OCEANOGRAPHICAL STATION LIST

VOLUME 68

INVESTIGATIONS BY F.R.V. *MARELDA* ON THE
EASTERN AUSTRALIAN TUNA GROUNDS IN 1964

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1968

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MELBOURNE, 1968

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When citing this station list, abbreviate as follows:
CSIRO Aust. Oceanogr. Stn List 68.

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Investigations by F.R.V. Marelda
on the Eastern Australian Tuna Grounds in 1964

I. INTRODUCTION

This report records the data collected during the 1964 cruises of F.R.V. Marelda (M1/64-M11/64).

These cruises were planned to investigate hydrological conditions on the tuna grounds, and to troll and tag tuna. Track charts and station positions are shown in Figures 1-11.

Marelda is a 36-ft wooden fishing vessel built in 1946 and converted for research in 1955. She is powered by a 48 hp Gardner diesel engine with an auxiliary Coventry Victor diesel of 5 hp, and is equipped with a magnetic compass, a radio transceiver with four transmitting frequencies, and a Kelvin Hughes Fisherman's Asdic.

II. WORK ACCOMPLISHED

Table 1 gives details of time, scientific personnel, number of stations worked, and numbers of tuna trolled and tagged for each cruise. Except for Cruise M2/64, when he was assisted by Mr G. Reid, the work was carried out by Mr R. Greig.

III. METHOD OF COLLECTION AND ANALYSIS OF SAMPLES

1. Physics

Temperature.—Water temperatures were taken with deep-sea reversing thermometers. Two protected thermometers were used on each water-bottle with an unprotected thermometer added to three of the four deepest water-bottles. Temperatures are considered accurate to $\pm$ 0.08 degC.

Bathythermographs.—A 900-ft bathythermograph was used and slides were digitized according to the method of the U.S. National Oceanographic Data Centre (1964). The results were transferred to punched cards and computer listings are held at Cronulla.

Thermometric Depth.—Depth calculations were made by the second method described by La Fond (1951), plotting thermometric depth against the difference between thermometric and wire depths. Depths are considered accurate to within about 5%.

TABLE 1

DETAILS OF CRUISES AND WORK DONE

Cruise	Dates	Number of Stations Occupied	BT	Hydrology		Fish Trolled						Tuna Tagged	
				1	2	1	2	3	4	5	6	1	2
M1/64	Jan.2-4						14		74				13
M2/64	Jan.30-Mar.20	22	23	22		81	13	1	142		4	81	12
M3/64	Aug.6-Sept.5	4	4	4		1	1		117	5		1	
M4/64	Sept.18-22	38	38	38	5	13	1	1	29	2		13	1
M5/64	Sept.29-Oct.6	40	24	40	18	2		1	17	2		2	
M6/64	Oct.16-23	44	20	44	24	5		4	12			5	
M7/64	Nov.5-14	47	23	47	23	6		2	60			5	
M8/64	Nov.18-Dec.1	38	17	38	17	56			31			55	
M9/64	Dec.2-8	30	15	30	16	11			1			10	
M10/64	Dec.9-17	25	13	25	16	3			1	2		3	
M11/64	Dec.29-Jan.2/65	6	6	6				3	28				

BT — Bathythermographs

Hydrology — 1 Number of stations at which surface samples were collected
2 Number of stations at which subsurface samples were collected

Fish trolled and tagged — 1 Southern bluefin tuna 2 Yellowfin tuna 3 Albacore 4 Striped tuna 5 Mackerel tuna 6 Other species

Sigma-t.—Sigma-t values were computed from temperature and salinity values, using the equations of Knudsen (La Fond 1951).

2. Chemistry

Salinity.—A chlorinity-temperature meter of the conductivity type (Hamon 1956) was used at Cronulla to estimate chlorinity, which was subsequently converted to salinity by the relation -

$$\text{Salinity} = 0.03 + 1.805 \times \text{Chlorinity}$$

Salinities are considered accurate to about $\pm$ 0.05‰.

Dissolved Oxygen.—A version of the standard Winkler method was used to determine the amount of dissolved oxygen in the seawater samples. The version used is a modification of that described by Thompson and Robinson (1939) and differs in some respects from the revision by Jacobsen, Robinson, and Thompson (1950). Potassium iodate was used as the iodometric standard, and the reagents necessary to fix the oxygen in solution were used at different concentrations (Rochford 1963). Duplicate titrations were made on approximately every tenth sample. Saturation values, given as ml/l, were computed, using the simpler of the equations given by Richards and Corwin (1956) -

$$O_2(\%\ \text{Satn.}) = \frac{O_2(\text{ml/l}) \times (33.5 + T^\circ C) \times 100}{332.4 - (1.854 \times S‰)}$$

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LA FOND, E.C. (1951).—Processing oceanographic data. U.S. Navy Hydrogr. Off. Publ. No. 614.

