OCEANOGRAPHICAL OBSERVATIONS
IN THE INDIAN OCEAN IN 1959
H.M.A.S. *DIAMANTINA*
Cruises Dm 1/59 and Dm 2/59

OCEANOGRAPHICAL CRUISE REPORT NO. 1

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1962

OCEANOGRAPHICAL CRUISE REPORT

No. 1

CORRIGENDA

p.14. MAX. SAMP. DEPTH "....to nearest 100 m" add "and is in 100 m units."

p.16. MAX. SAMP. DEPTH "....to nearest 10 metres" add "and is in 10 m units."

p.16. RATE OF PRODUCTION A B — After "B is given in $gC/day/m^2$ to 2 decimal places." add "A day has been taken to be equal to 10 hours. The value of each depth is the value from the surface to that depth."

p.16. Part 4 Pigments

The arrows indicating the position of decimal points have been wrongly placed and should be disregarded. The values are always to 2 decimal places, i.e.

1 = 0.01, 12 = 0.12, 123 = 1.23

1* = -0.01, 12* = -0.12, 123* = -1.23

add
DEPTH Given in m. A blank denotes 0 m.

p.123. Delete 400 in the depth column of Station 131. Replace by 100.

Caption for Fig. 46, third line should read "square from 0 - 100 m depth in $gC/day/m^2$."

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H.M.A.S. DIAMANTINA

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH

ORGANIZATION, AUSTRALIA

MELBOURNE, 1962

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C.S.I.R.O. Aust. Oceanogr. Cruise Rep. No. 1.

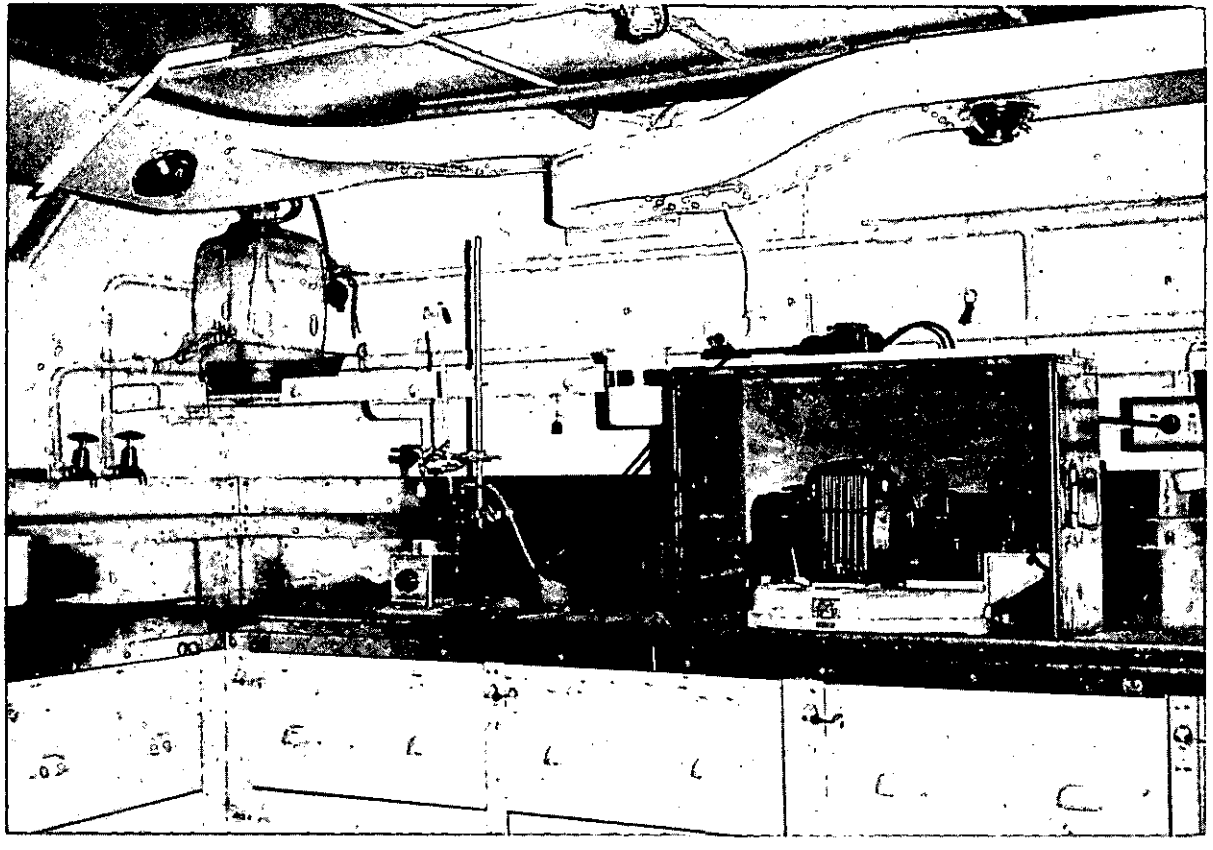

Fig. 1. Section of laboratory showing Hilger Absorptiometer and oxygen titration equipment

OCEANOGRAPHICAL CRUISE REPORT

No. 1

Oceanographical Observations in the Indian Ocean in 1959

H.M.A.S. Diamantina

Cruises Dm 1/59 and Dm 2/59

I. INTRODUCTION

This volume is concerned with the first two oceanographical cruises of H.M.A.S. Diamantina, Royal Australian Navy frigate, which is now being used by C.S.I.R.O. for oceanographical work.

The layout of this volume differs from that of the Oceanographical Station List series of this Laboratory in having, in addition to the data, charts to illustrate the area covered by the cruise, and plots of vertical and horizontal distribution of physical and chemical properties.

II. VESSEL AND OCEANOGRAPHIC EQUIPMENT

H.M.A.S. Diamantina is equipped with a standard Admiralty type 765 echosounder with a depth range of 500 fathoms. For deeper observations the Asdic (AS49 type) is used. Depths to 2000 fathoms can be read off but below that level depths are calculated from stop-watch timing of pulse echoes.

The oceanographic equipment of the ship includes an oceanographic winch with a seven stage controller electrically operated and a drum holding 6000 m of $\frac{1}{2}$in. wire and 3000 m of 3/8in. galvanised steel flexible wire attached to a 72 lb weight. The davit, which is fitted with accumulator springs, is situated on the starboard side aft. An electrical bathymetric winch situated aft on the quarterdeck and using 3/8in. stainless steel wire with 30 lb weight is used for biological samplers. Zooplankton samplers are towed from the steam mine-sweeping winch at wire speeds of 10m/min using 3/8in. wire and a 72 lb weight. Meteorological instruments are on the bridge and the anemometer is

approximately 52 ft above sea level. The ship has two scientific laboratories on quarterdeck level, which are equipped for physical, chemical and biological work (Fig. 1). There is accommodation aboard for six scientists.

III. METHODS OF COLLECTION AND ANALYSIS OF SAMPLES

1. Physics

Temperature.- Water temperatures were taken with deep-sea reversing thermometers. Protected thermometers have a range of -2° to 30°C. Unprotected thermometers have ranges of -2° to 30°C and 0° to 60°C. The accuracy of the temperatures is considered to be ±0.03°C. The readings are recorded in degrees centigrade.

Bathythermograph.- A 900 ft bathythermograph was used at the stations indicated in Table 1. Photographs of each slide are filed at this Laboratory.

Thermometric Depth.- Depth calculations were made by the method described by Pollak (1950) and are considered accurate to ±15 m below 1000 m and to 1% above that depth.

σ_t.- The values were calculated from a nomograph constructed from the Table of σ_t given by the U.S. Hydrographic Office (1951).

Dynamic Heights.- Dynamic heights are calculated from interpolated values of temperature and salinity using Tables 6, 7, 9, given by La Fond (1951).

2. Chemistry

Salinity.- Salinity was measured on board with an inductive salinometer (Brown and Hamon 1961). All samples were measured in duplicate and about 70 samples were checked at Cronulla on a second instrument of the same design.

This was the first cruise on which the instrument was used. The results for Stations 3 to 11 and 70 to 134 appear to be satisfactory and are considered accurate to ±0.005‰.

The results for Stations 14 to 66 are less accurate, because of instrument drift and the fact that not enough standard sea water was available for this section of the cruise. Comparison of the salinities at the deep salinity maximum and the results obtained on check samples at Cronulla, suggest that all salinity values at Stations 14 to 66 may be too low by about 0.010‰. The evidence for this was not considered strong enough to warrant correction of the measured values.

Dissolved Oxygen.- The standard Winkler method (Jacobsen, Robinson and Thompson 1950) was used with potassium iodate as the iodometric standard. Samples were collected in 275-300 ml capacity bottles and 100 ml duplicate aliquots were titrated to a starch end point. Values are given as ml/l. Duplicate titrations agreed to better than 0.03 ml/l of oxygen.

Oxygen Saturation.- The saturation value is computed from the nomograph of Richards and Corwin (1956).

Inorganic Phosphate.- The method of Atkins (1923) was used with 1 ml molybdate reagent (300 ml 10% ammonium molybdate and 100 ml 50% sulphuric acid) and 0.1 ml 1% stannous chloride diluted afresh from a 40% stock solution in hydrochloric acid, which was kept under paraffin. The reagents were automatically dispensed by a piston dispenser.

Standard phosphate solutions were made up in distilled water. Analyses were carried out in batches of 10 since air temperature never exceeded 25°C; readings were taken within 10 minutes after the reagents were added and completed within a further 10 minutes. Each batch was compared with a distilled water blank and a 0.65µg at./l standard in a Hilger Spekker absorptiometer using 4 cm cells and Ilford 608 filters. Each week a complete check was made using standards up to 3.25µg at./l. Results are given as µg at.P/l without any correction for salt error and are precise to ±10% for values less than 0.5µg at./l and ±5% for higher values. If it is wished to correct for salt effects, the results given should be multiplied by 1.15.

3. Primary Production

Measurements of photosynthetic CO_2 uptake by marine phytoplankton were made by the ^{14}C method described by Jitts (1957). Incubation was done in a fluorescent light bath with a constant illumination of about 1100 ft candles.

4. Pigments

Water samples were taken with a plastic sampler and filtered within one or two hours through millipore filters. The filters were placed in envelopes and stored in metal desiccators over silica gel. The analyses were carried out at Cronulla using the method given by Humphrey (1960).

5. Phytoplankton

Water samples were taken with a plastic sampler and each sample was centrifuged within one hour in a continuous centrifuge (Davis 1957). The centrifugate was used for qualitative examination. Collections were also taken for qualitative studies by making 15 min tows with a modified Hardy Indicator, fitted with disks of monel metal gauze 120 meshes to the inch.

6. Zooplankton

The sampler used to collect zooplankton was a modified Clarke-Bumpus unit. The (Plymouth) flowmeter was calibrated in a flume tank constructed for this purpose at the Cronulla laboratory. The net was nylon No. 4 mesh (62 meshes per inch).

The hauls were oblique from 200 m to the surface. Depths were estimated from wire angle and are only approximate. The speed of tow was 2-4 knots and the wire was recovered at about 10 metres per minute. The period of tow averaged half an hour and the volume filtered averaged 13 m^3.

Samples were weighed in the laboratory after washing in 50% alcohol to facilitate removal of external "interstitial" water.

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IV. CRUISES Dm 1/59, Dm 2/59

Objectives

Cruise Dm 1/59 was planned to test oceanographical gear as the ship moved from Sydney to Fremantle. Two stations only were occupied, and the data for these stations are given in Section V.

Cruise Dm 2/59 was planned to examine the structure of waters in the eastern Indian Ocean, particularly to investigate the influx of Antarctic Bottom water.

Itinerary of Cruise Dm 2/59

On Cruise Dm 2/59 113 stations were occupied (Fig. 2). The cruise commenced at Fremantle on October 11, 1959, left Onslow on October 15, Christmas I. on October 22, Cocos I. on October 26, Onslow on November 3, and returned to Fremantle on November 19. At 82 stations bathythermograph casts were made and Hardy indicator samples and surface hydrology samples were taken. At 51 stations bathythermograph and Nansen bottle casts were made and Hardy indicator samples taken. Of these stations, 49 were worked for primary production and pigments, and 18 for zooplankton. Table 1 gives a summary of work done at each station.

TABLE 1

WORK DONE AT EACH STATION

Station Number	BT	Hydrology Surface	Hydrology Deep	Primary Production	Pigments	Phyto-plankton	Zoo-plankton
3	+	+	+	+	+	+	+
4	+	+				+	
5	+	+	+	+	+	+	
6	+	+				+	
7	+	+	+	+	+	+	+
8	+	+				+	
9	+	+	+	+	+	+	
10	+	+				+	

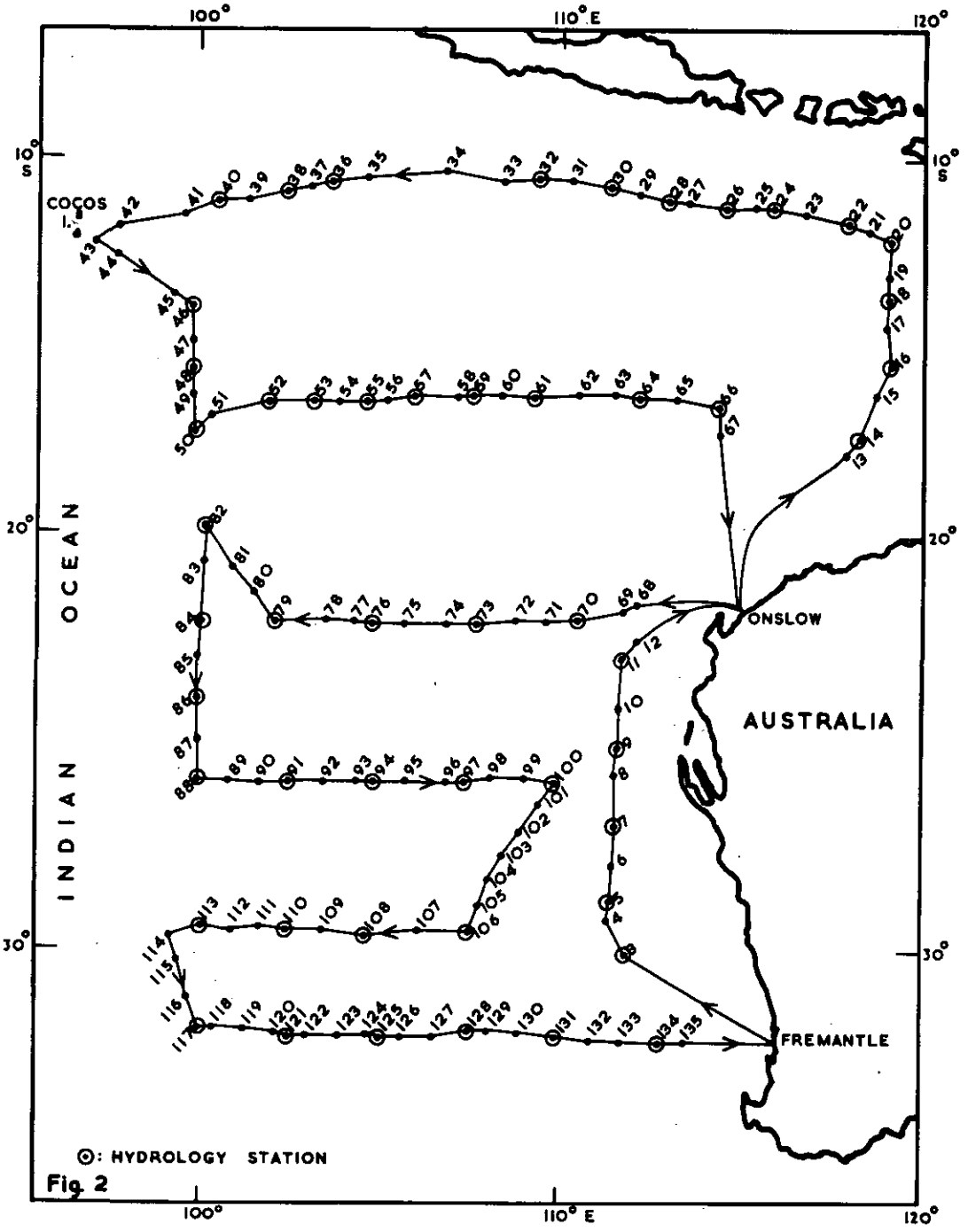

100°
110° E
120°
10° S
20°
30°
COCOS
ONSLOW
FREMANTLE
AUSTRALIA
INDIAN OCEAN
⊙: HYDROLOGY STATION

Fig. 2

Station Number	BT	Hydrology Surface	Hydrology Deep	Primary Production	Pigments	Phyto-plankton	Zoo-plankton
11	+	+	+	+	+	+	
12	+	+				+	
13	+	+				+	
14	+	+	+	+	+	+	
15	+	+				+	
16	+	+	+	+	+	+	+
17	+	+				+	
18	+	+	+	+	+	+	
19	+	+				+	
20	+	+	+	+	+	+	
21	+	+				+	
22	+	+	+			+	
23	+	+				+	
24	+	+	+	+	+	+	+
25	+	+				+	
26	+	+	+	+	+	+	
27	+	+				+	
28	+	+	+	+	+	+	
29	+	+				+	
30	+	+	+	+	+	+	
31	+	+				+	
32	+	+	+	+	+	+	+
33	+	+				+	
34	+	+				+	
35	+	+				+	
36	+	+	+	+	+	+	
37	+	+				+	
38	+	+	+	+	+	+	+
39	+	+				+	
40	+	+	+	+	+	+	
41	+	+				+	
42	+	+				+	
43	+	+				+	
44	+	+				+	
45	+	+				+	
46	+	+	+	+	+	+	
47	+	+				+	
48	+	+	+	+	+	+	+
49	+	+				+	
50	+	+	+	+	+	+	
51	+	+				+	

Station Number	BT	Hydrology Surface	Hydrology Deep	Primary Production	Pigments	Phyto-plankton	Zoo-plankton
52	+	+	+	+	+	+	
53	+	+	+			+	
54	+	+				+	
55	+	+	+	+	+	+	
56	+	+				+	
57	+	+	+	+	+	+	
58	+	+				+	
59	+	+	+	+	+	+	
60	+	+				+	
61	+	+	+	+	+	+	+
62	+	+				+	
63	+	+				+	
64	+	+	+	+	+	+	
65	+	+				+	
66	+	+	+	+	+	+	
67	+	+				+	
68	+	+				+	
69	+	+				+	
70	+	+	+	+	+	+	+
71	+	+				+	
72	+	+				+	
73	+	+	+	+	+	+	
74	+	+				+	
75	+	+				+	
76	+	+	+	+	+	+	+
77	+	+				+	
78	+	+				+	
79	+	+	+	+	+	+	
80	+	+				+	
81	+	+				+	
82	+	+	+	+	+	+	+
83	+	+				+	
84	+	+	+	+	+	+	
85	+	+				+	
86	+	+	+	+	+	+	
87	+	+				+	
88	+	+	+	+	+	+	+
89	+	+				+	
90	+	+				+	
91	+	+	+	+	+	+	
92	+	+				+	

Station Number	BT	Hydrology Surface	Hydrology Deep	Primary Production	Pigments	Phyto-plankton	Zoo-plankton
93	+	+				+	
94	+	+	+	+	+	+	
95	+	+				+	
96	+	+				+	
97	+	+	+	+	+	+	
98	+	+				+	
99	+	+				+	
100	+	+	+	+	+	+	+
101	+	+				+	
102	+	+				+	
103	+	+				+	
104	+	+				+	
105	+	+				+	
106	+	+	+	+	+	+	
107	+	+				+	
108	+	+	+	+	+	+	
109	+	+				+	
110	+	+	+	+	+	+	
111	+	+				+	
112	+	+				+	
113	+	+	+	+	+	+	
114	+	+				+	
115	+	+				+	
116	+	+				+	
117	+	+	+	+	+	+	+
118	+	+				+	
119	+	+				+	
120	+	+				+	
121	+	+	+	+	+	+	+
122	+	+				+	
123	+	+				+	
124	+	+				+	
125	+	+	+	+	+	+	+
126	+	+				+	
127	+	+				+	
128	+	+	+		+	+	+
129	+	+				+	
130	+	+				+	
131	+	+	+	+	+	+	+
132	+	+					
133	+	+					
134	+	+	+	+	+	+	+
135	+	+				+	

Scientific Personnel Participating in Cruise Dm 2/59

D.J. Rochford (11/10/59 - 3/11/59) Cruise Leader
A.D. Crooks (3/11/59 - 19/11/59) Cruise Leader
F. Davies
R. Davies
N. Dyson
B.V. Hamon (11/10/59 - 15/10/59)
J. Staniforth

The analyses of hydrological samples were done in the ship's laboratory by Messrs Davies, Rochford and Staniforth.

The chart of the dynamic topography (Fig. 41B) was prepared by Dr K. Wyrtki. The primary production samples were taken and processed aboard by Mr N. Dyson and counts were made at the Cronulla laboratory by Mr B.D. Scott. The samples for pigment determination were taken and filtered aboard by Mr N. Dyson and the analyses done in the Cronulla laboratory by Mr M. Wootton. The determinations of species of phytoplankton were made by Mr E.J.F. Wood. The zooplankton samples were weighed and the species determined in the Cronulla laboratory by Mr C. Irving.

The data were processed under the direction of Mr A.D. Crooks by Misses L. Lalor and F. Luce and Mrs Wood. The plots were prepared for publication by Mr R. Breach and Miss J. Elder.

V. DATA SHEETS AND TABLES

The data sheets for Cruise Dm 2/59 are arranged in six parts. Part 1 contains the hydrology data for deep stations. Part 2 gives the temperature and salinity data from surface sampling. Part 3 gives primary production data. Part 4 gives data on pigments. Part 5 gives phytoplankton information. Part 6 gives quantitative zooplankton data.

Explanation of Headings on Data Sheets

The following notes are supplied to help to explain the headings used on the data sheets.

The vertical arrows shown in some of the column headings indicate the location of decimal points.

Part 1 Hydrology - Deep Stations

Part 2 Hydrology - Surface Sampling

SHIP All cruises aboard Diamantina are designated by the letters Dm or the figures 11.

CRUISE The letters Dm are followed by the number of the cruise and the year. Cruise numbers are allotted each year beginning with 1 for the first cruise.

STATION Stations are numbered consecutively for each ship for each year.

TIME Given in Local Mean Time and is the time at the beginning of the first cast. The code letter used for the time zone follows the time; these letters are listed in Table 2.

TABLE 2

CODE FOR TIME ZONES

Longitude Exceeding		Up to but not exceeding	Time Zone (hrs)	Code
07°30'E	-	22°30'E	-1	A
22°30'E	-	37°30'E	-2	B
37°30'E	-	52°30'E	-3	C
52°30'E	-	67°30'E	-4	D
67°30'E	-	82°30'E	-5	E
82°30'E	-	97°30'E	-6	F
97°30'E	-	112°30'E	-7	G
112°30'E	-	127°30'E	-8	H
127°30'E	-	142°30'E	-9	I
142°30'E	-	157°30'E	-10	K
157°30'E	-	172°30'E	-11	L
172°30'E	-	180°	-12	M
180°	-	172°30'W	+12	Y
172°30'W	-	157°30'W	+11	X
157°30'W	-	142°30'W	+10	W

142°30'W	- 127°30'W	+9	V
127°30'W	- 112°30'W	+8	U
112°30'W	- 97°30'W	+7	T
97°30'W	- 82°30'W	+6	S
82°30'W	- 67°30'W	+5	R
67°30'W	- 52°30'W	+4	Q
52°30'W	- 37°30'W	+3	P
37°30'W	- 22°30'W	+2	O
22°30'W	- 07°30'W	+1	N
07°30'W	- 07°30'E	0	Z

LATITUDE LONGITUDE — The position of each station is given in degrees and minutes.

SONIC DEPTH — Given in metres, measured at standard sound velocity of 800 fm (1463 m) per second.

MAX. SAMP. DEPTH — Maximum sampling depth is given to nearest 100 m.

AIR TEMP. WET DRY — Air temperatures are recorded from wet and dry bulb thermometers in centigrade degrees to one decimal place.

WIND DIR. SPEED — Wind direction and speed are coded using Tables 8 and 9 in U.S. Hydrogr. Office (1955).

ANEM. HEIGHT — The average height of the anemometer above sea level is given in metres.

CLOUD TYPE AMOUNT — Cloud type and amount are coded using Tables 2 and 3 in U.S. Hydrogr. Office (1955).

VIS. — Visibility is coded using Table 4 in U.S. Hydrogr. Office (1955).

SEA DIR. AMOUNT — Sea direction and amount are coded using Tables 5 and 8 in U.S. Hydrogr. Office (1955).

SWELL DIR. AMOUNT	Sea swell direction and amount are coded using Tables 6 and 8 in U.S. Hydrogr. Office (1955).
ATMOS. PRESSURE	Atmospheric pressure is recorded in millibars to one decimal place; 1000 should be added to the figures given.
WIRE ANGLES CAST 1 CAST 2	Measured at the surface and expressed in degrees for each cast. No more than two wire angles are recorded; if there is a third cast, the shallow cast angle is neglected.
CAST	The cast numbers (corresponding to the wire angles) are shown.
DEPTH	Actual sampling depth given in metres, a blank indicates 0 metres.
TEMP.	Sea temperatures are recorded in degrees centigrade, to 2 decimal places.
S ‰	Salinities are recorded in parts per thousand, to 3 decimal places.
σ_t	Sigma-t recorded to 3 decimal places.
O_2	Oxygen is recorded in ml/l to 2 decimal places.
O_2 % Sat.	Oxygen percentage saturation.
INORG. P	Inorganic phosphate values are given in µg at./l to 2 decimal places.
DOUBTFUL	A figure in this column indicates that the values for certain properties are doubtful or have been interpolated. The properties are designated by the following numbers:- 1. temperature, 2. salinity, 3. temperature and salinity, 4. oxygen, 5. inorganic phosphate, 6. oxygen and inorganic phosphate, 7. depth.

Part 3 Primary Production

MAX. SAMP. DEPTH	Depth of deepest observation to nearest 10 metres.
DIST. FROM COAST	Distance of nearest land in miles.
METHOD OF INCUBATION	A zero indicates light bath incubation.
STOCK NUMBER	Number of ^{14}C stock used.
STOCK ACTIVITY	The activity of ^{14}C stock used is recorded in millions of counts/min. i.e. 9.11×10^6 counts/min.
BACKGROUND	Background count is recorded in counts/min.
LIGHT COUNT	The counts/min of the filter from the clear bottle.
DARK COUNT	The counts/min of the filter from the dark bottle.
NET COUNT	The difference between light and dark count.
INCUBATION PERIOD	Given in hours, and varies from 3.5 - 5.0 .
RATE OF PRODUCTION A B	A is given in mgC/hr/m^3 to 2 decimal places. B is given in gC/day/m^2 to 2 decimal places.

Part 4 Pigments

An asterisk in the body of the table indicates that a negative value was found. A blank indicates that the value was zero.

CHLOROPHYLL a b c	Chlorophyll a and b are given in mg/m^3, and chlorophyll c in MSPU/m^3, to 2 decimal places.
ASTACIN NON-ASTACIN	Astacin and non-astacin are given in MSPU/m^3 to 2 decimal places.

