.35	4.48	75.4	0.86	13.8	6.0	8.16	2.389	
INT.VALUE(0-50M):				279.0		7.8	5.0	122.3			9.7

STATION: 307 DATE: 7. 4.1983 TIME: 22.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.18	36.79	26.87	5.10	94.5	0.30	0.1	1.7	8.27	2.453	0.22
10	17.18	36.80	26.88	5.59	103.4	0.13	0.1	1.5	8.27	2.453	0.11
20	17.19	36.80	26.87	5.56	102.9	0.11	0.1	1.3	8.27	2.453	
30	17.19	36.81	26.88	5.56	102.9	0.16	0.1	1.3	8.27	2.431	0.25
50	17.19	36.82	26.89	5.57	103.1	0.16	0.3	1.3	8.27	2.453	0.23
75	17.14	36.86	26.93	5.47	101.2	0.16	0.5	1.3	8.26	2.453	0.39
100	16.97	36.81	26.93	5.39	104.5	0.21	0.8	1.3	8.25	2.417	
125	16.66	36.75	26.96	5.24	95.9	0.27	1.6	1.7	8.24	2.417	
150	16.23	36.68	27.01	5.23	94.9	0.31	2.3	1.7	8.24	2.417	
250	14.18	36.31	27.19	4.56	79.2	0.75	10.4	3.9	8.16	2.403	
350	12.60	36.09	27.35	4.55	76.4	0.79	12.2	4.8	8.15	2.403	
INT.VALUE(0-50M):				275.0		8.3	7.0	69.5			10.3

STATION: 308 DATE: 8. 4.1983 TIME: 06.00

DEPTH	TEMP.	SALIN.	SIGMA-T	O ₂	O ₂ %	PO ₄	NO ₃	SIO ₄	PH	ALKAL.	CHLA
5	17.05	36.78	26.89	5.60	103.6	0.07	0.1	1.5	8.28	2.431	0.29
10	17.05	36.78	26.89	5.59	103.1	0.07	0.1	1.3	8.28	2.431	0.45
20	17.05	36.78	26.89	5.58	103.0	0.08	0.1	1.3	8.28	2.431	0.52
30	17.05	36.77	26.88	5.60	103.3	0.09	0.3	1.5	8.28	2.431	0.38
50	17.05	36.78	26.89	5.54	102.2	0.09	0.5	1.5	8.28	2.431	0.44
75	16.63	36.76	26.98	5.34	97.7	0.16	1.6	1.8	8.27	2.431	0.17
100	16.40	36.72	27.00	5.28	96.2	0.24	2.3		8.27	2.431	
125	15.54	36.52	27.05	5.18	92.6	0.32	4.2	2.4	8.26	2.402	
150	14.50	36.35	27.15	4.73	90.3	0.62	9.1	3.7	8.22	2.389	
250	13.10	36.15	27.30	4.44	75.4	0.85	13.5	5.7	8.17	2.389	
350	12.46	36.06	27.36	4.50	75.3	0.89	14.6	6.1	8.17	2.389	
INT.VALUE(0-50M):				279.1		4.2	12.0	71.5			20.9

ZOOPLANKTON STANDING STOCK

Zooplankton standing stock

Description of methods

Sampling procedure

Zooplankton was sampled with a 100 μm bongo-net in a vertical tow through the euphotic water column. The depth of the latter was defined as the 1 % light level measured with a irradiance meter (Biospherical Instruments QSP 160). For occasional sample-taking from the layer below the euphotic zone, the net was operated by means of a Nansen closing device. Hauling speed was generally 0.5 m/sec. The catch of one net bag was used for standing stock analysis and the other for measuring metabolism activity (see p. 102).

Microzooplankton (20 - 100 μm) was sampled with a rosette sampler consisting of six 30 l Niskin bottles from 3 depths being representative for the upper, middle and lower part of the euphotic zone.

Size fractionation

It was the aim to investigate the biomass distribution and metabolism activities of zooplankton in four different size classes. Size fractionation was carried out by the differentiated filtration method. Sieves of 1000, 500 and 100 μm were arranged to form a fractional filtration column very similar to that described by MULLIN (1965). Rinsing the samples through this column produced three size fractions: 100-500, 500-1000 and > 1000 μm . Zooplankton samples from the Niskin bottles were rinsed through a 100 μm and a 20 μm sieve in order to produce the 20-100 μm size fraction.

The zooplankton of each size class was split into 5 subsamples by means of a Folsom splitter. The diagram (p. 78) demonstrates the splitting procedure and the fate of each subsample.

Biochemical methods

One subsample of each size fraction was preserved in formalin (final concentration approx. 4 %) for species analysis.

The other subsamples were filtered through Whatman GF/C glassfiber filters (\emptyset 2.5 cm). Pre-weighed filters were used for dry weight and subsequent carbon/nitrogen measurements. These filters were deep-frozen for further analysis at home.

The other biochemical determinations were carried out aboard soon after sampling. Proteins were measured according to LOWRY et al. (1951), carbohydrates according to HANDA (1966) and lipid measurements followed the method of ZÖLLNER and KIRSCH (1962). Standards used were bovine albumin for proteins, glucose for carbohydrates and linolic acids for lipids.

Dry weights were determined at home after drying the filters at 60°C for 24 hours. These same filters were then analyzed for carbon/nitrogen in a Perkin Elmer 240 C CHN-analyzer.