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IV. TRACK CHARTS

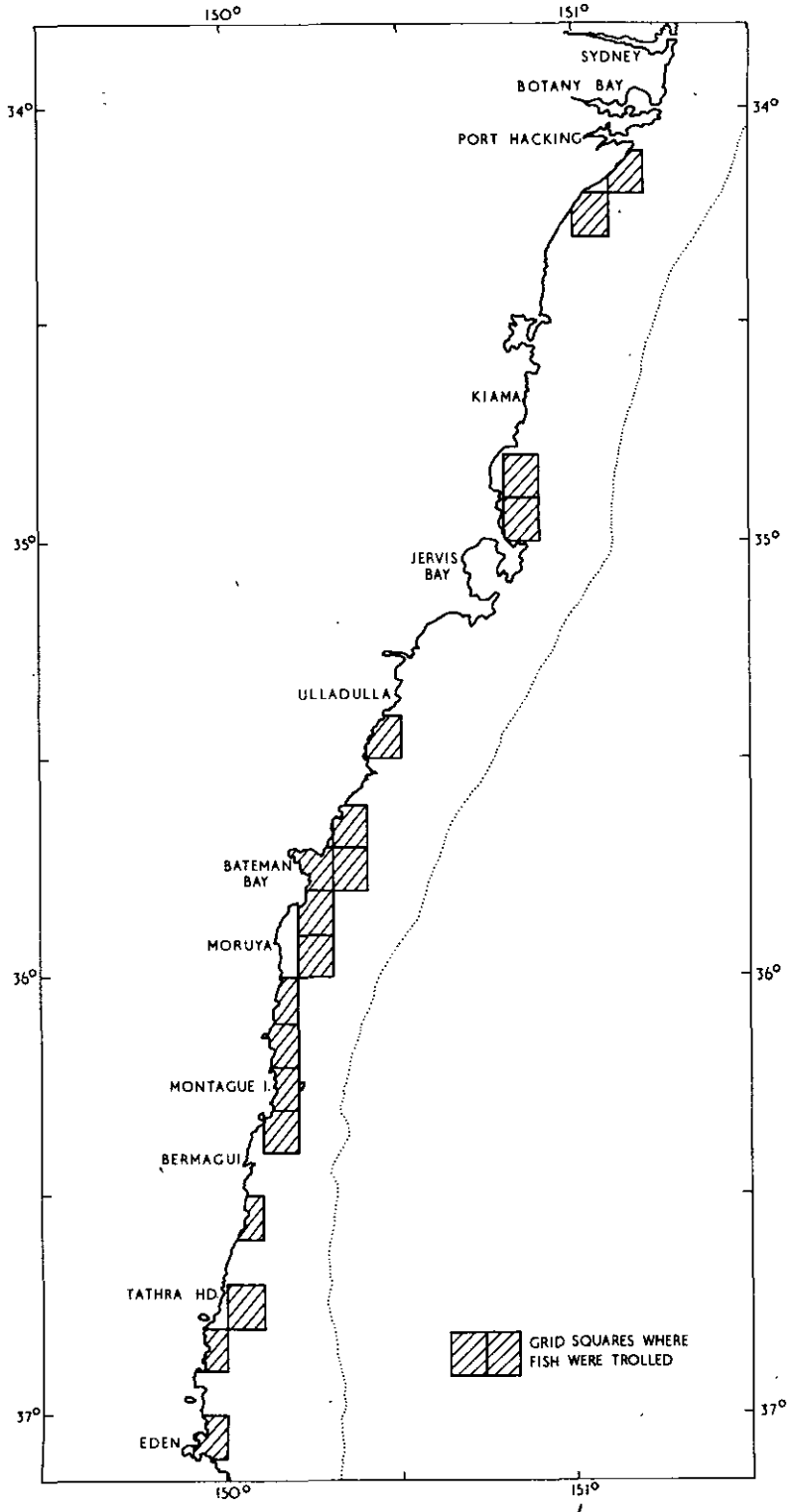

Fig. 1:- Track chart Cruise M 1/64

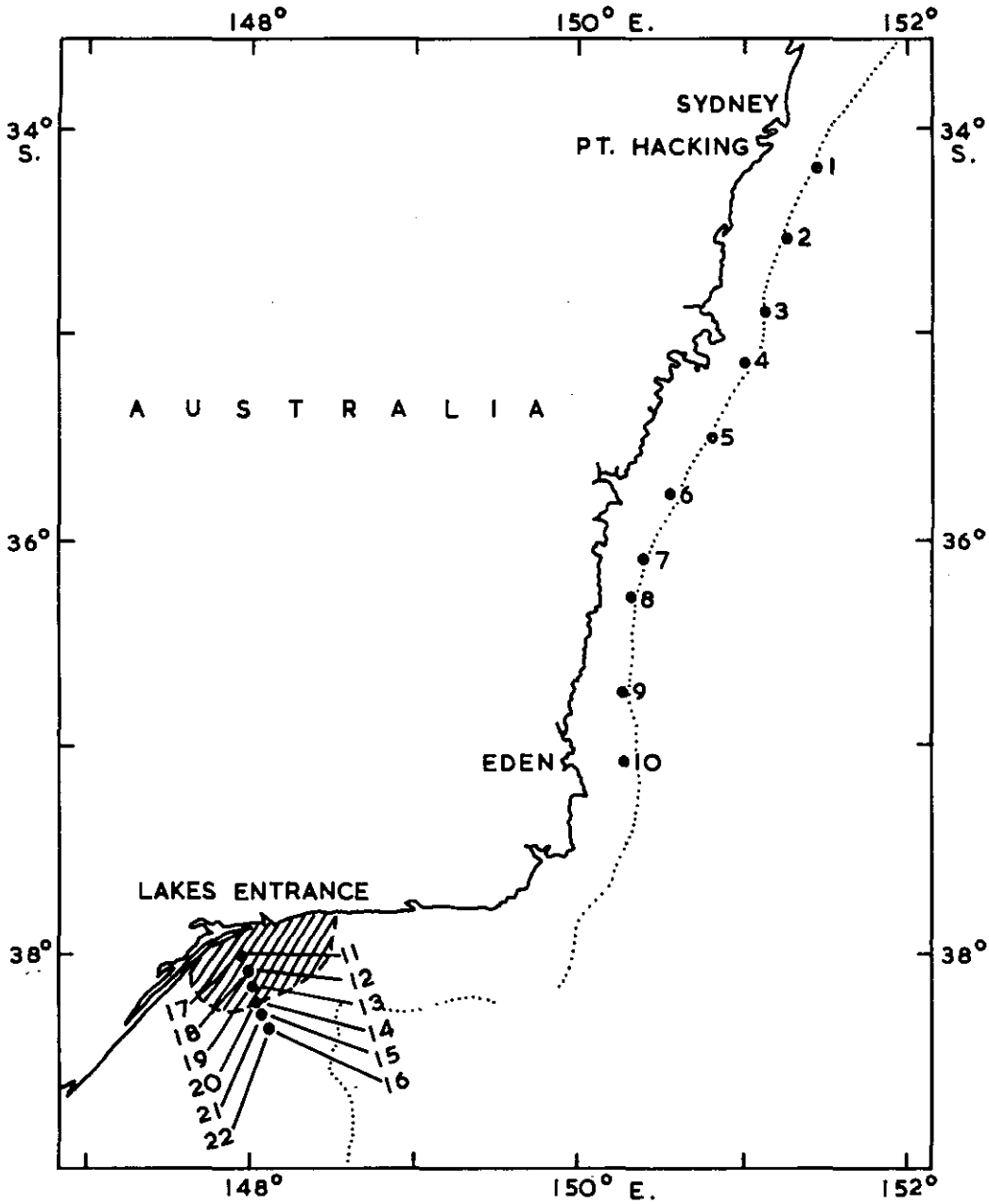

Fig. 2:- Track chart Cruise M 2/64

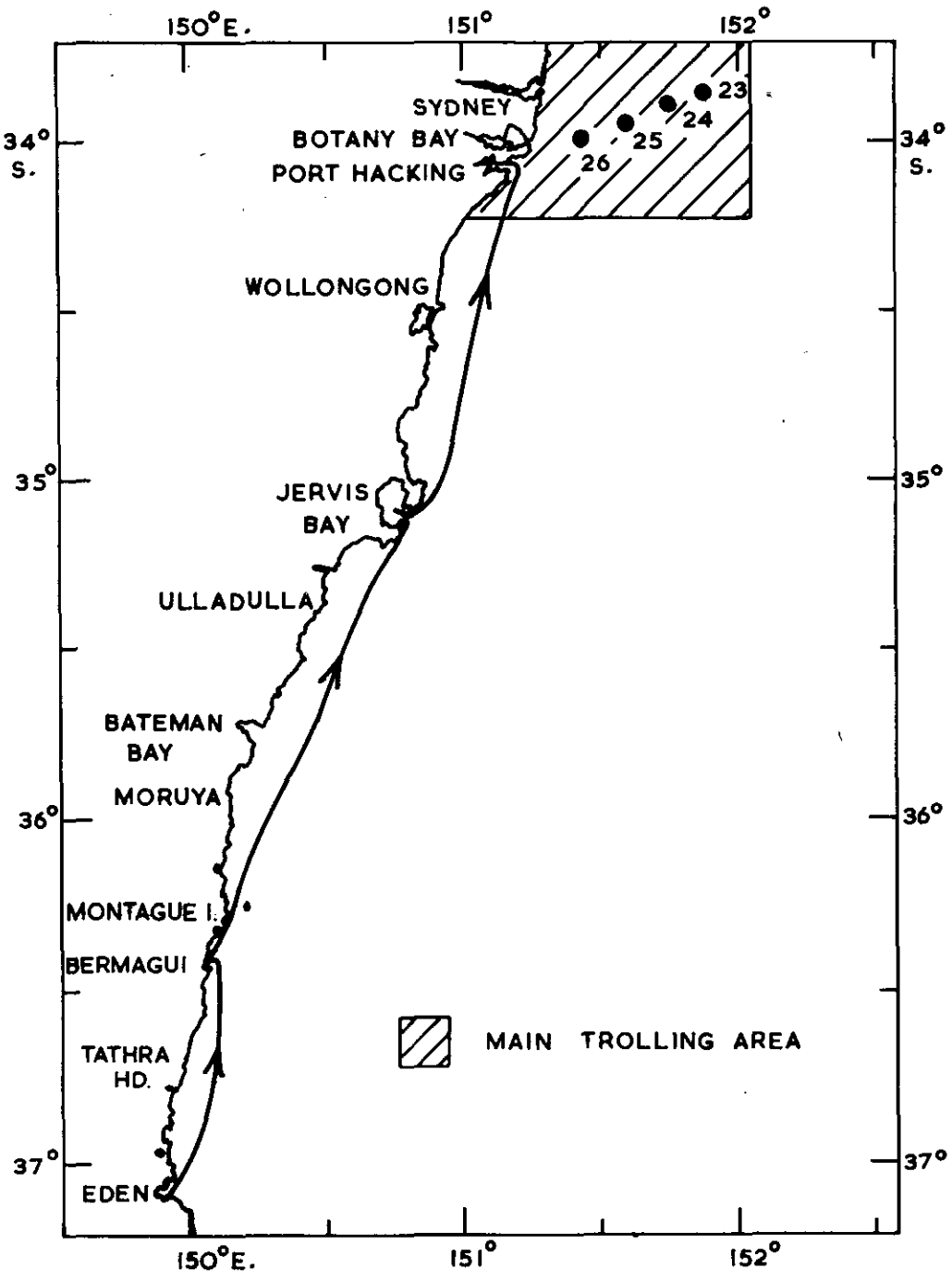

Fig. 3:-Track chart Cruise M 3/64

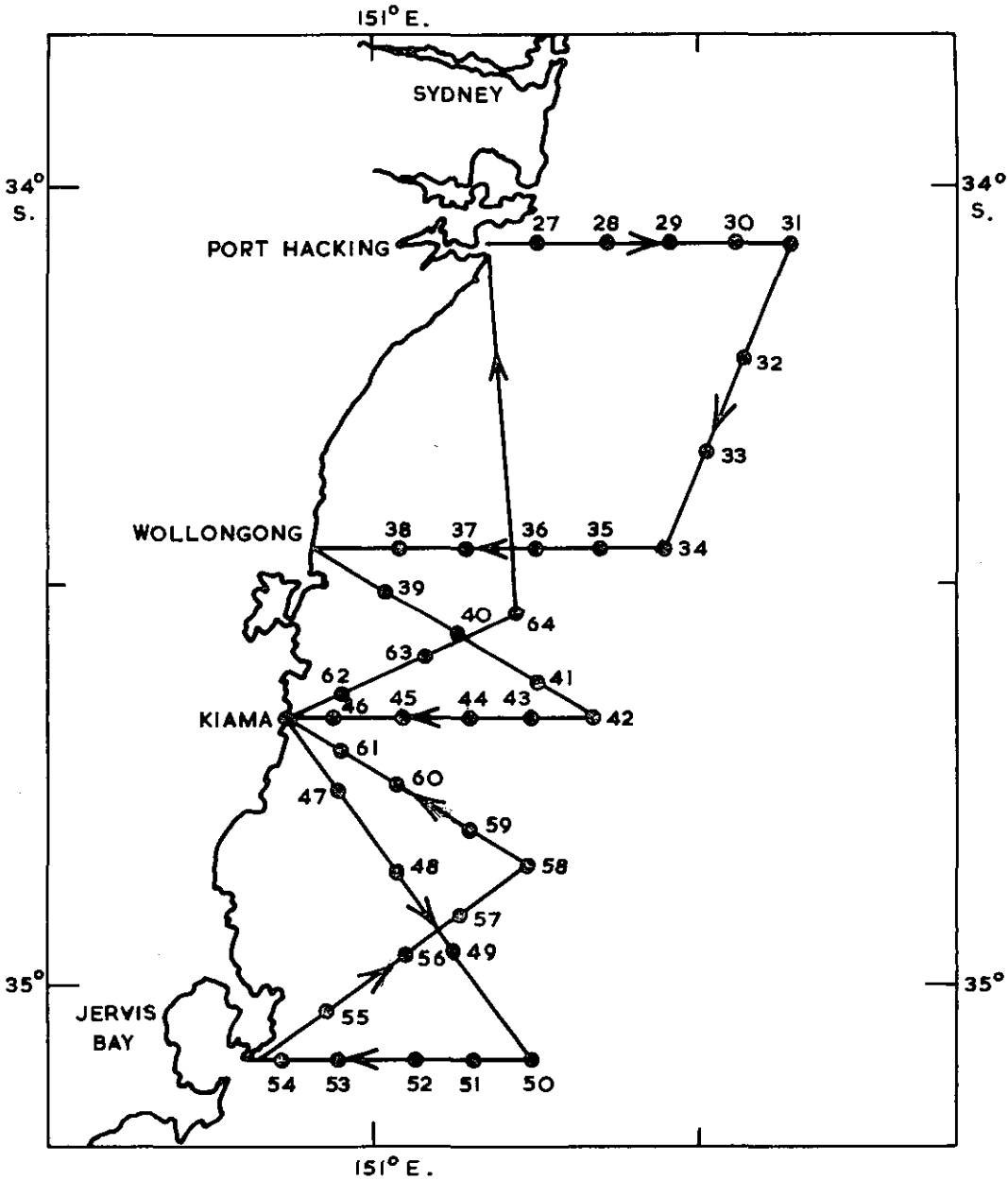

Fig. 4:- Track chart Cruise M 4/64

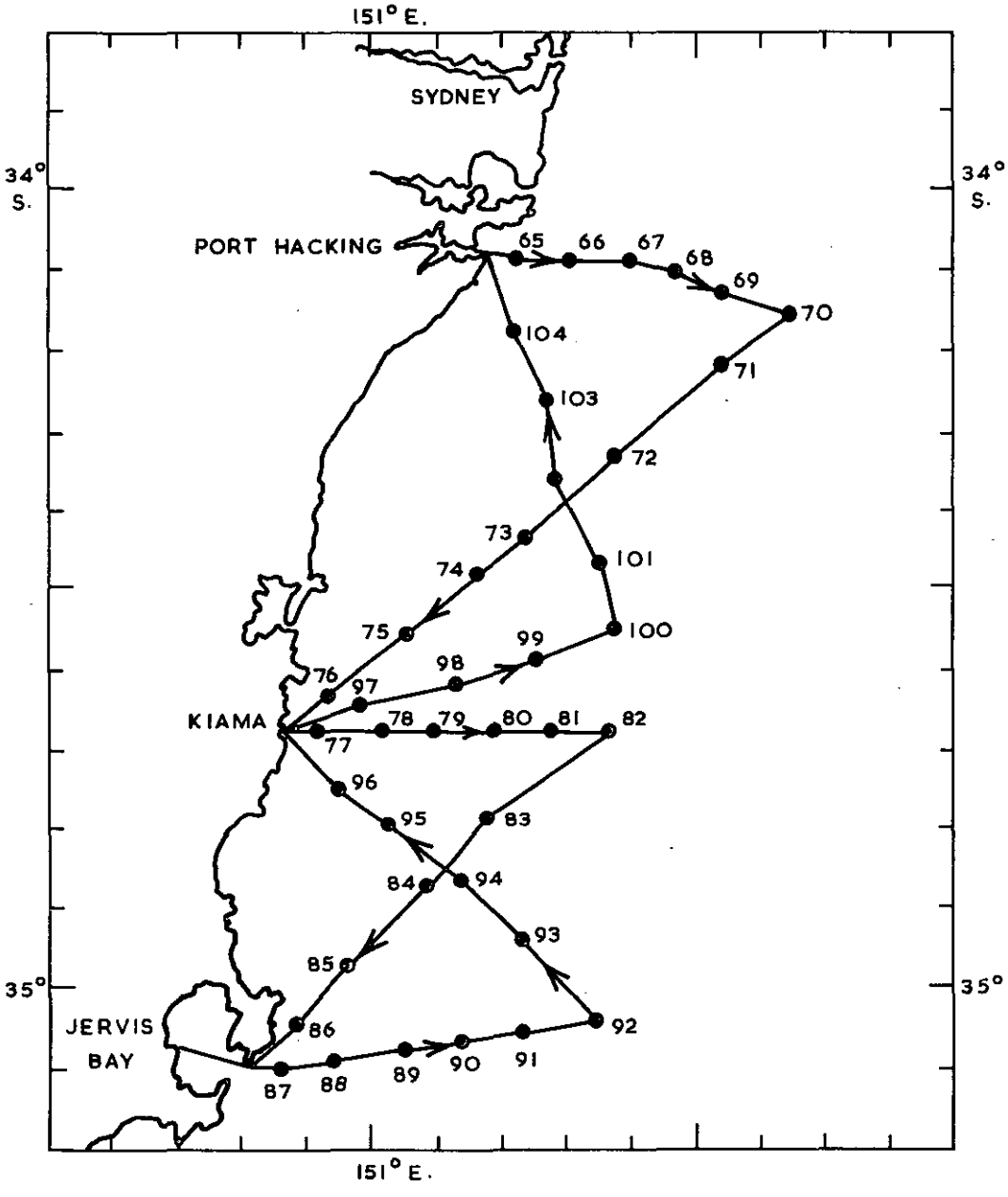

Fig. 5:- Track chart Cruise M 5/64

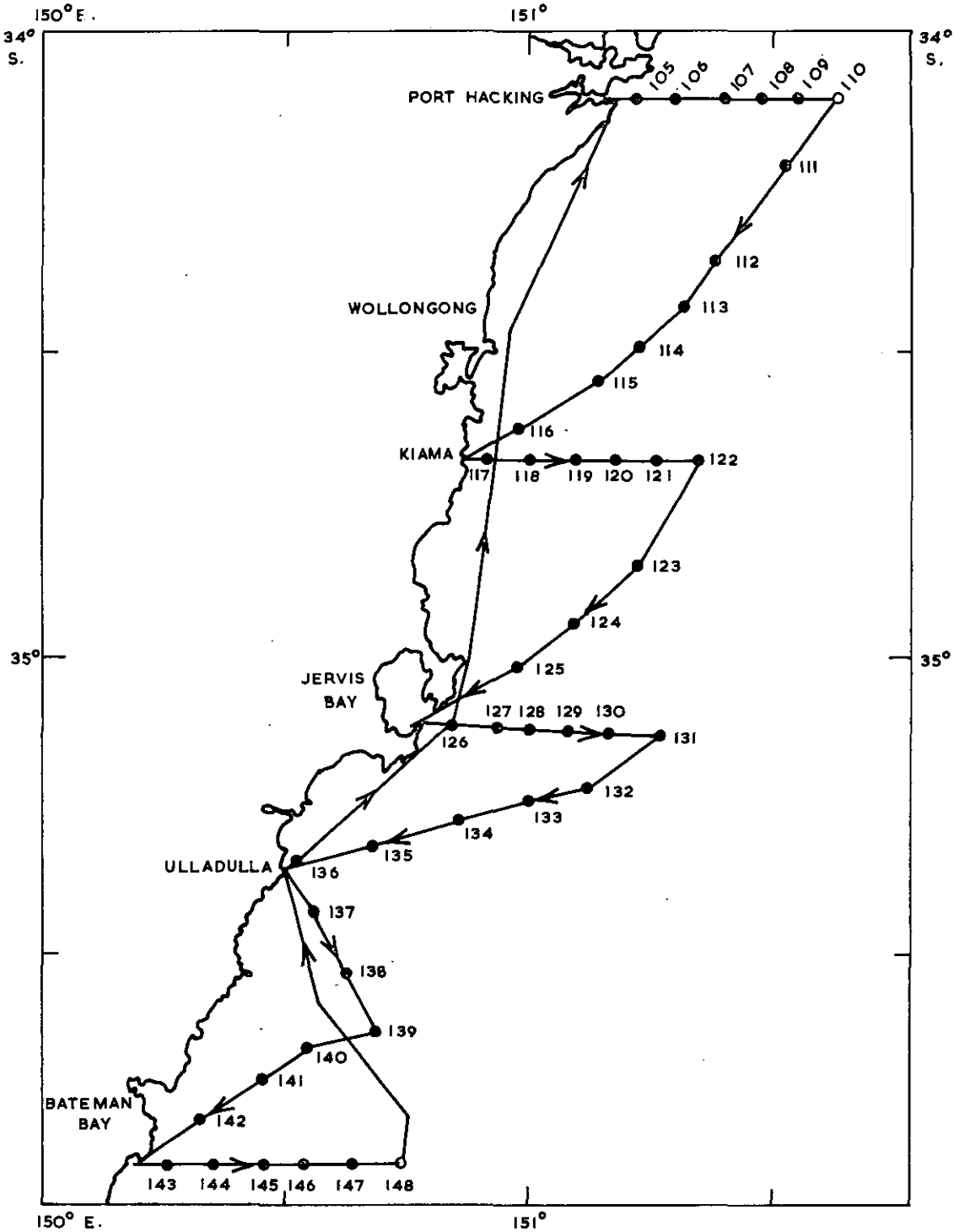

Fig. 6:- Track chart Cruise M 6/64

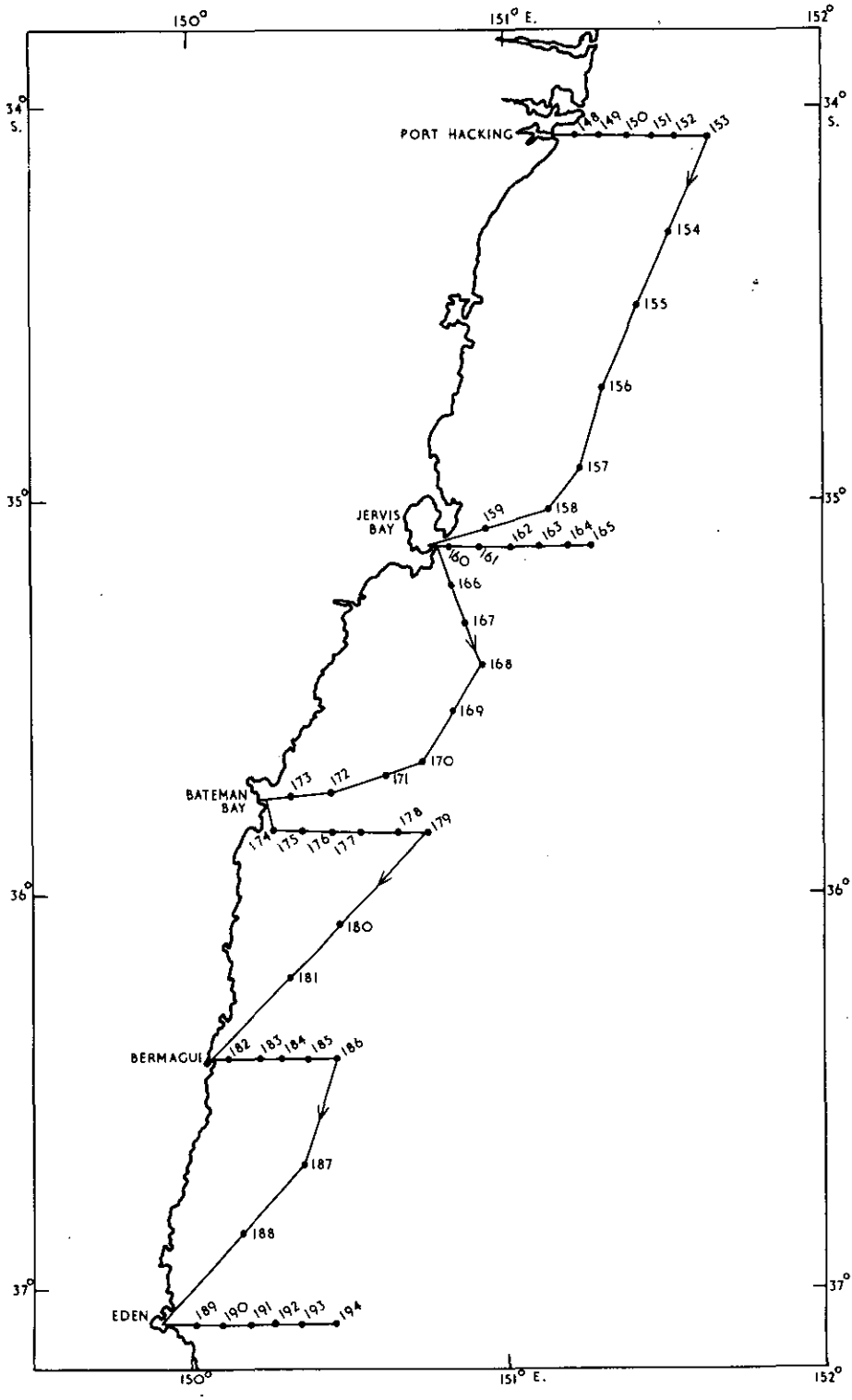

Fig. 7:- Track chart Cruise M 7/64

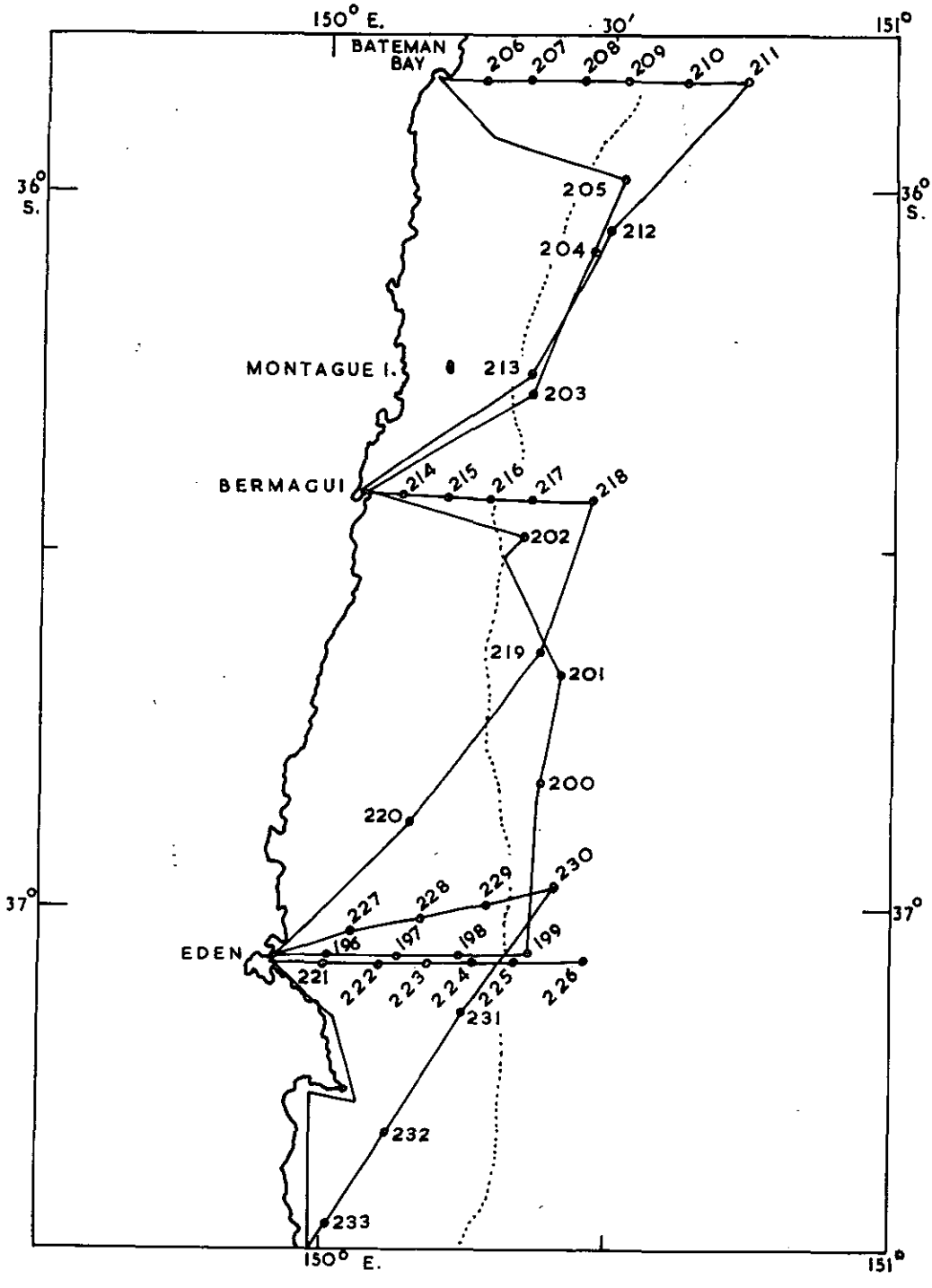

Fig. 8:- Track chart Cruise M 8/64

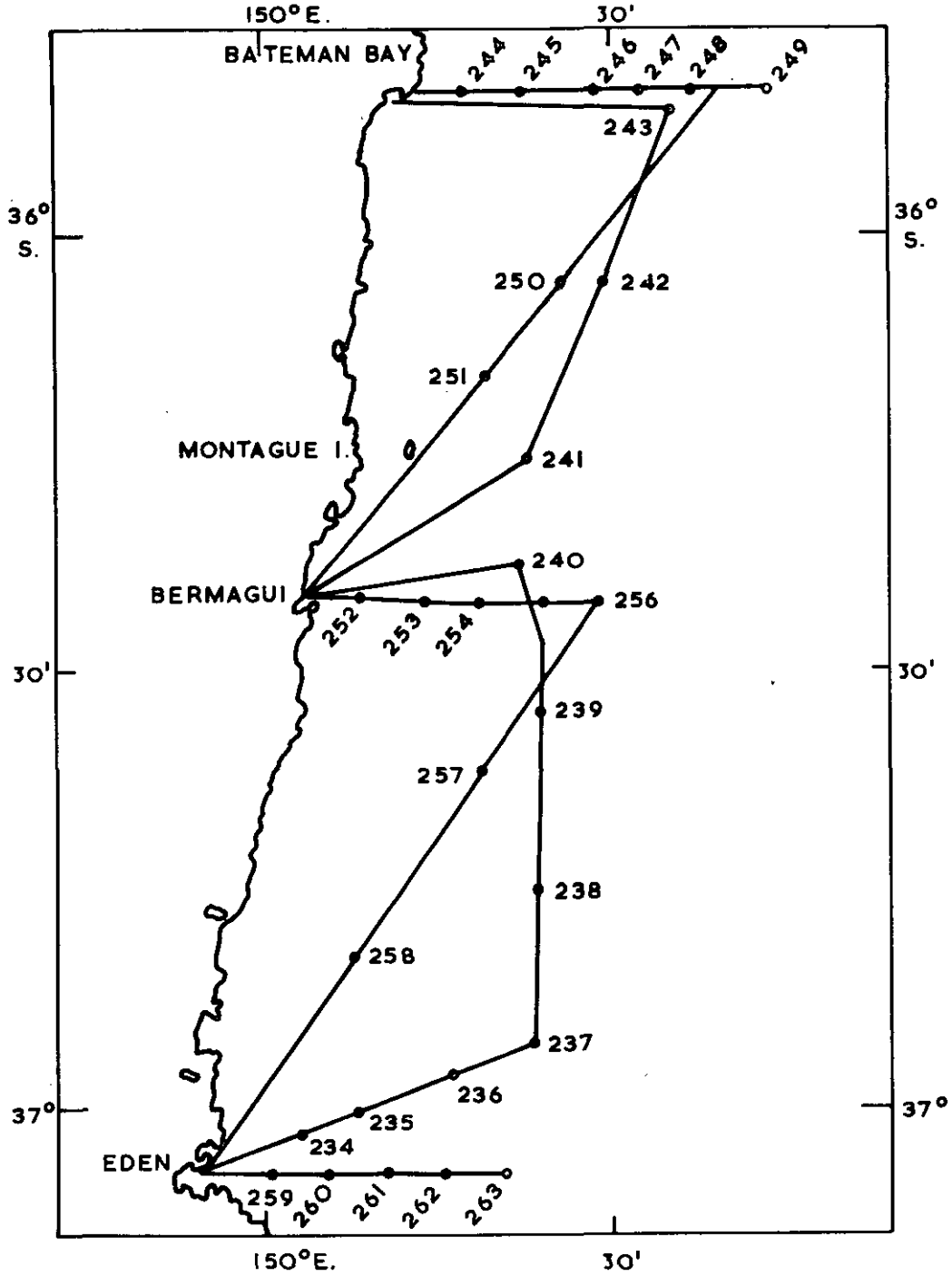

Fig. 9:- Track chart Cruise M 9/64

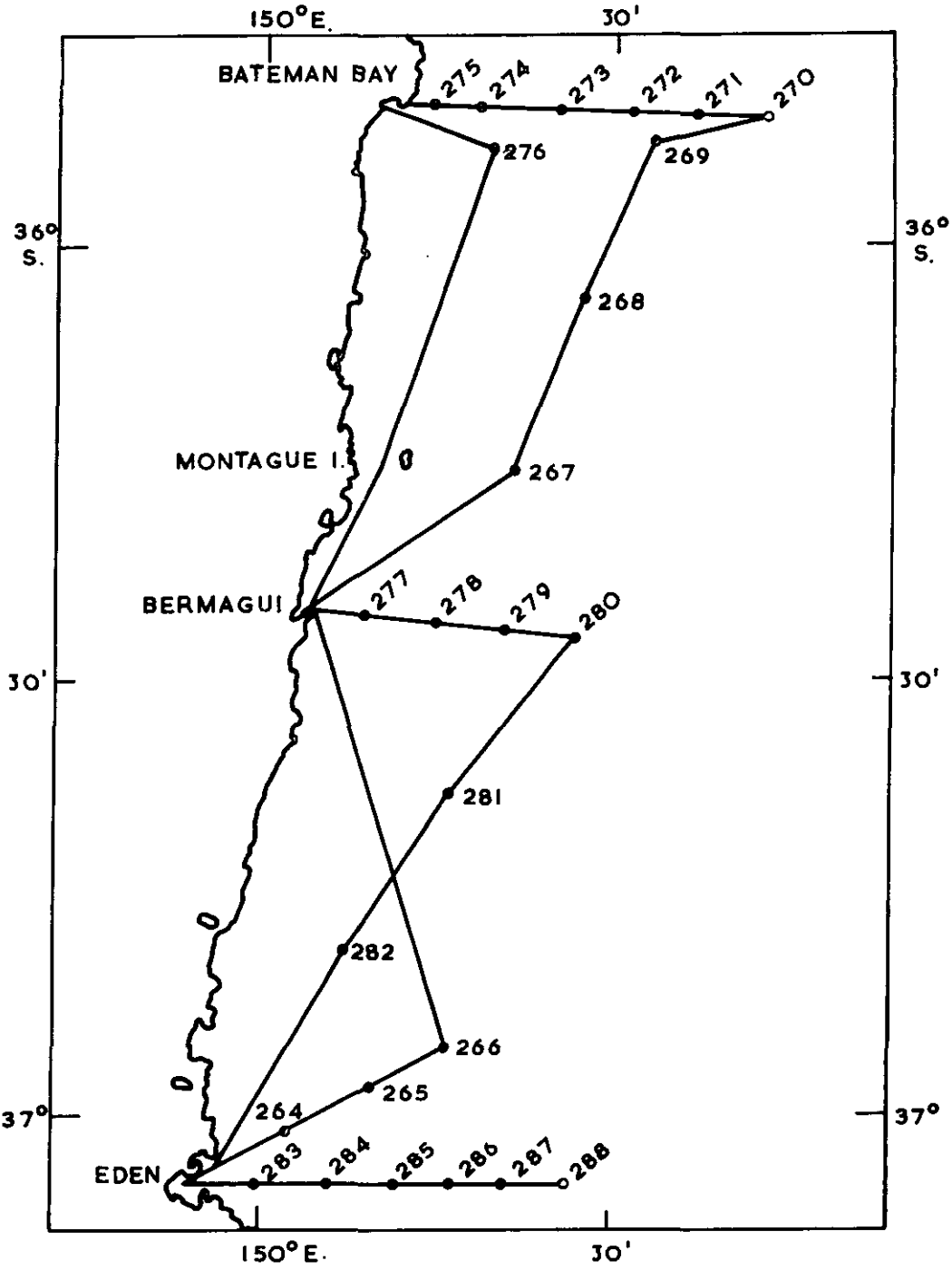

Fig. 10:- Track chart Cruise M 10/64

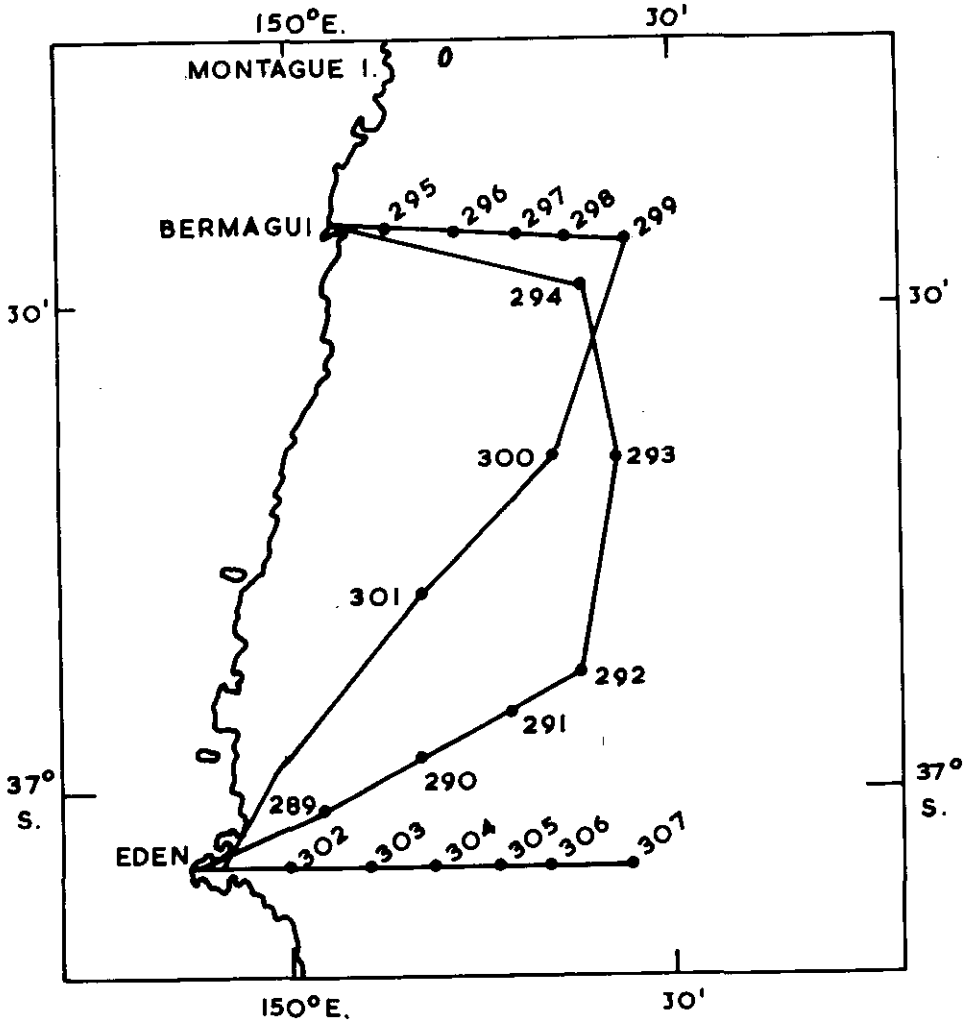

Fig. 11:- Track chart Cruise M 11/64

V. DATA SHEETS

The data were processed in a C.D.C. 3600 Computer. An explanation of the headings used is given at the beginning of the surface listing.

DATA

PART 1

HYDROLOGY

SURFACE SAMPLES

EXPLANATION OF HEADINGS

Parts 1 and 2	Hydrology
STATION	Gives the station identification. For example, M4/31/64 signifies the 31st station worked by Marelda in 1964, on her 4th cruise for that year
DATE	Given as day/month/year
TIME	Given in Zone Time, and is the time at the beginning of the first cast. Zone Time in all cases was Eastern Australian Standard Time, GMT +10 hr, Code K
LATITUDE LONGITUDE	Given in degrees and minutes
SONIC DEPTH	Given in metres, measured at standard sound velocity of 800 fm (1463 m) per second
WIND DIR. SP.	Wind direction and speed are coded using Tables 8 and 9 in U.S. Navy Hydrogr. Office (1955)
VIS.	Visibility is coded using Table 4 in U.S. Navy Hydrogr. Office (1955)
SEA DIR. AMT.	Sea direction and amount are coded using Tables 5 and 8 in U.S. Navy Hydrogr. Office (1955)
SWELL DIR. AMT.	Sea swell direction and amount are coded using Tables 6 and 8 in U.S. Navy Hydrogr. Office (1955)
WEA.	Weather is coded using Table 1 in U.S. Navy Hydrogr. Office (1955)
BAROM. or ATMOS. PRESSURE	Atmospheric pressure given in millibars
WIRE ANGLES CAST 1 CAST 2 CAST 3	Wire angles are measured at the surface and expressed in degrees for each cast
CAST	Gives the cast number

DEPTH	Sampling depth given in metres
TEMP.	Sea temperatures recorded in °C
SALINITY	Given in parts per thousand
SIGMA-T	Sigma-t to 2 decimal places
OXYGEN	Given in ml/l
OXYGEN % SAT.	Oxygen percentage saturation

*, ***, or a blank indicates no data available

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE		LONGITUDE			TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
58	2	1	64	1	30	1145	K	34	S	151	32	E	23.4	35.86	05	1	00	0	05	2	01	7	1019.0	1
58	2	2	64	1	30	1445	K	34	S	151	19	E	22.2	35.70	05	3	05	2	05	2	01	7	1016.0	1
58	2	3	64	1	30	1730	K	34	S	151	12	E	22.2	35.68	05	3	05	2	05	2	01	7	1016.0	1
58	2	4	64	1	31	0615	K	35	S	151	03	E	22.4	35.64	36	3	36	2	04	2	01	7	1015.0	1
58	2	5	64	1	31	0845	K	35	S	150	52	E	22.3	35.64	36	4	36	2	04	2	01	7	1014.0	1
58	2	6	64	1	31	1130	K	35	S	150	37	E	22.2	35.62	36	5	36	3	04	2	01	7	1012.0	1
58	2	7	64	1	31	1400	K	36	S	150	28	E	22.3	35.73	36	7	36	3	04	2	01	7	1009.0	1
58	2	8	64	1	31	1540	K	36	S	150	23	E	22.3	35.64	02	6	02	3	04	2	01	7	1008.0	1
58	2	9	64	2	2	0900	K	36	S	150	20	E	22.0	35.70	14	2	14	1	14	3	03	7	1017.0	1
58	2	10	64	2	2	1115	K	37	S	150	21	E	21.9	35.71	14	1	14	1	14	3	01	7	1017.0	1
58	2	11	64	2	19	0720	K	37	S	148	00	E	18.7	35.79	00	0	18	1	18	2	03	7	1025.0	1
58	2	12	64	2	19	0805	K	38	S	148	02	E	18.4	35.82	14	1	18	1	18	2	03	7	1026.0	1
58	2	13	64	2	19	0850	K	38	S	148	03	E	18.2	35.73	14	1	18	1	18	2	03	7	1026.0	1
58	2	14	64	2	19	0935	K	38	S	148	05	E	18.4	35.75	18	1	18	1	18	2	03	7	1026.0	1
58	2	15	64	2	19	1020	K	38	S	148	06	E	18.7	35.66	00	0	18	1	18	2	03	7	1027.0	1
58	2	16	64	2	19	1105	K	38	S	148	08	E	19.0	35.62	18	1	18	1	18	2	03	7	1027.0	1
58	2	17	64	3	4	0730	K	37	S	148	00	E	17.9	35.81	27	1	27	1	14	3	03	7	1019.0	1
58	2	18	64	3	4	0815	K	38	S	148	02	E	18.0	35.75	27	1	27	1	14	3	02	7	1019.0	1
58	2	19	64	3	4	0855	K	38	S	148	04	E	18.1	35.68	27	1	27	1	14	3	02	7	1019.0	1
58	2	20	64	3	4	0935	K	38	S	148	05	E	18.3	35.66	27	2	27	1	14	3	01	7	1019.0	1
58	2	21	64	3	4	1010	K	38	S	148	06	E	18.5	35.68	27	2	27	1	14	3	01	7	1019.0	1
58	2	22	64	3	4	1050	K	38	S	148	07	E	18.7	35.71	27	2	27	1	14	3	01	7	1019.0	1
58	3	23	64	8	20	1215	K	33	S	151	53	E	20.1		23	3	23	2	14	1	01	7	1026.0	1
58	3	24	64	8	20	1345	K	33	S	151	45	E	19.7		18	1	18	2	14	1	01	7	1024.0	1
58	3	25	64	8	20	1510	K	33	S	151	36	E	19.6		16	1	16	2	14	1	01	7	1023.0	1
58	3	26	64	8	20	1645	K	34	S	151	25	E	17.4		16	2	16	2	14	1	01	7	1022.0	1
58	4	27	64	9	18	0735	K	34	S	151	17	E	15.7	35.37	23	2	23	1	14	2	01	7	1026.0	1
58	4	28	64	9	18	0830	K	34	S	151	22	E	15.6	35.53	23	2	23	1	14	2	01	7	1027.0	1
58	4	29	64	9	18	0930	K	34	S	151	27	E	18.1	35.68	23	2	23	2	14	2	01	7	1027.0	1
58	4	30	64	9	18	1030	K	34	S	151	33	E	19.0	35.68	22	2	22	2	14	2	01	7	1027.0	1
58	4	31	64	9	18	1140	K	34	S	151	38	E	19.6	35.59	16	2	16	2	14	3	01	7	1026.0	1
58	4	32	64	9	18	1335	K	34	S	151	34	E	19.4	35.66	16	1	16	2	14	3	01	7	1026.0	1
58	4	33	64	9	18	1450	K	34	S	151	31	E	18.8	35.28*	16	2	16	2	14	3	01	7	1026.0	1
58	4	34	64	9	18	1605	K	34	S	151	27	E	17.7	35.68	16	2	16	1	14	3	01	7	1025.0	1
58	4	35	64	9	18	1730	K	34	S	151	21	E	18.0	35.66	14	2	14	1	14	2	01	7	1025.0	1
58	4	36	64	9	18	1835	K	34	S	151	16	E	18.0	35.66	14	2	14	1	14	2			1025.0	1
58	4	37	64	9	18	1930	K	34	S	151	10	E	17.9	35.64	07	2	07	1	14	2			1025.0	1
58	4	38	64	9	18	2030	K	34	S	151	04	E	17.0	35.57	36	2	36	1	14	2			1026.0	1
58	4	39	64	9	19	0710	K	34	S	151	02	E	14.8	35.48	23	2	23	1	14	2	01	7	1026.0	1
58	4	40	64	9	19	0810	K	34	S	151	10	E	16.5	35.53	18	3	18	2	14	2	01	7	1026.0	1

* PROPERTY DOUBTFUL
* PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	4	41	64	9	19	0920	K 34 37	S 151 14	E 17.3	35.66	18	3	18	2	14	2	01	7	1026.0	1
38	4	42	64	9	19	1040	K 34 40	S 151 21	E 17.1	35.57	18	3	18	2	14	2	01	7	1026.0	1
38	4	43	64	9	19	1210	K 34 40	S 151 15	E 17.5	35.62	18	3	18	2	14	2	01	7	1024.0	1
38	4	44	64	9	19	1315	K 34 40	S 151 08	E 17.6	35.61	18	2	18	1	14	2	01	7	1024.0	1