DATA

PART 1

HYDROLOGY

DEEP STATIONS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	1	1	59	7	16	0645 K	3808 S	13652 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4389	45	122	161	26	4	16	6			26	2	22	2	270	7	20

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		1323	35230	26540	570	100	35		
3	25	1331	35230	26520	575	101	35		
3	50	1316	35210	26540	575	101	35		
3	75	1316	35210	26540	573	100	35		
3	100	1306	35190	26540	573	100	35		
3	150	1176	35100	26760	550	93	58		
3	200	1125	35050	26790	545	91	68		
2	273	1027	34920	26860	537	91	84		
2	466	904	34700	26900	540	86	106		
2	658	793	34600	26990	510	79	130		
2	850	620	34490	27140	457	68	145		
2	1043	422	34420	27330	437	62	168		
2	1488	282	34600	27600	367	53	177		
2	1785	242	34690	27710	382	52	174		
1	1984	218	34740	27770	378	51	184		
1	2479	200	34760	27800	390	52	177		
1	2975	154	34800	27870	405	54	174		
1	3471	147	34790	27860	445	59	177		
1	3967	125	34750	27850	447	59	171		
1	4462	110	34770	27880	446	58	167		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	1	2	59	7	18	0922 K	3522 S	12831 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5121	35	133	122	17	6	16	6			17	2	33	2	180	15	20

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. ↓P		DOUBTFUL
3		1538	35520	26300	552	101	19		
3	21	1551	35520	26280	545	100	19		
3	41	1533	35500	26310	530	97	19		
3	61	1539	35500	26280	550	101	13		
3	81	1541	35500	26280	540	99	19		
3	112	1400	35260	26410	540	96	39		
3	157	1320	35260	26570	530	93	48		
2	282	1168	35070	26720	538	91	58		
2	470	914	34700	26890	538	86	103		
2	657	847	34610	26910	540	85	126		
2	845	671	34450	27050	470	71	197		
2	1034	491	34380	27210	453	65	232		
2	1278	345	34430	27400	405	56	261		
2	1476	292	34520	27540	390	53	265		
1	1970	231	34720	27750	368	52	258		
1	2320	211	34750	27780	412	55	252		
1	2468	204	34740	27780	405	54	252		
1	2500	202	34750	27790	402	54	252		
1	3463	154	34730	27810	447	59	242		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	3	59	10	12	0605 H	3.004 S	11149 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
430	8	167	189	18	2	16	7	5	2	17	2	17	1	208	10	10

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1968	35562	25300	505	100	24		
2	19	1961	35561	25310	484	92	20		
2	42	1960	35562	25320	486	97	22		
2	63	1957	35561	25330	481	95	19		
2	82	1961	35563	25310	508	101	19		
2	108	1959	35560	25320	505	100	15		
2	166	1872	35784	25710	498	98	22		
2	248	1464	35506	26450	523	94	41		
2	414	1229	35165	26680	516	89	63		
1	625	912	34716	26880	551	88	103		
1	810	755	34491	26950	464	71	140		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	5	59	10	12	1612 H	2842 S	11124 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5669	42	172	194	19	4	16	7	6	5	19	2	18	2	191	10	15

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1975	35631	25330	508	100	14		
2	25	1968	35642	25350	519	103	14		
2	50	1946	35648	25410	522	103	14		
2	75	1900	35707	25580	516	101	14		
2	100	1855	35783	25750	498	97	20		
2	148	1768	35798	25940	512	98	20		
2	196	1628	35705	26250	508	94	20		
2	295	1228	35154	26660	534	92	49		
2	464	921	34722	26880	534	85	93		
2	561	690	34480	27030	448	68	140		
1	842	450	34402	27270	414	59	183		
1	1028	380	34402	27350	336	47	206		
1	1209	322	34543	27510	353	49	208		
1	1400	283	34614	27600	339	46	200		
1	1849	241	34712	27720	348	47	200		
1	2310	199	34732	27780	374	50	198		
1	2770	175	34726	27790	402	54	196		
1	3243	143	34725	27800	396	52	196		
1	3720	127	34725	27820	424	56	196		
1	4215	119	34717	27830	443	58	196		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	7	59	10	13	0616 H	2659 S	11131 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2469	17	172	194	19	3	16	7	9	9	19	2	19	2	200	20	15

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2022	35595	25170	496	100	14		
2	24	2021	35597	25180	503	101	10		
2	48	2016	35601	25190	500	100	12		
2	72	1959	35704	25420	493	98	14		
2	96	1933	35732	25510	466	92	16		
2	140	1830	35791	25830	513	100	16		
2	186	1775	35799	25970	465	89	20		
2	274	1398	35416	26540	500	89	39		
2	456	959	34785	26870	462	74	91		
1	570	872	34656	26920	532	84	113		
1	724	644	34457	27110	466	70	160		
1	868	539	34457	27270	385	57	194		
1	1022	457	34584	27410	278	40	219		
1	1200	413	34609	27480	275	39	223		
1	1672	294	34679	27660	346	47	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	9	59	10	13	1900 H	2507 S	11136 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1042	08	172	194	18	6	16	7	4	6	18	2	17	3	200	5	99

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2132	35510	24810	496	101	12		
1	25	2132	35514	25810	484	99	10		
1	49	2126	35508	24830	484	99	14		
1	74	2120	35512	24840	490	100	10		
1	99	2119	35515	24850	486	99	8		
1	146	1985	35700	25350	466	93	16		
1	191	1824	35729	25780	394	77	18		
1	281	1482	35557	26450	505	91	30		
1	474	982	34824	26860	543	88	81		
1	668	787	34498	26920	475	73	168		
1	846	512	34537	27310	310	45	193		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	11	59	10	14	0803 H	2259 S	11142 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
4207	34	178	211	16	4	16	7	1	1	16	2	16	3	180	5	5

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2259	35143	24170	486	101	10		
2	24	2254	35143	24190	481	100	10		
2	48	2193	35317	24500	481	99	14		
2	72	2081	35324	24810	391	79	37		
2	95	2055	35451	24970	452	91	26		
2	143	1915	35359	25280	382	75	47		
2	191	1877	35793	25700	440	86	16		
2	289	1452	35514	26470	513	92	37		
2	485	970	34822	26880	540	87	82		
1	668	642	34505	27120	428	64	158		
1	853	532	34596	27340	250	36	203		
1	1045	478	34637	27440	229	33	209		
1	1234	435	34635	27480	245	35	219		
1	1427	365	34654	27560	269	38	211		
1	1902	270	34718	27700	304	42	198		
1	2380	207	34736	27770	343	46	203		
1	2868	171	34735	27800	372	50	190		
1	3366	143	34732	27820	400	53	192		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	14	59	10	16	1806 H	1722 S	11816 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM.	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED	HEIGHT	TYPE	AMT.		DIR.	AMT.	DIR.	AMT.	↓	CAST 1.	CAST 2.
1554	12	233	250	24	1	16	9	1	1	24	1	23	1	138	10	5

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2606	34934	22970	449	99	14		
2	24	2594	34979	23050	452	99	18		
2	48	2543	34956	23180	467	102	14		
2	73	2527	35044	23300	462	100	14		
2	97	2474	35117	23510	444	96	16		
2	142	2291	35164	24100	346	72	45		
2	184	1890	35024	25080	300	59	75		
3	287	1167	34686	26410	241	41	152		
1	465	890	34698	26910	326	52	160		4
1	636	691	34629	27150	241	36	183		
1	812	554	34615	27320	212	31	205		
1	995	477	34627	27420	218	31	207		
1	1186	424	34630	27480	218	31	215		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	16	59	10	17	0605 H	1528 S	119 4 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2926	24	233	267	20	3	16	9	9		20	1	22	1	115	5	5

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2716	34637	22390	459	102	15		
2	25	2638	34852	22780	459	101	13		
2	50	2554	34839	23030	462	101	13		
2	75	2509	35093	23350	475	103	15		
2	100	2444	35089	23570	465	100	15		
2	150	2134	34857	24290	284	58	71		
2	200	1684	34803	25400	247	46	113		
2	300	1180	34738	26420	247	42	153		
1	476	845	34693	26950	329	52	158		
1	662	655	34625	27180	215	32	206		
1	847	547	34622	27310	199	29	219		
1	1042	473	34625	27410	215	31	221		
1	1231	406	34639	27490	223	31	225		
1	1420	374	34670	27560	241	34	223		
1	1904	264	34733	27700	296	40	217		
1	2393	205	34745	27760	335	45	215		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	18	59	10	17	1806 H	1341 S	119 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5669	48	267	283	16	3	16	9	8	1	16	1	22	1	110	5	5

CAST	DEPTH	TEMP.	$s\,‰$	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2728	34593	22330	459	102	11		
2	25	2644	34494	22510	459	101	11		
2	50	2592	34596	22750	462	101	11		
2	74	2561	34700	22910	470	102	11		
2	98	2509	35034	23320	470	102	11		
2	147	2254	34964	24050	340	71	48		
2	196	1891	34858	24950	272	53	84		
2	296	1221	34794	26400	276	47	136		
2	478	823	34633	26960	282	44	175		
2	661	639	34590	27200	215	32	210		
2	834	557	34588	27300	215	31	214		
1	990	513	34602	27350	221	32	207		
1	1187	435	34611	27460	221	31	216		
1	1359	370	34642	27550	238	33	209		
1	1840	273	34720	27700	289	39	209		
1	2316	220	34729	27750	312	42	205		
1	2795	175	34731	27790	354	47	201		
1	3287	147	34722	27820	372	49	197		
1	3776	131	34714	27820	406	53	188		
1	4266	117	34717	27830	415	54	188		
1	4767	117	34714	27830	415	54	188		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	20	59	10	18	0608 H	1205 S	119 3 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5303	20	244	278	17	2	16	9	9		99	0	21	1	110	5	5

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2782	34370	21990	447	100	15		
2	24	2762	34363	22050	429	96	13		
2	49	2595	34282	22500	460	100	17		
2	73	2555	34420	22730	425	92	26		
2	97	2479	34466	23010	385	83	35		
2	146	2026	34552	24370	260	52	93		
2	195	1620	34527	25380	233	43	121		
2	291	1134	34522	26360	242	40	156		
2	357	976	34606	26710	224	36	167		
2	482	820	34615	26960	215	34	191		
2	670	644	34569	27170	209	31	204		
2	750	595	34579	27250	215	32	201		
2	854	553	34577	27300	209	31	206		
2	989	490	34587	27390	215	31	212		
1	1081	452	34596	27430	215	31	212		
1	1160	425	34608	27480	215	30	212		
1	1348	375	34630	27550	235	33	219		
1	1440	348	34641	27580	248	34	210		
1	1711	288	34690	27670	282	39	208		
1	2006	245	34712	27730	307	42	206		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	22	59	10	18	1642 H	1140 S	11751 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5486	46	244	272	24	2	16	9	8	3	25	1	27	2	115	5	5

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2821	34363	21840	442	100	17		
2	23	2722	34396	22190	445	99	15		
2	46	2627	34489	22550	445	98	15		
2	69	2595	34519	22660	442	97	15		
2	92	2510	34684	23040	390	84	29		
2	136	2157	34483	23960	291	59	78		
2	176	1707	34415	25050	275	52	99		
2	250	1252	34538	36130	238	41	143		
2	379	932	34590	26740	218	35	168		
2	511	774	34607	27010	218	34	185		
1	730	609	34590	27210	200	30	214		
1	906	500	34596	27370	213	31	222		
1	1084	457	34606	37420	213	30	220		
1	1270	404	34621	27490	224	32	218		
1	1727	312	34704	27650	273	38	212		
1	2200	222	34726	27750	312	42	210		
1	2676	185	34726	27780	336	45	205		
1	3157	158	34715	27780	363	48	199		
1	3646	124	34716	27810	392	52	186		
1	4140	115	34709	27810	417	55	186		
1	4635	116	34706	27810	410	54	186		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	24	59	10	19	0607 H	1116 S	11553 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6584	57	233	256	16	2	16	9	8	5	17	1	18	1	144		

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2785	34419	21990	454	102	13		
3	24	2709	34427	22240	457	102	11		
3	48	2618	34435	22520	476	104	11		
3	73	2230	34309	23600	309	64	63		
3	96	2025	34433	24260	281	56	80		
3	142	1628	34661	25430	251	46	106		
3	181	1362	34540	25890	238	42	123		
3	278	1136	34624	26410	230	38	145		
3	460	841	34625	26910	207	32	173		
3	650	693	34600	27100	190	29	184		
2	825	578	34604	27260	207	30	191		
2	1006	505	34607	27350	218	31	204		
2	1196	412	34623	27470	230	32	206		
2	1378	361	34666	27560	244	34	209		
2	1856	316	34699	27610	273	38	206		
2	2330	255	34729	27690	310	42	206		
2	2530	206	34740	27760	328	44	200		2
2	2806	173	34743	27790	351	47	195		
2	3330	142	34732	27800	384	51	193		
1	3760	120	34722	27810	406	53	193		
2	4240	116	34719	27810	412	54	193		
2	4745	115	34720	27810	410	54	175		
1	5230	123	34718	27810	412	54	175		
1	5700	128	34718	27810	414	54	169		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	26	59	10	19	1609 H	1114 S	11434 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5121	27	244	272	23	2	16	9	9	4	23	1	19	2	110	10	99

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2798	34331	21860	438	98	11		
1	46	2600	34259	22420	450	98	15		
1	90	2446	34619	23190	368	79	39		
1	132	1859	34429	24660	265	55	89		
1	177	1568	34567	25460	231	42	121		
1	260	1128	34572	26360	231	39	158		
1	430	858	34686	26910	219	35	156		4
1	855	523	34606	27310	202	29	195		
1	1287	386	34636	27490	228	32	206		
1	1746	275	34721	27660	233	32	197		
1	2720	193	34726	27740	344	46	191		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	28	59	10	20	0600 H	1104 S	11259 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5486	47	233	267	11	2	16	9	6	2	11	1	17	1	138	10	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2757	34349	22050	447	100	11		
2	22	2684	34354	22280	447	99	11		
2	44	2602	34445	22600	464	102	11		
2	67	2551	34581	22860	441	96	15		
2	90	2532	34704	23000	447	97	15		
2	132	2127	34659	24180	274	56	71		
2	176	1623	34673	25470	252	47	102		
2	258	1135	34646	26450	234	39	145		
2	416	846	34609	26910	214	34	178		
2	580	700	34611	27140	196	30	199		
1	740	568	34607	27300	202	30	163		
1	916	544	34603	27330	214	31	163		
1	1108	466	34603	27422	211	32	213		
1	1296	426	34630	27480	222	31	213		
1	1764	269	34711	27700	274	37	204		
1	2110	253	34732	27730	295	40	204		
1	2724	184	34726	27790	350	47	198		
1	3216	145	34718	27810	395	52	191		
1	3710	126	34715	27820	395	52	189		
1	4206	121	34715	27820	416	55	189		
1	4704	116	34713	27830	413	54	189		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	30	59	10	20	1800 H	1044 S	11123 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5577	19	244	267	11	3	16	9	8	3	11	1	19	1	140		

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. ↓P		DOUBTFUL
2		2737	34361	22120	448	100	9		
2	23	2640	34411	22460	442	97	11		
2	46	2480	34516	23040	284	59	76		
2	69	2125	34551	24100	272	55	87		
2	92	1779	34621	25300	243	46	117		
2	155	1374	34645	25970	215	38	133		
1	303	1037	34757	26710	166	27	168		
1	556	808	34759	27060	163	25	196		
1	690	711	34692	27170	163	25	203		
2	925	542	34615	27340	203	30	214		
1	1140	449	34621	27460	215	31	217		
2	1900	287	34731	27700	284	39	201		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	32	59	10	21	0622 H	1.029 S	10927 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6035	58	250	261	12	3	16	9	4	4	12	1	19	1	120		

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
3		2641	34506	22520	454	100	13		
3	22	2617	34489	22870	451	99	13		
3	44	2245	34469	23690	348	72	52		
3	186	1246	34586	26180	218	37	127		
3	462	797	34652	27010	192	30	189		
3	642	690	34645	27160	186	28	203		
2	829	544	34613	27330	210	31	213		
2	1020	464	34618	27440	204	29	215		
2	1212	428	34657	27490	213	30	217		
2	1410	362	34689	27590	227	32	217		
2	1790	297	34726	27680	276	38	209		
3	2327	222	34728	27750	316	43	203		
3	2900	157	34721	27810	369	49	200		
1	3280	136	34722	27820	374	49	196		
1	4810	118	34699	27820	417	55	193		
1	5300	118	34706	27820	430	56	191		
1	5800	126	34706	27820	430	57	191		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	36	59	10	23	0600 G	1037 S	10344 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
8035	38	239	256	15	3	16	9	8	6	15	1	17	2	137		

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2596	34442	22630	447	98	13		
2	24	2589	34433	22650	451	98	13		
2	48	2583	34437	22660	454	99	13		
2	71	2577	34473	22700	447	97	15		
2	91	2573	34527	22760	442	96	15		
2	136	2297	34648	23680	291	61	65		
2	180	1820	34651	24950	260	50	100		
2	264	1259	34624	26180	206	35	147		
2	424	930	34704	26840	195	31	182		
2	604	737	34649	27090	184	28	206		
2	792	590	34570	27220	184	27	212		
1	1031	484	34624	27400	200	29	216		
1	1205	431	34646	27480	213	30	225		
1	1390	371	34699	27580	233	33	220		
1	1855	262	34728	27710	286	39	218		
1	2331	225	34731	27740	322	43	205		
1	2816	169	34723	27790	361	47	200		
1	3308	140	34721	27810	382	50	194		
1	3796	119	34711	27810	404	53	194		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	38	59	10	23	170 G	1054 S	10225 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4114	28	244	278	18	4	16	9	4	6	17	1	14	2	145	5	99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2659	34329	22350	450	99	15		
1	49	2645	34319	22370	453	100	17		
1	98	2552	34420	22730	447	97	22		
1	122	2483	34556	23080	318	68	30		5
1	289	1188	34624	26350	214	36	162		
1	470	858	34657	26940	204	32	189		
1	853	557	34629	27340	184	27	225		
1	1228	424	34667	27520	208	29	227		
1	1704	300	34723	27700	258	35	220		
1	2267	219	34733	27760	324	44	211		
1	2842	176	34727	27800	358	48	200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	40	59	10	24	0600 G	1107 S	10028 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4389	31	222	267	10	3	16	9	4	6	10	1	12	1	134		

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2659	34418	22410	450	99	19		
2	24	2654	34402	22410	444	98	17		
2	46	2648	34403	22430	447	98	15		
2	68	2632	34384	22460	441	97	15		
2	90	2443	34494	23140	368	79	39		
2	134	2103	34556	24150	262	53	84		
2	177	1691	34681	25320	258	48	106		
2	264	1197	34651	26340	234	40	147		
2	440	864	34652	26920	216	34	175		
1	560	768	34642	27050	191	29	201		
1	714	633	34626	27220	181	27	213		
1	870	545	34614	27340	191	28	222		
1	1024	499	34659	27440	191	28	222		
1	1190	429	34649	27500	204	29	222		
1	1648	312	34733	27680	268	37	224		
1	1937	261	34740	27730	292	40	213		
1	2520	195	34730	27790	332	51	206		
1	3110	165	34721	27810	371	49	199		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	46	59	10	27	1744 G	1354 S	09945 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5303	34	233	250	12	3	16	9	8	3	12	2	11	2	110	30	

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2607	34437	22580	469	103	16		
2	25	2605	34422	22580	469	103	16		
2	50	2596	34421	22600	469	103	16		
2	75	2593	34422	22610	464	101	16		
2	99	2589	34410	22610	461	100	22		
2	147	2549	34387	22710	405	88	25		
2	197	2162	34539	24000	286	58	78		
2	293	1412	34583	25860	243	43	130		
2	465	971	34799	26860	480	78	105		
2	651	733	34643	27110	231	35	188		
1	851	624	34650	27250	177	26	208		
1	1026	515	34643	27390	160	26	213		
1	1190	450	34632	27460	200	29	213		
1	1330	400	34660	27530	231	32	213		
1	1686	314	34708	27650	274	38	215		
1	2018	251	34722	27730	305	41	215		
1	2360	212	34724	27760	342	46	208		
1	2650	180	34726	27790	359	48	201		
1	3035	163	34721	27790	375	50	199		
1	3446	145	34714	27810	399	53	192		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	48	59	10	28	0600 G	1533 S	09945 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6035	48	222	244	12	3	16	9	4	5	12	1	11	1	128	10	

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2600	34560	22720	469	103	14		
2	24	2589	34551	22740	466	102	14		
2	48	2583	34552	22760	461	101	16		
2	96	2576	34612	22840	449	98	19		
2	142	2314	34807	23760	380	80	39		
2	188	2047	35115	24750	366	73	49		
2	231	1885	35314	25330	372	74	56		
2	276	1706	35482	25890	386	73	58		
2	368	1317	35290	26600	478	84	65		
2	459	1012	34852	26840	495	81	100		
2	645	696	34603	27140	299	45	188		
2	841	604	34666	27300	195	29	216		
1	1031	528	34656	27390	193	28	223		
1	1223	432	34648	27500	210	30	225		
1	1414	375	34671	27580	237	33	221		
1	1890	269	34718	27710	306	42	211		
1	2364	207	34725	27770	345	46	202		
1	2838	174	34721	27800	366	49	200		
1	3310	146	34715	27810	397	53	193		
1	3592	127	34712	27820	399	53	195		
1	4157	120	34710	27830	416	55	193		
1	4751	119	34705	27820	436	57	186		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	50	59	10	28	1800 G	1706 S	09945 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
576	49	222	239	14	3	16	9	8	3	14	1	13	1	136		

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2492	34809	23230	470	101	18		
2	22	2475	34805	23290	467	100	18		
2	46	2460	34806	23330	465	100	16		
2	69	2404	34836	23520	479	102	16		
2	94	2372	34890	23660	470	100	16		
2	138	2271	35050	24080	457	95	13		
2	185	2064	35439	24940	442	89	27		
2	234	1814	35498	25630	372	72	49		
2	279	1632	35543	26110	402	75	52		
2	466	995	34837	26860	504	82	90		
2	660	727	34589	27070	355	54	164		
2	859	584	34649	27310	197	29	208		
1	1033	529	34658	27390	194	21	218		4
1	1223	436	34662	27500	209	30	223		
1	1414	379	34663	27570	241	34	214		
1	1890	266	34713	27720	311	42	207		
1	2369	204	34720	27770	340	46	202		
1	2845	171	34718	27790	367	49	197		
1	3324	140	34715	27820	384	51	188		
1	3799	119	34712	27830	402	53	190		
1	4376	115	34708	27820	425	56	190		
1	4949	117	34707	27820	435	57	190		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	52	59	10	29	1000 H	1631 S	10158 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
6126	49	222	256	10	4	16	9	8	1	10	1	11	1	152		

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2575	34518	22760	465	101	14		
2	24	2565	34512	22790	457	100	14		
2	48	2559	34513	22810	465	101	14		
2	71	2519	34622	23010	457	99	16		
2	96	2455	34646	23220	395	85	33		
2	140	2172	34962	24290	349	71	44		
2	188	1987	35292	25040	372	74	44		
2	282	1558	35428	26190	379	70	65		
2	470	990	34837	26860	510	83	88		
2	648	696	34568	27100	346	52	169		
2	840	594	34641	27600	191	28	218		
1	1030	528	34649	27390	195	28	221		
1	1210	430	34647	27500	209	30	224		
1	1390	379	34655	27560	231	32	221		
1	1850	266	34710	27710	311	42	193		
1	2328	204	34709	27760	349	47	200		
1	2800	169	34715	27790	367	49	195		
1	3280	140	34714	27820	382	50	191		
1	3780	127	34713	27820	396	52	191		
1	4355	115	34712	27830	418	55	191		
1	4930	117	34707	27820	419	55	186		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	53	59	10	29	1910 H	1631 S	103 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6126	28	222	244	12	4	16	9	8	8	12	1	11	1	125		99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2500	34724	23150	478	100	13		
1	49	2474	34723	23220	461	103	15		
1	98	2462	34711	23250	458	98	13		
1	144	2332	35066	23900	445	94	19		
1	193	2035	35214	24860	380	76	48		
1	280	1673	35513	26000	427	80	54		
1	463	958	34794	26890	470	76	115		
1	935	540	34655	27380	199	29	232		
1	1685	306	34707	27600	292	40	225		
1	2245	214	34729	27770	344	46	225		
1	2810	169	34729	27810	362	51	219		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	55	59	10	30	0718	1628 S	10440 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6035	49	200	244	14	4	16	9	6	7	14	1	12	1	120		

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2492	34741	23170	481	104	15		
2	24	2481	34739	23200	481	103	15		
2	48	2477	34737	23210	475	102	15		
2	72	2457	34739	23280	481	103	15		
2	94	2451	34741	23300	478	102	15		
2	138	2257	35014	24080	407	84	32		
2	184	1976	35303	25060	382	76	54		
2	280	1602	35531	26170	417	78	63		
2	464	990	34868	26880	526	85	102		
2	643	715	34602	27090	345	52	195		
2	828	590	34656	27290	199	29	236		
1	1019	519	34663	27400	202	29	219		
1	1214	433	34668	27490	220	31	221		
1	1400	372	34682	27570	250	35	221		
1	1870	261	34733	27710	310	42	215		
1	2345	205	34735	27790	347	47	211		
1	2820	169	34727	27790	372	49	207		
1	3290	142	34731	27820	396	52	199		
1	3764	130	34726	27820	401	53	199		
1	4340	123	34722	27830	427	56	199		
1	4937	118	34721	27830	439	58	197		

2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	57	59	10	30	1800 H	1624 S	106 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6035	28	211	239	15	3	16	9	8	2	15	1	12	2	120		99

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2467	34784	23280	461	99	15		
1	47	2426	34869	23460	465	99	13		
1	94	2393	34916	23600	456	97	15		
1	142	2243	35171	24240	385	80	24		5
1	189	1990	35399	25090	376	75	48		
1	276	1586	35486	26170	402	74	65		
1	455	981	34830	26860	510	83	102		
1	928	532	34651	27380	185	28	225		
1	1690	299	34699	27660	269	40	221		
1	2266	212	34734	27760	320	43	217		
1	2840	168	34729	27790	358	48	203		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	59	59	10	31	0700 H	1620 S	10740 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
6401	51	211	239	13	3	16	9	8	2	13	1	14	2	137		

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2438	34840	23410	468	100	15		
2	25	2407	34945	23540	474	101	13		
2	50	2338	34982	23810	474	100	15		
2	74	2317	35081	23950	489	102	13		
2	98	2294	35116	24040	476	100	13		
2	147	2149	35175	24490	408	83	34		
2	195	1944	35485	25290	390	77	44		
2	288	1564	35561	26270	435	80	54		
2	380	1172	35111	26730	496	84	76		
2	469	926	34745	26880	532	85	105		
2	660	680	34613	27140	264	40	193		
2	850	515	34640	27380	196	28	215		
1	1018	500	34653	27400	202	29	215		
1	1208	422	34662	27500	208	29	219		
1	1400	362	34679	27580	244	34	217		
1	1885	251	34730	27710	305	41	212		
1	2380	214	34734	27750	320	43	200		
1	2870	169	34730	27790	352	47	200		
1	3364	139	34725	27810	380	50	193		
1	3858	121	34722	27820	402	53	193		
1	4455	117	34719	27820	402	53	193		
1	5053	125	34715	27820	422	56	185		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	61	59	10	31	1806 H	1621 S	10923 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5303	28	222	256	16	3	16	9	8	4	16	1	12	2	130	00	99

CAST	DEPTH	TEMP. ↓	s ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. ↓P		DOUBTFUL
1		2500	34762	23150	464	100	13		
1	49	2478	34775	23250	466	100	11		
1	98	2416	34824	23470	466	99	13		
1	144	2294	34981	23950	377	79	21		
1	190	2003	35269	24980	351	70	50		
1	285	1548	35363	26160	369	68	69		
1	460	995	34873	26880	495	80	98		
1	900	524	34642	27380	189	27	212		
1	1638	332	34705	27630	274	38	219		
1	2220	219	34732	27760	318	43	215		
1	2810	180	34732	27800	345	46	204		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	64	59	11	01	1100 H	1611 S	11213 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
4572	39	233	244	17	3	16	9	2	7	17	1	16	2	130	00	00

CAST	DEPTH	TEMP. ↓	$s‰$	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2558	34746	22980	471	103	15		
1	25	2533	34754	23060	477	103	17		
1	49	2472	34926	23380	483	104	17		
1	72	2452	34955	23460	480	103	17		
1	96	2390	35076	23730	483	103	17		
1	191	1867	35483	24720	405	79	48		
1	286	1269	35078	26520	369	64	107		
1	470	868	34691	26940	443	70	136		
1	560	765	34625	27030	318	49	180		
2	656	668	34624	27180	206	31	216		
2	842	547	34631	27350	195	29	226		
2	1030	474	34630	27440	200	29	226		
2	1400	363	34663	27580	252	35	216		
2	1872	260	34712	27710	306	42	222		
2	2344	200	34722	27760	337	45	216		
2	2722	178	34723	27790	348	46	216		
2	3287	142	34720	27820	387	51	207		
2	3863	127	34712	27820	405	53	203		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	66	59	11	02	300 H	1637 S	11425 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3566	30	233	256	18	2	16	9					18	2	97	00	00

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2620	34630	22690	464	102	15		
2	25	2610	34641	22730	464	102	15		
2	50	2596	34691	22810	464	102	17		
2	75	2493	34844	23240	483	104	19		
2	100	2458	34902	23390	466	100	19		
2	150	2292	35057	24010	387	81	45		
2	200	1995	35171	24910	355	71	67		
2	300	1425	35202	26280	366	65	104		
1	470	862	34708	26950	436	69	140		
1	653	675	34634	27160	230	35	203		
1	840	576	34628	27290	195	29	220		
1	1026	484	34641	27420	200	29	218		
1	1220	418	34650	27500	225	32	225		
1	1410	364	34671	27560	236	33	225		
1	1880	256	34728	27710	295	40	218		
1	2434	197	34742	27780	339	45	210		
1	3030	160	34737	27800	372	49	214		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	70	59	11	04	1445 H	2205 S	11030 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4938	31	200	222	17	3	16	9	8	4	17	1	16	2	110	00	00

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2310	35341	24100	473	99	17		
2	25	2303	35345	24120	481	101	15		
2	49	2298	35235	24150	466	98	17		
2	74	2287	35235	24180	480	100	19		
2	98	2257	35239	24260	478	99	19		
2	145	2118	35376	24750	427	87	30		
2	192	2031	35522	25100	444	89	33		
2	286	1671	35673	26120	462	87	45		
2	473	995	34854	26870	520	85	91		
2	650	807	34553	26930	556	86	142		
1	836	569	34594	27290	250	37	207		
1	1020	467	34625	27440	219	31	220		
1	1207	414	34640	27510	225	32	217		
1	1575	319	34673	27620	287	40	211		
1	2035	236	34722	27650	318	43	204		
1	2574	189	34732	27800	359	48	200		
1	3146	161	34725	27810	380	51	192		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	73	59	11	05	737 H	2.210 S	10745 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
384	30	194	217	17	3	16	9	8	2	17	1	20	2	140	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2188	35346	24540	500	103	15		
2	24	2167	35374	24610	509	105	17		
2	47	2092	35485	24910	509	103	17		
2	74	2038	35575	24970	506	102	19		
2	97	2019	35617	25200	509	102	19		
2	146	1927	35651	25470	462	91	35		
2	194	1791	35737	25880	450	86	37		
2	287	1437	35505	26510	516	92	36		
2	465	1009	34862	26870	549	90	87		
1	660	777	34579	26990	473	73	137		
1	848	561	34563	27270	267	42	199		
1	1034	494	34633	27420	236	34	212		
1	1224	423	34646	27510	252	36	229		
1	1414	356	34666	27590	266	40	214		
1	1885	250	34717	27730	327	44	209		
1	2451	193	34733	27790	358	48	207		
1	3012	165	34730	27810	383	51	194		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	76	59	11	05	2312 H	2208 S	10450 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
3202	28	183	228	20	3	16	9	8	4	19	3	19	4	159	05	99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2251	35209	24260	483	100	13		
1	49	2234	35236	24320	490	102	10		
1	98	2165	35395	24640	466	96	13		
1	148	2053	35541	25060	480	97	17		
1	239	1700	35669	26050	444	84	34		
1	414	1148	35062	26750	534	90	67		
1	890	542	34586	27320	263	38	205		
1	1638	302	34683	27650	307	42	209		
1	2223	219	34730	27760	343	46	206		
1	2800	172	34735	27820	379	50	197		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	79	59	11	06	1451 H	2.202 S	102 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5486	46	222	256	18	2	16	9	8	2	18	1	19	4	151	08	05

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2222	35401	24480	503	104	13		
2	24	2196	35406	24560	511	105	13		
2	48	2105	35511	24890	521	106	13		
2	72	2034	35582	25110	515	104	13		
2	94	2009	35620	25240	515	103	15		
2	140	1907	35732	25580	464	95	11		
2	186	1781	35778	25920	464	93	25		
2	278	1462	35544	26470	508	92	40		
2	466	1033	34917	26860	548	90	80		
2	654	844	34630	26930	530	83	113		
1	818	582	34482	27180	388	57	183		
1	1000	471	34592	27400	261	37	220		
1	1180	396	34614	27500	267	38	216		
1	1362	346	34644	27570	287	40	211		
1	1814	267	34715	27710	320	44	209		
1	2269	211	34734	27760	340	46	211		
1	2722	176	34738	27810	372	50	200		
1	3496	138	34729	27830	397	52	200		
1	4047	125	34724	27830	412	54	198		
1	4634	121	34721	27840	418	55	189		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	82	59	11	06	1040 H	1951 S	10012 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
6081	48	206	233	11	12	16	9	8	4	11	1	17	1	175	15	15

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2464	34836	23340	470	101	15		
2	25	2458	34958	23450	490	105	13		
2	50	2281	35125	24110	476	99	15		
2	74	2181	35336	24540	459	94	17		
2	98	2099	35489	24900	500	102	10		
2	146	2041	35557	25100	493	99	15		
2	192	1928	35602	25430	441	86	31		
2	284	1566	35602	26310	453	83	42		
2	470	1074	34987	26840	536	89	75		
2	650	807	34616	26990	484	75	125		
2	832	601	34596	27250	266	39	197		
2	985	523	34638	27380	226	33	214		
2	1021	504	34641	27410	235	34	208		
1	1160	465	34652	27460	242	33	217		
1	1600	305	34690	27650	291	40	208		
1	2032	225	34726	27750	340	46	201		
1	2468	193	34737	27800	357	48	199		
1	2910	163	34734	27810	379	50	199		
1	3344	142	34730	27820	388	51	195		
1	3630	130	34727	27830	400	53	195		
1	4216	120	34723	27840	423	56	195		
1	4810	119	34719	27840	415	54	188		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	84	59	11	08	2390 H	2205 S	100 1 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6126	25	189	228	12	2	16	9	6	2	12	1	16	1	170	05	99

