

OCEANOGRAPHICAL STATION LIST

VOLUME 86

COASTAL INVESTIGATIONS OFF PORT HACKING,
NEW SOUTH WALES, IN 1966

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1970

DIVISION OF FISHERIES AND OCEANOGRAPHY

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To
Recipients of Oceanographical Cruise Reports
and Oceanographical Station Lists

Dear Colleague,

We now send to World Data Centres A and B (Washington and Moscow) all the data we publish in Oceanographical Cruise Reports and Oceanographical Station Lists.

Therefore we propose to discontinue the Reports and Lists, but we shall continue to send the data to the Centres. Please tell me if this would greatly inconvenience your work.

The operation of World Data Centres is described in Intergovernmental Oceanographic Commission Technical Series Number 4 (1967) Unesco, Paris.

Yours sincerely,

G.F. HUMPHREY
Chief of Division

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AUSTRALIA

MELBOURNE, 1970

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When citing this station list, abbreviate as follows:
CSIRO Aust. Oceanogr. Stn List 86.

OCEANOGRAPHICAL STATION LIST

VOLUME 86

Coastal Investigations off Port Hacking,
New South Wales, in 1966

I. INTRODUCTION

This report records the data collected during the regular working of two stations off Port Hacking by M.V. Saga in 1966. The position of the Port Hacking 50 m station is latitude $34^{\circ}05'00''$ S. and longitude $151^{\circ}12'30''$ E.; the depth of water is 50-60 m. The 100 m station is latitude $34^{\circ}05'00''$ S. and longitude $151^{\circ}15'30''$ E.; the depth of water is 100-120 m. During January and February some deeper stations were worked on an extension of this section. Their positions are listed with their data.

II. METHODS OF COLLECTION AND ANALYSIS OF SAMPLES

1. Physics

Temperature.—Water temperatures were taken with deep-sea reversing thermometers, and readings were corrected for thermal expansion.

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

2. Chemistry

Chlorinity.—A chlorinity-temperature meter of the conductivity type (Hamon 1956) was used to measure chlorinity.

Dissolved Oxygen.—A version of the standard Winkler method was used to determine the amount of dissolved oxygen in the sea-water 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 were computed using the simpler of the equations given by Richards and Corwin (1956) -

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

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

Standard phosphate solutions were made up in distilled water. At air temperatures less than 25°C, analyses were carried out in batches of 10; readings were begun within 10 min of adding reagents, and completed within 10 min. At air temperatures greater than 25°C, batches of 6 were analysed; readings were begun within 5 min of adding reagents, and completed within 7 min. Each batch was compared with a distilled water blank and a 0.65 µg-atom/l standard in a Hilger Spekker absorptiometer using 4 cm cells and Ilford 608 filters. Each day a complete calibration was made using standards up to 3.25 µg-atom/l. Results are given as µg-atom/l with no correction for salt error and are precise to +10% for values less than 0.5 µg-atom/l and +5% for higher values. To correct for salt effects the results given should be multiplied by 1.15.

Total Phosphorus.—100 ml samples were drawn from the Nansen bottles into 150 ml Pyrex conical flasks, 0.2 ml of 72% v/v perchloric acid was added, and digestion at 200°–250°C carried out immediately on a sand tray. After evaporation of water, heating was continued until fuming of the salt residue commenced. The samples were then allowed to cool and 100 ml of distilled water and 2 drops of 2% w/v phenolphthalein were added. If alkaline, perchloric acid was added until a slight acidity persisted. The flasks were allowed to stand for about 24 hr to allow the salts to dissolve. Phosphate was then determined as described above for inorganic phosphate. Results are given as µg-atom/l with no correction for salt error. To correct for salt effects the results given should be multiplied by 1.15.

Nitrate.—After collection, water samples were stored in plastic bottles and preserved with 2 drops of saturated HgCl₂. Nitrate was determined by the strychnidine method (Rochford 1947). The reagent was prepared by adding 0.64 g of strychnidine to a litre of nitrate-free sulphuric acid. Five ml of this reagent were added, without agitation, to 5 ml of seawater or standard nitrate solution, after previously cooling to approx. 5°C. The standards were made up in artificial seawater preserved with 20 ml/l of saturated HgCl₂. The standards and samples were allowed to stand undisturbed for 18 hr to develop the colour. The solutions were read in a Unicam SP

600 spectrophotometer at a wavelength of 530 μ using a 5 mm cell. Solutions with an absorbance greater than that of the standard corresponding to 7.1 μ g-atom/l were diluted with a mixture of equal volumes of artificial sea-water and sulphuric acid before reading. Results are given in μ g-atom/l.

3. Phytoplankton

Water samples, 4 l. each, were collected with a Van Dorn sampler at 0, 10, 20, 30, 50, 75, and 100 m. Samples from 0, 10, and 20 m, 30 and 50 m, and 75 and 100 m respectively were combined before further preparation. The combined samples are referred to as surface (S), intermediate (I), and bottom (B) respectively. Samples were collected at weekly intervals at the same time as the station was occupied for hydrological sampling.

After return to shore (an interval not exceeding 180 min) the samples were concentrated in a continuous centrifuge (Davis 1957) and the sedimented organisms resuspended in an aliquot of sea-water previously filtered through a membrane filter of pore size 0.45 μ . Subsamples of 1-5 ml were examined in a gridded chamber at 250X and identification and counts were made. Species requiring more detailed examination were removed with a micro-pipette and wet mounts were examined under higher magnification. Where there was doubt on identification at species level, classification at the generic level was used. The number of organisms counted varied from 0-500, and where numbers were high subsamples were taken after dilution. This reduces the accuracy of the estimate of the rare species present more drastically than it does the accuracy of the estimate of the abundant species.

Identifications were made with the aid of the following references: Wood (1959), Schiller (1933), Hendley (1964) and Allen and Cupp (1935). The names used are those of Wood (1963a, 1963b).

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III. DATA

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

. DATA
PART 1
HYDROLOGY

EXPLANATION OF HEADINGS

<u>Part 1</u>	<u>Hydrology</u>
DATE	Given as day/month/year
TIME	Given in Zone Time, and is the time at the beginning of the first cast. The code letter for the time zone follows the time. Zone Time in all cases was Eastern Australian Standard Time, GMT +10 hr, Code K
LATITUDE LONGITUDE	Given in degrees and minutes
DEPTH	Sampling depth given in metres
TEMP.	Sea temperatures recorded in °C
CHLORINITY	Given in parts per thousand
SIGMA-T	Sigma-t to 2 decimal places
OXYGEN	Given in ml/l
OXYGEN % SAT.	Oxygen percentage saturation
I.P.	Inorganic phosphorus given in $\mu\text{g-atom/l}$
TOTAL P	Total phosphorus given in $\mu\text{g-atom/l}$
NITRATE	Given in $\mu\text{g-atom/l}$

*** or a blank indicates no data available

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	4/ 1/66		34 6 S	151 31 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.83	19.69	24.43	4.96	101	0.14	***	0.32	0.5
25	22.49	19.71	24.56	5.17	105	0.12	***	0.33	0.2
50	19.89	19.72	25.28	5.09	98	0.16	***	0.35	0.3
75	16.85	19.70	25.53	4.64	88	0.33	***	0.45	2.0
100	17.52	19.67	25.61	4.53	83	0.48	***	0.66	4.4
125	16.48	19.64	26.03	4.54	82	0.49	***	0.63	5.3
150	15.75	19.61	26.16	4.53	80	0.53	***	0.72	6.5
175	14.59	19.57	26.35	4.59	80	***	***	0.78	11.1
200	14.25	19.56	26.42	4.74	82	0.62	***	0.79	7.3
225	13.64	19.55	26.52	4.93	84	0.60	***	0.74	7.5
250	12.99	19.47	26.55	4.80	80	0.69	***	0.84	9.3
275	12.44	19.46	26.64	4.82	80	0.77	***	0.89	11.1
300	11.95	19.43	26.60	4.74	78	0.80	***	0.97	12.3

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	6/ 1/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.93	19.67	24.66	5.06	101	0.13	***	0.35	0.3
10	21.19	19.67	24.87	5.23	103	0.15	***	0.41	0.2
20	18.15	19.63	25.61	4.89	91	0.35	***	0.58	1.3
30	17.20	19.63	25.84	4.50	82	0.45	***	0.67	2.7
40	16.70	19.63	25.96	4.61	83	0.45	***	0.68	3.3
450	16.24	19.63	26.06	4.24	76	0.56	***	0.72	5.6

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	6/ 1/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.89	19.67	24.67	5.10	102	0.17	***	0.39	0.5
10	21.68	19.67	24.68	5.21	104	0.12	***	0.38	0.3
20	19.98	19.69	25.22	5.47	106	0.14	***	0.35	0.1
30	16.63	19.67	25.54	5.52	104	0.20	***	0.39	0.1
40	17.54	19.67	25.81	4.67	86	0.39	***	0.57	2.7
50	17.03	19.66	25.92	4.52	82	0.47	***	0.61	4.2
75	15.78	19.62	26.15	4.42	79	0.57	***	0.70	6.0
100	15.51	19.60	26.20	4.14	73	0.62	***	0.80	7.9

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	14/ 1/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.05	19.68	24.92	5.51	109	0.19	***	0.40	0.4
10	18.49	19.64	25.54	6.14	115	0.24	***	0.56	0.3
20	17.32	19.62	25.80	5.48	100	0.27	***	0.64	1.0
30	16.37	19.61	26.01	4.80	86	0.48	***	0.73	4.2
40	15.69	19.60	26.15	4.29	76	0.62	***	0.80	6.7
50	15.33	19.59	26.21	4.22	74	0.67	***	0.86	7.7

STATION DATE TIME LATITUDE LONGITUDE
 PT HACKING 1966 14/ 1/66 34 5 S 151 15 E

DEPTH TEMP. CHLORINITY SIGMA-T OXYGEN OXYGEN % SAT. I.P. PART P TOTAL P NITRATE

0	22.60	19.71	24.53	5.07	103	0.14	***	0.28	0.3
10	21.20	19.69	24.50	5.16	102	0.16	***	***	0.4
20	19.24	19.65	25.35	5.31	101	0.27	***	0.62	1.0
30	16.36	19.62	26.02	4.78	86	0.45	***	0.73	3.4
40	15.96	19.62	26.12	4.26	76	0.56	***	0.76	5.7
50	15.65	19.61	26.18	4.07	72	0.66	***	0.76	6.8
75	14.45	19.56	26.37	4.29	74	0.71	***	0.80	8.2
100	13.32	19.50	26.52	4.41	74	0.80	***	0.86	9.9

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STATION DATE TIME LATITUDE LONGITUDE
 PT HACKING 1966 14/ 1/66 34 5 S 151 17 E

DEPTH TEMP. CHLORINITY SIGMA-T OXYGEN OXYGEN % SAT. I.P. PART P TOTAL P NITRATE

0	22.79	19.71	24.48	5.05	103	0.12	***	***	0.5
25	16.48	19.64	25.44	5.31	100	0.35	***	***	0.7
50	15.59	19.60	26.18	4.04	71	0.68	***	***	6.4
75	14.73	19.57	26.32	4.15	72	0.72	***	***	8.3
100	12.98	19.48	26.56	4.47	75	0.80	***	***	9.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	14/ 1/66		34 6 S	151 25 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.65	19.72	24.47	5.05	103	0.13	***	***	0.4
25	21.56	19.71	24.82	5.14	102	0.16	***	***	1.0
50	18.39	19.68	25.62	4.65	87	0.38	***	***	1.7
75	17.47	19.68	25.84	4.84	89	0.31	***	***	1.4
100	16.27	19.63	26.07	4.27	77	0.55	***	***	5.5
125	15.87	19.50	26.27	4.24	74	0.69	***	***	7.2
155	14.66	19.57	26.33	4.27	74	0.69	***	***	7.1

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	14/ 1/66		34 6 S	151 31 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.60	19.72	24.55	5.02	102	0.14	***	0.23	0.2
25	21.23	19.71	24.91	5.20	103	0.13	***	0.30	0.2
50	17.93	19.67	25.71	4.16	77	0.47	***	0.50	3.5
75	16.80	19.67	25.97	4.54	82	0.44	***	0.47	3.6
100	16.14	19.63	26.10	4.41	79	0.53	***	0.66	5.6
125	14.30	19.55	26.38	4.37	75	0.66	***	0.74	8.4
150	12.71	19.46	26.50	4.51	75	0.77	***	***	10.8
175	12.73	19.46	26.50	4.53	75	0.76	***	0.90	11.3
200	12.33	19.45	26.65	4.71	78	0.79	***	0.90	11.4
225	11.92	19.42	26.60	4.60	75	0.86	***	0.97	12.1
250	11.34	19.38	26.74	4.54	73	0.92	***	1.06	13.0
275	10.81	19.34	26.78	4.56	73	0.96	***	1.09	13.8
300	10.51	19.32	26.81	4.62	73	1.02	***	1.06	14.3

