DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROTECTION SERVICE
PACIFIC REGION

THE EFFECTS OF MARINE DISPOSAL OF MINE TAILINGS ON PHYTOPLANKTON PRODUCTIVITY IN RUPERT INLET, B.C., 1974-1976

Regional Program Report: 79-16

by

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ABSTRACT

During 1974-1976, the Environmental Protection Service initiated a series of surveys to examine the effects of the surface turbidity resulting from marine disposal of mine tailings on phytoplankton productivity in Rupert Inlet, B.C. It appears, from the data collected during the three year period that the surface turbidity from mine tailings and waste rock disposal had a limited impact on phytoplankton productivity. Because of its more persistent nature, the turbidity field originating from the waste rock disposal area was determined to be considerably more significant in terms of effect on phytoplankton productivity than was the turbidity field generated near the mouth of Rupert Inlet due to the upwelling of benthic tailings deposits. In spite of the apparent minimal effect, the possibility of more subtle or long-term effects on phytoplankton must still be considered.

RÉSUMÉ

Le Service de la protection de l'environnement a entrepris, de 1974 à 1976, une série de relevés visant à étudier les effets, sur la productivité de phytoplancton de l'inlet Rupert (C.-B.), de la turbidité des eaux de surface résultant de l'immersion en mer des stériles miniers ou de la gangue. Les données recueillies portent à croire que la turbidité n'influe pas beaucoup sur la productivité du phytoplancton. Comme la turbidité engendrée par l'immersion de la gangue dure plus longtemps, on pense que son effet sur la productivité du phytoplancton est beaucoup plus important que celui de la turbidité engendrée à l'embouchure de l'inlet par la remontée des stériles du fond. Même si les effets apparents de cette turbidité semblent minimes, il y a lieu de s'interroger sur la possibilité d'effets plus subtils ou à long terme, sur le phytoplancton.

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SUMMARY AND CONCLUSIONS

During 1974-1976, the Environmental Protection Service conducted a series of surveys in Rupert and Holberg inlets to evaluate the effects on phytoplankton productivity of marine disposal of mine tailings and waste rock from the Island Copper Mine (Utah Mines Ltd.). On 12 separate surveys, tests to determine photosynthetic rates and water quality were completed.

Although some differences in productivity were detected at stations in Rupert Inlet, apart from seasonal variation, they were not generally considered to be significant. A localized area of reduced productivity was observed at the station nearest the outfall and waste rock disposal area. The lower production at this station could in part be attributed to the persistent surface turbidity originating from end dumping activities resulting in high light attenuation and a shallower euphotic zone. The control site in Holberg Inlet had the highest recorded productivity for most of the surveys in 1975-1976. In 1974, lower production rates at the control site than in Rupert Inlet were determined to be due to low levels of nitrate in the water column.

Based on the results of the three year program, it appeared that increased surface turbidity from mine tailings and waste rock disposal had a limited impact on the total phytoplankton productivity in Rupert Inlet. However, it should be noted that although gross effects of turbid surface waters were not observed, the possibility that turbidity is having more subtle, or long-term effect on phytoplankton must still be considered.

1 INTRODUCTION

The Environmental Protection Service initiated studies of biological, physical and chemical parameters in Rupert Inlet, B.C., and contiguous inlets, to monitor the effects of marine disposal of mine tailings and waste rock from the Island Copper Mine Ltd.

It was understood before the mine commenced operation that the detrimental effects of mine tailings and waste rock disposal would be limited to the deep benthic communities. However, the scouring action of the bottom tidal currents near the mouth of Rupert Inlet has resulted in the resuspension of benthic tailings deposits causing turbid water conditions and widespread tailings deposition in the intertidal zones of the area. These conditions could potentially affect shallow benthic, intertidal, and pelagic communities.

Subsequently, in 1974, a baseline study was begun to evaluate the effects of increased surface turbidity on the phytoplankton community. The objective of the study was to collect estimates of photosynthetic rates in Rupert and Holberg inlets. Comparison of relative production, and physical and chemical parameters, between stations during each survey have been used to assess the impact of this industrial discharge on phytoplankton productivity.

This report presents the results of baseline work conducted in 1974, and further studies completed in 1975 and 1976. To assist the reader, the large number of tables and figures referred to in the RESULTS AND DISCUSSION section can be found following the main body of the report.

1.1 Description of Study Area

The Rupert-Holberg Inlet system, which empties into Quatsino Sound, is located in the northwest portion of Vancouver Island (Figure 1). Rupert Inlet is approximately 10.2 km long with a mean width of 1.8 km and reaches a maximum depth of 165 metres near the mouth. The major source of freshwater to the system is the Marble River (Drinkwater, 1973). Rupert and Holberg inlets are connected to Quatsino Sound by Quatsino Narrows, know for its rapid tidal flushing and turbulence.

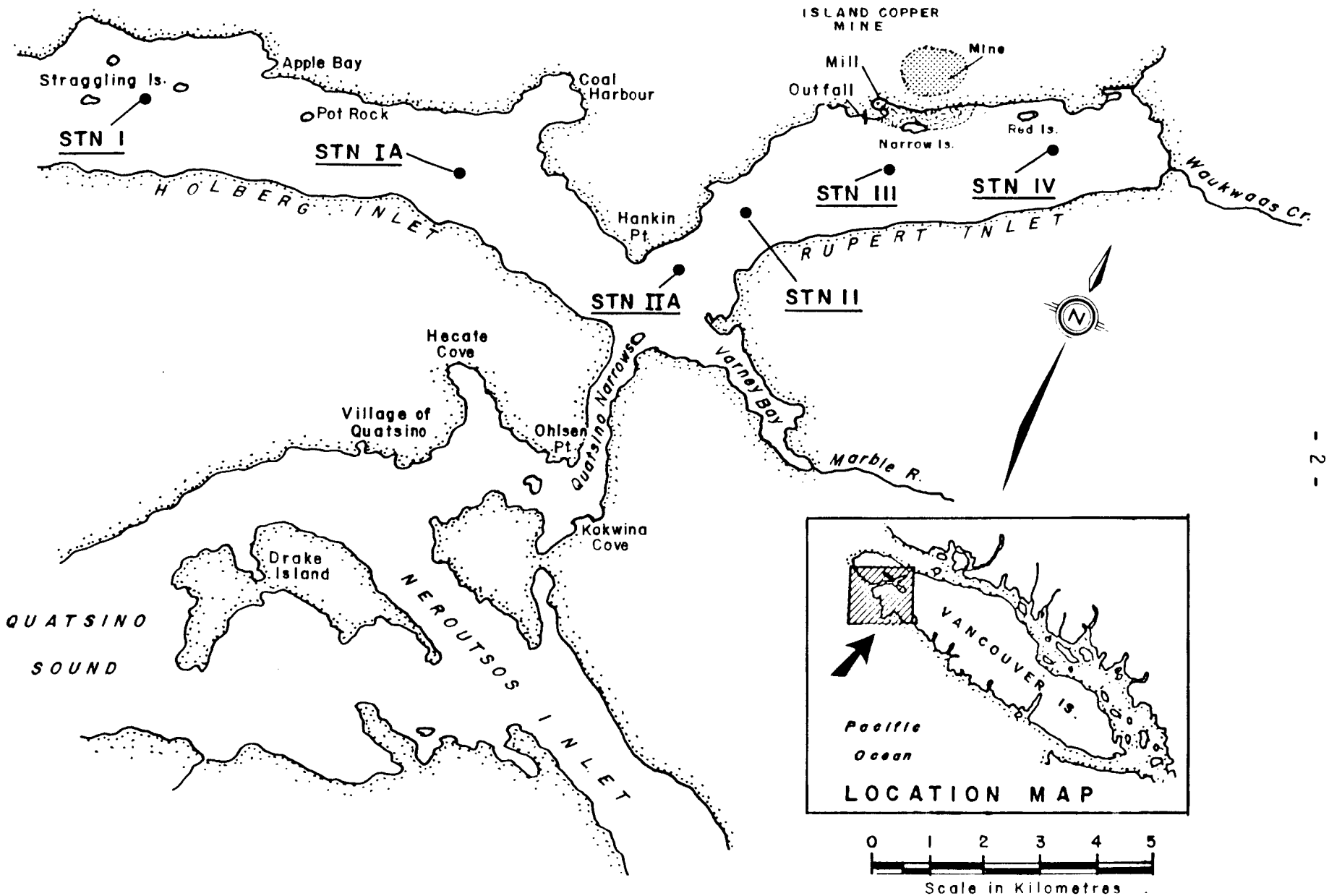

FIGURE I PHYTOPLANKTON PRODUCTIVITY STATIONS, 1974-76

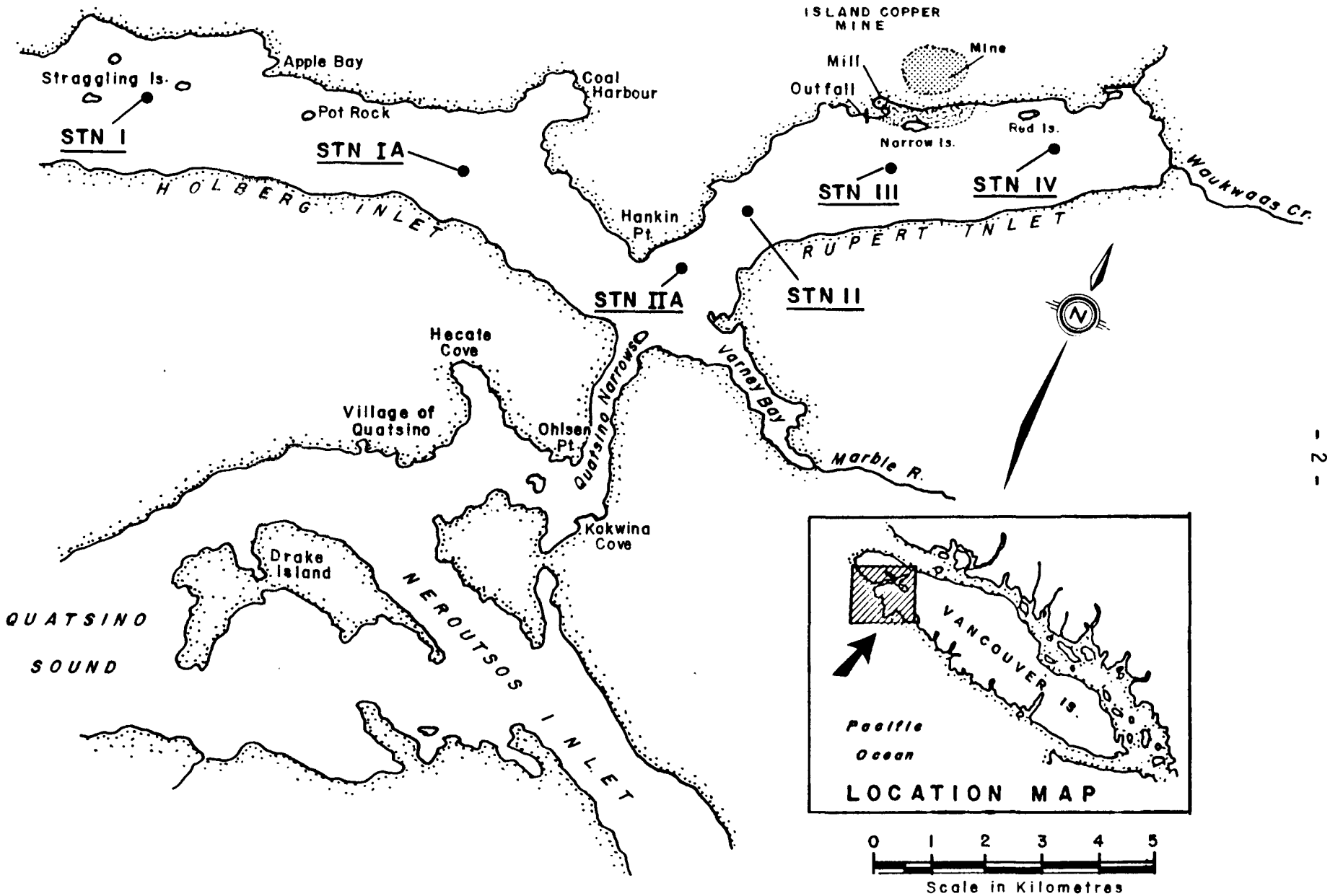

FIGURE I PHYTOPLANKTON PRODUCTIVITY STATIONS, 1974-76

2 METHODS AND MATERIALS

2.1 Biological

2.1.1 Primary Productivity. The standard C^{14} method proposed by Steeman-Neilsen (1952) was used with minor modifications incorporated. Water was collected from eight depths (0, 1, 2, 3, 5, 10, 20 and 30 metres) at four stations, with a plastic 6-litre Van Dorn bottle. Duplicate 125 ml light bottles were filled from each depth and inoculated with 1 ml $NaH^{14}CO_3$ radioisotope (1 μc) diluted in filtered seawater. At 1, 3, 5 and 20 metres, a 125-ml dark bottle was filled and inoculated with the same amount of isotope, to account for assimilation of isotope by processes other than photosynthesis. All work was completed in subdued light situations to avoid any chlorophyll degradation during the inoculation procedure. Three scintillation vials containing scintillation fluor (Liquid Scintillation Fluor, Aquasol[1]) were inoculated with 1 ml of the premixed radioactive solution to obtain an average disintegrations per minute (DPM) estimate.

Duplicate light and dark bottles were incubated *in situ* with clear plexiglass holders for four to seven hours. After the specified incubation period, the bottles were recovered, transported in dark boxes, and filtered immediately onto 45μ cellulose nitrate filters. Filters were placed in 10 mls scintillation fluor and stored in a cooler. Activity measurements were determined on a Packard Tri-Carb Liquid Scintillation Spectrometer (Model 3375). The equation of Strickland and Parsons (1972) was used to convert counts per minute to $mgC/m^3/day$. Areal production rates ($mgC/m^2/day$) were integrated on a Hewlett Packard Calculator Plotter (Model 9830).

2.1.2 Chlorophyll and Phaeophytin. Samples collected from 1, 3, 5 and 20 meters were removed to 1 litre polyethylene bottles, filtered onto cellulose nitrate filters with $MgCO_3$ suspension, stored in dessicant

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[1]Aquasol, New England Nuclear xylene-based fluor

chambers and frozen. In the laboratory, the filters were dissolved in 90% acetone and measured on a spectrophotometer for chlorophyll 'a' and phaeophytin. During and subsequent to the July 1976 survey, samples were filtered onto glass fibre fitlers, placed in dessicant chambers, and frozen. In the laboratory, the filters were dissolved in 90% acetone, placed in a tissue grinder and analyzed on a spectrophotometer for chlorophyll a and phaeophytin.

2.1.3 Phytoplankton Standing Crop. Samples for phytoplankton standing crop were collected at each depth and placed in 100 ml amber glass jars and preserved with Lugol's Solution. Identification and enumeration were completed using Utermohl's sedimentation method (1958). Results are expressed as cells and total numbers per 100 ml.

2.1.4 Seston. Samples for seston analysis were collected in 1-litre polyethylene bottles from 1, 3, 5 and 20-metre depths and frozen immediately. Samples were returned to the laboratory, filtered onto pre-weighed glass fibre filters, and the filters dried to a constant weight at 105°C. Samples were reweighed (dry sestion value) and ashed in a muffle oven at 550°C for approximately four hours. The loss of material on ignition (LOI) is a measure of particulate organic matter (% organic content).

2.2 Chemical

2.2.1 Dissolved Oxygen. Samples were collected from 1, 3, 5 and 20 metre depths to accompany the phytoplankton productivity survey.

Dissolved oxygen was measured by the standard Winkler titration method as outlined in Strickland and Parsons (1972). The percent saturation of oxygen in the water column was calculated from the salinity, temperature and measured dissolved oxygen at each depth using the equation of Gameson and Robertson (1955):

$$C = \frac{475 = (2.65 \times S)}{33.5 + T}$$

$$\% \text{ saturation} = \frac{A}{C} \times 100$$

where: C = saturation of oxygen in the sample water
S = salinity of the sample water
T = temperature of sample water
A = observed dissolved oxygen concentration in the sample.

2.2.2 Salinity. Density measurements were made on samples collected from each depth and were used to calculate salinity from Sigma-T tables. In 1976, water samples from each depth were analyzed with a Guildline Autosal (Model 8400).

2.2.3 Inorganic Carbon and pH. Samples were collected from 1, 3, 5 and 20 metre depths for inorganic carbon and pH, stored in 180 ml polyethylene bottles, frozen and analyzed later on an Accumet 420 pH meter. Inorganic carbon was calculated according to the procedure outlined in Strickland and Parsons (1972).

2.2.4 Nutrients. Samples for nutrients were collected from 1, 3, 5 and 20 metre depths, removed to 250 ml polyethylene bottles, and frozen. Analysis of nitrate, nitrite, ammonia, ortho-phosphate, total phosphate and silicate were completed by the method outlined in the Fisheries and Marine Service - Environmental Protection Service Laboratory Manual (1974).

2.3 Physical Measurements

2.3.1 Temperature. Water temperature was measured with a standard centigrade thermometer immediately after retrieval of the Van Dorn samplers.

2.3.2 Light. Total incident solar radiation in gram-calories/cm^2 was measured on a Belfort Pyrheliograph during the production studies. Percent extinction of light with depth in the water column was measured by a Montedoro-Whitney Solar Illuminance Meter (LMT-8B). These data were regressed to calculate the mean extinction coefficient 'k' according to the procedure outlined in Platt and Irwin (1968). Water transparency was estimated at each station using a standard 30 cm white secchi disc.

3 RESULTS AND DISCUSSION

3.1 Temperature (Table 1)

In 1974, temperature variations between stations in Rupert Inlet were minimal ranging from 9.5-12.5°C, during each individual survey. Temperatures in the water column in Holberg Inlet were lower in May and higher in July and September than at any of the Rupert Inlet stations.

In 1975, differences in temperatures with depth and between stations were also minimal during each survey. Surface temperatures were increased during the summer months. In November, a negative temperature gradient occurred at all stations with surface temperatures measured in a range from 5.5-8.5°C, while up to 10.0°C was recorded at 30 metre depths. The temperature profiles recorded in Holberg Inlet were generally lower than those of Rupert Inlet stations. Surface temperatures ranged from a low of 5.5°C in November to a high of 14.1°C in July.

The 1976 profiles, at the two new station locations, were similar to those recorded for other stations in 1974. Surface temperatures measured ranged from 9.0-12.0°C.

3.2 Salinity (Table 2)

In 1974, in May, a weakly developed halocline occurred between 5 and 10 metres. By July, surface salinities had increased and by September the water column was relatively uniform with salinities from 30.3 to 33.5^{o}/oo.

In 1975, a weak halocline was recorded in May between 3 and 5 metres. Near isohaline conditions, 30.0-33.4^{o}/oo, prevailed during the summer months indicating a well mixed water column. In November, low surface salinities were recorded at all stations with surface lows from 8.8 to 15.4^{o}/oo and values from 25.9 to 28.6^{o}/oo at 20 metres.

The 1976 profiles showed similar patterns of salinity stratification, with lower surface salinities occurring in May and more isohaline conditions in October. Salinities through the survey periods were measured in a range from 23.9 to 31.4^{o}/oo.

3.3 Dissolved Oxygen (Tables 3 and 4)

Dissolved oxygen values were high in May and July 1974, in the upper 5 metres, averaging 7.5 to 10.7 ppm in May and 7.4 to 10.4 ppm in July. In September, D.O. concentrations dropped to 5.9 to 8.1 ppm for the same stratum.

In 1975, oxygen values in May and June were from 5.7 to 9.5 ppm. During the July survey, surface values were from 8.6 to 12.0 ppm, and at 20 metre depths lower values were recorded in a range from 4.6 to 5.6 ppm. This undoubtly results from an increase in phytoplankton activity recorded during the July survey period. In September, D.O. values at Stations II and III were decreased slightly from the previous months. Concentrations at the surface were 6.4 and 5.9 ppm respectively compared to 9.5 and 8.1 ppm at Stations I and IV. Seasonally, values were measured in a range from 12.0 to 4.6 ppm both recorded in July. Conditions in 1976, were similar to those observed in 1974. DO values in May and July in the upper 5 metres were from 6.6 to 11.3 ppm. By October, values had dropped from 4.8 to 7.5 ppm for the same stratum.

3.4 Inorganic Carbon and pH (Tables 5 and 6)

In 1974, pH values were measured in a range from 6.9 to 8.3. The pH values recorded during the 1975 surveys ranged from 7.2 to 8.2 and in 1976 were from 7.7 to 8.0. Differences of pH with depth were minimal.

Total carbonate carbon values were relatively uniform throughout the water column during all surveys. Lowest values were recorded in the spring and during the winter months, when temperatures and salinities were also low. Surface values ranged from 6500 to 24 000 mgC/liter and at 20 meter depths values were from 12 000 to 24 500 mgC/liter. These levels indicated that the water was well buffered and the level of carbon exceeded that required for growth.

3.5 Nutrients

3.5.1 Nitrate and Phosphate (Tables 7 and 8). In 1974, nitrate values measured at Station I, Holberg Inlet, were comparatively lower

than at the Rupert Inlet stations, with the exception of the May survey. In July, values for nitrate were below the limit of detection at 1 and 3 metre depths at Station I (<.01 mgN/litre).

The levels of nitrate showed a distinct seasonal trend at all stations in 1975. Values in the upper 5 metres were highest .137 to 1.500 mgN/litre during the May survey, prior to the spring bloom. Lowest levels were measured in July with values from .01 to .02 mgN/litre. Low levels were prevalent during the summer months with increases noted in September and November.

In 1976, there was a slight depression of nitrate levels during the July survey; however, values never dropped below the limit of detection. In the upper 5 metres, values were recorded from .030 to .880 mgN/litre. For all surveys, there was less change in nitrate values recorded at 20 metre depths throughout the season and profiles of measured levels showed highest nitrate values at this depth. It should be noted as well that the method used for nitrate analysis has a detection limit of 0.01 mgN/liter which is higher than estimated growth limiting levels, 0.007 mgN/liter (McAllister et al, 1964).

Total phosphate levels for all surveys were above the suggested growth limiting level of 0.009 mgP/liter (McAllister et al, 1964) except in July 1974, at Station IV, 1 and 3 metres. In 1975, recorded phosphate levels showed little variation during the surveys or between stations. A similar situation was observed in 1976; however, levels were slightly higher during the October survey. The levels at 20 metres were usually higher than levels in the surface waters. It appears, from the data, that phosphate levels had little bearing on the total productivity at all stations.

3.5.2 Silicate (Table 9). An accurate method for the analysis of silicate was not available at the time the first survey in 1974 was conducted; however, results from the remaining surveys are included.

As diatoms are the predominant marine phytoplankton group, silicate concentrations were measured as a possible growth limiting factor. The range of silicate measured during all surveys was from 0.10 to 18.5 mgSi/liter. The lowest value recorded is above suggested lower levels for limiting growth indicating an abundance of this element.

3.6 Chlorophyll 'a' and Phaeopigments (Tables 10 and 11)

In 1974, chlorophyll 'a' values were highest in the upper 5 metres in July. In particular, Station IV had the highest concentration of chlorophyll 'a' (5.3-14.0 µg/litre). Values were lowest, 0.2 to 1.3 µg/litre, during the September surveys.

In 1975, chlorophyll 'a' values were again highest in the upper 5 metres in July. During this survey, Station II showed the least increase in chlorophyll 'a' concentrations, possibly because of mixing in the water column. Levels in May and June were low, and as expected, low levels were measured in November (<0.1 to 1.3 µg/litre). The 20 metre values were consistently lower, often undetectable, than those in the euphotic zone. The recorded season maximum was 21.5 µg/litre at Station I in July.

The recorded chlorophyll 'a' values for the 1976 surveys did not appear to show any direct relationship to the level of phytoplankton productivity.

Phaeopigments were generally undetectable during 1974 and 1975, with the exception of July and August 1975, which coincided with periods of high chlorophyll concentrations and high productivity. The values recorded in 1976 did not appear to relate to the levels of productivity measured.

3.7 Seston (Tables 12 and 13)

In 1974, mean dry seston values were generally lowest at Station III (1.4 to 4.2 mg/litre) when compared to the other Rupert Inlet stations. Station III frequently had higher mean dry seston values than either Stations II or IV in 1975 (1.8 to 2.5 mg/litre), and mean levels were always highest at Station III in 1976 (9.6-16.6 mg/litre). The turbid water in the proximity of the waste rock dump area undoubtly contributed to the high dry seston values at Station III. Only in July and August 1975, did the percent organic content of dry seston (from 40-87%) reflect the levels of phytoplankton production measured at the corresponding stations.

It appears from the data that the seston levels have a limited relationship to standing crop estimates of productivity values.

3.8 Light (Tables 14 and 15)

Percent extinction of light intensity with depth was recorded at each sampling site to one percent of surface intensity.