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2341	35027	23850	484	102	12		
1	46	2275	35150	24140	486	101	12		
1	93	2132	35395	24720	456	93	18		
1	138	2047	35538	25070	446	90	18		
1	186	1915	35632	25490	437	86	28		
1	280	1657	35707	26180	461	86	33		
1	468	1274	35442	26440	426	77	51		
1	937	534	34509	27260	385	56	147		
1	1688	350	34664	27590	235	33	193		
1	2040	219	34731	27760	278	37	182		
1	2540	190	34734	27790	323	43	175		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	86	59	11	08	1908 H	2400 S	09958 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5669	28	183	211	15	2	16	9	8	4	15	1	17	1	165	05	99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2254	35232	24260	493	102	13		
1	45	2093	35520	24940	504	102	13		
1	94	2027	35644	25200	566	114	13		
1	140	1913	35683	25520	464	92	21		
1	190	1814	35811	25870	436	84	21		
1	275	1497	35586	26440	494	90	34		
1	453	1104	35015	26800	534	89	67		
1	918	521	34535	27300	310	45	191		
1	1652	288	34663	27640	321	44	202		
1	2200	220	34729	27760	350	47	195		
1	2760	182	34737	27790	360	51	195		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	88	59	11	09	818 H	2558 S	09955 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2012	14	178	200	14	2	16	9	8	4			13	1	164	05	00

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2151	35506	24760	509	104	13		
2	25	2131	35565	24860	506	103	13		
2	50	2022	35663	25080	509	102	13		
2	75	1974	35714	25390	509	101	13		
2	114	1889	35750	25640	481	94	26		
2	207	1603	35688	26220	519	96	37		
1	440	1118	35038	26790	540	90	74		
1	626	897	34705	27080	534	85	97		
1	814	595	34475	27160	423	62	163		
1	1008	435	34504	27370	333	47	194		
1	1202	386	34587	27500	295	41	205		
1	1400	334	34635	27580	320	45	210		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	91	59	11	09	2237 H	2559 S	10230 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5303	38	167	189	13	2	16	9	4	7			15	1	160	00	05

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. ↓P		DOUBTFUL
2		2130	35483	24810	513	105	15		
2	24	2114	35479	24840	510	104	13		
2	48	2096	35521	24920	506	103	13		
2	72	2058	35600	25080	513	104	13		
2	96	1990	35678	25340	504	101	15		
2	142	1891	35734	25620	470	93	24		
2	189	1754	35748	25970	462	89	30		
2	279	1473	35550	26460	488	88	39		
2	455	1076	34970	26810	540	90	71		
2	640	857	34623	26900	528	83	108		
1	847	605	34479	27150	418	62	165		
1	1030	462	34530	27370	360	51	196		
1	1220	417	34565	27450	297	42	197		
1	1404	374	34625	27540	297	41	205		
1	1874	274	34707	27620	345	47	192		
1	2350	207	34736	27770	357	48	194		
1	2818	176	34737	27800	378	50	189		
1	3295	149	34734	27830	401	53	189		
1	3775	134	34726	27830	395	48	185		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	94	59	11	10	1310 H	2559 S	10455 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5121	38	178	206	13	1	16	9	8	2			15	1	139	02	03

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2175	35538	24720	504	104	11		
2	25	2123	35534	24860	491	100	9		
2	50	2033	35650	25200	516	104	11		
2	98	1918	35733	25550	460	91	16		
2	146	1798	35808	25910	485	94	18		
2	194	1582	35747	26400	491	91	25		
2	290	1390	35446	26560	481	86	45		
2	464	1028	34894	26810	549	90	78		
2	650	834	34620	26940	479	75	108		
1	836	615	34483	27140	424	63	165		
1	1020	449	34517	27370	325	46	201		
1	1208	377	34576	27500	300	42	206		
1	1392	343	34616	27640	319	44	201		
1	1860	253	34712	27710	336	46	199		
1	2336	203	34735	27780	353	47	199		
1	2818	166	34739	27820	381	51	192		
1	3280	152	34734	27830	392	52	192		
1	3760	137	34729	27840	421	56	188		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	97	59	11	11	407 H	2558 S	10724 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5303	19	178	200	13	2	16	9	4	4			15	1	151	05	99

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		2084	35721	25100	510	104	11		
1	48	2011	35782	25350	518	104	11		
1	94	1892	35788	25660	527	104	13		
1	142	1802	35822	25910	498	96	18		
1	189	1679	35785	26190	521	98	22		
1	285	1367	35404	26570	527	93	47		
1	463	1031	34893	26840	556	91	81		
1	910	477	34467	27300	390	56	192		
1	1378	339	34629	27560	309	43	214		
1	1850	252	34715	27720	336	46	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	100	59	11	11	1807 H	2559 S	10957 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4115	32	189	200	19	5	16	9	8	8	19	3	18	2	160	00	00

CAST	DEPTH	TEMP. ↓	$s\,‰$	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		2110	35672	25000	510	104	9		
2	24	2040	35777	25280	510	103	9		
2	49	1957	36799	25500	530	105	9		
2	73	1843	35825	25810	533	104	12		
2	98	1792	35830	25940	525	101	16		
2	147	1656	35752	26210	522	98	20		
2	194	1528	35613	26400	515	92	31		
2	288	1247	35242	26700	536	92	51		
2	466	983	34824	26860	560	91	86		
1	607	876	34661	26910	541	85	110		
1	788	617	34449	27110	460	68	160		
1	967	472	34544	27360	296	42	211		
1	1144	401	34562	27460	303	43	213		
1	1324	340	34595	27550	306	42	208		
1	1768	273	34725	27710	334	46	208		
1	2225	210	34735	27770	360	48	204		
1	2690	179	34735	27800	380	51	200		
1	3170	154	34733	27830	396	52	198		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	106	59	11	12	2014 H	2932 S	10735 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5121	28	144	178	17	3	16	9	8	5	21	1	21	4	235	05	99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		1924	35814	25600	522	103	11		
1	48	1808	35848	25920	535	103	13		
1	96	1682	35786	26190	541	102	15		
1	142	1562	35719	26410	548	101	17		
1	190	1427	35499	26520	525	94	38		
1	284	1196	35132	26710	550	94	55		
1	470	949	34791	26900	541	87	90		
1	924	429	34411	27300	427	60	176		
1	1374	312	34605	27580	337	46	196		
1	1827	248	34706	27720	357	48	194		
1	2784	173	34725	27800	401	53	185		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	108	59	11	13	1012 H	2937 S	10441 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4572	38	111	167	18	3	16	9	6	7	18	1	19	4	241	02	05

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1887	35827	25700	534	105	10		
2	25	1886	35830	25710	534	105	12		
2	49	1882	35829	25720	534	105	12		
2	73	1873	35827	25740	536	105	14		
2	96	1742	35847	26080	560	107	18		
2	137	1621	35727	26290	525	98	25		
2	182	1511	35604	26430	517	94	33		
2	274	1307	35336	26650	536	94	45		
2	455	1031	34889	26830	568	93	77		
2	640	889	34692	26910	547	87	102.		
1	844	631	34457	27100	462	69	136		
1	1034	458	34477	27330	364	52	195		
1	1216	367	34523	27450	343	48	197		
1	1400	329	34580	27550	337	47	202		
1	1876	252	34698	27710	354	48	205		
1	2340	194	34731	27790	378	51	197		
1	2806	177	34736	27800	398	53	195		
1	3273	150	34736	27830	421	56	192		
1	3751	131	34729	27830	445	59	185		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	110	59	11	13	2212 H	2930 S	10230 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.	↓	CAST 1.	CAST 2.
493	21	133	172	15	4	16	9	9	7	14	1	13	4	249	05	99

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. ↓P		DOUBTFUL
1		1900	35838	25690	526	104	12		
1	46	1815	35827	25890	531	103	12		
1	92	1649	35780	26260	534	100	16		
1	136	1568	35695	26390	526	97	26		
1	179	1434	35530	26530	520	93	43		
1	252	1325	35362	26630	536	94	52		
1	404	1026	34933	26880	556	91	80		
1	771	718	34520	27030	487	74	142		
1	1150	370	34500	27440	360	50	203		
1	1447	292	34603	27590	342	47	206		
1	2050	233	34719	27730	369	50	201		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	113	59	11	14	1140 H	2925 S	100 2 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4206	34	161	194	15	2	16	9	4	6	15	1	21	1	230	05	00

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1827	35895	25910	534	104	12		
2	23	1824	35890	25920	536	104	12		
2	46	1703	35823	26110	552	105	12		
2	69	1670	35825	26250	552	104	15		
2	92	1632	35796	26320	548	102	18		
2	138	1565	35741	26420	543	100	24		
2	182	1430	35509	26520	531	95	39		
2	270	1265	35275	26700	556	96	60		
2	434	1042	34912	26830	531	87	86		
2	620	893	34705	26920	536	85	106		
1	812	709	34510	27040	426	65	143		
1	987	465	34411	27270	543	78	186		
1	1160	380	34484	27410	366	51	204		
1	1337	330	34566	27530	345	48	210		
1	1807	258	34696	27700	351	48	210		
1	2270	196	34731	27790	374	50	204		
1	2735	166	34747	27820	404	54	201		
1	3200	137	34735	27840	429	57	198		
1	3385	139	34733	27840	441	58	195		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	117	59	11	15	811 H	3150 S	09958 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2377	19	144	167	20	2	16	9	8	5			21	1	230	00	00

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
1		1845	35897	25860	531	104	14		
1	24	1828	35890	25910	540	105	14		
1	48	1686	35762	26150	549	104	20		
1	72	1630	35725	26270	556	104	20		
1	96	1556	35663	26380	546	100	23		
1	142	1420	35498	26530	531	95	37		
1	188	1314	35333	26630	534	93	42		
1	282	1179	35127	26750	534	91	57		
2	457	1031	34881	26820	556	91	80		
2	640	882	34686	26920	534	84	101		
2	824	782	34484	26910	466	72	142		
2	916	572	34423	27150	450	66	160		
2	1013	440	34410	27300	426	60	178		
2	1196	368	34481	27430	372	52	191		
2	1385	336	34555	27510	345	48	196		
2	1856	262	34682	27690	360	49	193		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	121	59	11	15	2138 H	3159 S	10227 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5121	47	161	172	21	2	16	9	9	9	21	1	22	1	215	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		1701	35850	26180	561	107	16		
2	24	1682	35842	26220	561	106	16		
2	48	1666	35839	26260	565	106	16		
2	72	1643	35821	26300	567	106	16		
2	95	1622	35808	26330	561	105	16		
2	143	1579	35764	26410	549	101	18		
2	190	1536	35697	26450	556	102	20		
2	281	1310	35322	26630	546	95	40		
2	455	1064	34931	26790	568	94	74		
2	644	912	34726	26910	553	88	94		
2	840	746	34529	27000	503	77	130		
1	1018	493	34409	27240	438	63	183		
1	1204	385	34483	27420	366	51	197		
1	1387	336	34571	27530	342	47	207		
1	1840	266	34674	27670	351	48	204		
1	2300	219	34730	27770	383	52	195		
1	2760	187	34745	27810	420	56	188		
1	3210	151	34744	27830	444	59	181		
1	3690	124	34733	27840	450	59	190		
1	4158	102	34722	27860	464	61	190		
1	4664	106	34717	27860	464	61	190		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	125	59	11	16	1340 H	3200 S	10500 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
5303	41	133	172	14	3	16	9	4	7	14	2	17	1	210	00	00

CAST	DEPTH	TEMP. ↓	S ‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1713	35816	26130	553	105	14		
2	24	1708	35812	26140	556	106	14		
2	46	1698	35810	26160	556	105	14		
2	69	1666	35769	26210	556	105	14		
2	92	1574	35678	26360	568	105	16		
2	137	1474	35585	26500	559	101	29		
2	180	1404	35462	26550	549	98	35		
2	270	1223	35180	26700	559	96	51		
2	445	983	34813	26860	575	93	84		
2	636	866	34664	26930	553	87	109		
1	810	658	34475	27070	470	70	148		
1	992	429	34409	27300	438	62	184		
1	1173	359	34474	27420	389	54	203		
1	1360	328	34574	27530	342	47	207		
1	1804	263	34695	27680	357	49	198		
1	2266	216	34736	27760	374	50	195		
1	2697	172	34743	27820	398	53	193		
1	3173	159	34745	27820	420	56	191		
1	3640	133	34739	27840	453	60	186		
1	4127	117	34727	27840	456	60	181		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	128	59	11	17	510 H	3150 S	10730 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5394	45	128	156	14	2	16	9	8	8	14	2	18	1	182	10	05

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1725	35866	26140	550	105	16		
2	25	1723	35864	26140	545	104	16		
2	50	1717	35857	26150	545	104	16		
2	74	1672	35808	26220	545	103	16		
2	98	1653	35797	26260	548	103	19		
2	142	1551	35643	26370	534	98	23		
2	186	1407	35437	26520	539	96	35		
2	275	1188	35116	26720	539	92	56		
2	450	880	34666	26910	539	85	104		
2	627	627	34454	27100	471	70	151		
2	820	432	34404	27290	431	61	176		
1	1040	377	34510	27440	375	52	200		
1	1100	330	34565	27530	351	48	205		
1	1260	314	34695	27650	354	49	200		
1	1700	252	34731	27730	372	51	191		
1	2150	217	34739	27760	396	53	193		
1	2608	185	34733	27800	430	57	186		4
1	3069	153	34738	27830	430	57	186		
1	3552	133	34726	27830	448	59	186		
1	4040	125	34717	27830	455	60	186		
1	4498	110	34716	99999					2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	131	59	11	18	2115 H	3159 S	10957 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE ↓	WIRE ANGLES	
		WET ↓	DRY ↓	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
6303	47	139	172	13	4	16	9	4	8	14	2	18	6	173	10	05

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1796	35861	25950	540	104	13		
2	25	1798	35860	25940	547	106	13		
2	50	1782	35848	25980	540	104	13		
2	73	1759	35838	26020	540	103	13		
2	96	1719	35794	26090	540	103	16		
2	142	1498	35547	26400	547	99	25		
2	188	1320	35311	26600	540	95	43		
2	280	994	34847	26860	540	88	83		
2	462	714	34508	27020	491	75	137		
2	644	460	34399	27250	440	63	175		
2	826	379	34481	27400	368	51	195		
1	1023	339	34550	27500	339	47	205		
1	1220	301	34591	27570	348	48	201		
1	1410	271	34634	27640	353	48	201		
1	1880	228	34719	27740	357	48	201		
1	2340	199	34731	27780	381	51	187		
1	3760	127	34737	27830	392	52	187		
1	4700	106	34720	27830	427	56	183		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	134	59	11	10	1245 H	3203 S	11245 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET ↓	AIR TEMP. DRY ↓	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE ↓	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5209	40	167	183	15	4	16	9	1	5	18	1	18	6	145	06	00

CAST	DEPTH	TEMP. ↓	S‰ ↓	σ_t ↓	O_2 ↓	O_2 % SAT.	INORG. P ↓		DOUBTFUL
2		1929	35686	25480	530	105	14		
2	22	1919	35680	25500	526	104	12		
2	46	1913	35681	25510	526	104	12		
2	69	1912	35681	25520	510	101	14		
2	92	1910	35681	25520	526	104	14		
2	136	1836	35783	25790	488	95	14		
2	180	1741	35801	26030	516	99	16		
2	270	1462	35512	26440	530	96	28		
2	438	1091	34950	26750	535	89	70		
2	617	904	34712	26890	561	89	97		
2	761	780	34555	26950	514	79	132		
1	932	497	34406	27210	445	64	179		
1	1112	399	34465	27360	372	52	203		
1	1280	361	34536	27460	336	47	214		
1	1701	276	34652	27620	351	48	200		
1	2151	228	34721	27720	360	49	200		
1	2604	181	34732	27790	387	52	195		
1	3060	164	34732	27800	410	55	195		
1	3518	141	34732	27810	421	56	193		
1	3985	138	34720	27810	430	57	191		

DATA

PART 2

HYDROLOGY

SURFACE SAMPLING

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	S‰
3	59	10	12	600G	3404S	11150E	1970	3556
4	59	10	12	1500G	2911S	11130E	1940	3564
5	59	10	12	1803G	2842S	11124E	1975	3563
6	59	10	13	200G	2755S	11128E	1960	3561
7	59	10	13	608G	2659S	11131E	2022	3560
8	59	10	13	1400G	2546S	11133E	2050	3560
9	59	10	13	1800G	2507S	11135E	2130	3551
10	59	10	14	200G	2410S	11138E	2040	3538
11	59	10	14	600G	2259S	11142E	2260	3514
12	59	10	14	1400G	2235S	11208E	2330	3533
13	59	10	16	1400H	1749S	11754E	2630	3472
14	59	10	16	1800H	1722S	11816E	2610	3492
15	59	10	17	200H	1630S	11845E	2640	3503
16	59	10	17	600H	1528S	11904E	2720	3463
17	59	10	17	1400H	1405S	11858E	2800	3451
18	59	10	17	1800H	1341S	11900E	2730	3459
19	59	10	18	200H	1304S	11902E	2800	3433
20	59	10	18	600H	1205S	11903E	2780	3437
21	59	10	18	1400H	1152S	11831E	2760	3445
22	59	10	18	1630H	1140S	11751E	2820	3434
23	59	10	19	200H	1126S	11643E		3443
24	59	10	19	600H	1116S	11553E	2790	3442
25	59	10	19	1400H	1115S	11522E	2820	3449
26	59	10	19	1800H	1114S	11424E	2800	3427
27	59	10	20	200H	1108S	11324E	2750	3429
28	59	10	20	600H	1104S	11254E	2760	3435
29	59	10	20	1400H	1056S	11213E	2710	3447
30	59	10	20	1800H	1044S	11113E	2740	3436
31	59	10	21	200H	1035S	11012E	2620	3441
32	59	10	21	600H	1029S	10927E	2640	3450
33	59	10	21	1800G	1034S	10829E	2540	3456
34	59	10	22	200G	1016S	10653E	2630	3440
35	59	10	23	200G	1031S	10442E	2580	3457
36	59	10	23	600G	1037S	10344E	2600	3442
37	59	10	23	1400G	1045S	10311E	2610	3439
38	59	10	23	1808G	1054S	10225E	2660	3433
39	59	10	24	200G	1103S	10122E	2640	3438
40	59	10	24	600G	1108S	10028E	2660	3442
41	59	10	24	1400G	1124S	9934E	2680	3445
42	59	10	25	200G	1151S	9749E	2620	3437
43	59	10	27	200F	1208S	9706E	2620	3465
44	59	10	27	600G	1236S	9742E	2660	3439
45	59	10	27	1400G	1335S	9914E	2590	3444
46	59	10	27	1700G	1354S	9945E	2610	3472
47	59	10	28	200G	1454S	9945E	2560	3445
48	59	10	28	600G	1533S	9945E	2600	3456

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE	TEMP. ↓	S ‰ ↓
49	59	10	28	1400G	1622S	9945E	2630	3456
50	59	10	28	1800G	1706S	9945E	2490	3474
51	59	10	29	200G	1654S	10020E	2510	3463
52	59	10	29	2000G	1631S	10157E	2580	
53	59	10	29	1900G	1631S	10305E	2500	3472
54	59	10	30	200G	1630S	10354E	2500	3472
55	59	10	30	600G	1628S	10440E	2490	3473
56	59	10	30	1400G	1625S	10514E	2530	3484
57	59	10	30	1800G	1624S	10600E	2470	3477
58	59	10	31	200G	1622S	10709E	2570	3489
59	59	10	31	600G	1620S	10740E	2440	3482
60	59	10	31	1400G	1621S	10828E	2520	3467
61	59	10	31	1800G	1621S	10923E	2500	3476
62	59	11	1	200G	1616S	11031E	2490	3479
63	59	11	1	600G	1616S	11128E	2460	3491
64	59	11	1	1000G	1611S	11213E		3475
65	59	11	1	1800H	1625S	11307E	2500	3506
66	59	11	2	30H	1637S	11425E	2620	3478
67	59	11	2	600H	1718S	11426E	2580	3470
68	59	11	4	200G	2141S	11204E	2360	3520
69	59	11	4	800G	2152S	11147E	2300	3524
70	59	11	4	1445G	2205S	11030E	2310	3523
71	59	11	4	2300G	2205S	10938E	2280	3535
72	59	11	5	430G	2205S	10850E	2120	3523
73	59	11	5	730G	2210S	10745E	2190	3535
74	59	11	5	1500G	2208S	10653E	2240	3526
75	59	11	5	1900G	2211S	10540E	2280	3512
76	59	11	5	2300G	2208S	10450E	2240	3521
77	59	11	6	500G	2202S	10421E	2260	3501
78	59	11	6	900G	2202S	10330E	2310	3515
79	59	11	6	1330G	2202S	10205E	2220	3540
80	59	11	6	2400G	2126S	10131E	2120	3505
81	59	11	7	500G	2049S	10057E	2140	3554
82	59	11	7	1030G	1951S	10012E	2465	3484
83	59	11	7	1900G	2042S	10009E	2200	3544
84	59	11	8	230G	2205S	10001E	2340	3503
85	59	11	8	1400G	2259S	9952E	2280	3520
86	59	11	8	1900G	2400S	9958E	2250	3523
87	59	11	9	300G	2457S	9956E	2160	3533
88	59	11	9	800G	2558S	9955E	2150	3551
89	59	11	9	1500G	2558S	10059E	2340	3540
90	59	11	9	1900G	2600S	10142E	2160	3550
91	59	11	9	2230G	2559S	10230E	2130	3548
92	59	11	10	600G	2600S	10331E	2040	3579
93	59	11	10	1000G	2559S	10421E	2190	3558
94	59	11	10	1300G	2559S	10455E	2175	3554

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	S ‰
95	59	11	10	2000G	2559S	10548E	2060	3591
96	59	11	11	2000G	2558S	10655E	2010	3577
97	59	11	11	4000G	2558S	10724E	2080	3572
98	59	11	11	10000G	2549S	10812E	2160	3543
99	59	11	11	14000G	2551S	10904E	2180	3549
100	59	11	11	18000G	2559S	10957E	2110	3567
101	59	11	11	24000G	2631S	10925E	2000	3551
102	59	11	12	4000G	2708S	10859E	1980	3582
103	59	11	12	8000G	2743S	10827E	2010	3575
104	59	11	12	12000G	2816S	10801E	2060	3562
105	59	11	12	16000G	2855S	10748E	2040	3570
106	59	11	12	20000G	2932S	10735E	1920	3581
107	59	11	13	4000G	2932S	10608E	1780	3506
108	59	11	13	10000G	2937S	10440E	1890	3583
109	59	11	13	18000G	2932S	10328E	1920	3590
110	59	11	13	22000G	2930S	10230E	1900	3584
111	59	11	14	4000G	2927S	10145E	1910	3587
112	59	11	14	8000G	2930S	10050E	1780	3596
113	59	11	14	11400G	2925S	10002E	1830	3590
114	59	11	14	20000G	2937S	9912E	1860	3593
115	59	11	14	24000G	3020S	9925E	1900	3587
116	59	11	15	4000G	3105S	9941E	1840	3594
117	59	11	15	8000G	3150S	9958E	1850	3590
118	59	11	15	12000G	3151S	10021E	1800	3598
119	59	11	15	16000G	3154S	10115E	1890	3589
120	59	11	15	20000G	3158S	10204E	1710	3592
121	59	11	15	21300G	3159S	10227E	1700	3585
122	59	11	16	4000G	3157S	10257E	1590	3584
123	59	11	16	8000G	3157S	10352E	1680	3588
124	59	11	16	12000G	3158S	10439E	1660	3584
125	59	11	16	13300G	3200S	10500E	1710	3582
126	59	11	16	20000G	3200S	10538E	1600	3573
127	59	11	16	24000G	3200S	10628E	1690	3579
128	59	11	17	5000G	3150S	10730E	1720	3587
129	59	11	17	12000G	3148S	10803E	1740	3588
130	59	11	17	16000G	3153S	10857E	1810	3589
131	59	11	17	20000G	3159S	10957E	1790	3585
132	59	11	18	4000G	3202S	11051E	1810	3593
133	59	11	18	8000G	3203S	11140E	1800	3507
134	59	11	18	1245H	3203S	11245E	1930	3367
135	59	11	18	2000H	3203S	11327E	1860	3599

DATA

PART 3

PRIMARY PRODUCTION

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
11	2	0003	59	10	12	0700	H	3004	S	11149	E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4300	10	160	0	6	9110	12

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	280	7	273	0400	0018	0000
25	226	12	214	0400	0014	0004
50	172	5	167	0400	0011	0007
100	127	5	122	0400	0008	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
11	2	0005	59	10	12	1830	H	2842	S	11124	E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5669	10	150	0	6	9110	12

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	69	22	47	0400	0003	0000
25	108	101	07	0400	0001	0001
50	85	22	63	0400	0004	0002
100	53	16	37	0400	0003	0003

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
11	2	0007	59	10	13	0800	H	2659	S	11131	E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
2469	10	130	0	6	9110	12

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	180	21	159	0400	0011	0000
25	220	15	205	0400	0014	0003
50	194	18	176	0400	0012	0006
100	196	7	189	0400	0013	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
11	2	0009	59	10	13	1800	H	2507	S	11136	E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
1042	10	110	0	6	9100	12

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	48	10	38	0400	0003	0000
25	100	24	76	0400	0005	0001
50	89	20	69	0400	0005	0002
100	265	8	257	0400	0017	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0011	59	10	14	1030 H	2259 S	11142 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4207	10	130	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	124	21	103	0375	0007	0000
25	91	7	84	0375	0006	0002
50	136	10	126	0375	0009	0004
100	178	5	173	0375	0012	0009

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0014	59	10	16	1600 H	1722 S	11816 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
1554	10	120	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	142	18	124	0400	0008	0000
25	28	17	7	0400	0001	0001
50	36	27	9	0400	0001	0001
100	4	30	10	0400	0001	0002

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0016	59	10	17	600 H	1528 S	11904 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
2826	10	160	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	178	9	169	0400	0011	0000
25	119	9	110	0400	0007	0002
50	109	13	96	0400	0006	0004
100	398	7	391	0400	0026	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0018	59	10	17	2200 H	1341 S	11900 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5669	10	150	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	33	8	25	0275	0003	0000
25	26	12	14	0275	0001	0001
50	2	15	5	0275	0000	0001
100	297	4	293	0275	0029	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0020	59	10	18	1000 H	1205 S	11903 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	120	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	59	25	34	0400	0002	0000
25	99	7	92	0400	0006	0001
50	382	13	369	0400	0025	0005
100	2	16	4	0400	0000	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0024	59	10	19	930 H	1116 S	11553 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6584	10	130	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	183	15	168	0400	0011	0000
25	681	26	655	0400	0044	0007
50	544	20	524	0400	0035	0017
100	24	23	1	0400	0000	0025

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0026	59	10	19	1800 H	1114 S	11434 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5121	10	140	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	↓B
	48	19	29	0400	0002	0000
25	39	31	8	0400	0001	0000
50	224	28	196	0400	0013	0002
100	76	24	52	0400	0004	0006

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0028	59	10	20	930 H	1104 S	11259 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5486	10	140	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	↓B
	204	32	172	0400	0012	0000
25	377	9	368	0400	0025	0005
50	717	12	705	0400	0047	0014
100	14	8	132	0400	0009	0027

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0030	59	10	20	1810 H	1044 S	11123 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5577	10	135	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	131	23	108	0400	0007	0000
25	281	13	268	0400	0019	0003
50	76	22	738	0400	0049	0012
100	62	5	57	0400	0004	0025

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0032	59	10	21	1000 H	1029 S	10927 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6035	10	150	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	598	16	582	0400	0039	0000
25	1034	14	1020	0400	0068	0013
50	1446	12	1434	0400	0096	0034
100	154	13	141	0400	0009	0060

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0036	59	10	23	1000 G	1037 S	10344 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6035	10	250	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	215	13	202	0400	0014	0000
25	489	7	482	0400	0032	0006
50	816	8	808	0400	0054	0017
100	277	11	266	0400	0018	0034

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0038	59	10	23	1810 G	1054 S	10225 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4114	10	340	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	42	13	29	0400	0002	0000
25	145	20	125	0400	0008	0001
50	18	22	158	0400	0011	0004
100	126	9	117	0400	0008	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0040	59	10	24	0615 G	1107 S	10028 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4389	10	390	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION	
					↑A	↑B
	352	10	342	0400	0023	0000
25	999	9	990	0400	0066	0011
50	1072	6	1066	0400	0071	0028
100	16	5	11	0400	0001	0046

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0046	59	10	27	1730 G	1354 S	09945 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	580	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION	
					↑A	↑B
	186	21	165	0400	0011	0000
25	273	14	259	0400	0017	0004
50	238	12	226	0400	0015	0008
100	12	6	114	0400	0008	0013

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0048	59	10	28	800 G	1533 S	09945 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6035	10	660	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	248	10	238	0400	0016	0000
25	351	7	344	0400	0023	0005
50	351	5	346	0400	0023	0011
100	395	7	388	0400	0026	0023

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0050	59	10	28	1800 G	1706 S	09945 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
576	10	740	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	49	15	34	0400	0002	0000
25	69	16	53	0400	0004	0001
50	48	8	40	0400	0003	0002
100	114	23	91	0400	0006	0004

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0052	59	10	29	1230 H	1631 S	10158 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6126	10	620	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	28	8	272	0400	0018	0000
25	397	24	373	0400	0025	0005
50	599	6	593	0400	0040	0014
100	113	11	102	0400	0007	0025

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0055	59	10	30	945 H	1628 S	10440 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6035	10	570	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	162	10	152	0400	0010	0000
25	143	5	138	0400	0009	0002
50	179	7	172	0400	0012	0005
100	313	15	298	0400	0020	0013

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0057	59	10	30	1015 H	1624 S	10600 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6035	10	550	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	33	17	16	0400	0001	0000
25	59	13	46	0400	0003	0001
50	86	23	63	0400	0004	0001
100	422	12	410	0400	0027	0009

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0059	59	10	31	915 H	1620 S	10740 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6401	10	500	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	168	9	159	0400	0011	0000
25	249	2	247	0400	0017	0004
50	33	8	322	0400	0022	0008
100	578	4	574	0400	0039	0023

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0061	59	10	31	1815 H	1621 S	10923 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	08	460	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	52	9	43	0400	0003	0000
25	44	14	30	0400	0002	0001
50	39	26	13	0400	0001	0001
75	33	8	25	0400	0002	0002

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0064	59	11	01	1115 H	1611 S	11213 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4572	10	380	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	94	3	91	0300	0008	0000
25	13	10	120	0300	0011	0002
50	165	13	152	0300	0013	0005
100	449	7	442	0300	0039	0018

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0066	59	11	02	115 H	1637 S	11425 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
3566	10	280	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	76	24	52	0400	0004	0000
25	54	24	30	0400	0002	0001
50	71	25	46	0400	0003	0001
100	291	14	277	0400	0019	0007

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0070	59	11	04	1708 H	2205 S	11030 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4938	10	200	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	174	17	157	0400	0011	0000
25	112	20	92	0400	0006	0002
50	138	24	114	0400	0008	0004
100	505	10	495	0400	0033	0014

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0073	59	11	05	915 H	2210 S	10745 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
384	10	370	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	202	5	197	0400	0013	0000
25	137	10	127	0400	0009	0003
50	199	9	190	0400	0013	0006
100	274	8	266	0400	0018	0013

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0075	59	11	05	2355 H	2208 S	10450 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
3292	10	540	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	67	20	47	0400	0003	0000
25	46	9	37	0400	0003	0001
50	46	12	34	0400	0002	0001
100	258	6	252	0400	0017	0006

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0079	59	11	06	1640 H	2202 S	10205 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5486	10	700	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	59	10	49	0400	0003	0000
25	76	11	65	0400	0004	0001
50	97	9	88	0400	0006	0002
100	30	13	287	0400	0019	0009

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0082	59	11	07	1150 H	1951 S	10012 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6081	10	820	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	92	3	89	0400	0006	0000
25	121	14	107	0400	0007	0002
50	109	7	102	0400	0007	0003
100	271	2	269	0400	0018	0010