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 1/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.41	19.65	25.95	5.36	104	0.20	***	0.50	0.5
10	19.63	19.63	25.24	5.50	105	0.23	***	0.56	0.5
20	17.67	19.62	25.72	5.16	95	0.35	***	0.63	1.1
30	16.48	19.62	25.90	4.84	84	0.45	***	0.68	2.4
40	16.03	19.60	26.08	4.35	78	0.56	***	0.80	4.8
50	15.30	19.59	26.23	4.08	72	0.70	***	0.83	6.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 1/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.34	19.66	24.81	5.11	101	0.20	***	0.34	0.5
10	21.00	19.68	24.93	5.25	103	0.21	***	0.40	0.3
20	19.45	19.66	25.32	5.44	104	0.21	***	0.41	0.4
30	17.34	19.64	25.61	5.01	92	0.40	***	0.63	1.7
40	15.92	19.61	26.11	4.20	75	0.60	***	0.77	6.7
50	15.56	19.61	26.19	4.10	72	0.67	***	0.86	7.3
75	14.69	19.57	26.33	4.15	72	0.71	***	0.90	9.3
100	13.42	19.50	26.51	4.32	73	0.78	***	0.91	10.3

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 2/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.09	19.67	24.89	5.32	105	0.20	***	0.32	0.2
10	20.63	19.67	24.97	5.35	105	0.17	***	0.39	0.3
20	18.57	19.63	25.51	4.75	89	0.34	***	0.51	2.3
30	17.47	19.61	25.75	4.44	82	0.44	***	0.54	3.4
40	15.98	19.60	26.09	4.11	73	0.57	***	0.67	5.9
50	15.10	19.58	26.26	3.98	70	0.67	***	0.76	8.1

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 2/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.78	19.67	24.70	5.06	101	0.24	***	0.40	0.4
10	21.30	19.67	24.81	5.16	102	0.20	***	0.49	0.3
20	20.79	19.67	24.98	5.05	99	0.20	***	0.36	0.5
30	18.00	19.64	25.66	4.61	86	0.40	***	0.53	2.1
40	16.26	19.61	26.03	4.09	73	0.55	***	0.68	5.1
50	15.40	19.59	26.20	3.85	68	0.65	***	0.76	7.0
75	13.69	19.52	26.44	4.27	73	0.74	***	0.81	9.1
100	13.73	19.52	26.46	4.26	72	0.71	***	0.81	10.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 2/66		34 5 S	151 17 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.21	19.69	24.61	5.07	102	0.17	***	***	0.2
25	20.01	19.67	25.18	4.00	95	0.26	***	***	0.5
50	19.81	19.66	25.22	4.61	93	0.26	***	***	0.4
75	14.82	19.57	26.30	4.29	73	0.69	***	***	7.1
100	13.69	19.51	26.46	4.25	72	0.74	***	***	8.6

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 2/66		34 6 S	151 25 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.04	19.70	24.67	5.04	101	0.12	***	***	0.1
25	20.74	19.68	25.00	5.06	99	0.17	***	***	***
50	17.18	19.62	25.84	3.88	71	0.59	***	***	6.2
75	16.19	19.63	26.07	4.17	75	0.57	***	***	5.7
100	15.12	19.57	26.24	4.25	74	0.62	***	***	6.3
125	13.96	19.53	26.43	4.27	73	0.71	***	***	7.1
135	13.16	19.49	26.54	4.48	75	0.72	***	***	7.2

STATION DATE TIME LATITUDE LONGITUDE
 PT HACKING 1966 1/ 2/66 34 6 S 151 31 E

DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.57	19.70	24.53	4.98	101	0.14	***	0.32	0.2
25	20.15	19.67	25.14	4.95	96	0.20	***	0.41	0.6
50	17.65	19.64	25.74	3.80	70	0.55	***	0.69	0.5
75	16.39	19.62	26.02	4.01	72	0.57	***	0.62	0.3
100	15.91	19.62	26.12	4.28	76	0.57	***	0.67	5.2
125	15.13	19.57	26.24	4.21	74	0.62	***	0.76	6.0
150	14.20	19.54	26.40	4.24	73	0.69	***	0.77	7.4
175	13.56	19.51	26.49	4.45	75	0.70	***	***	7.0
200	12.90	19.48	26.58	4.64	78	0.72	***	0.80	7.3
225	12.64	19.50	26.62	4.99	83	0.59	***	0.67	6.2
250	12.47	19.47	26.66	4.89	81	0.68	***	0.76	7.0
275	12.04	19.44	26.69	4.81	79	0.74	***	0.83	7.2
300	11.80	19.42	26.71	4.82	79	0.77	***	0.83	7.4

STATION DATE TIME LATITUDE LONGITUDE
 PT HACKING 1966 10/ 2/66 34 5 S 151 12 E

DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.07	19.67	24.62	5.07	102	0.30	***	0.32	0.3
10	21.42	19.71	24.85	5.18	103	0.30	***	0.43	0.1
20	21.03	19.69	24.94	4.92	97	0.30	***	0.36	0.2
30	20.43	19.68	25.08	4.70	92	0.41	***	0.44	0.4
40	16.85	19.62	25.91	3.92	71	0.75	***	0.77	4.2
50	15.77	19.60	26.14	3.75	67	0.89	***	0.88	5.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	10/ 2/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.19	19.70	24.63	4.96	100	0.26	***	0.34	0.3
10	21.56	19.70	24.81	4.95	99	0.29	***	0.31	0.2
20	21.49	19.70	24.83	4.99	99	0.29	***	0.31	0.2
30	21.49	19.70	24.85	4.96	98	0.28	***	0.34	0.1
40	18.20	19.64	25.61	4.18	78	0.55	***	0.58	0.0
50	17.05	19.62	25.87	3.72	68	0.75	***	***	4.5
75	15.27	19.59	26.24	3.86	68	0.82	***	0.83	6.2
100	14.20	19.55	26.40	4.02	69	0.95	***	***	7.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	10/ 2/66		34 5 S	151 17 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.08	19.70	24.66	4.95	100	0.28	***	***	0.3
25	21.46	19.70	24.84	5.00	99	0.29	***	***	0.1
50	17.31	19.63	25.81	3.88	71	0.76	***	***	4.0
75	15.30	19.59	26.23	3.81	67	0.89	***	***	5.9
110	14.12	19.54	26.42	4.06	70	0.95	***	***	6.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
BT HACKING 1966	10/ 2/66		34 6 S	151 25 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.68	19.76	24.80	4.94	99	0.18	***	***	0.3
25	21.59	19.77	24.89	5.13	102	0.24	***	***	0.1
50	18.72	19.66	25.50	4.45	84	0.48	***	***	0.9
75	16.10	19.61	26.07	3.97	71	0.77	***	***	5.5
100	14.79	19.55	26.28	4.49	78	0.68	***	***	5.1
125	14.04	19.54	26.43	4.44	76	0.86	***	***	6.4
135	13.98	19.54	26.44	4.46	76	0.86	***	***	6.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
BT HACKING 1966	10/ 2/66		34 6 S	151 31 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.45	19.73	24.74	4.98	100	0.24	***	0.34	0.0
25	21.39	19.74	24.90	5.03	100	0.18	***	0.37	0.0
50	18.02	19.68	25.70	4.28	80	0.41	***	0.52	2.0
75	16.70	19.67	26.01	4.66	84	0.48	***	0.49	2.3
100	15.87	19.64	26.16	4.63	82	0.54	***	0.60	3.6
125	14.42	19.56	26.38	4.49	78	0.69	***	0.72	5.7
150	13.76	19.53	26.47	4.45	76	0.84	***	0.80	0.6
175	13.62	19.52	26.49	4.47	76	0.86	***	0.88	6.3
200	13.27	19.51	26.54	***	***	0.79	***	0.77	7.3
225	12.64	19.47	26.62	4.64	77	0.83	***	0.78	8.2
250	12.08	19.44	26.68	4.62	76	0.89	***	0.84	8.6
275	11.59	19.40	26.72	4.54	74	1.00	***	1.00	9.5
300	11.50	19.38	26.75	4.57	73	1.00	***	1.00	8.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	16/ 2/66		34 6 S	151 25 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.25	19.59	24.46	5.02	101	0.22	***	***	0.4
25	20.01	19.67	25.18	4.76	92	0.27	***	***	0.9
50	17.27	19.62	25.80	3.92	72	0.61	***	***	9.0
75	15.67	19.59	26.14	3.99	71	0.71	***	***	13.1
100	14.06	19.53	26.41	4.09	70	0.83	***	***	12.5
125	13.56	***	***	4.34	***	0.83	***	***	15.0
155	13.42	***	***	4.51	***	0.72	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	16/ 2/66		34 6 S	151 31 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	22.42	19.64	24.48	4.97	100	0.10	***	0.27	1.1
25	20.78	19.68	24.90	4.97	97	0.14	***	0.33	0.3
50	17.66	19.63	25.73	3.67	68	0.57	***	0.67	11.0
75	16.55	***	***	3.89	***	0.60	***	0.71	11.3
100	15.59	19.58	26.15	4.02	71	0.69	***	0.67	12.5
125	14.26	19.55	26.59	4.38	75	0.62	***	0.71	12.4
150	13.85	19.51	26.43	4.59	78	0.71	***	0.73	12.4
175	13.57	19.51	26.40	4.56	77	0.71	***	0.84	11.4
200	13.29	19.51	26.54	4.62	78	0.71	***	0.84	13.9
225	13.04	19.49	26.57	4.65	76	0.71	***	0.82	15.1
250	12.38	19.44	26.65	4.58	76	0.79	***	0.86	17.7
275	11.85	19.37	26.63	4.55	74	0.83	***	0.92	19.8
300	11.41	***	***	4.51	***	0.85	***	1.01	20.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.63	19.69	24.93	5.17	102	0.10	***	0.51	***
10	20.94	19.69	24.97	5.21	102	0.11	***	0.49	***
20	20.92	19.64	24.90	5.16	101	0.11	***	0.51	***
30	20.71	19.61	24.92	5.15	101	0.13	***	0.49	***
40	20.10	***	***	4.72	***	0.17	***	0.46	***
50	19.97	***	***	4.87	***	0.16	***	0.64	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.10	19.68	24.90	5.17	102	0.07	***	0.45	***
10	20.65	19.69	24.99	5.21	102	0.09	***	0.42	***
20	20.56	19.70	25.04	5.10	100	0.10	***	0.61	***
30	20.21	19.71	25.14	4.93	96	0.10	***	0.51	***
40	20.13	19.71	25.21	4.89	95	0.13	***	0.36	***
50	20.08	19.72	25.23	4.94	96	0.13	***	0.39	***
75	19.76	19.72	25.32	4.96	95	0.12	***	0.30	***
100	15.27	19.58	26.22	3.78	66	0.68	***	0.96	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.01	19.67	24.92	***	***	***	***	***	***
10	20.63	19.70	25.06	***	***	***	***	***	***
20	20.31	19.71	25.16	***	***	***	***	***	***
30	20.19	19.71	25.20	***	***	***	***	***	***
40	20.06	19.71	25.22	***	***	***	***	***	***
50	19.95	19.71	25.26	***	***	***	***	***	***
75	19.82	19.72	25.30	***	***	***	***	***	***
100	14.97	19.58	26.28	***	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 5 S	151 17 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.92	19.68	24.96	5.11	100	0.12	***	***	0.0
25	20.22	19.70	25.18	4.93	96	0.13	***	***	0.0
50	20.03	19.71	25.24	4.93	95	0.12	***	***	0.1
75	19.88	19.72	25.29	4.99	96	0.13	***	***	1.7
110	14.97	19.58	26.28	3.83	67	0.75	***	***	1.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 6 S	151 25 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	21.29	19.68	24.86	5.07	100	0.15	***	***	***
25	19.63	19.74	25.33	5.04	97	0.10	***	***	***
50	19.65	19.72	25.35	5.02	96	0.12	***	***	***
75	16.06	19.61	26.07	3.84	69	0.64	***	***	***
100	15.13	19.58	26.25	4.15	73	0.66	***	***	***
125	14.42	19.56	26.37	4.22	73	0.76	***	***	***
135	14.10	19.54	26.42	4.32	74	0.66	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/ 2/66		34 6 S	151 31 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	21.18	19.69	24.90	5.09	101	0.10	0.08	0.48	***
25	21.14	19.71	24.93	5.11	101	0.09	0.42	0.26	***
50	19.21	19.68	25.40	4.49	85	0.28	0.14	0.75	***
75	16.41	19.61	26.00	3.87	70	0.59	0.10	0.81	***
100	15.57	19.60	26.17	4.00	71	0.62	0.22	0.75	***
125	14.74	19.57	26.32	4.37	76	0.68	0.56	1.54	***
150	14.05	19.54	26.43	4.43	76	0.70	0.14	0.94	***
175	14.07	19.54	26.42	4.34	74	0.66	0.10	1.00	***
200	13.86	19.54	26.46	4.53	77	0.64	0.12	1.00	***
225	13.77	19.53	26.48	4.57	78	0.64	0.10	0.80	***
250	13.08	19.49	26.56	4.55	76	0.71	0.20	0.95	***
275	12.83	19.48	26.59	4.58	76	0.72	0.08	1.04	***
300	12.88	19.47	26.67	4.60	76	0.82	0.68	1.70	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 3/66		34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.99	19.68	24.93	5.13	101	0.11	***	0.55	0.0
10	20.76	19.69	25.01	5.11	100	0.12	***	0.43	0.1
20	20.69	19.69	25.03	5.02	98	0.12	***	0.41	0.0
30	20.58	19.70	25.07	5.08	99	0.09	***	0.42	0.1
40	20.55	19.70	25.09	5.02	98	0.09	***	0.33	0.1
50	20.38	19.70	25.13	5.01	98	0.09	***	0.38	0.1