38	4	45	64	9	19	1425	K 34 40	S 151 02	E 17.3	35.57	16	2	16	2	14	2	01	7	1023.0	1
38	4	46	64	9	19	1450	K 34 40	S 150 58	E 15.6	35.44	16	2	16	2	14	2	01	7	1023.0	1
38	4	47	64	9	20	0620	K 34 46	S 150 57	E 15.6	35.48	32	1	32	1	14	1	02	7	1021.0	1
38	4	48	64	9	20	0730	K 34 52	S 151 02	E 16.8	35.70	36	1	36	1	14	1	01	7	1021.0	1
38	4	49	64	9	20	0845	K 34 58	S 151 08	E 16.8	35.62	36	2	36	1	14	1	02	7	1020.0	1
38	4	50	64	9	20	1025	K 35 05	S 151 14	E 15.8	35.57	05	2	05	1	14	1	02	7	1019.0	1
38	4	51	64	9	20	1150	K 35 05	S 151 09	E 16.3	35.66	05	3	05	2	14	1	02	7	1018.0	1
38	4	52	64	9	20	1250	K 35 05	S 151 04	E 16.6	35.61	36	2	36	2	14	1	02	7	1017.0	1
38	4	53	64	9	20	1345	K 35 05	S 150 57	E 16.8	35.57	36	2	36	2	14	1	02	7	1016.0	1
38	4	54	64	9	20	1435	K 35 05	S 150 53	E 16.7	35.50	36	1	36	2	14	1	02	7	1016.0	1
38	4	55	64	9	21	0630	K 35 02	S 150 57	E 16.3	35.53	16	2	16	2	14	1	01	7	1015.0	1
38	4	56	64	9	21	0735	K 34 58	S 151 03	E 16.0	35.59	16	2	16	2	14	1	01	7	1015.0	1
38	4	57	64	9	21	0830	K 34 55	S 151 09	E 16.6	35.57	16	2	16	2	14	1	01	7	1016.0	1
38	4	58	64	9	21	0940	K 34 52	S 151 14	E 16.6	35.50	16	2	16	2	14	1	01	7	1017.0	1
38	4	59	64	9	21	1100	K 34 49	S 151 09	E 17.0	35.57	16	3	16	2	14	1	01	7	1016.0	1
38	4	60	64	9	21	1205	K 34 45	S 151 03	E 17.5	35.59	16	3	16	2	14	1	01	7	1016.0	1
38	4	61	64	9	21	1300	K 34 44	S 150 58	E 17.2	35.55	16	3	16	2	14	1	01	7	1016.0	1
38	4	62	64	9	22	0530	K 34 38	S 150 58	E 16.5	35.50	32	2	32	1	14	2	02	7	1015.0	1
38	4	63	64	9	22	0635	K 34 35	S 151 05	E 16.6	35.50	32	3	32	2	14	2	01	7	1015.0	1
38	4	64	64	9	22	0745	K 34 33	S 151 11	E 16.8	35.53	32	3	32	2	14	2	01	7	1014.0	1
38	5	65	64	9	29	0700	K 34 04	S 151 13	E 15.5	35.44	34	1	05	2	09	2	02	5	998.0	1
38	5	66	64	9	29	0750	K 34 04	S 151 18	E 16.9	35.28	34	1	05	2	09	2	02	5	998.0	1
38	5	67	64	9	29	0845	K 34 05	S 151 23	E 17.2	35.39	32	4	32	2	09	2	02	6	998.0	1
38	5	68	64	9	29	0940	K 34 05	S 151 28	E 18.4	35.61	32	5	32	2	09	2	02	6	998.0	1
38	5	69	64	10	1	1015	K 34 05	S 151 33	E 19.9	35.59	30	2	32	1	16	2	01	7	1019.0	1
38	5	70	64	10	1	1120	K 34 05	S 151 37	E 19.7	35.61	36	3	36	2	16	2	01	7	1018.0	1
38	5	71	64	10	1	1300	K 34 09	S 151 33	E 19.8	35.66	36	4	36	2	16	2	01	7	1016.0	1
38	5	72	64	10	1	1410	K 34 20	S 151 24	E 18.3	35.26*	36	4	36	2	16	2	01	7	1014.0	1
38	5	73	64	10	1	1520	K 34 25	S 151 16	E 18.1	35.64	36	4	36	2	16	2	01	7	1014.0	1
38	5	74	64	10	1	1625	K 34 28	S 151 10	E 16.2	35.53	36	4	36	2	16	2	01	7	1013.0	1
38	5	75	64	10	1	1735	K 34 33	S 151 05	E 16.0	35.50	36	4	36	2	16	2	01	7	1012.0	1
38	5	76	64	10	1	1840	K 34 38	S 150 57	E 14.9	35.44	36	4	36	3	16	1	01	7	1012.0	1
38	5	77	64	10	2	0535	K 34 40	S 150 55	E 14.9	35.48	36	1	36	1	05	2	02	7	1009.0	1
38	5	78	64	10	2	0625	K 34 40	S 151 00	E 15.9	35.50	34	1	36	2	05	2	02	7	1009.0	1
38	5	79	64	10	2	0715	K 34 40	S 151 05	E 16.0	35.53	36	3	36	3	05	2	02	7	1009.0	1
38	5	80	64	10	2	0825	K 34 40	S 151 10	E 16.2	35.53	36	3	36	3	05	2	02	7	1008.0	1

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	5	81	64	10	2	0925	K 34	40 S 151 15 E	16.7	35.50	36	4	36	3	05	2	02	7	1008.0	1
38	5	82	64	10	2	1035	K 34	40 S 151 20 E	17.1	35.55	36	4	36	3	05	2	02	7	1008.0	1
38	5	83	64	10	2	1230	K 34	46 S 151 12 E	16.3	35.52	36	4	36	3	05	2	02	7	1003.0	1
38	5	84	64	10	2	1340	K 34	53 S 151 05 E	17.2	35.59	36	3	36	2	05	2	02	7	1002.0	1
38	5	85	64	10	2	1450	K 34	57 S 150 59 E	16.3	35.50	36	3	36	2	05	2	02	7	1002.0	1
38	5	86	64	10	2	1545	K 35	03 S 150 54 E	15.4	35.41	36	2	36	2	05	2	02	7	1002.0	1
38	5	87	64	10	5	0550	K 35	07 S 150 50 E	18.0	35.46	23	3	24	1	14	2	02	7	1008.0	1
38	5	88	64	10	5	0645	K 35	07 S 150 55 E	18.2	35.60*	23	3	23	2	14	2	02	7	1008.0	1
38	5	89	64	10	5	0740	K 35	07 S 151 00 E	18.3	35.61	23	3	23	2	14	2	02	7	1008.0	1
38	5	90	64	10	5	0830	K 35	07 S 151 05 E	18.3	35.62	20	3	20	2	14	2	01	7	1008.0	1
38	5	91	64	10	5	0935	K 35	07 S 151 10 E	18.4	35.64	20	3	20	2	14	2	01	7	1008.0	1
38	5	92	64	10	5	1040	K 35	07 S 151 15 E	17.9	35.61	20	3	20	2	14	2	01	7	1006.0	1
38	5	93	64	10	5	1220	K 34	57 S 151 14 E	18.6	35.68	18	2	20	1	14	2	01	7	1006.0	1
38	5	94	64	10	5	1330	K 34	50 S 151 09 E	18.0	35.64	14	2	14	1	14	2	01	7	1006.0	1
38	5	95	64	10	5	1440	K 34	46 S 151 03 E	17.8	35.64	14	1	14	1	14	2	02	7	1006.0	1
38	5	96	64	10	5	1550	K 34	43 S 150 58 E	15.0	35.46	09	2	09	1	14	2	01	7	1006.0	1
38	5	97	64	10	6	0415	K 34	39 S 150 59 E	17.2	35.62	20	1	00	0	14	2	02	7	1006.0	1
38	5	98	64	10	6	0530	K 34	33 S 151 10 E	17.4	35.59	36	1	00	0	14	2	02	7	1005.0	1
38	5	99	64	10	6	0630	K 34	35 S 151 15 E	17.1	35.59	36	1	36	1	14	2	02	7	1005.0	1
38	5	100	64	10	6	0730	K 34	34 S 151 20 E	17.0	35.59	36	2	36	1	14	2	02	7	1005.0	1
38	5	101	64	10	6	0840	K 34	27 S 151 19 E	16.9	35.59	36	4	36	2	14	2	02	7	1005.0	1
38	5	102	64	10	6	0950	K 34	21 S 151 16 E	15.9	35.53	34	4	34	2	14	2	02	7	1004.0	1
38	5	103	64	10	6	1110	K 34	15 S 151 15 E	16.0	35.46	34	4	34	2	14	2	03	5	1004.0	1
38	5	104	64	10	6	1220	K 34	09 S 151 13 E	16.3	35.35	34	1	34	0	14	2	63	5	1002.0	1
38	6	105	64	10	16	0730	K 34	05 S 151 13 E	16.4	35.44	00	0	27	1	14	3	01	7	1020.0	1
38	6	106	64	10	16	0815	K 34	05 S 151 18 E	17.8	35.50	32	1	32	1	14	3	01	7	1019.0	1
38	6	107	64	10	16	0907	K 34	05 S 151 23 E	17.1	35.44	00	0	00	0	14	3	01	7	1019.0	1
38	6	108	64	10	16	1005	K 34	05 S 151 28 E	20.5	35.53	32	1	32	1	14	3	01	7	1019.0	1
38	6	109	64	10	16	1100	K 34	05 S 151 33 E	21.0	35.50	32	1	32	1	14	3	01	7	1018.0	1
38	6	110	64	10	16	1200	K 34	05 S 151 37 E	21.6	35.52	36	2	36	1	14	3	01	7	1017.0	1
38	6	111	64	10	16	1340	K 34	11 S 151 31 E	21.1	35.57	04	2	04	1	14	3	01	7	1015.0	1
38	6	112	64	10	16	1440	K 34	20 S 151 23 E	20.0	35.55	04	4	04	2	14	2	01	7	1015.0	1
38	6	113	64	10	16	1545	K 34	25 S 151 18 E	18.0	35.55	04	3	04	2	14	2	02	7	1012.0	1
38	6	114	64	10	16	1640	K 34	29 S 151 12 E	16.8	35.50	04	3	04	2	14	2	02	7	1012.0	1
38	6	115	64	10	16	1745	K 34	33 S 151 04 E	16.8	35.48	04	4	04	2	14	2	02	7	1012.0	1
38	6	116	64	10	16	1850	K 34	38 S 150 58 E	16.8	35.50	36	4	36	2	14	2	02		1012.0	1
38	6	117	64	10	17	0540	K 34	40 S 150 55 E	16.6	35.48	32	1	32	1	04	2	01	7	1007.0	1
38	6	118	64	10	17	0630	K 34	40 S 151 00 E	16.6	35.50	23	3	23	1	04	2	01	7	1007.0	1
38	6	119	64	10	17	0720	K 34	40 S 151 05 E	16.2	35.43	23	3	23	2	04	2	01	7	1007.0	1
38	6	120	64	10	17	0815	K 34	40 S 151 10 E	16.2	35.48	23	3	23	1	04	2	01	7	1007.0	1