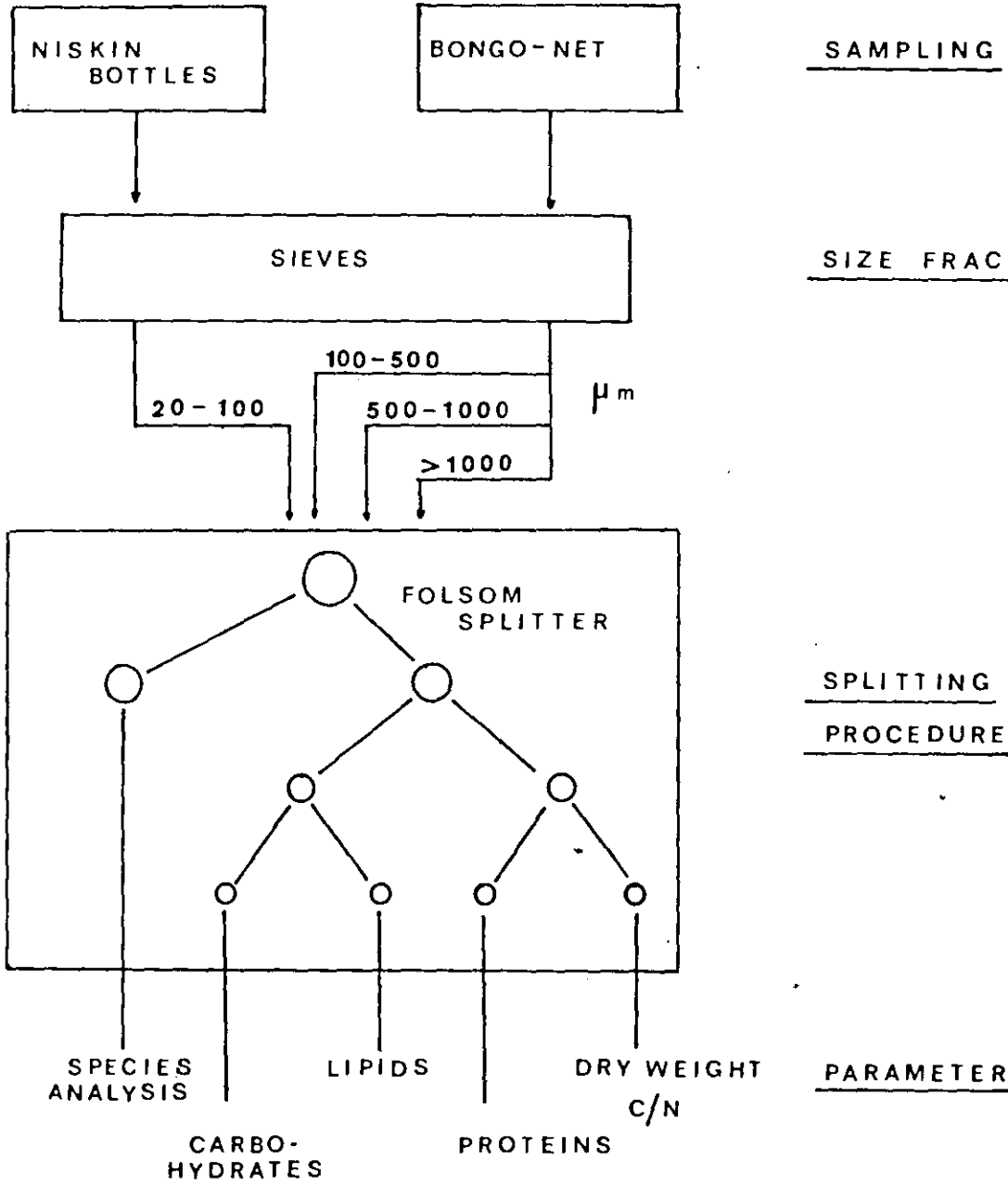
Literature

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ZÖLLNER, N., KIRSCH, K., 1962: Über die quantitative Bestimmung von Lipoiden (Mikromethode) mittels der vielen Lipoiden (allen bekannten Plasmalipoiden) gemeinsamen Sulfo-Phospho-Vanilin-Reaktion.
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LIST OF DETERMINATIONS

(Zooplankton standing stock and metabolism studies)

Abbreviations

	Determination of
L	Lipids
CH	Carbohydrates
Pr	Proteins
D	Dry Weight
C/N	Carbon, Nitrogen
NH ₄	NH ₄ -N Excretion rates
N	Total nitrogen excretion rates
P ₄	PO ₄ -P Excretion rates
P	Total phosphorus excretion rates
Sp	Species analysis



Key to the data sheet

TIME: Sampling time (GMT)

1* 30 - 0 = 15 M³ Single haul from 30 - 0 m corresponding to a volume filtered of 15 m³

2* 30 - 0 = 30 M³ Double haul from 30 - 0 m corresponding to a volume filtered of 30 m³

0.02 - 0.1 MM FROM: 0.084 M³: Size fraction 20 - 100 µm taken from 0.084 m³ water sample

Size fractions

0.02 - 0.1: 20 - 100 µm

0.1 - 0.5: 100 - 500 µm

0.5 - 1.0: 500 - 1000 µm

1.0: > 1000 µm

Units for lipids, carbohydrates, proteins, dry weight, carbon and nitrogen are mg m⁻³

OM: Organic matter = sum of lipids + carbohydrates + proteins

OM % DRY WEIGHT: Percentage of OM in dry weight

CARBON % DRY WEIGHT: Percentage of carbon in dry weight

CARBON % OM: Percentage of carbon in OM

C/N: Carbon/nitrogen ratio by weight

% OF TOTAL OM: OM in each size class as percentage of total OM

% OF TOTAL OM > 0.1: OM in each size class > 100 µm as percentage of total OM

% OF TOTAL CARBON: Carbon in each size class as percentage of total carbon

% OF TOTAL CARBON > 0.1: Carbon in each size class > 100 µm as percentage of total carbon

STATION: 200 DATE: 1. 3.1983 TIME: 15.00

NET HAULS: 1* 50- 0 =25.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	16.62	0.29	0.11	0.27	17.29	0.67
CARBOHYDRATES	38.58	0.67	0.31	0.59	40.15	1.57
PROTEINS	41.87	0.33	0.26	0.29	42.75	0.88
DRY WEIGHT	669.33	5.28	3.96	4.53	683.10	13.77
CARBON	47.80	0.97	0.72	1.02	50.51	2.71
NITROGEN	7.00	0.24	0.13	0.13	7.50	0.50
OM	97.07	1.29	0.68	1.15	100.19	3.12
OM % DRY WEIGHT	14.50	24.43	17.17	25.39		
CARBON % DRY WEIGHT	7.14	18.37	18.18	22.52		
CARBON % OM	49.24	75.19	105.88	88.70		
C / N	6.83	4.04	5.54	7.85		
% OF TOTAL OM	96.89	1.29	0.68	1.15	100.00	3.11
% OF TOTAL OM > 0.1		41.35	21.79	36.86		100.00
% OF TOTAL CARBON	94.63	1.92	1.43	2.02	100.00	5.37
% OF TOTAL C > 0.1		35.79	26.57	37.64		100.00

STATION: 204 DATE: 2. 3.1983 TIME: 14.00

NET HAULS: 1* 50- 0 =25.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	7.11	0.21	0.21			
CARBOHYDRATES	24.62	0.44	0.53			
PROTEINS	14.22	0.46	0.33			
DRY WEIGHT						
CARBON						
NITROGEN						
OM	45.95	1.11	1.07			
OM % DRY WEIGHT						
CARBON % DRY WEIGHT						
CARBON % OM						
C / N						
% OF TOTAL OM						
% OF TOTAL OM > 0.1						
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 208 DATE: 3. 3.1983 TIME: 12.00

NET HAULS: 1* 25- 0 =12.5 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	23.11	1.02	0.35	1.98	\ 26.46	3.35
CARBOHYDRATES	90.40	2.88	0.88	3.24	\ 97.40	7.00
PROTEINS	110.84	1.72	1.00	3.09	\ 116.65	5.81
DRY WEIGHT	138.67	12.36	5.92	15.39	\ 172.34	33.67
CARBON	104.80	4.00	2.80	6.60	\ 118.20	13.40
NITROGEN	18.30	0.81	0.58	1.28	\ 20.97	2.67
OM	224.35	5.62	2.23	8.31	240.51	16.16
OM % DRY WEIGHT	161.79	45.47	37.67	54.00		
CARBON % DRY WEIGHT	75.58	32.36	47.30	42.88		
CARBON % OM	46.71	71.17	125.56	79.42		
C / N	5.73	4.94	4.83	5.16		
% OF TOTAL OM	93.28	2.34	0.93	3.46	100.00	6.72
% OF TOTAL OM > 0.1		34.78	13.80	51.42		100.00
% OF TOTAL CARBON	88.66	3.38	2.37	5.58	100.00	11.34
% OF TOTAL C > 0.1		29.85	20.90	49.25		100.00