Differences in mean extinction coefficients between stations during each survey were not significant over the three year period. In 1974, mean extinction coefficients at the control site and Station III were similar, from .4200 to .6075. There was slightly more seasonal variation in 1975, with values at the two stations ranging from .2402 to 2.0097 (averages for 1975 were .6667 and .8846 for Station I and Station III, respectively). The exceptionally high mean extinction coefficient measured during November 1975 (from 1.4234 to 2.0097), were probably due in part to the heavy overcast conditions. The 1976 k values were all considerably higher. In October, the high k value recorded at Station III was due to an intense localized plankton bloom adjacent to the waste rock dump site.

Secchi depth values varied widely between the surveys; however, with the exception of three surveys, differences between stations were usually small. In May and June 1975, secchi depths were 14 and 11 metres at Station I compared to 6 and 4 metres at Station III. As well, in October 1976, the 13 meter secchi depth at Station IA was considerably higher than the one metre secchi depth at Station III.

The percent total daylight utilized during the Carbon-14 incubation averaged 37 to 83% for the three year period; however, percentages were generally comparable during each survey. The samples from Station I (and Station IA) were often incubated for a slightly longer period and therefore utilized a higher percentage of daylight.

3.9 Phytoplankton Standing Crop (Appendix I)

The highest concentrations and diversity of phytoplankton in 1974, occurred during the September survey. At this time, a marked shift in dominance from Bacillariophyceae to Dinophyceae was also recorded. In July, *Coscinodiscus* spp. was the predominant diatom in Rupert Inlet, whereas at Station I, the most common diatom was *Chaetoceros* spp. Maximum numbers of cells were generally above 10 metres.

A distinct phytoplanktom bloom occurred during the July 1975 survey. The predominant organisms at all stations were Skeletonema costatum and Cyclotella sp. In August, there was a decrease in both diversity and total numbers. The highest diversity of phytoplankton was recorded in September and although the numbers of Dinophyceae increased, plankton density was low. The standing crop estimate was noticeably lower at Station III during this survey. The estimates recorded for the November survey period were lower but typical of winter phytoplankton populations.

The same pattern of shifting dominance, diatoms in the early summer and dinoflagellates in late fall, was observed in 1976. In May, Skeletonema costatum was common at all station locations. In July profiles showed lower diversity at all sites, with reduced numbers of diatoms and high numbers of chrysophytes and crytophytes. An intense bloom of the dinoflagellate Cochlodinium spp. was recorded at Station III in October. At the time of sampling the water was a distinct rusty-brown colour. The intensity of the bloom was not observed at the other stations. (The organism has been identified as Cochlodinium c.f. citron, Taylor, 1978.)

3.10 Phytoplankton Production (Table 16)

In 1974, the highest areal production rates for May and September, 5610 and 1956 mgC/m^2/day, respectively, were recorded at Station II. In July, the maximum, 2314 mgC/m^2/day, was recorded at Station IV, at the head of Rupert Inlet. The control area, Station I, in Holberg Inlet had noticeably lower rates of production in July, and to some degree in September. In July, the reduced production could have been due to low nitrate levels as nitrate was undetectable at 1 and 3 metres. Productivity was generally highest from one to three metres, indicating a slight surface inhibition. Little production was recorded at or below the 20 metre depth.

In 1975, with the exception of the July survey, productivity rates were reasonably comparable between stations. Unlike 1974, Station I usually had the highest recorded areal production rates. In July, production rates at Stations I and IV rose to 6040 and 5842 mgC/m^2/day,

which was 30-50% higher than those recorded at Stations II and III (2259 and 4370 mgC/m^2/day). (Nitrate levels at Station I were undetectable at one and three metres; however, as productivity was very high, this may be expected.) Station III, located near the waste rock dump area and outfall, frequently had the lowest levels of productivity. This was undoubtly due in large measure to reduced light penetration because of turbid surface water. Levels were very low during the September survey and virtually zero production was recorded in November. As was noted in 1974, production was highest from one to three metres and was generally zero below 20 metres.

Despite the unusually low levels of production in 1976, values between stations were comparable, except during the October survey. A distinct bloom was observed in the area near Station III as the production rates, 4861 mgC/m^2/day, indicates. The water was noticeably discoloured by phytoplankton. The lower levels at Stations IA and IIA, 175 and 429 mgC/m^2/day, implied that no such phytoplankton increase occurred at these sites.

Some measurements of productivity by Stephens and Sibert (1976) led them to conclude that the standing crop of Rupert Inlet was limited solely by water column stability rather than by light penetration or by nutrient availability. In view of the single locality testing (Coal Harbour) which would not reflect in situ conditions, this conclusion may have been somewhat inappropriate.

All samples in this study were incubated in situ near the collection site and therefore are an indication of the conditions which would effect resident populations. This was clearly demonstrated at the station nearest the waste dump where turbid water conditions were constant. At Station II and IIA, the instability of the water column was undoubtly an influence on productivity.

Typical of most B.C. waters, productivity was restricted to the top 10-15 metres (with the exception of Station III).

A similar program of production monitoring was completed in Neroutsos Inlet and Quatsino Sound in the same time frame. Levels of productivity at the control area located in Quatsino Sound were

comparable to those in Holberg, although the timing of peak growth periods appeared to differ. Near the head of Neroutsos Inlet, however, production was extremely low during the periods when the pulp mill was operating (Sullivan, 1979). By comparison, the impact from the pulp mill discharges upon phytoplankton productivity were far more significant than those attributable to the mine site.

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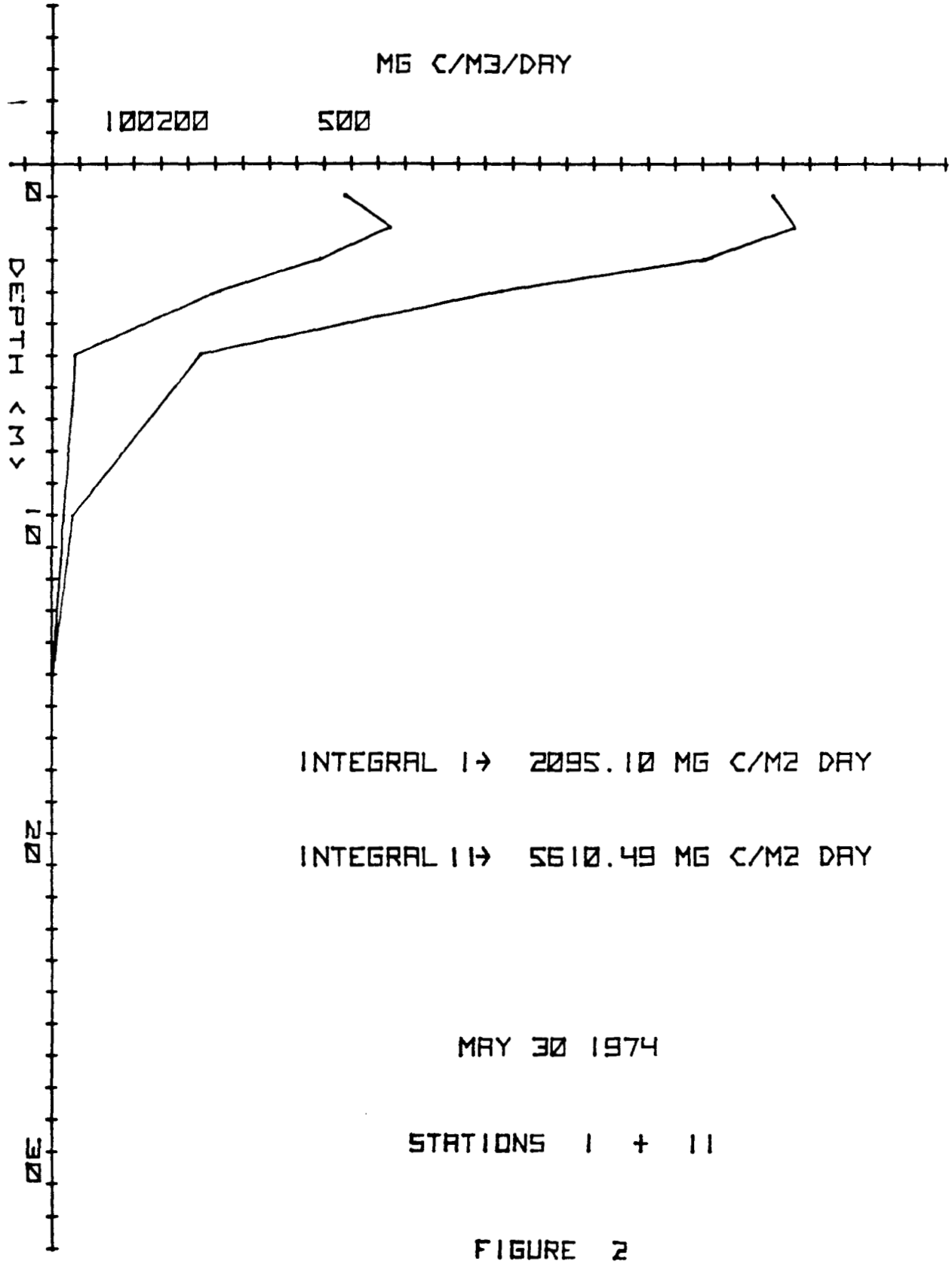
Thanks are also due to R. Woods for the enumeration and identification of phytoplankton from 1975 to 1976.

FIGURES 2 to 24


MG C/M3/DAY
100200
500
0
10
20
30
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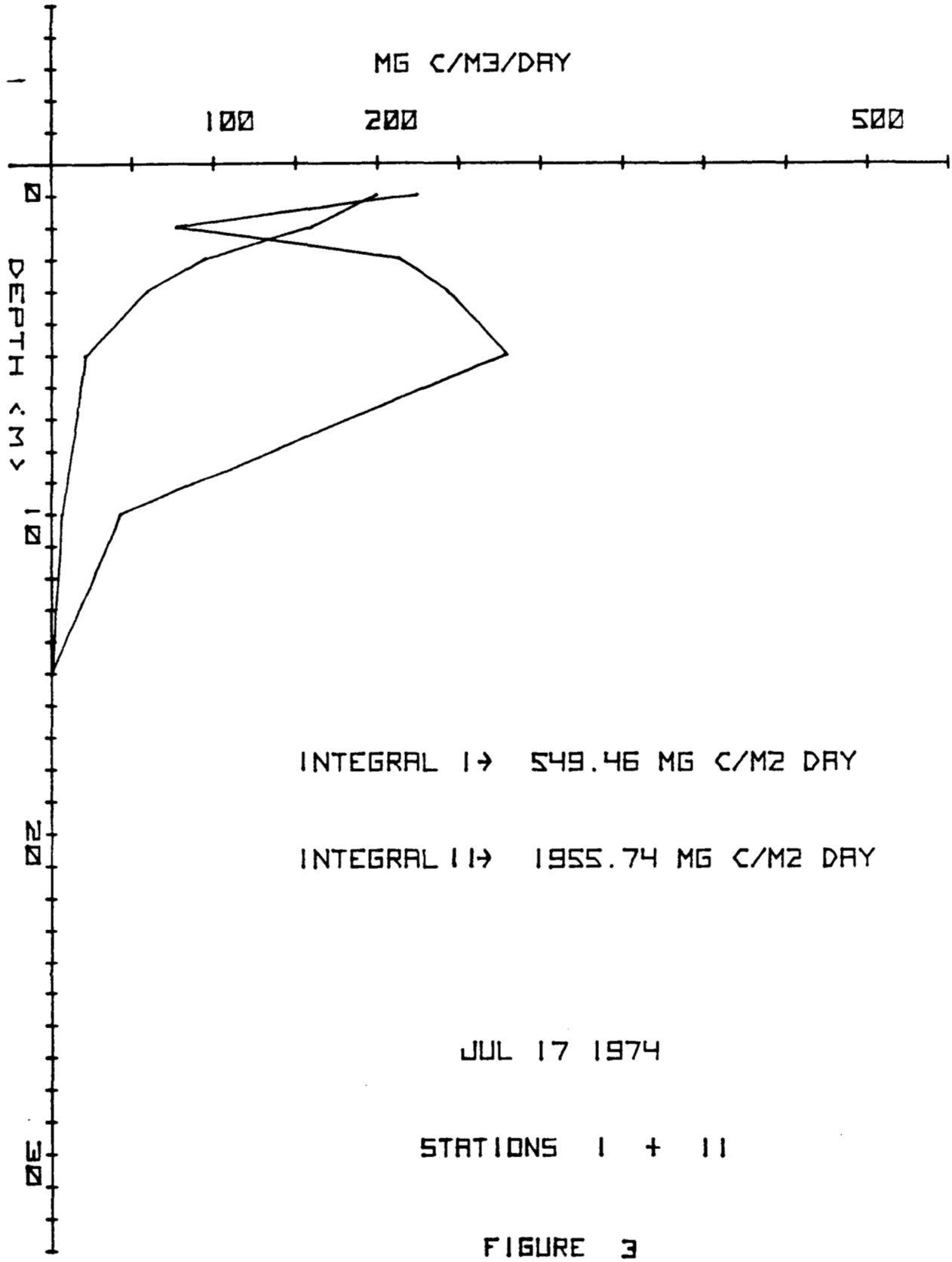
INTEGRAL II→ 5610.49 MG C/M2 DAY
MAY 30 1974
STATIONS I + II

FIGURE 2


MG C/M3/DAY
100
200
500
DEPTH (M)
0
10
20
30
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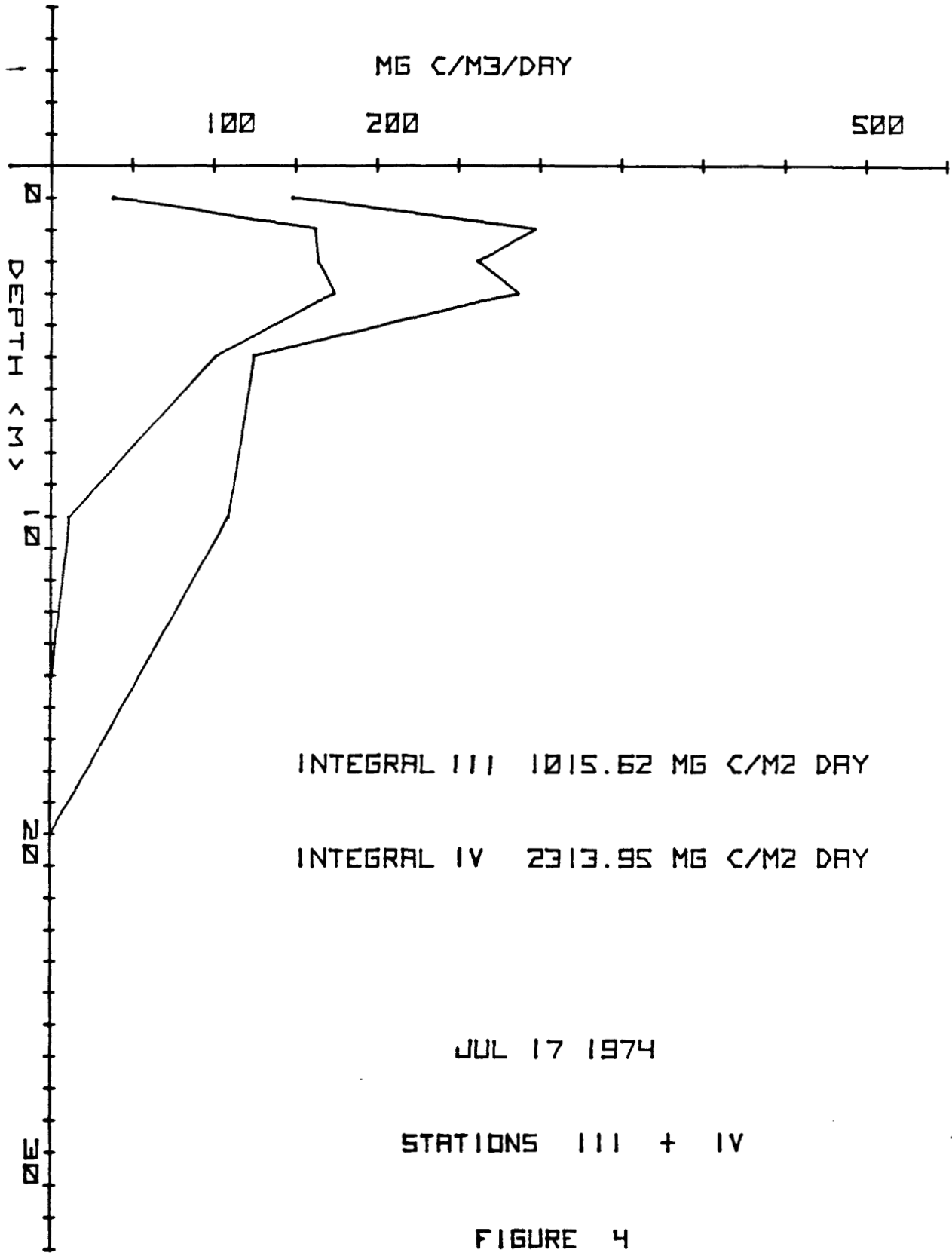
INTEGRAL II→ 1955.74 MG C/M2 DAY
JUL 17 1974
STATIONS I + II

FIGURE 3


MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
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INTEGRAL IV 2313.95 MG C/M2 DAY
JUL 17 1974
STATIONS III + IV

FIGURE 4

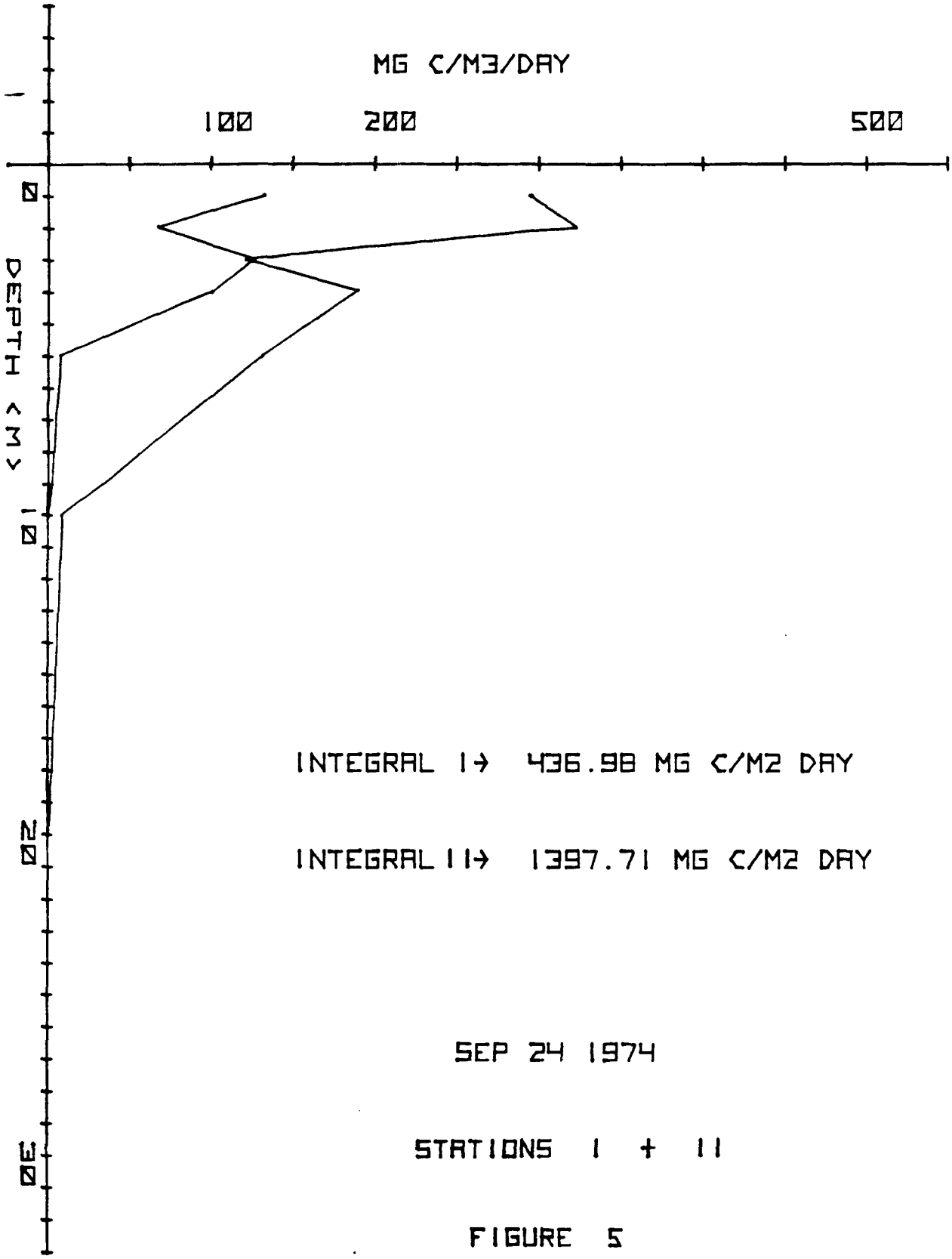
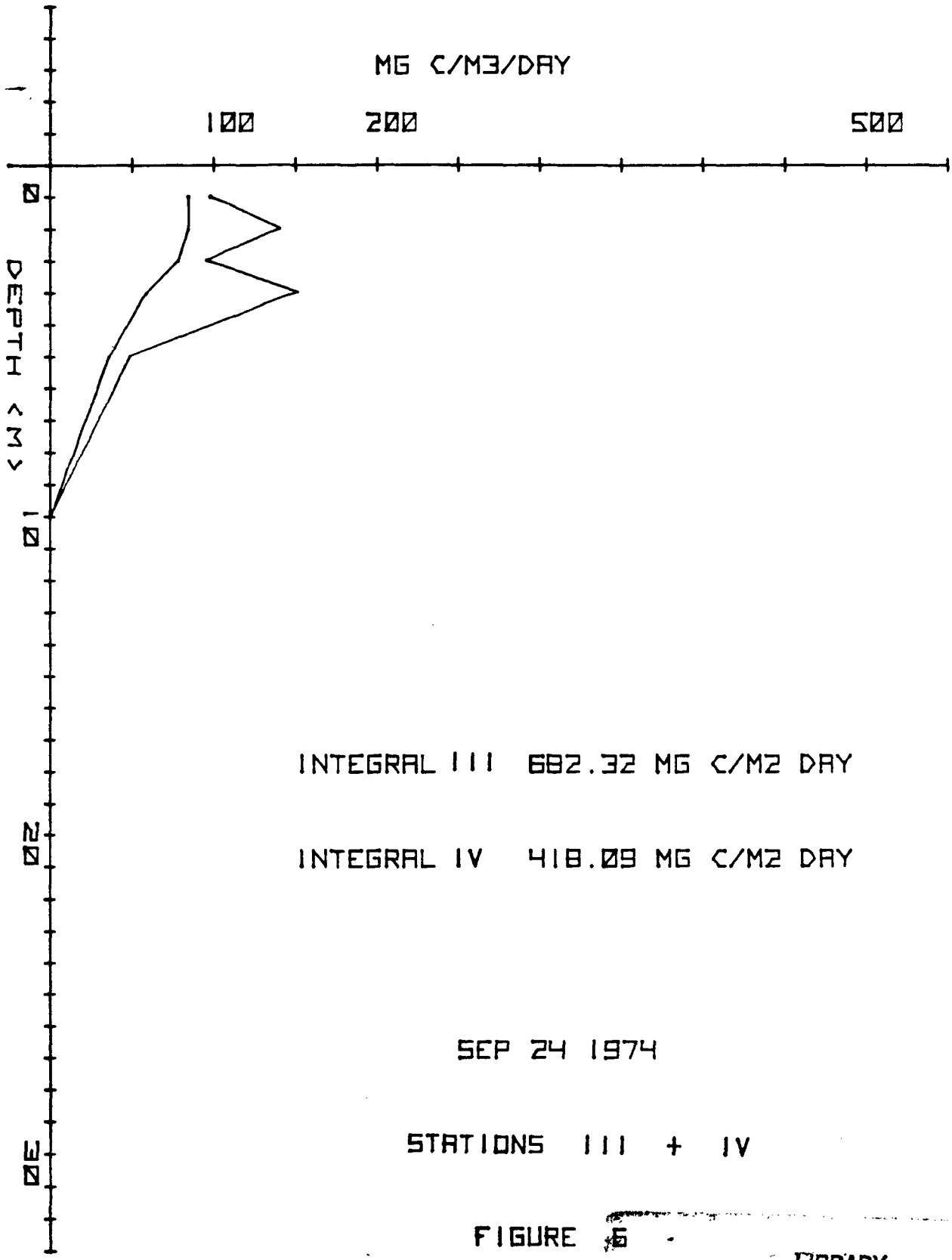

MG C/M3/DAY
100
200
500
DEPTH (M)
0
10
20
30
INTEGRAL I→ 436.98 MG C/M2 DAY
INTEGRAL II→ 1397.71 MG C/M2 DAY
SEP 24 1974
STATIONS I + II