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPL. METHOD
38	6	121	64	10	17	0910	K 34 40 S	151 15 E	16.4	35,44	23	3	23	2	04	2	01	7	1008.0	1
38	6	122	64	10	17	1007	K 34 40 S	151 20 E	16.8	35,59	20	4	20	2	04	2	01	7	1008.0	1
38	6	123	64	10	17	1145	K 34 50 S	151 14 E	16.7	35,52	20	4	20	2	04	2	01	7	1008.0	1
38	6	124	64	10	17	1300	K 34 55 S	151 05 E	15.6	35,43	20	4	20	3	14	2	62	5	1008.0	1
38	6	125	64	10	17	1420	K 35 01 S	150 59 E	16.1	35,46	20	3	20	3	14	2	62	6	1009.0	1
38	6	126	64	10	19	0615	K 35 07 S	150 50 E	16.6	35,46	27	2	27	2	14	3	02	7	1025.0	1
38	6	127	64	10	19	0720	K 35 07 S	150 55 E	17.2	35,52	20	2	20	2	14	3	02	7	1026.0	1
38	6	128	64	10	19	0835	K 35 07 S	151 00 E	17.8	35,57	16	3	16	1	14	3	02	7	1026.0	1
38	6	129	64	10	20	0605	K 35 07 S	151 05 E	18.3	35,64	36	1	00	0	14	2	01	7	1023.0	1
38	6	130	64	10	20	0725	K 35 07 S	151 10 E	18.3	35,57	36	2	00	0	14	2	01	7	1023.0	1
38	6	131	64	10	20	0830	K 35 07 S	151 15 E	18.6	35,57	36	3	36	1	14	2	01	7	1023.0	1
38	6	132	64	10	20	1000	K 35 13 S	151 07 E	18.8	35,79	34	2	34	1	14	2	01	7	1023.0	1
38	6	133	64	10	20	1110	K 35 15 S	151 00 E	18.6	35,71	00	0	34	1	14	2	01	7	1022.0	1
38	6	134	64	10	20	1220	K 35 17 S	150 52 E	18.8	35,70	05	1	05	1	14	2	01	7	1020.0	1
38	6	135	64	10	20	1330	K 35 20 S	150 41 E	18.0	35,53	05	3	05	2	14	2	01	7	1019.0	1
38	6	136	64	10	20	1430	K 35 20 S	150 33 E	17.3	35,53	05	3	05	2	14	2	01	7	1017.0	1
38	6	137	64	10	21	0620	K 35 25 S	150 35 E	16.6	35,52	24	1	00	0	14	2	02	7	1013.0	1
38	6	138	64	10	21	0725	K 35 31 S	150 37 E	18.1	35,59	25	1	00	0	14	2	02	7	1013.0	1
38	6	139	64	10	21	0830	K 35 38 S	150 41 E	18.5	35,61	27	3	27	1	14	2	02	7	1013.0	1
38	6	140	64	10	21	0935	K 35 41 S	150 32 E	18.1	35,59	27	2	27	1	14	2	02	7	1013.0	1
38	6	141	64	10	21	1035	K 35 43 S	150 28 E	17.5	35,61	27	3	27	2	14	2	02	7	1012.0	1
38	6	142	64	10	21	1140	K 35 47 S	150 22 E	17.3	35,55	27	3	27	2	14	2	02	7	1012.0	1
38	6	143	64	10	22	0710	K 35 50 S	150 16 E	17.3	35,57	30	4	30	2	14	1	01	7	1004.0	1
38	6	144	64	10	22	0800	K 35 50 S	150 22 E	17.2	35,57	30	4	30	2	14	1	01	7	1004.0	1
38	6	145	64	10	22	0850	K 35 50 S	150 27 E	18.9	35,61	30	4	30	2	14	1	01	7	1004.0	1
38	6	146	64	10	22	0940	K 35 50 S	150 32 E	19.4	35,53	30	4	30	2	14	1	01	7	1002.0	1
38	6	147	64	10	22	1030	K 35 50 S	150 37 E	19.5	35,62	30	4	30	2	14	1	01	7	1002.0	1
38	6	148	64	10	22	1130	K 35 50 S	150 42 E	19.5	35,61	32	3	32	2	14	1	01	7	1001.0	1
38	7	149	64	11	5	0715	K 34 05 S	151 13 E	19.1	35,53	27	2	27	1	14	3	02	7	1015.0	1
38	7	150	64	11	5	0755	K 34 05 S	151 18 E	19.5	35,59	27	2	27	1	14	3	02	7	1015.0	1
38	7	151	64	11	5	0835	K 34 05 S	151 23 E	19.2	35,55	27	2	27	1	14	3	02	7	1015.0	1
38	7	152	64	11	5	0915	K 34 05 S	151 28 E	19.2	35,57	27	2	27	1	14	3	02	7	1014.0	1
38	7	153	64	11	5	0955	K 34 05 S	151 33 E	19.1	35,55	27	2	27	1	14	3	02	7	1014.0	1
38	7	154	64	11	5	1035	K 34 05 S	151 38 E	19.3	35,55	27	3	27	1	14	3	02	7	1014.0	1
38	7	155	64	11	5	1245	K 34 19 S	151 32 E	19.5	35,55	27	3	27	2	14	3	01	7	1014.0	1
38	7	156	64	11	5	1455	K 34 30 S	151 25 E	19.6	35,61	16	1	16	1	14	3	01	7	1012.0	1
38	7	157	64	11	5	1700	K 34 44 S	151 20 E	19.3	35,61	16	2	16	1	14	3	01	7	1012.0	1
38	7	158	64	11	5	1900	K 34 55 S	151 15 E	19.4	35,62	16	3	16	2	14	3	01	7	1012.0	1
38	7	159	64	11	5	2030	K 35 02 S	151 10 E	18.6	35,61	16	3	16	2	14	3			1013.0	1
38	7	160	64	11	5	2215	K 35 04 S	150 58 E	18.0	35,10	16	2	16	2	14	3			1013.0	1

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE			LONGITUDE			TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	7	161	64	11	6	1025	K	35	07	S	150	50	E	18.7	35.55	14	1	14	1	14	3	02	7	1014.0	1
38	7	162	64	11	6	1120	K	35	07	S	150	55	E	18.8	35.57	10	1	10	1	14	3	02	7	1014.0	1
38	7	163	64	11	6	1215	K	35	07	S	151	00	E	18.9	35.52	14	2	14	2	14	3	02	7	1014.0	1
38	7	164	64	11	6	1310	K	35	07	S	151	05	E	18.7	35.55*	14	3	14	2	14	2	01	7	1013.0	1
38	7	165	64	11	6	1420	K	35	07	S	151	10	E	18.6	35.61	14	3	14	2	14	2	01	7	1013.0	1
38	7	166	64	11	6	1535	K	35	07	S	151	15	E	19.0	35.55	14	2	14	1	14	2	01	7	1013.0	1
38	7	167	64	11	7	0630	K	35	13	S	150	50	E	18.3	35.50	27	2	27	1	14	2	01	7	1012.0	1
38	7	168	64	11	7	0735	K	35	18	S	150	53	E	18.3	35.57	25	3	25	2	14	2	01	7	1012.0	1
38	7	169	64	11	7	0840	K	35	25	S	150	55	E	18.1	35.57	25	3	25	2	14	2	01	7	1012.0	1
38	7	170	64	11	7	1030	K	35	32	S	150	50	E	18.4	35.59	25	1	25	1	14	2	01	8	1012.0	1
38	7	171	64	11	7	1200	K	35	40	S	150	45	E	18.6	35.57	00	0	23	1	14	2	01	8	1012.0	1
38	7	172	64	11	7	1305	K	35	41	S	150	37	E	19.4	35.61	09	1	00	0	14	2	01	8	1012.0	1
38	7	173	64	11	7	1410	K	35	45	S	150	28	E	19.1	35.57	12	2	12	1	14	2	01	8	1012.0	1
38	7	174	64	11	7	1500	K	35	45	S	150	24	E	18.8	35.53	12	2	12	1	14	2	02	8	1012.0	1
38	7	175	64	11	8	0540	K	35	50	S	150	17	E	17.4	35.43	20	1	00	0	14	2	01	8	1014.0	1
38	7	176	64	11	8	0625	K	35	50	S	150	22	E	18.0	35.52	20	1	20	1	14	2	01	7	1014.0	1
38	7	177	64	11	8	0715	K	35	50	S	150	27	E	18.4	35.66	20	2	20	1	14	2	01	7	1014.0	1
38	7	178	64	11	8	0805	K	35	50	S	150	32	E	18.3	35.55	18	2	18	1	14	2	01	7	1015.0	1
38	7	179	64	11	8	0910	K	35	50	S	150	37	E	18.6	35.55	18	3	18	2	14	2	01	7	1015.0	1
38	7	180	64	11	8	1020	K	35	50	S	150	42	E	18.0	35.57	18	3	18	2	14	2	01	7	1015.0	1
38	7	181	64	11	8	1300	K	36	04	S	150	28	E	18.7	35.73*	14	2	14	1	14	2	01	8	1014.0	1
38	7	182	64	11	8	1435	K	36	13	S	150	19	E	18.3	35.59	14	3	14	2	14	2	01	8	1014.0	1
38	7	183	64	11	9	0515	K	36	25	S	150	09	E	17.1	35.53	00	0	00	0	14	2	01	7	1015.0	1
38	7	184	64	11	9	0600	K	36	25	S	150	14	E	17.1	35.57	36	1	00	0	14	2	01	7	1015.0	1
38	7	185	64	11	9	0655	K	36	25	S	150	19	E	18.0	35.57	02	2	02	1	14	2	01	7	1015.0	1
38	7	186	64	11	9	0745	K	36	25	S	150	24	E	18.4	35.57	36	3	36	2	14	2	01	7	1015.0	1
38	7	187	64	11	9	0950	K	36	25	S	150	29	E	18.3	35.64	36	3	36	2	14	2	01	7	1015.0	1
38	7	188	64	11	9	1230	K	36	41	S	150	21	E	18.3	35.61	36	3	36	2	14	2	01	7	1015.0	1
38	7	189	64	11	9	1430	K	36	52	S	150	09	E	17.1	35.57	36	3	36	2	14	2	01	7	1013.0	1
38	7	190	64	11	14	0530	K	37	04	S	150	00	E	16.7	35.52	18	1	00	0	08	2	02	7	1022.0	1
38	7	191	64	11	14	0625	K	37	04	S	150	05	E	17.4	35.53	18	2	18	1	08	2	02	7	1022.0	1
38	7	192	64	11	14	0720	K	37	04	S	150	10	E	17.8	35.55	18	2	18	1	08	2	02	7	1022.0	1
38	7	193	64	11	14	0815	K	37	04	S	150	15	E	18.0	35.55	16	2	16	1	08	2	02	7	1023.0	1
38	7	194	64	11	14	0910	K	37	04	S	150	20	E	18.1	35.57	16	1	16	1	08	2	02	7	1023.0	1
38	7	195	64	11	14	1005	K	37	04	S	150	25	E	18.1	35.53	16	2	16	1	08	2	02	7	1022.0	1
38	8	196	64	11	21	0550	K	37	04	S	150	00	E	18.0	35.95*	23	4	23	1	09	1	02	7	1012.0	1
38	8	197	64	11	21	0645	K	37	04	S	150	07	E	18.0	35.53	18	5	18	2	09	1	01	7	1012.0	1
38	8	198	64	11	21	0740	K	37	04	S	150	14	E	16.9	35.48	18	4	18	2	09	1	01	7	1013.0	1
38	8	199	64	11	21	0835	K	37	04	S	150	22	E	17.6	35.52	18	4	18	3	09	1	01	7	1013.0	1
38	8	200	64	11	21	1045	K	36	49	S	150	24	E	18.8	35.57	18	4	18	3	09	1	02	7	1016.0	1

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	8	201	64	11	21	1255	K 36 40	S 150 25	E 18.8	35,62	18	4	18	3	09	1	02	7	1015.0	1
38	8	202	64	11	21	1530	K 36 29	S 150 20	E 18.8	35,59	18	3	18	3	09	1	02	7	1014.0	1
38	8	203	64	11	22	0725	K 36 16	S 150 23	E 18.8	35,57	36	1	36	1	09	1	61	5	1011.0	1
38	8	204	64	11	22	0940	K 36 05	S 150 30	E 18.7	35,26*	34	2	34	1	09	1	61	5	1011.0	1
38	8	205	64	11	22	1130	K 35 56	S 150 32	E 18.8	35,62	36	4	36	2	05	2	02	7	1008.0	1
38	8	206	64	11	23	0530	K 35 50	S 150 17	E 17.0*	35,44	32	1	32	1	14	3	01	7	1012.0	1
38	8	207	64	11	23	0620	K 35 50	S 150 22	E 18.2	35,53	27	2	27	1	14	3	01	7	1012.0	1
38	8	208	64	11	23	0715	K 35 50	S 150 27	E 18.6	35,57	27	2	27	1	14	3	01	7	1014.0	1
38	8	209	64	11	23	0815	K 35 50	S 150 32	E 18.7	35,43	27	2	27	1	14	3	01	7	1014.0	1
38	8	210	64	11	23	0915	K 35 50	S 150 37	E 18.5	35,57	32	2	32	1	14	3	01	7	1014.0	1
38	8	211	64	11	23	1020	K 35 50	S 150 42	E 17.9	35,57	32	1	32	1	14	3	01	7	1014.0	1
38	8	212	64	11	23	1230	K 36 02	S 150 29	E 19.0	35,70	05	2	05	1	14	3	01	7	1015.0	1
38	8	213	64	11	23	1400	K 36 15	S 150 23	E 19.3	35,62	09	3	09	1	14	3	01	7	1015.0	1
38	8	214	64	11	24	0545	K 36 25	S 150 09	E 16.8	35,46	05	1	05	1	09	2	01	7	1022.0	1
38	8	215	64	11	24	0640	K 36 25	S 150 14	E 17.1	35,43	05	2	05	1	09	2	01	7	1021.0	1
38	8	216	64	11	24	0730	K 36 25	S 150 19	E 18.8	35,62	05	3	05	1	09	2	01	7	1021.0	1
38	8	217	64	11	24	0825	K 36 25	S 150 24	E 18.3	35,57	05	3	05	2	09	2	01	7	1021.0	1
38	8	218	64	11	24	0935	K 36 25	S 150 29	E 18.9	35,62	05	3	05	2	09	2	01	7	1021.0	1
38	8	219	64	11	24	1200	K 36 38	S 150 18	E 19.0	35,59	05	3	05	2	09	2	02	7	1019.0	1
38	8	220	64	11	24	1330	K 36 49	S 150 11	E 18.1	35,53	05	4	05	2	09	2	02	7	1018.0	1
38	8	221	64	11	27	0530	K 37 04	S 150 00	E 17.0	35,48	14	1	00	0	09	2	02	8	1013.0	1
38	8	222	64	11	27	0625	K 37 04	S 150 05	E 18.0	35,52	14	1	14	1	09	2	02	7	1014.0	1
38	8	223	64	11	27	0725	K 37 04	S 150 10	E 18.1	35,52	06	1	06	1	09	2	02	7	1014.0	1
38	8	224	64	11	27	0815	K 37 04	S 150 15	E 18.1	35,55	05	3	05	2	09	2	02	7	1014.0	1
38	8	225	64	11	27	0915	K 37 04	S 150 20	E 18.8	35,66	05	3	05	2	09	2	02	7	1014.0	1
38	8	226	64	11	27	1010	K 37 04	S 150 25	E 18.8	35,66	05	3	05	2	09	2	02	7	1014.0	1
38	8	227	64	11	29	0700	K 37 04	S 150 04	E 16.1	35,23	18	1	18	1	09	2	02	7	1026.0	1
38	8	228	64	11	29	0800	K 37 03	S 150 09	E 16.2	35,57	16	1	16	1	09	2	02	7	1027.0	1
38	8	229	64	11	29	0900	K 37 02	S 150 16	E 16.3	35,44	16	2	16	1	09	2	02	7	1027.0	1
38	8	230	64	11	29	1000	K 36 58	S 150 24	E 18.0	35,59	16	2	16	1	09	2	02	7	1027.0	1
38	8	231	64	11	29	1200	K 37 08	S 150 16	E 16.3	35,57	16	1	16	1	09	2	02	7	1027.0	1
38	8	232	64	11	29	1400	K 37 19	S 150 08	E 16.5	35,53	08	1	08	1	09	2	01	7	1024.0	1
38	8	233	64	11	29	1600	K 37 28	S 150 04	E 16.4	35,48	05	2	05	1	09	2	02	7	1023.0	1
38	9	234	64	12	2	0635	K 37 02	S 150 03	E 16.5	35,39	23	2	23	1	09	2	61	7	1014.0	1
38	9	235	64	12	2	0730	K 37 01	S 150 08	E 16.8	35,37	23	2	23	1	09	2	61	7	1014.0	1
38	9	236	64	12	2	0830	K 36 58	S 150 14	E 16.6	35,43	18	3	18	2	09	2	01	7	1015.0	1
38	9	237	64	12	2	0930	K 36 55	S 150 22	E 16.6	35,52	18	3	18	2	09	2	01	7	1015.0	1
38	9	238	64	12	2	1140	K 36 45	S 150 23	E 18.4	35,66	18	2	18	1	09	2	01	7	1015.0	1
38	9	239	64	12	2	1350	K 36 32	S 150 24	E 18.8	35,57	18	2	18	2	09	2	02	7	1015.0	1
38	9	240	64	12	2	1530	K 36 23	S 150 22	E 18.4	35,55	16	2	16	1	09	2	02	7	1015.0	1