STATION: 208 DATE: 3. 3.1983 TIME: 12.15

NET HAULS: 1*100- 25=37.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS			0.69		\	
CARBOHYDRATES			0.88		\	
PROTEINS			0.12		\	
DRY WEIGHT		2.42	1.19		\	
CARBON		0.76	0.30		\	
NITROGEN		0.17	0.05		\	
OM			1.69			
OM % DRY WEIGHT			142.02			
CARBON % DRY WEIGHT		31.40	25.21			
CARBON % OM			17.75			
C / N		4.47	6.00			
% OF TOTAL OM						
% OF TOTAL OM > 0.1						
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 216 DATE: 4. 3.1983 TIME: 09.00

NET HAULS: 1* 18- 0 = 9.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.97	2.89		\	
CARBOHYDRATES		2.09	3.49		\	
PROTEINS		2.49	2.49		\	
DRY WEIGHT		10.27			\	
CARBON		3.90			\	
NITROGEN		0.98			\	
OM		5.55	8.87			
OM % DRY WEIGHT		54.04				
CARBON % DRY WEIGHT		37.97				
CARBON % OM		70.27				
C / N		3.98				
% OF TOTAL OM						
% OF TOTAL OM > 0.1						
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 222 DATE: 5. 3.1983 TIME: 06.00

NET HAULS: 1* 25- 0 =12.5 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	16.18	0.58	0.42	0.47	\ 17.65	1.47
CARBOHYDRATES	42.67	1.30	0.77	0.96	\ 45.70	3.03
PROTEINS	13.97	1.27	1.10	0.95	\ 17.29	3.32
DRY WEIGHT	112.89	9.56	3.12	1.61	\ 127.18	14.29
CARBON	16.70	3.14	1.16	0.47	\ 21.47	4.77
NITROGEN	2.64	0.70	0.25	0.10	\ 3.69	1.05
OM	72.82	3.15	2.29	2.38	80.64	7.82
OM % DRY WEIGHT	64.51	32.95	73.40	147.83		
CARBON % DRY WEIGHT	14.79	32.85	37.18	29.19		
CARBON % OM	22.93	99.68	50.66	19.75		
C / N	6.33	4.49	4.64	4.70		
% OF TOTAL OM	90.30	3.91	2.84	2.95	100.00	9.70
% OF TOTAL OM > 0.1		40.28	29.28	30.43		100.00
% OF TOTAL CARBON	77.78	14.63	5.40	2.19	100.00	22.22
% OF TOTAL C > 0.1		65.83	24.32	9.85		100.00

STATION: 222 DATE: 5. 3.1983 TIME: 07.30

NET HAULS: 1* 90- 50=20.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	16.36	0.39	0.35	0.47	17.57	1.21
CARBOHYDRATES	32.71	0.63	0.55	0.67	34.56	1.85
PROTEINS	15.64	0.86	0.70	0.95	18.15	2.51
DRY WEIGHT	194.67	3.04	3.41	3.83	204.95	10.28
CARBON	20.80	1.04	1.23	1.17	24.24	3.44
NITROGEN	3.90	0.21	0.26	0.27	4.64	0.74
OM	64.71	1.88	1.60	2.09	70.28	5.57
OM % DRY WEIGHT	33.24	61.84	46.92	54.57		
CARBON % DRY WEIGHT	10.68	34.21	36.07	30.55		
CARBON % OM	32.14	55.32	76.88	55.98		
C / N	5.33	4.95	4.73	4.33		
% OF TOTAL OM	92.07	2.68	2.28	2.97	100.00	7.93
% OF TOTAL OM > 0.1		33.75	28.73	37.52		100.00
% OF TOTAL CARBON	85.81	4.29	5.07	4.83	100.00	14.19
% OF TOTAL C > 0.1		30.23	35.76	34.01		100.00

STATION: 225 DATE: 7. 3.1983 TIME: 14.00

NET HAULS: 1* 25- 0 =12.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		1.33	2.71	1.45		5.49
CARBOHYDRATES		1.54	4.09	1.82		7.45
PROTEINS		1.89	3.10	1.16		6.15
DRY WEIGHT		7.29	11.76	6.76		25.81
CARBON		3.08	6.14	2.34		11.56
NITROGEN		0.62	1.57	0.51		2.70
OM		4.76	9.90	4.43		19.09
OM % DRY WEIGHT		65.29	84.18	65.53		
CARBON % DRY WEIGHT		42.25	52.21	34.62		
CARBON % OM		64.71	62.02	52.82		
C / N		4.97	3.91	4.59		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		24.93	51.86	23.21		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		26.64	53.11	20.24		100.00

STATION: 231 DATE: 8. 3.1983 TIME: 11.15

NET HAULS: 1* 25- 0 =12.5 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	30.04	0.23	0.28	0.09	\ 30.64	0.60
CARBOHYDRATES	28.44	0.84	0.46	0.52	\ 30.26	1.82
PROTEINS	31.20	0.45	0.34	0.55	\ 32.54	1.34
DRY WEIGHT	240.88	3.06	1.34	2.36	\ 247.64	6.76
CARBON	26.00	0.46	0.34	0.30	\ 27.10	1.10
NITROGEN	3.89	0.07	0.04	0.07	\ 4.07	0.18
OM	89.68	1.52	1.08	1.16	93.44	3.76
OM % DRY WEIGHT	37.23	49.67	80.60	49.15		
CARBON % DRY WEIGHT	10.79	15.03	25.37	12.71		
CARBON % OM	28.99	30.26	31.48	25.86		
C / N	6.68	6.57	8.50	4.29		
% OF TOTAL OM	95.98	1.63	1.16	1.24	100.00	4.02
% OF TOTAL OM > 0.1		40.43	28.72	30.85		100.00
% OF TOTAL CARBON	95.94	1.70	1.25	1.11	100.00	4.06
% OF TOTAL C > 0.1		41.82	30.91	27.27		100.00

STATION: 236 DATE: 9. 3.1983 TIME: 09.00

NET HAULS: 1* 25- 10= 7.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.68	0.32	0.28	\	1.28
CARBOHYDRATES		0.87	0.09	0.32	\	1.28
PROTEINS		0.38	0.31	0.47	\	1.16
DRY WEIGHT		3.07	1.58	3.11	\	7.76
CARBON		0.60	0.23	0.25	\	1.08
NITROGEN		0.07	0.03	0.04	\	0.14
OM		1.93	0.72	1.07		3.72
OM % DRY WEIGHT		62.87	45.57	34.41		
CARBON % DRY WEIGHT		19.54	14.56	8.04		
CARBON % OM		31.09	31.94	23.36		
C / N		8.57	7.67	6.25		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		51.88	19.35	28.76		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		55.56	21.30	23.15		100.00