FIGURE 5



INTEGRAL III 682.32 MG C/M2 DAY

INTEGRAL IV 418.09 MG C/M2 DAY

SEP 24 1974

STATIONS III + IV

FIGURE 6

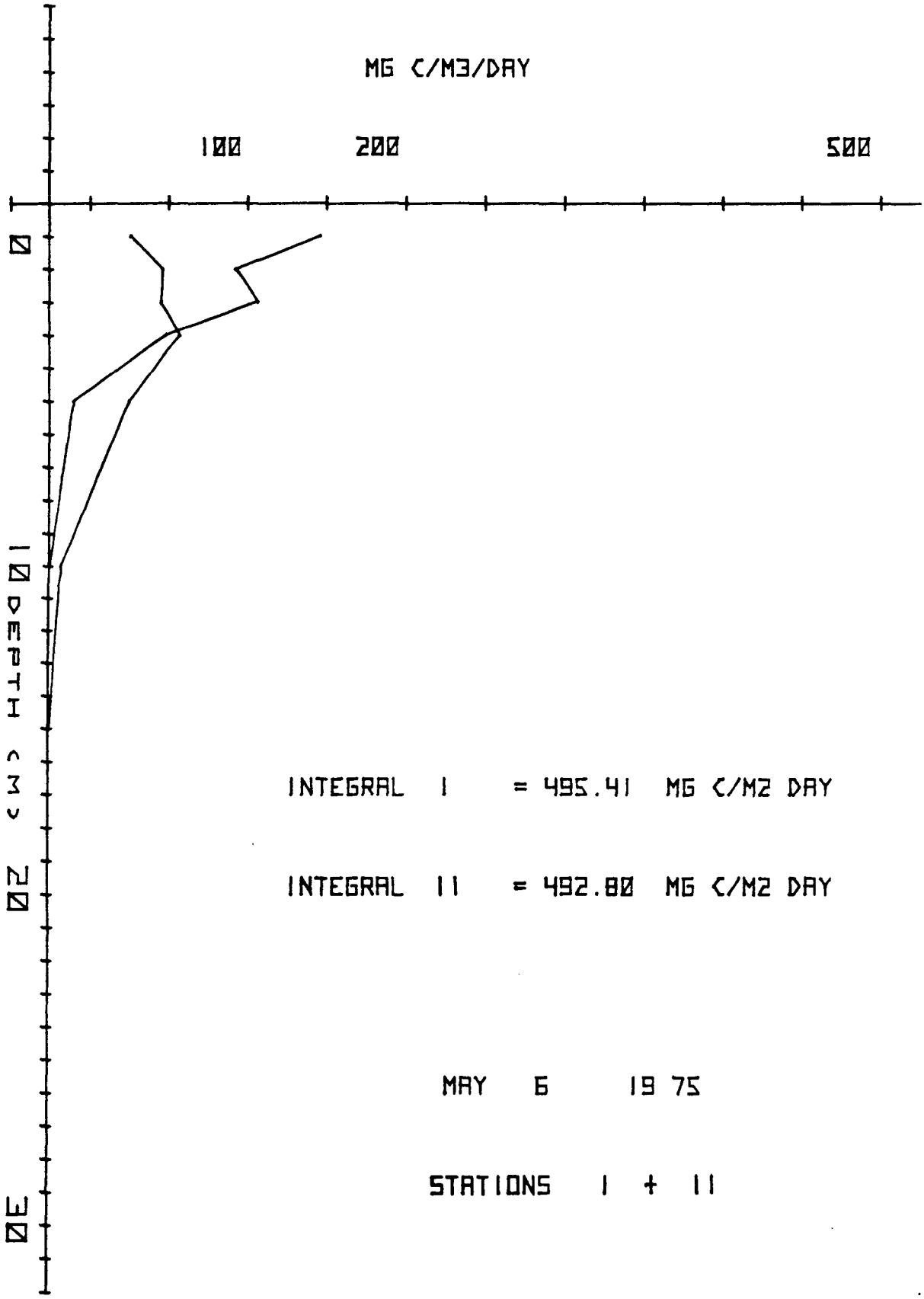

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL I = 495.41 MG C/M2 DAY
INTEGRAL II = 492.80 MG C/M2 DAY
MAY 6 19 75
STATIONS I + II

FIGURE 7

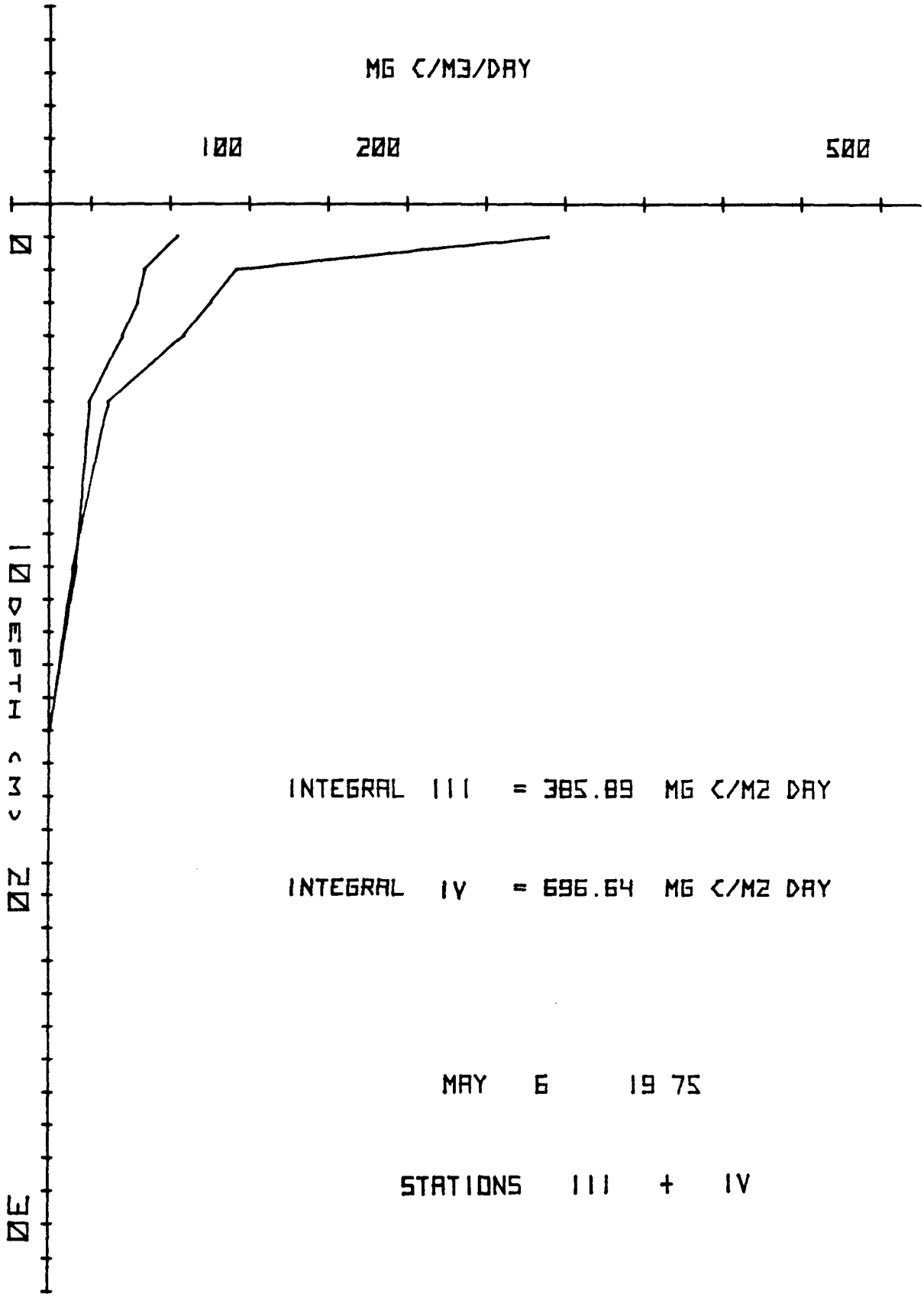

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL III = 385.89 MG C/M2 DAY
INTEGRAL IV = 696.64 MG C/M2 DAY
MAY 6 1975
STATIONS III + IV

FIGURE 8

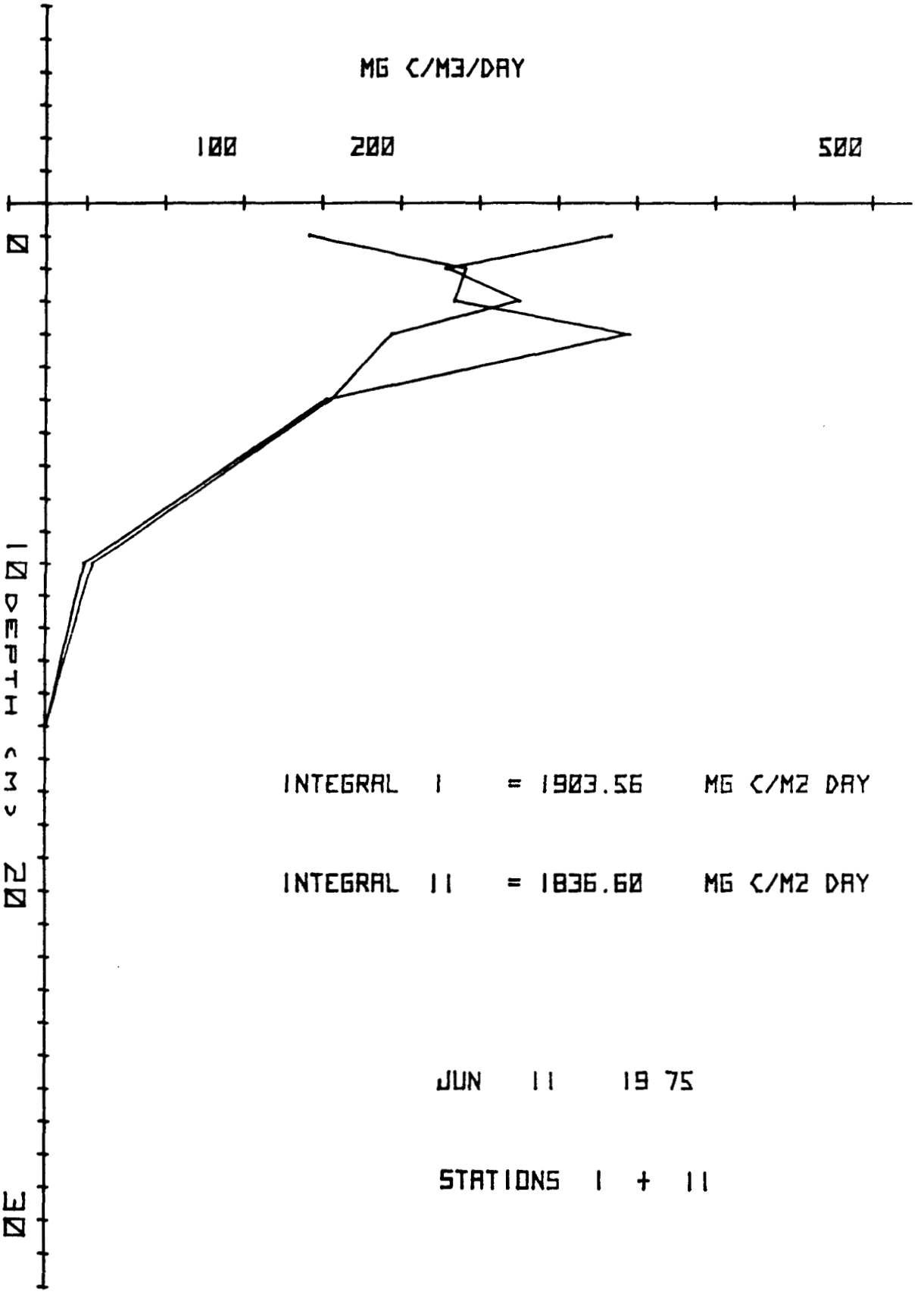

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH CMS
INTEGRAL I = 1903.56 MG C/M2 DAY
INTEGRAL II = 1836.60 MG C/M2 DAY
JUN 11 19 75
STATIONS I + II

FIGURE 9

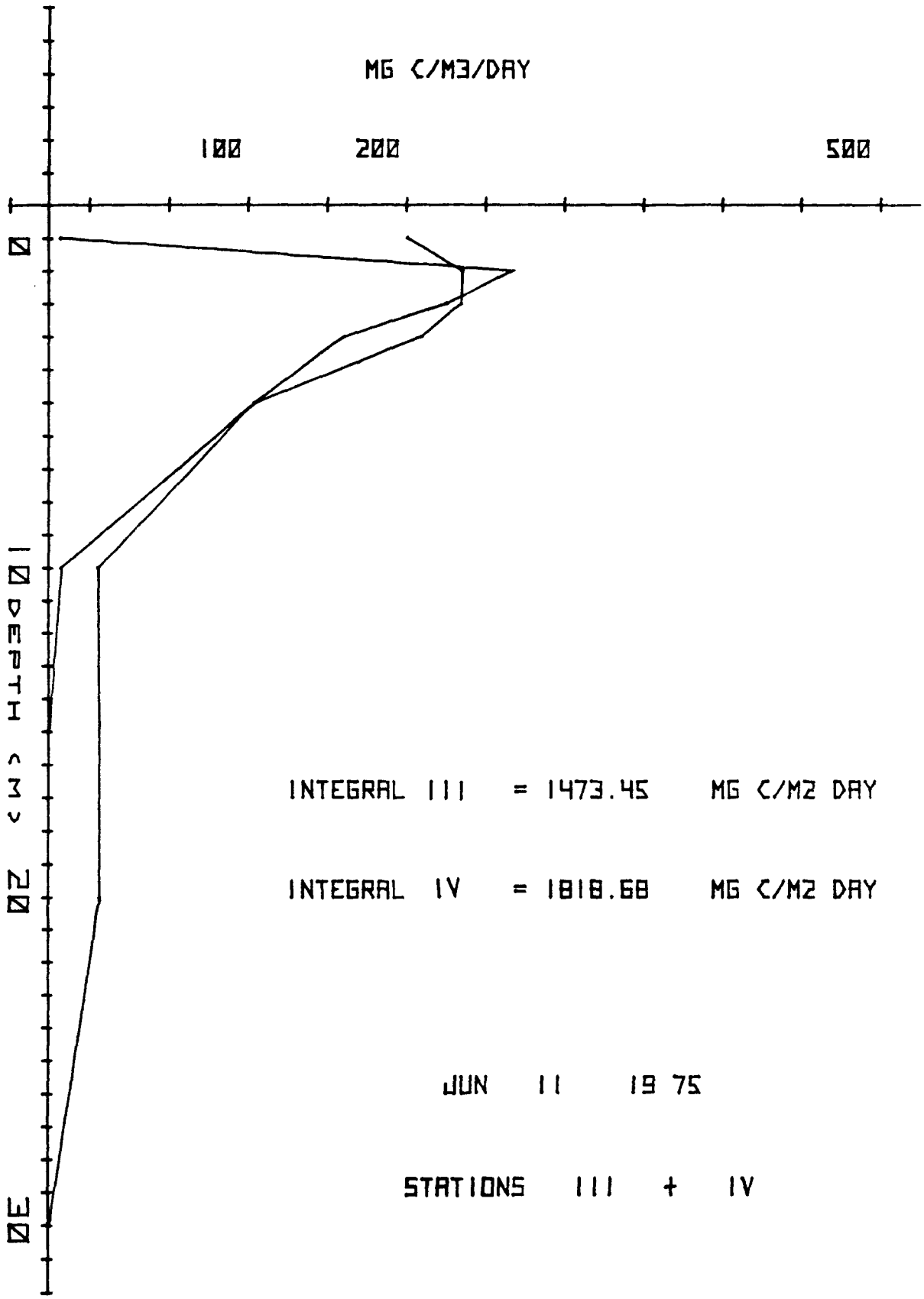

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL III = 1473.45 MG C/M2 DAY
INTEGRAL IV = 1818.68 MG C/M2 DAY
JUN 11 19 75
STATIONS III + IV

FIGURE 10

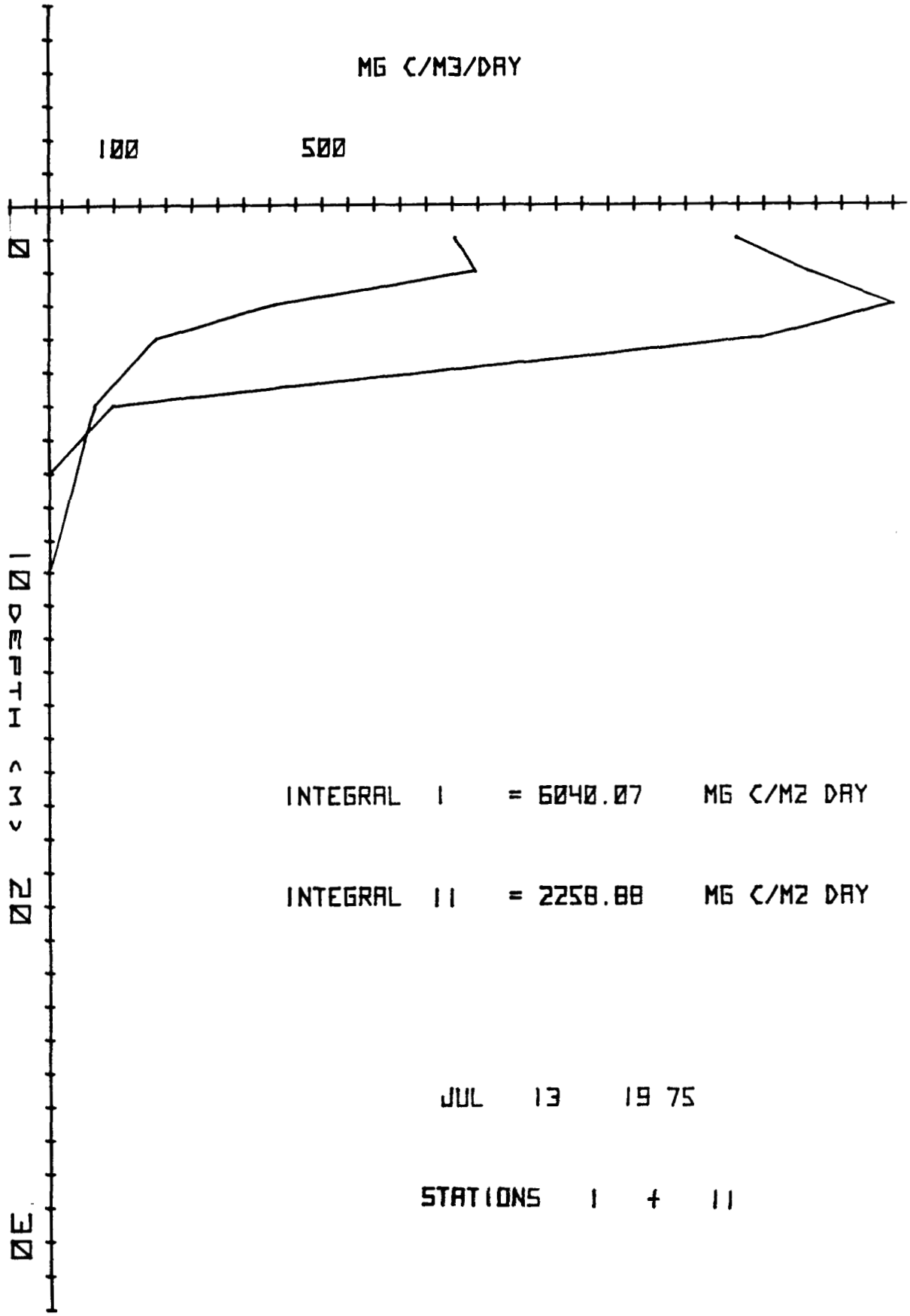

MG C/M3/DAY
100
500
0
100
DEPTH (M)
200
300
INTEGRAL I = 6040.07 MG C/M2 DAY
INTEGRAL II = 2258.88 MG C/M2 DAY
JUL 13 1975
STATIONS I + II

FIGURE 11

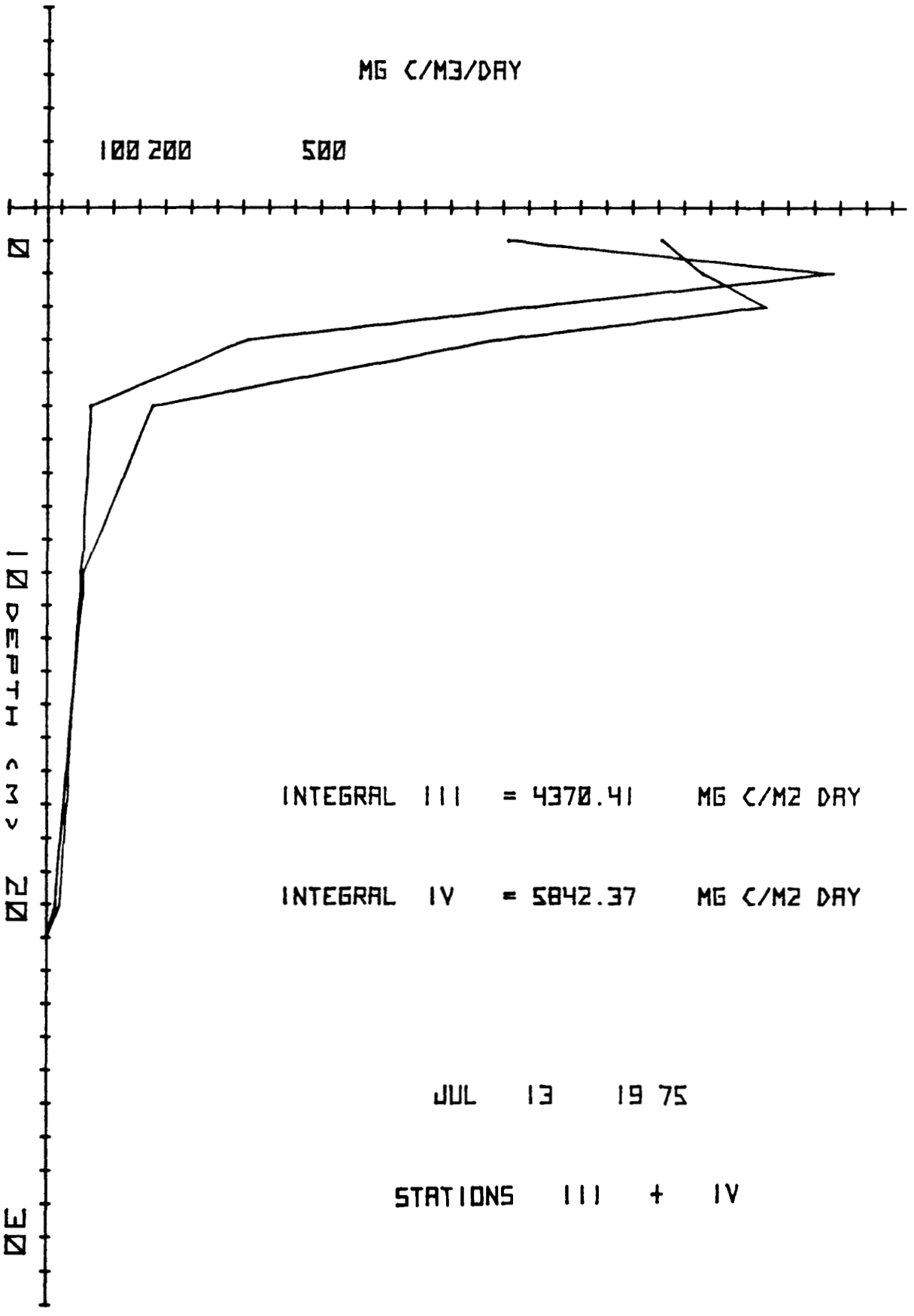

MG C/M3/DAY
100 200
500
0
100 DEPTH (M)
200
300
INTEGRAL III = 4370.41 MG C/M2 DAY
INTEGRAL IV = 5842.37 MG C/M2 DAY
JUL 13 1975
STATIONS III + IV