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0084	59	11	08	300 H	2205 S	10001 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
6126	10	820	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	62	9	53	0400	0004	0000
25	57	11	46	0400	0003	0001
50	49	10	39	0400	0003	0002
100	154	14	140	0400	0009	0005

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0086	59	11	08	2000 H	2400 S	09958 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5669	10	820	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	25	11	14	0400	0001	0000
25	25	8	17	0400	0001	0000
50	24	14	10	0400	0001	0001
100	35	12	23	0400	0002	0001

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0088	59	11	09	650 H	2558 S	09955 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
2012	10	790	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	129	7	122	0400	0008	0000
25	106	8	98	0400	0007	0002
50	108	16	92	0400	0006	0004
100	243	2	241	0400	0016	0009

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0091	59	11	09	2330 H	2559 S	10230 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	660	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	25	8	17	0400	0001	0000
25	3	9	21	0400	0001	0000
50	27	17	10	0400	0001	0001
100	47	10	37	0400	0003	0001

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0094	59	11	10	1400 H	2559 S	10455 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5121	10	500	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	63	6	57	0400	0004	0000
25	125	10	115	0400	0008	0001
50	106	24	82	0400	0006	0003
100	432	17	415	0400	0028	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0097	59	11	11	510 H	2558 S	10724 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	350	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	169	6	163	0400	0011	0000
25	166	27	139	0400	0009	0003
50	122	45	77	0400	0005	0004
100	169	13	156	0400	0010	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0100	59	11	11	1900 H	2559 S	10957 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4115	10	210	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	72	9	63	0400	0004	0000
25	6	35	25	0400	0002	0001
50	54	36	18	0400	0001	0001
100	283	13	270	0400	0018	0006

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0106	59	11	12	2040 H	2932 S	10735 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5121	10	420	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	396	123	273	0400	0018	0000
25	45	81		400	0000	0002
50	75	53	22	0400	0002	0003
100	231	13	218	0400	0015	0006

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0108	59	11	13	1100 H	2937 S	10441 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4572	10	580	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	129	36	93	0400	0006	0000
25	141	31	110	0400	0007	0001
50	123	23	100	0400	0007	0003
100	285	9	276	0400	0018	0010

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0110	59	11	13	2210 H	2930 S	10230 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
493	10	700	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	41	14	27	0350	0002	0000
25	45	21	24	0350	0002	0001
50	48	23	25	0350	0002	0001
100	341	20	321	0350	0024	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0113	59	11	14	1230 H	2925 S	10002 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
4206	10	840	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	82	12	70	0500	0004	0000
25	114	23	91	0500	0005	0001
50	153	19	134	0500	0007	0003
100	33	4	326	0500	0017	0009

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0117	59	11	15	920 H	3150 S	09958 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
2377	10	900	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	↑B
	9	11	79	0400	0005	0000
25	126	35	89	0400	0006	0001
50	184	9	175	0400	0012	0004
100	447	30	417	0400	0028	0013

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0121	59	11	15	2145 H	3159 S	10227 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5121	10	760	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	46	10	36	0400	0002	0000
25	47	57		400	0000	0000
50	63	33	30	0400	0002	0001
100	314	47	267	0400	0018	0006

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0125	59	11	16	1430 H	3200 S	10500 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	610	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	87	16	71	0400	0005	0000
25	93	28	65	0400	0004	0001
50	116	22	94	0400	0006	0002
100	441	26	415	0400	0028	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0128	59	11	17	630 H	3150 S	10730 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5394	10	460	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	126	10	116	0400	0008	0000
25	139	29	110	0400	0007	0001
50	131	20	111	0400	0007	0004
100	163	13	150	0400	0010	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0131	59	11	17	2340 H	3159 S	10957 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5303	10	320	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↑A	RATE OF PRODUCTION ↑B
	41	11	30	0300	0003	0000
25	2	11	9	0300	0001	0000
50	36	36		300	0000	0000
100	4	14	26	0300	0002	0001

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	0134	59	11	18	1330 H	3203 S	11245 E

SONIC DEPTH	MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
5209	10	160	0	6	9110	012

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION ↓A	RATE OF PRODUCTION ↓B
	179	38	141	0225	0017	0000
25	227	10	217	0225	0026	0003
50	303	8	295	0225	0035	0013
100	492	14	478	0225	0057	0036

DATA

PART 4

PIGMENTS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	3	59	10	12	630 H	3004 S	11149 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	1	4	22	7	9
25	9	4	28	6	
50	2	3	18	6	4
100	7	8 *	42	12	1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	5	59	10	12	1815 H	2842 S	11124 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	9	9	80	12	8 *
25	5	8	23	6	2
50	1	8 *	7	4	5
100	11	9	57	8	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	7	59	10	13	630 H	2959 S	11131 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
				3	4
25	4	3	30	4	3
50	4	5	27	5	1
100	5	4	51	6	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	9	59	10	13	1800 H	2507 S	11136 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	4	3	30	5	4
25	5	4	26	6	
50	1	1	19	4	4
100	7	4	26	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	16	59	10	17	600 H	1528 S	11904 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	5	8 *	28	7	2
25	3	2	24	4	3
50	5	5	32	8	2
100	4	4	15	5	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	18	59	10	17	1800 H	1341 S	11900 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	4	3	19	3	2.
25				6	8. *
50	5	3	33	6	2
100	14	9	59	13	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	20	59	10	18	1000 H	1205 S	11903 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25	8	8	47	8	4
50				4	1
100	10	8	52	8	4
					1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	24	59	10	19	915 H	1116 S	11553 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	7	4	38	5	2
25	4	12	24	12	1
50	10	9	44	8	3
100	9	3	21	4	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	26	59	10	19	1630 H	1114 S	11434 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	5	4	26	5	2
25	4	3	22	3	2
50				11	8 *
100	9	14	53	13	8 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	28	59	10	20	900 H	1104 S	11259 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	10	7	60	9	8 *
25	4	3	32	5	3
50	10	7	45	8	1
100	4	1	8	2	7

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	30	59	10	20	1830 H	1044 S	11123 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	6	3	35	8	1
25	3	3	17	3	3
50	24	20	83	13	
100	14	13	54	13	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	32	59	10	21	1000 H	1029 S	10927 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	11	10	51	9	2	
25	4	13	44	9	8	*
50	17	12	80	12	2	
100	10	4	31	5	16	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	36	59	10	23	1000 G	1037 S	10344 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	7	6	36	8	1
25	8	7	43	7	3
50	4	2	14	4	2
100	7	7	29	11	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	38	59	10	23	2015 G	1037 S	10344 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	8	7	45	10	
25	7	4	41	8	2
50	5	3	18	4	2
100	12	8	54	9	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	40	59	10	24	800 G	1107 S	10028 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	5	5	18	5	4
25	4	1	21	3	3
50	10	9	44	8	2
100	15	9	72	11	1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	46	59	10	27	1720 G	1354 S	9945 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	9	9	54	11	2
25	8	8	50	9	1
50	5	5	29	7	3
100	6	3	33	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	48	59	10	28	800 G	1533 S	9945 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	8	8	47	8	2	
25	7	8	49	8	3	
50	4	4	23	12	8	*
100	17	12	10	14	8	*

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	50	59	10	28	1800 G	1706 S	9945 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	5	4	26	5	3
25	5	5	32	7	2
50	5	4	26	7	2
100	4	3	20	3	5

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	52	59	10	29	1000 H	1631 S	10158 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	5	4	25	5	2
25	7	5	35	5	3
50	5	5	56	5	2
100	11	5	50	9	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	55	59	10	30	930 H	1628 S	10440 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	12	3	23	4	1
25	7	4	27	6	1
50	1	4	8	4	3
100	7	9	70	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	57	59	10	30	1815 H	1624 S	10600 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	10	8	14	8	1
25	5	4	25	6	5
50	5	2	26	5	2
100	11	8	61	9	1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	59	59	10	31	915 H	1620 S	10740 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	3	2	22	4	4
25	3	2	22	4	3
50	8	5	11	4	2
100	10	9	58	13	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	61	59	10	31	1815 H	1621 S	10923 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	5	4	27	6	2
25	4	5	31	6	2
50	6	5	33	7	1
100	2	1	19	4	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	64	59	11	01	1115 H	1611 S	11213 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	6	4	41	7	8 *
25	4	5	31	5	3
50	6	6	38	7	2
100	4	5	44	6	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	66	59	11	02	1115 H	1637 S	11425 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25				8 *	5
50				2	4
100				11	8 *
				1	5

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	70	59	11	04	1715 H	2205 S	11030 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
100	6	3	50	8	1
		8 *	8	2	4

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	73	59	11	05	915 H	2210 S	10745 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	4	8 *	24	4	1
25				2	2
50				1	3
100	9	4	3	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	76	59	11	05	2355 H	2208 S	10450 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	5	4	51	4	1
25	2		14	2	2
50	4	1	20	3	1
100				2	5

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	79	59	11	06	1640 H	2202 S	10205 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	1		16	3	1
25	1		8	2	3
50				8 *	3
100	12	7	46	7	5

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	82	59	11	06	1150 H	1951 S	10012 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
				5	1
25	5	5	19	5	2
50	10	10	60	8	8 *
100	10	2	27	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	84	59	11	08	300 H	2205 S	10001 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	13	10	62	9	8 *
25				1	3
50	12	9	58	9	1
100	5	3	35	5	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	86	59	11	08	2000 H	2400 S	9958 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	8	10	59	9	8 *
25		2	8	4	1
50	10	10	63	9	8 *
100	10	10	49	9	8 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	88	59	11	09	850 H	2558 S	9955 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	4	2	23	5	
25	5	5	16	5	
50				5	8 *
100	8	5	33	5	3

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	91	59	11	09	2330 H	2559 S	10230 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	11	4	62	9	8 *
25	4	4	22	5	1
50	4	2	29	4	
100	5	8	46	11	8 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	94	59	11	10	1400 H	2559 S	10455 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	5	8 *	22	3	2
25				8 *	4
50	7	9	36	8	
100	9	4	29	6	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	97	59	11	11	510 H	2558 S	10724 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
				2	4
25	5	8 *	16	2	2
50	7	4	26	7	
100	6	5	34	5	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	100	59	11	11	1900 H	2559 S	10957 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	2	3	2	3	1
25	4	5	30	4	3
50	6	5	29	8	1
100	12	11	71	10	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	106	59	11	12	2040 H	2932 S	10735 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	4	8 *	17	8	1
25	4	4	23	4	1
50	4	8 *	14	4	1
100	14	13	61	9	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	108	59	11	13	1100 H	2937 S	10441 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
				1	1
25	4	8 *	9	3	1
50	6	5	29	4	2
100	6		63	6	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	110	59	11	13	2210 H	2930 S	10230 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	3	9	20	4	
25	3		739	6	8 *
50	16	3	78	12	8 *
100	8	6	23	6	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	113	59	11	14	1230 H	2925 S	10002 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	5	8 *	22	3	2
25	7	1	49	6	1
50	7	3	32	5	
100	16	8	57	9	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	117	59	11	15	920 H	3150 S	9958 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	4	2	13	5	1
25	6	7	41	9	8 *
50	1	3	8	4	8 *
100	14	12	63	9	2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	121	59	11	15	2145 H	3159 S	10227 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	1	4	4	3	1	
25	4	5	19	4	1	
50	11	3	71	17	8	*
100	13	11	68	10	1	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	125	59	11	16	1430 H	3200 S	10500 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	5	4	24	10	8	*
25	6	5	30	4	3	
50	7	4	27	4	1	
100	7	4	27	7	3	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	128	59	11	17	630 H	31.50 S	10730 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	6	8	8	5	8	*
25	6	8	20	5	8	*
50	2	6	32	6	8	*
100	11	9	57	7	3	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	131	59	11	18	2340 H	3159 S	10957 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	8	5	19	5	1	
25	8	12	72	16	8	*
50	6	5	29	4	1	
400				4	5	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
11	2	134	59	11	18	1330 H	3203 S	11245 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	6	3	36	5	
25	1.49	9	60	8	1

DATA

PART 5

PHYTOPLANKTON

TABLE 3

OCCURRENCE OF DIATOMS

Numbers refer to Stations at which organism was found

Achnanthes brevipes 46
A. longipes 3
Asterolampra dallasiana 4, 13, 14, 36, 72, 73
A. darwinii 49, 94, 110
A. grevillei 9, 24, 72, 73, 76, 85, 88
A. marylandica 45, 64, 66, 75, 80, 96, 97, 110
Asteromphalus elegans 45
A. hookeri 9
A. roperianus 52
Bacteriastrum comosum 3, 14
B. delicatulum 3, 4
B. varians 3, 9, 14, 37, 48
Ceratulina compacta 24, 47
Chaetoceros affine 26
C. atlanticum 37
C. coarctatum 27, 30, 36, 37, 45, 47, 52, 58
C. decipiens 48
C. denticulatum 3
C. diversum 3
C. lorenzianum 3
C. messanense 3, 11, 14, 68
C. pendulum 14, 46, 96
C. peruvianum 3, 4, 12, 14, 18, 36, 45, 48, 49, 51, 53, 66, 77, 80
C. vanheurcki 9
Climacodium frauenfeldianum 11, 24, 26, 27, 28, 30, 40, 44, 48, 49, 50, 51, 53, 54, 55, 58, 60, 77
Corethron criophilum 3
Coscinodiscus centralis 10, 12, 53, 102
C. concinnus 10, 105
C. gazellae 13
C. janischii 10
C. marginatus 10, 18
C. oculusiridis 10
Hemiaulus hauckii 71
H. indicus 26, 30, 49, 76, 82, 88, 99, 103
H. sinensis 3, 49
Hemidiscus cuneiformis 36, 46, 105
Mastogloia brunii 50, 105
M. rostrata 15, 84, 88

TABLE 4

OCCURRENCE OF DINOFLAGELLATES

Numbers refer to Stations at which organism was found

DATA

PART 6

ZOOPLANKTON

DIAMANTINA Dm 2/59 ZOOPLANKTON BIOMASS IN THE UPPER 200 m. CLARKE BUMPUS OBLIQUE HAULS

STATION	DATE	TIME	LATITUDE	LONGITUDE	VOLUME FILTERED	BIOMASS mg/m^3
5	12.10.59	2130	28°42'S.	111°24'E.	10.2	48
7	13.10.59	0803	26°59'S.	111°31'E.	14.9	17
9	13.10.59	1900	25°07'S.	111°36'E.	14.2	24
11	14.10.59	1028	22°59'S.	111°42'E.	12.1	24
14	16.10.59	1930	17°22'S.	118°16'E.	15.7	33
16	17.10.59	0735	15°28'S.	119°04'E.	6.8	37
20	18.10.59	0915	12°06'S.	119°03'E.	10.5	34
24	19.10.59	1127	11°16'S.	115°53'E.	9.7	78
28	20.10.59	1009	11°04'S.	112°59'E.	7.4	43
40	24.10.59	1000	11°08'S.	100°28'E.	16.6	58
48	28.10.59	1100	15°33'S.	99°45'E.	9.8	24
50	28.10.59	2200	17°06'S.	99°45'E.	20.5	26
52	29.10.59	1400	16°31'S.	101°58'E.	12.2	17
55	30.10.59	1118	16°28'S.	104°40'E.	18.8	7
59	31.10.59	0922	16°20'S.	107°40'E.	11.6	12
73	5.11.59	0935	22°10'S.	107°45'E.	14.3	13
79	6.11.59	1840	22°02'S.	102°05'E.	14.8	28
82	7.11.59	1440	19°51'S.	100°12'E.	14.6	9
88	8.11.59	1102	25°58'S.	99°55'E.	16.6	10
94	10.11.59	1531	25°59'S.	104°55'E.	14.1	14
113	14.11.59	1410	29°25'S.	100°02'E.	18.2	41
117	15.11.59	0940	31°50'S.	99°58'E.	15.1	15
121	16.11.59	0029	31°59'S.	102°27'E.	20.2	15
125	16.11.59	1617	32°00'S.	105°00'E.	17.7	15
128	17.11.59	0815	31°50'S.	107°30'E.	7.4	31
134	18.11.59	1530	32°03'S.	112°45'E.	7.6	35

VI. FIGURES

Figs. 3 - 38 Hydrology - Vertical Sections

Figs. 39 - 45 Hydrology - Horizontal Distribution of Properties

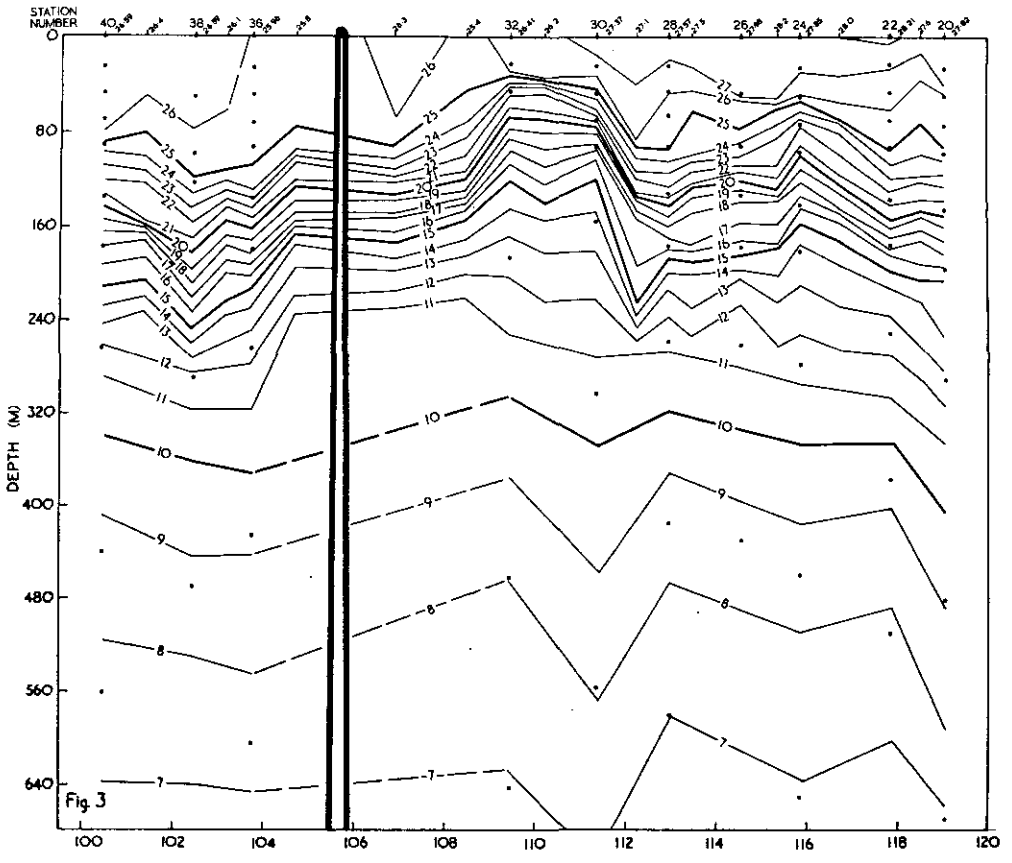
Figs. 46 - 48 Primary Production

HYDROLOGY

VERTICAL SECTIONS

Vertical sections were prepared from the data in Section V for temperature (°C), salinity (‰), oxygen (ml/l) and inorganic phosphate (ug at./l) and appear as Figures 3-38.

Figs. 3-8	Vertical sections for the line of Stations 20-40. Degrees of longitude (S) indicated at bottom of section.
Fig. 3	Temperature to 640 m depth.
Fig. 4	Temperature 400 m to bottom.
Fig. 5	Salinity to 640 m depth.
Fig. 6	Salinity 400 m to bottom.
Fig. 7	Oxygen surface to bottom.
Fig. 8	Inorganic phosphate surface to bottom.
Figs. 9-14	Vertical sections for the line of Stations 14, 48-66. Properties as for Figs. 3-8 above.
Figs. 15-20	Vertical sections for the line of Stations 70-84. Properties as for Figs. 3-8 above.
Figs. 21-26	Vertical sections for the line of Stations 114-134. Properties as for Figs. 3-8 above.
Figs. 27-32	Vertical sections for the line of Stations 3-11, 30, 64, 134. Properties as for Figs. 3-8 above.
Figs. 33-38	Vertical sections for the line of Stations 40-50, 82-88, 113, 117. Properties as for Figs. 3-8 above.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DEPTH (M)
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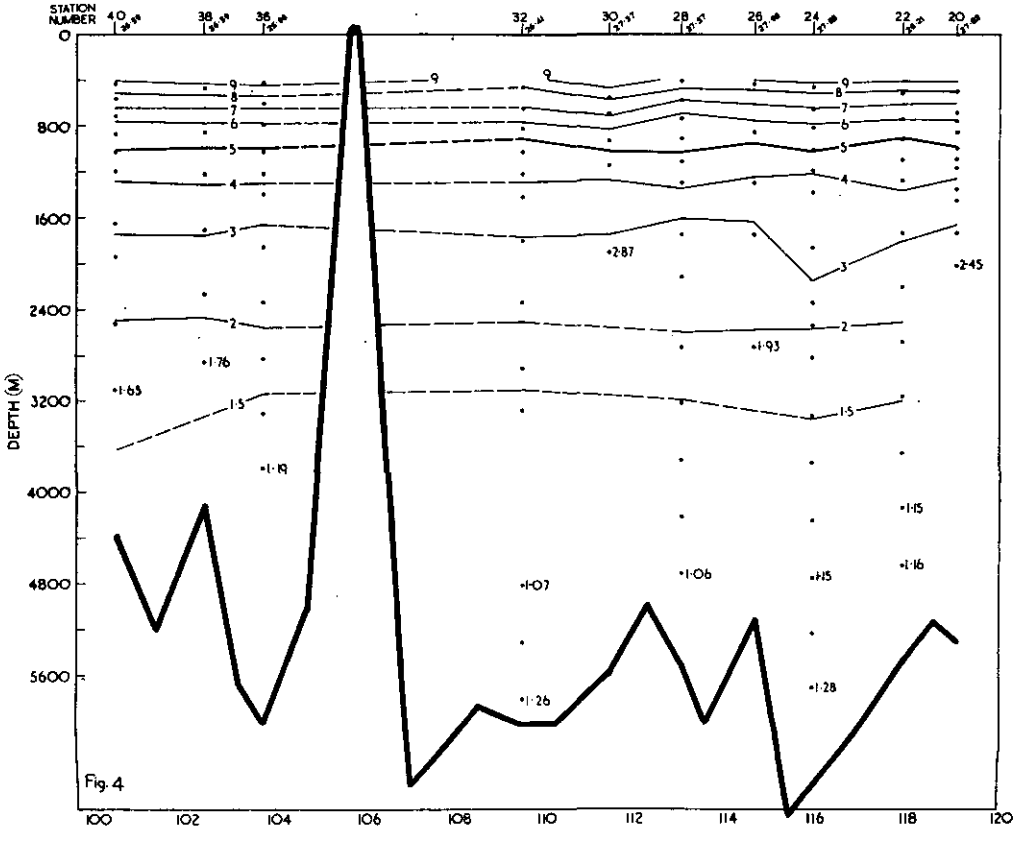
80
160
240
320
400
480
560
640
100
102
104
106
108
110
112
114
116
118
120

Fig. 3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DEPTH (M)
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1600
2400
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4000
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100
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104
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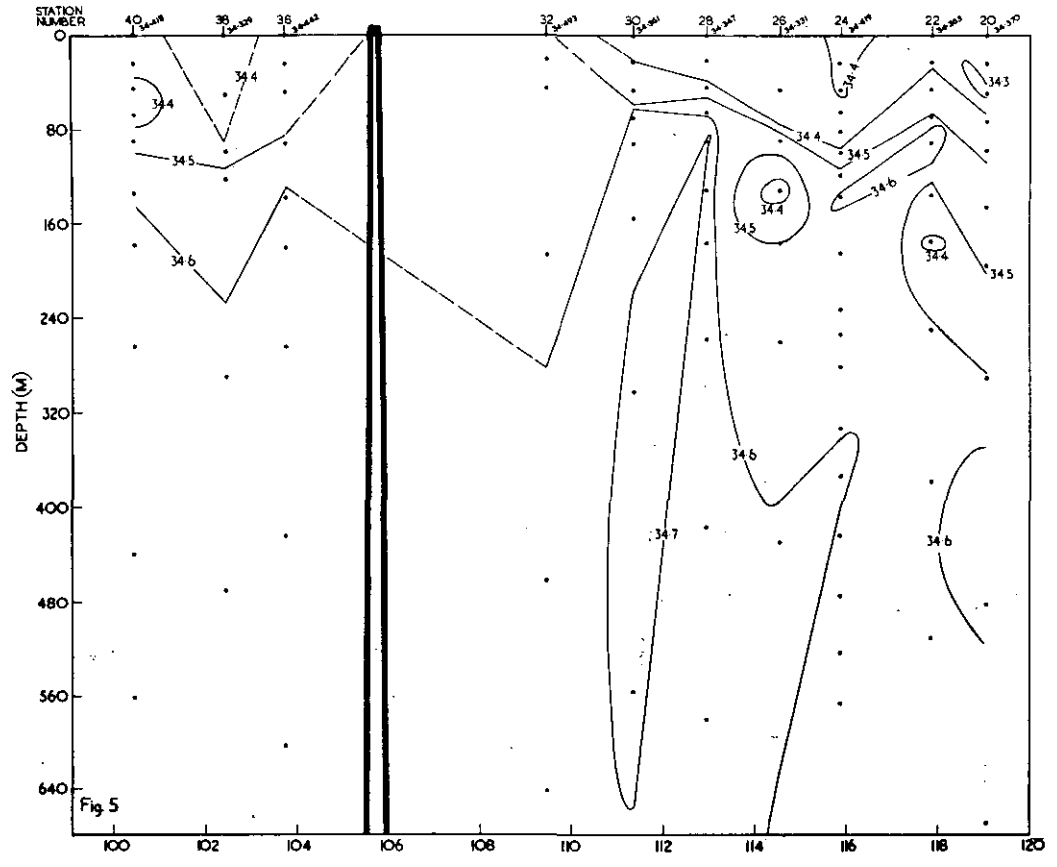
112
114
116
118
120

Fig. 4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36
32
30
28
26
24
22
20
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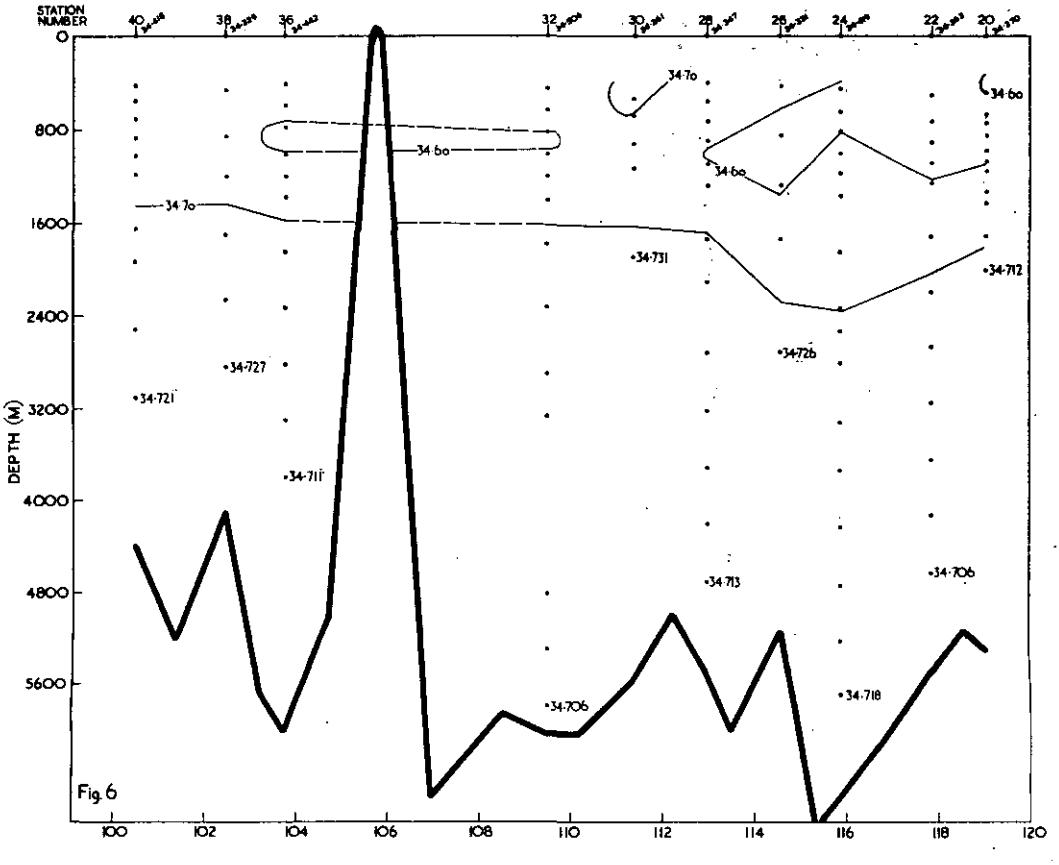
400
480
560
640
34·4
34·5
34·6
34·7
34·3
100
102
104
106
108
110
112
114
116
118
120

Fig. 5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38
36
32
30
28
26
24
22
20
DEPTH (M)
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800
1600
2400
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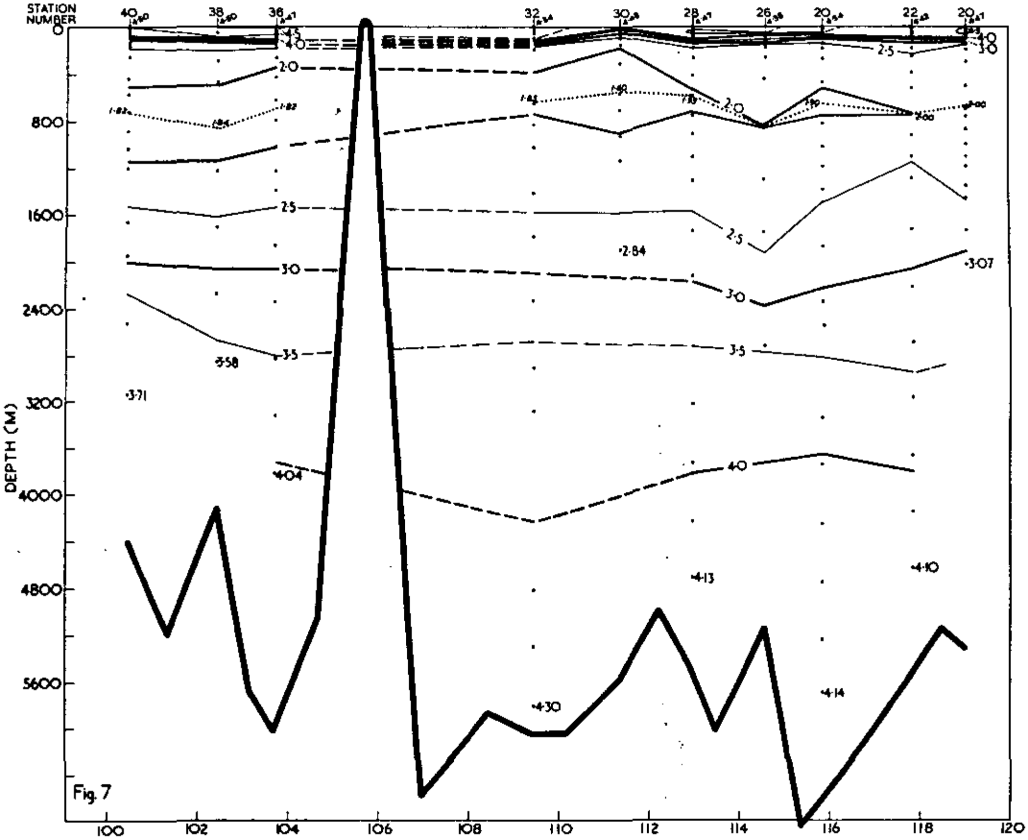
4000
4800
5600
34·7o
34·6o
34·731
34·712
34·727
34·721
34·711
34·726
34·713
34·706
34·718
100
102
104
106
108
110
112
114
116
118
120