STATION: 236 DATE: 9. 3.1983 TIME: 09.15

NET HAULS: 2* 75- 55=20.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.13	0.12	0.07	\	0.32
CARBOHYDRATES		0.18	0.05	0.05	\	0.28
PROTEINS		0.17	0.09	0.04	\	0.30
DRY WEIGHT		0.77	0.85	1.04	\	2.66
CARBON		0.18	0.12	0.11	\	0.41
NITROGEN		0.04	0.02	0.02	\	0.08
OM		0.48	0.26	0.16		0.90
OM % DRY WEIGHT		62.34	30.59	15.38		
CARBON % DRY WEIGHT		23.38	14.12	10.58		
CARBON % OM		37.50	46.15	68.75		
C / N		4.50	6.00	5.50		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		53.33	28.89	17.78		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		43.90	29.27	26.83		100.00

STATION: 237/ 3 DATE: 10. 3.1983 TIME: 04.00

NET HAULS: 1* 30- 0 =15.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	12.53	0.19	0.25	0.26	\	13.23
CARBOHYDRATES	11.91	0.34	0.29	0.32	\	12.86
PROTEINS	7.52	0.64	1.15	0.77	\	10.08
DRY WEIGHT	147.55	3.17	3.77	2.81	\	157.30
CARBON	16.95	0.86	1.13	0.79	\	19.73
NITROGEN	2.16	0.20	0.29	0.20	\	2.85
OM	31.96	1.17	1.69	1.35		36.17
OM % DRY WEIGHT	21.66	36.91	44.83	48.04		
CARBON % DRY WEIGHT	11.49	27.13	29.97	28.11		
CARBON % OM	53.04	73.50	66.86	58.52		
C / N	7.85	4.30	3.90	3.95		
% OF TOTAL OM	88.36	3.23	4.67	3.73	100.00	11.64
% OF TOTAL OM > 0.1		27.79	40.14	32.07		100.00
% OF TOTAL CARBON	85.91	4.36	5.73	4.00	100.00	14.09
% OF TOTAL C > 0.1		30.94	40.65	28.42		100.00

STATION: 237/ 3 DATE: 10. 3.1983 TIME: 04.15

NET HAULS: 2* 80- 60=20.0 M³ 0.02 - 0.1 MM FROM: 0.060 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	11.87	0.13	0.10	0.23	12.33	0.46
CARBOHYDRATES	4.27	0.15	0.10	0.34	4.86	0.59
PROTEINS	6.13	0.32	0.54	0.88	7.87	1.74
DRY WEIGHT	122.67	1.74	1.62	4.65	130.68	8.01
CARBON	7.83	0.38	0.35			
NITROGEN	0.64	0.09	0.09			
OM	22.27	0.60	0.74	1.45	25.06	2.79
OM % DRY WEIGHT	18.15	34.48	45.68	31.18		
CARBON % DRY WEIGHT	6.38	21.84	21.60			
CARBON % OM	35.16	63.33	47.30			
C / N	12.23	4.22	3.89			
% OF TOTAL OM	88.87	2.39	2.95	5.79	100.00	11.13
% OF TOTAL OM > 0.1		21.51	26.52	51.97		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 237/ 9 DATE: 11. 3.1983 TIME: 08.30

NET HAULS: 2* 30- 0 =30.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	9.69	0.14	0.02	0.08	9.93	0.24
CARBOHYDRATES	9.87	0.20	0.03	0.13	10.23	0.36
PROTEINS	27.02	0.52	0.16	0.15	27.85	0.83
DRY WEIGHT	231.11	2.53	1.45	0.94	236.03	4.92
CARBON	20.67	0.53	0.14	0.16	21.50	0.83
NITROGEN	2.50	0.10	0.02	0.03	2.65	0.15
OM	46.58	0.86	0.21	0.36	48.01	1.43
OM % DRY WEIGHT	20.15	33.99	14.48	38.30		
CARBON % DRY WEIGHT	8.94	20.95	9.66	17.02		
CARBON % OM	44.38	61.63	66.67	44.44		
C / N	8.27	5.30	7.00	5.33		
% OF TOTAL OM	97.02	1.79	0.44	0.75	100.00	2.98
% OF TOTAL OM > 0.1		60.14	14.69	25.17		100.00
% OF TOTAL CARBON	96.14	2.47	0.65	0.74	100.00	3.86
% OF TOTAL C > 0.1		63.86	16.87	19.28		100.00

STATION: 237/12 DATE: 12. 3.1983 TIME: 04.00

NET HAULS: 1* 30- 0 =15.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	0.46	0.55	0.36	\		1.37
CARBOHYDRATES	0.76	0.85	0.71	\		2.32
PROTEINS	0.87	1.15	1.25	\		3.27
DRY WEIGHT	7.82	6.65	4.03	\		18.50
CARBON	1.61	3.74	1.25	\		6.60
NITROGEN	0.24	0.32	0.28	\		0.84
OM	2.09	2.55	2.32			6.96
OM % DRY WEIGHT	26.73	38.35	57.57			
CARBON % DRY WEIGHT	20.59	56.24	31.02			
CARBON % OM	77.03	146.67	53.88			
C / N	6.71	11.69	4.46			
% OF TOTAL OM						
% OF TOTAL OM > 0.1	30.03	36.64	33.33			100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1	24.39	56.67	18.94			100.00

STATION: 237/14 DATE: 12. 3.1983 TIME: 15.30

NET HAULS: 2* 30- 0 =30.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	0.19	0.06	0.16	\		0.41
CARBOHYDRATES	0.38	0.13	0.25	\		0.76
PROTEINS	0.40	0.21	0.39	\		1.00
DRY WEIGHT	1.63	0.69	2.87	\		5.19
CARBON	0.41	0.19	1.23	\		1.83
NITROGEN	0.08	0.03	0.30	\		0.41
OM	0.97	0.40	0.80			2.17
OM % DRY WEIGHT	59.51	57.97	27.87			
CARBON % DRY WEIGHT	25.15	27.54	42.86			
CARBON % OM	42.27	47.50	153.75			
C / N	5.13	6.33	4.10			
% OF TOTAL OM						
% OF TOTAL OM > 0.1	44.70	18.43	36.87			100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1	22.40	10.38	67.21			100.00

STATION: 237/14 DATE: 12. 3.1983 TIME: 15.45

NET HAULS: 1*200-100=50.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.05	0.04	0.07	\	0.16
CARBOHYDRATES		0.10	0.08	0.14	\	0.32
PROTEINS		0.11	0.05	0.13	\	0.29
DRY WEIGHT		0.45	0.62	0.51	\	1.58
CARBON		0.11	0.08	0.13	\	0.32
NITROGEN		0.02	0.02	0.03	\	0.07
OM		0.26	0.17	0.34		0.77
OM % DRY WEIGHT		57.78	27.42	66.67		
CARBON % DRY WEIGHT		24.44	12.90	25.49		
CARBON % OM		42.31	47.06	38.24		
C / N		5.50	4.00	4.33		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		33.77	22.08	44.16		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		34.38	25.00	40.63		100.00