FIGURE 12

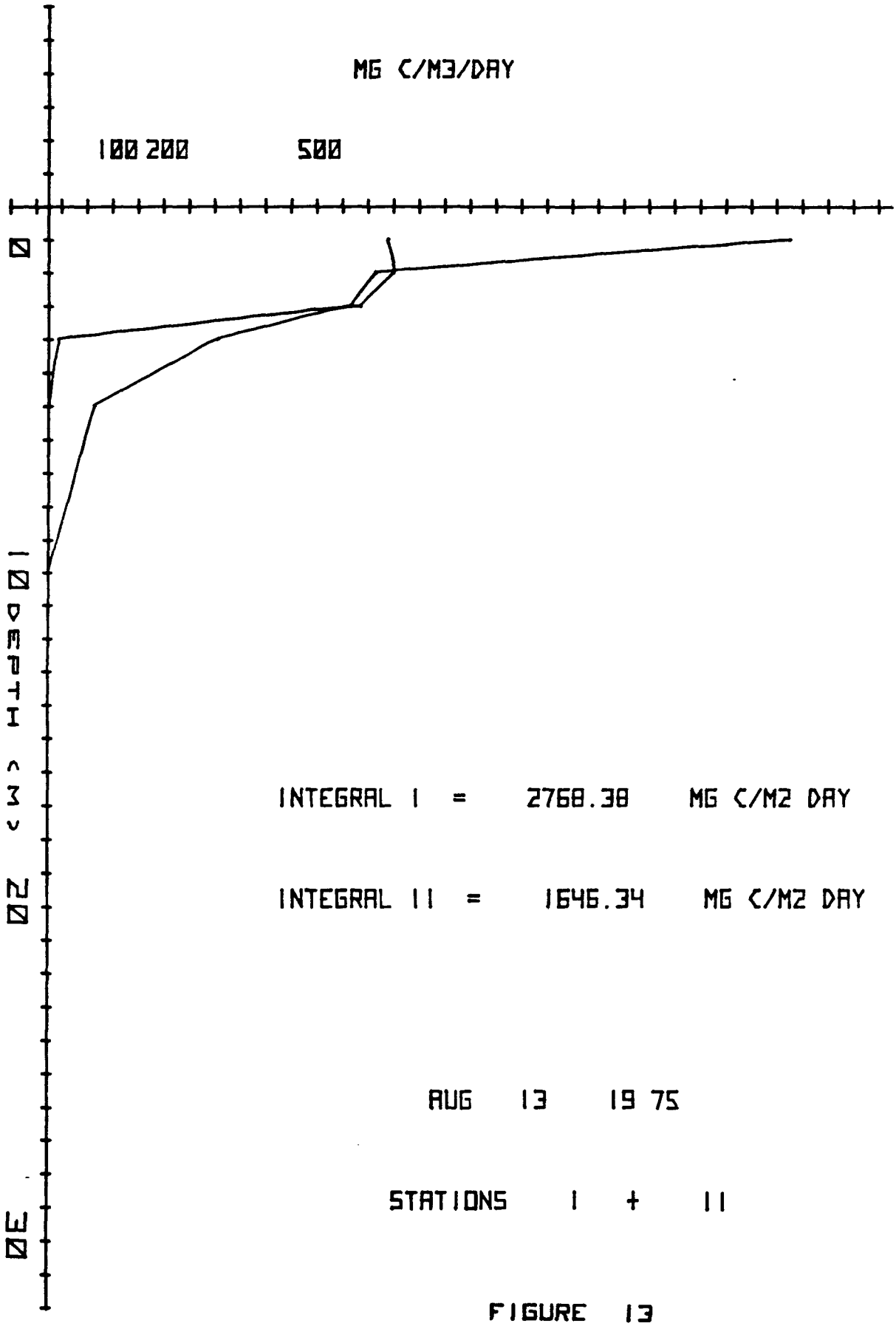

MG C/M3/DAY
100 200
500
0
100
DEPTH (M)
200
300
INTEGRAL I = 2768.38 MG C/M2 DAY
INTEGRAL II = 1646.34 MG C/M2 DAY
AUG 13 1975
STATIONS I + II

FIGURE 13

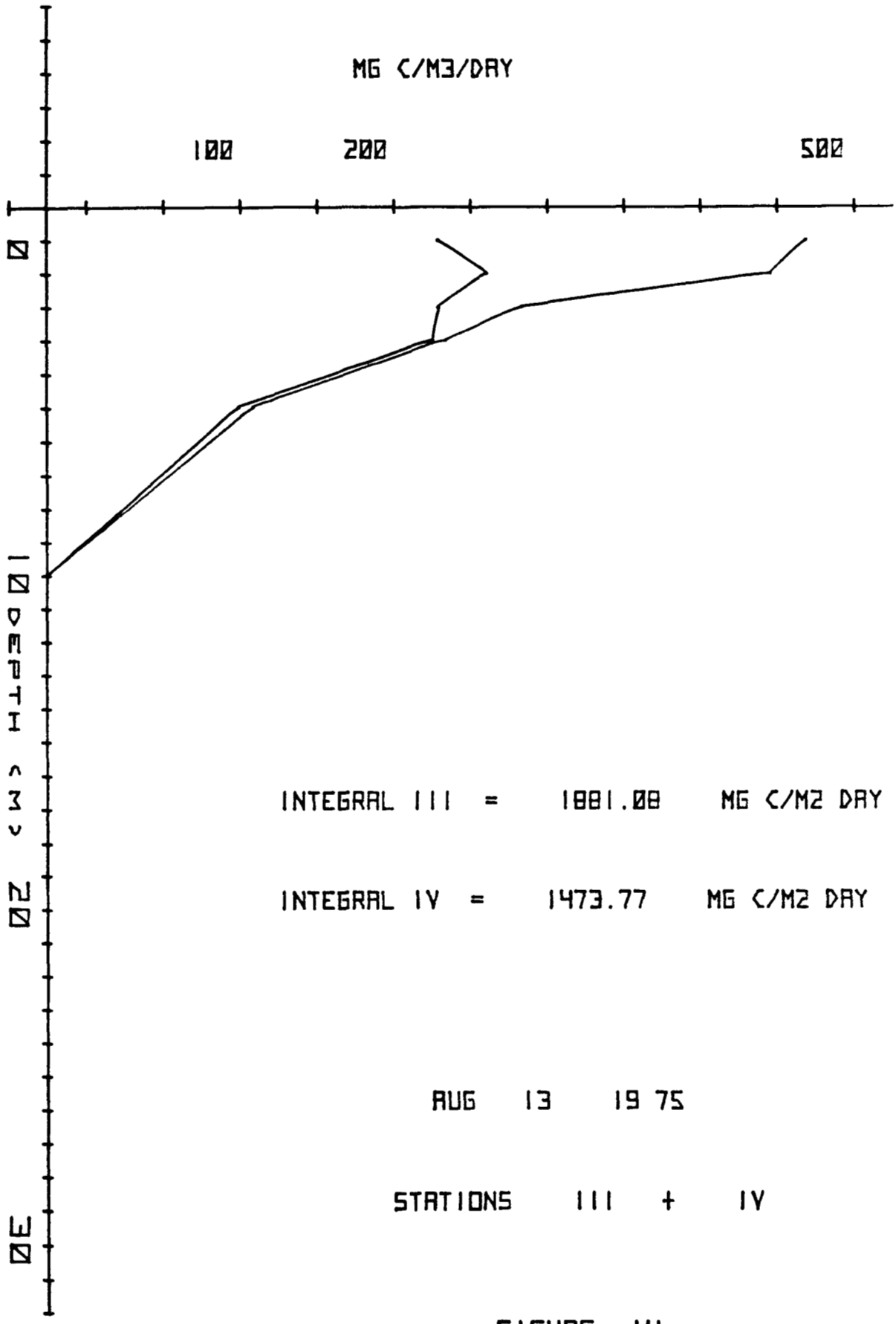
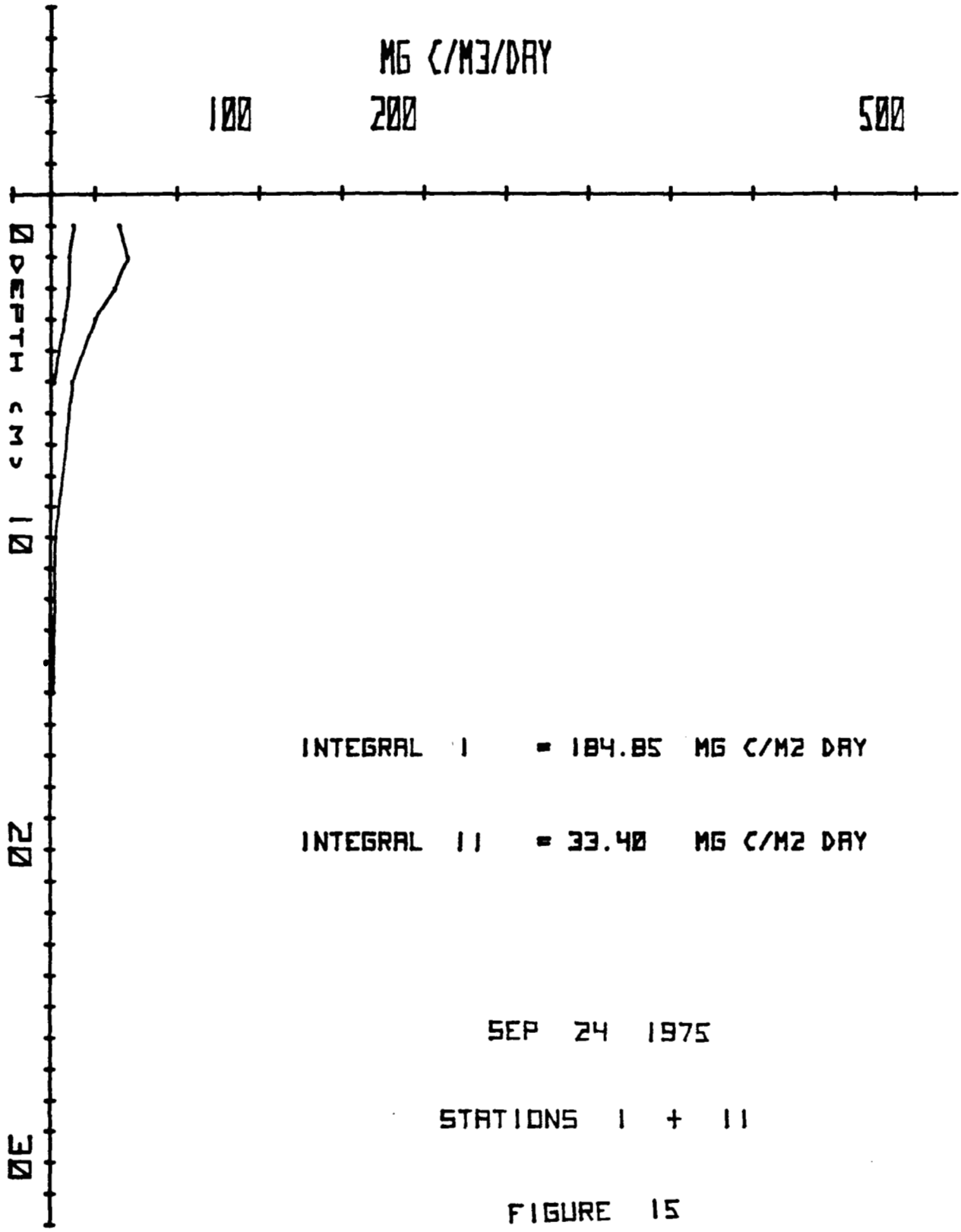

MG C/M3/DAY
100
200
500
0
100
200
300
DEPTH CM
INTEGRAL III = 1881.08 MG C/M2 DAY
INTEGRAL IV = 1473.77 MG C/M2 DAY
AUG 13 1975
STATIONS III + IV

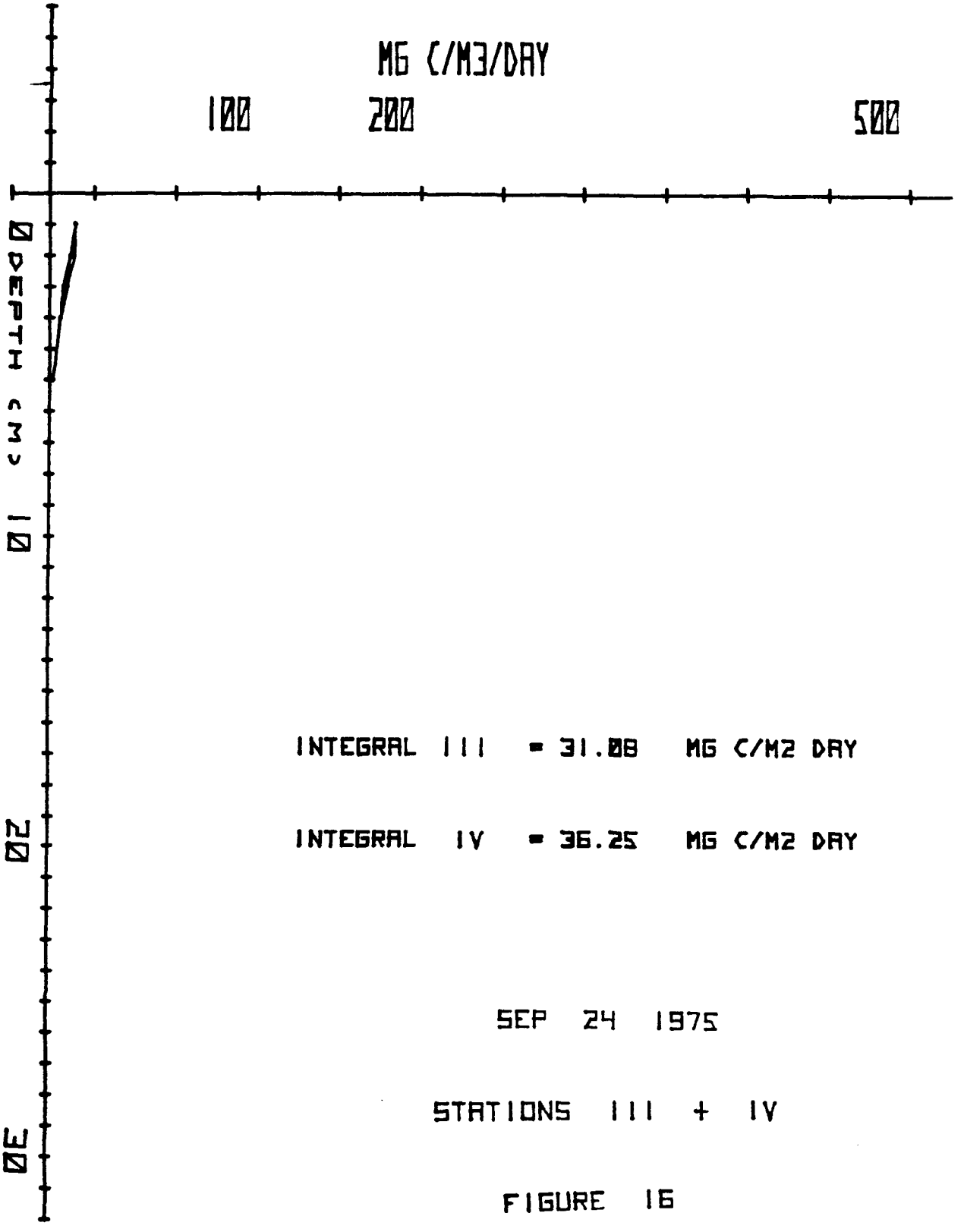
FIGURE 14



SEP 24 1975

STATIONS I + II

FIGURE 15



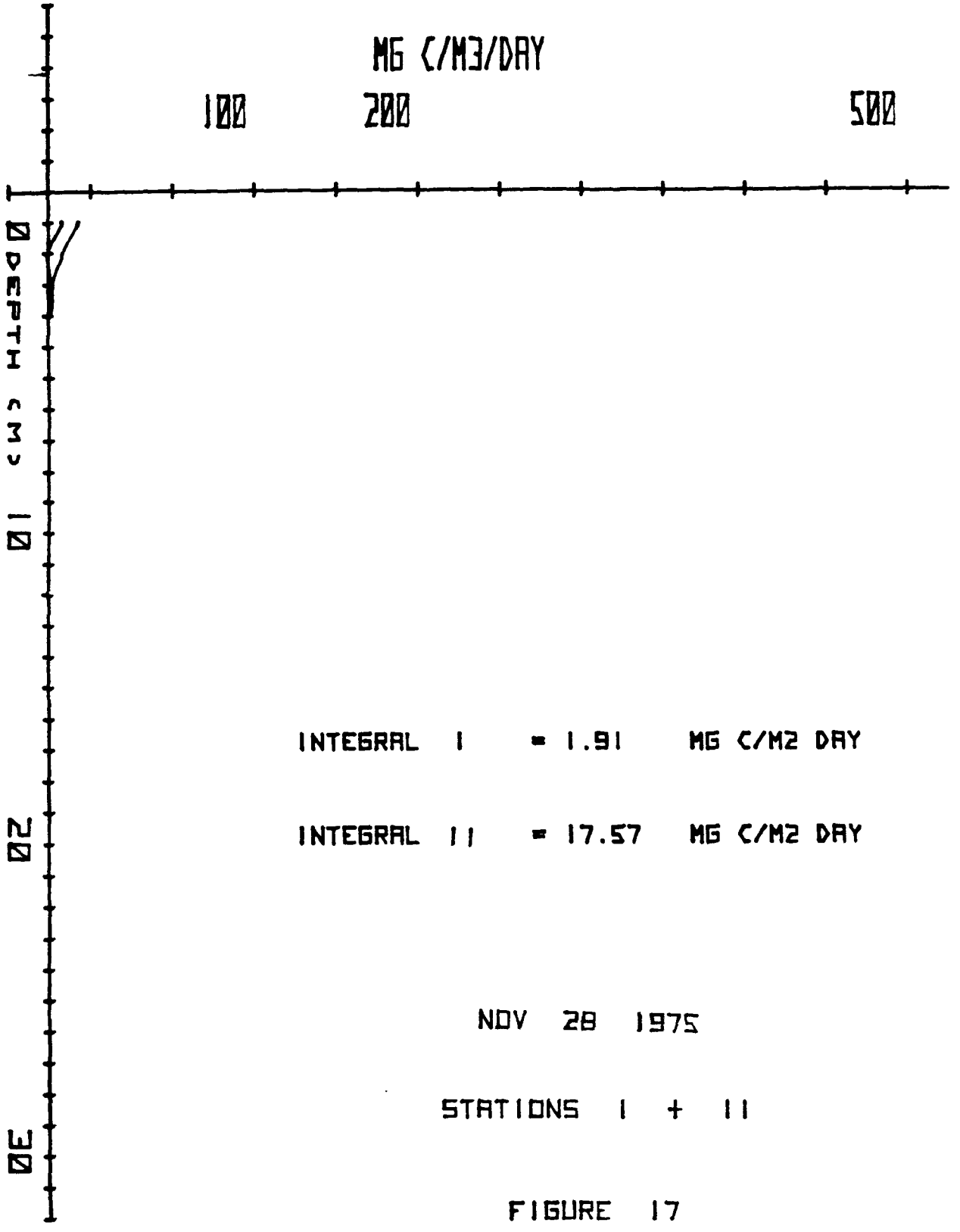
INTEGRAL III = 31.08 MG C/M2 DAY

INTEGRAL IV = 36.25 MG C/M2 DAY

SEP 24 1975

STATIONS III + IV

FIGURE 16



INTEGRAL I = 1.91 MG C/M2 DAY

INTEGRAL II = 17.57 MG C/M2 DAY

NOV 28 1975

STATIONS I + II

FIGURE 17

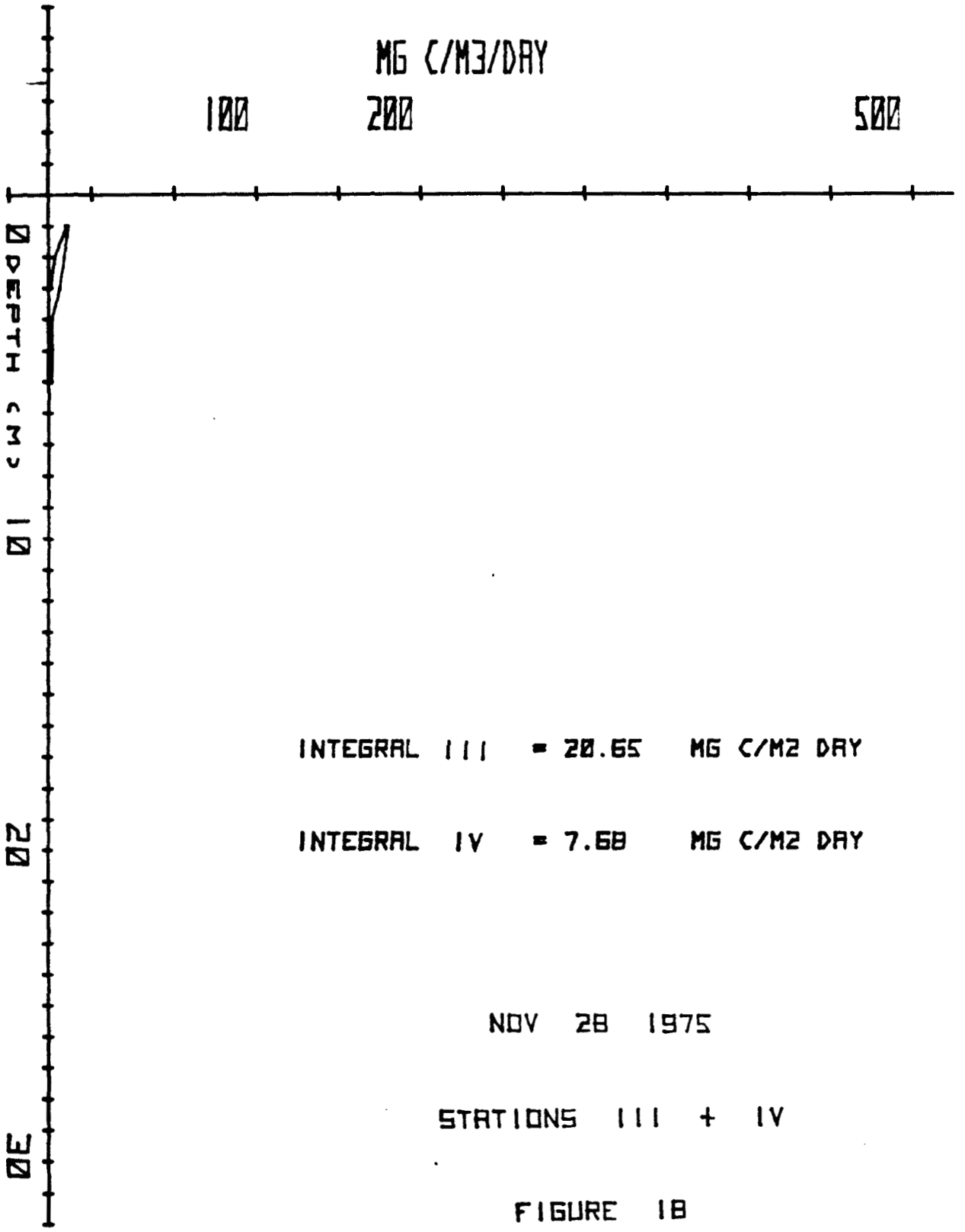

MG C/M3/DAY
100
200
500
DEPTH (M)
0
10
20
30
INTEGRAL III = 20.65 MG C/M2 DAY
INTEGRAL IV = 7.68 MG C/M2 DAY
NOV 28 1975
STATIONS III + IV

FIGURE 18

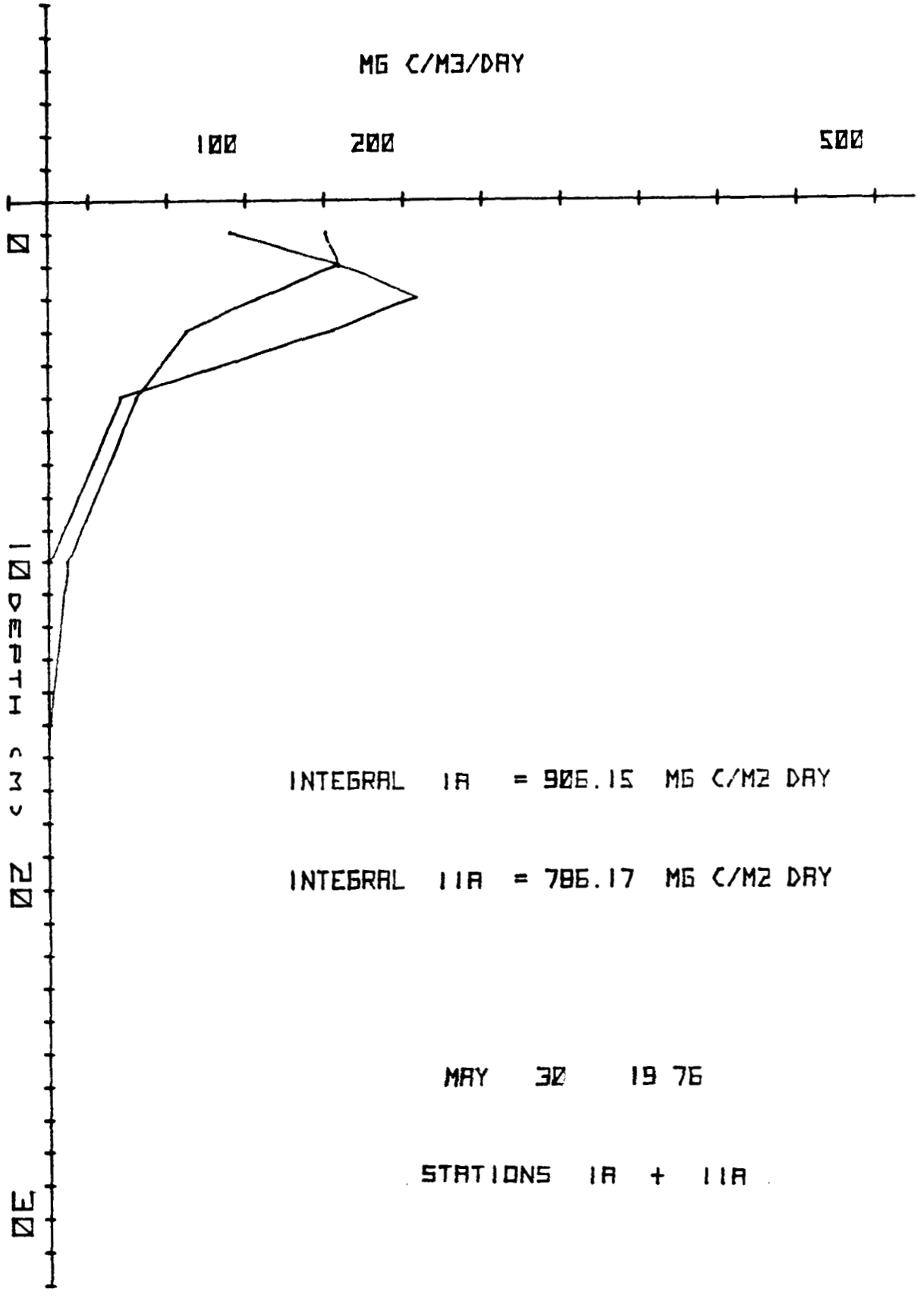

MG C/M3/DAY
100
200
500
0
100
DEPTH CM
200
300
INTEGRAL 1A = 906.15 MG C/M2 DAY
INTEGRAL 11A = 786.17 MG C/M2 DAY
MAY 30 19 76
STATIONS 1A + 11A