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1 / 3/66		34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.63	19.71	25.07	5.10	100	0.07	***	0.32	0.1
10	20.57	19.72	25.10	5.09	99	0.04	***	0.34	0.3
20	20.59	19.72	25.10	5.08	99	0.04	***	0.34	0.2
30	20.52	19.72	25.11	5.09	99	0.07	***	0.39	0.1
40	20.43	19.71	25.13	5.13	100	0.07	***	0.31	0.1
50	20.30	19.71	25.17	5.14	100	0.07	***	0.35	0.0
75	20.12	19.72	25.22	5.00	97	0.13	***	0.42	0.1
100	19.67	19.72	25.29	4.90	94	0.17	***	0.48	0.5

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	7 / 3/66	1000 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.96	19.69	24.96	5.07	100	0.14	***	0.46	0.0
10	20.67	19.72	25.07	4.96	97	0.18	***	0.42	0.0
20	20.63	19.71	25.07	5.01	98	0.18	***	0.36	0.0
30	20.29	19.71	25.17	4.84	94	0.20	***	0.36	0.1
40	19.32	19.68	25.38	4.55	87	0.31	***	0.47	0.5
50	18.60	19.68	25.56	4.47	84	0.34	***	0.54	0.6

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	7/ 3/66	0850 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.93	19.69	24.96	5.05	99	0.18	***	0.36	0.0
10	20.86	19.69	24.99	5.02	99	0.19	***	0.43	0.1
20	20.78	19.70	25.02	5.09	100	0.14	***	0.40	0.0
30	20.62	19.72	25.09	5.04	99	0.14	***	0.31	0.0
40	20.58	19.72	25.10	4.91	96	0.17	***	0.36	0.0
50	20.47	19.71	25.12	4.82	94	0.20	***	0.48	0.1
75	17.43	19.64	25.80	4.07	75	0.45	***	0.55	1.4
100	14.92	19.58	26.29	3.77	66	0.70	***	0.88	2.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	15/ 3/66	1030 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.56	19.63	24.71	4.97	99	0.12	***	0.37	0.3
10	21.53	19.65	24.75	4.95	98	0.12	***	0.36	0.2
20	21.10	19.65	24.87	4.92	97	0.14	***	0.36	0.7
30	20.56	19.67	25.04	4.81	94	0.18	***	0.43	0.9
40	19.70	19.66	25.26	4.60	88	0.23	***	0.48	1.6
50	19.17	19.66	25.39	4.51	86	0.25	***	0.49	2.5

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT	HACKING	1066	15/ 3/66	0900 K	34 5 S	151 15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	T.P.	PART P	TOTAL P	NITRATE
0	23.38	19.63	24.19	4.83	99	0.11	***	0.34	0.0
10	23.21	19.63	24.24	4.84	99	0.12	***	0.36	0.1
20	22.82	19.66	24.40	4.91	100	0.12	***	0.37	0.2
30	21.05	19.67	24.90	4.74	93	0.16	***	0.51	0.3
40	20.20	19.68	25.15	4.63	90	0.24	***	0.45	1.1
50	18.90	19.64	25.43	4.24	80	0.34	***	0.58	3.6
75	16.56	19.60	25.95	3.94	71	0.50	***	0.67	10.3
100	15.04	19.57	26.25	4.13	72	0.53	***	0.79	11.1

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STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT	HACKING	1066	22/ 3/66	1036 K	34 5 S	151 12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	T.P.	PART P	TOTAL P	NITRATE
0	20.98	19.63	24.67	5.11	100	0.11	***	0.44	0.2
10	20.74	19.63	24.93	5.10	100	0.15	***	0.50	0.2
20	19.73	19.65	25.23	4.63	89	0.25	***	0.54	1.7
30	18.33	19.66	25.59	4.57	82	0.37	***	0.59	4.1
40	17.82	19.66	25.72	4.28	79	0.28	***	0.66	5.7
50	17.32	19.65	25.84	4.31	79	0.39	***	0.67	5.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	22/ 3/66	0900 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.37	19.62	24.75	5.06	100	0.15	***	0.38	0.0
10	21.17	19.62	24.62	5.04	99	0.15	***	0.45	0.5
20	19.94	19.68	25.22	4.58	88	0.26	***	0.44	1.6
30	18.53	19.67	25.56	4.27	80	0.39	***	0.52	4.7
40	17.69	19.65	25.75	4.18	77	0.48	***	0.61	6.1
50	17.28	19.65	25.85	4.32	79	0.50	***	0.62	5.3
75	17.11	19.65	25.59	4.35	79	0.48	***	0.57	5.4
100	15.41	19.60	26.21	4.36	77	0.51	***	0.68	9.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	30/ 3/66	0929 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.35	19.66	25.08	5.12	100	0.20	***	0.48	0.1
10	20.34	19.66	25.08	5.10	99	0.20	***	0.37	0.2
20	20.08	19.69	25.19	5.14	99	0.12	***	0.34	0.1
30	20.05	19.70	25.21	5.10	99	0.12	***	0.37	0.0
40	20.02	19.69	25.21	5.03	97	0.12	***	0.27	0.1
50	19.56	19.69	25.23	5.09	98	0.16	***	0.38	0.1

STATION
PT HACKING 1966

DATE
30/ 3/66

TIME
0813 K

LATITUDE
34 5 S

LONGITUDE
151 15 E

DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.91	19.68	24.96	5.07	100	0.10	***	0.37	0.1
10	20.93	19.69	24.97	5.00	98	0.11	***	0.35	0.1
20	20.92	19.69	24.97	5.04	99	0.11	***	0.35	0.1
30	20.58	19.68	25.05	5.09	99	0.11	***	0.33	0.8
40	20.27	19.68	25.14	5.12	99	0.12	***	0.29	0.1
50	20.07	19.69	25.20	5.14	99	0.12	***	0.39	0.0
75	19.92	19.69	25.24	5.06	98	0.17	***	0.41	0.2
100	18.75	19.68	25.53	4.80	91	0.29	***	0.51	1.6

STATION
PT HACKING 1966

DATE
7/ 4/66

TIME
K

LATITUDE
34 5 S

LONGITUDE
151 12 E

DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.20	19.70	24.91	5.09	101	0.15	***	0.48	0.2
10	21.14	19.70	24.92	5.09	101	0.15	***	0.36	0.3
20	20.22	19.71	25.19	4.99	97	0.17	***	0.23	0.5
30	20.10	19.72	25.23	5.07	98	0.15	***	0.32	0.1
40	19.93	19.73	25.29	4.98	96	0.17	***	0.29	0.4
50	19.64	19.71	25.29	4.93	95	0.24	***	0.37	0.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	7/ 4/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.11	19.69	24.92	5.08	100	0.15	***	0.55	0.1
10	21.08	19.69	24.92	5.05	100	0.17	***	0.23	0.2
20	21.00	19.69	24.95	5.07	100	0.18	***	0.61	0.2
30	20.24	19.71	25.18	5.06	98	0.14	***	0.49	0.2
40	20.01	19.72	25.25	4.99	96	0.17	***	0.45	0.3
50	19.67	19.72	25.29	4.91	95	0.21	***	0.51	0.5
75	19.05	19.72	25.50	4.81	91	0.26	***	0.44	1.5
100	17.73	19.69	25.79	4.52	84	0.40	***	0.58	4.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	13/ 4/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.10	19.73	25.24	5.00	97	0.23	***	0.38	0.4
10	20.04	19.73	25.26	5.00	97	0.21	***	0.42	0.4
20	19.41	19.75	25.45	5.02	96	0.22	***	0.33	0.3
30	19.30	19.75	25.48	5.02	96	0.22	***	0.34	0.3
40	19.10	19.75	25.53	4.98	95	0.22	***	0.43	0.8
50	18.27	19.72	25.70	4.73	88	0.35	***	0.47	1.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	13/ 4/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.17	19.72	25.21	5.08	98	0.20	***	0.38	0.3
10	19.88	19.71	25.28	5.09	98	0.20	***	0.24	0.2
20	19.48	19.77	25.46	5.16	99	0.19	***	0.35	0.1
30	19.35	19.75	25.47	5.11	98	0.19	***	0.25	0.2
40	19.24	19.75	25.50	5.03	96	0.20	***	0.26	0.1
50	19.21	19.74	25.49	5.03	96	0.20	***	0.26	0.2
75	18.11	19.74	25.77	4.97	93	0.27	***	0.37	1.2
100	16.90	19.68	25.98	4.39	80	0.48	***	0.54	5.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 4/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.29	19.71	24.90	5.01	99	0.13	***	0.42	0.0
10	21.23	19.70	24.90	5.00	99	0.14	***	0.39	0.0
20	20.24	19.72	25.19	5.10	99	0.13	***	0.40	0.0
30	19.79	19.72	25.31	5.16	99	0.20	***	0.42	0.3
40	19.75	19.72	25.32	5.19	100	0.15	***	0.41	0.1
50	19.14	19.72	25.48	4.88	93	0.22	***	0.42	0.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 4/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.40	19.71	24.87	5.02	100	0.13	***	0.36	0.0
10	21.33	19.70	24.87	5.13	102	0.16	***	0.39	0.0
20	21.23	19.71	24.91	5.04	100	0.16	***	0.44	0.0
30	20.45	19.71	25.13	5.01	98	0.14	***	0.32	0.1
40	20.10	19.70	25.20	4.90	95	0.16	***	0.41	0.8
50	19.53	19.70	25.35	4.79	92	0.21	***	0.39	0.8
75	18.29	19.70	25.67	4.73	88	0.30	***	0.50	2.6
100	16.01	19.69	25.72	4.70	87	0.33	***	0.50	2.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	28/ 4/66	1000 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	21.82	19.71	24.75	4.83	97	0.16	***	0.39	0.2
10	21.80	19.71	24.76	4.86	97	0.15	***	0.40	0.1
20	21.85	19.70	24.73	4.86	97	0.15	***	0.42	0.1
30	21.75	19.71	24.77	4.85	97	0.17	***	0.36	0.1
40	21.50	19.69	24.81	4.92	98	0.17	***	0.38	0.1
50	21.28	19.68	24.85	4.94	98	0.16	***	0.40	0.1

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	5/ 5/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.19	19.62	25.07	4.86	94	0.27	***	0.54	1.2
10	20.18	19.64	25.10	4.84	94	0.27	***	0.56	1.5
20	20.07	19.69	25.20	4.70	91	0.26	***	0.49	1.2
30	19.62	19.71	25.35	4.71	90	0.26	***	0.46	1.0
40	19.28	19.71	25.43	4.75	91	0.23	***	0.50	1.3
50	18.59	19.70	25.59	4.74	89	0.30	***	0.63	1.8

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	5/ 5/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.41	19.66	25.07	4.87	95	0.23	***	0.50	0.8
10	20.42	19.67	25.07	4.87	95	0.23	***	0.46	0.8
20	20.42	19.67	25.07	4.87	95	0.23	***	0.46	0.9
30	20.41	19.67	25.08	4.85	94	0.23	***	0.47	0.9
40	20.14	19.69	25.18	4.71	91	0.24	***	0.47	1.4
50	19.77	19.69	25.28	4.58	88	0.28	***	0.52	2.0
75	18.19	19.69	25.68	4.64	87	0.34	***	0.51	3.0
100	17.37	19.67	25.85	4.61	85	0.37	***	0.59	4.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	9/ 5/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.73	19.68	25.27	4.79	92	0.27	***	0.51	1.7
10	19.55	19.68	25.32	4.56	87	0.32	***	0.52	2.9
20	18.94	19.69	25.40	4.28	81	0.41	***	0.58	4.6
30	18.62	19.69	25.57	4.25	80	0.46	***	0.60	5.6
40	18.49	19.70	25.62	4.57	86	0.34	***	0.57	4.0
50	18.10	19.69	25.70	4.57	85	0.40	***	0.53	4.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	9/ 5/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.55	19.70	25.08	4.98	97	0.19	***	0.39	0.5
10	20.55	19.70	25.08	4.97	97	0.17	***	0.39	0.7
20	20.51	19.70	25.09	4.97	97	0.17	***	0.46	0.6
30	20.13	19.68	25.17	4.86	94	0.24	***	0.46	1.3
40	19.54	19.67	25.30	4.76	91	0.33	***	0.51	2.0
50	19.40	19.68	25.36	4.87	93	0.29	***	0.53	1.8
75	17.51	19.66	25.81	4.37	80	0.46	***	0.59	5.5
100	16.86	19.64	25.93	4.22	77	0.54	***	0.64	7.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	16/ 5/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.61	19.70	25.07	4.90	96	0.20	***	0.40	0.8
10	20.52	19.70	25.09	4.93	96	0.19	***	0.40	0.8
20	20.26	19.71	25.18	4.78	93	0.23	***	0.41	1.6
30	19.55	19.70	25.35	4.62	88	0.28	***	0.49	2.2
40	18.52	19.69	25.60	4.45	84	0.38	***	0.56	4.4
50	18.10	19.71	25.73	4.56	85	0.37	***	0.51	3.2