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	9	241	64	12	3	0710	K 36 15 S	150 23 E	18.4	35.53	32	2	32	2	09	2	01	7	1012.0	1
38	9	242	64	12	3	0910	K 36 03 S	150 29 E	18.5	35.62	33	2	33	1	09	2	01	7	1011.0	1
38	9	243	64	12	3	1110	K 35 52 S	150 35 E	18.7	35.50	36	2	36	1	09	2	01	7	1010.0	1
38	9	244	64	12	4	0520	K 35 50 S	150 17 E	17.1	35.44	32	1	16	2	09	2	02	7	1012.0	1
38	9	245	64	12	4	0610	K 35 50 S	150 22 E	17.5	35.48	32	1	16	2	09	2	01	7	1012.0	1
38	9	246	64	12	4	0700	K 35 50 S	150 27 E	18.2	35.55	30	1	16	2	09	2	01	7	1012.0	1
38	9	247	64	12	4	0755	K 35 50 S	150 32 E	18.5	35.52	00	0	16	2	09	2	01	7	1012.0	1
38	9	248	64	12	4	0850	K 35 50 S	150 37 E	18.5		05	1	16	2	09	2	01	7	1012.0	1
38	9	249	64	12	4	1000	K 35 50 S	150 42 E	18.7	35.53	05	1	16	2	09	2	01	7	1012.0	1
38	9	250	64	12	4	1230	K 36 03 S	150 27 E	19.0	35.64	05	3	05	2	09	2	01	7	1012.0	1
38	9	251	64	12	4	1430	K 36 11 S	150 19 E	18.8	35.57	05	3	05	2	09	2	01	7	1011.0	1
38	9	252	64	12	5	0510	K 36 25 S	150 09 E	17.7	35.50	09	1	09	2	09	2	02	7	1008.0	1
38	9	253	64	12	5	0600	K 36 25 S	150 14 E	17.5	35.39*	00	0	09	2	09	2	01	7	1008.0	1
38	9	254	64	12	5	0655	K 36 25 S	150 19 E	18.0	35.52	36	1	09	2	09	2	01	7	1008.0	1
38	9	255	64	12	5	0800	K 36 25 S	150 24 E	18.8	35.55	36	2	09	2	09	2	01	7	1008.0	1
38	9	256	64	12	5	0910	K 36 25 S	150 29 E	19.1	35.62	36	2	36	2	09	2	01	7	1006.0	1
38	9	257	64	12	5	1145	K 36 38 S	150 20 E	16.8	35.57	36	2	36	2	09	2	01	7	1005.0	1
38	9	258	64	12	5	1350	K 36 49 S	150 11 E	16.8	35.52	36	2	36	2	09	2	01	7	1004.0	1
38	9	259	64	12	8	0550	K 37 04 S	150 00 E	16.7	35.43	36	2	36	2	09	2	01	7	1016.0	1
38	9	260	64	12	8	0645	K 37 04 S	150 05 E	16.0	35.53	36	3	36	2	09	2	01	7	1016.0	1
38	9	261	64	12	8	0750	K 37 04 S	150 10 E	15.8	35.53	36	4	36	2	09	2	01	7	1016.0	1
38	9	262	64	12	8	0850	K 37 04 S	150 15 E	15.6	35.52	36	3	36	3	09	2	01	7	1016.0	1
38	9	263	64	12	8	1000	K 37 04 S	150 20 E	15.6		36	3	36	3	09	2	02	7	1015.0	1
38	10	264	64	12	9	0620	K 37 01 S	150 02 E	16.5	35.75	23	4	23	2	09	3	02	7	1002.0	1
38	10	265	64	12	9	0725	K 36 57 S	150 09 E	16.0	35.66	23	4	23	2	09	3	62	7	1003.0	1
38	10	266	64	12	9	0830	K 36 53 S	150 16 E	15.5	35.77	18	5	18	3	09	3	02	7	1003.0	1
38	10	267	64	12	14	0730	K 36 16 S	150 22 E	18.0	35.70	23	1	23	1	14	3	01	7	1005.0	1
38	10	268	64	12	14	0940	K 36 04 S	150 27 E	18.3	35.71	00	0	00	0	14	3	01	7	1005.0	1
38	10	269	64	12	14	1150	K 35 53 S	150 35 E	18.6	35.71	09	1	00	0	14	3	01	7	1005.0	1
38	10	270	64	12	14	1300	K 35 50 S	150 42 E	18.8	35.66	14	2	14	1	14	3	01	7	1005.0	1
38	10	271	64	12	14	1400	K 35 50 S	150 37 E	18.3	35.66	14	2	14	1	14	3	01	7	1004.0	1
38	10	272	64	12	14	1500	K 35 50 S	150 32 E	18.8	35.66	09	2	09	1	14	3	01	7	1004.0	1
38	10	273	64	12	14	1550	K 35 50 S	150 27 E	18.7	35.66	09	2	09	1	14	3	01	7	1004.0	1
38	10	274	64	12	14	1645	K 35 50 S	150 22 E	18.3	35.64	09	2	09	1	14	3	62	7	1004.0	1
38	10	275	64	12	14	1740	K 35 50 S	150 17 E	17.5	35.55	09	1	09	1	14	3	02	7	1005.0	1
38	10	276	64	12	15	0620	K 35 53 S	150 20 E	17.6	35.59	14	3	14	2	14	3	62	5	1006.0	1
38	10	277	64	12	16	0530	K 36 26 S	150 09 E	16.2	35.68	27	1	27	1	14	2	01	7	1006.0	1
38	10	278	64	12	16	0620	K 36 26 S	150 16 E	17.8	35.75	23	1	23	1	14	2	01	7	1006.0	1
38	10	279	64	12	16	0715	K 36 26 S	150 22 E	18.0	35.66	18	2	18	1	14	2	02	7	1005.0	1
38	10	280	64	12	16	0810	K 36 27 S	150 27 E	18.4	35.68	18	3	18	2	14	2	02	7	1005.0	1

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

VESSEL	CRUISE	STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE			LONGITUDE			TEMP.	SALINITY	WIND DN.	WIND AMT.	SEA DN.	SEA AMT.	SWELL DN.	SWELL AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
38	10	281	64	12	16	1015	K	36	41	S	150	16	E	16.6	35.66	18	3	18	3	14	2	01	7	1005.0	1
38	10	282	64	12	16	1215	K	36	49	S	150	07	E	16.4	35.64	16	4	16	3	14	2	01	7	1004.0	1
38	10	283	64	12	17	0540	K	37	04	S	150	00	E	15.9	35.66	23	2	21	1	14	2	02	7	1006.0	1
38	10	284	64	12	17	0630	K	37	04	S	150	05	E	16.0	35.61	20	3	20	2	14	2	02	7	1006.0	1
38	10	285	64	12	17	0730	K	37	04	S	150	10	E	16.0	35.53+	20	3	20	2	14	2	01	7	1007.0	1
38	10	286	64	12	17	0825	K	37	04	S	150	15	E	15.8	35.61	20	3	20	2	14	2	01	7	1007.0	1
38	10	287	64	12	17	0915	K	37	04	S	150	20	E	16.0	35.57	20	2	18	2	14	2	01	7	1008.0	1
38	10	288	64	12	17	1015	K	37	04	S	150	25	E	16.3	35.55	18	1	18	2	14	2	01	7	1008.0	1
38	11	289	64	12	30	0630	K	37	01	S	150	04	E	16.2	35.53	34	2	34	1	09	2	01	7	1015.0	1
38	11	290	64	12	30	0730	K	36	57	S	150	10	E	16.4	35.55	34	2	34	1	09	2	01	7	1015.0	1
38	11	291	64	12	30	0830	K	36	54	S	150	17	E	16.4	35.48	34	2	34	2	09	2	01	7	1016.0	1
38	11	292	64	12	30	0930	K	36	53	S	150	22	E	16.6	35.46	36	2	36	2	09	2	01	7	1016.0	1
38	11	293	64	12	30	1145	K	36	39	S	150	26	E	18.5	35.62	36	2	36	1	09	2	01	7	1015.0	1
38	11	294	64	12	30	1345	K	36	28	S	150	23	E	19.9	35.57	36	2	36	1	09	2	01	7	1015.0	1

* PROPERTY DOUBTFUL
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DATA

PART 2

HYDROLOGY

SUBSURFACE SAMPLES

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 4/ 31/64	18/ 9/64	1140 K	34 06 S	151 38 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	16	2	*	*	*	7	16	2	14	3	1026.0	15	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.60	35.590	25.34	4.96	99	***	***	***
1	25	19.50	35.590	25.36	4.91	98	***	***	***
1	50	19.28	35.610	25.43	4.87	96	***	***	***
1	75	17.79	35.530	25.75	4.21	81	***	***	***
1	100	16.77	35.500	25.97	4.32	81	***	***	***
1	150	14.55	35.340	26.35	4.30	77	***	***	***
1	200	13.16	35.260	26.58	4.45	78	***	***	***
1	300	12.16	35.230	26.76	4.84	83	***	***	***
1	500	10.94	35.050	26.84	5.09	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 4/ 34/64	18/ 9/64	1605 K	34 27 S	151 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1189	***	***	16	2	*	*	*	7	16	1	14	3	1025.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.70	35.680	25.88	5.61	108	***	***	***
1	25	17.28	35.640	25.96	5.46	104	***	***	***
1	50	16.95	35.620	26.02	5.43	103	***	***	***
1	75	16.85	35.620	26.04	5.41	102	***	***	***
1	100	15.70	35.570	26.27	5.19	96	***	***	***
1	150	14.50	35.520	26.50	5.20	94	***	***	***
1	200	13.90	35.460	26.58	5.16	92	***	***	***
1	300	12.52	35.300	26.74	5.12	88	***	***	***
1	500	11.59	35.260	26.89	5.16	87	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 4/ 42/64	19/ 9/64	1040 K	34 40 S	151 21 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
***	***	***	18	3	*	*	*	7	18	2	14	2	1026.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.08	35.570	25.95	5.49	104	***	***	***
1	25	17.03	35.590	25.98	5.49	104	***	***	***
1	50	16.59	35.530	26.04	4.96	93	***	***	***
1	75	15.49	35.500	26.27	4.87	89	***	***	***
1	100	14.58	35.480	26.45	5.08	92	***	***	***
1	150	14.17	35.430	26.50	5.02	90	***	***	***
1	300	12.86	35.340	26.70	4.81	84	***	***	***
1	500	11.31	35.280	26.95	5.24	88	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 4/ 50/64	20/ 9/64	1025 K	35 05 S	151 14 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
***	***	***	05	2	*	*	*	7	05	1	14	1	1019.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.77	35.570	26.26	5.68	105	***	***	***
1	25	15.58	35.570	26.30	5.63	104	***	***	***
1	50	15.38	35.550	26.33	5.58	102	***	***	***
1	75	14.70	35.480	26.43	5.26	95	***	***	***
1	100	14.28	35.440	26.48	5.32	95	***	***	***
1	150	13.01	35.250*	26.60	4.59	80	***	***	***
1	200	12.70	35.320	26.72	4.98	86	***	***	***
1	300	11.28	35.080	26.81	4.56	76	***	***	***
1	500	9.12	34.810	26.97	4.70	75	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 4/ 58/64	21/ 9/64	0940 K	34 52 S	151 14 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
914	***	***	16	2	*	*	*	7	16	2	14	1	1017.0	10	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.64	35.500	26.00	5.58	105	***	***	***
1	25	16.34	35.590	26.14	5.60	105	***	***	***
1	50	15.19	35.520	26.35	5.20	95	***	***	***
1	75	14.69	35.460	26.41	5.08	92	***	***	***
1	100	14.40	35.410	26.44	5.04	91	***	***	***
1	150	13.95	35.410	26.53	5.42	96	***	***	***
1	200	13.28	35.410	26.67	5.45	96	***	***	***
1	300	11.37	35.080	26.79	4.67	78	***	***	***
1	500	9.66	***	***	4.89	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 65/64	29/ 9/64	0700 K	34 04 S	151 13 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
70	***	***	34	1	*	*	*	5	05	2	09	2	998.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.53	35.440	26.21	5.11	94	***	***	***
1	10	15.18	35.410	26.26	5.04	92	***	***	***
1	20	14.44	35.370	26.40	***	***	***	***	***
1	30	14.02	35.340	26.46	4.64	83	***	***	***
1	40	13.81	35.340	26.51	***	***	***	***	***
1	50	13.44	35.320	26.57	4.34	76	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 66/64	29/ 9/64	0750 K	34 04 S	151 18 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
128	***	***	34	1	*	*	*	5	05	2	09	2	998.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.87	35.280	25.78	5.48	103	***	***	***
1	10	16.95	35.430	25.87	5.46	103	***	***	***
1	20	17.00	35.520*	25.93	***	***	***	***	***
1	30	16.96	35.430	25.87	5.48	104	***	***	***
1	40	16.96	35.430	25.87	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 67/64	29/ 9/64	0845 K	34 05 S	151 23 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
141	***	***	32	4	*	*	*	6	32	2	09	2	998.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.16	35.390	25.79	5.52	105	***	***	***
1	10	17.21	35.500	25.87	5.49	104	***	***	***
1	20	17.43	35.590	25.88	***	***	***	***	***
1	30	17.39	35.570	25.88	5.30	101	***	***	***
1	40	17.17	35.590	25.94	***	***	***	***	***
1	50	17.18	35.530	25.90	5.35	102	***	***	***
1	75	14.28	35.410	26.46	***	***	***	***	***
1	100	13.06	35.260	26.60	4.11	72	***	***	***
1	125	12.95	35.320	26.67	4.61	80	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 68/64	29/ 9/64	0940 K	34 05 S	151 28 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
150	***	***	32	5	*	*	*	6	32	2	09	2	998.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.40	35.610	25.66	5.18	101	***	***	***
1	10	18.44	35.610	25.65	5.23	102	***	***	***
1	20	18.31	35.590	25.66	***	***	***	***	***
1	30	18.39	35.620	25.67	5.24	102	***	***	***
1	40	18.36*	35.610*	25.67	***	***	***	***	***
1	50	17.85*	35.500*	25.71	4.42*	85	***	***	***
1	75	16.34*	35.480*	26.06	***	***	***	***	***
1	100	15.02*	35.390*	26.29	4.41*	80	***	***	***
1	140	12.88*	35.260*	26.64	4.58*	80	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 69/64	1/10/64	1015 K	34 05 S	151 33 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
366	***	***	30	2	*	*	*	7	32	1	16	2	1019.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.87	35.590	25.26	5.21	104	***	***	***
1	25	19.82	35.530	25.23	***	***	***	***	***
1	50	16.39	35.500	26.06	4.14	77	***	***	***
1	75	15.45	35.440	26.23	***	***	***	***	***
1	100	14.60	35.340	26.34	4.32	78	***	***	***
1	150	13.20	35.250	26.56	***	***	***	***	***
1	200	12.01	35.160	26.73	4.65	79	***	***	***
1	300	11.43	35.160	26.84	5.09	86	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 70/64	1/10/64	1120 K	34 05 S	151 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
732	***	***	36	3	*	*	*	7	36	2	16	2	1018.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.71	35.610	25.32	5.38	107	***	***	***
1	25	18.81	35.590	25.54	***	***	***	***	***
1	50	16.57	35.550	26.06	4.10	77	***	***	***
1	75	15.42	35.410	26.21	***	***	***	***	***
1	100	14.64	35.370	26.35	4.21	76	***	***	***
1	150	13.60	35.280	26.50	***	***	***	***	***
1	200	12.32	35.170	26.68	4.50	77	***	***	***
1	300	11.29	***	***	4.96	***	***	***	***
1	500	10.18	34.990	26.93	4.99	81	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 77/64	2/10/64	0535 K	34 40 S	150 55 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
68	***	***	36	1	*	*	*	7	36	1	05	2	1009.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	14.89	35.480	26.38	5.67	103	***	***	***
1	10	14.91	35.440	26.35	5.60	102	***	***	***
1	20	14.78	35.430	26.37	***	***	***	***	***
1	30	14.37	35.390	26.43	5.32	95	***	***	***
1	40	14.02	35.390	26.50	***	***	***	***	***
1	50	13.79	35.390	26.55	4.79	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 78/64	2/10/64	0625 K	34 40 S	151 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
119	***	***	34	1	*	*	*	7	36	2	05	2	1009.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.87	35.500	26.18	6.11	113	***	***	***
1	10	15.84	35.500	26.19	6.09	113	***	***	***
1	20	15.59	35.500	26.24	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 79/64	2/10/64	0715 K	34 40 S	151 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
137	***	***	36	3	*	*	*	7	36	3	05	2	1009.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.02	35.530	26.17	5.88	109	***	***	***
1	10	16.06	35.530	26.16	5.89	110	***	***	***
1	20	16.01	35.520	26.16	***	***	***	***	***
1	30	15.88	35.590	26.25	5.57	103	***	***	***
1	40	14.72	35.350	26.32	***	***	***	***	***
1	50	13.84	35.350	26.51	4.80	85	***	***	***
1	75	13.50	35.370	26.60	***	***	***	***	***
1	100	13.28	35.370	26.64	4.97	87	***	***	***
1	125	12.78	35.320	26.70	4.88	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 80/64	2/10/64	0825 K	34 40 S	151 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
210	***	***	36	3	*	*	*	7	36	3	05	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.19	35.530	26.13	5.99	112	***	***	***
1	25	16.14	35.500	26.12	***	***	***	***	***
1	50	14.05	35.340	26.46	4.47	80	***	***	***
1	75	13.70	35.390	26.57	***	***	***	***	***
1	100	13.30	35.340	26.61	5.03	88	***	***	***
1	125	13.28	35.230	26.53	***	***	***	***	***
1	150	12.92	35.300	26.66	4.94	86	***	***	***
1	175	11.75	35.190	26.80	***	***	***	***	***
1	200	11.25	35.070	26.80	5.00	84	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 81/64	2/10/64	0925 K	34 40 S	151 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
348	***	***	36	4	*	*	*	7	36	3	05	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.65	35.500	26.00	5.70	107	***	***	***
1	25	16.08	35.570	26.18	***	***	***	***	***
1	50	14.65	35.320	26.31	4.70	85	***	***	***
1	75	13.63	35.340	26.55	***	***	***	***	***
1	100	13.30	35.340	26.61	4.92	86	***	***	***
1	150	12.85	35.340	26.70	***	***	***	***	***
1	200	12.30	35.260	26.75	5.10	87	***	***	***
1	300	11.03	35.100	26.87	5.00	83	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 82/64	2/10/64	1035 K	34 40 S	151 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	36	4	*	*	*	7	36	3	05	2	1008.0	15	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.10	35.550	25.93	5.10	97	***	***	***
1	25	16.91	35.500	25.94	***	***	***	***	***
1	50	14.10	35.300	26.42	4.59	82	***	***	***
1	75	13.98	35.460	26.56	***	***	***	***	***
1	100	13.61*	35.340*	26.55	***	***	***	***	***
1	150	12.99*	35.410*	26.73	5.27*	92	***	***	***
1	250	11.69*	35.140*	26.78	4.84*	82	***	***	***
1	450	10.69*	35.010*	26.86	5.01*	83	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 87/64	5/10/64	0550 K	35 07 S	150 50 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
110	***	***	23	3	*	*	*	7	24	1	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.98	35.460	25.65	5.17	100	***	***	***
1	10	17.99	35.590	25.74	5.18	100	***	***	***
1	20	17.97	35.640	25.79	***	***	***	***	***
1	30	16.75	35.550	26.01	5.03	95	***	***	***
1	40	16.41	35.460	26.02	***	***	***	***	***
1	50	15.75	35.460	26.18	5.69	105	***	***	***
1	75	14.34	35.340	26.40	***	***	***	***	***
1	100	13.65	35.340	26.54	4.92	87	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 88/64	5/10/64	0645 K	35 07 S	150 55 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	23	3	*	*	*	7	23	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.18	35.600*	25.70	5.16	100	***	***	***
1	10	18.19	35.600*	25.70	4.86	94	***	***	***
1	80	14.90*	35.410*	26.33	4.56*	83	***	***	***
1	105	14.14*	35.440*	26.51	4.83*	86	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 89/64	5/10/64	0740 K	35 07 S	151 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
158	***	***	23	3	*	*	*	7	23	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.27	35.610	25.69	5.16	100	***	***	***
1	10	18.29	35.610	25.68	5.09	99	***	***	***
1	20	18.27	35.590	25.67	***	***	***	***	***
1	85	15.00*	35.370*	26.28	4.54*	83	***	***	***
1	110	14.03*	35.370*	26.49	4.86*	87	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 90/64	5/10/64	0830 K	35 07 S	151 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
732	***	***	20	3	*	*	*	7	20	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.32	35.620	25.69	5.24	102	***	***	***
1	25	18.33	35.610	25.67	***	***	***	***	***
1	50	17.53	35.550	25.83	4.77	91	***	***	***
1	75	16.02	35.480	26.13	***	***	***	***	***
1	100	14.62	35.350	26.34	4.40	79	***	***	***
1	150	13.31	35.280	26.56	***	***	***	***	***
1	200	12.75	35.280	26.68	4.81	83	***	***	***
1	300	11.66	35.160	26.80	5.04	85	***	***	***
1	500	11.62	35.340*	26.94	5.40	91	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 91/64	5/10/64	0935 K	35 07 S	151 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	20	3	*	*	*	7	20	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.35	35.640	25.69	5.18	101	***	***	***
1	25	18.18	35.590	25.70	***	***	***	***	***
1	50	17.82	35.590	25.79	5.09	98	***	***	***
1	75	16.45	35.550	26.08	***	***	***	***	***
1	100	15.19	35.410	26.26	4.32	79	***	***	***
1	150	14.35	35.480	26.50	***	***	***	***	***
1	200	13.50	35.430	26.64	5.50	97	***	***	***
1	300	12.18	35.230	26.75	5.18	89	***	***	***
1	500	9.22	34.810	26.95	4.61	74	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 5/ 92/64	5/10/64	1040 K	35 07 S	151 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	20	3	*	*	*	7	20	2	14	2	1008.0	20	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.91	35.610	25.78	5.24	101	***	***	***
1	25	17.79	35.620	25.82	***	***	***	***	***
1	50	17.54	35.570	25.84	5.27	101	***	***	***
1	75	16.72	35.550	26.02	***	***	***	***	***
1	100	16.01	35.610	26.23	4.82	90	***	***	***
1	150	14.74	35.460	26.40	***	***	***	***	***
1	200	13.06	35.250	26.59	4.38	76	***	***	***
1	300	11.75	35.100	26.73	4.54	77	***	***	***
1	500	9.07	34.740	26.92	4.45	71	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 105/64	16/10/64	0730 K	34 05 S	151 13 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
79	***	***	00	0	*	*	*	7	27	1	14	3	1020.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.43	35.440	26.01	5.31	99	***	***	***
1	10	16.19	35.430	26.05	5.42	101	***	***	***
1	20	16.18	35.440	26.06	***	***	***	***	***
1	30	16.10	35.430	26.07	5.42	101	***	***	***
1	40	16.06	35.410	26.07	***	***	***	***	***
1	50	15.73	35.390	26.13	5.25	97	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
F 6/ 106/64	16/10/64	0815 K	34 05 S	151 18 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
128	***	***	32	1	*	*	*	7	32	1	14	3	1019.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.84	35.500	25.71	5.29	102	***	***	***
1	10	17.62	35.480	25.75	5.31	102	***	***	***
1	20	***	35.480	***	***	***	***	***	***
1	30	16.85	***	***	5.36	***	***	***	***
1	75	13.83*	35.260*	26.44	4.43*	79	***	***	***
1	100	13.09*	35.250*	26.59	4.20*	73	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
F 6/ 107/64	16/10/64	0907 K	34 05 S	151 23 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
141	***	***	00	0	*	*	*	7	00	0	14	3	1019.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.09	35.440	25.85	5.45	103	***	***	***
1	10	16.66	35.440	25.95	5.42	102	***	***	***
1	20	15.51	35.350	26.15	***	***	***	***	***
1	30	14.93	35.320	26.25	4.88	89	***	***	***
1	40	14.63	35.280	26.29	***	***	***	***	***
1	50	14.12	35.250	26.37	4.06	72	***	***	***
1	75	13.67	35.250	26.47	***	***	***	***	***
1	100	13.06	35.220*	26.57	4.27	74	***	***	***
1	125	12.94	35.190	26.57	4.18	73	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 6/ 108/64	16/10/64	1005 K	34 05 S	151 28 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
155	***	***	32	1	*	*	*	7	32	1	14	3	1019.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	20.45	35.530	25.06	5.02	102	***	***	***
1	10	19.51	35.520	25.31	5.04	100	***	***	***
1	20	19.05	35.500	25.41	***	***	***	***	***
1	30	18.17	35.500	25.63	4.99	97	***	***	***
1	40	17.32	35.460	25.81	***	***	***	***	***
1	50	16.19	35.410	26.04	4.89	91	***	***	***
1	100	13.40*	35.260	26.53	4.56	80	***	***	***
1	140	12.60	35.230	26.67	4.69	81	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 6/ 109/64	16/10/64	1100 K	34 05 S	151 33 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
311	***	***	32	1	*	*	*	7	32	1	14	3	1018.0	20	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	21.01	35.500	24.89	4.96	101	***	***	***
1	25	19.50*	35.500*	25.29	***	***	***	***	***
1	115	14.05*	35.210*	26.36	***	***	***	***	***