FIGURE 19

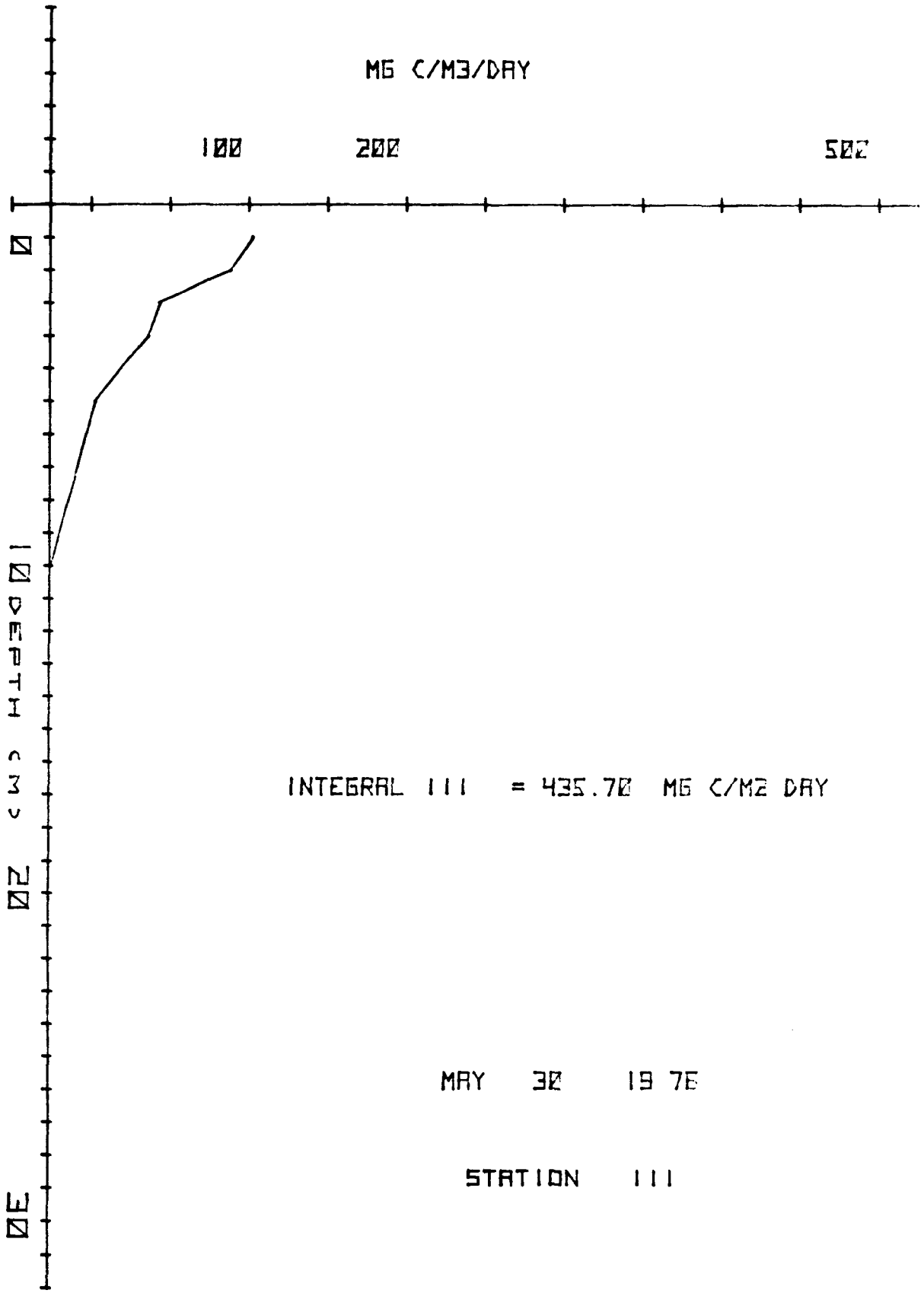

MG C/M3/DAY
100
200
500
0
100
200
300
DEPTH (M)
INTEGRAL III = 435.70 MG C/M2 DAY
MAY 30 1978
STATION III

FIGURE 20

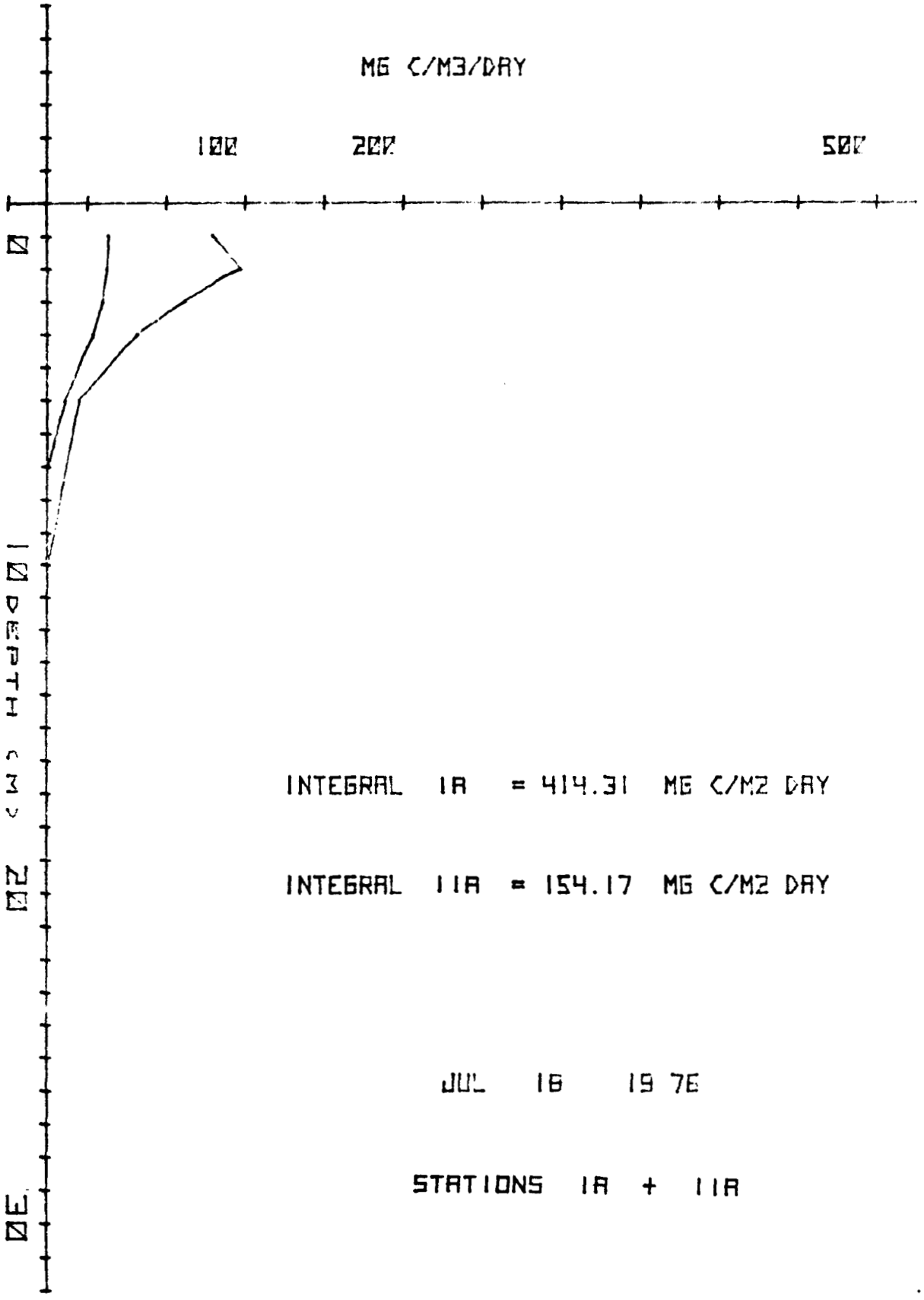

MG C/M3/DAY
100
200
500
0
100
200
300
DEPTH CMS
INTEGRAL 1A = 414.31 MG C/M2 DAY
INTEGRAL 11A = 154.17 MG C/M2 DAY
JUL 16 1976
STATIONS 1A + 11A

FIGURE 21

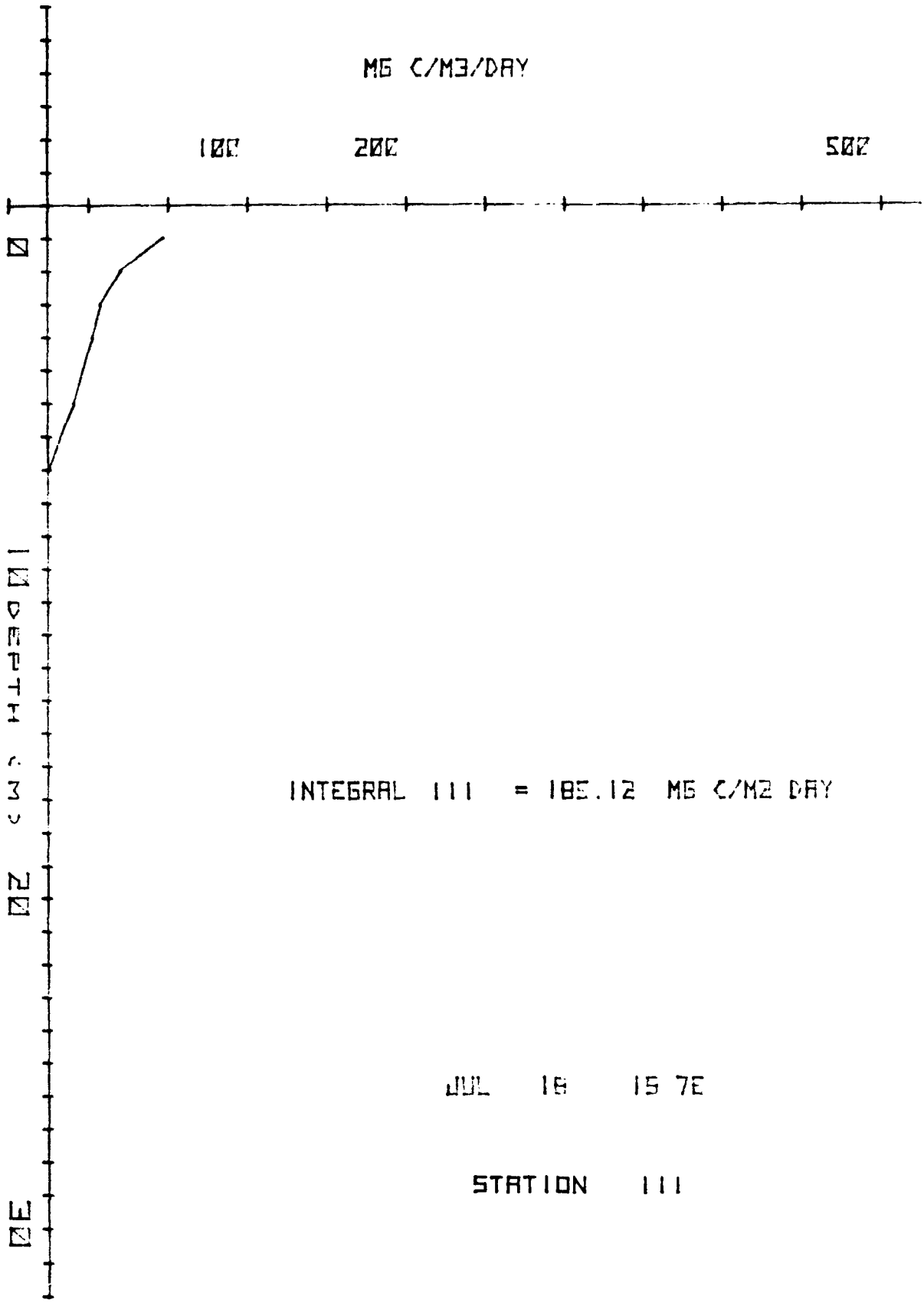

MG C/M3/DAY
100
200
500
0
100
DEPTH (M)
200
300
INTEGRAL III = 185.12 MG C/M2 DAY
JUL 18 15 7E
STATION III

FIGURE 22

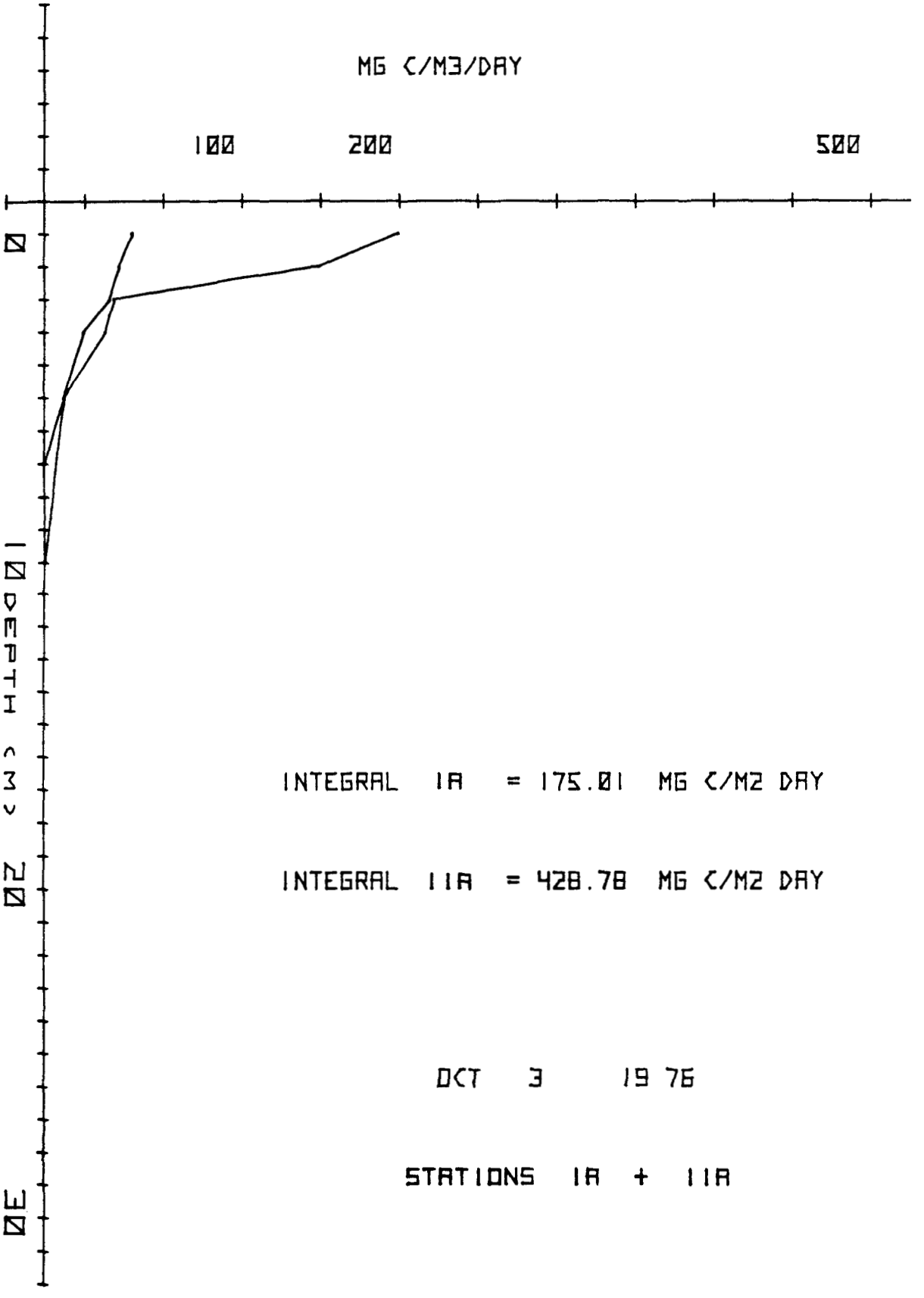

MG C/M3/DAY
100
200
500
0
100
DEPTH (CM)
200
300
INTEGRAL 1A = 175.01 MG C/M2 DAY
INTEGRAL 11A = 428.78 MG C/M2 DAY
OCT 3 19 76
STATIONS 1A + 11A

FIGURE 23

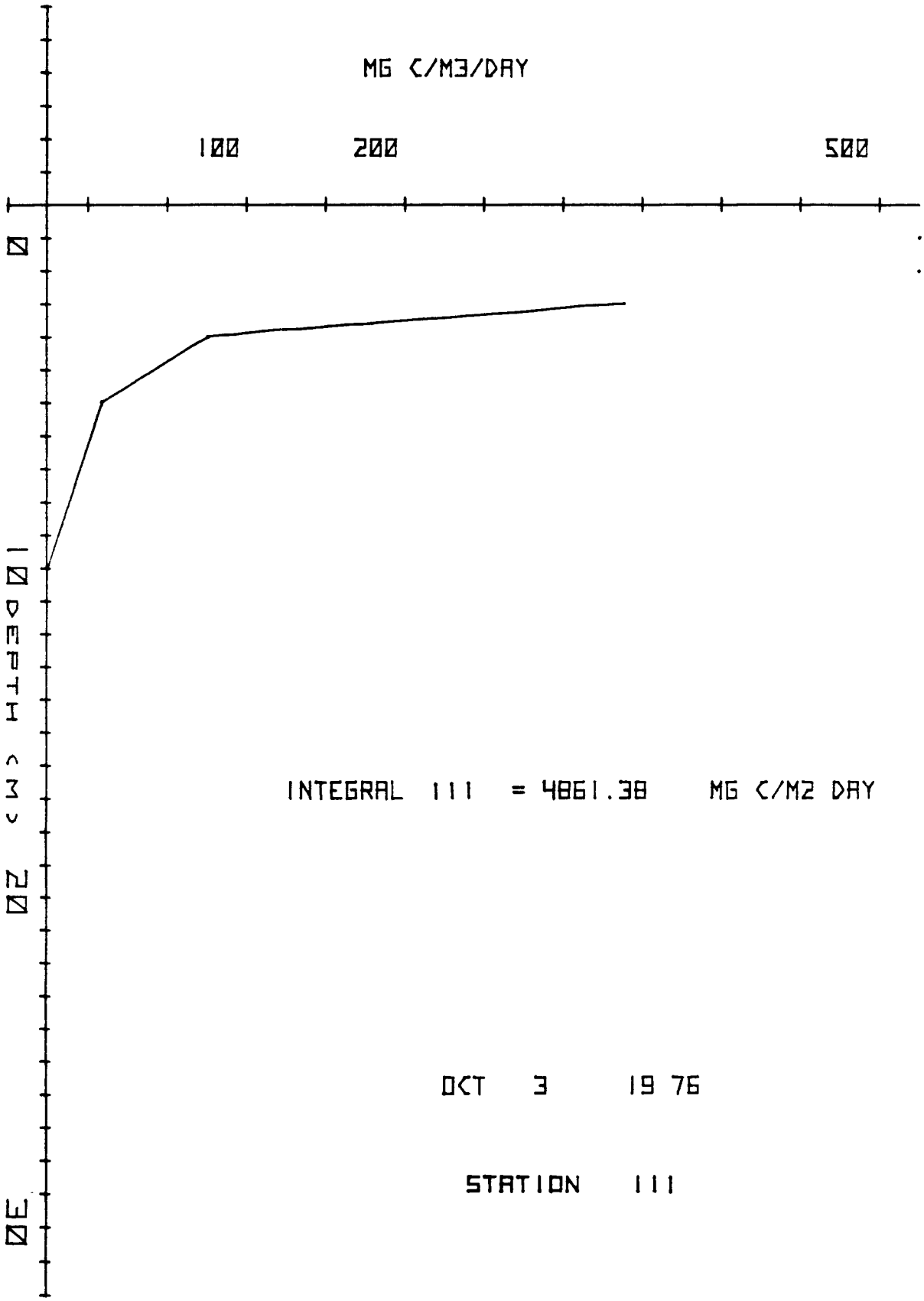

MG C/M3/DAY
100
200
500
0
100
DEPTH (M)
200
300
INTEGRAL 111 = 4861.38 MG C/M2 DAY
OCT 3 19 76
STATION 111

FIGURE 24

TABLES 1 to 16

TABLE 1 DEPTH AND VARIATION IN TEMPERATURE (°C) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	9.5	9.5	9.0	8.8	11.0	10.5	10.5	9.5	11.0	10.0	9.7	10.0	11.0	10.5	10.0	9.0
Jul 17	13.0	13.0	11.0	10.0	11.0	11.0	11.0	10.0	11.0	11.0	10.0	11.0	11.0	11.0	11.0	11.0
Sept 24	14.0	13.5	14.0	15.0	12.0	12.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1975																
May 6	9.0	9.0	9.0	8.5	10.0	9.5	9.0	8.5	10.0	9.5	9.0	8.5	10.0	10.0	9.5	8.5
June 11	10.5	10.5	9.5	10.0	12.0	12.0	11.5	10.0	12.0	11.0	11.0	11.0	13.0	11.0	10.0	10.0
July 13	12.5	12.2	10.2	9.5	12.5	12.0	10.5	10.0	14.1	13.0	12.0	11.0	13.5	13.0	12.0	10.0
Aug 13	11.5	11.0	10.5	10.0	13.0	12.0	11.0	10.5	12.5	11.5	11.0	11.0	12.0	11.5	11.0	11.0
Sept 24	13.0	12.0	11.0	10.0	12.0	11.5	11.0	10.0	11.0	10.5	10.5	10.0	12.0	11.5	11.5	10.0
Nov 28	7.1	8.5	9.5	10.0	5.5	8.0	9.0	9.5	5.5	8.0	9.0	9.5	8.5	9.0	9.5	10.0

	Station IA				Station IIA				Station III			
1976												
May 30	9.0	9.0	9.0	8.5	9.0	8.5	8.5	8.5	9.0	9.0	9.0	8.5
July 18	12.0	12.0	11.0	10.0	12.0	11.0	10.0	10.3	12.0	11.8	11.0	10.0
Oct 3	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0	12.0	12.0	12.0	11.0

TABLE 2 DEPTH AND VARIATION IN SALINITY (°/oo) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	28.5	28.5	30.3	30.8	24.9	25.5	27.4	29.7	23.6	28.0	29.2	29.8	24.3	24.8	26.7	29.6
Jul 17	27.9	29.2	30.1	31.8	28.2	30.1	31.3	31.3	31.1	30.1	30.5	30.7	30.5	30.7	30.9	31.1
Sept 24	31.5	33.2	33.5	33.1	30.3	31.0	32.9	32.3	31.6	31.6	31.0	31.6	32.3	31.6	31.6	32.3
1975																
May 6	29.6	29.6	31.6	30.8	27.9	31.0	30.9	31.5	28.7	29.7	29.6	32.1	28.7	28.7	29.1	31.5
June 11	30.0	30.0	31.0	29.8	27.7	26.4	30.1	31.1	27.7	28.8	28.8	31.4	27.9	27.5	28.7	31.1
July 13	31.7	32.3	32.5	33.0	32.4	32.3	32.5	33.1	30.8	32.5	31.6	33.4	30.7	31.2	32.3	32.4
Aug 13	32.8	32.6	32.5	33.1	32.5	32.3	32.6	32.5	32.3	32.8	32.6	33.4	32.3	32.8	32.6	32.6
Sept 24	31.8	32.3	32.6	32.4	32.9	32.1	32.0	32.4	32.6	32.5	32.5	31.8	31.6	31.5	32.1	32.4
Nov 28	15.3	20.6	24.0	28.6	11.3	20.5	24.5	27.2	8.8	17.3	23.2	25.9	15.4	23.2	26.6	27.9