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	16/ 5/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.64	19.71	25.07	4.85	95	0.20	***	0.41	1.2
10	20.64	19.70	25.06	4.87	95	0.21	***	0.40	1.2
20	20.64	19.71	25.07	4.81	94	0.21	***	0.41	1.1
30	19.90	19.69	25.24	4.36	84	0.36	***	0.52	3.8
40	18.96	19.68	25.47	4.33	82	***	***	***	***
50	18.55	19.69	25.59	4.22	79	0.43	***	0.60	5.7
75	17.66	19.67	25.78	4.31	80	0.45	***	0.65	9.8
100	17.03	19.67	25.93	4.56	83	0.44	***	0.59	5.9

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	26/ 5/66	K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.50	19.70	25.36	5.09	97	0.25	***	0.50	1.4
10	19.44	19.70	25.38	5.08	97	0.30	***	0.47	1.5
20	19.42	19.70	25.38	5.08	97	0.29	***	0.47	1.5
30	19.41	19.70	25.38	5.08	97	0.30	***	0.47	1.4
40	19.40	19.70	25.39	5.01	96	0.31	***	0.50	1.4
50	19.29	19.70	25.42	5.08	97	0.32	***	0.45	1.5

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	30/ 5/66	K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.05	19.68	25.45	5.01	95	0.32	***	0.57	1.5
10	19.02	19.68	25.45	5.00	95	0.33	***	0.47	1.5
20	18.99	19.69	25.48	4.99	95	0.32	***	0.50	1.6
30	19.00	19.70	25.49	4.91	93	0.32	***	0.51	1.9
40	18.92	19.70	25.51	5.00	95	0.32	***	0.50	1.4
50	18.58	19.70	25.60	4.92	92	0.33	***	0.51	1.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	30/ 5/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.04	19.68	25.20	5.04	97	0.23	***	0.44	1.3
10	19.64	19.67	25.28	5.05	97	0.26	***	0.42	1.0
20	19.62	19.67	25.28	5.00	96	0.26	***	0.49	1.2
30	19.34	19.70	25.40	4.85	93	0.30	***	0.51	2.1
40	19.06	19.71	25.49	4.76	90	0.33	***	0.47	2.6
50	18.82	19.71	25.55	4.69	89	0.33	***	0.47	3.1
75	18.17	19.70	25.70	4.64	87	0.41	***	0.50	4.1
100	16.77	19.67	25.99	4.57	83	0.44	***	0.61	6.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	6/ 6/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.72	19.71	25.05	4.84	95	0.23	***	0.46	1.3
10	20.72	19.71	25.05	4.83	95	0.23	***	0.47	1.4
20	20.45	19.71	25.13	4.90	96	0.23	***	0.49	1.3
30	20.02	19.71	25.24	4.94	95	0.26	***	0.49	1.5
40	18.69	19.70	25.57	4.67	88	0.38	***	0.61	3.8
50	17.53	19.67	25.61	4.26	78	0.51	***	0.72	7.1

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	6/ 6/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.24	19.71	25.18	5.02	97	0.19	***	0.47	0.5
10	20.22	19.72	25.19	5.03	98	0.20	***	0.47	0.6
20	20.18	19.72	25.21	5.01	97	0.20	***	0.46	0.5
30	20.13	19.72	25.22	5.00	97	0.20	***	0.46	0.8
40	19.90	19.70	25.26	4.86	94	0.27	***	0.52	1.7
50	19.05	19.67	25.43	4.04	77	0.47	***	0.67	6.2
75	16.98	19.63	25.89	3.92	71	0.59	***	0.75	8.9
100	15.83	19.60	26.12	4.15	74	0.61	***	0.79	9.3

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	15/ 6/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.34	19.60	25.27	5.09	97	0.31	***	0.54	1.1
10	19.02	19.65	25.42	5.18	98	0.32	***	0.57	1.3
20	18.68	19.67	25.47	5.00	94	0.35	***	0.58	1.8
30	18.70	19.66	25.51	4.98	94	0.35	***	0.59	1.8
40	18.61	19.66	25.54	4.97	93	0.40	***	0.64	1.9
50	18.55	19.66	25.55	4.96	93	0.40	***	0.58	1.9

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	15/ 6/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.22	19.59	25.28	5.09	97	0.30	***	0.55	1.1
10	19.21	19.66	25.38	5.07	96	0.30	***	0.54	1.4
20	18.96	19.66	25.45	5.03	95	0.32	***	0.49	1.7
30	18.67	19.68	25.54	4.94	93	0.35	***	0.56	2.3
40	18.66	19.37	25.13	***	***	***	***	***	***
50	18.65	19.69	25.56	5.00	94	0.34	***	0.56	1.9
75	18.55	19.70	25.60	5.06	95	0.31	***	0.51	2.1
100	18.20	19.69	25.68	4.77	89	0.41	***	0.63	3.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	20/ 6/66	K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.20	19.59	25.54	4.93	92	0.40	***	0.61	2.3
10	18.34	19.61	25.53	4.87	91	0.40	***	0.62	2.2
20	18.14	19.69	25.69	4.93	92	0.40	***	0.54	2.0
30	17.81	19.69	25.77	4.88	90	0.39	***	0.57	2.6
40	17.50	19.68	25.83	4.75	87	0.41	***	0.62	3.4
50	17.83	19.65	25.91	4.54	83	0.60	***	0.64	4.7

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	20/ 6/66	K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.12	19.69	25.44	5.16	98	0.24	***	0.56	1.0
10	19.13	19.70	25.46	5.15	98	0.24	***	0.55	1.0
20	19.10	19.69	25.45	5.16	98	0.25	***	0.55	1.0
30	19.09	19.68	25.44	5.13	97	0.25	***	0.50	0.9
40	19.10	19.70	25.46	5.15	98	0.39	***	0.54	0.9
50	18.17	19.67	25.65	4.84	90	0.39	***	0.57	2.1
75	16.76	19.64	25.96	4.58	83	0.50	***	0.66	3.5
100	14.45	19.52	26.31	4.29	74	0.76	***	0.87	2.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	27/ 6/66	0921 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.99	19.70	25.74	5.15	96	0.29	***	0.56	2.0
10	17.99	19.70	25.74	5.13	95	0.29	***	0.51	1.9
20	17.99	19.70	25.74	5.14	95	0.34	***	0.52	1.8
30	17.97	19.69	25.73	5.11	95	0.31	***	0.52	1.7
40	17.37	19.65	25.83	4.65	85	0.47	***	0.61	4.9
50	16.80	19.64	25.95	4.47	81	0.59	***	0.70	6.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	27/ 6/66	0800 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.10	19.72	25.74	5.20	97	0.26	***	0.44	1.5
10	18.12	19.72	25.73	5.21	97	0.26	***	0.48	1.5
20	18.12	19.72	25.73	5.20	97	0.27	***	0.49	1.4
30	18.09	19.72	25.74	5.20	97	0.27	***	0.43	1.3
40	18.12	19.72	25.73	5.20	97	0.26	***	0.47	1.5
50	18.09	19.72	25.74	5.22	97	0.26	***	0.45	1.3
75	15.70	19.60	26.15	4.05	72	0.68	***	0.83	11.7
100	14.98	19.56	26.26	4.12	72	0.72	***	0.86	12.6

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	4/ 7/66	0923 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.25	19.67	25.88	5.09	93	0.37	***	0.64	3.5
10	17.25	19.67	25.88	5.09	93	0.39	***	0.68	3.6
20	17.24	19.67	25.88	5.04	92	0.38	***	0.67	3.4
30	16.33	19.64	26.06	4.47	80	0.57	***	0.79	7.6
40	15.54	19.59	26.17	4.35	77	0.65	***	0.89	10.3
50	15.04	19.57	26.25	4.13	72	0.71	***	0.93	8.9

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	4/ 7/66	0839 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.75	19.71	25.82	5.40	100	0.23	***	0.43	0.9
10	17.77	19.72	25.82	5.35	99	0.26	***	0.44	1.0
20	17.75	19.71	25.82	5.36	99	0.24	***	0.54	1.0
30	17.73	19.71	25.82	5.34	99	0.24	***	0.44	1.1
40	17.62	19.70	25.83	5.15	95	0.31	***	0.52	2.3
50	17.48	19.69	25.85	4.97	91	0.36	***	***	2.7
75	15.60	19.60	26.17	4.27	76	0.65	***	0.77	10.1
100	14.15	19.60	26.49	4.80	82	0.59	***	0.82	9.1

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	11/ 7/66	0952 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.69	19.71	25.83	5.31	98	0.33	***	***	1.2
10	17.70	19.71	25.83	5.34	99	0.33	***	***	1.2
20	17.69	19.71	25.83	5.26	97	0.34	***	0.41	1.5
30	17.67	19.71	25.84	5.28	97	0.32	***	0.43	1.2
40	17.68	19.71	25.84	5.29	98	0.32	***	***	1.2
50	17.37	19.69	25.88	5.16	95	0.35	***	0.48	1.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	11/ 7/66	0806 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.50	19.69	25.85	5.28	97	0.34	***	0.44	1.4
10	17.51	19.71	25.88	5.29	97	0.34	***	0.44	1.5
20	17.34	19.70	25.90	5.28	97	0.32	***	0.48	1.7
30	17.08	19.68	25.93	5.20	95	0.37	***	0.48	2.5
40	17.07	19.68	25.94	5.21	95	0.37	***	0.44	2.3
50	16.98	19.68	25.96	5.20	95	0.37	***	0.48	2.5
75	15.67	19.71	26.31	4.48	79	0.57	***	0.63	8.4
100	14.39	19.60	26.44	4.57	79	0.69	***	0.72	9.1

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 7/66	0940 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.62	19.69	26.06	5.19	94	0.33	***	0.43	2.8
10	16.64	19.71	26.09	5.19	94	0.33	***	0.44	2.4
20	16.65	19.71	26.08	5.19	94	0.34	***	0.48	2.6
30	16.63	19.71	26.09	5.17	94	0.34	***	0.41	2.5
40	16.63	19.70	26.07	5.20	94	0.33	***	0.43	2.4
50	16.63	19.70	26.07	5.19	94	0.34	***	0.42	2.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 7/66	0820 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.72	19.69	26.04	5.20	94	0.34	***	0.49	2.5
10	16.76	19.71	26.06	5.20	94	0.33	***	0.37	2.6
20	16.78	19.70	26.04	5.22	95	0.32	***	0.39	2.6
30	16.78	19.70	26.04	5.17	94	0.32	***	0.47	2.7
40	16.78	19.70	26.04	5.20	94	0.32	***	0.43	2.6
50	16.72	19.69	26.04	5.17	94	0.32	***	0.39	2.4
75	15.31	19.59	26.22	4.41	78	0.59	***	0.69	9.6
100	14.38	19.59	26.43	4.55	79	0.61	***	0.68	9.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 8/66	0913 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	15.18	19.67	26.36	5.55	97	0.51	***	0.78	4.1
10	15.14	19.69	26.40	5.56	98	0.51	***	0.59	3.9
20	15.15	19.69	26.40	5.58	98	0.39	***	0.61	3.9
30	15.13	19.69	26.40	5.56	98	0.39	***	0.67	4.0
40	15.16	19.69	26.39	5.53	97	0.51	***	0.56	3.9
50	15.14	19.69	26.40	5.55	97	0.55	***	0.57	3.9

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/ 8/66	0812 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	15.44	19.69	26.33	5.54	98	0.36	***	0.63	4.2
10	15.31	19.69	26.36	5.51	97	0.39	***	0.64	4.3
20	15.25	19.69	26.37	5.55	98	0.42	***	0.60	4.2
30	15.29	19.69	26.36	5.44	96	0.42	***	0.48	4.2
40	15.20	19.69	26.38	5.45	96	0.42	***	0.57	4.2
50	15.16	19.68	26.38	5.45	96	0.44	***	0.55	4.4
75	15.15	19.67	26.36	5.47	96	0.44	***	0.64	4.3
100	15.01	19.68	26.41	5.52	97	0.44	***	0.53	4.2

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	3/ 8/66	0945 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.33	19.68	26.11	5.40	97	0.42	***	***	1.7
10	15.97	19.68	26.20	5.41	97	0.38	***	***	2.0
20	15.78	19.68	26.24	5.46	97	0.39	***	***	2.3
30	15.55	19.68	26.29	5.37	95	0.43	***	***	2.9
40	15.22	19.67	26.35	5.49	96	0.43	***	***	3.2
50	15.11	19.67	26.37	5.68	100	0.43	***	***	2.6