* PROPERTY DOUBTFUL
* PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 110/64	16/10/64	1200 K	34 05 S	151 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
640	***	***	36	2	*	*	*	7	36	1	14	3	1017.0	40	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	21.60	35.520	24.74	4.92	102	***	***	***
1	20	21.17	35.520	24.86	***	***	***	***	***
1	40	19.04	35.520	25.43	5.02	99	***	***	***
1	60	17.33	35.440	25.79	***	***	***	***	***
1	80	17.13	35.430	25.83	3.96	75	***	***	***
1	120	15.17	35.300	26.18	***	***	***	***	***
1	160	13.04	35.170	26.53	4.30	75	***	***	***
1	240	***	35.120	***	4.73	***	***	***	***
1	400	10.87	35.030	26.84	4.91	81	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 117/64	17/10/64	0540 K	34 40 S	150 55 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
62	***	***	32	1	*	*	*	7	32	1	04	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.60	35.480	26.00	5.42	102	***	***	***
1	10	15.20	35.390	26.25	4.85	89	***	***	***
1	20	14.17	35.320	26.42	***	***	***	***	***
1	30	14.04	35.340	26.46	4.61	82	***	***	***
1	40	13.89+	35.340	26.49	***	***	***	***	***
1	50	13.74	35.340	26.52	4.80	85	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 118/64	17/10/64	0630 K	34 40 S	151 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
119	***	***	23	3	*	*	*	7	23	1	04	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.64	35.500	26.00	5.36	101	***	***	***
1	10	16.63	35.500	26.00	5.39	101	***	***	***
1	20	15.41	35.430	26.23	***	***	***	***	***
1	30	15.12	35.390	26.26	5.59	102	***	***	***
1	40	14.76	35.370	26.33	***	***	***	***	***
1	50	14.66	35.350	26.33	5.75	104	***	***	***
1	75	13.47	35.350	26.59	***	***	***	***	***
1	100	13.07*	35.350*	26.67	5.36*	94	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 119/64	17/10/64	0720 K	34 40 S	151 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
137	***	***	23	3	*	*	*	7	23	2	04	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.21	35.430	26.05	5.58	104	***	***	***
1	10	15.85	35.430	26.13	5.62	104	***	***	***
1	20	15.50	35.410	26.19	***	***	***	***	***
1	30	15.38	35.410	26.22	5.69	104	***	***	***
1	40	14.70	35.370	26.34	***	***	***	***	***
1	50	14.29	35.370	26.43	5.58	100	***	***	***
1	75	13.45	35.370	26.61	***	***	***	***	***
1	100	13.00	35.350	26.68	5.43	95	***	***	***
1	125	12.99	35.350	26.68	5.42	94	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 120/64	17/10/64	0815 K	34 40 S	151 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
220	***	***	23	3	*	*	*	7	23	1	04	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.15	35.480	26.10	5.58	104	***	***	***
1	25	15.51	35.430	26.21	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 121/64	17/10/64	0910 K	34 40 S	151 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
549	***	***	23	3	*	*	*	7	23	2	04	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.40	35.440	26.01	5.57	104	***	***	***
1	25	15.66	35.410	26.16	***	***	***	***	***
1	50	14.74	35.440	26.39	5.23	95	***	***	***
1	75	12.98	35.300	26.65	***	***	***	***	***
1	100	12.62*	35.250*	26.68	4.85*	84	***	***	***
1	150	12.54*	35.260*	26.70	***	***	***	***	***
1	200	12.94*	35.340*	26.69	5.39*	94	***	***	***
1	300	12.34*	35.300*	26.77	5.31*	91	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 122/64	17/10/64	1007 K	34 40 S	151 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1097	***	***	20	4	*	*	*	7	20	2	04	2	1008,0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16,84	35,590	26,02	5,48	104	***	***	***
1	25	16,52	35,480	26,01	***	***	***	***	***
1	50	14,54	35,370	26,38	5,07	91	***	***	***
1	75	13,46	35,370	26,60	***	***	***	***	***
1	100	12,65*	35,280*	26,70	4,80*	83	***	***	***
1	150	12,72*	35,350*	26,74	***	***	***	***	***
1	200	12,74*	35,270*	26,67	4,94*	86	***	***	***
1	300	12,50*	35,370*	26,80	5,24*	90	***	***	***
1	500	12,70*	35,370*	26,76	5,36*	93	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 126/64	19/10/64	0615 K	35 07 S	150 50 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
108	***	***	27	2	*	*	*	7	27	2	14	3	1025,0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16,58	35,460	25,98	5,51	103	***	***	***
1	10	16,60	35,440	25,96	5,34	100	***	***	***
1	20	16,56	35,460	25,99	***	***	***	***	***
1	30	16,53	35,460	26,00	5,49	103	***	***	***
1	40	16,29	35,440	26,04	***	***	***	***	***
1	50	15,95	35,440	26,11	5,61	104	***	***	***
1	75	14,34	35,370	26,42	***	***	***	***	***
1	100	13,56	35,370	26,58	5,12	90	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 127/64	19/10/64	0720 K	35 07 S	150 55 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
134	***	***	20	2	*	*	*	7	20	2	14	3	1026.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.22	35.920	25.88	5.39	103	***	***	***
1	10	17.24	35.530	25.88	5.38	102	***	***	***
1	20	16.80	35.520	25.98	***	***	***	***	***
1	30	16.72	35.520	26.00	5.42	102	***	***	***
1	40	16.65	35.900	26.00	***	***	***	***	***
1	50	16.09	35.460	26.10	5.41	101	***	***	***
1	75	13.81	35.390	26.55	***	***	***	***	***
1	100	13.32	35.410	26.66	5.53	97	***	***	***
1	125	13.05	35.390	26.70	5.46	95	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 128/64	19/10/64	0835 K	35 07 S	151 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
141	***	***	16	3	*	*	*	7	16	1	14	3	1026.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.80	35.570	25.78	5.31	102	***	***	***
1	10	17.71	35.570	25.80	5.35	103	***	***	***
1	20	17.79	35.610	25.81	***	***	***	***	***
1	30	17.68	35.530	25.77	5.31	102	***	***	***
1	40	17.43	35.530	25.84	***	***	***	***	***
1	50	17.20	35.520	25.88	5.24	100	***	***	***
1	75	14.87	35.350	26.29	***	***	***	***	***
1	125	13.25*	35.410*	26.68	5.28*	93	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 129/64	20/10/64	0605 K	35 07 S	151 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
732	***	***	36	1	*	*	*	7	00	0	14	2	1023.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.29	35.640	25.71	5.27	102	***	***	***
1	25	18.29	35.570	25.65	***	***	***	***	***
1	50	17.43	35.530	25.83	5.08	97	***	***	***
1	75	15.77	35.440	26.16	***	***	***	***	***
1	100	14.03	35.340	26.46	4.80	85	***	***	***
1	150	13.15	35.350	26.65	***	***	***	***	***
1	200	13.10*	35.350*	26.66	5.29*	92	***	***	***
1	300	12.35*	35.300*	26.77	5.25*	90	***	***	***
1	500	12.23*	35.350*	26.83	5.43*	93	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 130/64	20/10/64	0725 K	35 07 S	151 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1189	***	***	36	2	*	*	*	7	00	0	14	2	1023.0	10	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.34	35.570	25.64	5.23	102	***	***	***
1	25	18.34	35.570	25.64	***	***	***	***	***
1	50	17.84	35.530	25.74	5.13	99	***	***	***
1	75	15.60	35.440	26.20	***	***	***	***	***
1	100	14.72	35.350	26.32	4.84	87	***	***	***
1	150	13.62	35.340	26.55	***	***	***	***	***
1	200	12.12	35.190	26.73	4.74	81	***	***	***
1	300	12.47*	35.350*	26.79	5.43*	94	***	***	***
1	500	12.06*	35.390*	26.90	5.45*	93	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 131/64	20/10/64	0830 K	35 07 S	151 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	36	3	*	*	*	7	36	1	14	2	1023.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.55	35.570	25.59	5.29	103	***	***	***
1	25	18.51	35.530	25.57	***	***	***	***	***
1	50	17.76	35.500	25.73	4.97	96	***	***	***
1	75	16.01	35.410	26.08	***	***	***	***	***
1	100	14.75	35.340	26.31	4.54	82	***	***	***
1	150	13.10	35.190	26.54	***	***	***	***	***
1	200	12.76	35.250+	26.65	4.80	83	***	***	***
1	300	11.32	35.070+	26.79	4.70	79	***	***	***
1	500	11.19	35.250+	26.95	5.28	88	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 143/64	22/10/64	0710 K	35 50 S	150 16 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
71	***	***	30	4	*	*	*	7	30	2	14	1	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.26	35.570	25.91	5.24	100	***	***	***
1	10	17.24	35.530	25.88	5.39	103	***	***	***
1	20	16.88	35.530	25.97	***	***	***	***	***
1	30	16.65	35.530	26.02	5.23	98	***	***	***
1	40	16.00	35.480	26.13	***	***	***	***	***
1	50	14.92	35.430	26.34	5.30	96	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 144/64	22/10/64	0800 K	35 50 S	150 22 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
119	***	***	30	4	*	*	*	7	30	2	14	1	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.20	35.370	25.92	5.33	101	***	***	***
1	10	17.21	35.530	25.89	5.28	100	***	***	***
1	20	17.07	35.530	25.92	***	***	***	***	***
1	30	17.00	35.500	25.92	5.33	101	***	***	***
1	40	16.76	35.520	25.99	***	***	***	***	***
1	50	16.55	35.520	26.04	5.33	100	***	***	***
1	75	14.39	35.410	26.44	***	***	***	***	***
1	100	13.31	35.410	26.67	5.00	88	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 145/64	22/10/64	0850 K	35 50 S	150 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
134	***	***	30	4	*	*	*	7	30	2	14	1	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.86	35.610	25.54	5.12	101	***	***	***
1	10	18.85	35.970	25.51	5.10	100	***	***	***
1	20	18.80	35.610	25.56	***	***	***	***	***
1	30	17.96	35.550	25.72	5.18	100	***	***	***
1	40	17.35	***	***	***	***	***	***	***
1	50	16.93	35.530	25.95	5.24	99	***	***	***
1	75	15.19	35.430	26.28	***	***	***	***	***
1	100	13.54	35.350	26.57	5.07	89	***	***	***
1	125	13.39	35.390	26.63	5.39	95	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 146/64	22/10/64	0940 K	35 50 S	150 32 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
152	***	***	30	4	*	*	*	7	30	2	14	1	1002,0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.42	35,530	25,34	5,05	100	***	***	***
1	10	19.42	35,570	25,37	5,01	100	***	***	***
1	20	19.47	35,550	25,34	***	***	***	***	***
1	30	19.43	35,550	25,35	5,04	100	***	***	***
1	40	18.79	35,530	25,50	***	***	***	***	***
1	50	16.80	35,460	25,93	4,37	82	***	***	***
1	75	15.61	35,430	26,19	***	***	***	***	***
1	100	14.42	35,410	26,43	4,98	89	***	***	***
1	125	13.22	35,390	26,67	5,39	94	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 147/64	22/10/64	1030 K	35 50 S	150 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
914	***	***	30	4	*	*	*	7	30	2	14	1	1002,0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.46	35,620	25,40	5,07	101	***	***	***
1	25	19.33	35,590	25,40	***	***	***	***	***
1	50	17.72	35,500	25,74	3,98	76	***	***	***
1	75	15.67	35,430	26,17	***	***	***	***	***
1	100	14.74	35,340	26,31	4,02	73	***	***	***
1	150	13.43	35,260	26,53	***	***	***	***	***
1	200	12.49	35,190	26,66	4,72	81	***	***	***
1	300	11.15	35,080	26,83	4,66	78	***	***	***
1	900	10.74	35,080	26,90	5,14	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 6/ 148/64	22/10/64	1130 K	35 50 S	150 42 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	32	3	*	*	*	7	32	2	14	1	1001.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.55	35.610	25.36	5.04	100	***	***	***
1	25	19.37	35.570	25.38	***	***	***	***	***
1	50	17.56	35.500	25.78	4.62	88	***	***	***
1	75	15.61	35.370	26.14	***	***	***	***	***
1	100	14.94	35.340	26.26	4.07	74	***	***	***
1	150	13.25	35.210	26.52	***	***	***	***	***
1	200	12.42	35.140	26.64	4.32	74	***	***	***
1	300	11.16	35.050	26.80	4.55	76	***	***	***
1	500	8.90	34.720	26.93	4.54	72	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 161/64	6/11/64	1025 K	35 07 S	150 50 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
110	***	***	14	1	*	*	*	7	14	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.67	35.550	25.54	4.96	97	***	***	***
1	10	18.49	35.550	25.59	5.07	99	***	***	***
1	20	18.06	35.530	25.68	***	***	***	***	***
1	30	17.58	35.530	25.80	5.23	100	***	***	***
1	40	16.87	35.550	25.99	***	***	***	***	***
1	50	16.46	35.500	26.04	5.08	95	***	***	***
1	75	14.37	35.430	26.46	***	***	***	***	***
1	100	14.02*	35.430*	26.53	4.96*	88	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 162/64	6/11/64	1120 K	35 07 S	150 55 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
132	***	***	10	1	*	*	*	7	10	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.82	35.570	25.52	5.07	100	***	***	***
1	10	18.52	35.520	25.56	5.10	100	***	***	***
1	20	18.54	35.550	25.58	***	***	***	***	***
1	30	18.49	35.550	25.59	5.07	99	***	***	***
1	40	18.18	35.550	25.67	***	***	***	***	***
1	50	16.67	35.520	26.01	5.02	94	***	***	***
1	75	15.10	35.430	26.30	***	***	***	***	***
1	100	13.81	35.340	26.51	4.83	86	***	***	***
1	125	13.43	35.320	26.57	4.83	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 163/64	6/11/64	1215 K	35 07 S	151 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
155	***	***	14	2	*	*	*	7	14	2	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.85	35.520	25.47	5.10	100	***	***	***
1	10	18.49	35.550	25.59	5.13	100	***	***	***
1	20	18.49	35.620	25.64	***	***	***	***	***
1	30	18.46	35.550	25.60	5.13	100	***	***	***
1	40	18.47	35.550	25.59	***	***	***	***	***
1	50	18.42	35.530	25.59	4.97	97	***	***	***
1	75	16.07	35.570	26.19	***	***	***	***	***
1	100	14.36	35.440	26.47	4.74	85	***	***	***
1	125	13.27	35.340	26.62	4.84	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 164/64	6/11/64	1310 K	35 07 S	151 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
603	***	***	14	3	*	*	*	7	14	2	14	2	1013.0	15	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.73	35.550*	25.53	5.02	98	***	***	***
1	25	18.43	35.640*	25.67	***	***	***	***	***
1	50	18.45	35.550*	25.60	4.96	97	***	***	***
1	75	16.28	35.640*	26.19	***	***	***	***	***
1	100	14.77	35.320*	26.29	3.98	72	***	***	***
1	150	13.40	35.320*	26.58	***	***	***	***	***
1	200	13.00	35.430*	26.74	4.67	81	***	***	***
1	300	12.52	35.320*	26.75	4.87	84	***	***	***
1	500	11.76	35.260*	26.86	5.01	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 165/64	6/11/64	1420 K	35 07 S	151 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1097	***	***	14	3	*	*	*	7	14	2	14	2	1013.0	10	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.56	35.610	25.62	5.08	99	***	***	***
1	25	18.41	35.570	25.62	***	***	***	***	***
1	50	18.36	35.570	25.64	***	***	***	***	***
1	75	16.03	35.430	26.09	***	***	***	***	***
1	100	14.99	35.340	26.25	3.98	72	***	***	***
1	150	13.49	35.230	26.49	***	***	***	***	***
1	200	12.87	35.250	26.63	4.51	78	***	***	***
1	300	11.71	35.070	26.72	4.57	77	***	***	***
1	500	9.29	34.760	26.90	4.44	71	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 166/64	6/11/64	1535 K	35 07 S	151 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1463	***	***	14	2	*	*	*	7	14	1	14	2	1013.0	10	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.95	35.550	25.47	***	***	***	***	***
1	25	18.26	35.550	25.65	***	***	***	***	***
1	50	18.08	35.550	25.69	4.84	94	***	***	***
1	75	16.18*	35.390	26.02	***	***	***	***	***
1	100	14.93	35.350	26.27	3.99	72	***	***	***
1	150	13.79	35.250	26.44	***	***	***	***	***
1	200	12.67	35.140	26.58	4.10	71	***	***	***
1	300	11.30	35.070	26.79	4.22	71	***	***	***
1	500	9.82	34.900	26.92	4.73	77	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 175/64	8/11/64	0540 K	35 50 S	150 17 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
64	***	***	20	1	*	*	*	8	00	0	14	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.44	35.430	25.76	5.31	101	***	***	***
1	10	17.11	35.500	25.89	5.33	101	***	***	***
1	20	16.21	35.520	26.12	***	***	***	***	***
1	30	16.00	35.520	26.17	5.23	97	***	***	***
1	40	15.82	35.460	26.16	***	***	***	***	***
1	50	15.73	35.480	26.20	5.27	97	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 176/64	8/11/64	0625 K	35 50 S	150 22 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
119	***	***	20	1	*	*	*	7	20	1	14	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.02	35.520	25.68	5.30	102	***	***	***
1	10	18.04	35.520	25.68	5.24	101	***	***	***
1	20	17.88	35.480	25.69	***	***	***	***	***
1	30	17.48*	35.570*	25.85	5.33*	102	***	***	***
1	40	16.40*	35.520*	26.07	***	***	***	***	***
1	50	15.45*	35.500*	26.27	5.25*	96	***	***	***
1	75	14.73*	35.430*	26.38	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 177/64	8/11/64	0715 K	35 50 S	150 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
132	***	***	20	2	*	*	*	7	20	1	14	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.42	35.660	25.69	5.19	101	***	***	***
1	10	18.37	35.550	25.62	5.22	102	***	***	***
1	20	18.27	35.570	25.66	***	***	***	***	***
1	30	18.18	35.550	25.67	5.14	100	***	***	***
1	40	18.12	35.570	25.70	***	***	***	***	***
1	50	17.67	35.570	25.81	5.05	97	***	***	***
1	75	15.67	35.520	26.24	***	***	***	***	***
1	100	14.61	35.430	26.41	5.26	95	***	***	***
1	125	14.17	35.430	26.50	5.19	93	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 178/64	8/11/64	0805 K	35 50 S	150 32 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
155	***	***	18	2	*	*	*	7	18	1	14	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.28	35.550	25.64	5.18	101	***	***	***
1	10	18.24	***	***	5.20	***	***	***	***
1	20	18.17	35.550	25.67	***	***	***	***	***
1	30	17.97	35.410	25.61	5.20	100	***	***	***
1	40	17.65	35.370	25.66	***	***	***	***	***
1	50	17.49	35.530	25.82	4.95	95	***	***	***
1	75	16.90	35.530	25.96	***	***	***	***	***
1	100	14.55	35.430	26.42	5.31	96	***	***	***
1	125	13.99	***	***	5.14	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 179/64	8/11/64	0910 K	35 50 S	150 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
549	***	***	18	3	*	*	*	7	18	2	14	2	1015.0	30	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.55	35.550	25.57	5.16	101	***	***	***
1	25	17.98	35.550	25.71	***	***	***	***	***
1	50	17.45	35.520	25.82	5.20	99	***	***	***
1	75	15.72	35.460	26.18	***	***	***	***	***
1	100	14.80	35.390	26.34	4.48	81	***	***	***
1	150	13.90	***	***	***	***	***	***	***
1	200	13.00	35.250	26.60	4.54	79	***	***	***
1	300	12.54	35.260	26.70	4.84	83	***	***	***
1	500	11.63	35.190	26.83	5.05	85	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 180/64	8/11/64	1020 K	35 50 S	150 42 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	18	3	*	*	*	7	18	2	14	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.97	35.570	25.73	5.35	103	***	***	***
1	25	17.78	35.570	25.78	***	***	***	***	***
1	50	16.94	35.550	25.97	5.21	99	***	***	***
1	75	16.32	35.550	26.11	***	***	***	***	***
1	100	15.36	35.500	26.29	5.36	98	***	***	***
1	150	14.19	35.440	26.50	***	***	***	***	***
1	200	12.65	***	***	4.19	***	***	***	***
1	300	12.35	35.170	26.67	4.96	85	***	***	***
1	500	9.69	34.850	26.91	4.50	73	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 183/64	9/11/64	0515 K	36 25 S	150 09 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
55	***	***	00	0	*	*	*	7	00	0	14	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.08	35.530	25.92	5.31	101	***	***	***
1	10	16.92	35.570	25.99	5.36	101	***	***	***
1	20	16.74	35.570	26.03	***	***	***	***	***
1	30	16.71	35.570	26.04	5.42	102	***	***	***
1	40	16.50	35.520	26.05	***	***	***	***	***
1	50	16.37	35.550	26.10	5.27	99	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 7/ 184/64	9/11/64	0600 K	36 25 S	150 14 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
110	***	***	36	1	*	*	*	7	00	0	14	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.08	35.570	25.95	5.30	101	***	***	***
1	10	16.96	35.570	25.98	5.39	102	***	***	***
1	20	16.75	35.570	26.03	***	***	***	***	***
1	30	16.43	35.550	26.09	5.31	99	***	***	***
1	40	15.88	35.520	26.19	***	***	***	***	***
1	50	15.68	35.520	26.24	5.10	94	***	***	***
1	75	15.09	35.410	26.29	***	***	***	***	***
1	100	14.07	35.370	26.48	5.41	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 7/ 185/64	9/11/64	0655 K	36 25 S	150 19 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
155	***	***	02	2	*	*	*	7	02	1	14	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.02	35.570	25.72	5.18	100	***	***	***
1	10	16.98	35.570	25.97	5.36	102	***	***	***
1	20	16.88	35.570	26.00	***	***	***	***	***
1	30	16.50	35.610	26.12	5.41	102	***	***	***
1	40	15.98	35.520	26.17	***	***	***	***	***
1	50	15.51	35.460	26.23	5.56	102	***	***	***
1	75	15.04	35.430	26.31	***	***	***	***	***
1	100	14.30	35.550	26.57	5.39	97	***	***	***
1	150	14.14	35.430	26.51	5.36	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 186/64	9/11/64	0745 K	36 25 S	150 24 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
914	***	***	36	3	*	*	*	7	36	2	14	2	1015.0	45	15	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
2	0	18.35	35.570	25.64	5.18	101	***	***	***
2	25	17.90	35.570	25.75	***	***	***	***	***
2	50	14.80	35.640	26.07	5.33	101	***	***	***
2	75	17.04	35.550	25.94	***	***	***	***	***
2	95	15.03*	35.430*	26.31	5.36*	98	***	***	***
1	135	13.60*	35.430*	26.62	5.16*	91	***	***	***
1	230	13.28*	35.440*	26.70	5.16*	91	***	***	***
1	400	11.90*	35.250*	26.82	4.94*	84	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 187/64	9/11/64	0950 K	36 25 S	150 29 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	36	3	*	*	*	7	36	2	14	2	1015.0	20	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.30	35.640	25.71	5.05	98	***	***	***
1	25	18.17	35.610	25.71	***	***	***	***	***
1	50	18.10	35.590	25.72	5.02	97	***	***	***
1	75	14.47	35.500	26.04	***	***	***	***	***
1	100	15.08*	35.370*	26.26	4.56*	83	***	***	***
1	350	11.53*	35.140*	26.81	4.60*	78	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 190/64	14/11/64	0530 K	37 04 S	150 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
59	***	***	18	1	*	*	*	7	00	0	08	2	1022.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.65	35.520	26.01	5.40	102	***	***	***
1	10	15.69	35.410	26.15	5.33	98	***	***	***
1	20	14.54	35.430	26.42	***	***	***	***	***
1	30	14.31	35.430	26.47	5.15	92	***	***	***
1	40	14.21	35.430	26.49	***	***	***	***	***
1	50	14.19	35.430	26.50	5.25	94	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 191/64	14/11/64	0625 K	37 04 S	150 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
79	***	***	18	2	*	*	*	7	18	1	08	2	1022.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.43	35.530	25.83	5.36	102	***	***	***
1	10	17.12	35.550	25.93	5.35	102	***	***	***
1	20	16.11	35.500	26.12	***	***	***	***	***
1	30	15.05*	35.370*	26.26	5.29*	96	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 7/ 192/64	14/11/64	0720 K	37 04 S	150 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
95	***	***	18	2	*	*	*	7	18	1	08	2	1022.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.79	35.550	25.76	5.36	103	***	***	***
1	10	17.81	35.550	25.76	5.33	103	***	***	***
1	20	16.92	35.530	25.96	***	***	***	***	***
1	30	16.31	***	***	5.22	***	***	***	***
1	40	15.58	35.410	26.18	***	***	***	***	***
1	50	14.75	35.350	26.31	4.61	83	***	***	***
1	75	14.10	35.410	26.50	***	***	***	***	***
1	90	14.10	35.410	26.50	5.20	93	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 7/ 193/64	14/11/64	0815 K	37 04 S	150 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
115	***	***	16	2	*	*	*	7	16	1	08	2	1023.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.00	35.550	25.71	5.25	101	***	***	***
1	10	18.00	35.590	25.74	5.39	104	***	***	***
1	20	17.90	35.550	25.74	***	***	***	***	***
1	30	17.23	35.500	25.86	4.96	94	***	***	***
1	40	16.44	35.500	26.05	***	***	***	***	***
1	50	15.99	35.520	26.17	5.19	96	***	***	***
1	75	14.72	35.430	26.38	***	***	***	***	***
1	100	14.21	35.410	26.48	5.36	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 194/64	14/11/64	0910 K	37 04 S	150 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
238	***	***	16	1	*	*	*	7	16	1	08	2	1023.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.12	35.570	25.70	5.31	103	***	***	***
1	25	18.05	35.570	25.71	***	***	***	***	***
1	50	16.47	35.500	26.04	5.22	98	***	***	***
1	75	15.79	35.480	26.18	***	***	***	***	***
1	100	14.57	35.430	26.42	5.26	95	***	***	***
1	125	14.48	35.420+	26.43	***	***	***	***	***
1	150	14.18	35.410	26.48	5.10	91	***	***	***
1	175	13.98	35.430	26.54	***	***	***	***	***