	Station IA				Station IIA				Station III			
1976												
May 30	26.5	27.8	28.4	30.2	26.5	29.6	30.2	30.2	23.9	28.4	29.7	30.2
July 18	29.3	30.3	30.1	31.2	27.8	29.5	29.3	29.3	28.5	28.4	30.1	30.5
Oct 3	30.2	30.9	30.9	32.0	30.8	30.8	31.4	31.4	30.3	30.3	30.3	31.4

TABLE 3 DISSOLVED OXYGEN (ppm) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	8.9	8.6	7.5	7.1	10.2	10.2	8.9	7.3	10.7	8.3	7.6	7.1	10.6	10.2	10.0	7.2
Jul 17	10.4	10.4	9.8	7.1	10.1	9.7	9.2	6.8	9.1	9.6	7.4	6.7	9.0	9.0	9.0	7.5
Sept 24	8.1	7.4	5.9	6.0	6.6	6.8	6.3	5.8	7.0	6.9	6.4	5.8	6.7	6.3	6.0	6.0
1975																
May 6	7.8	7.8	7.9	6.6	9.0	7.6	7.1	6.8	8.7	8.0	7.9	6.9	8.9	8.7	8.3	6.8
June 11	8.5	9.1	7.9	6.4	9.5	8.7	8.8	6.4	8.0	8.0	7.7	6.5	8.7	7.5	7.3	5.7
July 13	12.0	11.1	6.8	4.7	8.6	7.2	5.8	5.3	10.9	8.9	7.5	4.6	9.1	9.1	7.2	5.6
Aug 13	8.5	8.3	6.7	7.9	9.8	8.1	7.9	6.1	-	8.2	7.8	5.8	8.7	6.9	7.1	6.0
Sept 24	9.5	8.9	6.4	5.0	6.4	6.5	5.8	4.9	5.9	5.0	5.1	5.0	8.1	6.6	6.2	5.0
Nov 28	8.5	8.5	7.3	7.2	11.2	8.8	7.9	7.4	11.1	9.9	8.1	7.1	9.4	8.4	8.3	6.9

	Station IA				Station IIA				Station III			
1976												
May 30	11.3	10.0	8.9	7.9	9.8	8.4	8.2	7.7	9.6	9.0	8.5	8.2
July 18	8.4	7.5	6.8	6.1	7.8	6.6	6.4	5.9	7.9	7.6	6.5	5.9
Oct 3	6.2	6.4	5.4	4.3	5.4	4.8	4.8	4.7	7.5	6.6	6.4	4.4

TABLE 4 PERCENT SATURATION OF DISSOLVED OXYGEN - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	96.0	96.0	81.0	76.5	111.2	110.2	97.2	79.3	115.6	90.2	82.6	78.2	115.0	110.0	107.8	77.4
Jul 17	120.9	121.6	110.7	79.3	112.6	109.6	104.5	75.5	103.4	108.2	81.9	75.9	101.9	101.9	102.1	85.2
Sept 24	97.5	90.2	72.8	75.0	75.9	80.0	74.1	67.4	81.4	80.2	74.4	67.4	77.9	73.3	69.8	69.8
1975																
May 6	83.0	83.0	86.0	70.0	97.0	83.0	77.0	73.0	95.0	87.0	84.0	74.0	97.0	95.0	89.0	73.0
June 11	94.0	101.0	86.0	70.0	107.0	97.0	100.0	71.0	90.0	89.0	86.0	74.0	101.0	83.0	79.0	63.0
July 13	141.0	130.0	76.0	52.0	101.0	84.0	65.0	59.0	132.0	106.0	87.0	53.0	108.0	107.0	84.0	67.0
Aug 13	98.0	95.0	75.0	89.0	117.0	94.0	90.0	69.0	-	95.0	89.0	67.0	101.0	80.0	81.0	68.0
Sept 24	113.0	104.0	73.0	55.0	75.0	75.0	66.0	54.0	67.0	56.0	57.0	55.0	94.0	76.0	71.0	56.0
Nov 28	79.0	85.0	76.0	78.0	140.0	87.0	83.0	79.0	95.0	96.0	83.0	75.0	90.0	86.0	89.0	74.0

	Station IA				Station IIA				Station III			
1976												
May 30	119.6	106.1	94.9	84.0	103.0	89.1	87.2	81.9	99.3	96.0	91.4	87.2
July 18	96.3	86.7	76.8	67.8	88.6	74.2	70.3	65.0	90.0	85.9	73.4	65.4
Oct 3	70.9	73.6	62.1	49.1	61.2	54.4	54.7	53.6	86.7	76.3	74.0	50.1

TABLE 5 pH MEASUREMENTS - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	8.0	8.0	7.9	8.0	8.0	8.1	7.9	7.9	8.0	7.9	7.9	8.0	8.0	8.1	8.1	7.9
Jul 17	8.3	8.0	8.0	7.9	8.1	7.9	7.9	7.8	8.0	8.0	7.8	7.4	8.0	8.0	-	6.9
Sept 24	8.1	8.0	8.0	7.9	7.9	7.9	7.8	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8
1975																
May 6	7.99	7.99	8.02	7.94	7.96	7.98	7.95	7.95	7.95	7.96	7.95	7.95	8.01	7.98	8.01	7.87
June 11	7.87	7.87	7.79	7.66	7.87	7.86	7.85	7.71	7.81	7.80	7.79	7.72	7.86	7.86	7.78	7.69
July 13	8.31	8.27	7.83	7.72	8.05	7.88	7.80	7.74	8.23	8.05	7.97	7.74	8.11	8.09	7.95	7.76
Aug 13	7.84	7.81	7.75	7.71	7.88	7.79	7.75	7.75	7.81	7.78	7.81	7.72	7.76	7.59	7.75	7.72
Sept 24	8.2	8.2	8.0	8.0	7.9	8.0	8.0	8.1	8.1	8.0	8.1	8.0	8.1	8.1	8.1	8.0
Nov 28	7.15	7.64	7.69	7.75	7.32	7.42	7.71	7.78	7.52	7.63	7.71	7.74	7.61	7.75	7.76	7.48

	Station IA				Station IIA				Station III			
1976												
May 30	8.00	7.95	7.96	7.85	7.90	7.91	7.92	7.93	7.94	7.93	7.93	7.90
July 18	7.90	7.90	7.80	7.90	7.85	7.90	7.90	7.90	8.00	7.90	7.90	7.90
Oct 3	7.73	7.78	7.74	7.69	7.59	7.73	7.74	7.74	7.72	7.80	7.80	7.70

TABLE 6 DEPTH AND VARIATION IN TOTAL CARBONATE CARBON (mgC/litre) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	16063	16179	15758	14084	11524	12211	15994	15758	12105	14347	11172	15015	12920	12211	12672	17875
Jul 17	20178	15504	17328	20976	16986	17670	19836	18354	16074	18012	22002	20634	21432	18240	17328	16986
Sept 24	19385	21534	20355	19215	19727	19805	22189	22587	23914	19613	20868	19992	20868	19992	21908	23834
1975																
May 6	15283	15857	16816	21191	13392	17557	13278	14872	7819	11065	12702	13612	12702	10830	12702	12345
June 11	22458	22587	22587	22959	20982	21191	21936	22838	21461	22050	22959	23306	21613	22189	22325	23077
July 13	22393	23248	23733	23834	22496	23818	24304	24122	23068	23182	23894	24561	23075	23075	23800	24392
Aug 13	24028	23630	23630	23834	23079	22959	24214	24122	23932	24122	24304	24122	23733	24142	23630	24214
Sept 24	18242	18242	18470	18470	18584	16021	18470	15907	18356	18470	18356	18470	18356	18356	18356	18470
Nov 28	11172	14280	17411	17544	7485	15024	16899	19919	6500	12207	16899	19841	11058	16520	18478	20517

	Station IA				Station IIA				Station III			
1976												
May 30	14986	16930	19992	21347	18021	19805	17183	18584	16785	18021	18799	19416
July 18	20644	20530	23417	20530	20644	22075	22189	20644	22075	22189	22075	22075
Oct 3	18252	18478	18698	19124	19124	18913	18913	19329	19124	20644	19329	19727

TABLE 7 NITRATE MEASUREMENTS (NO_3^-)(mgN/litre) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	.061	.097	.150	.156	.024	.045	.114	.174	<.010	.120	.159	.308	<.010	.019	.044	.150
Jul 17	<.01	<.01	.032	.181	.030	.018	.074	.158	.125	.063	.131	.176	.092	.098	.110	.177
Sept 24	.086	.092	.117	.090	.137	.133	.140	.136	.121	.138	.114	.144	.174	.143	.167	.148
1975																
May 6	.277	.288	.354	3.000	.137	.283	.218	.810	1.500	.123	.263	.321	.224	.379	3.400	.479
June 11	.156	.123	.178	.241	.137	.189	.195	.278	.244	.240	.218	.255	.164	.219	.242	.283
July 13	<.01	<.01	.14	.26	-	.17	.20	.21	.01	.08	.17	.23	.02	.06	.22	.24
Aug 13	.07	.11	.16	.19	.10	.10	.17	.19	.10	.14	.15	.18	.07	.18	.10	.12
Sept 24	.09	.12	.17	.23	.30	.22	.24	.23	.24	.24	.25	.26	.18	.23	.21	.25
Nov 28	.14	.17	.21	.25	.16	.20	.18	.18	.11	.18	.23	.24	.12	.21	.19	.22

	Station IA				Station IIA				Station III			
1976												
May 30	.030	.070	.140	.220	.130	.160	.190	.220	.150	.150	.200	.210
July 18	.880	.128	.170	.211	.114	.163	.180	.205	.121	.148	.171	.212
Oct 3	.190	.220	.230	.280	.260	.270	.270	.280	.230	.250	.230	.290

TABLE 8 TOTAL PHOSPHATE MEASUREMENTS (TPO_4)(mgP/litre) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	.080	.090	.018	.070	.052	.084	.048	.064	.050	.091	.085	.068	<.01	<.01	.105	.066
Jul 17	.019	.026	.030	.046	.034	.032	.041	.050	.037	.044	.049	.044	.045	.046	.052	.055
Sept 24	.029	.160	.035	.033	.033	.047	.080	.033	.073	.061	.030	.047	.046	.040	.051	.037
1975																
May 6	.039	.035	.037	.052	.035	.036	.044	.040	.031	.030	.041	.036	.034	.029	.029	.037
June 11	.04	.04	.04	.05	.03	.05	.04	.05	.04	.04	.05	.05	.04	.04	.042	.05
July 13	.04	.06	.05	.15	-	.05	.05	.08	.07	.05	.05	.05	.03	.10	.08	.05
Aug 13	.03	.05	.05	.07	.05	.03	.04	.04	.04	.04	.04	.05	.03	.04	.03	.04
Sept 24	.04	.04	.04	.05	.06	.06	.05	.04	.05	.05	.05	.05	.04	.04	.05	.06
Nov 28	.02	.03	.03	.04	<.01	.04	.03	.035	.015	.02	.03	.04	.02	.035	.03	.035

	Station IA				Station IIA				Station III			
1976												
May 30	.020	.028	.034	.049	.035	.035	.044	.039	.027	.030	.036	.064
July 18	.030	.034	.044	.058	.033	.074	.044	.085	.047	.043	.038	.038
Oct 3	.081	.048	.058	.054	.054	.053	.070	.054	.083	.055	.064	.055

TABLE 9 SILICATE MEASUREMENTS (mgSi/litre) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul 17	0.43	0.43	0.43	1.18	<.43	<.43	<.43	1.29	0.43	<.43	0.75	1.29	0.43	<.43	<.43	1.18
Sept 24	0.10	0.35	0.45	1.00	0.53	0.10	0.55	0.55	0.65	0.65	0.65	0.35	0.35	0.65	0.75	0.50
1975																
May 6	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.7	0.5	0.5	0.6
June 11	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.9
July 13	<0.5	<0.5	0.5	0.8	-	0.7	0.7	0.5	<0.5	<0.5	0.6	0.8	<0.5	<0.5	0.5	0.6
Aug 13	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.6	0.7	0.7	0.8	0.5	0.7	0.6	0.5
Sept 24	8.0	8.4	8.6	14.5	18.5	9.4	14.5	9.7	14.5	14.5	15.0	15.5	7.9	14.5	9.4	14.5
Nov 28	0.9	0.9	0.9	0.9	1.1	1.0	0.8	0.7	1.0	1.0	0.9	0.9	0.7	0.9	0.7	0.8

	Station IA				Station IIA				Station III			
1976												
May 30	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
July 18	0.60	0.60	0.65	0.70	0.65	0.65	0.65	0.70	0.65	0.65	0.70	0.60
Oct 3	2.20	2.20	2.30	2.40	2.40	2.40	2.40	2.50	2.40	2.40	2.50	2.60

TABLE 10 DEPTH AND VARIATION IN CHLOROPHYLL 'a' (µg/litre) (July 1976 - mg/m^3) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	4.1	2.9	2.1	0.1	7.6	7.2	4.8	1.1	6.7	2.7	1.5	0.9	6.6	7.4	6.0	0.1
Jul 17	2.7	1.3	1.9	3.3	2.1	4.7	9.7	2.3	3.5	5.4	11.0	2.7	8.3	5.3	14.0	4.5
Sept 24	0.5	0.6	0.3	0.3	1.3	1.0	0.3	0.1	0.6	0.8	0.4	0.0	0.2	0.6	0.5	0.2
1975																
May 6	0.9	0.3	0.4	0.1	0.8	0.2	0.4	< 0.1	0.7	0.4	0.3	0.2	0.8	0.6	< 0.1	< 0.1
June 11	0.9	1.1	< 0.1	< 0.1	1.3	1.1	< 0.1	< 0.1	0.6	< 0.1	< 0.1	< 0.1	0.8	0.5	< 0.1	< 0.4
July 13	21.5	21.3	10.0	1.0	8.6	4.2	1.5	0.5	18.5	9.2	4.6	< 0.1	15.6	13.1	4.4	0.1
Aug 13	3.47	3.33	1.8	1.22	2.0	2.01	0.49	1.33	1.77	1.81	2.33	0.71	2.25	2.58	1.55	1.32
Sept 24	1.30	0.9	0.8	0.4	0.3	0.3	0.5	< 0.1	0.9	0.5	0.2	0.2	0.3	0.21	0.3	0.45
Nov 28	< 0.1	< 0.1	< 0.1	0.29	0.55	0.11	< 0.1	< 0.1	0.78	0.55	-	0.1	0.77	0.42	< 0.1	< 0.1

	Station IA				Station IIA				Station III			
1976												
May 30	11.79	11.08	5.09	1.45	7.06	-	-	2.22	6.16	6.35	3.90	1.65
July 18	< 0.80	< 0.80	< 0.80	< 0.80	1.00	1.40	< 0.80	< 1.40	< 0.80	< 0.80	< 0.80	< 0.80
Oct 3*	-	-	-	-	-	-	-	-	-	-	-	-

* Results not available.

TABLE 11 DEPTH AND VARIATION IN TOTAL PHAEOPIGMENTS (µg/litre) (July 1976 - mg/m^3) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	<0.2	0.7	0.8	<0.2	2.9	1.9	1.4	<0.2	3.0	1.3	<0.2	<0.2	2.6	2.4	1.9	<0.2
Jul 17	0.6	0.2	0.2	0.6	<0.2	2.0	2.2	0.3	<0.2	1.0	2.8	<0.2	1.8	0.5	4.6	1.3
Sept 24	0.0	<0.1	0.0	0.1	0.4	0.0	0.0	0.0	<0.1	0.0	0.0	0.0	0.0	<0.1	<0.1	0.4
1975																
May 6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
June 11	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
July 13	<0.2	3.3	8.0	<0.2	2.9	2.4	0.6	<0.2	8.9	3.8	13.4	<0.2	32.3	9.4	0.5	<0.2
Aug 13	3.26	5.34	1.36	0.88	1.74	0.83	0.48	<0.2	2.08	2.27	0.93	<0.2	1.66	<0.2	<0.2	<0.2
Sept 24	0.9	0.6	<0.2	<0.2	<0.2	<0.2	0.8	<0.2	0.8	<0.2	0.4	<0.2	1.92	1.9	<0.2	<0.2
Nov 28	<0.2	<0.2	<0.2	7.37	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	8.57	<0.2	1.82	<0.2

	Station IA				Station IIA				Station III			
1976												
May 30	4.83	4.62	3.60	1.71	2.88	-	-	1.20	3.20	0.00	0.00	1.63
July 18	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Oct 3*	-	-	-	-	-	-	-	-	-	-	-	-

* Results not available.

TABLE 12 DEPTH AND VARIATION OF SESTON (mg/litre) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I					Station II					Station III					Station IV				
	1 m	3 m	5 m	20 m	$\bar{X}$	1 m	3 m	5 m	20 m	$\bar{X}$	1 m	3 m	5 m	20 m	$\bar{X}$	1 m	3 m	5 m	20 m	$\bar{X}$
1974																				
May 30	2.5	3.0	3.7	1.8	2.8	1.7	2.1	1.5	3.1	2.1	1.8	1.6	1.3	1.0	1.4	1.4	1.6	1.8	2.0	1.7
July 17	-	1.4	1.4	-	1.4	1.7	6.7	10.7	1.2	5.1	1.3	1.9	2.4	1.8	1.9	2.1	2.0	3.9	2.8	2.7
Sept 24	1.3	1.4	1.3	1.7	1.4	8.1	8.4	1.6	12.2	7.6	12.2	1.8	1.3	1.6	4.2	1.2	16.5	2.5	15.5	8.9
1975																				
May 6	1.8	14.9	0.6	1.7	4.8	1.2	2.1	0.9	1.6	1.5	0.7	1.0	3.9	1.5	1.8	1.7	0.7	1.5	1.2	1.3
June 11	1.5	1.2	0.8	0.8	1.1	3.3	1.0	1.1	1.0	1.6	1.8	2.0	1.4	3.8	2.3	3.6	2.4	1.0	1.8	2.2
July 13	5.1	0.8	-	-	2.9	3.1	-	1.2	-	1.1	2.7	2.3	2.1	0.8	2.0	2.6	2.3	1.7	1.1	1.9
Aug 13	1.4	1.9	1.9	1.4	1.7	1.9	1.1	2.8	2.9	2.2	1.6	1.5	1.7	1.8	1.7	2.6	2.5	1.3	1.8	2.1
Sept 24	1.1	10.0	0.7	1.1	3.2	0.9	0.4	0.8	0.9	0.8	0.9	0.5	0.5	0.8	0.7	0.6	0.8	0.6	17.0	4.8
Nov 28	2.8	2.3	1.9	1.1	2.0	2.6	2.0	1.8	1.7	2.0	3.7	2.1	2.7	1.6	2.5	5.4	1.6	1.3	1.4	2.4

	Station IA					Station IIA					Station III				
1976															
May 30	7.4	7.4	7.3	6.4	7.1	6.3	7.9	8.8	8.7	7.9	11.8	8.4	9.5	8.7	9.6
July 18	1.8	1.5	1.2	1.4	1.5	0.9	2.0	1.9	5.6	2.6	17.5	2.7	1.3	2.4	6.0
Oct 3	16.3	17.7	15.7	15.4	16.3	16.3	16.2	15.3	14.6	15.6	16.8	14.5	14.9	20.0	16.6

TABLE 13 PERCENT ORGANIC CONTENT OF DRY SESTON - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I				Station II				Station III				Station IV			
	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m	1 m	3 m	5 m	20 m
1974																
May 30	48.0	86.7	45.9	55.6	64.7	61.9	66.7	38.7	55.6	62.5	76.9	Ø	71.4	75.0	66.7	50.0
July 18	-	78.6	85.7	-	64.7	28.4	27.1	83.3	76.9	63.2	45.8	66.7	52.4	60.0	43.6	35.7
Sept 24	84.6	71.4	76.9	58.8	23.5	27.4	62.5	19.7	19.7	55.6	76.9	62.5	83.3	21.2	40.0	20.6
1975																
May 6	55.5	19.5	66.6	23.5	66.6	52.4	66.6	50.0	71.4	80.0	38.5	60.0	58.8	71.4	60.0	50.0
June 11	20.0	58.3	62.5	37.5	30.3	70.0	54.5	50.0	33.3	40.0	50.0	21.1	27.8	45.8	40.0	27.7
July 13	62.7	87.5	-	-	61.3	-	50.0	-	44.4	30.4	14.3	62.5	53.8	47.8	47.1	54.5
Aug 13	64.3	57.9	47.4	42.9	52.6	63.6	25.0	27.6	56.3	60.0	29.4	27.8	30.8	36.0	46.2	44.4
Sept 24	39.1	78.0	42.5	56.4	44.7	73.2	71.4	54.8	37.6	58.9	58.9	57.2	54.6	39.0	54.5	82.4
Nov 28	60.7	65.2	63.2	63.6	65.4	65.0	72.2	70.6	40.5	57.1	81.5	56.3	48.1	62.5	61.5	71.4

	Station IA				Station IIA				Station III			
1976												
May 30	29.7	23.0	19.2	20.3	23.8	19.0	17.0	14.9	51.7	16.7	14.7	18.4
July 18	27.8	26.7	25.0	21.4	33.3	25.0	15.8	23.2	94.3	33.3	23.1	16.7
Oct 3	18.4	15.8	13.4	14.3	16.0	14.8	15.0	13.0	25.0	13.8	14.1	15.1

TABLE 14 MEAN EXTINCTION COEFFICIENTS (k) AND SECCHI DEPTH (m) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I		Station II		Station III		Station IV	
	Extinction Coefficient	Secchi Disc	Extinction Coefficient	Secchi Disc	Extinction Coefficient	Secchi Disc	Extinction Coefficient	Secchi Disc
1974								
May 30	.6075	7 m	.5361	5 m	.5404	8 m	.6215	6 m
July 17	.4269	11 m	.4816	10 m	.5241	7 m	.4880	9 m
Sept 24	.4200	6 m	.4269	8 m	.4880	7 m	.6294	7 m
1975								
May 6	.2717	14 m	.3227	7.5 m	.4343	6 m	.4510	4 m
June 11	.4541	11 m	.4808	5.0 m	.4934	4 m	.4256	4.5 m
July 13	.2402	3.5 m	.5117	3.5 m	.7826	2.5 m	.5299	4.0 m
Aug 13	1.0901	2.0 m	1.0334	3.5 m	1.0680	3.0 m	.7928	4.5 m
Sept 24	.5204	6.6 m	.4711	6.0 m	.5210	3.0 m	.5427	4.0 m
Nov 28	1.4234	3.0 m	1.6010	3.0 m	2.0097	1.5 m	2.0097	3.0 m

	Station IA		Station IIA		Station III	
1976						
May 30	1.9370	5.0 m	1.6792	5.5 m	1.6950	4.5 m
July 18	1.0810	4.5 m	1.0408	5.5 m	1.0408	5.0 m
Oct 3	0.7089	13.0 m	1.0043	6.5 m	1.5900	1.0 m

TABLE 15 PERCENT OF TOTAL DAYLIGHT UTILIZED FOR CARBON-14 INCUBATION, STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I	Station II	Station III	Station IV
1974				
May 30	67	57	-	-
July 17	67	58	58	58
Sept 24	78	73	68	68
1975				
May 6	83.3	62.5	66.7	50.0
June 11	46.2	66.2	46.2	50.8
July 13	44.4	42.2	46.7	44.4
Aug 13	54.1	62.3	70.5	59.0
Sept 24	56.3	68.8	68.8	62.5
Nov 28	80.0	60.0	60.0	50.0
	Station IA	Station IIA	Station III	
1976				
May 30	55.1	48.1	48.8	
July 18	52.4	54.5	43.0	
Oct 3	73.1	55.8	36.8	

TABLE 16 DAILY AREAL PRODUCTION RATES ($mgC/m^2/day$) - STATIONS I TO IV, RUPERT INLET, 1974-1976

	Station I	Station II
1974		
May 30	2095	5610
July 17	549	1956
Sept 24	437	1398
1975		
May 6	495	493
June 11	1904	1837
July 13	6040	2259
Aug 13	2768	1646
Sept 24	185	33
Nov 28	2	18
	Station IA	Station IIA
1976		
May 30	906	786
July 18	414	154
Oct 3	175	429
	Station III	Station IV
1974		
May 30	--not sampled--	--not sampled--
July 17	1016	2314
Sept 24	682	418
1975		
May 6	386	697
June 11	1473	1819
July 13	4370	5842
Aug 13	1881	1474
Sept 24	31	36
Nov 28	21	8
1976		
May 30	436	
July 18	185	
Oct 3	4861	