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	3/ 8/66	0825 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	I.P.	PART P	TOTAL P	NITRATE
0	17.24	19.70	25.93	5.45	100	0.30	***	***	1.2
10	17.09	19.71	25.98	5.46	100	0.30	***	***	1.3
20	16.22	19.68	26.14	5.18	93	0.38	***	***	3.4
30	15.29	19.65	26.31	4.99	88	0.55	***	***	5.6
40	15.24	19.65	26.32	5.03	88	0.52	***	***	***
50	15.24	19.65	26.32	5.12	90	0.53	***	***	***
75	15.19	19.65	26.33	5.19	91	0.55	***	***	***
100	15.02	19.66	26.39	5.45	95	0.46	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	8/ 8/66	1040 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	I.P.	PART P	TOTAL P	NITRATE
0	17.01	19.71	26.00	5.70	104	0.21	***	0.40	0.7
10	16.61	19.71	26.09	5.87	106	0.21	***	0.32	0.6
20	16.22	19.71	26.18	5.93	106	0.20	***	0.39	0.3
30	15.94	19.71	26.25	5.85	104	0.25	***	0.39	0.6
40	15.65	19.70	26.30	5.66	100	0.30	***	0.47	1.3
50	15.41	19.68	26.32	5.55	98	0.32	***	0.47	2.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	8/ 8/66	0820 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.23	19.74	25.98	5.56	102	0.25	***	0.38	0.4
10	17.21	19.74	25.99	5.59	102	0.24	***	0.37	0.4
20	16.51	19.70	26.10	5.41	98	0.31	***	0.40	2.0
30	15.96	19.68	26.20	5.09	91	0.45	***	0.57	4.9
40	15.51	19.65	26.26	4.91	87	0.52	***	0.62	7.6
50	15.32	19.65	26.30	4.77	84	0.54	***	0.58	6.7
75	15.13	19.64	26.33	4.74	83	0.56	***	0.62	9.5
100	15.18	19.67	26.36	5.26	92	0.45	***	0.56	5.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 8/66	1035 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.64	19.74	25.88	5.75	106	0.25	***	0.44	0.6
10	17.52	19.73	25.90	5.57	103	0.30	***	0.53	0.5
20	16.79	19.72	26.06	5.11	93	0.40	***	0.60	2.8
30	15.92	19.66	26.18	4.76	85	0.57	***	0.66	6.6
40	15.71	19.65	26.22	4.60	82	0.63	***	0.73	7.0
50	15.30	19.63	26.28	4.46	78	0.68	***	0.69	8.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	18/ 8/66	0816 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.55	19.73	25.89	5.70	105	0.22	***	0.32	0.3
10	17.52	19.74	25.91	5.70	105	0.22	***	0.42	0.1
20	16.96	19.72	26.02	5.30	96	0.35	***	0.44	2.0
30	16.45	19.68	26.08	4.94	89	0.46	***	0.57	6.0
40	16.14	19.67	26.14	4.84	87	0.54	***	0.58	5.7
50	15.62	19.63	26.21	4.63	82	0.57	***	0.61	9.0
60	15.31	19.61	26.25	4.50	79	0.62	***	0.68	10.5
70	14.90	19.56	26.27	4.38	76	0.70	***	0.78	13.7
80	14.87	19.56	26.28	4.36	76	0.75	***	0.78	13.9
100	14.86	19.53	26.41	4.39	75	0.81	***	0.86	15.8

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	22/ 8/66	0946 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.39	19.67	26.08	5.32	96	0.42	***	0.65	3.2
10	16.27	19.67	26.11	5.31	95	0.42	***	0.66	3.4
20	16.14	19.67	26.14	5.21	93	0.43	***	0.63	4.3
30	15.33	19.61	26.25	4.45	78	0.62	***	0.63	10.5
40	15.21	19.59	26.24	4.44	78	0.66	***	0.78	11.4
50	14.80	19.58	26.32	4.57	80	0.66	***	0.81	11.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	22/ 8/66	0807 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.31	19.72	25.93	5.43	100	0.23	***	0.54	1.2
10	17.30	19.72	25.94	5.45	100	0.24	***	0.51	1.0
20	17.26	19.71	25.94	5.45	100	0.24	***	0.67	1.1
30	17.23	19.71	25.94	5.42	99	0.29	***	0.46	1.2
40	17.00	19.69	25.97	5.08	93	0.34	***	0.46	3.3
50	16.42	19.65	26.05	4.49	81	0.52	***	0.63	8.5
60	16.27	19.63	26.06	4.37	78	0.58	***	0.68	10.7
70	15.60	19.61	26.19	4.40	78	0.64	***	0.73	11.0
80	14.51	19.55	26.34	4.32	75	0.71	***	0.84	14.7
100	13.35	19.49	26.50	4.38	74	0.77	***	0.87	17.7

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	29/ 8/66	0940 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.55	19.70	26.09	5.25	95	0.35	***	0.55	2.2
10	16.50	19.70	26.10	5.27	95	0.35	***	0.55	2.6
20	16.54	19.69	26.08	5.27	95	0.36	***	0.58	1.9
30	16.49	19.69	26.09	5.24	94	0.38	***	0.59	2.1
40	16.26	19.68	26.13	5.30	95	0.41	***	0.64	2.6
50	16.19	19.68	26.17	5.40	97	0.41	***	0.64	2.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	29/ 8/66	0820 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.64	19.71	26.09	5.35	97	0.32	***	0.51	2.3
10	16.59	19.70	26.08	5.38	97	0.33	***	0.51	2.0
20	16.58	19.70	26.08	5.32	96	0.33	***	0.56	2.0
30	16.56	19.69	26.07	5.30	96	0.33	***	0.55	2.0
40	16.55	19.69	26.08	5.29	95	0.36	***	0.55	2.4
50	16.35	19.68	26.11	5.24	94	0.36	***	0.54	2.2
60	16.29	19.67	26.11	5.26	94	0.36	***	0.52	2.8
70	16.05	19.66	26.15	5.05	90	0.43	***	0.58	3.9
80	13.60	19.54	26.48	4.32	74	0.72	***	0.90	14.4
100	12.85	19.51	26.63	4.46	74	0.80	***	0.97	15.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	5/ 9/66	1138 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.24	19.71	25.94	5.33	98	0.32	***	0.50	1.6
10	17.18	19.71	25.96	5.33	97	0.32	***	0.50	1.6
20	17.16	19.71	25.96	5.34	98	0.33	***	0.44	1.4
30	17.16	19.71	25.96	5.33	97	0.33	***	0.45	1.5
40	17.09	19.71	25.98	5.34	97	0.33	***	0.46	1.3
50	17.02	19.71	26.00	5.34	97	0.33	***	0.44	1.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	5/ 9/66	1019 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	17.32	19.73	25.95	5.39	99	0.26	***	0.45	1.1
10	17.28	19.73	25.96	5.35	98	0.25	***	0.50	0.9
20	17.27	19.72	25.94	5.37	98	0.29	***	0.58	1.2
30	17.22	19.72	25.95	5.26	96	0.32	***	0.52	1.4
40	17.22	19.71	25.95	5.25	96	0.32	***	0.56	2.0
50	17.20	19.71	25.95	5.24	96	0.33	***	0.50	1.8
60	16.97	19.71	26.01	5.15	94	0.34	***	0.95	2.4
70	16.41	19.68	26.09	5.00	90	0.44	***	0.68	3.7
80	15.62	19.64	26.22	4.62	82	0.56	***	0.83	7.2
100	14.56	19.57	26.36	4.07	70	0.81	***	0.84	14.8

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	13/ 9/66	0953 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	18.05	19.68	25.70	5.36	100	0.31	***	0.51	0.7
10	17.92	19.70	25.76	5.35	99	0.31	***	0.57	0.7
20	17.11	19.65	25.89	5.16	94	0.40	***	0.56	1.6
30	16.49	19.65	26.04	4.83	87	0.52	***	0.58	3.4
40	15.48	19.60	26.20	4.45	79	0.64	***	0.79	9.9
50	14.74	19.56	26.31	4.08	71	0.75	***	0.92	14.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	13/ 9/66	0820 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.91	19.70	25.51	5.22	99	0.26	***	0.34	0.6
10	18.69	19.72	25.54	5.22	99	0.27	***	0.46	0.3
20	18.57	19.70	25.60	5.05	95	0.36	***	0.72	1.2
30	17.71	19.67	25.77	4.44	82	0.50	***	0.58	6.0
40	17.65	19.69	25.81	5.29	98	0.33	***	0.42	0.9
50	17.31	19.69	25.89	5.38	99	0.33	***	0.45	0.7
60	16.85	19.67	25.97	5.20	94	0.36	***	0.46	1.6
70	16.01	19.62	26.10	4.69	84	0.56	***	0.68	6.6
80	15.24	19.57	26.21	4.25	75	0.73	***	0.78	13.1
100	15.12	19.57	26.23	4.21	74	0.73	***	0.69	13.3

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	19/ 9/66	0949 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.09	19.69	25.95	5.53	101	0.23	***	0.47	0.4
10	16.57	19.69	25.98	5.49	100	0.31	***	0.56	0.4
20	16.68	19.69	26.00	5.48	100	0.32	***	0.49	0.6
30	16.20	19.66	26.11	5.10	91	0.44	***	0.60	3.2
40	15.97	19.64	26.14	4.97	89	0.49	***	0.61	4.8
50	15.72	19.63	26.18	4.91	87	0.54	***	***	6.1

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	19/ 9/66	0834 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.00	19.70	25.74	5.43	101	0.21	***	0.43	0.4
10	17.53	19.68	25.83	5.26	97	0.30	***	0.55	0.9
20	16.78	19.66	25.98	5.23	95	0.35	***	0.58	2.1
30	16.57	19.66	26.03	5.23	94	0.36	***	0.64	2.4
40	16.09	19.63	26.11	4.97	89	0.45	***	0.65	4.1
50	15.49	19.60	26.19	4.49	79	0.46	***	0.83	9.2
60	15.47	19.60	26.19	4.56	80	0.63	***	0.77	9.4
70	15.13	19.58	26.25	4.20	74	0.71	***	0.90	11.6
80	14.90	19.57	26.28	4.03	70	0.79	***	0.97	13.6
100	14.44	19.56	26.37	4.05	70	0.80	***	0.93	14.9

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	29/ 9/66	0821 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.82	19.65	25.47	5.64	106	0.22	***	0.44	0.4
10	18.43	19.69	25.62	5.57	104	0.23	***	0.47	0.2
20	18.29	19.69	25.65	5.57	104	0.27	***	0.45	0.3
30	18.02	19.69	25.72	5.51	102	0.30	***	0.47	0.3
40	17.58	19.67	25.80	5.14	95	0.42	***	0.52	1.7
50	16.57	19.62	25.97	4.67	84	0.56	***	1.19	6.9
60	16.29	19.61	26.03	4.60	83	0.64	***	0.80	8.3
70	15.34	19.56	26.18	4.37	77	0.68	***	0.81	11.6
80	14.80	19.54	26.26	4.35	76	0.78	***	0.87	13.3
100	13.45	19.47	26.45	4.38	74	0.87	***	0.97	16.6

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	29/ 9/66	0940 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.19	19.67	25.65	5.50	103	0.31	***	0.52	0.8
10	17.85	19.68	25.75	5.48	102	0.32	***	0.52	0.7
20	16.99	19.65	25.92	5.05	92	0.44	***	0.67	2.8
30	15.67	19.60	26.11	4.63	82	0.63	***	0.76	6.3
40	15.44	19.58	26.18	4.51	80	0.68	***	0.84	8.8
50	15.09	19.56	26.23	4.38	77	0.78	***	0.91	10.6

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	10/10/66	1136 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.76	19.72	25.57	5.32	100	0.22	***	0.47	0.2
10	18.33	19.72	25.68	5.38	101	0.26	***	0.52	0.0
20	18.00	19.71	25.75	5.41	101	0.26	***	0.53	0.1
30	17.71	19.70	25.81	5.26	97	0.32	***	0.59	0.4
40	16.39	19.64	26.04	4.97	89	0.45	***	0.67	1.9
50	16.17	19.63	26.09	5.00	90	0.45	***	0.64	2.0

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	10/10/66	1020 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.08	19.72	25.49	5.22	99	0.20	***	0.43	0.1
10	19.06	19.72	25.50	5.15	98	0.20	***	0.49	0.0
20	18.38	19.71	25.66	5.37	101	0.20	***	0.46	0.0
30	17.58	19.68	25.81	5.14	95	0.29	***	0.52	0.6
40	16.73	19.65	25.98	5.02	91	0.40	***	0.55	1.5
50	16.59	19.65	26.01	4.99	90	0.42	***	0.59	1.2
60	16.41	19.65	26.05	5.07	91	0.42	***	0.52	1.9
70	16.12	19.63	26.09	4.87	87	0.44	***	0.66	1.9
80	15.87	19.61	26.13	4.74	84	0.51	***	0.82	3.5
100	14.17	19.52	26.38	4.08	70	0.80	***	0.88	7.4