Fig. 6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4000
4800
5600
4·5
4·0
2·0
2·5
3·0
3·5
4·0
2·84
3·07
3·58
3·71
4·04
4·13
4·10
4·30
4·14
100
102
104
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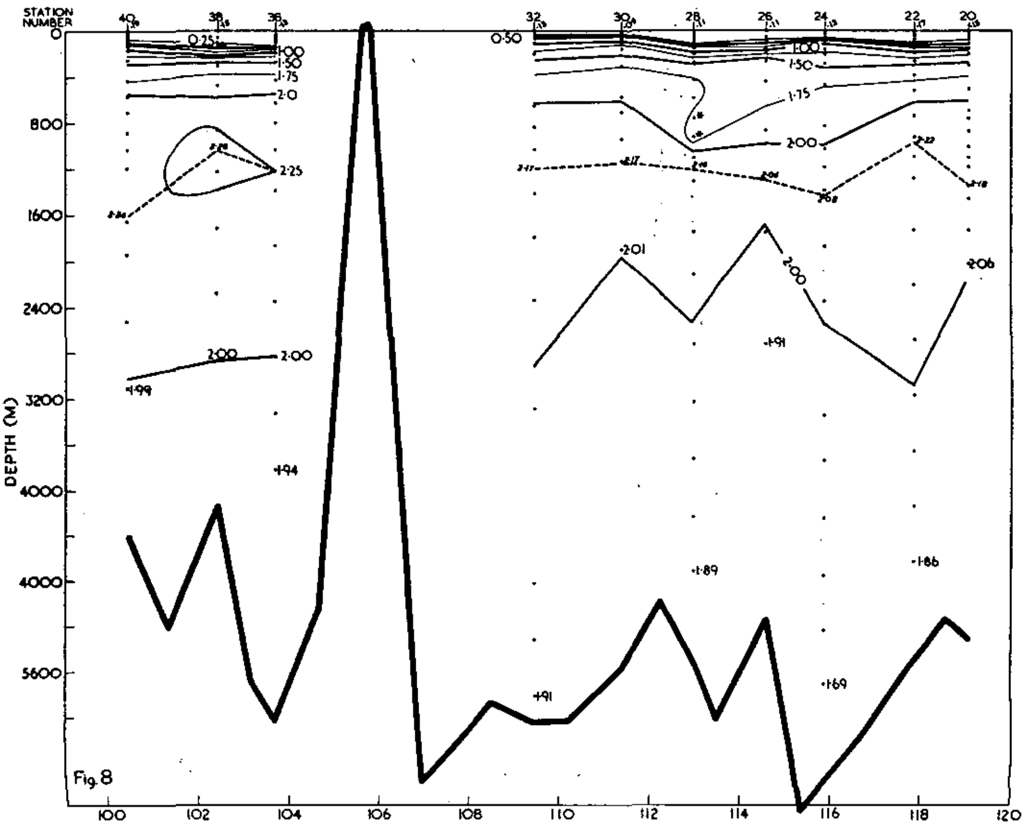
116
118
120

Fig. 7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26
24
22
20
DEPTH (M)
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1600
2400
3200
4000
5600
0·25
0·50
1·00
1·50
1·75
2·0
2·00
2·25
2·01
2·06
1·91
1·99
1·94
1·89
1·86
1·69
·91
100
102
104
106
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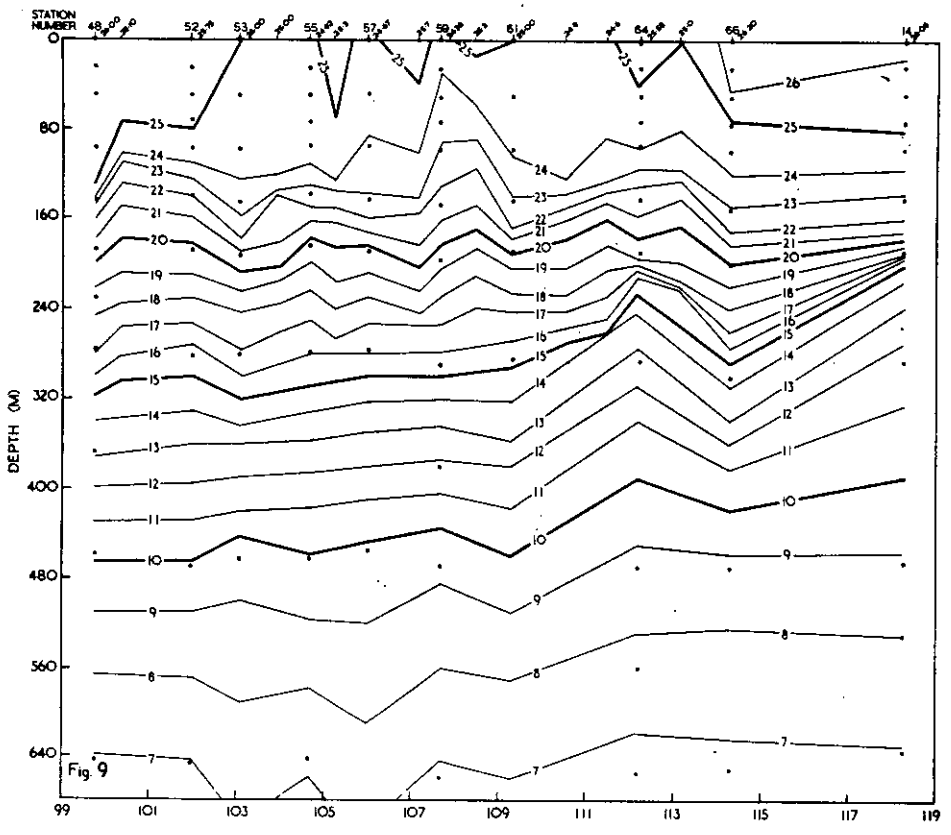
116
118
120

Fig. 8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640
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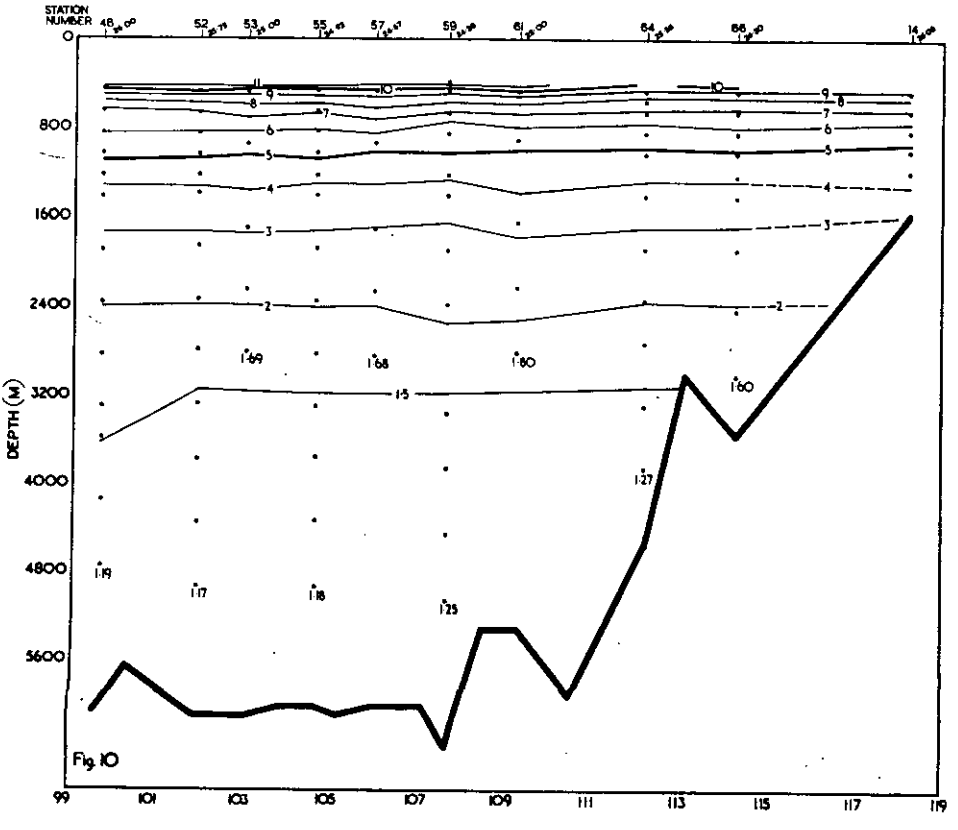
111
113
115
117
119

Fig. 9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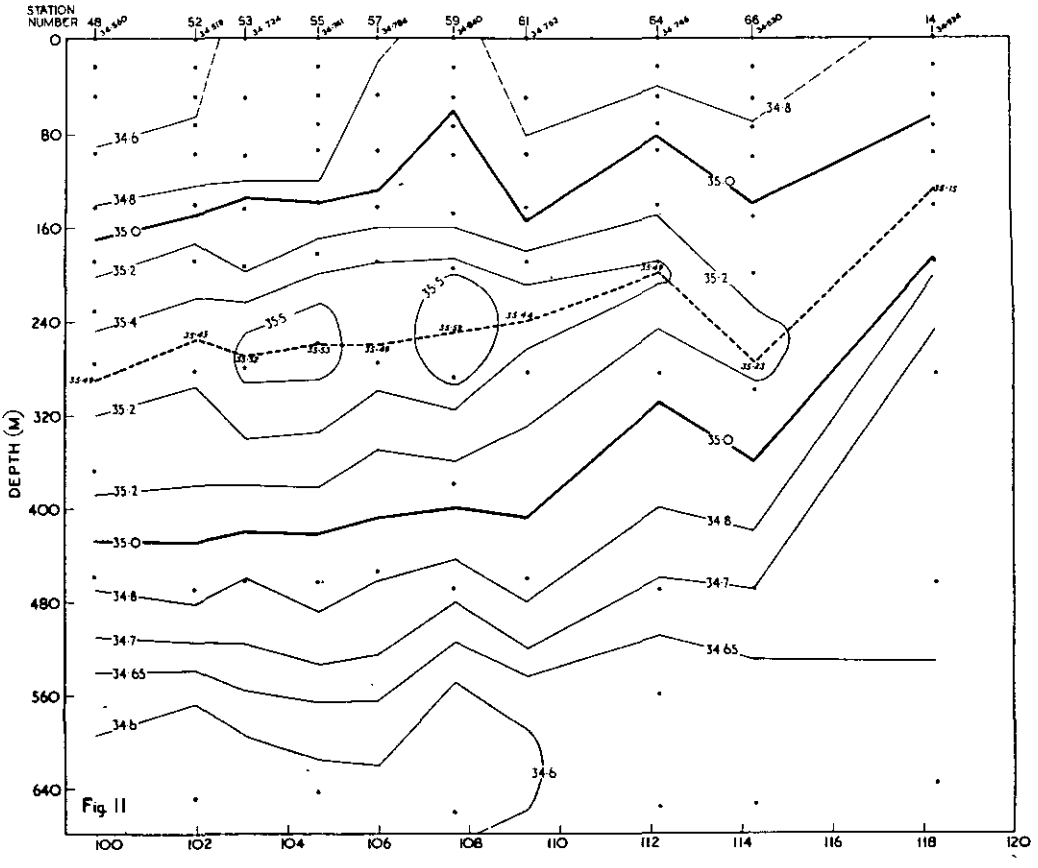
111
113
115
117
119

Fig. 10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57
59
61
64
66
14
DEPTH (M)
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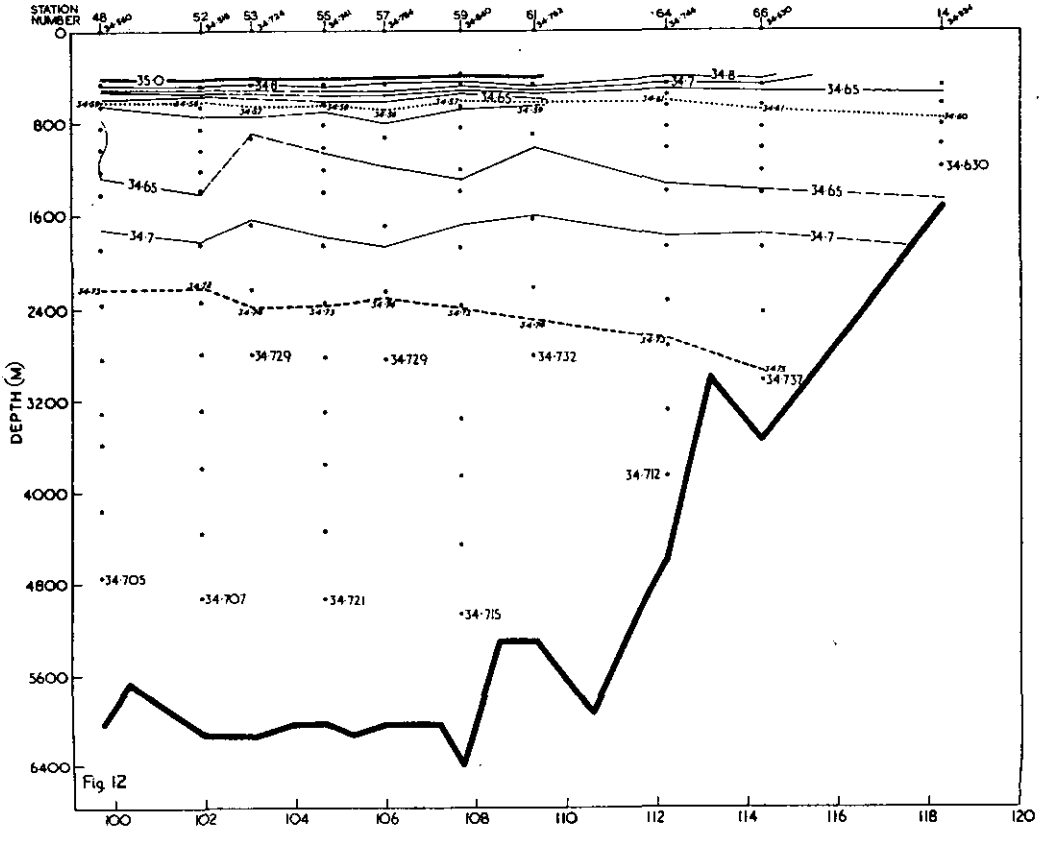
160
240
320
400
480
560
640
100
102
104
106
108
110
112
114
116
118
120
34·6
34·8
35·0
35·2
35·4
35·5
34·7
34·65
Fig. 11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14
DEPTH (M)
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1600
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4000
4800
5600
6400
100
102
104
106
108
110
112
114
116
118
120
35·0
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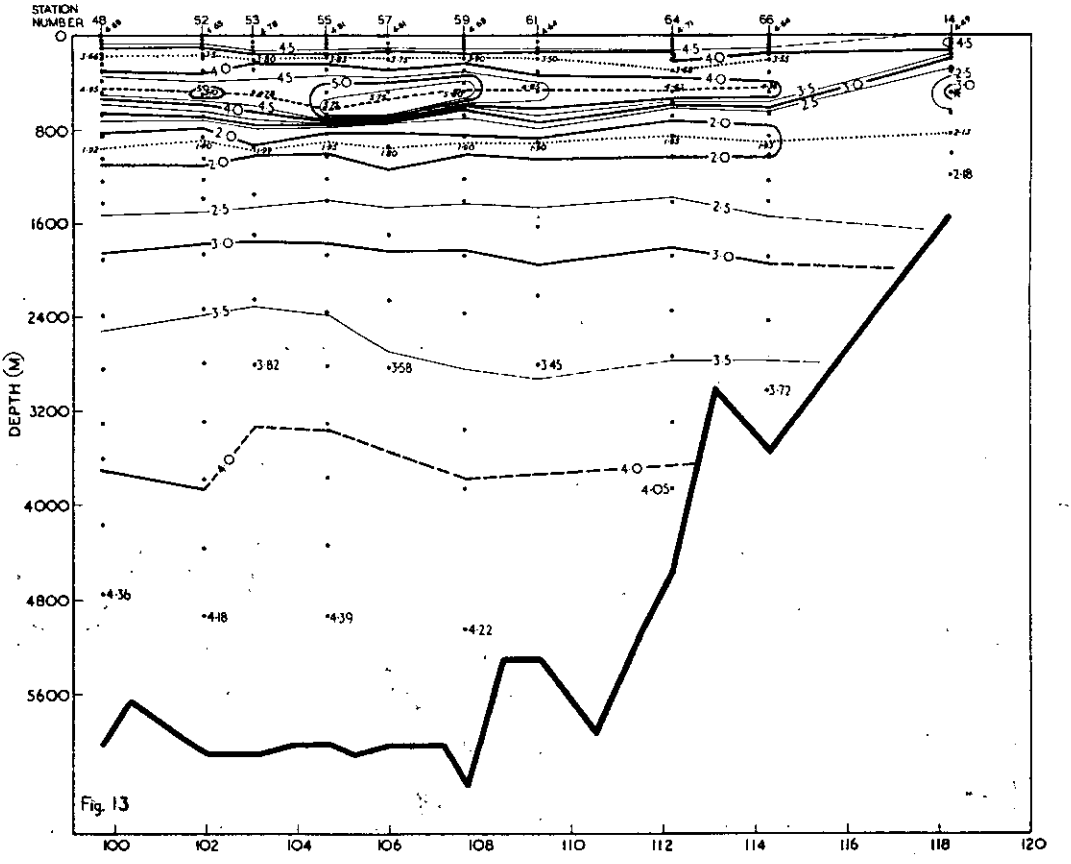
Fig. 12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DEPTH (M)
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1600
2400
3200
4000
4800
5600
100
102
104
106
108
110
112
114
116
118
120

Fig. 13

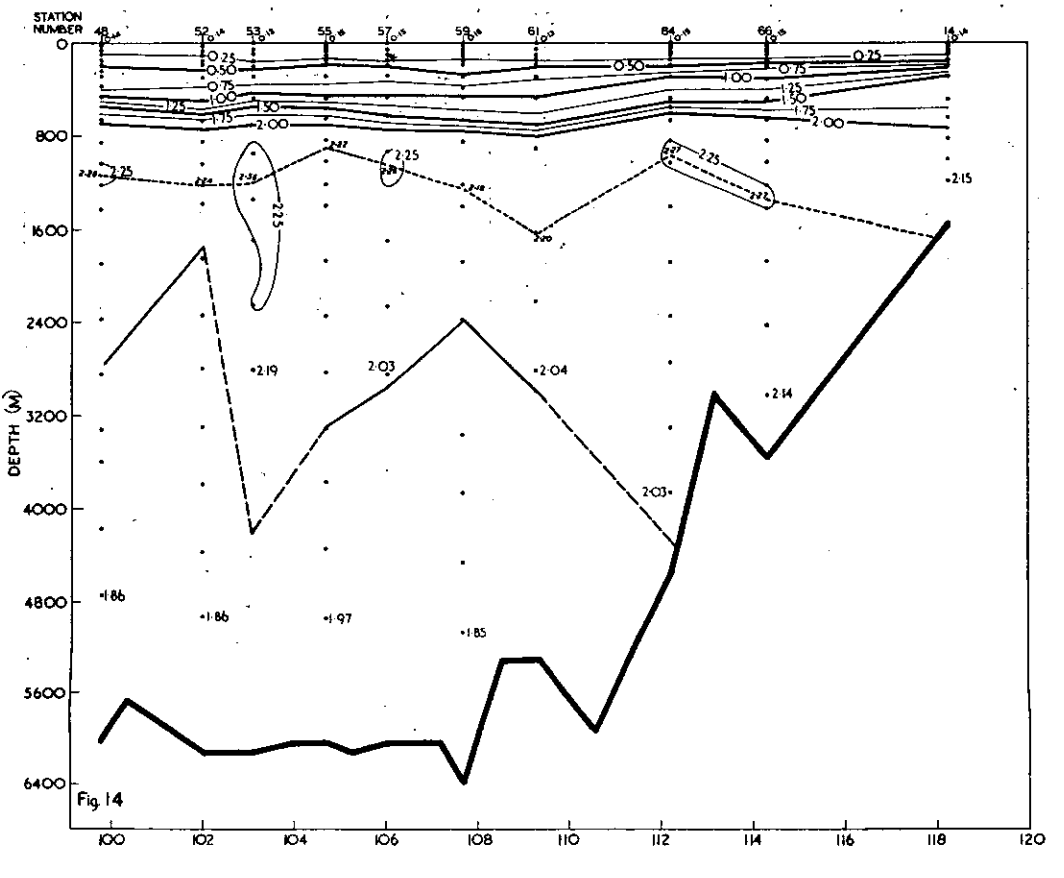
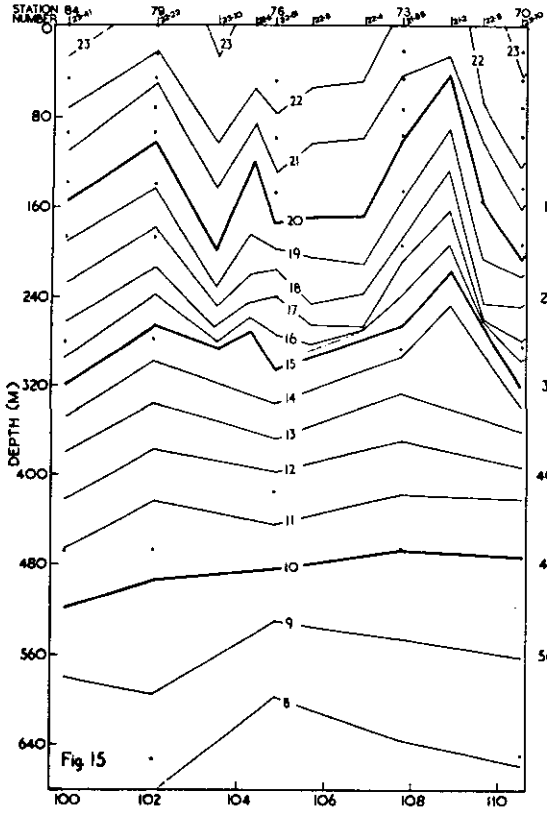

STATION NUMBER
48
52
53
55
57
59
61
64
66
14
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
6400
100
102
104
106
108
110
112
114
116
118
120

Fig. 14


STATION NUMBER
DEPTH (M)
Fig. 15

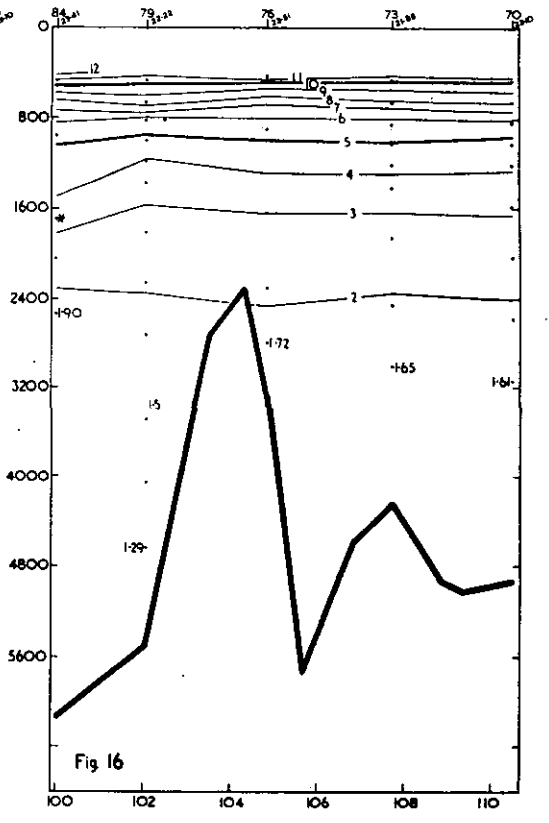
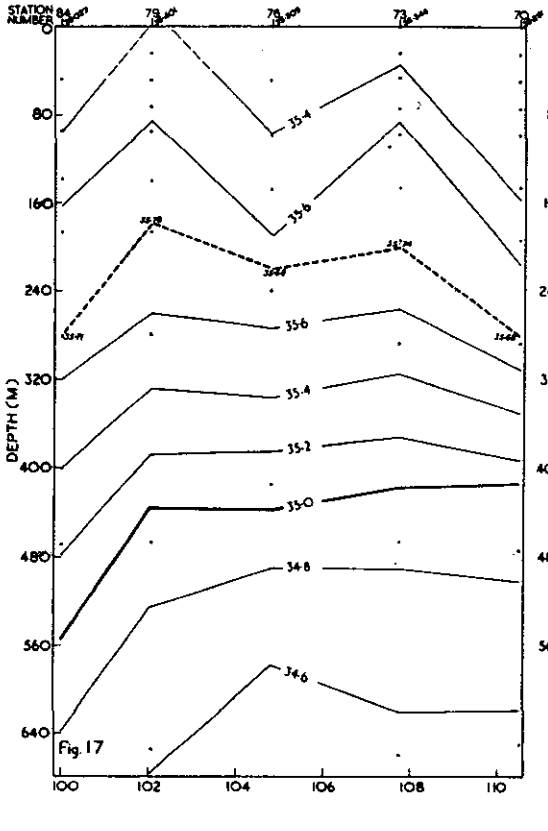


Fig. 16


STATION NUMBER
DEPTH (M)
Fig. 17

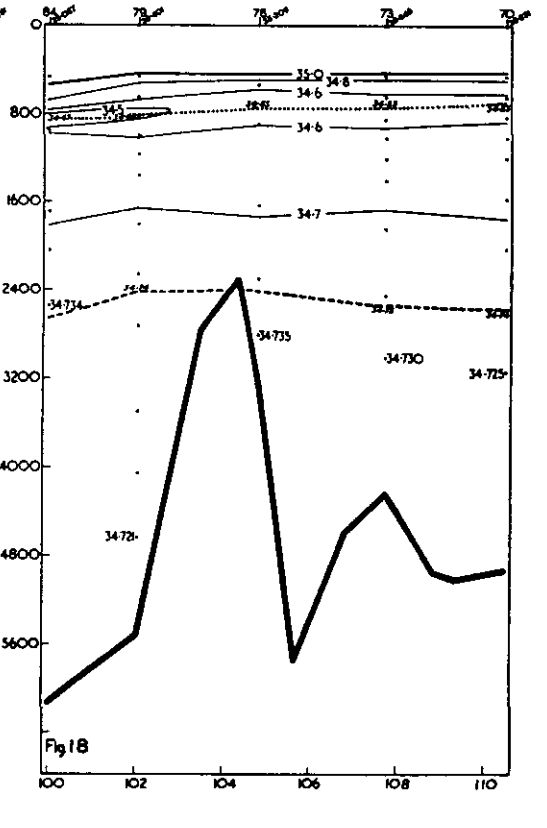


Fig. 18

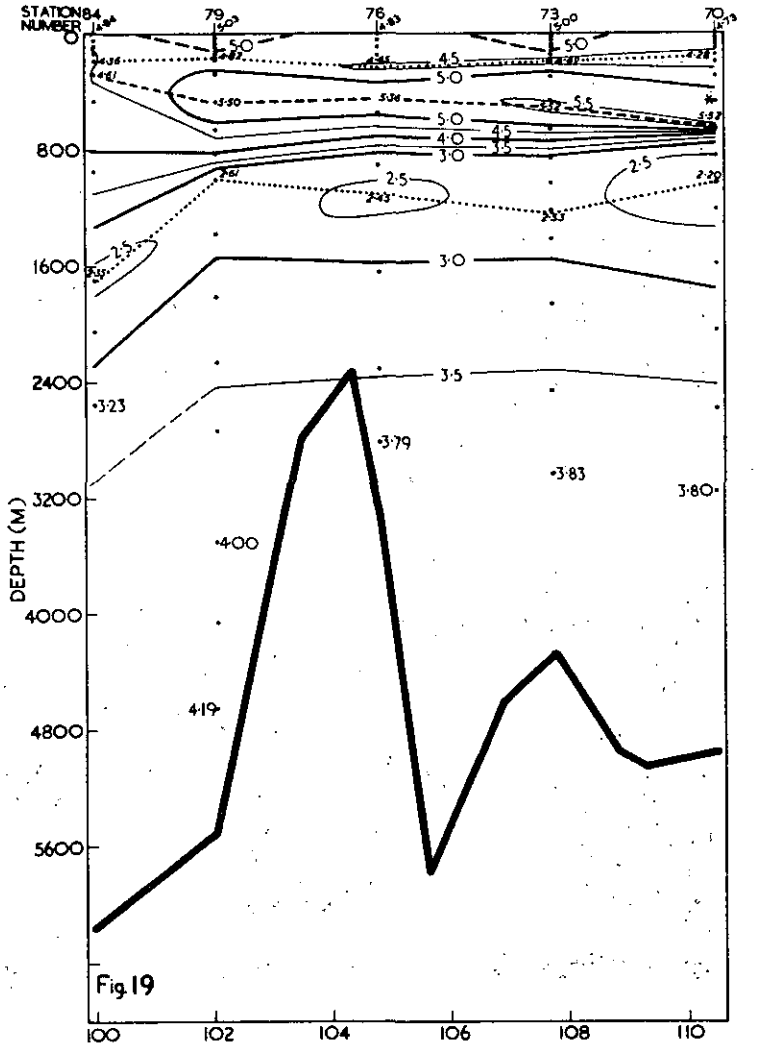

STATION NUMBER
84
79
76
73
70
DEPTH (M)
800
1600
2400
3200
4000
4800
5600
100
102
104
106
108
110
5·0
4·5
4·0
3·5
3·0
2·5
·323
·400
4·19
·379
·383
3·80