1	200	13.85	35.460	26.59	5.30	94	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 7/ 195/64	14/11/64	1005 K	37 04 S	150 25 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1189	***	***	16	2	*	*	*	7	16	1	08	2	1022.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.10	35.530	25.67	5.33	103	***	***	***
1	25	17.45	35.500	25.81	***	***	***	***	***
1	50	16.01	35.500	26.15	5.27	98	***	***	***
1	75	14.32	35.340	26.40	***	***	***	***	***
1	100	14.17	35.370	26.45	5.46	98	***	***	***
1	150	13.86	35.430	26.57	***	***	***	***	***
1	200	13.27	35.390	26.66	5.05	89	***	***	***
1	420	11.69*	35.210*	26.83	5.59*	95	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 206/64	23/11/64	0530 K	35 50 S	150 17 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
60	***	***	32	1	*	*	*	7	32	1	14	3	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.02*	35.440	25.86	5.48	104	***	***	***
1	10	16.58	35.430	25.96	5.77	108	***	***	***
1	20	15.86	35.390	26.10	***	***	***	***	***
1	30	15.28	35.350	26.20	5.56	102	***	***	***
1	40	14.46	35.350	26.38	***	***	***	***	***
1	50	13.41	35.320	26.58	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 207/64	23/11/64	0620 K	35 50 S	150 22 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
113	***	***	27	2	*	*	*	7	27	1	14	3	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.15	35.530	25.66	5.26	102	***	***	***
1	10	18.22	35.530	25.64	5.30	103	***	***	***
1	20	18.19	35.520	25.64	***	***	***	***	***
1	30	18.19	35.520	25.64	5.24	102	***	***	***
1	40	18.09*	35.500*	25.65	*** *	***	***	***	***
1	50	16.97*	35.480*	25.91	***	***	***	***	***
1	75	14.75*	35.390*	26.35	***	***	***	***	***
1	100	13.53*	35.320*	26.55	4.80*	85	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 208/64	23/11/64	0715 K	35 50 S	150 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
128	***	***	27	2	*	*	*	7	27	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.55	35.570	25.59	5.15	101	***	***	***
1	10	18.52	35.550	25.58	5.15	101	***	***	***
1	20	18.56	35.570	25.59	***	***	***	***	***
1	30	18.32	35.570	25.65	5.20	101	***	***	***
1	40	16.66	35.520	26.01	***	***	***	***	***
1	50	15.89	35.500	26.18	4.87	90	***	***	***
1	75	14.95	35.460	26.36	***	***	***	***	***
1	100	14.39	35.460	26.48	4.80	86	***	***	***
1	125	14.38	35.440	26.46	4.92	88	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 209/64	23/11/64	0815 K	35 50 S	150 32 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
143	***	***	27	2	*	*	*	7	27	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.70	35.430	25.44	5.13	100	***	***	***
1	10	18.61	35.660	25.64	5.19	102	***	***	***
1	20	18.62	35.620	25.61	***	***	***	***	***
1	30	18.48	35.610	25.64	5.09	99	***	***	***
1	40	17.28	35.570	25.90	***	***	***	***	***
1	50	17.19*	35.550*	25.91	4.87*	93	***	***	***
1	84	15.81*	35.480*	26.18	4.58*	85	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
N 8/ 210/64	23/11/64	0915 K	35 50 S	150 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
549	***	***	32	2	*	*	*	7	32	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.45	35.570	25.61	5.24	102	***	***	***
1	25	18.13	35.610	25.73	***	***	***	***	***
1	50	16.74	35.570	26.03	5.11	96	***	***	***
1	75	16.02	35.550	26.18	***	***	***	***	***
1	100	15.83	35.550	26.23	4.78	88	***	***	***
1	150	14.60	35.430	26.41	***	***	***	***	***
1	200	14.32	35.430	26.47	5.03	90	***	***	***
1	300	13.27	35.350	26.63	5.09	89	***	***	***
1	500	9.44	34.830	26.93	4.59	74	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
N 8/ 211/64	23/11/64	1020 K	35 50 S	150 42 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1372	***	***	32	1	*	*	*	7	32	1	14	3	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.94	35.570	25.74	5.23	101	***	***	***
1	25	17.49	35.590	25.87	***	***	***	***	***
1	50	16.65	35.550	26.04	4.60	87	***	***	***
1	75	15.70	35.520	26.23	***	***	***	***	***
1	100	15.47	35.500	26.27	5.30	97	***	***	***
1	150	14.83	35.480	26.40	***	***	***	***	***
1	500	11.79*	35.120*	26.74	4.75*	80	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 8/ 214/64	24/11/64	0545 K	36 25 S	150 09 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
55	***	***	05	1	*	*	*	7	05	1	09	2	1022.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.80	35.460	25.93	5.37	101	***	***	***
1	10	16.57	35.460	25.99	5.45	102	***	***	***
1	20	15.32	35.480	26.29	***	***	***	***	***
1	30	14.59	35.390	26.38	5.14	93	***	***	***
1	40	14.11	35.370	26.47	***	***	***	***	***
1	50	14.06	35.370	26.48	4.32	77	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 8/ 215/64	24/11/64	0640 K	36 25 S	150 14 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
119	***	***	05	2	*	*	*	7	05	1	09	2	1021.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.05	35.430	25.85	5.34	101	***	***	***
1	10	17.05	35.440	25.86	5.40	102	***	***	***
1	20	16.50	35.440	25.99	***	***	***	***	***
1	100	13.80*	35.440*	26.59	4.75*	84	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 8/ 216/64	24/11/64	0730 K	36 25 S	150 19 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
159	***	***	05	3	*	*	*	7	05	1	09	2	1021.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.80	35.620	25.56	5.23	103	***	***	***
1	10	18.75	35.620	25.58	5.23	103	***	***	***
1	20	18.65	35.620	25.60	***	***	***	***	***
1	140	14.20*	35.370*	26.45	4.69*	84	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
K 8/ 217/64	24/11/64	0825 K	36 25 S	150 24 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
732	***	***	05	3	*	*	*	7	05	2	09	2	1021.0	20	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.34	35.570	25.64	5.31	103	***	***	***
1	25	18.14	35.660	25.76	***	***	***	***	***
1	50	17.82	35.590	25.79	5.28	102	***	***	***
1	75	17.36	35.570	25.88	***	***	***	***	***
1	89	16.42*	35.520*	26.07	4.61*	86	***	***	***
1	127	15.46*	35.480*	26.26	***	***	***	***	***
1	197	14.33*	35.350*	26.41	4.65*	83	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 218/64	24/11/64	0935 K	36 25 S	150 29 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	05	3	*	*	*	7	05	2	09	2	1021.0	40	0	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
2	0	18.85	35.620	25.55	5.19	102	***	***	***
2	25	18.69	35.620	25.59	***	***	***	***	***
2	50	18.65	35.620	25.60	5.14	101	***	***	***
2	75	17.27	35.570	25.90	***	***	***	***	***
1	147	15.76*	35.500*	26.20	4.58*	85	***	***	***
1	360	12.81*	35.340*	26.71	5.31*	92	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 221/64	27/11/64	0530 K	37 04 S	150 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
60	***	***	14	1	*	*	*	8	00	0	09	2	1013.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.04	35.480	25.89	5.37	102	***	***	***
1	10	16.93	35.460	25.90	5.34	101	***	***	***
1	20	16.15	35.440	26.07	***	***	***	***	***
1	30	15.35	35.410	26.23	5.37	98	***	***	***
1	40	15.19	35.440	26.29	***	***	***	***	***
1	50	15.08	35.460	26.33	5.40	98	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 222/64	27/11/64	0625 K	37 04 S	150 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
79	***	***	14	1	*	*	*	7	14	1	09	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.02	35.520	25.68	5.23	101	***	***	***
1	10	18.01	35.590*	25.74	5.26	102	***	***	***
1	20	17.99	35.530	25.70	***	***	***	***	***
1	30	17.40	35.500	25.82	5.23	100	***	***	***
1	40	15.95	35.460	26.13	***	***	***	***	***
1	50	15.23	35.430	26.27	5.40	99	***	***	***
1	70	14.80	35.570*	26.47	5.31	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 223/64	27/11/64	0725 K	37 04 S	150 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
101	***	***	06	1	*	*	*	7	06	1	09	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.06	35.520	25.67	5.17	100	***	***	***
1	10	18.10	35.480	25.63	5.23	101	***	***	***
1	20	18.07	35.520	25.67	***	***	***	***	***
1	30	18.08	35.570	25.71	5.20	101	***	***	***
1	40	16.95	35.520	25.94	***	***	***	***	***
1	50	15.72	35.480	26.20	4.78	88	***	***	***
1	75	14.30	35.480	26.51	***	***	***	***	***
1	90	14.22	35.500	26.54	5.26	94	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 224/64	27/11/64	0815 K	37 04 S	150 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
115	***	***	05	3	*	*	*	7	05	2	09	2	1014.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.06	35.550	25.70	5.28	102	***	***	***
1	10	18.09	35.550	25.69	5.28	102	***	***	***
1	20	18.07	35.520	25.67	***	***	***	***	***
1	30	18.02	35.520	25.68	5.23	101	***	***	***
1	40	17.55	35.520	25.80	***	***	***	***	***
1	50	16.57	35.480	26.00	4.97	93	***	***	***
1	75	14.83	35.460	26.38	***	***	***	***	***
1	100	14.21	35.480	26.53	5.23	94	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 225/64	27/11/64	0915 K	37 04 S	150 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
256	***	***	05	3	*	*	*	7	05	2	09	2	1014.0	15	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.81	35.660	25.59	5.20	102	***	***	***
1	25	18.72	35.660	25.61	***	***	***	***	***
1	50	18.29	35.570	25.65	5.30	103	***	***	***
1	75	16.17	35.440	26.06	***	***	***	***	***
1	100	15.32	35.440	26.26	5.03	92	***	***	***
1	125	14.75	35.480	26.41	***	***	***	***	***
1	150	14.47	35.640*	26.60	5.28	95	***	***	***
1	175	14.19	35.530	26.57	***	***	***	***	***
1	200	14.10	35.530	26.59	5.31	95	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 8/ 226/64	27/11/64	1010 K	37 04 S	150 25 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	05	3	*	*	*	7	05	2	09	2	1014.0	20	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.81	35.660	25.59	5.17	102	***	***	***
1	25	18.72	35.620	25.58	***	***	***	***	***
1	50	18.54	35.620	25.63	5.13	100	***	***	***
1	75	18.02	35.590	25.74	***	***	***	***	***
1	100	17.13	35.570	25.94	4.89	93	***	***	***
1	140	14.73*	35.430*	26.38	***	***	***	***	***
1	185	14.01*	35.440*	26.54	4.83*	86	***	***	***
1	370	11.67*	35.080*	26.73	4.75*	80	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 244/64	4/12/64	0520 K	35 50 S	150 17 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
66	***	***	32	1	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.11	35.440	25.84	5.53	105	***	***	***
1	10	17.13	35.480	25.87	5.50	104	***	***	***
1	20	16.79	35.480	25.95	***	***	***	***	***
1	30	16.31	35.480	26.06	5.30	99	***	***	***
1	40	15.98	35.480	26.14	***	***	***	***	***
1	50	15.50	35.460	26.23	4.94	91	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 9/ 245/64	4/12/64	0610 K	35 50 S	150 22 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
121	***	***	32	1	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.50	35.480	25.78	5.53	106	***	***	***
1	10	17.54	35.410	25.72	5.50	105	***	***	***
1	20	16.93	35.440	25.89	***	***	***	***	***
1	30	16.52	35.480	26.01	5.34	100	***	***	***
1	40	16.17	35.500	26.11	***	***	***	***	***
1	50	15.19	35.460	26.30	4.74	87	***	***	***
1	75	14.75	35.430	26.38	***	***	***	***	***
1	100	14.48	35.430	26.43	4.63	83	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 9/ 246/64	4/12/64	0700 K	35 50 S	150 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
132	***	***	30	1	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.24	35.550	25.65	5.22	101	***	***	***
1	10	18.05	35.590	25.73	5.25	102	***	***	***
1	20	18.01	35.530	25.69	***	***	***	***	***
1	30	17.46	35.530	25.83	5.33	102	***	***	***
1	40	16.74	35.500	25.98	***	***	***	***	***
1	50	15.53	35.480	26.24	5.44	100	***	***	***
1	75	14.17	35.430	26.50	***	***	***	***	***
1	100	13.74	35.390	26.56	5.33	94	***	***	***
1	125	13.41	35.320	26.57	4.99	88	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 247/64	4/12/64	0755 K	35 50 S	150 32 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
150	***	***	00	0	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.47	35.520	25.57	5.22	102	***	***	***
1	10	18.41	35.520	25.59	5.19	101	***	***	***
1	20	18.43	35.530	25.59	***	***	***	***	***
1	30	18.01	35.520	25.69	5.30	102	***	***	***
1	116	13.20*	35.370*	26.46	5.13*	90	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 248/64	4/12/64	0950 K	35 50 S	150 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1097	***	***	05	1	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.45	***	***	5.25	***	***	***	***
1	25	18.35	35.550	25.62	***	***	***	***	***
1	50	15.92	35.440	26.12	5.11	95	***	***	***
1	75	15.05	35.500	26.36	***	***	***	***	***
1	100	14.53	35.390	26.39	4.66	84	***	***	***
1	150	13.05*	35.170*	26.53	***	***	***	***	***
1	200	11.85	35.070	26.69	4.33	73	***	***	***
1	300	10.98	35.030	26.82	4.83	80	***	***	***
1	500	8.74	34.740	26.98	4.94	78	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 249/64	4/12/64	1000 K	35 50 S	150 42 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	05	1	*	*	*	7	16	2	09	2	1012.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.71	35.530	25.52	5.17	101	***	***	***
1	25	18.38	35.530	25.60	***	***	***	***	***
1	50	15.58	35.500	26.25	5.13	94	***	***	***
1	75	14.65	35.430	26.40	***	***	***	***	***
1	100	13.70	35.350	26.54	5.16	91	***	***	***
1	150	12.72	35.170	26.60	***	***	***	***	***
1	200	12.08	35.140	26.70	4.49	77	***	***	***
1	300	10.69	35.010	26.82	4.38	73	***	***	***
1	432	9.35*	34.790*	26.92	4.43*	71	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 252/64	5/12/64	0510 K	36 25 S	150 09 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
59	***	***	09	1	*	*	*	7	09	2	09	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.74	35.500	25.74	5.30	102	***	***	***
1	10	17.55	35.480	25.77	5.28	101	***	***	***
1	20	16.98	35.440	25.87	***	***	***	***	***
1	30	16.28	35.500	26.08	5.28	99	***	***	***
1	40	16.17	***	***	***	***	***	***	***
1	50	16.12	35.440	26.08	5.33	99	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 253/64	5/12/64	0600 K	36 25 S	150 14 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
123	***	***	00	0	*	*	*	7	09	2	09	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.45	35.390*	25.72	5.33	102	***	***	***
1	10	17.45	35.430	25.75	5.30	101	***	***	***
1	20	17.39	35.430	25.77	***	***	***	***	***
1	30	16.56	35.430	25.97	5.36	101	***	***	***
1	40	16.29	35.430	26.03	***	***	***	***	***
1	50	15.97	35.430	26.10	5.30	98	***	***	***
1	75	15.52	35.530	26.28	***	***	***	***	***
1	100	15.25	35.520	26.33	5.28	97	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 254/64	5/12/64	0655 K	36 25 S	150 19 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
174	***	***	36	1	*	*	*	7	09	2	09	2	1008.0	0	0	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.02	35.520	25.68	5.28	102	***	***	***
1	10	18.00	35.530	25.70	5.28	102	***	***	***
1	20	18.03	35.530	25.69	***	***	***	***	***
1	30	17.98	35.530	25.70	5.33	103	***	***	***
1	40	16.94	35.500	25.93	***	***	***	***	***
1	50	16.75	35.500	25.97	5.08	96	***	***	***
1	75	15.90	35.460	26.14	***	***	***	***	***
2	100	14.91	35.530	26.42	5.30	96	***	***	***
2	150	14.54	35.520	26.49	5.28	95	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 255/64	5/12/64	0800 K	36 25 S	150 24 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
914	***	***	36	2	*	*	*	7	09	2	09	2	1008.0	0	0	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.80	35.550	25.51	5.10	100	***	***	***
1	25	18.66	35.530	25.53	***	***	***	***	***
1	50	16.09	35.520	26.15	4.60	86	***	***	***
1	75	15.44	35.500	26.28	***	***	***	***	***
1	100	15.00	35.460	26.34	4.84	88	***	***	***
1	150	14.30	35.440	26.48	***	***	***	***	***
1	200	13.64	35.350	26.55	4.85	86	***	***	***
2	300	12.95	35.300	26.65	5.01	87	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 256/64	5/12/64	0910 K	36 25 S	150 29 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	36	2	*	*	*	7	36	2	09	2	1006.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.11	35.620	25.48	5.08	100	***	***	***
1	25	18.92	35.610	25.53	***	***	***	***	***
1	50	16.49	35.480	26.02	5.22	98	***	***	***
1	75	15.24	35.460	26.29	***	***	***	***	***
1	100	14.69	35.460	26.41	4.95	89	***	***	***
1	150	13.97	35.430	26.54	***	***	***	***	***
1	200	13.45	35.350	26.59	4.89	86	***	***	***
1	300	12.50	35.230	26.69	4.97	86	***	***	***
1	500	10.41*	34.920*	26.84	4.71*	77	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 259/64	8/12/64	0550 K	37 04 S	150 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
64	***	***	36	2	*	*	*	7	36	2	09	2	1016.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	14.69	35.430	25.94	5.40	102	***	***	***
1	10	14.29	35.550	26.12	5.43	101	***	***	***
1	20	14.08	35.550	26.17	***	***	***	***	***
1	30	14.04	35.530	26.16	5.39	100	***	***	***
1	40	13.98	35.530	26.18	***	***	***	***	***
1	50	13.97	35.530	26.18	5.43	101	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 260/64	8/12/64	0645 K	37 04 S	150 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
82	***	***	36	3	*	*	*	7	36	2	09	2	1016.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	14.00	35.530	26.17	5.43	101	***	***	***
1	10	15.99	35.550+	26.19	5.44	101	***	***	***
1	20	15.93	35.570	26.22	***	***	***	***	***
1	30	15.90	35.570	26.23	5.43	101	***	***	***
1	40	15.72	35.550	26.25	***	***	***	***	***
1	50	15.67	35.530	26.25	5.39	99	***	***	***
1	70	15.65	35.530	26.25	5.38	99	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 261/64	8/12/64	0750 K	37 04 S	150 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
99	***	***	36	4	*	*	*	7	36	2	09	2	1016.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.76	35.530	26.23	5.43	100	***	***	***
1	10	15.76	35.550	26.24	5.53	102	***	***	***
1	20	15.68	35.500	26.22	***	***	***	***	***
1	30	15.56	35.530	26.27	5.53	102	***	***	***
1	40	15.56	35.570	26.30	***	***	***	***	***
1	50	15.55	35.530	26.27	5.50	101	***	***	***
1	75	15.57	35.530	26.27	***	***	***	***	***
1	90	15.58	35.530	26.27	5.43	100	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 262/64	8/12/64	0850 K	37 04 S	150 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
117	***	***	36	3	*	*	*	7	36	3	09	2	1016.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.64	35.520	26.25	5.47	101	***	***	***
1	10	15.62	35.500	26.24	5.40	99	***	***	***
1	20	15.53	35.530	26.28	***	***	***	***	***
1	30	15.42	35.530	26.30	5.49	101	***	***	***
1	40	15.33*	35.530*	26.32	***	***	***	***	***
1	70	15.26*	35.570*	26.37	5.44*	100	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 9/ 263/64	8/12/64	1000 K	37 04 S	150 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
229	***	***	36	3	*	*	*	7	36	3	09	2	1015.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.55	***	***	5.47	***	***	***	***
1	25	15.44	35.500	26.28	***	***	***	***	***
1	50	15.28	***	***	5.49	***	***	***	***
1	75	15.12	35.550	26.39	***	***	***	***	***
1	100	15.02	35.610	26.46	5.49	100	***	***	***
1	125	14.56	35.610	26.56	***	***	***	***	***
1	150	14.61	35.570	26.51	5.42	98	***	***	***
1	175	14.59	***	***	***	***	***	***	***
1	200	14.55	***	***	5.44	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 270/64	14/12/64	1300 K	35 50 S	150 42 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
***	***	***	14	2	*	*	*	7	14	1	14	3	1005.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.82	35.660	25.59	5.21	102	***	***	***
1	25	18.10	35.640	25.75	***	***	***	***	***
1	50	17.60	35.680	25.91	5.23	100	***	***	***
1	75	15.43	35.550	26.32	***	***	***	***	***
1	100	14.37	35.550	26.55	4.83	87	***	***	***
1	150	13.66	35.460	26.63	***	***	***	***	***
1	200	13.23	35.430	26.70	4.99	87	***	***	***
1	300	12.01	35.250	26.80	4.85	83	***	***	***
1	500	9.80	34.940	26.96	4.77	77	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 271/64	14/12/64	1400 K	35 50 S	150 37 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1006	***	***	14	2	*	*	*	7	14	1	14	3	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.33	35.660	25.71	5.23	102	***	***	***
1	25	17.77	35.660	25.85	***	***	***	***	***
1	50	17.63	35.660	25.89	5.23	100	***	***	***
1	75	16.92	35.570	26.22	***	***	***	***	***
1	100	14.64	35.520	26.47	5.10	92	***	***	***
1	150	13.71	35.480	26.64	***	***	***	***	***
1	200	13.16	35.430	26.71	5.03	88	***	***	***
1	300	12.02	35.260	26.81	4.92	84	***	***	***
1	500	9.81	34.940	26.96	4.65	75	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 272/64	14/12/64	1500 K	35 50 S	150 32 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
157	***	***	09	2	*	*	*	7	09	1	14	3	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.76	35.660	25.61	5.19	102	***	***	***
1	10	18.01	35.660	25.79	5.26	102	***	***	***
1	20	18.02	35.660	25.79	***	***	***	***	***
1	30	17.66	35.620	25.85	5.23	100	***	***	***
1	40	16.73	35.570	26.03	***	***	***	***	***
1	50	15.74	35.550	26.25	5.37	99	***	***	***
1	75	15.15	35.610	26.43	***	***	***	***	***
1	100	15.06	35.680	26.50	5.41	99	***	***	***
1	125	14.96	35.680	26.52	5.39	98	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 273/64	14/12/64	1550 K	35 50 S	150 27 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
137	***	***	09	2	*	*	*	7	09	1	14	3	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.73	35.660	25.61	5.19	102	***	***	***
1	10	18.29	35.710	25.76	5.20	101	***	***	***
1	20	18.23	35.710	25.78	***	***	***	***	***
1	30	16.86	35.620	26.04	5.35	101	***	***	***
1	40	15.54	35.530	26.28	***	***	***	***	***
1	50	15.45	35.550	26.31	5.45	100	***	***	***
1	75	15.48	35.610	26.35	***	***	***	***	***
1	100	15.43	35.610	26.36	5.38	99	***	***	***
1	125	15.39	35.610	26.37	5.41	99	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 274/64	14/12/64	1645 K	35 50 S	150 22 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
123	***	***	09	2	*	*	*	7	09	1	14	3	1004.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	18.33	35.640	25.70	5.18	101	***	***	***
1	10	17.27	35.620	25.94	5.33	102	***	***	***
1	20	16.61	35.610	26.09	***	***	***	***	***
1	30	16.41	35.610	26.14	5.34	100	***	***	***
1	40	16.23	35.590	26.16	***	***	***	***	***
1	50	16.06	35.640	26.24	5.38	100	***	***	***
1	75	15.74	35.620	26.30	***	***	***	***	***
1	100	15.62	35.620	26.33	5.40	100	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 275/64	14/12/64	1740 K	35 50 S	150 17 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
84	***	***	09	1	*	*	*	7	09	1	14	3	1005.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.53	35.550	25.83	5.38	103	***	***	***
1	10	17.12	35.550	25.93	5.31	101	***	***	***
1	20	16.89	35.570	26.00	***	***	***	***	***
1	30	16.70	35.590	26.06	5.17	97	***	***	***
1	40	16.29	35.590	26.15	***	***	***	***	***
1	50	16.12	35.590	26.19	5.16	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 283/64	17/12/64	0540 K	37 04 S	150 00 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
62	***	***	23	2	*	*	*	7	21	1	14	2	1006.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.95	35.660	26.29	5.42	101	***	***	***
1	10	15.95	35.640	26.27	5.44	101	***	***	***
1	20	15.96	***	***	***	***	***	***	***
1	34	15.78*	35.680*	26.34	5.44*	101	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 10/ 284/64	17/12/64	0630 K	37 04 S	150 05 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
81	***	***	20	3	*	*	*	7	20	2	14	2	1006.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.99	35.610	26.24	5.49	102	***	***	***
1	10	15.99	35.610	26.24	5.48	102	***	***	***
1	20	15.95	35.620	26.25	***	***	***	***	***
1	30	15.92	35.590	26.26	5.35	99	***	***	***
1	40	15.75	35.610	26.29	***	***	***	***	***
1	50	15.68	35.620	26.32	5.33	98	***	***	***
1	70	15.66	35.610	26.31	5.35	99	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 10/ 285/64	17/12/64	0730 K	37 04 S	150 10 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
97	***	***	20	3	*	*	*	7	20	2	14	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.96	35.530+	26.18	5.51	102	***	***	***
1	10	16.04	35.530	26.16	5.63	105	***	***	***
1	20	16.03	35.610	26.23	***	***	***	***	***
1	30	15.99	35.610	26.24	5.52	103	***	***	***
1	40	16.04	35.570	26.20	***	***	***	***	***
1	50	16.01	35.590	26.22	5.47	102	***	***	***
1	75	15.66	35.570	26.28	***	***	***	***	***
1	90	15.56	35.590	26.32	5.34	98	***	***	***