APPENDIX I

PHYTOPLANKTON STANDING CROP 1974-1976

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

30 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora sp.	-	-	10	-	-	-	-	-
Cocconeis spp.	40	70	60	60	40	10	10	20
Cyclotella spp.	-	-	-	-	-	-	-	1780
Melosira sp.	10	-	-	-	-	-	-	-
Navicula spp.	20	80	10	60	30	20	10	20
Nitzschia spp.	10	10	30	-	-	-	-	-
N. closterium	10	-	-	10	-		-	10
Pleurosigma sp.	-	-	-	10	-		-	-
Thalassiosira spp.	360	310	330	380	100		40	40
Chrysophyceae	10680	256320	270560	99680	181560	39160	39160	103240
Dinophyceae								
Glenodinium sp.	10	-	-	-	-	-	-	-
Gymnodinium spp.	80	-	-	-	-	-	-	10
Peridinium spp.	30	40	30	60	-	10	-	-
Cryptophyceae	48060	12460	40960	32040	14240	16020	8900	5340
Rhodomonas spp.	-	-	-	-	-	-	10680	5340
Silicoflagellata								
Distephanus spp.	10	-	20	20	-	-	-	-
Ciliata								
Strombidium spp.	150	50	-	-	40	-	-	-
Unidentified ciliate	10				30			
Tintinnidae								
Stenosmella spp.	50	30	20	10	50	10	20	10
Tintinnopsis sp.							10	
Suctoria								
Troschiscia spp.	160	70	80	90	70	40	20	-
Miscellaneous								
Juvenile filament of macroscopic alga (Phaeophyta c.f.)	-	750	-	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

30 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes sp.	-	-	-	10	-	-	-	-
Cocconeis spp.	20	80	30	20	20	-	-	-
Coscinodiscus sp.	-	-	-	10	-	-	-	-
Licmophora spp.	10	-	-	-	10	-	-	-
Navicula spp.	50	20	50	90	30	30	10	10
Naviculoid diatom	12460	8900	-	-	-	-	-	-
Nitzschia spp.	20	-	20	10	10	-	-	40
N. closterium	-	10	10	-	-	-	-	-
Thalassiosira spp.	30	70	40	80	50	50	20	30
Unidentified filament	80	-	-	-	-	-	-	-
Chrysophyceae	628340	475260	366680	396940	213600	112140	154860	55180
Dinophyceae								
Dinophysis spp.	-	-	-	10	-	10	-	-
Gymnodinium spp.	130	10	-	20	10	-	-	-
Peridinium spp.	240	170	80	110	20	10	10	10
Prorocentrum sp.	-	-	-	-	10	-	-	-
Cryptophyceae	72980	21360	10680	7120	5340	3560	3560	3560
Rhodomonas spp.	53400	35600	44500	3560	26700	21360	1780	5340
Silicoflagellata								
Distephanus spp.	-	-	10	10	20	10	-	10
Ciliata								
Strombidium spp.	5160	820	690	720	490	10	30	-
Mesodinium rubrum	60	100	110	90	70	-	-	-
Tintinnidae								
Tintinnopsis spp.	20	-	-	-	10	-	20	-
Suctoria								
Trochiscia spp.	230	90	100	90	60	-	-	-
Miscellaneous								
Unidentified cell	70	-	10	30	50	20	-	-
Unidentified cell	-	-	-	-	20	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

30 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	10	-	10	-	-	-	-	-
Cocconeis spp.	40	40	40	20	-	10	-	-
Cyclotella spp.	1780	-	3560	-	-	-	-	-
Licmophora spp.	20	10	-	-	-	-	-	-
Melosira spp.	20	10	-	-	-	-	-	-
Navicula spp.	130	60	40	80	10	10	30	30
Nitzschia spp.	20	-	-	-	-	-	-	-
Thalassiosira spp.	10	20	140	60	20	-	30	10
Chrysophyceae	22950	59630	165540	201140	80100	56960	33820	28480
Dinophyceae								
Dinophysis sp.	-	-	10	-	-	-	-	-
Glenodinium spp.	20	-	-	-	-	-	20	-
Gymnodinium spp.	50	20	20	10	-	10	-	-
Gymnodinoid dinoflagellate	-	-	30	-	-	-	-	-
Peridinium spp.	130	160	20	10	-	-	30	-
Cryptophyceae	12460	39160	17800	10680	8900	3560	7120	7120
Rhodomonas spp.	-	33820	21360	23140	8900	1780	-	3560
Chlorophyta								
Chlorophyceae	-	10	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	-	-	-	-	-	10	-	-
Silicoflagellata								
Distephanus spp.	10	-	10	-	10	-	-	-
Ciliata								
Mesodinium rubrum	10							
Strombidium spp.	580	580	260	120	-	10	-	-
Tintinnidae								
Stenosmella spp.	20	30	10	20	30	10	20	-
Tintinnopsis spp.	-	-	-	10	-	10	-	-
Suctoria								
Trochiscia spp.	90	100	220	140	10	-	-	10
Miscellaneous								
Unidentified cell	30	20	-	20	10	-	-	10

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

30 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	20	-	-	-	10	10	-
Cocconeis spp.	30	60	40	20	20	-	-	10
Coscinodiscus sp.	-	-	10	-	-	-	-	-
Leptocylindrus spp.	-	-	-	-	-	-	-	350
Licmophora spp.	30	20	10	10	-	-	20	-
Navicula spp.	20	3650	90	40	20	10	-	10
Nitzschia spp.	20	30	20	10	10	10	-	10
N. closterium	-	10	-	10	-	-	-	-
Thalassiosira spp.	50	-	30	20	40	30	20	20
Chrysophyceae	215380	300820	160200	190460	149520	81880	62300	46280
Dinophyceae								
Amphidinium sp.	10	-	-	-	-	-	-	-
Glenodinium spp.	20	-	10	-	-	-	-	-
Gymnodinium spp.	-	10	10	-	-	10	-	-
Peridinium spp.	60	250	230	40	10	30	30	10
Cryptophyceae	30260	7120	5340	10680	14240	5340	8900	12460
Rhodomonas spp.	89250	117480	5340	23140	54080	24920	23140	14240
Silicoflagellata								
Distephanus spp.	-	-	10	10	-	10	-	-
Ciliata								
Mesodinium rubrum	-	-	60	70	130	10	-	-
Strombidium spp.	6650	780	930	190	30	10	40	50
Tintinnidae								
Tintinnopsis spp.	20	10	20	10	30	-	10	10
Suctoria								
Troschiscia spp.	40	70	240	60	90	10	-	-
Miscellaneous								
Unknown cells	10	20	-	10	10	-	10	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

31 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Biddulphia aurita	-	-	-	10	-	-	-	-
Cocconeis spp.	20	40	30	60	10	-	10	20
Coscinodiscus sp.	-	-	-	-	10	-	-	-
Cyclotella spp.	-	-	-	1780	-	-	-	-
Navicula spp.	-	50	20	10	10	10	-	-
Nitzschia spp.	80	-	-	10	-	-	-	-
Thalassiosira spp.	20	60	30	130	30	20	20	20
Chrysophyceae	81880	44500	65860	108580	103240	56960	24920	19580
Dinophyceae								
Amphidinium spp.	-	-	-	-	-	30	-	-
Gymnodinium spp.	-	40	-	-	10	10	-	-
Peridinium spp.	30	30	10	10	20	10	-	-
Cryptophyceae	57640	8900	7120	19580	21360	14080	5340	7120
Rhodomonas spp.	17800	51620	53400	57640	55180	16020	-	3560
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	-	-	-	-	10	-
Silicoflagellata								
Distephanus spp.	20	-	-	-	-	-	-	-
Ciliata								
Mesodinium rubrum	60	30	10	-	20	-	-	-
Strombidium spp.	130	100	90	100	30	20	-	-
Tintinnidae								
Tintinnopsis	-	-	10	-	10	-	-	-
Suctoria								
Troschiscia spp.	110	80	110	60	60	20	-	-
Miscellaneous								
Unidentified cell	-	10	10	-	10	10	10	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

31 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Bacteriastrum sp.	-	-	-	-	10	-	-	-
Cocconeis spp.	10	60	30	30	30	20	-	10
Coscinodiscus spp.	-	-	-	20	10	-	-	-
Leptocylindrus sp.	10	-	-	-	-	-	-	-
Melosira sp.	-	-	-	-	-	-	-	10
Navicula spp.	10	30	30	30	50	30	-	-
Nitzschia spp.	-	-	-	-	20	10	-	-
Pleurosigma sp.	-	-	-	-	10	-	-	-
Thalassiosira spp.	10	10	30	10	40	40	20	10
Chrysophyceae	493060	110360	316840	105020	58740	42740	35600	17800
Dinophyceae								
Dinophysis spp.	-	20	-	10	-	-	-	-
Gymnodinium spp.	270	20	-	-	10	20	-	-
Peridinium spp.	80	20	30	10	10	-	-	-
Cryptophyceae	35600	8900	16020	14240	8900	8900	7120	3560
Rhodomonas spp.	110360	42720	44500	49840	32040	3560	1780	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	-	20	-	10	-	-
Silicoflagellata								
Distephanus spp.	10	30	-	30	10	-	-	-
Ciliata								
Mesodinium rubrum	10	10	20	20	10	-	-	-
Strombidium spp.	1700	290	150	130	40	130	30	20
Tintinnidae								
Stenosmella spp.	20	30	10	10	-	-	-	-
Tintinnopsis spp.	20	10	-	-	-	-	10	10
Suctoria								
Trochiscia spp.	310	150	160	260	70	10	-	-
Miscellaneous								
Unidentified cell	90	-	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

31 May 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	20	50	10	-	-	-	-
Melosira spp.	10	-	-	80	50	-	-	-
Navicula spp.	310	190	280	350	190	10	20	-
Nitzschia spp.	230	120	300	420	80	-	20	-
N. closterium	30	20	30	10	-	-	-	-
Pleurosigma spp.	80	60	150	110	70	10	-	-
Thalassiosira spp.	20	10	-	-	-	-	40	-
Chrysophyceae	756500	596500	694200	596500	596500	16020	19580	338200
Dinophyceae								
Glenodinium sp.	-	10	-	-	-	-	-	-
Gymnodinium spp.	-	50	-	10	-	-	-	50
Peridinium spp.	-	10	10	20	20	-	10	-
Cryptophyceae	124600	14240	17800	16080	3560	1780	3560	5340
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	-	-	-	450	-	-	-	-
Cyanophyta								
Oscillatoria c.f.	-	-	-	-	8890	-	-	-
Ciliata								
Mesodinium rubrum	-	-	-	10	10	-	-	-
Strombidium spp.	10	160	720	1720	280	10	-	20
Tintinnidae								
Stenosmella spp.	20	10	20	20	30	-	-	-
Suctoria								
Troschiscia spp.	10	10	100	480	20	10	-	-
Miscellaneous								
Unidentified cells							10	30

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

17 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	10	-	10	-	-	-
Bacteriastrum sp.	-	-	-	-	40	-	-	-
Chaetoceros spp.	-	11070	8530	6520	5340	4960	30	150
Cocconeis spp.	10	10	10	30	10	-	-	-
Coscinodiscus spp.	-	40	-	40	80	1240	1600	280
Ditylum brightwelli	-	10	-	-	-	-	-	-
Leptocylindrus spp.	-	-	-	-	-	40	-	-
Licmophora spp.	10	-	-	-	10	-	-	-
Melosira spp.	20	-	-	-	-	-	-	-
Navicula spp.	10	10	-	-	-	20	10	20
Nitzschia spp.	90	30	30	20	10	20	-	-
N. closterium	30	-	-	10	-	-	-	-
Thalassiosira spp.	-	-	30	30	80	290	30	40
Chrysophyceae	179780	218940	350660	85440	108580	53400	33820	56960
Dinophyceae								
Dinophysis sp.	-	-	-	10	-	-	-	-
Glenodinium spp.	90	70	70	60	150	80	50	20
Gymnodinium spp.	20	30	10	-	-	-	20	-
Gymnodinium cyst	-	-	-	-	-	10	-	-
Peridinium spp.	30	70	70	120	280	140	40	10
Cryptophyceae	10680	1780	3560	5340	8900	1780	1780	5340
Rhodomonas spp.	44500	23140	8900	1780	5340	12460	3560	5340
Silicoflagellata								
Distephanus spp.	30	-	10	-	30	-	-	-
Ciliata								
Mesodinium rubrum	90	90	160	130	90	30	20	30
Strombidium spp.	1660	80	70	80	30	130	70	30
S. strobilis	-	-	20	20	50	-	-	-
Unidentified ciliate	-	-	-	-	-	10	-	-
Unidentified ciliate	-	-	-	-	-	10	-	-
Tintinnidae								
Stenosmella spp.	10	-	-	-	-	10	-	20
Suctoria								
Trochiscia spp.	20	10	-	30	10	20	-	-
Miscellaneous								
Unidentified cell	-	20	30	10	10	80	30	60
Unidentified cell	-	-	-	20	50	30	20	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

17 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	30	130	60	120	370	80	10	-
Cocconeis spp.	10	-	-	-	10	-	-	-
Coscinodiscus spp.	610	540	240	1030	2490	2190	510	10
Navicula spp.	10	10	10	20	20	30	-	-
Nitzschia spp.	40	-	-	60	-	-	-	-
Thalassiosira spp.	10	50	-	-	-	50	-	-
Chrysophyceae	121040	191720	64080	68740	51620	69420	65860	12460
Dinophyceae								
Ceratium sp.	-	-	-	10	-	-	-	-
Dinophysis spp.	-	-	10	10	10	-	-	-
Glenodinium spp.	50	50	70	80	100	20	30	10
Gymnodinium spp.	-	-	-	-	-	10	-	10
Peridinium spp.	60	50	170	280	510	160	20	10
Cryptophyceae	1780	1780	1780	5340	1780	7120	5340	-
Rhodomonas spp.	24920	17800	7120	1780	3560	1780	-	-
Silicoflagellata								
Distephanus spp.	10	-	10	10	50	-	-	10
Ciliata								
Mesodinium rubrum	280	40	20	200	90	20	10	-
Strombidium spp.	170	130	220	150	90	30	30	50
S. strobilis	-	-	10	40	20	-	-	-
Unidentified ciliate		20						
Unidentified ciliate						20		
Tintinnidae								
Stenosmella spp.	-	-	-	-	10	10	-	-
Tintinnopsis sp.	-	-	10	-	-	-	-	-
Suctoria								
Trochiscia spp.	20	20	30	20	-	20	-	20
Miscellaneous								
Ascidian tadpole	-	10	-	-	-	-	-	-
Unidentified cell	30	20	80	40	110	10	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

17 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	-	-	80	-	60	10	-	-
Cocconeis spp.	10	-	-	-	-	-	-	10
Coscinodiscus spp.	500	1530	2010	-	3290	3660	1650	400
Navicula spp.	10	10	10	10	20	10	-	10
Nitzschia sp.	-	-	-	10	-	-	-	-
N. closterium	-	-	10	-	-	-	-	-
Thalassiosira spp.	10	-	10	20	40	10	-	-
Chrysophyceae	106800	39160	76540	44500	51620	92040	35600	42720
Dinophyceae								
Cochlodinium sp.	-	-	10	-	-	-	-	-
Glenodinium spp.	30	30	20	70	30	30	90	10
Gymnodinium spp.	-	-	20	-	20	10	10	-
Peridinium spp.	10	30	680	-	80	50	40	50
Crytophyceae	7120	5340	8900	1780	3560	1780	1780	3560
Rhodomonas spp.	23140	-	1780	7120	1780	-	1780	-
Silicoflagellata								
Distephanus spp.	10	40	50	60	-	10	-	-
Ciliata								
Mesodinium rubrum	-	200	110	-	60	20	10	10
Strombidium spp.	170	100	160	-	100	60	40	60
S. strobilis	-	-	120	90	-	-	-	-
Unidentified ciliate	-	-	-	-	-	-	-	30
Tintinnidae								
Stenosmella spp.	-	-	20	10	-	20	10	-
Tintinnopsis sp.	10	-	-	-	-	-	-	-
Suctoria								
Troschiscia spp.	-	-	20	20	-	-	-	-
Miscellaneous								
Ascidian tadpole	-	-	-	10	10	-	-	-
Unidentified cell	10	-	50	180	80	80	80	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

17 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	-	420	500	240	260	20	-	-
Cocconeis spp.	60	10	10	10	-	-	-	-
Coscinodiscus spp.	1770	1450	2330	2000	2400	3820	1290	1170
Fragilaria sp.	10	-	-	-	-	-	-	-
Leptocylindrus spp.	30	-	-	-	-	-	-	-
Licmophora spp.	50	-	-	-	10	-	-	-
Melosira spp.	120	-	10	-	-	-	-	-
Navicula spp.	4390	690	50	20	30	-	10	-
Nitzschia spp.	710	250	-	-	-	-	-	-
N. closterium	10	-	-	-	-	-	-	-
Rhizosolenia spp.	170	-	-	-	-	-	-	-
Schroederella spp.	70	20	-	-	-	-	-	-
Thalassiosira spp.	10	-	40	30	10	70	-	-
Chrysophyceae	58740	90780	42720	28480	60520	37380	60520	51620
Dinophyceae								
Ceratium sp.	10	-	-	-	-	-	-	-
Cochlodinium spp.	-	20	10	-	-	10	-	10
Dinophysis spp.	-	-	10	10	-	-	-	-
Glenodinium spp.	120	40	50	40	10	40	40	30
Gymnodinium spp.	20	20	20	-	10	10	10	10
Peridinium spp.	260	140	290	350	230	70	50	60
Cryptophyceae	1780	7120	1780	1780	8900	5340	1780	5340
Rhodomonas spp.	8900	5340	7120	-	1780	5340	3560	1780
Chlorophyta								
Chlorophyceae								
Ulothrix sp.	170	-	-	-	-	-	-	-
Unknown filament	60	-	-	-	-	-	-	-
Unknown filament	-	750	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	140	10	-	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	30	40	30	10	30	10	40	10
Ciliata								
Mesodinium rubrum	-	120	100	40	40	30	40	10
Strombidium spp.	30	80	90	100	90	80	80	80
S. strobilis		40	50	80	80	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

17 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Tintinnidae								
Stenosmella spp.	-	-	20	-	-	10	20	-
Suctoria								
Trochiscia spp.	-	-	10	10	-	-	-	-
Miscellaneous								
Ascidian tadpole	-	10	-	-	10	-	-	-
Unidentified cell	-	90	170	180	60	130	60	20

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

18 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Biddulphia spp.	-	10	-	-	10	-	-	-
Chaetoceros spp.	160	190	200	250	390	410	100	160
Cocconeis spp.	-	30	-	10	-	50	-	-
Coscinodiscus spp.	200	220	250	330	340	380	540	460
Leptocylindrus spp.	60	220	40	70	90	120	40	50
Licmophora sp.	-	10	-	-	-	-	-	-
Navicula spp.	40	50	60	20	10	20	10	-
Naviculoid diatom	-	10680	1780	1780	1780	-	-	-
Nitzschia spp.	20	40	30	20	20	80	40	30
N. Closterium	30	110	-	30	40	40	40	20
Rhizosolenia spp.	4950	7700	5660	7130	9250	7110	3910	4420
Thalassiosira spp.	-	50	60	100	140	90	-	80
Chrysophyceae	363120	307940	283020	240300	90780	872200	69420	44500
Dinophyceae								
Ceratium spp.	210	180	160	160	90	10	-	-
C. fusus	30	80	40	30	20	-	-	-
Cochlodinium spp.	-	-	-	-	-	20	-	-
Dinophysis spp.	60	70	120	40	40	20	-	-
Glenodinium spp.	2170	540	510	110	90	120	90	40
Gymnodinium spp.	160	70	150	150	110	10	10	-
Cyst of Gymnodinium spp.	-	-	-	-	10	-	10	-
Peridinium spp.	600	530	480	320	290	190	50	90
Prorocentrum spp.	60	20	10	-	-	-	-	-
Cryptophyceae	12460	26700	3560	10680	3560	1780	7120	3560
Rhodomonas spp.	96120	101460	60520	46280	35600	8900	-	-
Silicoflagellata								
Distephanus spp.	40	50	10	40	20	-	20	-
Ciliata								
Mesodinium robrum	1310	1310	1420	1010	380	30	50	60
Strombidium spp.	170	410	460	240	200	80	170	130
S. strobilis	120	30	70	40	50	-	-	-
Unidentified ciliate	-	-	-	-	-	60	-	-
Unidentified ciliate	80	10	60	60	50	40	30	30
Tintinnidae								
Stenosmella spp.	-	-	-	-	-	-	40	40
Tintinnopsis spp.	-	30	40	30	30	10	-	-
Suctoria								
Trochiscia spp.	110	190	180	140	70	-	30	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

18 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Miscellaneous								
Unidentified cell	*10*	*60*	*190*	*140*	*180*	*70*	*70*	*50*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

18 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	-	-	-	-	10	30	60	-
Cocconeis spp.	10	10	10	-	-	-	-	-
Coscinodiscus spp.	20	360	380	370	420	250	210	340
Melosira sp.	-	10	-	-	-	-	-	-
Navicula spp.	40	30	-	10	-	-	-	10
Nitzschia spp.	-	30	-	-	-	60	10	-
N. closterium	-	-	-	-	10	-	-	-
Pleurosigma sp.	-	-	-	-	-	10	-	-
Rhizosolenia spp.	-	510	300	260	90	20	40	-
Thalassiosira spp.	20	20	10	-	-	-	30	10
Chrysophyceae	178000	53400	105020	83660	101460	94340	138840	16020
Dinophyceae								
Ceratium spp.	-	40	20	10	-	-	-	-
Dinophysis spp.	10	-	-	-	-	-	10	-
Glenodinium spp.	90	-	-	-	-	-	-	-
Gymnodinium spp.	330	20	-	30	30	-	-	-
Gymnodinium cyst	-	-	-	-	-	-	10	-
Peridinium spp.	270	180	180	90	80	50	50	-
Cryptophyceae	26700	5340	7120	8900	8900	5340	1780	3560
Rhodomonas spp.	92560	32040	16020	26700	14240	8900	12460	1780
Silicoflagellata								
Distephanus spp.	-	80	50	10	10	10	-	10
Ciliata								
Mesodinium rubrum	10	60	90	80	40	10	-	-
Strombidium spp.	850	160	50	60	40	50	50	-
S. strobilis	-	-	60		20	-	-	-
Tintinnidae								
Stenosmella	50	10	10	10	-	10	-	-
Suctoria								
Trochiscia spp.	20	30	30	20	-	-	-	10
Miscellaneous								
Unidentified cell	30	10	30	30	10	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

18 July 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	10	-	-	-	-	-
Cocconeis spp.	40	20	-	-	-	20	10	10
Coscinodiscus spp.	-	80	260	230	640	850	350	40
Licmophora spp.	20	-	-	-	-	-	-	-
Melosira spp.	20	10	-	-	-	-	-	-
Navicula spp.	550	80	40	70	-	-	-	-
Nitzschia spp.	300	40	-	10	-	-	-	-
N. closterium	30	-	-	-	-	-	-	-
Okedenia spp.	10	10	-	-	-	-	-	-
Pleurosigma spp.	140	20	30	10	-	-	-	-
Thalassionema spp.	70	10	-	-	-	-	-	-
Thalassiosira spp.	120	60	20	-	-	-	-	-
Unidentified filament	-	450	-	-	-	-	-	-
Chrysophyceae	115700	94340	65860	48720	23140	14240	12460	17800
Dinophyceae								
Dinophysis sp.	10	-	-	-	-	-	-	-
Glenodinium spp.	-	-	-	-	-	-	30	-
Gymnodinium spp.	-	30	50	20	20	20	10	20
Peridinium spp.	10	40	70	50	40	30	10	10
Cryptophyceae	7120	1780	1780	5340	3560	1780	3560	3560
Rhodomonas spp.	7120	14240	19580	7120	3560	-	-	1780
Chlorophyta								
Ulothrix spp.	160	-	-	180	-	-	-	-
Silicoflagellata								
Distephanus spp.	10	10	-	-	-	-	-	-
Ciliata								
Mesodinium rubrum	-	90	40	30	-	10	-	-
Strombidium spp.	-	150	100	50	10	10	10	10
Tintinnidae								
Stenosmella spp.	-	-	-	-	-	-	30	10
Tintinnopsis spp.	-	20	-	-	-	10	-	-
Suctoria								
Trochiscia spp.	-	130	20	30	10	-	-	-
Miscellaneous								
Unidentified cell	-	-	100	70	30	-	30	10
Bacteria	-	*	*	-	-	*	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION 1