Fig. 19

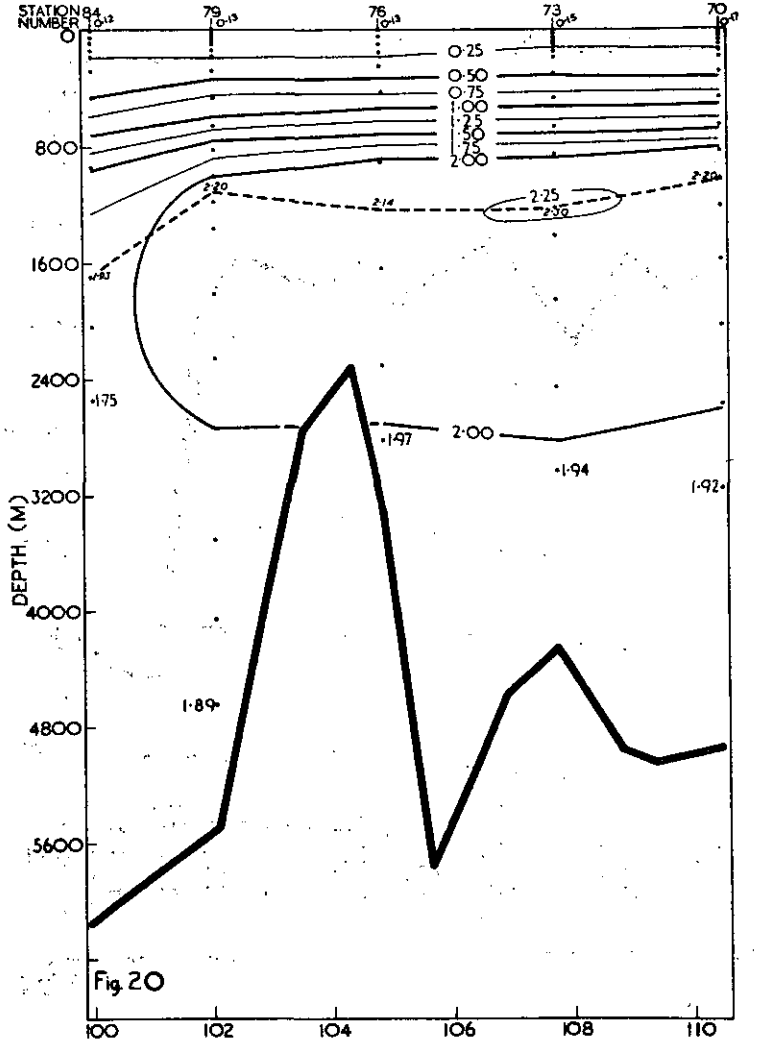
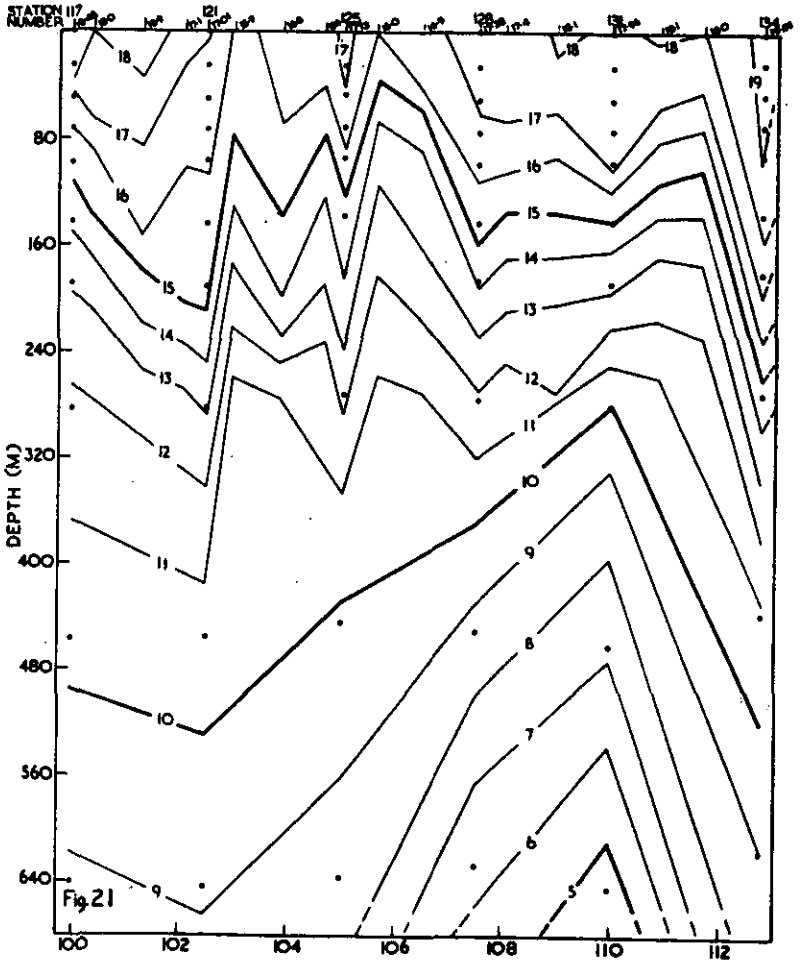
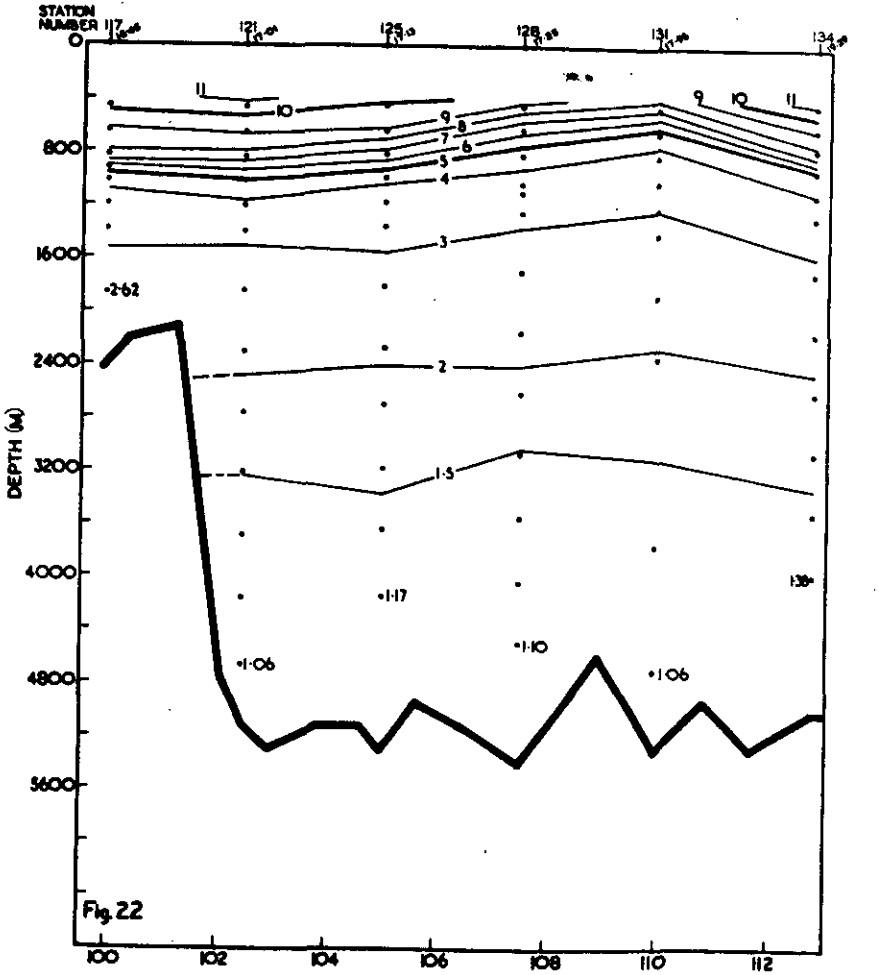
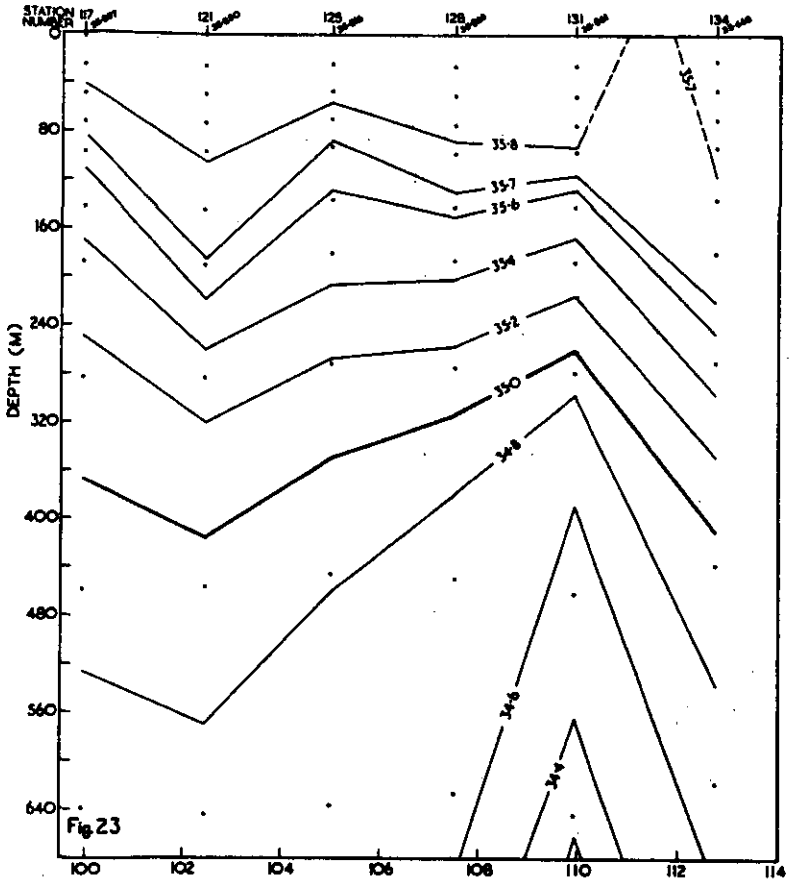
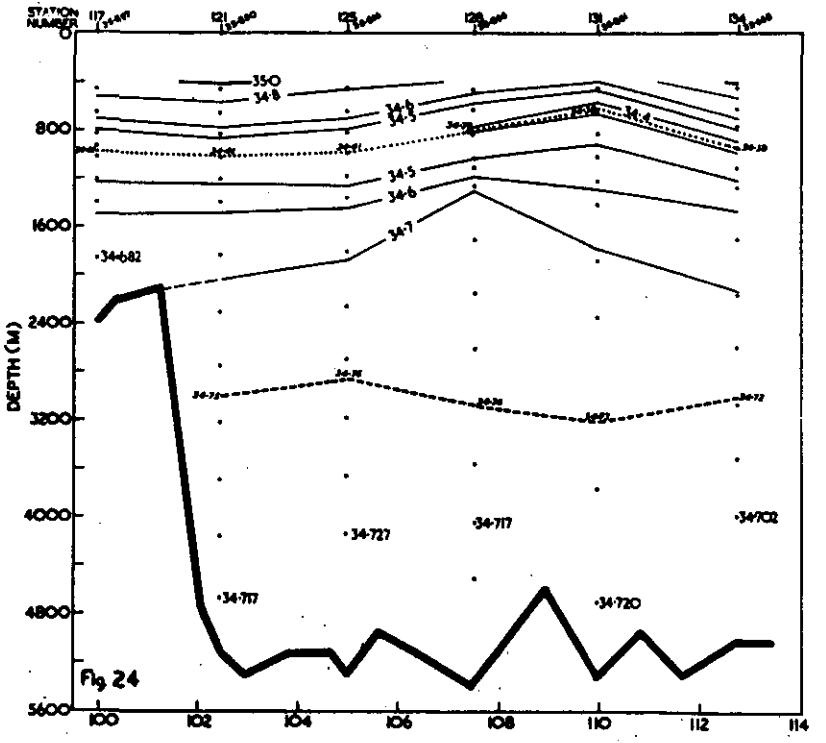

STATION NUMBER
84
79
76
73
70
DEPTH (M)
800
1600
2400
3200
4000
4800
5600
100
102
104
106
108
110
0·25
0·50
0·75
1·00
1·25
1·50
1·75
2·00
2·25
·175
·197
1·89
1·94
1·92

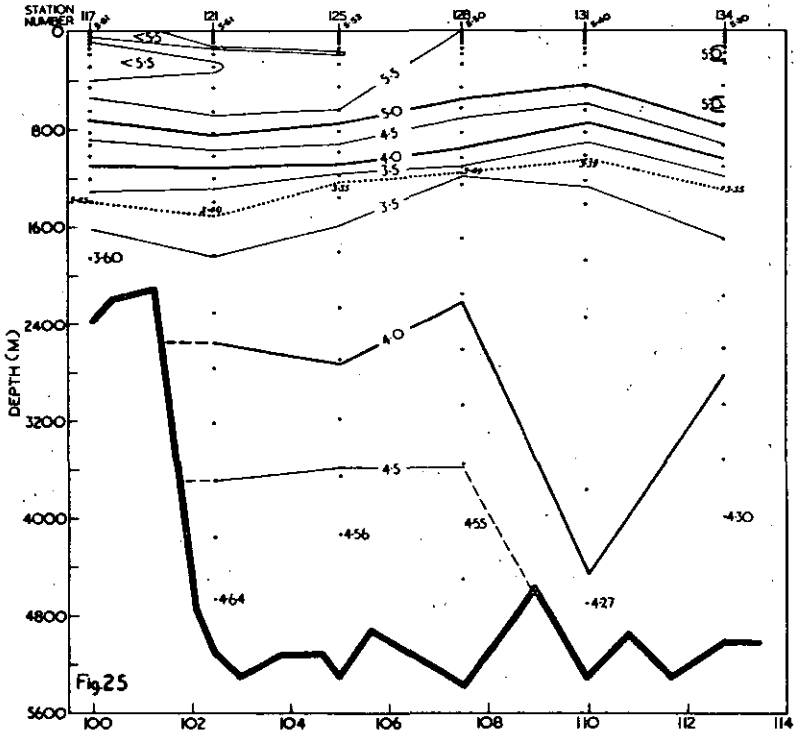
Fig. 20

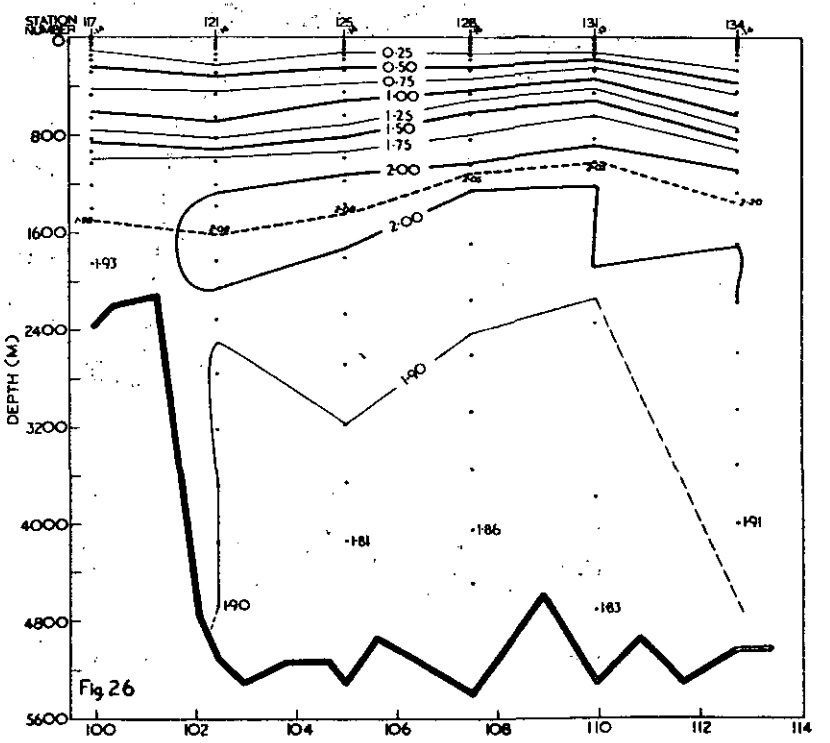

STATION NUMBER 117
121
125
128
131
134
DEPTH (M)
80
160
240
320
400
480
560
640
100
102
104
106
108
110
112
Fig. 21


STATION NUMBER 117
121
125
128
131
134
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
-2·62
+1·17
+1·10
+1·06
+1·06
100
102
104
106
108
110
112
Fig. 22


STATION NUMBER
117
121
125
128
131
134
DEPTH (M)
0
80
160
240
320
400
480
560
640
35·8
35·7
35·6
35·4
35·2
35·0
34·8
34·6
34·4
35·7
100
102
104
106
108
110
112
114
Fig 23


STATION NUMBER
117
121
125
128
131
134
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
35·0
34·8
34·7
34·6
34·5
34·4
·34·682
·34·727
·34·717
·34·720
·34·702
100
102
104
106
108
110
112
114
Fig 24


STATION NUMBER
117
121
125
128
131
134
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
100
102
104
106
108
110
112
114
<5·5
<5·5
5·5
5·0
4·5
4·0
3·5
3·5
·360
4·0
4·5
·456
·455
·430
·464
·427
Fig.25


STATION NUMBER
117
121
125
128
131
134
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
100
102
104
106
108
110
112
114
0·25
0·50
0·75
1·00
1·25
1·50
1·75
2·00
2·00
·193
1·90
·181
·186
·191
1·90
·183
Fig.26

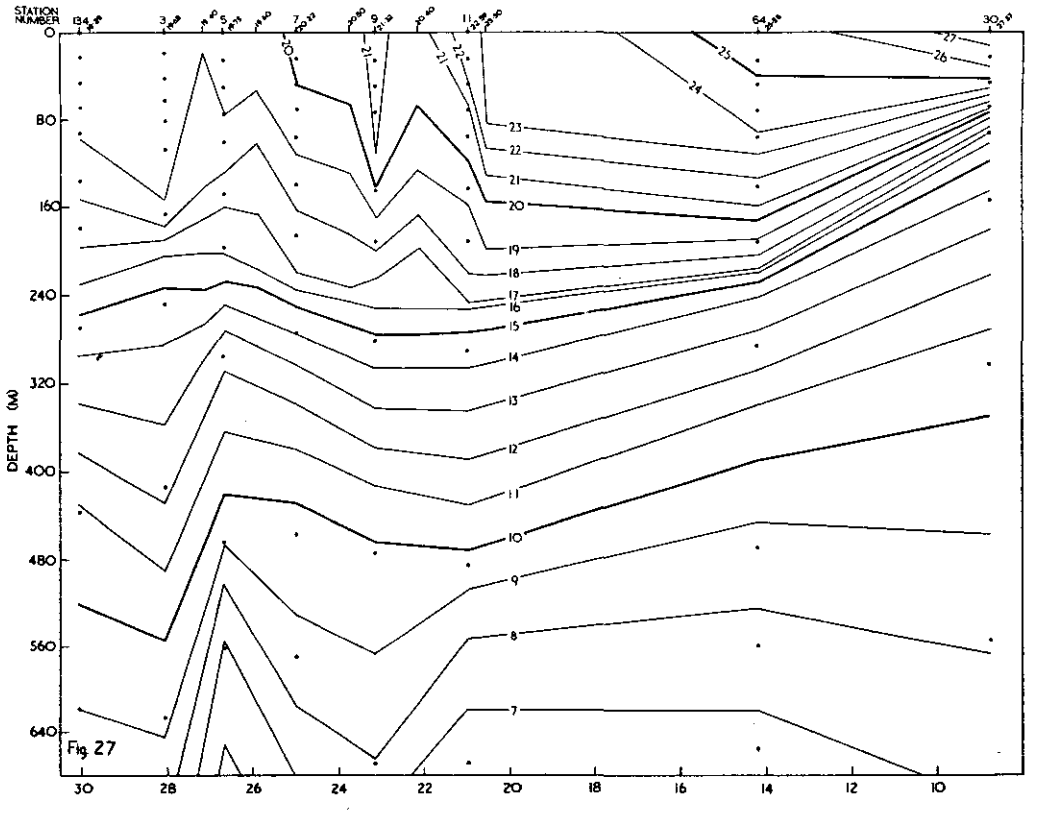

STATION NUMBER
DEPTH (M)
0
80
160
240
320
400
480
560
640
30
28
26
24
22
20
18
16
14
12
10

Fig. 27

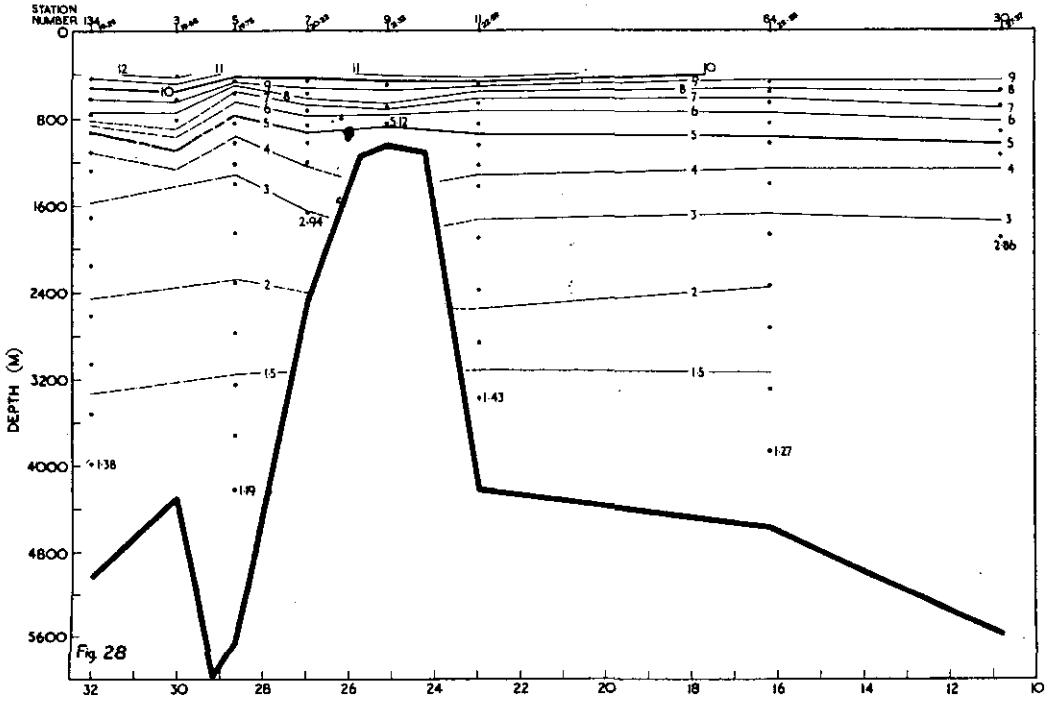
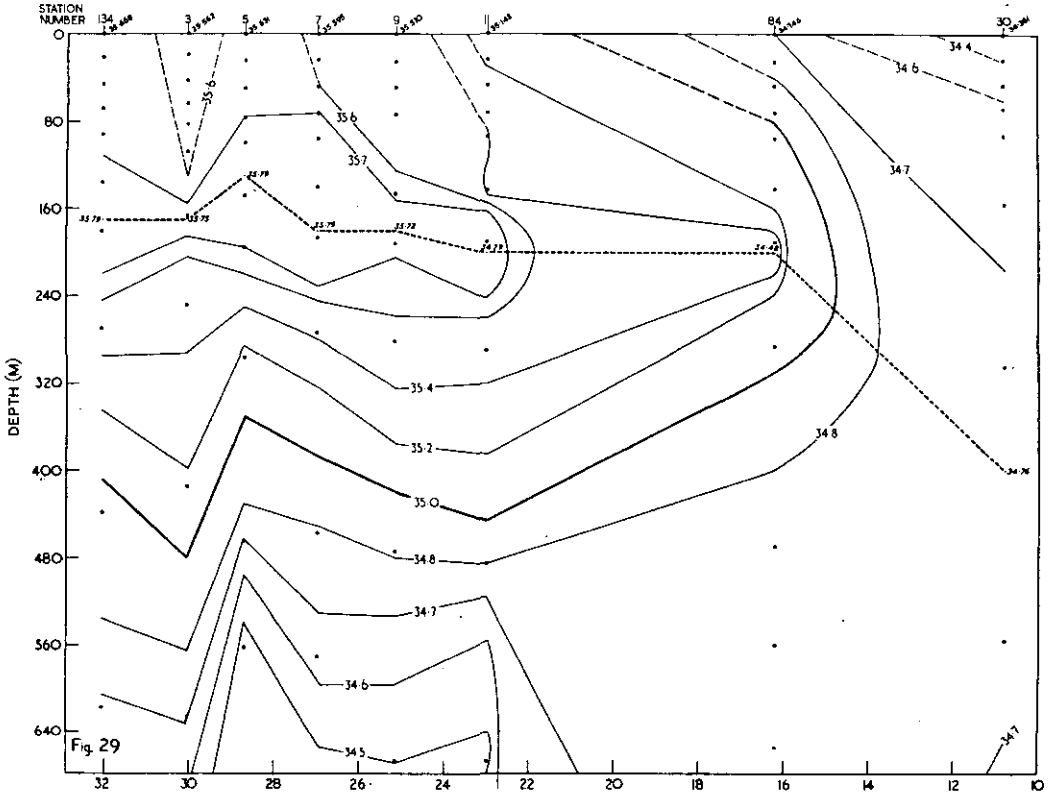
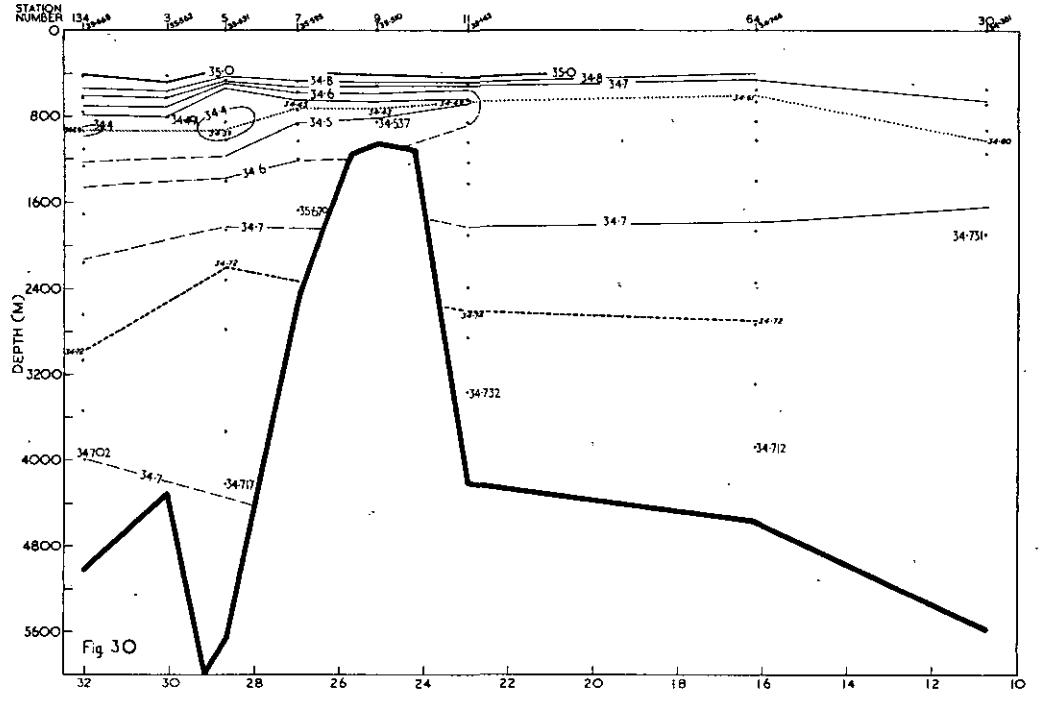
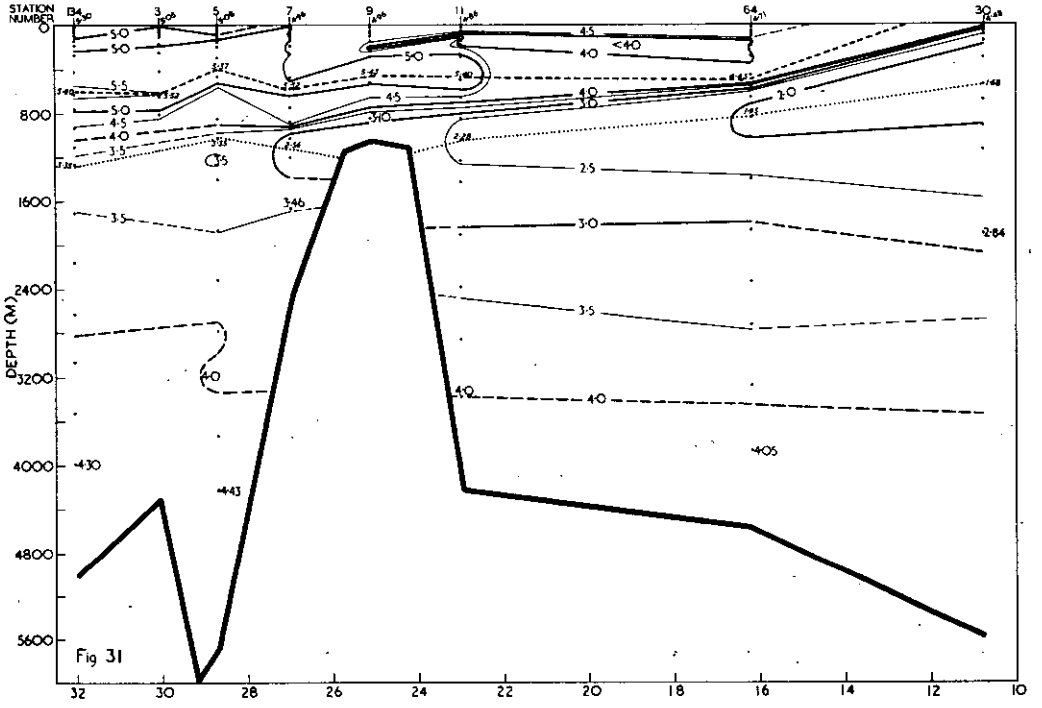
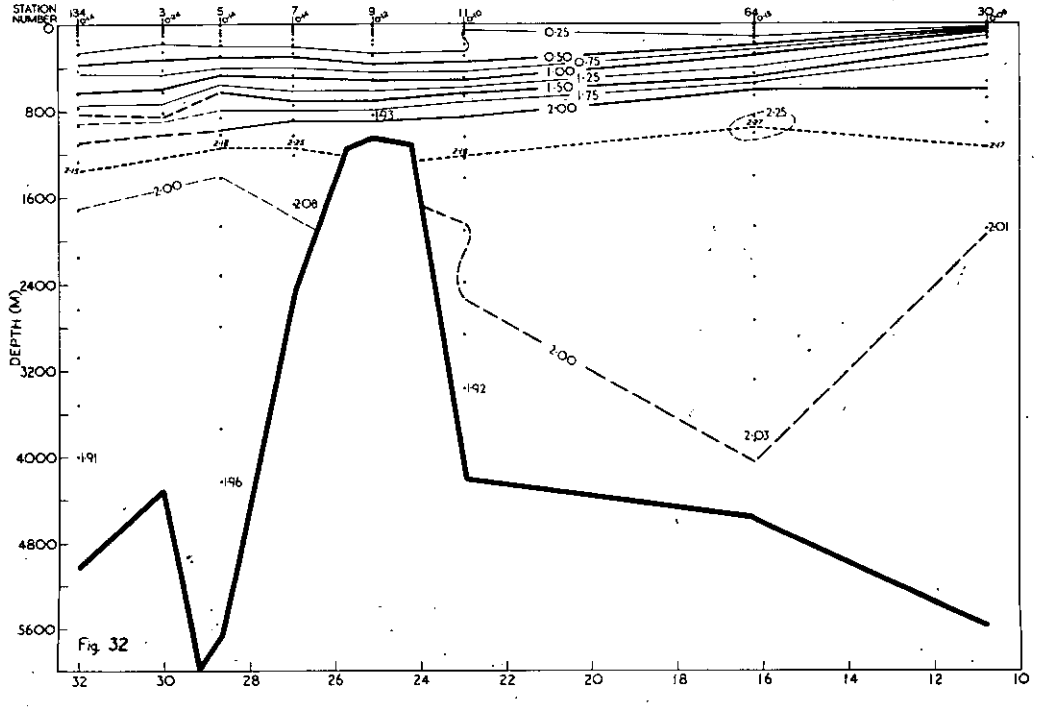