* PROPERTY DOUBTFUL
\+ PROPERTY INTERPOLATED

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 286/64	17/12/64	0825 K	37 04 S	150 15 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
119	***	***	20	3	*	*	*	7	20	2	14	2	1007.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.84	35.610	26.27	5.48	102	***	***	***
1	10	15.88	35.570	26.23	5.52	102	***	***	***
1	20	15.85	35.590	26.25	***	***	***	***	***
1	30	15.80	35.590	26.27	5.45	101	***	***	***
1	40	15.73	35.570	26.27	***	***	***	***	***
1	50	15.70	35.590	26.29	5.43	100	***	***	***
1	75	15.60	35.530	26.26	***	***	***	***	***
1	100	15.54	35.590	26.32	5.31	98	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
M 10/ 287/64	17/12/64	0915 K	37 04 S	150 20 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	WIRE ANGLES CAST3
229	***	***	20	2	*	*	*	7	18	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	15.99	35.570	26.21	5.52	103	***	***	***
1	25	15.89	35.570	26.23	***	***	***	***	***
1	50	15.82	35.590	26.26	5.51	102	***	***	***
1	75	15.68	35.570	26.28	***	***	***	***	***
1	100	15.32	35.550	26.34	5.34	98	***	***	***
1	125	15.26	35.530	26.34	***	***	***	***	***
1	150	14.68	35.570	26.50	5.39	97	***	***	***
1	175	14.63	35.610	26.54	***	***	***	***	***
1	200	13.71	35.550	26.69	5.41	96	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
P 10/ 288/64	17/12/64	1015 K	37 04 S	150 25 E

SONIC DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SP.	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
1097.	***	***	18	1	*	*	*	7	18	2	14	2	1008.0	0	*	*

CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	16.26	35.550	26.13	5.66	106	***	***	***
1	25	16.13	35.530	26.14	***	***	***	***	***
1	50	15.98	35.530	26.18	5.48	102	***	***	***
1	75	15.68	35.530	26.25	***	***	***	***	***
1	100	15.32	35.550	26.34	5.45	100	***	***	***
1	150	15.13	35.570	26.40	***	***	***	***	***
1	200	13.77	35.520	26.65	5.31	94	***	***	***
1	300	11.45	35.160	26.84	5.16	87	***	***	***
1	500	9.58	34.880	26.95	4.96	80	***	***	***

OCEANOGRAPHICAL STATION LISTS

1. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1938–39
2. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1940–42
3. Hydrological and plantological obskervations by F.R.V. *Warreen* in south-western Australian waters, 1947–50
4. Onshore hydrological investigations in eastern Australia, 1942–50
5. Estuarine hydrological investigations in eastern Australia, 1940–50. Queensland: Nerang and Coomera Rivers, Moreton Bay and Brisbane River, Logan River, Dunwich Oyster Lease; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Tilligerry Creek, Hawkesbury River
6. Estuarine hydrological investigations in eastern Australia, 1940–50. New South Wales: Middle Harbour and Port Jackson, Georges River–Botany Bay
7. Estuarine hydrological investigations in eastern Australia, 1940–50. New South Wales: Port Hacking, Lake Illawarra, Shoalhaven River, Jervis Bay, Clyde River, Moruya River, Tuross River, Wagonga Inlet; Victoria: Port Phillip; Tasmania: Tamar River, Derwent River, Huon River, D'Entrecasteaux Channel, Pittwater, Lake Dobson (freshwater), Penna Dam (freshwater)
8. Hydrological investigations in south-western Australia, 1944–50
9. Records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1942–50. Queensland: Logan River; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Hawkesbury River, Georges River, Port Hacking, Clyde River, Tuross River; Tasmania: Tamar River, Derwent River
10. Records of twenty-four hourly hydrological observations at Shell Point, Georges River, New South Wales, 1942–50
11. Analyses of bottom deposits in eastern Australia, 1946–50
12. Estuarine hydrological investigations in eastern and south-western Australia, 1951
13. Analysis of bottom deposits in eastern and south-western Australia, 1951 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1951
14. Onshore hydrological investigations in eastern and south-western Australia, 1951
15. Estuarine hydrological investigations in eastern and south-western Australia, 1952
16. Analysis of bottom deposits in eastern and south-western Australia, 1952 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1952
17. Onshore hydrological investigations in eastern and south-western Australia, 1952
18. Onshore hydrological investigations in eastern and south-western Australia, 1953
19. Onshore planktological investigations in eastern Australia, 1945–54
20. Surface sampling in the Tasman Sea, 1953
21. Estuarine hydrological investigations in eastern and south-western Australia, 1953
22. Further onshore planktological investigations in eastern Australia, 1945–54
23. Planktological investigations made by F.R.V. *Derwent Hunter* in eastern Australian waters, 1952–54
24. Onshore hydrological investigations in eastern and south-western Australia, 1954
25. Surface sampling in the Tasman Sea, 1954
26. Estuarine hydrological investigations in eastern and south-western Australia, 1954
27. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1955
28. Surface sampling in the Tasman and Coral Seas, 1955
29. Estuarine hydrological investigations in eastern and south-western Australia, 1955
30. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1956
31. Surface sampling in the Tasman and Coral Seas and the south-eastern Indian Ocean, 1956
32. Estuarine hydrological investigations in eastern and south-western Australia, 1956
33. Coastal hydrological investigations in eastern and south-western Australia, 1957
34. Coastal hydrological investigations at Port Hacking, New South Wales, 1957
35. Coastal hydrological investigations at Eden, New South Wales, 1957

OCEANOGRAPHICAL STATION LISTS

(Continued)

36. Surface sampling in the Tasman and Coral Seas, 1957
37. Hydrological investigations from F.R.V. *Derwent Hunter*, 1957
38. Coastal hydrological investigations in the New South Wales tuna fishing area, 1958
39. Surface sampling in the Coral and Tasman Seas, 1958
40. Coastal hydrological investigations in south-eastern Australia, 1958
41. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1958
42. Coastal investigations at Port Hacking, New South Wales, 1958
43. Oceanic investigations in eastern Australia, H.M.A. Ships *Queenborough*, *Quickmatch*, and *Warrego*, 1958
44. Oceanic observations in Antarctic waters, M.V. *Magga Dan*, 1959
45. Coastal hydrological investigations in eastern Australia, 1959
46. Coastal hydrological investigations in the New South Wales tuna fishing area, 1959
47. Coastal investigations at Port Hacking, New South Wales, 1959
48. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1959
49. Coastal hydrological sampling Rottnest Island, W.A., and Port Moresby, Papua, during the I.G.Y. (1957–58), and surface sampling in the Tasman and Coral Seas, 1959
50. Surface sampling in the Coral and Tasman Seas, 1960
51. Coastal hydrological investigations in eastern Australia, 1960
52. Coastal investigations at Port Hacking, New South Wales, 1960
53. Coastal hydrological investigations in the New South Wales tuna fishing area, 1960
54. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1961
55. Investigations by F.R.V. *Weerutta* on the South Australian tuna grounds in 1961
56. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1961
57. Investigations by F.V. *Estelle Star* in Western Australian waters in 1961
58. Temperature observations from Australian tuna fishing vessels in 1961
59. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1962
60. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1962
61. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1962
62. Investigations by F.V. *Estelle Star* in Western Australian waters in 1962
63. Temperature and salinity observations from Australian tuna fishing vessels in 1962
64. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1963
65. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1963
66. Temperature and salinity observations from Australian tuna fishing vessels in 1963
67. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1964
68. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1964