STATION: 239 DATE: 13. 3.1983 TIME: 09.15

NET HAULS: 1* 40- 0 =20.0 M³ 0.02 - 0.1 MM FROM: 0.089 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	0.81	0.19	0.07	0.12	\	1.19 0.38
CARBOHYDRATES	7.46	0.26	0.10	0.17	\	7.99 0.53
PROTEINS	8.99	0.56	0.33	0.65	\	10.53 1.54
DRY WEIGHT	163.60	2.30	1.42	2.03	\	169.35 5.75
CARBON	12.15	0.55	0.25	0.53	\	13.48 1.33
NITROGEN	1.36	0.13	0.06	0.13	\	1.68 0.32
OM	17.26	1.01	0.50	0.94		19.71 2.45
OM % DRY WEIGHT	10.55	43.91	35.21	46.31		
CARBON % DRY WEIGHT	7.43	23.91	17.61	26.11		
CARBON % OM	70.39	54.46	50.00	56.38		
C / N	8.93	4.23	4.17	4.08		
% OF TOTAL OM	87.57	5.12	2.54	4.77	100.00	12.43
% OF TOTAL OM > 0.1		41.22	20.41	38.37		100.00
% OF TOTAL CARBON	90.13	4.08	1.85	3.93	100.00	9.87
% OF TOTAL C > 0.1		41.35	18.80	39.85		100.00

STATION: 244 DATE: 14. 3.1983 TIME: 12.30

NET HAULS: 1* 50- 0 =25.0 M³ 0.02 - 0.1 MM FROM: 0.084 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	0.29	0.34	0.24	1.66	\ 2.53	2.24
CARBOHYDRATES	12.57	0.52	0.37	1.78	\ 15.24	2.67
PROTEINS	7.83	0.84	0.88	2.32	\ 11.87	4.04
DRY WEIGHT	166.67	5.53	3.26	11.33	\ 186.79	20.12
CARBON	8.47	1.58	1.06	5.91	\ 17.02	8.55
NITROGEN	0.80	0.33	0.22	1.41	\ 2.76	1.96
OM	20.69	1.70	1.49	5.76	29.64	8.95
OM % DRY WEIGHT	12.41	30.74	45.71	50.84		
CARBON % DRY WEIGHT	5.08	28.57	32.52	52.16		
CARBON % OM	40.94	92.94	71.14	102.60		
C / N	10.59	4.79	4.82	4.19		
% OF TOTAL OM	69.80	5.74	5.03	19.43	100.00	30.20
% OF TOTAL OM > 0.1		18.99	16.65	64.36		100.00
% OF TOTAL CARBON	49.76	9.28	6.23	34.72	100.00	50.24
% OF TOTAL C > 0.1		18.48	12.40	69.12		100.00

STATION: 244 DATE: 14. 3.1983 TIME: 12.45

NET HAULS: 1*200-150=25.0 M³ 0.02 - 0.1 MM FROM: 0.090 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	0.27	0.32	0.12	0.70	\ 1.41	1.14
CARBOHYDRATES	5.60	0.33	0.30	0.73	\ 6.96	1.36
PROTEINS	6.36	0.67	0.33	1.53	\ 8.89	2.53
DRY WEIGHT	68.44	3.30	4.36	8.56	\ 84.66	16.22
CARBON	12.18	0.73	0.38	2.34	\ 15.63	3.45
NITROGEN	1.48	0.16	0.07	0.53	\ 2.24	0.76
OM	12.23	1.32	0.75	2.96	17.26	5.03
OM % DRY WEIGHT	17.87	40.00	17.20	34.58		
CARBON % DRY WEIGHT	17.80	22.12	8.72	27.34		
CARBON % OM	99.59	55.30	50.67	79.05		
C / N	8.23	4.56	5.43	4.42		
% OF TOTAL OM	70.86	7.65	4.35	17.15	100.00	29.14
% OF TOTAL OM > 0.1		26.24	14.91	58.85		100.00
% OF TOTAL CARBON	77.93	4.67	2.43	14.97	100.00	22.07
% OF TOTAL C > 0.1		21.16	11.01	67.83		100.00

STATION: 248 DATE: 15. 3.1983 TIME: 12.00

NET HAULS: 1* 40- 0 =20.0 M³ 0.02 - 0.1 MM FROM: 0.085 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	4.71	0.47	0.11	1.28	6.57	1.86
CARBOHYDRATES	23.44	0.64	0.15	1.63	25.86	2.42
PROTEINS	22.12	0.91	0.32	2.52	25.87	3.75
DRY WEIGHT	203.29	4.34	2.72	9.22	219.57	16.28
CARBON	23.35	1.13	0.51	3.47	28.46	5.11
NITROGEN	3.50	0.25	0.11	0.82	4.68	1.18
OM	50.27	2.02	0.58	5.43	58.30	8.03
OM % DRY WEIGHT	24.73	46.54	21.32	58.89		
CARBON % DRY WEIGHT	11.49	26.04	18.75	37.64		
CARBON % OM	46.45	55.94	87.93	63.90		
C / N	6.67	4.52	4.64	4.23		
% OF TOTAL OM	86.23	3.46	0.99	9.31	100.00	13.77
% OF TOTAL OM > 0.1		25.16	7.22	67.62		100.00
% OF TOTAL CARBON	82.04	3.97	1.79	12.19	100.00	17.96
% OF TOTAL C > 0.1		22.11	9.98	67.91		100.00

STATION: 251 DATE: 17. 3.1983 TIME: 10.30

NET HAULS: 1* 35- 0 =17.5 M³ 0.02 - 0.1 MM FROM: 0.085 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	5.27	0.15	0.07	7.97	13.46	8.19
CARBOHYDRATES	22.31	0.57	0.10	12.31	35.29	12.98
PROTEINS	12.33	0.33	0.15	7.75	20.56	8.23
DRY WEIGHT	80.00	1.49	0.56	79.43	161.48	81.48
CARBON	15.92	0.35	0.11	33.20	49.58	33.66
NITROGEN	2.44	0.07	0.20	7.63	10.34	7.90
OM	39.91	1.05	0.32	28.03	69.31	29.40
OM % DRY WEIGHT	49.89	70.47	57.14	35.29		
CARBON % DRY WEIGHT	19.90	23.49	19.64	41.80		
CARBON % OM	39.89	33.33	34.38	118.44		
C / N	6.52	5.00	0.55	4.35		
% OF TOTAL OM	57.58	1.51	0.46	40.44	100.00	42.42
% OF TOTAL OM > 0.1		3.57	1.09	95.34		100.00
% OF TOTAL CARBON	32.11	0.71	0.22	66.96	100.00	67.89
% OF TOTAL C > 0.1		1.04	0.33	98.63		100.00

STATION: 251 DATE: 17. 3.1983 TIME: 10.40

NET HAULS: 1* 80- 45=17.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.08	0.02	0.99	\	1.09
CARBOHYDRATES		0.20	0.30	2.06	\	2.56
PROTEINS		0.22	0.24	1.12	\	1.58
DRY WEIGHT		0.87	0.85	7.87	\	9.59
CARBON			0.10	1.78	\	
NITROGEN			0.02	0.57	\	
OM		0.50	0.56	4.17		5.23
OM % DRY WEIGHT		57.47	65.88	52.99		
CARBON % DRY WEIGHT			11.76	22.62		
CARBON % OM			17.86	42.69		
C / N			5.00	3.12		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		9.56	10.71	79.73		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 259 DATE: 18. 3.1983 TIME: 06.30