STATION NUMBER
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
32
30
28
26
24
22
20
18
16
14
12
10
2·94
5·12
1·43
1·38
1·19
1·27
2·86

Fig. 28


STATION NUMBER
DEPTH (M)
Fig. 29


STATION NUMBER
DEPTH (M)
Fig. 30


STATION NUMBER
DEPTH (M)
Fig 31


STATION NUMBER
DEPTH (M)
Fig. 32

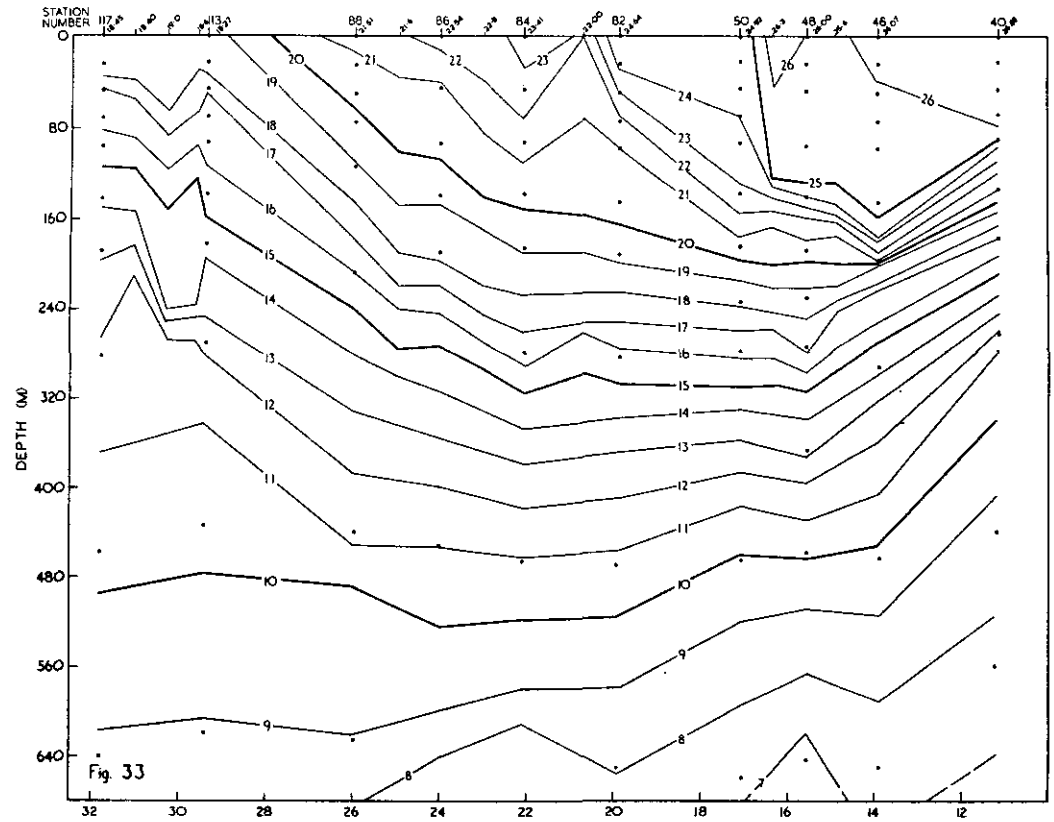

STATION NUMBER
DEPTH (M)
0
80
160
240
320
400
480
560
640
32
30
28
26
24
22
20
18
16
14
12

Fig. 33

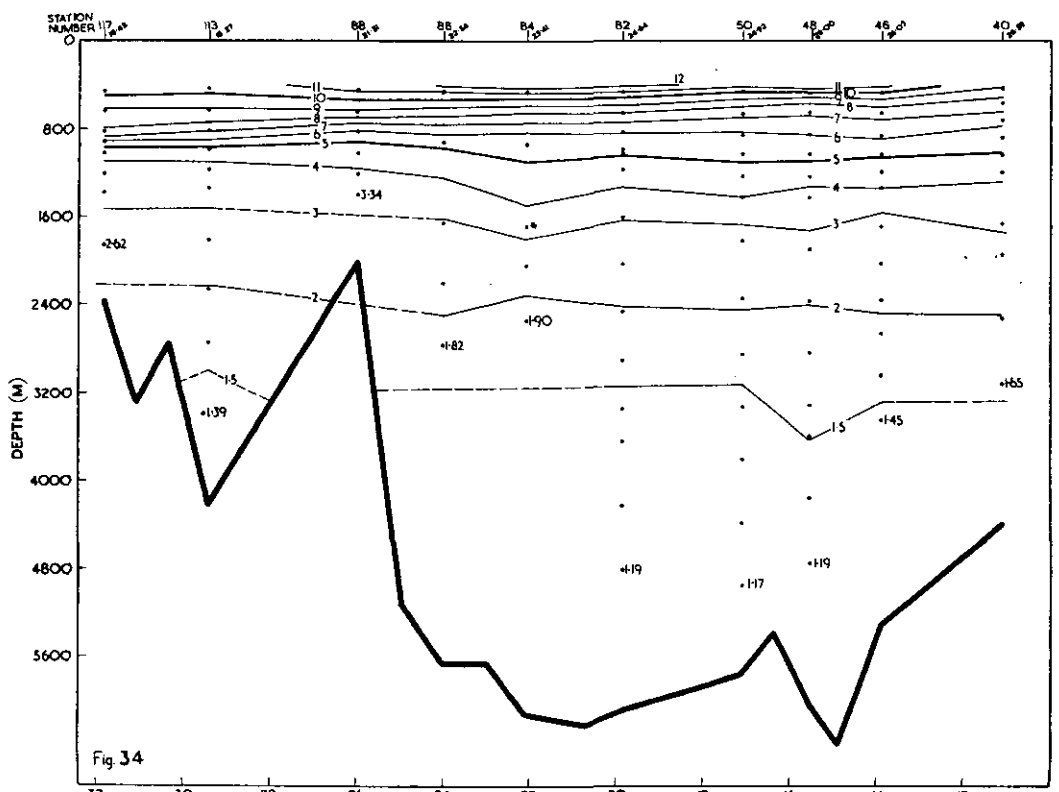
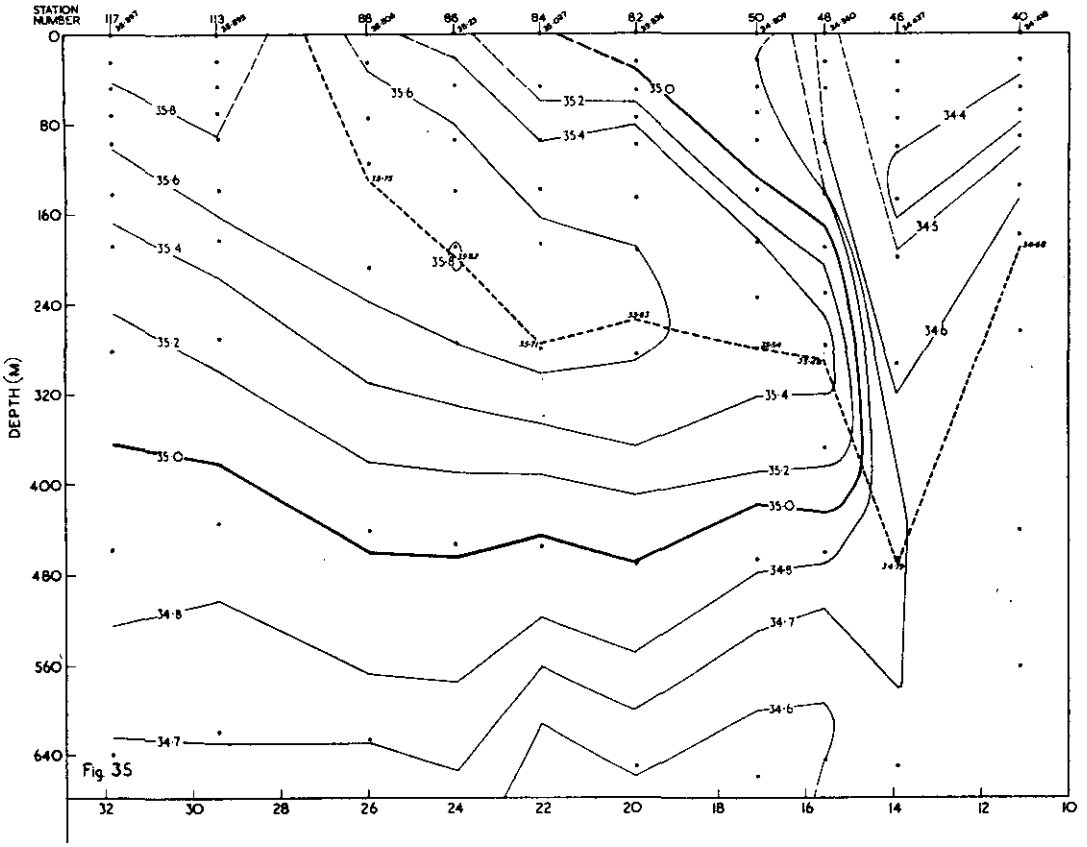
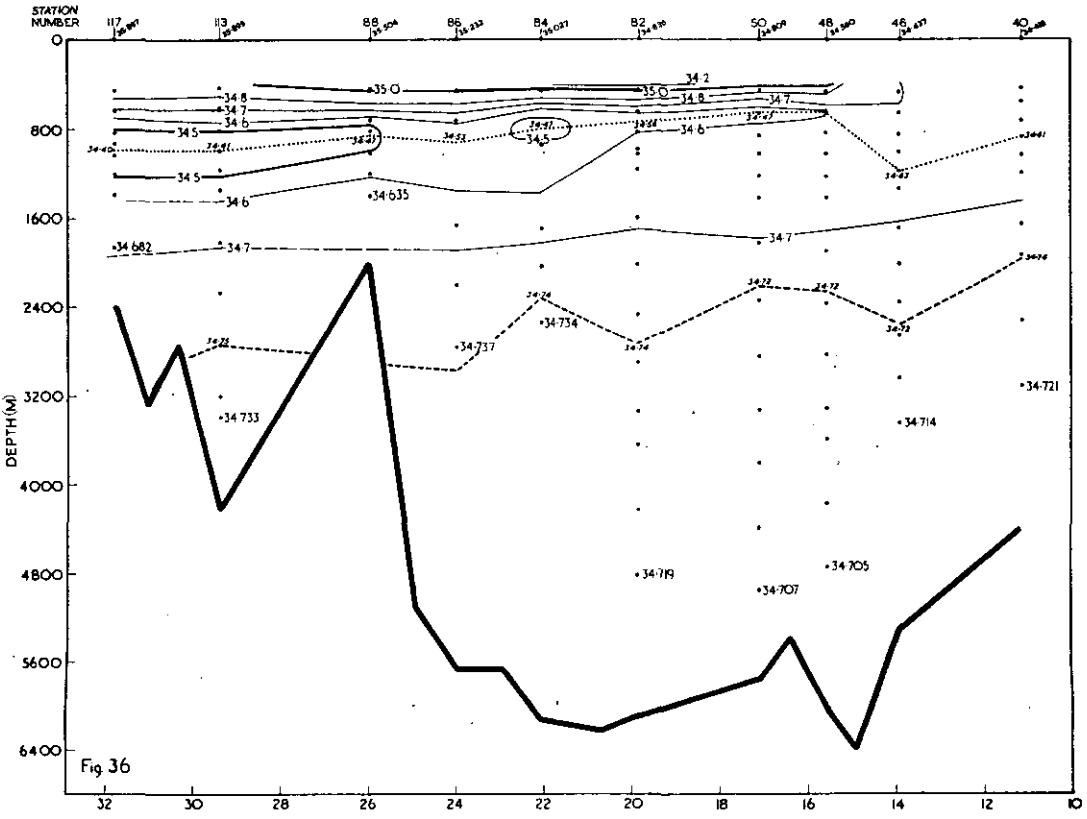

STATION NUMBER
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
32
30
28
26
24
22
20
18
16
14
12

Fig. 34


STATION NUMBER
117
113
88
86
84
82
50
48
46
40
DEPTH (M)
0
80
160
240
320
400
480
560
640
35·8
35·6
35·4
35·2
35·0
34·8
34·7
34·6
34·5
34·4
32
30
28
26
24
22
20
18
16
14
12
10
Fig. 35


STATION NUMBER
117
113
88
86
84
82
50
48
46
40
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
6400
34·8
34·7
34·6
34·5
34·4
35·0
34·2
34·6635
34·682
34·733
34·737
34·734
34·719
34·707
34·705
34·714
34·721
32
30
28
26
24
22
20
18
16
14
12
10
Fig. 36

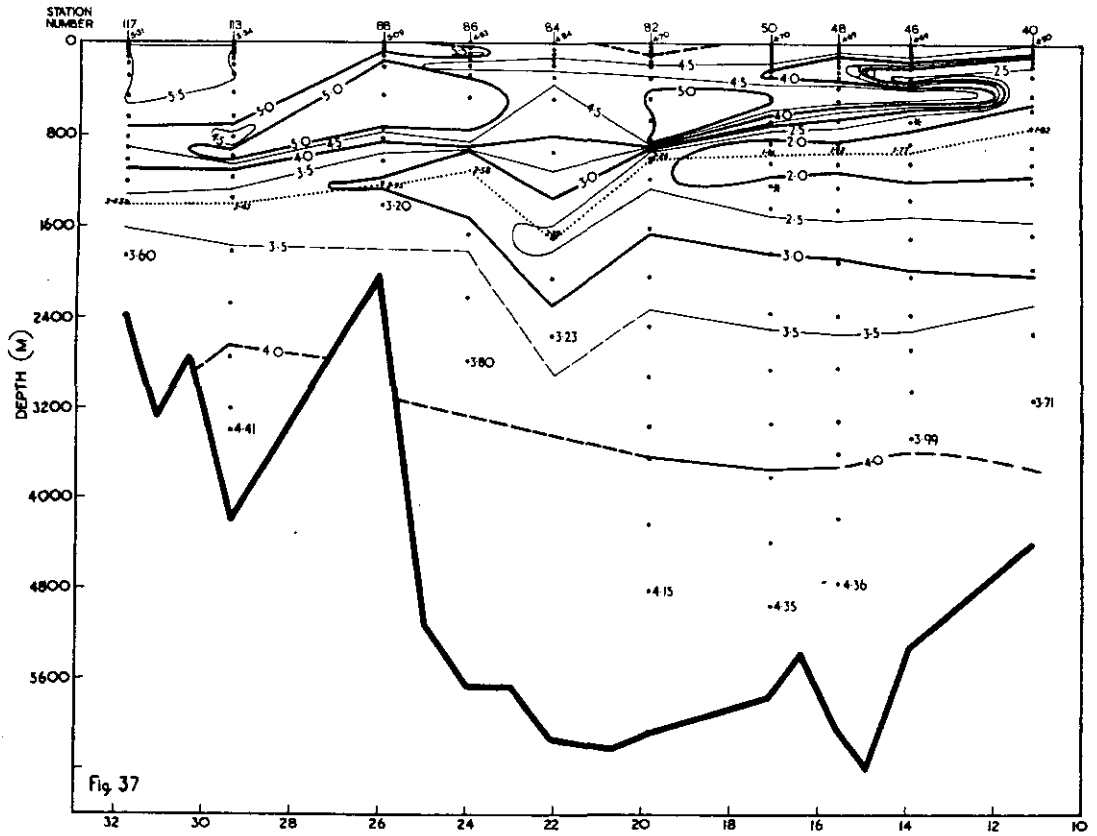

STATION NUMBER
117
113
88
86
84
82
50
48
46
40
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
32
30
28
26
24
22
20
18
16
14
12
10

Fig. 37

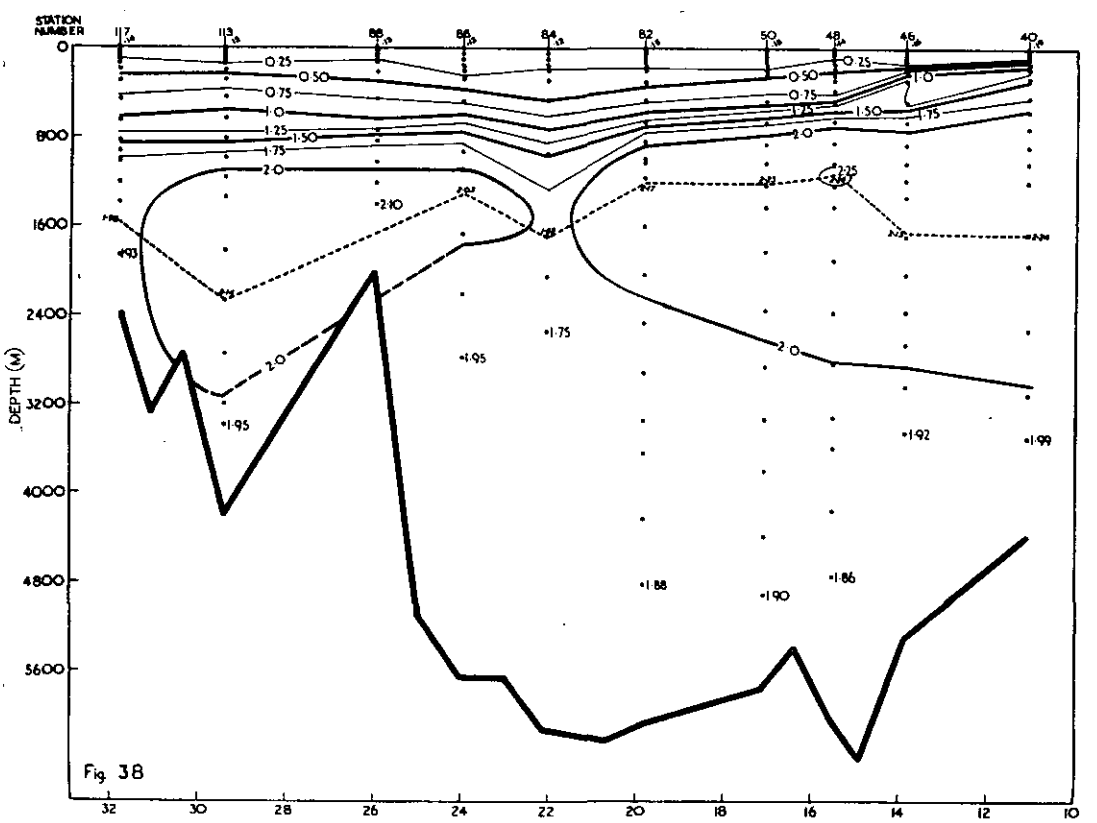

STATION NUMBER
117
113
88
86
84
82
50
48
46
40
DEPTH (M)
0
800
1600
2400
3200
4000
4800
5600
32
30
28
26
24
22
20
18
16
14
12
10

Fig. 38

HYDROLOGY

HORIZONTAL DISTRIBUTION OF PROPERTIES

Figures illustrating the horizontal distribution of properties at the surface, 50 m and 250 m were prepared from the data in Section V.

Figs.	39-45	Horizontal	distribution of properties
Fig.	39A	Surface	Temperature
	B		Salinity
Fig.	40A		Oxygen
	B		Total phosphorus
Fig.	41A		Inorganic phosphate
	B		Dynamic topography in dyn. cm. relative to 1750 decibars
Fig.	42A	50 m	Temperature
	B		Salinity
Fig.	43A		Oxygen
	B		Inorganic phosphate
Fig.	44A	250 m	Temperature
	B		Salinity
Fig.	45A		Oxygen
	B		Inorganic phosphate

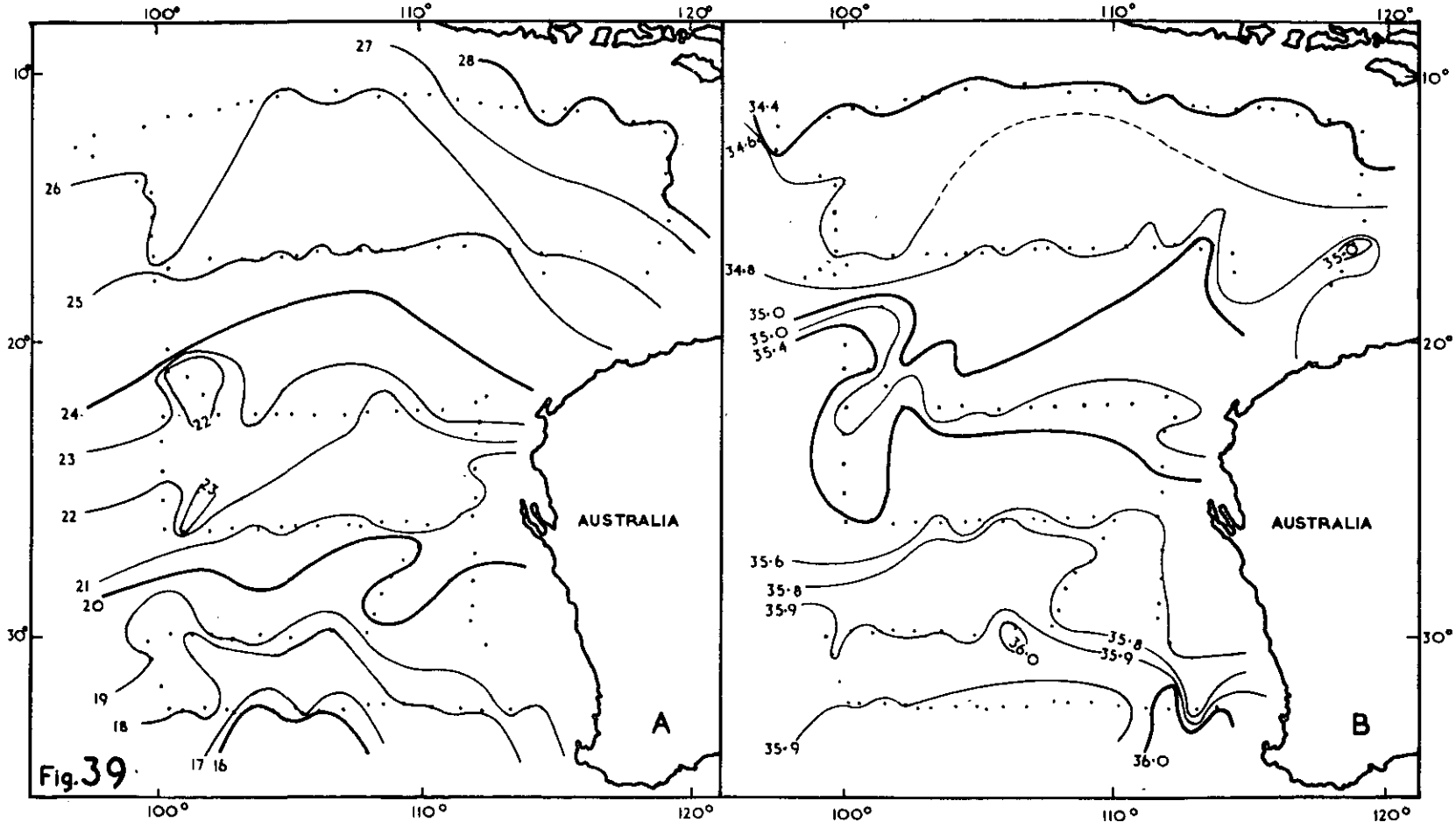

100°
110°
120°
10°
20°
30°
27
28
26
25
24
23
22
21
20
19
18
17
16
AUSTRALIA
A
34·4
34·6
34·8
35·0
35·0
35·4
35·6
35·8
35·9
36·0
B

Fig. 39

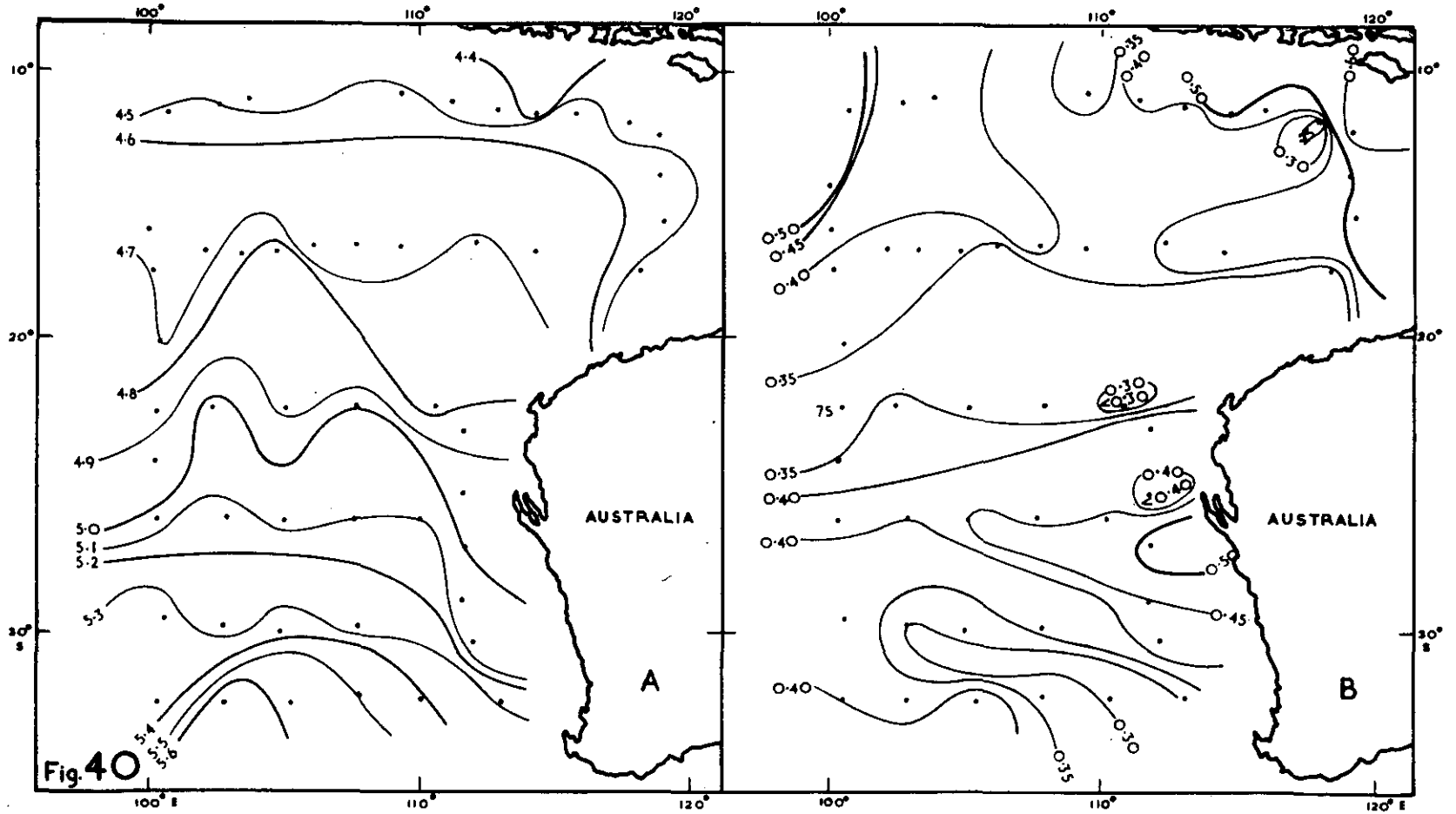

100°
110°
120°
10°
20°
30° S
4·4
4·5
4·6
4·7
4·8
4·9
5·0
5·1
5·2
5·3
5·4
5·5
5·6
AUSTRALIA
A
100° E
110°
120° E
0·35
0·40
0·50
0·30
0·45
75°
AUSTRALIA
B

Fig. 40

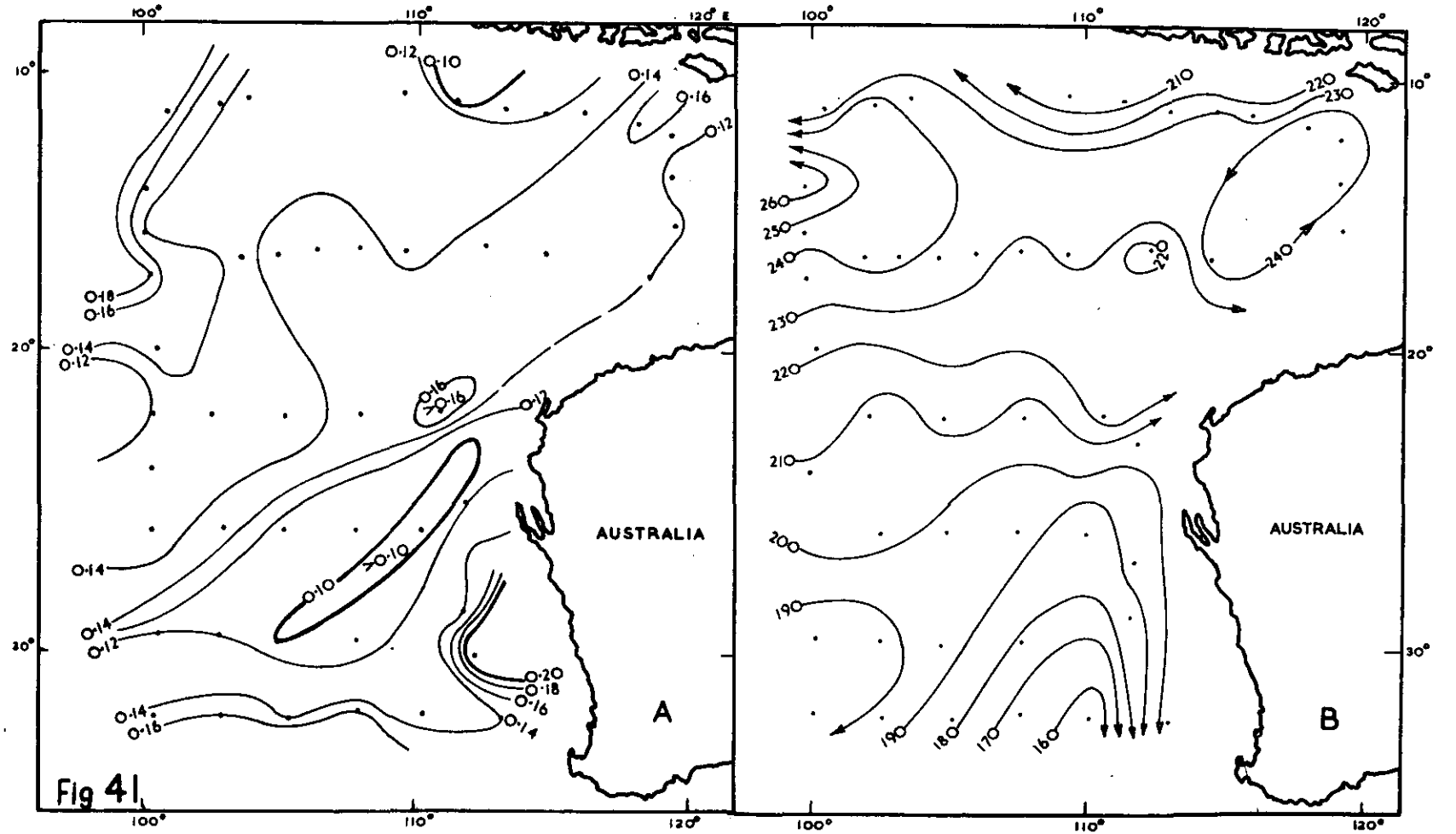

100°
110°
120° E
10°
20°
30°
0·12
0·10
0·14
0·16
0·12
0·18
0·16
0·14
0·12
0·16
>0·16
0·12
0·14
0·10
>0·10
0·14
0·12
0·20
0·18
0·16
0·14
0·14
0·16
AUSTRALIA
A
210
220
230
260
250
240
230
220
210
200
190
190
180
170
160
240
AUSTRALIA
B