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	17/10/66	0944 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.90	19.66	25.71	5.30	98	0.27	***	0.45	0.1
10	17.61	19.66	25.73	5.25	97	0.32	***	0.40	0.4
20	17.55	19.65	25.78	5.08	94	0.36	***	0.41	0.9
30	16.39	19.62	26.01	4.53	81	0.56	***	0.64	5.4
40	15.19	19.56	26.21	4.19	73	0.71	***	0.74	9.0
50	13.93	19.49	26.38	3.81	65	0.93	***	0.91	15.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	17/10/66	0814 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.57	19.69	25.58	5.92	111	0.18	***	0.34	0.0
10	16.25	19.70	25.68	5.86	109	0.23	***	0.40	0.0
20	17.19	19.66	25.89	5.06	92	0.32	***	0.45	0.1
30	16.75	19.64	25.96	4.73	86	0.64	***	0.48	3.1
40	16.30	19.62	26.03	4.60	83	0.64	***	0.57	4.3
50	15.10	19.56	26.23	4.19	73	0.71	***	0.69	7.2
60	14.54	19.52	26.29	4.03	70	0.84	***	0.79	6.6
70	14.12	19.50	26.36	4.09	70	0.87	***	0.82	9.0
80	13.06	19.45	26.51	4.24	71	0.90	***	0.87	10.0
100	12.20	19.42	26.61	4.34	72	0.98	***	0.93	10.0
113	11.74	19.38	26.66	4.43	72	0.99	***	0.96	10.3

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	24/10/66	1003 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	16.51	19.66	25.56	5.51	103	0.20	***	0.35	0.2
10	18.23	19.66	25.63	5.48	102	0.20	***	0.32	0.2
20	17.94	19.65	25.69	5.53	103	0.20	***	0.28	0.1
30	17.41	19.64	25.80	5.23	96	0.31	***	0.33	0.9
40	16.98	19.63	25.80	4.94	90	0.41	***	***	2.4
50	16.13	19.61	26.07	4.57	82	0.57	***	0.58	5.9

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	24/10/66	0820 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.38	19.66	25.59	5.50	103	0.18	***	0.23	0.2
10	18.28	19.66	25.62	5.54	103	0.18	***	0.21	0.2
20	17.87	19.64	25.69	5.57	103	0.20	***	0.28	0.1
30	17.41	19.63	25.79	5.16	95	0.30	***	0.33	0.9
40	16.90	19.64	25.92	4.89	89	0.41	***	0.49	3.0
50	16.23	19.63	26.07	4.61	83	0.55	***	0.52	6.1
60	15.36	19.63	26.27	4.35	76	0.68	***	0.63	9.3
70	14.74	19.54	26.28	4.15	72	0.79	***	0.75	11.8
80	14.22	19.52	26.36	4.12	71	0.80	***	***	13.1
100	13.23	19.47	26.50	4.07	68	0.92	***	0.90	16.7
120	13.13	19.47	26.52	4.10	69	0.94	***	***	16.4

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	1/11/66	0940 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	17.88	19.61	25.65	5.06	94	0.39	***	0.72	2.8
10	16.57	19.60	25.95	4.55	82	0.54	***	0.74	5.2
20	15.32	19.58	26.20	4.21	74	0.67	***	0.92	8.9
30	13.86	19.50	26.45	4.10	70	0.85	***	1.04	13.2
40	12.99	19.47	26.54	4.13	69	0.92	***	0.96	14.6
50	12.66	19.47	26.61	4.47	74	0.91	***	1.16	13.5

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	1/11/66	0804 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	19.24	19.65	25.36	5.41	103	0.16	***	0.38	0.2
10	18.96	19.66	25.45	5.46	103	0.18	***	0.34	0.1
20	18.06	19.65	25.66	5.23	97	0.24	***	0.48	0.3
30	16.19	19.62	26.06	4.55	81	0.51	***	0.69	5.3
40	15.54	19.61	26.20	4.66	82	0.54	***	0.78	6.9
50	14.62	19.57	26.34	4.43	77	0.67	***	0.91	11.0
60	13.82	19.50	26.42	4.19	71	0.85	***	1.05	14.5
70	13.23	19.47	26.50	4.21	71	0.87	***	0.92	14.9
80	12.57	19.46	26.62	4.38	73	0.90	***	1.05	14.6
100	12.31	19.43	26.63	4.38	72	0.90	***	0.99	15.7
112	12.39	19.44	26.63	4.43	73	0.90	***	1.05	15.6

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	7/11/66	0944 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART P	TOTAL P	NITRATE
0	17.94	19.67	25.71	5.56	103	0.23	***	0.42	0.2
10	17.93	19.67	25.71	5.57	103	0.25	***	0.42	0.5
20	17.90	19.67	25.72	5.57	103	0.25	***	0.45	0.1
30	17.81	19.65	25.72	5.36	99	0.25	***	0.51	0.2
40	17.74	19.65	25.74	5.45	101	0.27	***	0.44	0.2
50	17.65	19.65	25.76	5.39	99	0.27	***	0.45	0.2

STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	7/11/66	0804 K	34 5 S	151 15 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.07	19.67	25.68	5.39	100	0.22	***	0.44	0.3
10	18.07	19.67	25.68	5.41	101	0.23	***	0.43	0.4
20	17.53	19.64	25.77	5.33	98	0.24	***	0.44	0.6
30	17.15	19.62	25.83	5.27	96	0.36	***	0.56	0.9
40	17.10	19.62	25.85	5.24	96	0.36	***	0.53	0.9
50	17.02	19.62	25.86	5.25	96	0.36	***	0.50	1.1
60	16.85	19.61	25.90	5.17	94	0.36	***	0.44	1.6
70	16.49	19.59	25.95	5.04	91	0.44	***	0.63	2.7
80	15.53	19.58	26.16	4.89	86	0.51	***	0.66	4.5
100	13.54	19.50	26.48	4.44	75	0.76	***	0.88	11.8
106	13.52	19.50	26.48	4.46	76	0.79	***	0.88	11.8

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STATION	DATE	TIME	LATITUDE	LONGITUDE					
PT HACKING 1966	15/11/66	0953 K	34 5 S	151 12 E					
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.98	19.60	25.35	5.36	101	0.21	***	0.41	0.3
10	18.76	19.59	25.40	5.38	101	0.22	***	0.45	0.2
20	18.07	19.54	25.50	5.43	101	0.22	***	0.47	0.8
30	17.73	19.52	25.55	5.30	98	0.33	***	0.48	1.4
40	17.53	19.51	25.60	5.27	97	0.36	***	0.61	2.6
50	15.98	19.53	25.98	5.49	98	0.56	***	0.71	5.1

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	15/11/66	0824 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	18.99	19.65	25.42	5.30	100	0.20	***	0.39	0.1
10	18.99	19.66	25.43	5.30	100	0.20	***	0.41	0.1
20	18.96	19.66	25.44	5.31	100	0.22	***	0.40	0.0
30	18.95	19.66	25.44	5.29	100	0.24	***	0.50	0.0
40	18.21	19.65	25.61	5.06	94	0.33	***	0.51	1.4
50	16.66	19.61	25.94	4.57	83	0.53	***	0.70	4.8
60	16.18	19.60	25.94	4.57	82	0.58	***	0.74	6.0
70	13.79	19.53	26.47	4.27	73	0.83	***	0.89	10.8
80	13.57	19.52	26.50	4.34	74	0.84	***	0.90	11.2
100	12.92	19.49	26.59	4.58	77	0.84	***	0.89	12.5
105	12.92	19.50	26.60	4.57	76	0.84	***	0.95	12.2

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	21/11/66	0932 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.72	19.56	25.11	5.45	105	0.24	***	0.45	0.3
10	19.38	19.61	25.27	5.38	103	0.24	***	0.38	0.1
20	18.67	19.61	25.45	5.17	97	0.26	***	0.40	0.2
30	17.49	19.60	25.73	4.69	86	0.47	***	0.62	2.8
40	15.51	19.55	26.12	4.35	77	0.67	***	0.76	7.9
50	14.17	19.53	26.39	4.29	74	0.79	***	0.85	10.4

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	21/11/66	0808 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.90	19.58	25.09	5.38	104	0.23	***	0.46	0.1
10	19.35	19.64	25.32	5.30	101	0.22	***	0.40	0.1
20	19.18	19.65	25.38	5.31	101	0.23	***	0.36	0.2
30	18.92	19.65	25.44	5.35	101	0.24	***	0.41	0.1
40	18.03	19.63	25.63	4.95	92	0.49	***	0.83	1.6
50	16.67	19.61	25.89	4.65	84	0.53	***	0.62	4.2
60	16.55	19.60	25.95	4.56	82	0.55	***	0.62	5.2
70	15.52	19.56	26.14	4.39	78	0.69	***	0.64	7.7
80	14.10	19.53	26.40	4.37	75	0.75	***	***	10.3
100	13.50	19.50	26.49	4.37	74	0.81	***	0.78	11.8
110	13.31	19.50	26.53	4.43	75	0.81	***	0.90	12.3

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	28/11/66	0940 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	19.77	19.54	25.07	5.28	101	0.30	***	0.54	0.7
10	19.20	19.58	25.27	5.14	98	0.31	***	0.53	1.0
20	16.99	19.58	25.82	4.67	85	0.51	***	0.64	4.2
30	15.68	19.57	26.06	4.41	78	0.63	***	0.74	7.0
40	15.16	19.57	26.22	4.32	76	0.68	***	0.75	8.9
50	14.13	19.53	26.39	4.29	74	0.79	***	0.84	12.0

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	28/11/66	0808 K	34	5 S	151	15 E			
DEPTH	TEMP,	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	I. P.	PART P	TOTAL P	NITRATE
0	20.73	19.53	24.80	5.29	103	0.22	***	0.42	0.2
10	20.54	19.57	24.90	5.31	104	0.21	***	0.32	0.1
20	19.08	19.65	25.40	5.14	98	0.27	***	0.39	0.1
30	17.44	19.63	25.78	4.66	86	0.41	***	0.59	2.6
40	15.44	19.57	26.16	4.31	76	0.61	***	0.71	8.7
50	14.49	19.55	26.35	4.29	74	0.74	***	0.82	10.2
60	13.95	19.52	26.42	4.31	74	0.84	***	0.84	9.8
70	13.78	19.51	26.44	4.28	73	0.86	***	0.87	12.6
80	13.68	19.51	26.47	4.30	73	0.85	***	0.88	12.4
100	13.50	19.50	26.49	4.23	72	0.87	***	0.91	13.0
111	13.55	19.51	26.49	4.18	71	0.88	***	0.96	13.2

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STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	5/12/66	0944 K	34	5 S	151	12 E			
DEPTH	TEMP,	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	I. P.	PART P	TOTAL P	NITRATE
0	20.25	19.58	24.99	4.91	95	0.58	***	0.80	0.6
10	19.60	19.64	25.25	5.17	99	0.30	***	0.51	0.4
20	18.43	19.63	25.54	4.83	90	0.40	***	0.63	1.6
30	16.51	19.62	25.99	4.26	77	0.65	***	0.77	6.5
40	15.62	19.60	26.30	4.20	73	0.75	***	0.86	9.8
50	14.64	19.59	26.37	4.32	75	0.76	***	0.84	10.3

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	5/12/66	0820 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.19	19.53	24.94	5.00	97	0.58	***	1.02	0.8
10	20.16	19.62	25.07	5.24	101	0.29	***	0.54	0.2
20	19.17	19.62	25.33	5.07	96	0.31	***	0.58	0.6
30	17.93	19.64	25.67	4.77	88	0.41	***	0.58	2.5
40	16.10	19.62	26.08	4.28	77	0.63	***	0.81	7.7
50	15.06	19.61	26.31	4.23	74	0.72	***	0.89	10.3
60	14.66	19.59	26.32	4.28	75	0.75	***	0.79	10.8
70	14.41	19.58	26.40	4.39	76	0.76	***	0.82	8.5
80	14.06	19.55	26.44	4.24	73	0.81	***	0.90	9.7
100	13.80	19.54	26.48	4.26	73	0.82	***	0.90	12.1
109	13.74	19.54	26.49	4.28	73	0.85	***	0.96	12.5

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	12/12/66	1006 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.00	19.61	25.11	5.31	102	0.32	***	0.54	0.2
10	19.71	19.66	25.25	5.38	103	0.31	***	0.44	0.2
20	19.22	19.66	25.38	5.10	97	0.32	***	0.44	0.2
30	17.93	19.65	25.69	4.57	85	0.53	***	0.55	3.3
40	17.15	19.62	25.84	4.39	80	0.64	***	0.69	5.9
50	16.69	19.61	25.94	4.32	78	0.67	***	0.74	6.8