NET HAULS: 1* 11- 0 = 5.5 M³ 0.02 - 0.1 MM FROM: 0.055 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	1.89	19.42	0.59	0.47	\	22.37
CARBOHYDRATES	72.44	6.19	1.65	1.54	\	81.82
PROTEINS	82.62	14.18	1.07	0.53	\	98.40
DRY WEIGHT	1143.30	36.65	9.70	9.08	\	1198.73
CARBON	71.20	9.81	1.80	2.01	\	84.82
NITROGEN	11.99	2.01	0.42	0.51	\	14.93
OM	156.95	39.79	3.31	2.54		202.59
OM % DRY WEIGHT	13.73	108.57	34.12	27.97		
CARBON % DRY WEIGHT	6.23	26.77	18.56	22.14		
CARBON % OM	45.36	24.65	54.38	79.13		
C / N	5.94	4.88	4.29	3.94		
% OF TOTAL OM	77.47	19.64	1.63	1.25	100.00	22.53
% OF TOTAL OM > 0.1		87.18	7.25	5.57		100.00
% OF TOTAL CARBON	83.94	11.57	2.12	2.37	100.00	16.06
% OF TOTAL C > 0.1		72.03	13.22	14.76		100.00

STATION: 262 DATE: 19. 3.1983 TIME: 06.30

NET HAULS: 1* 40- 0 =20.0 M³ 0.02 - 0.1 MM FROM: 0.056 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	47.90	0.93	0.80	1.87	\ 51.50	3.60
CARBOHYDRATES	68.10	0.84	0.68	1.68	\ 71.30	3.20
PROTEINS	98.57	1.22	1.47	2.02	\ 103.28	4.71
DRY WEIGHT	804.76	6.42	7.11		\	
CARBON	71.27	2.64	0.94		\	
NITROGEN	14.95	0.56	0.23		\	
OM	214.57	2.99	2.95	5.57	226.08	11.51
OM % DRY WEIGHT	26.66	46.57	41.49			
CARBON % DRY WEIGHT	8.86	41.12	13.22			
CARBON % OM	33.22	88.29	31.86			
C / N	4.77	4.71	4.09			
% OF TOTAL OM	94.91	1.32	1.30	2.46	100.00	5.09
% OF TOTAL OM > 0.1		25.98	25.63	48.39		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1						

STATION: 265 DATE: 21. 3.1983 TIME: 10.00

NET HAULS: 1* 12- 0 = 6.0 M³ 0.02 - 0.1 MM FROM: 0.056 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	43.29	3.26	0.95	1.45	\ 48.95	5.66
CARBOHYDRATES	76.86	4.21	1.17	1.78	\ 84.02	7.16
PROTEINS	75.14	5.34	2.02	3.11	\ 85.61	10.47
DRY WEIGHT	770.00	21.92	7.41	15.92	\ 815.25	45.25
CARBON	70.11	6.62	1.79	3.05	\ 81.57	11.46
NITROGEN	9.49	1.34	0.31	0.66	\ 11.80	2.31
OM	195.29	12.81	4.14	6.34	218.58	23.29
OM % DRY WEIGHT	25.36	58.44	55.87	39.82		
CARBON % DRY WEIGHT	9.11	30.20	24.16	19.16		
CARBON % OM	35.90	51.68	43.24	48.11		
C / N	7.39	4.94	5.77	4.62		
% OF TOTAL OM	89.34	5.86	1.89	2.90	100.00	10.66
% OF TOTAL OM > 0.1		55.00	17.78	27.22		100.00
% OF TOTAL CARBON	85.95	8.12	2.19	3.74	100.00	14.05
% OF TOTAL C > 0.1		57.77	15.62	26.61		100.00

STATION: 273 DATE: 22. 3.1983 TIME: 09.30

NET HAULS: 1* 50- 0 =25.0 M³ 0.02 - 0.1 MM FROM: 0.086 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	30.05	1.16	1.59	2.32	\ 35.12	5.07
CARBOHYDRATES	44.09	0.75	1.42	2.92	\ 49.18	5.09
PROTEINS	66.70	1.80	1.66	1.99	\ 72.15	5.45
DRY WEIGHT	695.81	8.68	6.41	18.79	\ 729.69	33.88
CARBON	56.13	3.64	2.91	7.95	\ 70.63	14.50
NITROGEN	9.00	0.75	0.63	1.63	\ 12.01	3.01
OM	140.84	3.71	4.67	7.23	156.45	15.61
OM % DRY WEIGHT	20.24	42.74	72.85	38.48		
CARBON % DRY WEIGHT	8.07	41.94	45.40	42.31		
CARBON % OM	39.85	98.11	62.31	109.96		
C / N	6.24	4.85	4.62	4.88		
% OF TOTAL OM	90.02	2.37	2.98	4.62	100.00	9.98
% OF TOTAL OM > 0.1		23.77	29.92	46.32		100.00
% OF TOTAL CARBON	79.47	5.15	4.12	11.26	100.00	20.53
% OF TOTAL C > 0.1		25.10	20.07	54.83		100.00

STATION: 273 DATE: 22. 3.1983 TIME: 09.45

NET HAULS: 1*100- 50=25.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.17	0.10	0.09	\	0.36
CARBOHYDRATES		0.20	0.12	0.11	\	0.43
PROTEINS		0.35	0.12	0.16	\	0.63
DRY WEIGHT		1.26	0.52	0.92	\	2.70
CARBON		0.33	0.14	0.22	\	0.69
NITROGEN		0.07	0.03	0.04	\	0.14
OM		0.72	0.34	0.36		1.42
OM % DRY WEIGHT		57.14	65.38	39.13		
CARBON % DRY WEIGHT		26.19	26.92	23.91		
CARBON % OM		45.83	41.18	61.11		
C / N		4.71	4.67	5.50		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		50.70	23.94	25.35		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		47.83	20.29	31.88		100.00

STATION: 278 DATE: 23. 3.1983 TIME: 11.45

NET HAULS: 1* 50- 0 =25.0 M³ 0.02 - 0.1 MM FROM: 0.084 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	6.10	0.15	0.06	0.03	6.34	0.24
CARBOHYDRATES	12.10	0.25	0.09	0.04	12.48	0.38
PROTEINS	17.62	0.50	0.14	0.16	18.42	0.80
DRY WEIGHT	55.23	1.83	0.88	1.16	59.10	3.87
CARBON	12.28	0.67	0.26	0.22	13.43	1.15
NITROGEN	1.61	0.15	0.06	0.05	1.87	0.26
OM	35.82	0.90	0.29	0.23	37.24	1.42
OM % DRY WEIGHT	64.86	49.18	32.95	19.83		
CARBON % DRY WEIGHT	22.23	36.61	29.55	18.97		
CARBON % OM	34.28	74.44	89.66	95.65		
C / N	7.63	4.47	4.33	4.40		
% OF TOTAL OM	96.19	2.42	0.78	0.62	100.00	3.81
% OF TOTAL OM > 0.1		63.38	20.42	16.20		100.00
% OF TOTAL CARBON	91.44	4.99	1.94	1.64	100.00	8.56
% OF TOTAL C > 0.1		58.26	22.61	19.13		100.00