Fig 41

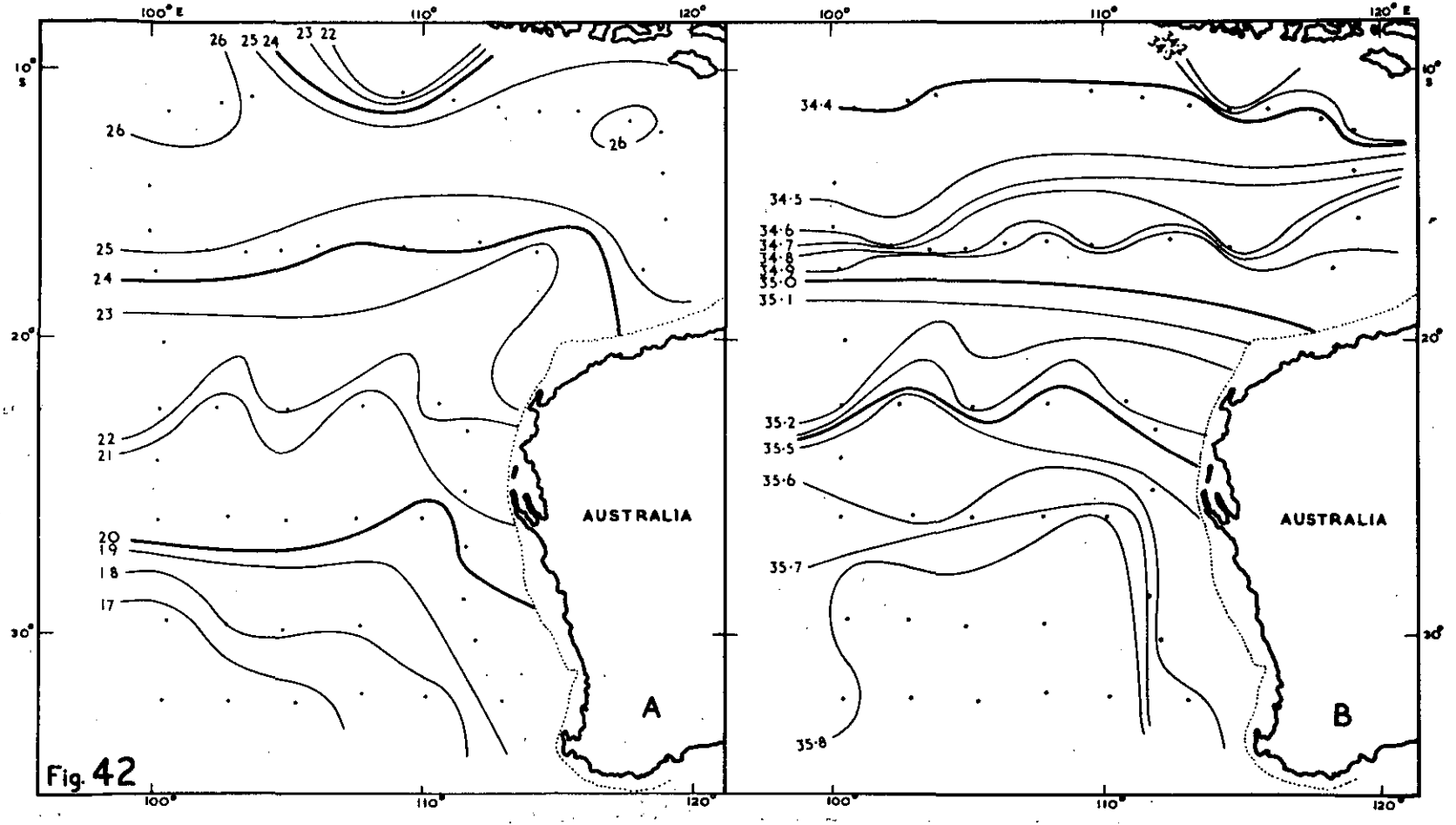

100° E
110°
120°
10° S
20°
30°
26
25
24
23
22
21
20
19
18
17
AUSTRALIA
A
34·4
34·5
34·6
34·7
34·8
34·9
35·0
35·1
35·2
35·5
35·6
35·7
35·8
B

Fig. 42

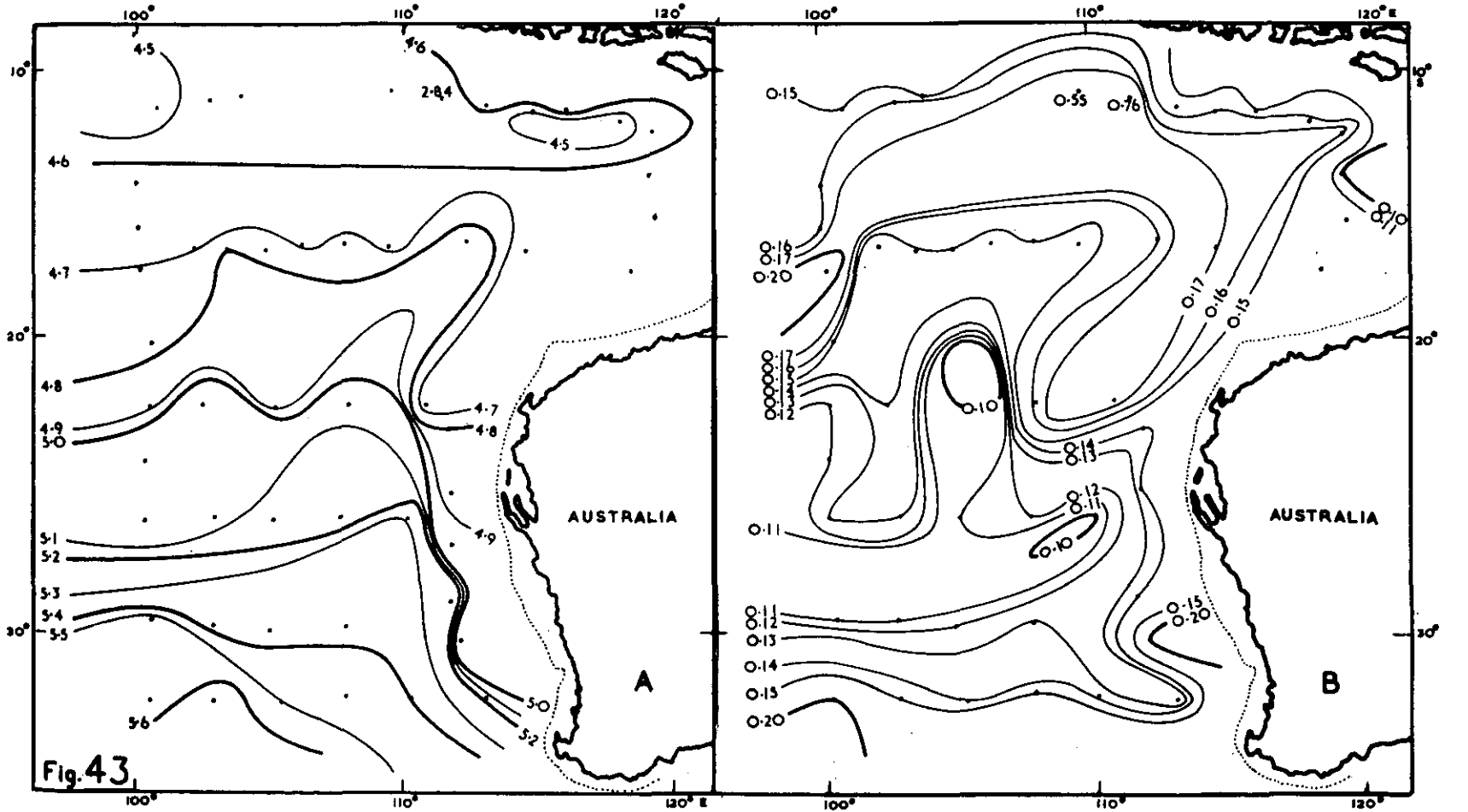

100°
110°
120°
120° E
10°
20°
30°
4·5
4·6
2·8,4
4·5
4·7
4·8
4·9
5·0
5·1
5·2
5·3
5·4
5·5
5·6
AUSTRALIA
A
0·15
0·16
0·17
0·20
0·10
0·11
0·12
0·13
0·14
0·15
0·20
AUSTRALIA
B

Fig. 43

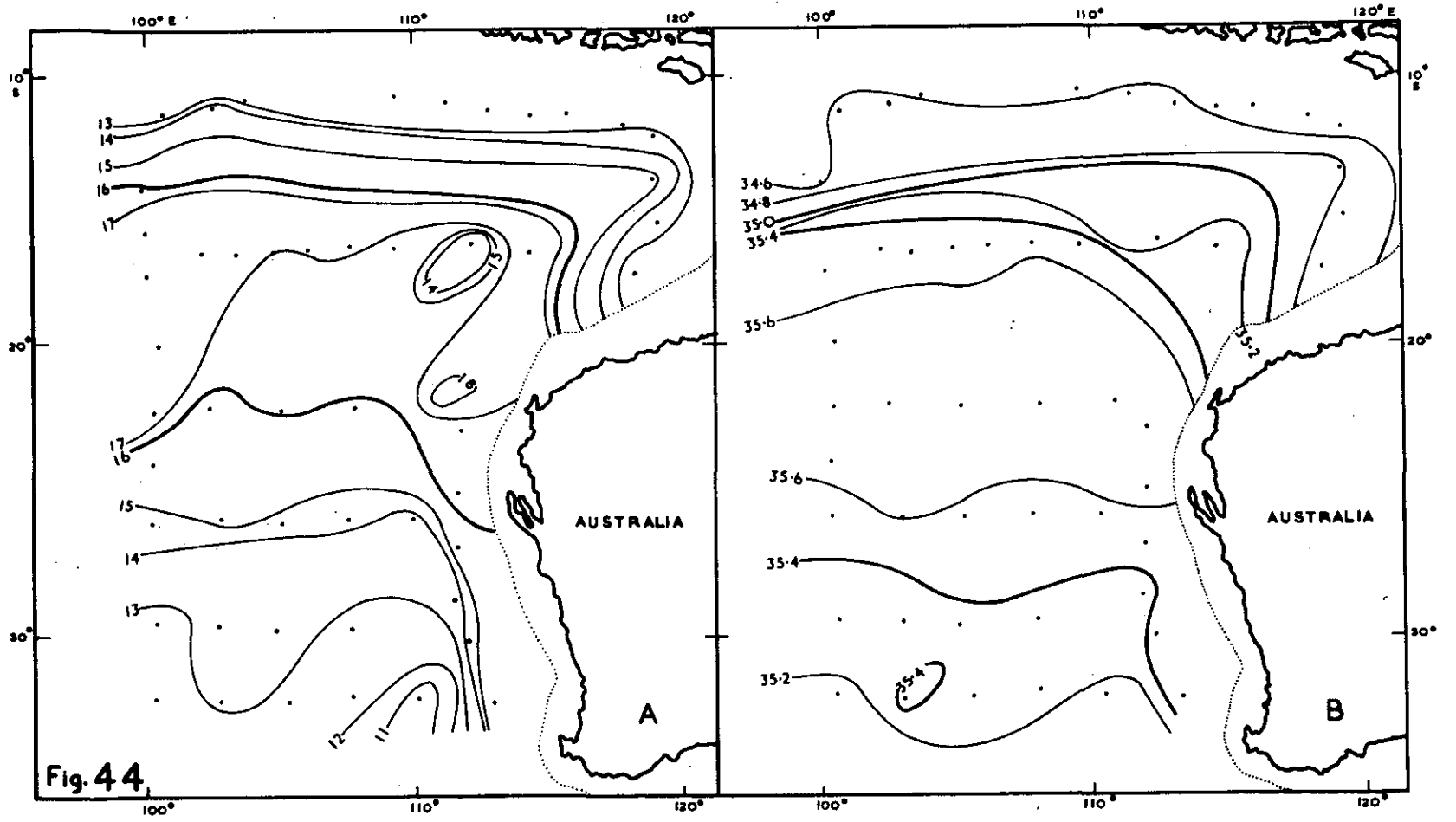

100° E
110°
120°
10° S
20°
30°
13
14
15
16
17
18
AUSTRALIA
A
12
11
34·6
34·8
35·0
35·4
35·6
35·2
B

Fig. 44

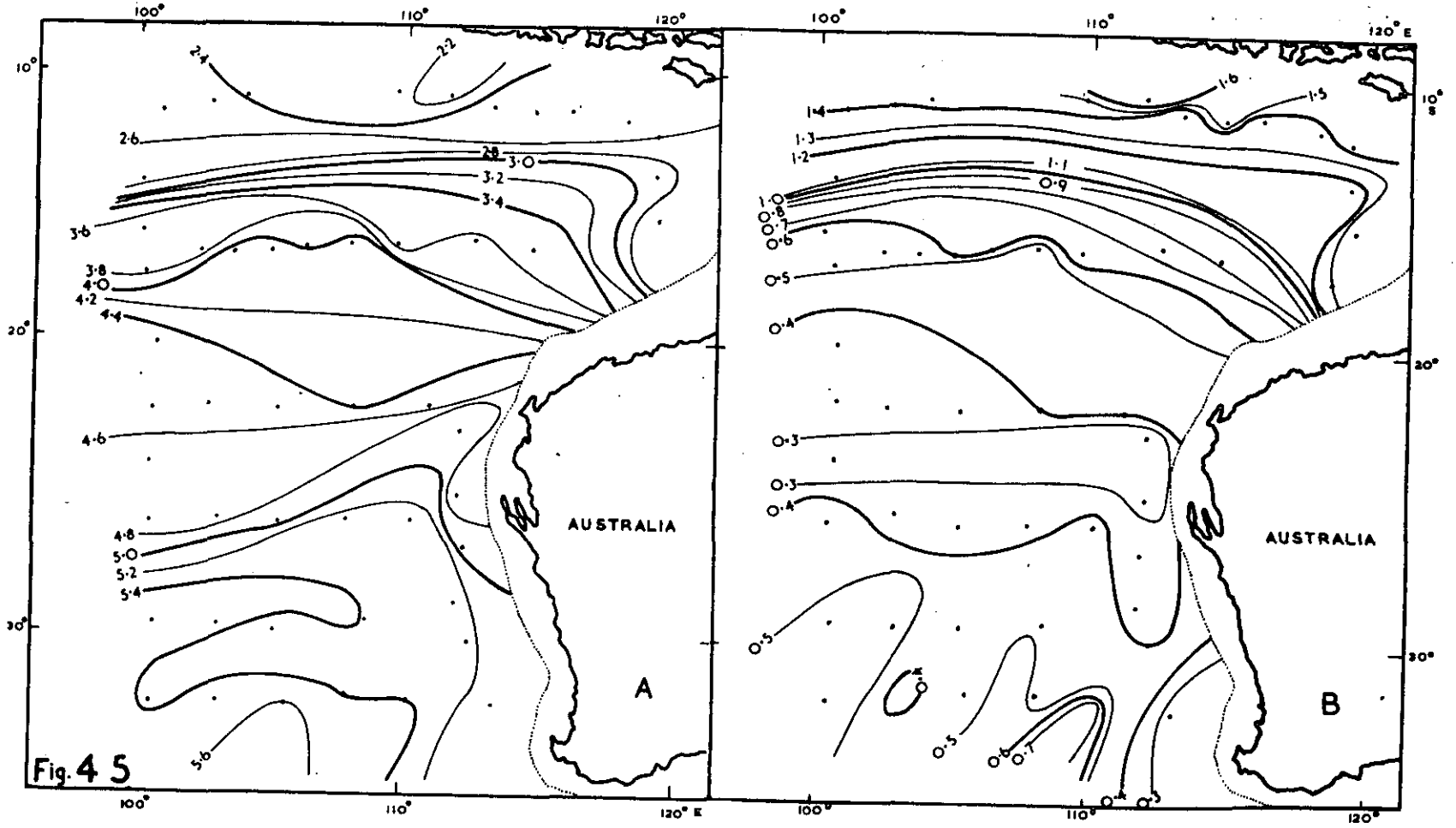

100°
110°
120°
120° E
10°
20°
30°
2·2
2·4
2·6
2·8
3·0
3·2
3·4
3·6
3·8
4·0
4·2
4·4
4·6
4·8
5·0
5·2
5·4
5·6
AUSTRALIA
A
1·0
1·1
1·2
1·3
1·4
1·5
1·6
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·3
0·4
0·5
0·5
0·6
0·7
AUSTRALIA
B

Fig. 4 5

PRIMARY PRODUCTION

Fig. 46 Daily rates of primary production, calculated for the columns under 1 metre square from 0-100 m depth in gC/hour/m^2 for each ^{14}C station. Figures are arranged with station number at the top, value in the centre, and the time of sampling at the bottom.

Figs. 47-48 Vertical profiles of hourly rates of primary production at each ^{14}C station. Sampling times are given below the station number.

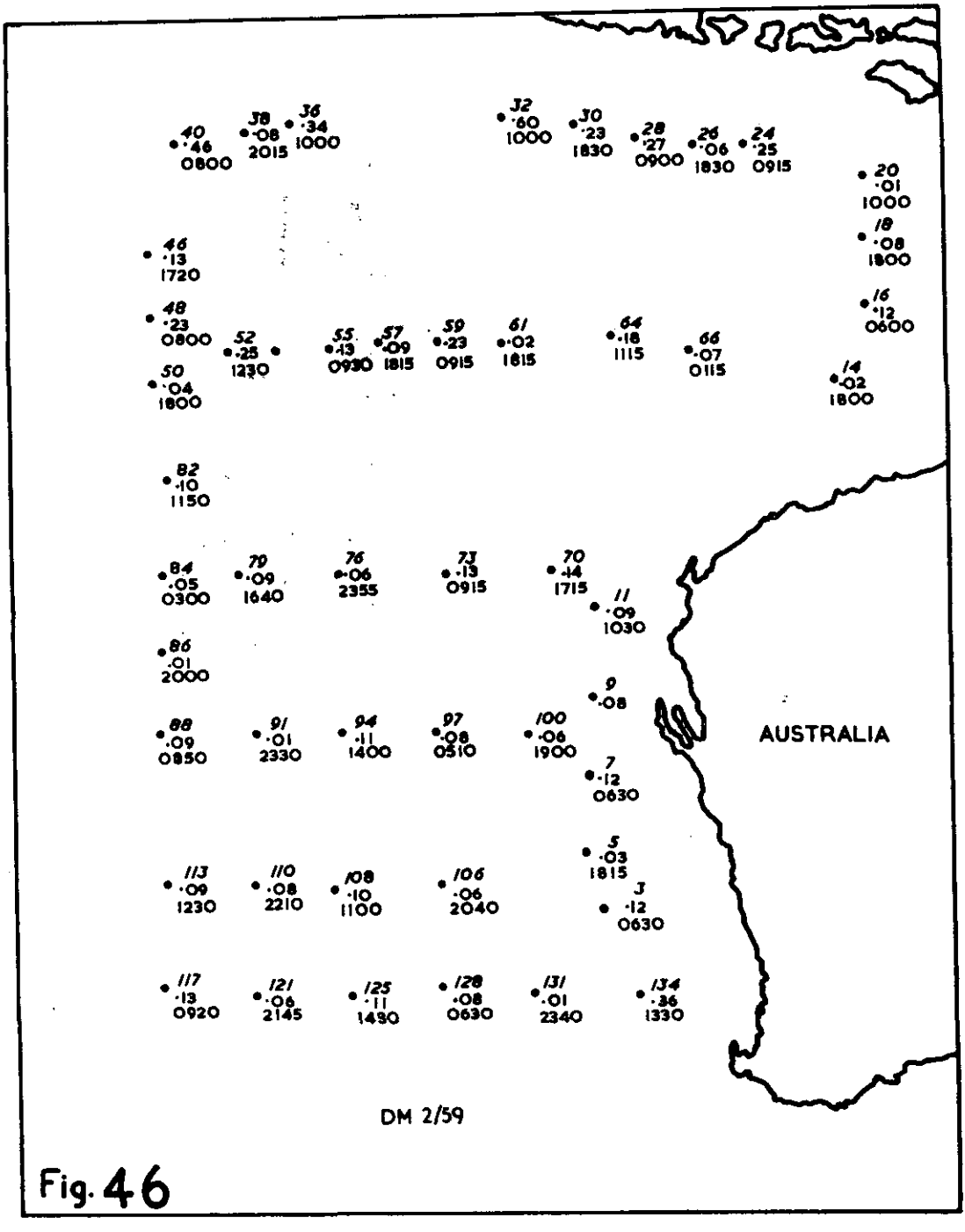

40 ·46 0800
38 ·08 2015
36 ·34 1000
32 ·60 1000
30 ·23 1830
28 ·27 0900
26 ·06 1830
24 ·25 0915
20 ·01 1000
18 ·08 1800
16 ·12 0600
14 ·02 1800
46 ·13 1720
48 ·23 0800
52 ·25 1230
55 ·13 0930
57 ·09 1815
59 ·23 0915
61 ·02 1815
64 ·18 1115
66 ·07 0115
50 ·04 1800
82 ·10 1150
84 ·05 0300
79 ·09 1640
76 ·06 2355
73 ·13 0915
70 ·14 1715
11 ·09 1030
86 ·01 2000
9 ·08
88 ·09 0850
91 ·01 2330
94 ·11 1400
97 ·08 0510
100 ·06 1900
7 ·12 0630
AUSTRALIA
5 ·03 1815
3 ·12 0630
113 ·09 1230
110 ·08 2210
108 ·10 1100
106 ·06 2040
117 ·13 0920
121 ·06 2145
125 ·11 1490
128 ·08 0630
131 ·01 2340
134 ·36 1330
DM 2/59

Fig. 46

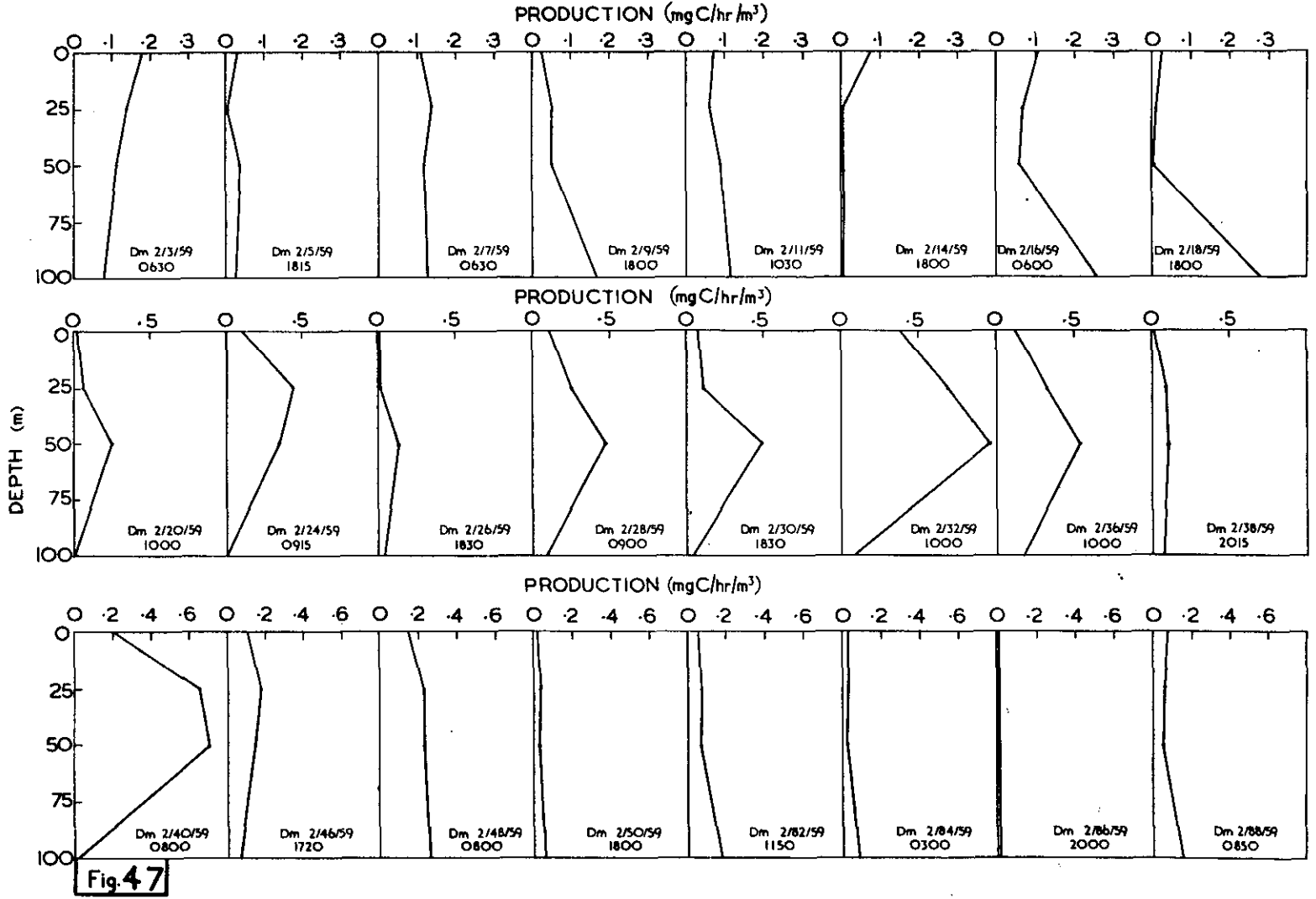

PRODUCTION (mgC/hr/m³)
0 ·1 ·2 ·3
0
25
50
75
100
Dm 2/3/59 0630
Dm 2/5/59 1815
Dm 2/7/59 0630
Dm 2/9/59 1800
Dm 2/11/59 1030
Dm 2/14/59 1800
Dm 2/16/59 0600
Dm 2/18/59 1800
PRODUCTION (mgC/hr/m³)
0 ·5
DEPTH (m)
Dm 2/20/59 1000
Dm 2/24/59 0915
Dm 2/26/59 1830
Dm 2/28/59 0900
Dm 2/30/59 1830
Dm 2/32/59 1000
Dm 2/36/59 1000
Dm 2/38/59 2015
PRODUCTION (mgC/hr/m³)
0 ·2 ·4 ·6
Dm 2/40/59 0800
Dm 2/46/59 1720
Dm 2/48/59 0800
Dm 2/50/59 1800
Dm 2/82/59 1150
Dm 2/84/59 0300
Dm 2/86/59 2000
Dm 2/88/59 0850

Fig. 47

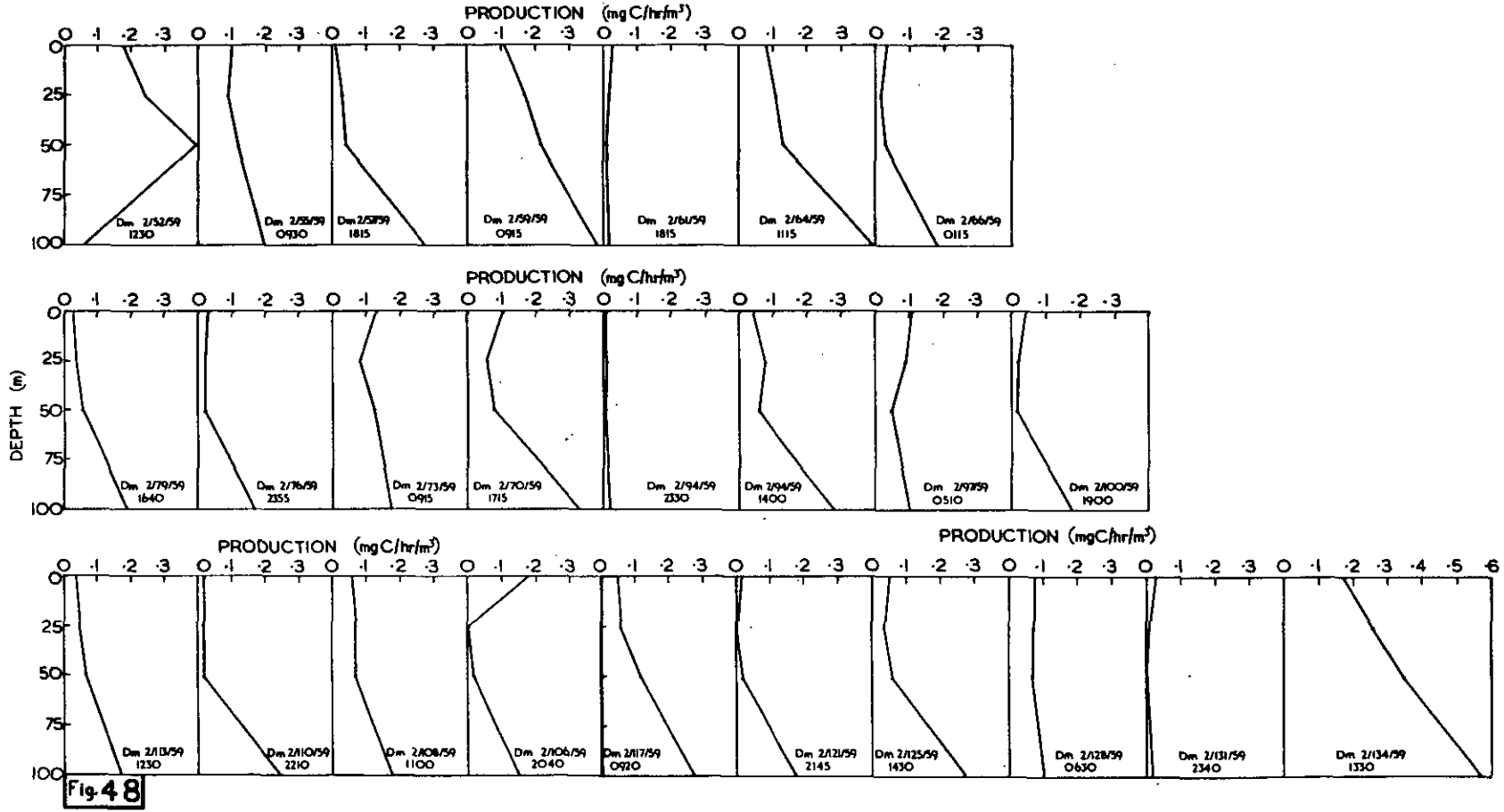

PRODUCTION (mg C/hr/m³)
DEPTH (m)
Dm 2/52/59 1230
Dm 2/55/59 0930
Dm 2/58/59 1815
Dm 2/59/59 0915
Dm 2/61/59 1815
Dm 2/64/59 1115
Dm 2/66/59 0115
Dm 2/79/59 1640
Dm 2/76/59 2355
Dm 2/73/59 0915
Dm 2/70/59 1715
Dm 2/94/59 2330
Dm 2/94/59 1400
Dm 2/97/59 0510
Dm 2/100/59 1900
Dm 2/113/59 1230
Dm 2/110/59 2210
Dm 2/108/59 1100
Dm 2/106/59 2040
Dm 2/117/59 0920
Dm 2/121/59 2145
Dm 2/125/59 1430
Dm 2/128/59 0630
Dm 2/131/59 2340
Dm 2/134/59 1330

Fig. 48