STATION	DATE	TIME	LATITUDE	LONGITUDE							
PT HACKING 1966	12/12/66	0816 K	34 5 S	151 15 E							
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART	P	TOTAL	P	NITRATE
0	20.07	19.62	25.10	5.40	104	0.22	***	0.44	0.4		
10	19.64	19.68	25.24	5.23	101	0.23	***	0.38	0.1		
20	19.12	19.68	25.33	5.09	97	0.27	***	0.41	0.4		
30	19.10	19.68	25.43	4.98	95	0.31	***	0.42	0.6		
40	18.30	19.67	25.62	4.60	86	0.45	***	0.57	3.0		
50	18.20	19.60	26.03	4.08	73	0.72	***	0.79	9.0		
60	15.70	19.59	26.13	4.05	72	0.76	***	0.80	9.3		
70	14.80	19.55	26.32	3.89	67	0.88	***	0.88	12.8		
80	14.34	19.54	26.36	4.02	69	0.89	***	0.99	13.2		
100	14.13	19.54	26.41	3.96	68	0.89	***	0.93	13.8		
110	14.06	19.54	26.42	3.89	67	0.92	***	0.97	14.1		

STATION	DATE	TIME	LATITUDE	LONGITUDE							
PT HACKING 1966	19/12/66	0936 K	34 5 S	151 12 E							
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I. P.	PART	P	TOTAL	P	NITRATE
0	20.05	19.67	25.17	5.22	101	0.25	***	0.35	0.4		
10	20.07	19.66	25.16	5.24	101	0.25	***	0.38	0.3		
20	19.99	19.66	25.18	5.22	101	0.26	***	0.36	0.3		
30	19.68	19.66	25.21	5.22	101	0.33	***	0.45	0.2		
40	18.78	19.65	25.48	4.85	91	0.40	***	0.50	1.6		
50	16.26	19.61	26.04	4.13	74	0.69	***	0.70	6.8		

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	19/12/66	0807 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.30	19.69	25.14	5.21	101	0.22	***	0.31	0.2
10	20.26	19.73	25.20	5.16	100	0.23	***	0.31	0.2
20	20.09	19.72	25.23	5.14	99	0.24	***	0.31	0.2
30	17.97	19.68	25.72	4.33	80	0.53	***	0.56	4.3
40	16.60	19.64	25.99	4.17	75	0.62	***	0.66	9.1
50	15.73	19.61	26.16	4.27	76	0.70	***	0.66	11.2
70	15.50	19.61	26.21	4.30	76	0.69	***	0.66	10.3
80	15.16	19.61	26.29	4.53	79	0.70	***	0.66	9.5
100	14.40	19.58	26.41	4.25	73	0.79	***	0.79	11.5
108	14.27	19.56	26.41	4.10	71	0.82	***	0.81	14.1

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STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	29/12/66	0942 K	34	5 S	151	12 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.15	19.59	25.04	5.18	100	0.25	***	0.66	0.3
10	18.76	19.61	25.43	5.03	95	0.32	***	0.61	1.0
20	16.85	19.60	25.88	4.43	80	0.52	***	0.70	6.3
30	14.60	19.56	26.34	4.03	70	0.74	***	0.81	13.3
40	14.22	19.53	26.37	4.06	70	0.84	***	0.83	12.3
50	13.65	19.52	26.48	3.99	68	0.85	***	0.93	14.3

STATION	DATE	TIME	LATITUDE		LONGITUDE				
PT HACKING 1966	29/12/66	0809 K	34	5 S	151	15 E			
DEPTH	TEMP.	CHLORINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	I.P.	PART P	TOTAL P	NITRATE
0	20.58	19.69	25.06	5.15	101	0.15	***	0.36	0.1
10	20.56	19.69	25.07	5.14	100	0.15	***	0.37	0.4
20	19.76	19.67	25.25	5.17	99	0.17	***	0.45	0.2
30	16.53	19.61	25.97	4.11	74	0.59	***	0.76	7.9
40	15.28	19.58	26.21	3.94	69	0.72	***	0.85	12.4
50	14.71	19.57	26.32	4.26	74	0.72	***	0.76	11.6
60	14.28	19.56	26.41	4.21	72	0.72	***	0.80	12.3
70	14.25	19.54	26.38	4.19	72	0.74	***	0.80	13.7
80	13.99	19.53	26.42	4.18	72	0.81	***	0.82	14.0
100	13.28	19.51	26.55	4.11	69	0.85	***	0.88	15.3
110	13.28	19.51	26.55	4.21	71	0.85	***	0.92	15.3

DATA

PART 2

PHYTOPLANKTON

EXPLANATION OF HEADINGS

Part 2Phytoplankton

DATE

Given as day/month/year

SPECIES

Gives the species name

NUMBER

Gives the number of individuals per gallon in surface, i.e. 0, 10, and 20 m (S), intermediate, i.e. 30 and 50 m (I), and bottom 75 and 100 m (B) combined samples

STATION PORT HACKING 100M DATE 6/ 1/66

SPECIES	NUMBER
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	100 S
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	100 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	160 B
BIDDULPHIA REGIA (SCHULTZE) OSTENFELD	210 B
CERATIUM FURCA (EHR) CLAP + LACH	100 I
CERATIUM FUSUS (EHR) DUJARDIN	100 S
CHAETOCEROS TERES (CLEVE)	10 B
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	100 I
DITYLUM SOL (GRUNOW) DE TONI	50 B
EUCAMPIA ZOOJACUS (EHR)	20 B
LEPTOCYLINDRUS DANICUS (CLEVE)	100 S
LEPTOCYLINDRUS DANICUS (CLEVE)	10 B
NAVICULA SP	300 S
NAVICULA SP	100 B
NITZSCHIA CLOSTERIUM (EHR) W SMITH	10 B
NITZSCHIA SERIATA (CLEVE)	300 S
NITZSCHIA SERIATA (CLEVE)	60 B
PERIDINIUM EXCENTRICUM (PAULSEN)	10 B
PERIDINIUM ORBICULARE (PAULSEN)	100 S
PERIDINIUM PEDUNCULATUM (SCHUTT)	100 I
PROROCENTRUM ROSTRATUM STEIN	100 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	300 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	30 B
STEPHANOPHYXIS PALMERIANA (GREVILLE) GRUNOW	90 B
THALASSIOTHRIX FRAUENFELDII (GRUNOW)	40 B
TOTAL	2600

STATION PORT HACKING 100M

DATE 14/ 1/66

SPECIES	NUMBER
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	39400 S
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	47300 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	1700 B
BIDDULPHIA MOBILIENSIS (BAILEY)	100 S
BIDDULPHIA REGIA (SCHULTZE) OSTENFELD	100 I
CERATULINA BERGONII (H PERAG)	300 S
CERATULINA BERGONII (H PERAG)	500 I
CERATIUM FURCA (EHR) CLAP + LACH	200 S
CHAETOCEROS COMPRESSUM (LAUDER)	400 S
CHAETOCEROS DECIPIENS (CLEVE)	2800 I
CHAETOCEROS DECIPIENS (CLEVE)	1100 B
CHAETOCEROS DICHAEETA (EHR)	200 B
CHAETOCEROS LORENZIANUM (GRUNOW)	2400 I
CHAETOCEROS SECUNDUM (CLEVE)	400 S
CHAETOCEROS SECUNDUM (CLEVE)	1200 I
CHAETOCEROS TERES (CLEVE)	2500 S
CHAETOCEROS TERES (CLEVE)	12500 I
CHAETOCEROS TERES (CLEVE)	2200 B
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	600 S
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	400 I
CORETHRON CRIOPHILUM (CASTRACANE)	500 S
COSCINODISCUS SP	100 B
DINOPHYSIS CAUDATA (SAVILLE KENT)	100 S
DITYLUM SOL (GRUNOW) DE TONI	200 S
DITYLUM SOL (GRUNOW) DE TONI	100 I
EUCAMPYA CORNUTA (CLEVE)	2300 S
EUCAMPYA CORNUTA (CLEVE)	8500 I
EUCAMPYA ZODIACUS (EHR)	2300 S
EUCAMPYA ZODIACUS (EHR)	1700 I
GUINARDIA FLACCIDA (CASTRACANE) PERAGALLO	100 S
LAUDERIA ANNULATA (CLEVE)	200 S
LEPTOCYLINDRUS DANICUS (CLEVE)	12000 S
LEPTOCYLINDRUS DANICUS (CLEVE)	30600 I
LEPTOCYLINDRUS DANICUS (CLEVE)	100 B
MELOSIRA MONILIFORMIS (MULLER) AGARDH	3900 I
NAVICULA SP	800 S
NAVICULA SP	1200 I
NAVICULA SP	1000 B
NITZSCHIA CLOSTERIUM (EHR) W SMITH	200 B
NITZSCHIA LONGISSIMA (BREB) ROLFS	400 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	900 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	400 B
NITZSCHIA SERIATA (CLEVE)	1300 S
NITZSCHIA SERIATA (CLEVE)	3100 I
PERIDINIUM PYRIFORME (PAULSEN)	100 I
RHIZOSOLENIA ALATA (BRIGHTWELL)	600 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	200 I
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	800 S
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	500 I
SKELETONEMA COSTATUM (GREVILLE) CLEVE	200 S
SKELETONEMA COSTATUM (GREVILLE) CLEVE	1500 I

STATION PORT HACKING 100M DATE 14/ 1/66

SPECIES	NUMBER
STEPHANOPHYXIS PALMERIANA (GREVILLE) GRUNOW	600 I
STRIATELLA UNIPUNCTATA (LYNGBYE)	800 I
SYNEDRA SP	100 I
THALASSIOTHRIX FRAUENFELDII (GRUNOW)	200 I
THALASSIOTHRIX NITZSCHIOIDES GRUNOW	200 B
THALASSIOSIRA ROTULA (MENUNIER)	1600 S
THALASSIOSIRA ROTULA (MENUNIER)	2300 I
TOTAL	198000

STATION PORT HACKING 100M DATE 18/ 1/66

SPECIES	NUMBER
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	2900 S
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	22400 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	25800 B
BIDDULPHIA REGIA (SCHULTZE) OSTENFELD	400 I
BIDDULPHIA REGIA (SCHULTZE) OSTENFELD	200 B
CERATULINA BERGONII (H PERAG)	300 S
CERATULINA BERGONII (H PERAG)	600 I
CERATIUM FURCA (EHR) CLAP + LACH	200 I
CHAETOCEROS ATLANTICUM (CLEVE)	1400 B
CHAETOCEROS DECIPIENS (CLEVE)	3300 I
CHAETOCEROS DECIPIENS (CLEVE)	400 B
CHAETOCEROS LORENZIANUM (GRUNOW)	1400 I
CHAETOCEROS LORENZIANUM (GRUNOW)	2200 B
CHAETOCEROS SECUNDUM (CLEVE)	1700 I
CHAETOCEROS SECUNDUM (CLEVE)	1900 B
CHAETOCEROS SP	4000 B
CHAETOCEROS TERES (CLEVE)	600 S
CHAETOCEROS TERES (CLEVE)	6600 I
CHAETOCEROS TERES (CLEVE)	5900 B
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	200 S
CORETHRON CRIOPHILUM (CASTRACANE)	100 B
DIPLOPSALIS LENTICULA (BERGH)	100 S
DIPLOPSALIS LENTICULA (BERGH)	100 I
DITYLUM SOL (GRUNOW) DE TONI	400 B
EUCAMPYA ZOOIDIACUS (EHR)	100 S
EUCAMPYA ZOOIDIACUS (EHR)	12200 I
EUCAMPYA ZOOIDIACUS (EHR)	16200 B
GUINARDIA FLACCIDA (CASTRACANE) PERAGALLO	400 S
GUINARDIA FLACCIDA (CASTRACANE) PERAGALLO	200 I
LEPTOCYLINDRUS DANICUS (CLEVE)	5200 S
LEPTOCYLINDRUS DANICUS (CLEVE)	41800 I
LEPTOCYLINDRUS DANICUS (CLEVE)	7800 B
MELOSIRA MONILIFORMIS (MULLER) AGARDH	2100 I
MELOSIRA SP	1500 B
NAVICULA SP	200 S
NAVICULA SP	1100 I
NAVICULA SP	1300 B
NITZSCHIA CLOSTERIUM (EHR) W SMITH	100 S
NITZSCHIA CLOSTERIUM (EHR) W SMITH	300 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	400 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	3500 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	700 B
NITZSCHIA SERIATA (CLEVE)	600 S
NITZSCHIA SERIATA (CLEVE)	2700 I
RHIZOSOLENIA ALATA (BRIGHTWELL)	200 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	400 I
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	500 S
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	4300 I
RHIZOSOLENIA STOLTERFORTHII (PERAGALLO)	400 I
RHIZOSOLENIA STOLTERFORTHII (PERAGALLO)	800 B
STEPHANOPHYXIS PALMERIANA (GREVILLE) GRUNOW	500 I

STATION PORT WACKING 100M

DATE 18/ 1/66

SPECIES	NUMBER
SYNEDRA SP	300 S
SYNEDRA SP	300 I
SYNEDRA SP	100 B
THALASSIOTHRIX FRAUENFELDI (GRUNOW)	400 B
THALASSIOSIRA ROTULA (MENUNIER)	400 I
THALASSIOSIRA ROTULA (MENUNIER)	200 B
TOTAL	190300