STATION: 281 DATE: 27. 3.1983 TIME: 06.30

NET HAULS: 1* 30- 0 =15.0 M³ 0.02 - 0.1 MM FROM: 0.085 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	16.47	1.27	0.77	4.42	22.93	6.46
CARBOHYDRATES	23.06	1.79	0.82	3.54	29.21	6.15
PROTEINS	39.06	2.37	2.34	8.53	52.30	13.24
DRY WEIGHT	66.82	9.33	8.81	32.10	117.06	50.24
CARBON	22.67	3.00	3.28	15.33	44.28	21.61
NITROGEN	4.10	0.67	0.70	3.41	8.88	4.78
OM	78.59	5.43	3.93	16.49	104.44	25.85
OM % DRY WEIGHT	117.61	58.20	44.61	51.37		
CARBON % DRY WEIGHT	33.93	32.15	37.23	47.76		
CARBON % OM	28.85	55.25	83.46	92.97		
C / N	5.53	4.48	4.69	4.50		
% OF TOTAL OM	75.25	5.20	3.76	15.79	100.00	24.75
% OF TOTAL OM > 0.1		21.01	15.20	63.79		100.00
% OF TOTAL CARBON	51.20	6.78	7.41	34.62	100.00	48.80
% OF TOTAL C > 0.1		13.88	15.18	70.94		100.00

STATION: 285 DATE: 28. 3.1983 TIME: 07.00

NET HAULS: 1* 30- 0 =15.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		1.62	0.75	1.65	\	4.02
CARBOHYDRATES		2.84	1.34	2.65	\	6.83
PROTEINS		2.46	2.01	2.58	\	7.05
DRY WEIGHT		16.26	6.36	14.35	\	36.97
CARBON		5.74	2.19	5.73	\	13.66
NITROGEN		1.03	0.52	1.29	\	2.84
OM		6.92	4.10	6.88		17.90
OM % DRY WEIGHT		42.56	64.47	47.94		
CARBON % DRY WEIGHT		35.30	34.43	39.93		
CARBON % OM		82.95	53.41	83.28		
C / N		5.57	4.21	4.44		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		38.66	22.91	38.44		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		42.02	16.03	41.95		100.00

STATION: 287 DATE: 29. 3.1983 TIME: 08.30

NET HAULS: 1* 20- 0 =10.0 M³ 0.02 - 0.1 MM FROM: 0.060 M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS	17.07	0.70	0.56	2.71	\	21.04
CARBOHYDRATES	21.33	1.04	0.84	4.56	\	27.77
PROTEINS	45.20	2.15	1.52	3.41	\	52.28
DRY WEIGHT	130.67	6.54	6.43	32.90	\	176.54
CARBON	30.95	2.25	1.64	13.07	\	47.91
NITROGEN	5.25	0.53	0.39	3.04	\	9.21
OM	83.60	3.89	2.92	10.68		101.09
OM % DRY WEIGHT	63.98	59.48	45.41	32.46		
CARBON % DRY WEIGHT	23.69	34.40	25.51	39.73		
CARBON % OM	37.02	57.84	56.16	122.38		
C / N	5.90	4.25	4.21	4.30		
% OF TOTAL OM	82.70	3.85	2.89	10.56	100.00	17.30
% OF TOTAL OM > 0.1		22.24	16.70	61.06		100.00
% OF TOTAL CARBON	64.60	4.70	3.42	27.28	100.00	35.40
% OF TOTAL C > 0.1		13.27	9.67	77.06		100.00

STATION: 291 DATE: 5. 4.1983 TIME: 08.30

NET HAULS: 1* 35- 0 =17.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.55	0.09	0.14	\	0.78
CARBOHYDRATES		1.04	0.22	0.87	\	2.13
PROTEINS		0.99	0.62	0.31	\	1.92
DRY WEIGHT		3.71	1.27	1.72	\	6.70
CARBON		1.28	0.41	0.31	\	2.00
NITROGEN		0.27	0.09	0.05	\	0.41
OM		2.58	0.93	1.32		4.83
OM % DRY WEIGHT		69.54	73.23	76.74		
CARBON % DRY WEIGHT		34.50	32.28	18.02		
CARBON % OM		49.61	44.09	23.48		
C / N		4.74	4.56	6.20		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		53.42	19.25	27.33		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		64.00	20.50	15.50		100.00

STATION: 299 DATE: 6. 4.1983 TIME: 08.30

NET HAULS: 1* 40- 0 =20.0 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.24	0.23	0.16	\	0.63
CARBOHYDRATES		0.49	0.50	0.67	\	1.66
PROTEINS		1.02	0.44	0.39	\	1.85
DRY WEIGHT		2.94	1.78	6.70	\	11.42
CARBON		0.72	0.35	0.42	\	1.49
NITROGEN		0.16	0.08	0.09	\	0.33
OM		1.75	1.17	1.22		4.14
OM % DRY WEIGHT		59.52	65.73	18.21		
CARBON % DRY WEIGHT		24.49	19.66	6.27		
CARBON % OM		41.14	29.91	34.43		
C / N		4.50	4.38	4.67		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		42.27	28.26	29.47		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		48.32	23.49	28.19		100.00

STATION: 304 DATE: 7. 4.1983 TIME: 07.10

NET HAULS: 1* 35- 0 =17.5 M³ 0.02 - 0.1 MM FROM: - M³

	SIZE FRACTIONS (MM)				SUM OF EACH CONSTIT.	
	0.02-0.1	0.1-0.5	0.5-1.0	> 1.0	0.02->1.0	0.1->1.0
LIPIDS		0.21	0.10	0.09	\	0.40
CARBOHYDRATES		0.39	0.38	0.27	\	1.04
PROTEINS		0.66	0.37	0.14	\	1.17
DRY WEIGHT		1.52	1.01	1.67	\	4.20
CARBON		0.46	0.31	0.37	\	1.14
NITROGEN		0.11	0.07	0.04	\	0.22
OM		1.26	0.85	0.50		2.61
OM % DRY WEIGHT		82.89	84.16	29.94		
CARBON % DRY WEIGHT		30.26	30.69	22.16		
CARBON % OM		36.51	36.47	74.00		
C / N		4.18	4.43	9.25		
% OF TOTAL OM						
% OF TOTAL OM > 0.1		48.28	32.57	19.16		100.00
% OF TOTAL CARBON						
% OF TOTAL C > 0.1		40.35	27.19	32.46		100.00

ZOOPLANKTON METABOLISM

Zooplankton metabolism

Description of methods

Sampling and experimental set-up

Respiration and excretion experiments were carried out with 4 size classes of zooplankton collected with a bongo-net ($\approx 100 \mu\text{m}$) and a rosette sampler (20 - 100 μ). Size fractionating took place by the method of differentiated filtration according to the diagram (p. 78).