STATION	PORT HACKING 100M	DATE 25/ 1/66	
	SPECIES		NUMBER
	ASTERIONELLA JAPONICA (CLEVE + MOLLER)		800 B
	CERATULINA BERGONII (H PERAG)		100 S
	CERATIUM FURCA (EHR) CLAP + LACH		100 S
	CERATIUM PENTAGONUM (GOURRET)		100 B
	CHAETOCEROS SP		800 I
	CHAETOCEROS SP		400 B
	CLIMACODIUM FRAUENFELDIANUM (GRUNOW)		400 I
	DITYLUM SOL (GRUNOW) DE TONI		100 I
	EUCAMPYA ZODIACUS (EHR)		100 S
	EUCAMPYA ZODIACUS (EHR)		1000 I
	EUCAMPYA ZODIACUS (EHR)		2100 B
	HEMIALUS HAUCKII (GRUNOW)		200 I
	LEPTOCYLINDRUS DANICUS (CLEVE)		1300 S
	LEPTOCYLINDRUS DANICUS (CLEVE)		1200 I
	LEPTOCYLINDRUS DANICUS (CLEVE)		1800 B
	NAVICULA SP		200 I
	NAVICULA SP		500 B
	NITZSCHIA CLOSTERIUM (EHR) W SMITH		300 I
	NITZSCHIA CLOSTERIUM (EHR) W SMITH		100 B
	NITZSCHIA LONGISSIMA (BREB) ROLFS		300 S
	NITZSCHIA LONGISSIMA (BREB) ROLFS		100 I
	NITZSCHIA LONGISSIMA (BREB) ROLFS		100 B
	NITZSCHIA SERIATA (CLEVE)		200 I
	RHIZOSOLENIA ALATA (BRIGHTWELL)		100 B
	RHIZOSOLENIA FRAGILLISSIMA (BERGON)		200 S
	RHIZOSOLENIA FRAGILLISSIMA (BERGON)		100 I
	RHIZOSOLENIA FRAGILLISSIMA (BERGON)		100 B
	SYNEDRA SP		200 S
	SYNEDRA SP		100 I
	SYNEDRA SP		300 B
	TOTAL		13400

STATION PORT HACKING 100M DATE 1/ 2/66

SPECIES	NUMBER
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	210 B
BIDDULPHIA REGIA (SCHULTZE) OSTENFELD	20 B
CERATIUM FURCA (EHR) CLAP + LACH	100 S
CHAETOCEROS DECIPIENS (CLEVE)	200 I
CHAETOCEROS TERES (CLEVE)	300 S
CHAETOCEROS TERES (CLEVE)	420 B
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	50 B
CORETHRON CRIOPHILUM (CASTRACANE)	10 B
COSCINODISCUS SP	100 S
DITYLUM SOL (GRUNOW) DE TONI	10 B
EUCAMPIA ZODIACUS (EHR)	120 B
LEPTOCYLINDRUS DANICUS (CLEVE)	1100 S
LEPTOCYLINDRUS DANICUS (CLEVE)	300 I
LEPTOCYLINDRUS DANICUS (CLEVE)	30 B
MELOSIRA MONILIFORMIS (MULLER) AGARDH	20 B
NAVICULA SP	500 S
NAVICULA SP	100 I
NAVICULA SP	110 B
NITZSCHIA CLUSTERIUM (EHR) W SMITH	7600 S
NITZSCHIA CLOSTERIUM (EHR) W SMITH	300 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	2000 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	400 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	40 B
NITZSCHIA SERIATA (CLEVE)	400 S
NITZSCHIA SERIATA (CLEVE)	200 I
NITZSCHIA SERIATA (CLEVE)	220 B
PERIDINIUM ELEGANS (CLEVE)	10 B
PERIDINIUM TUBA (SCHILLER)	100 I
PLEUROSIGMA SP	100 S
PROROCENTRUM SCHILLERI (POHM)	700 S
PROROCENTRUM SCHILLERI (POHM)	100 I
RHIZOSOLENIA ALATA (BRIGHTWELL)	100 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	10 B
STEPHANOPHYXIS PALMERIANA (GREVILLE) GRUNOW	30 B
SYNEDRA SP	600 S
SYNEDRA SP	400 I
SYNEDRA SP	30 B

TOTAL 17040

STATION PORT HACKING 100M DATE 10/ 2/66

SPECIES	NUMBER
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	50 B
CERATIUM FUSUS (EHR) DUJARDIN	10 S
CERATIUM PENTAGONUM (GOURRET)	10 S
CLIMACODIUM FRAUENFELDIANUM (GRUNOW)	20 B
COSCINODISCUS SP	10 S
DIPLOPSALIS LENTICULA (BERGH)	10 S
EUCAMPIDIA ZODIACUS (EHR)	20 B
GONIAULAX MINIMA (MATZENAUER)	20 S
LEPTOCYLINDRUS DANICUS (CLEVE)	20 I
LEPTOCYLINDRUS DANICUS (CLEVE)	40 B
NAVICULA SP	50 S
NAVICULA SP	40 I
NAVICULA SP	50 B
NITZSCHIA LONGISSIMA (BREB) ROLFS	10 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	30 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	50 B
OXYTOXUM SPHAEROIDEUM (STEIN)	10 S
PERIDINIUM BREVE (PAULSON)	10 S
PERIDINIUM ELEGANS (CLEVE)	10 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	10 I
SYNEDRA SP	10 S
SYNEDRA SP	30 I
SYNEDRA SP	50 B
TOTAL	570

STATION PORT HACKING 100M

DATE 24/ 2/66

SPECIES	NUMBER
AMPHISOLENIA SCHRODERI (K+S)	100 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	900 S
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	100 I
BIDDULPHIA MOBILIENSIS (BAILEY)	10 B
CERATIUM FUSUS (EHR) DUJARDIN	200 S
CERATIUM PENTAGONUM (GOURRET)	100 S
CHAETOCEROS TERES (CLEVE)	400 S
DINOPHYSIS ACUMINATE (CLAPP + LACH)	100 I
DITYLUM SOL (GRUNOW) DE TONI	10 B
LEPTOCYLINDRUS DANICUS (CLEVE)	1000 S
LEPTOCYLINDRUS DANICUS (CLEVE)	400 I
LEPTOCYLINDRUS DANICUS (CLEVE)	100 B
MELOSIRA CRENUATE (EHR) KUTZING	600 S
MELOSIRA MONILIFORMIS (MULLER) AGARDH	3500 S
MELOSIRA POLARIS (GRUNOW)	300 S
NAVICULA SP	3600 S
NAVICULA SP	1700 I
NAVICULA SP	50 B
NITZSCHIA LONGISSIMA (BREB) ROLFS	3700 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	2100 I
NITZSCHIA SERIATA (CLEVE)	1500 S
NITZSCHIA SERIATA (CLEVE)	800 I
OXYTOXUM GLADIOLUS	100 S
OXYTOXUM GLADIOLUS	100 I
PLEUROSIGMA SP	1800 S
PLEUROSIGMA SP	500 I
PROROCENTRUM ROSTRATUM STEIN	600 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	200 S
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	10 B
STRIATELLA UNIPUNCTATA (LYNGBYE)	200 S
SYNEDRA SP	700 S
SYNEDRA SP	200 I
SYNEDRA SP	30 B
THALASSIOTHRIX ELONGATA (GRUNOW)	100 I
THALASSIOTHRIX NITZSCHIOIDES GRUNOW	200 I
THALASSIOSIRA ROTULA (MENUNIER)	100 S

TOTAL 26110

STATION PORT HACKING 100M DATE 1/ 3/66

SPECIES	NUMBER
AMPHISOLENIA GLOBIFERA KOF + SKOS	200 S
AMPHISOLENIA GLOBIFERA KOF + SKOS	300 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	100 S
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	800 I
ASTERIONELLA JAPONICA (CLEVE + MOLLER)	4200 B
CERATIILINA BERGONII (H PERAG)	300 S
CERATIUM FUSUS (EHR) DUJARDIN	200 B
CERATIUM PENTAGONUM (GOURRET)	100 S
CHAETOCEROS AFFINE (LAUDER)	100 S
CHAETOCEROS DECIPIENS (CLEVE)	1700 S
CHAETOCEROS DECIPIENS (CLEVE)	2200 I
CHAETOCEROS DECIPIENS (CLEVE)	3400 B
CHAETOCEROS TERES (CLEVE)	2200 S
CHAETOCEROS TERES (CLEVE)	3300 I
CHAETOCEROS TERES (CLEVE)	2000 B
EUCAMPYA ZODIACUS (EHR)	100 I
FRAGILARIA SP	2100 I
GONIAULAX GABRIELAE (SCHILLER)	100 I
GUINARDIA FLACCIDA (CASTRACANE) PERAGALLO	200 I
GUINARDIA FLACCIDA (CASTRACANE) PERAGALLO	300 B
HEMIALUS HAUCKII (GRUNOW)	100 S
LEPTOCYLINDRUS DANICUS (CLEVE)	3000 S
LEPTOCYLINDRUS DANICUS (CLEVE)	2800 I
LEPTOCYLINDRUS DANICUS (CLEVE)	3200 B
MELOSIRA CRENULATE (EHR) KUTZING	200 B
MELOSIRA MONILIFORMIS (MULLER) AGARDH	200 S
MELOSIRA MONILIFORMIS (MULLER) AGARDH	300 I
NAVICULA SP	1200 S
NAVICULA SP	2400 I
NAVICULA SP	2100 B
NITZSCHIA LONGISSIMA (BREB) ROLFS	100 S
NITZSCHIA LONGISSIMA (BREB) ROLFS	900 I
NITZSCHIA LONGISSIMA (BREB) ROLFS	700 B
NITZSCHIA SERIATA (CLEVE)	2100 S
NITZSCHIA SERIATA (CLEVE)	4000 I
NITZSCHIA SERIATA (CLEVE)	2900 B
OXYTOXUM GLADIOLUS	200 I
OXYTOXUM TURBO (KOFOLD)	200 S
PERIDINIUM GLOBULUS (STEIN)	200 I
PLEUROSIGMA SP	400 I
PLEUROSIGMA SP	100 B
PODOLAMPAS PALMIPES STEIN	100 S
PROROCENTRUM ROSTRATUM STEIN	100 S
PROROCENTRUM ROSTRATUM STEIN	300 I
PROROCENTRUM ROSTRATUM STEIN	100 B
RHIZOSOLENIA ALATA (BRIGHTWELL)	300 S
RHIZOSOLENIA ALATA (BRIGHTWELL)	700 I
RHIZOSOLENIA ALATA (BRIGHTWELL)	100 B
RHIZOSOLENIA FRAGILLISSIMA (BERGON)	600 S
RHIZOSOLENIA FRAGILLISSIMA (BERGON)	1700 I
RHIZOSOLENIA FRAGILLISSIMA (BERGON)	500 B

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SPECIES	NUMBER
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	100 S
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	100 I
RHIZOSOLENIA IMBRICATA (BRIGHTWELL)	100 B
RHIZOSOLENIA STOLTERFORTHII (PERAGALLO)	400 S
RHIZOSOLENIA STOLTERFORTHII (PERAGALLO)	200 I
RHIZOSOLENIA STOLTERFORTHII (PERAGALLO)	300 B
STEPHANOPHYXIS PALMERIANA (GREVILLE) GRUNOW	400 S
SYNEDRA SP	300 S
SYNEDRA SP	400 I
SYNEDRA SP	300 B
THALASSIOTHRIX LONGISSIMA (CLEVE + GRUNOW)	900 I
THALASSIOTHRIX LONGISSIMA (CLEVE + GRUNOW)	700 B
TOTAL	59900

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 planktological observations 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 Rottneest 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
69. Temperature and salinity observations from Australian tuna fishing vessels in 1964
70. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1965
71. Investigations by F.V. *Estelle Star* in South Australian and New South Wales waters in 1965
72. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1965
73. Investigations by F.V. *Degei* in Queensland waters in 1965
74. Temperature and salinity observations from Australian tuna fishing vessels in 1965
75. Investigations by F.V. *Degei* in New South Wales, South and Western Australian waters in 1966
76. Investigations by F.V. *Estelle Star* in South and Western Australian waters in 1966
77. Temperature and salinity observations from Australian tuna fishing vessels in 1966
78. Drift bottle releases and recoveries in Bass Strait and adjacent waters, 1958-1962
79. Drift bottle releases and recoveries in Western Australia, 1956-1957
80. Investigations by F.R.V. *Lancelin* in Western Australian waters in 1963
81. Coastal investigations off Port Hacking, New South Wales, in 1961
82. Coastal investigations off Port Hacking, New South Wales, in 1962
83. Coastal investigations off Port Hacking, New South Wales, in 1963
84. Coastal investigations off Port Hacking, New South Wales, in 1964
85. Coastal investigations off Port Hacking, New South Wales, in 1965
86. Coastal investigations off Port Hacking, New South Wales, in 1966
87. Coastal investigations off Port Jackson and Wollongong, New South Wales, in 1966
88. Coastal investigations off Maria Island, Tasmania, 1961-66