Depending upon abundance of zooplankton either the whole catch or only a subsample was used for metabolism experiments. The animals were incubated in 1.2 l glass bottles in the dark for 4 hours at in-situ temperatures ($\pm 1.5 \text{ }^\circ\text{C}$). Two incubators were used for these experiments with a total capacity of 12 experimental and 4 control bottles.

Determinations

Respiration was measured using the Winkler titration technique. In the excretion experiments ammonia and phosphate concentrations were determined according to GRASSHOFF 1976. Total nitrogen and total phosphorus were determined with an AKEA-autoanalyzer after disintegration of organic compounds by boiling. Results of metabolism experiments were calculated as the difference between experimental and control bottles at the end of the experiment.

From each experimental bottle two subsamples were taken for zooplankton analysis. One was fixed with buffered formaldehyde (final concentration approx. 4 %), the other was filtered through a Whatman GF/C glassfiber filter ($\emptyset 2.5 \text{ cm}$) for C/N analysis (comp. diagram p. 78).

Literature

GRASSHOFF, K., 1976: Methods of seawater analysis.
Verlag Chemie, Weinheim, New York, 317 p

Key to the data sheet

Size fractions

0.02 - 0.1:	20 - 100 μm
0.1 - 0.5:	100 - 500 μm
0.5 - 1.0:	500 - 1000 μm
1.0:	> 1000 μm

O2:	Oxygen consumption ($\text{mg m}^{-3} \text{d}^{-1}$) (negative values indicate production of oxygen by phytoplankton)
NH4:	NH ₄ -N excretion ($\mu\text{M m}^{-3} \text{d}^{-1}$) (negative values indicate uptake of ammonia by phytoplankton)
TOT N:	Total nitrogen excretion ($\mu\text{M m}^{-3} \text{d}^{-1}$)
PO4:	PO ₄ -P excretion ($\mu\text{M m}^{-3} \text{d}^{-1}$)
TOT P:	Total phosphorus excretion ($\mu\text{M m}^{-3} \text{d}^{-1}$)

SIZE FRACTION: 0.02 - 0.1

STATION	O ₂	NH ₄	TOT.N	PO ₄	TOT.P
200	5.33	-	-	-69.86	-
204	0.00	-	102.84	1.00	-51.75
216	-	-	-	-	-
222	-7.65	5.36	-	-0.21	-
231	1.68	44.21	-	0.25	-
236	-1.02	-11.33	-	-0.10	-
237	4.36	3.33	-	-	-
237	-3.20	1.22	-53.76	3.20	-3.60
237	-	-	-	-	-
239	5.00	0.90	114.80	-1.50	-7.40
244	6.86	28.80	-	2.06	-
248	-	-	-	-	-
251	5.00	2.40	72.20	1.80	4.80
259	24.48	27.74	-	14.42	-
265	50.67	-52.90	294.97	-9.60	13.34
273	1.64	21.00	101.41	3.94	4.59
278	3.60	8.24	-	0.18	-
281	26.19	-	-	-	-
285	-	-	-	-	-
287	1.01	6.67	35.97	-2.83	4.24
291	-	-	-	-	-
299	-	-	-	-	-
304	-	-	-	-	-

SIZE FRACTION: 0.1 - 0.5

STATION	O ₂	NH ₄	TOT.N	PO ₄	TOT.P
200	0.42	-	-	-0.06	-
204	0.34	-	0.73	-0.11	-0.02
216	2.10	13.70	21.66	0.89	1.37
222	-7.65	24.90	-	-1.46	-
231	0.19	0.62	-	0.04	-
236	0.20	0.29	-	0.04	-
237	0.43	1.77	-	0.22	-
237	0.21	0.52	2.40	0.11	0.19
237	0.29	0.79	4.51	0.14	0.30
239	0.20	0.41	1.51	0.03	0.11
244	1.49	2.96	-	0.58	-
248	0.57	0.82	5.73	0.23	0.31
251	0.08	0.29	2.56	-0.06	0.16
259	7.02	-	-	-	-
265	2.87	5.50	9.74	-0.21	0.59
273	0.74	3.47	8.35	0.41	0.44
278	0.23	0.51	-	0.07	-
281	1.29	1.94	12.62	0.80	0.76
285	1.65	2.65	-3.83	0.03	-0.04
287	1.86	6.68	53.57	0.77	1.52
291	0.68	0.72	10.85	0.43	0.60
299	0.27	0.60	-	0.20	-
304	0.25	0.59	3.12	0.16	0.22

SIZE FRACTION: 0.5 - 1.0

STATION	O ₂	NH ₄	TOT.N	PO ₄	TOT.P
200	0.21	-	-	0.00	-
204	0.44	-	3.18	-0.06	0.34
216	6.04	36.92	99.45	2.82	3.60
222	-4.17	15.65	-	-0.70	-
231	0.19	2.16	-	0.07	-
236	0.16	0.05	-	0.02	-
237	1.08	4.22	-	0.64	-
237	0.11	0.19	0.86	0.09	0.13
237	0.37	1.07	5.71	0.15	0.37
239	0.19	0.61	1.51	0.05	0.17
244	2.25	8.93	-	1.49	-
248	0.46	1.42	6.86	0.22	0.38
251	0.14	0.31	1.97	-0.04	1.80
259	1.90	4.44	-	-0.29	-
265	1.51	4.59	11.31	0.29	0.49
273	0.65	3.69	8.48	0.37	0.52
278	0.11	0.68	-	0.04	-
281	2.55	4.08	25.90	1.32	1.42
285	1.62	3.97	18.66	0.83	1.21
287	1.96	4.93	25.37	0.63	1.30
291	0.49	0.79	5.95	0.32	0.29
299	0.16	0.30	-	0.10	-
304	0.07	0.21	0.83	0.16	0.07

SIZE FRACTION: > 1.0

STATION	O ₂	NH ₄	TOT.N	PO ₄	TOT.P
200	0.09	-	-	-0.23	-
204	0.96	-	54.39	6.49	4.26
216	12.25	64.51	145.58	12.22	20.21
222	-5.56	-3.27	-	-0.07	-
231	0.51	-0.14	-	0.01	-
236	0.12	0.74	-	0.00	-
237	0.80	3.60	-	0.59	-
237	0.35	0.61	1.93	0.29	0.28
237	0.19	0.66	4.55	0.13	0.35
239	0.27	0.83	3.70	0.07	0.28
244	2.44	6.17	-	1.66	-
248	0.98	2.84	16.90	0.90	0.93
251	0.90	2.81	15.75	0.75	1.05
259	1.13	3.18	-	0.45	-
265	0.80	3.29	9.42	0.44	0.64
273	0.80	4.67	18.08	0.42	0.93
278	0.19	1.32	-	0.05	-
281	2.61	2.38	50.68	1.86	2.85
285	1.88	5.74	31.31	0.88	2.24
287	5.29	13.17	119.63	2.09	5.83
291	0.14	0.13	3.85	0.25	0.21
299	0.17	0.47	-	0.14	-
304	0.03	0.07	0.39	0.10	0.05