24 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	20	-	-	10	-	-	-	-
Cocconeis spp.	-	20	10	-	10	-	-	-
Coscinodiscus sp.	-	-	-	-	10	-	-	-
Licmophora sp.	-	10	-	-	-	-	-	-
Melosira spp.	50	90	170	60	-	-	10	-
Navicula sp.	10	-	-	-	-	-	-	-
Nitzschia spp.	20	-	20	-	-	-	20	10
N. closterium	-	20	10	10	20	-	30	-
Rhizosolenia spp.	80	50	-	40	20	-	-	-
Thalassiosira spp.	10	20	-	20	30	-	30	-
Chrysophyceae	110360	72980	198840	85440	81880	68520	55180	28480
Dinophyceae								
Ceratium spp.	130	150	130	130	20	-	-	-
Ceratium fusus	-	20	30	10	-	-	-	-
Cochlodinium spp.	20	-	-	40	-	-	-	-
Dinophysis spp.	50	60	10	40	20	20	50	20
Glenodinium spp.	110	80	80	110	60	130	60	30
Gymnodinium spp.	10	450	-	-	-	-	-	-
Gymnodinoid cell	290	-	-	860	640	100	80	-
Gyrodinium spp.	30	20	-	20	10	-	-	-
Oxytoxum spp.	30	10	-	10	-	-	-	-
Peridinium spp.	40	20	10	10	10	10	-	30
Prorocentrum spp.	-	10	10	30	-	10	-	20
Cryptophyceae	10680	5340	1780	8900	1780	3560	5340	1780
Rhodomonas spp.	7120	12460	26700	14240	10680	5340	-	-
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	-	-	-	-	-	-	210	-
Euglenophyceae								
Euglena c.f.	20	10	-	-	-	10	10	-
Silicoflagellata								
Distephanus spp.	70	40	10	80	-	60	60	10
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	-	-	10

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

24 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	20	60	50	10	50	120	50	10
Strombidium spp.	120	340	220	140	170	230	-	40
S. strobilis	-	-	10	-	-	-	-	-
Unidentified ciliate	-	20	-	20	-	10	30	-
Tintinnidae								
Tintinnopsis spp.	-	-	-	-	-	-	-	20
Suctoria								
Trochiscia spp.	20	10	10	-	-	-	10	10
Miscellaneous								
Unidentified cell	120	150	120	90	140	80	10	30
Unidentified cell	20	20	-	40	-	-	-	-
Bacteria	-	-	-	-	-	-	-	*

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

24 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes sp.	-	10	-	-	-	-	-	-
Amphora sp.	-	-	-	-	-	10	-	-
Chaetoceros spp.	140	150	170	90	90	20	70	80
Cocconeis spp.	-	10	10	30	10	20	-	-
Coscinodiscus spp.	10	30	20	10	-	-	-	-
Licmophora sp.	-	-	-	-	-	10	-	-
Leptocylindrus spp.	10	110	260	20	20	30	-	10
Melosira spp.	-	-	-	10	30	10	-	-
Navicula spp.	30	10	30	10	10	10	50	-
Nitzschia spp.	170	250	110	330	50	20	-	40
N. closterium	580	590	40	620	180	190	100	50
Rhizosolenia spp.	80	130	50	60	80	100	10	50
Schroderella spp.	40	-	10	-	-	-	20	-
Skeletonema costatum	20	160	420	120	240	290	100	120
Thalassiosira spp.	420	400	530	300	210	270	30	70
Chrysophyceae	144180	94340	74760	89000	65860	96120	72980	69420
Dinobryon spp.	-	-	-	-	-	-	10	10
Dinophyceae								
Amphidinium spp.	80	70	30	30	-	60	40	30
Ceratium spp.	600	560	290	550	190	120	70	120
C. fusus	20	50	-	40	20	20	10	10
Cochlodinium spp.	10	30	10	-	10	20	-	-
Dinophysis spp.	250	340	200	340	70	90	40	90
Dinophysoid cell	-	-	-	-	-	-	10	-
Glenodinium spp.	460	360	360	300	180	100	70	190
Gymnodinium spp.	60	70	70	30	20	20	60	40
Gymnodinoid cell	1820	2440	970	1040	890	790	410	400
Oxytoxum spp.	40	70	10	60	20	20	-	30
Peridinium spp.	150	170	40	50	30	80	40	30
Prorocentrum spp.	560	340	160	270	20	100	20	100
Cryptophyceae	12460	16020	7120	7120	16020	14240	8900	5340
Rhodomonas spp.	44500	3560	14240	26700	10680	7120	7120	14240
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	50	-	10	10	40	20
Silicoflagellata								
Distephanus spp.	120	30	20	60	20	20	50	50

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

24 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	70	30	80	130	40	60	10	50
Strombidium spp.	240	190	170	150	130	430	270	350
S. strobilis	20	30	-	-	10	-	20	-
Unidentified ciliate	-	-	-	-	50	-	-	-
Unidentified ciliate	90	90	10	40	40	20	10	20
Tintinnidae								
Stenosmella spp.	50	10	10	30	40	30	20	30
Tintinnopsis spp.	-	30	-	-	-	10	-	-
Suctoria								
Trochiscia spp.	-	-	10	30	10	-	10	10
Miscellaneous								
Unidentified cell	310	350	400	440	260	180	170	240
Unidentified cell	-	10	-	30	20	10	20	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	-	-	-	10	20	-
Bacteriastrum spp.	-	-	30	-	-	20	-	-
Chaetoceros spp.	100	140	90	190	30	20	10	-
Cocconeis spp.	20	40	40	-	-	20	20	-
Coscinodiscus spp.	-	40	-	30	10	-	20	-
Leptocylindrus spp.	20	40	-	30	30	20	70	-
Melosira sp.	-	10	-	-	-	-	-	-
Navicula spp.	20	10	20	20	20	20	70	-
Nitzschia spp.	50	10	40	50	20	-	10	-
N. closterium	360	310	270	350	170	120	50	20
Okedenia sp.	-	-	-	-	10	-	-	-
Rhizosolenia spp.	20	-	-	20	-	-	30	-
Schroderella spp.	-	-	-	-	20	-	-	-
Skeletonema costatum	70	60	40	60	-	-	50	-
Thalassiosira spp.	80	110	80	170	160	60	50	-
Chrysophyceae	174440	188680	139060	155640	142400	83660	49840	33820
Dinobryon sp.	10	-	-	-	-	-	-	-
Dinophyceae								
Amphidinium spp.	20	20	-	20	10	-	-	-
Ceratium spp.	730	1080	770	1150	720	10	40	10
C. fusus	60	40	10	140	-	20	-	-
Cochlodinium spp.	-	-	10	-	-	-	10	-
Dinophysis spp.	190	290	200	280	230	100	80	10
Dinophysoid cell	-	-	-	-	-	10	10	-
Glenodinium spp.	50	90	190	80	30	50	90	30
Gymnodinium spp.	100	20	50	50	60	-	10	-
Gymnodinoid cell	130	110	130	70	70	70	90	20
Oxytoxum spp.	30	-	30	30	10	20	10	-
Peridinium spp.	70	40	30	50	60	40	20	20
Prorocentrum spp.	20	280	220	200	180	60	10	30
Cryptophyceae	12460	12460	21360	16020	10680	10680	3560	3340
Rhodomonas spp.	17800	17800	35600	28480	17800	5340	5340	3560
Chlorophyta								
Chlorophyceae								
Unicellular "green"	-	-	-	-	-	-	-	10
Ulothrix spp.	40	40	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	110	200	70	140	40	50	10	20

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Prasinophyceae	-	10	-	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	80	80	70	80	10	-	10	30
Radiolaria								
Lithomelissa sp.	-	-	-	-	-	10	-	-
Ciliata								
Mesodinium rubrum	40	80	60	70	20	-	20	20
Strombidium spp.	120	100	-	120	50	150	180	150
S. strobilis	-	-	10	-	-	-	-	-
Unidentified ciliate	40	50	80	30	60	-	-	10
Tintinnidae								
Stenosmella spp.	50	90	-	40	10	40	40	20
Tintinnopsis spp.	20	50	-	-	10	-	-	-
Suctoria								
Trochiscia spp.	10	-	30	20	-	10	-	20
Miscellaneous								
Unidentified cell	170	240	330	120	150	70	130	70
Unidentified cell	-	-	-	-	-	10	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

24 September 1974

Data Expressed as Total Count/1000 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	-	10	60	30	-	-	-	20
Cocconeis spp.	50	70	40	100	20	-	10	10
Coscinodiscus supp.	10	-	10	20	-	10	10	-
Melosira spp.	50	-	30	-	-	-	-	-
Navicula spp.	90	50	50	80	10	-	30	30
Nitzschia spp.	20	-	10	20	10	-	30	-
N. closterium	70	80	190	220	90	60	30	10
Striatella spp.	-	-	-	-	-	-	20	-
Thalassiosira spp.	60	110	80	100	60	130	40	20
Chrysophyceae	35600	33820	85440	39160	33820	24920	30260	14240
Dinophyceae								
Ceratium spp.	340	370	560	350	170	20	-	-
Cochlodinium sp.	-	-	-	-	-	10	-	-
Dinophysis spp.	230	190	290	150	110	70	40	-
Gymnodinium spp.	30	50	30	-	20	10	-	-
Gymnodinium cyst	-	-	-	-	-	-	-	10
Gymnodinoid cell	20	-	-	-	-	-	-	-
Oxytoxum spp.	20	10	10	-	-	-	-	-
Peridinium spp.	40	50	40	10	-	10	-	-
Prorocentrum spp.	110	80	110	30	-	20	-	-
Cryptophyceae	10680	1780	23140	16020	17800	12460	-	5340
Rhodomonas spp.	23140	26700	37380	12460	28480	7120	5340	15020
Silicoflagellata								
Distephanus spp.	20	130	110	130	20	40	-	-
Ciliata								
Strombidium spp.	-	-	30	20	-	10	-	-
Unidentified ciliate	10	-	-	-	-	-	-	-
Unidentified ciliate	-	10	40	-	-	-	-	-
Tintinnidae								
Stenosmella spp.	30	10	-	20	20	10	-	20
Suctoria								
Trochiscia spp.	-	-	-	10	10	10	20	-
Miscellaneous								
Unidentified cell	-	30	40	30	-	20	10	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

25 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	-	-	-	-	20	-	-
Coscinodiscus spp.	10	20	40	10	20	10	10	-
Leptocylindrus sp.	-	-	-	-	10	-	-	-
Navicula spp.	80	-	-	10	10	10	-	-
Nitzschia spp.	30	-	20	30	10	40	30	-
N. closterium	10	20	10	10	10	-	10	20
Pleurosigma sp.	-	-	-	-	10	-	-	-
Thalassiosira spp.	-	10	20	10	20	-	20	10
Chrysophyceae	291920	201140	276900	213600	101460	85440	40940	48060
Dinophyceae								
Amphidinium spp.	10	-	10	-	-	10	-	20
Ceratium spp.	30	260	370	350	100	70	-	-
C. fusus	-	20	10	-	-	-	-	-
Cochlodinium spp.	-	10	-	10	40	40	10	20
Dinophysis	10	40	30	20	50	10	30	-
Dinophysoid cell	-	-	-	-	-	10	10	10
Glenodinium spp.	90	100	40	80	-	30	110	80
Gymnodinium spp.	10	-	-	-	-	20	-	-
Gymnodinoid cell	30	10	10	40	10	20	-	-
Oxytoxum spp.	10	10	-	-	-	-	-	-
Peridinium spp.	20	30	10	-	-	20	20	10
Prorocentrum spp.	-	-	70	30	-	-	-	10
Cryptophyceae	35600	23140	19580	12460	3560	8900	35600	8900
Rhodomonas spp.	1192600	94340	169540	113920	23140	7120	7120	1780
Chlorophyta								
Chlorophyceae								
Biflagellate cell	-	-	10	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	140	40	10	60	120	40	90	100
Silicoflagellata								
Distephanus spp.	-	-	40	10	10	-	-	-
Radiolaria								
Dictyophimus sp.	10	-	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

25 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	50	130	-	100	20	-	10	-
Strombidium spp.	120	120	160	160	70	180	300	160
S. strobilis	10	-	-	-	-	-	-	-
Unidentified ciliate	-	-	-	-	-	-	10	-
Unidentified ciliate	-	-	-	-	-	10	-	20
Tintinnidae								
Stenosmella spp.	-	10	40	30	10	-	20	10
Tintinnopsis spp.	-	10	-	-	10	-	-	-
Miscellaneous								
Unidentified cell	50	40	50	60	150	100	80	50
Unidentified cell	-	-	10	40	40	20	10	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

25 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	-	-	-	80	-	-
Bacteriastrum spp.	-	-	-	-	-	-	40	-
Cocconeis spp.	-	10	10	30	10	20	20	-
Coscinodiscus spp.	-	10	-	10	-	-	10	-
Leptocylindrus spp.	-	-	-	30	-	-	-	-
Licmophora spp.	10	10	-	-	-	-	-	-
Melosira spp.	20	-	-	-	-	-	-	-
Navicula spp.	50	20	10	30	10	10	20	-
Nitzschia spp.	10	10	20	-	30	10	40	-
N. closterium	-	-	-	-	-	30	40	20
Skeletonema costatum	-	-	-	-	-	-	100	-
Thalassiosira spp.	10	10	10	-	-	60	60	10
Chrysophyceae	322180	167320	85440	62300	24920	40940	56960	99160
Dinophyceae								
Ceratium spp.	50	40	50	60	90	160	40	-
Dinophysis spp.	-	10	60	70	70	110	50	-
Glenodinium spp.	20	80	50	40	70	80	60	40
Gymnodinium spp.	-	-	20	-	20	-	10	-
Gymnodinoid cell	-	50	120	300	330	540	20	-
Oxytoxum spp.	-	-	-	10	-	20	-	-
Peridinium spp.	-	10	10	20	10	30	10	20
Prorocentrum spp.	40	-	10	-	50	170	40	-
Cryptophyceae	16020	16020	7120	8900	7120	8900	8900	7120
Rhodomonas spp.	21360	16020	16020	16020	1780	7120	7120	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	80	80	40	120	80	40	110	-
Silicoflagellata								
Distephanus spp.	30	10	20	10	-	20	-	10
Radiolaria								
Dictyophimus spp.	-	-	10	10	-	10	-	-
Plectacantha sp.	-	-	-	-	10	-	-	-
Ciliata								
Mesodinium rubrum	70	40	50	20	30	30	30	20
Strombidium spp.	470	370	250	150	200	180	250	170
Unidentified ciliate	30	-	-	-	-	10	-	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

25 September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Tintinnidae								
Stenosmella spp.	-	-	10	10	10	10	10	-
Tintinnopsis spp.	-	10	-	20	10	20	-	-
Suctoria	20	-	-	-	20	10	10	-
Miscellaneous								
Unidentified cell	20	20	40	30	70	40	60	-
Unidentified cell	20	10	-	30	-	10	10	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	10	10	10	10	-	-	-
Amphora sp.	10	-	-	-	-	-	-	-
Bacteriastrum sp.	-	-	-	-	10	-	-	-
Biddulphia aurita	-	-	-	10	-	-	-	-
Cocconeis spp.	10	20	30	40	20	-	10	-
Grammatophora sp.	-	-	-	-	-	10	-	-
Leptocylindrus spp.	10	-	10	-	-	-	-	-
Melosira spp.	-	-	-	-	-	20	-	-
Navicula spp.	200	140	20	140	100	-	-	-
Nitzschia spp.	310	50	190	130	80	10	20	10
N. closterium	10	20	20	-	10	-	10	-
Pleurosigma spp.	60	60	20	80	30	-	-	-
Chrysophyceae	117480	142400	135280	250980	67640	28480	26700	16020
Dinophyceae								
Dinophysis spp.	-	-	-	-	10	10	-	-
Glenodinium spp.	10	20	10	-	-	-	-	-
Gymnodinoid cell	110	20	80	100	-	-	-	-
Peridinium sp.	-	-	-	-	-	-	10	-
Pouchetia spp.	-	-	10	-	10	-	-	-
Prorocentrum spp.	-	-	20	-	-	-	-	-
Cryptophyceae	8900	12460	8900	23140	5340	7120	10680	1780
Rhodomonas spp.	3560	7120	1780	8900	3560	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	10	10	40	50	20	10
Radiolaria								
Dictyophimus spp.	-	-	-	-	30	10	-	-
Plectacantha sp.	-	-	-	-	-	-	-	10
Ciliata								
Mesodinium rubrum	40	30	50	-	20	10	-	10
Strombidium spp.	340	260	760	790	370	270	160	80
Unidentified ciliate	-	-	-	-	-	-	10	-
Tintinnidae								
Stenosmella spp.	-	10	-					
Tintinnopsis spp.	-	10	10	-	-	10	10	30

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

September 1974

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	20	10	10	10	-	-	10	-
Miscellaneous								
Unidentified cell	-	10	-	-	10	-	30	-
Unidentified cell	-	-	-	-	10	20	10	-
Bacteria	*	*	*	*	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora spp.	-	10	-	20	-	-	-	-
Chaetoceros spp.	40	100	30	150	50	-	-	-
Cocconeis spp.	10	30	-	10	-	-	-	-
Coscinodiscus sp.	-	-	-	-	10	-	-	-
Cyclotella spp.	3560	7120	-	10620	5340	-	-	-
Fragilaria spp.	-	-	-	-	-	-	30	-
Licmophora spp.	10	40	10	40	-	-	-	-
Melosira spp.	20	-	-	10	-	-	-	-
Navicula spp.	60	50	20	70	20	10	10	30
Nitzschia spp.	270	410	60	440	380	20	20	20
N. closterium	70	70	10	140	40	10	-	-
Pleurosigma spp.	-	-	10	20	-	-	-	-
Skeletonema costatum	3940	8390	60	10500	760	-	-	40
Thalassiosira spp.	190	430	330	410	340	110	30	-
Chrysophyceae	14240	258100	99680	329300	161980	33820	23140	48060
Dinophyceae								
Cochlodinium spp.	-	-	20	20	10	-	-	-
Dinophysis sp.	-	-	-	-	10	-	-	-
Glenodinium spp.	30	30	20	30	70	30	30	10
Gymnodinium sp.	-	-	-	10	-	-	-	-
Gymnodinoid cell	-	-	-	30	50	-	-	-
Oxytoxum sp.	-	-	-	-	10	-	-	-
Crytophyceae	32040	24920	10680	46280	17800	3560	-	8900
Rhodomonas spp.	26700	8900	3560	39160	7120	-	-	-
Chlorophyta								
Unidentified flagellate	-	-	-	-	-	-	-	10
Unidentified flagellate	-	-	-	10	-	-	-	-
Euglenophyceae								
Euglena c.f.	-	-	10	20	30	-	-	-
Ciliata								
Mesodinium rubrum	40	50	40	40	120	70	50	20
Stenosmella sp.	-	-	-	-	-	-	10	-
Strombidium spp.	30	-	30	80	90	-	-	-
Tintinnopsis spp.	-	-	-	-	40	-	-	-
Unidentified ciliate	-	-	10	-	-	-	-	-
Unidentified ciliate	-	-	-	10	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	-	-	*10*	*20*	-	*30*	*10*	-
Miscellaneous								
Unidentified cell	-	-	*120*	*180*	*200*	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora sp.	-	-	-	10	-	-	-	-
Amphora spp.	-	-	-	20	20	-	-	-
Chaetoceros sp.	-	-	10	-	-	-	-	-
Cocconeis spp.	10	10	20	10	-	10	-	-
Cyclotella spp.	3560	1780	3560	-	-	-	-	-
Fragilaria spp.	-	-	-	20	80	-	-	-
Licmophora spp.	30	30	20	10	20	10	30	-
Melosira spp.	-	-	-	20	10	-	-	-
Navicula spp.	20	10	-	-	50	10	10	-
Nitzschia spp.	120	160	300	20	230	80	60	20
N. closterium	30	10	30	10	60	10	10	-
Pinnularia spp.	20	-	-	10	-	-	10	-
Pleurosigma sp.	-	-	-	-	-	10	-	-
Rhizosolenia sp.	-	-	-	10	-	-	-	-
Skeletonema costatum	320	70	880	-	1260	370	120	-
Striatella spp.	-	-	-	-	20	-	-	-
Thalassiosira spp.	120	60	220	90	90	40	60	10
Unidentified filament	-	-	-	-	90	-	-	-
Chrysophyceae	386260	169100	318620	97900	97900	87220	92560	81880
Dinophyceae								
Cochlodinium spp.	50	-	20	-	-	-	10	-
Glenodinium spp.	30	-	-	-	30	20	20	-
Gymnodinoid cell	20	-	-	-	-	10	-	-
Oxytoxum spp.	-	-	-	-	-	-	10	10
Peridinium spp.	10	-	-	10	-	10	10	-
Cryptophyceae	58740	23140	32040	14240	7120	12460	8900	3560
Rhodomonas spp.	56960	23140	108580	7120	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	30	40	50	-	10	-	10	-
Silicoflagellata								
Distephanus spp.	-	-	10	10	-	-	-	-
Ciliata								
Mesodinium rubrum	160	20	70	20	70	20	30	20
Stenosmella spp.	10	-	-	-	-	10	-	10
Strombidium spp.	570	50	520	10	30	50	50	10
Tintinnopsis spp.	30	10	30	10	-	10	10	20
Unidentified ciliate	10	-	-	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	-	20	10	20	-	20	10	-
Miscellaneous								
Unidentified cell	-	-	110	40	-	30	10	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora sp.	-	-	10	-	-	-	-	-
Cocconeis spp.	40	30	50	-	-	10	10	50
Cyclotella spp.	8900	1780	5340	5340	1780	-	-	-
Fragilaria spp.	-	70	40	20	-	-	-	-
Licmophora spp.	30	10	20	-	-	-	20	80
Melosira spp.	-	20	-	-	-	-	-	-
Navicula spp.	10	10	-	-	10	-	-	-
Nitzschia spp.	140	360	250	140	150	20	30	60
N. closterium	10	20	10	10	30	-	20	-
Pinnularia spp.	-	-	20	10	20	20	-	-
Planktoniella sp.	-	10	-	-	-	-	-	-
Skeletonema costatum	220	160	80	110	180	-	240	640
Thalassiosira spp.	30	110	110	40	80	40	20	40
Unidentified filament	-	-	-	-	-	-	-	120
Chrysophyceae	425420	553580	512640	220720	140620	39160	44500	33820
Dinophyceae								
Cochlodinium spp.	10	-	-	-	-	10	10	-
Glenodinium spp.	-	-	-	-	30	-	20	10
Gymnodinoid cell	-	-	10	-	-	-	-	-
Oxytoxum sp.	-	-	-	-	-	-	-	10
Peridinium c.f. encysted	-	-	10	-	-	-	-	-
Pouchetia sp.	-	-	-	-	10	-	-	-
Cryptophyceae	60520	21360	32040	16020	10680	10680	7120	5340
Rhodomonas spp.	62300	117480	10680	8900	19580	-	-	-
Chlorophyta								
Chlorophyceae								
Unidentified flagellate	10	-	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	80	10	10	10	10	-	-	-
Silicoflagellata								
Distephanus spp.	30	40	-	10	-	-	10	-
Ciliata								
Mesodinium rubrum	10	20	-	20	20	10	10	10
Stenosmella spp.	-	-	-	10	10	-	-	-
Strombidium spp.	210	10	-	-	40	-	-	-
Tintinnopsis spp.	10	-	-	10	50	10	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	40	-	-	-	20	-	-	30
Miscellaneous								
Unidentified cell	40	-	-	20	10	-	-	20
Unidentified cell	-	-	-	-	-	10	-	10

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	60	-	-	-	-	-	-	-
Amphora spp.	10	-	-	-	-	10	10	-
Biddulphia spp.	10	-	-	10	-	-	-	-
Cocconeis spp.	210	30	50	70	20	20	20	10
Fragilaria sp.	-	-	-	10	-	-	-	-
Grammatophora spp.	-	-	-	-	-	20	20	-
Gyrosigma sp.	-	-	-	-	-	-	-	10
Licmophora spp.	920	10	10	40	10	40	60	-
Melosira spp.	-	-	20	-	-	-	-	-
Navicula spp.	380	10	10	20	-	-	-	-
Naviculoid cell	5340	-	1780	-	-	-	-	-
Nitzschia spp.	550	180	240	260	210	130	21	50
N. closterium	40	10	50	20	-	50	-	10
Pleurosigma spp.	10	10	-	10	10	10	-	-
Skeletonema costatum	170	150	700	260	60	60	60	260
Thalassiosira spp.	120	150	140	110	70	70	30	10
Unidentified filament	90	-	-	-	-	-	-	10
Chrysophyceae	227840	145960	227840	103240	220720	28480	56960	53400
Dinophyceae								
Glenodinium spp.	140	-	-	-	-	-	-	10
Gymnodinium sp.	10	-	-	-	-	-	-	-
Gymnodinoid cell	20	-	10	-	-	-	-	-
Oxytoxum spp.	-	-	10	-	-	-	40	-
Cryptophyceae	21360	16020	12460	7120	24920	1780	3560	3560
Rhodomonas spp.	67640	32040	62300	92040	48060	3560	1780	1780
Chlorophyta								
Euglenophyceae	-	-	-	-	-	-	20	-
Euglena c.f.	60	10	20	-	20	-	20	-
Silicoflagellata								
Distephanus spp.	10	-	50	50	-	-	-	-
Ciliata								
Mesodinium rubrum	630	-	50	50	50	-	-	10
Stenosmella spp.	70	-	30	-	30	20	-	-
Strombidium spp.	1770	50	1090	280	80	10	20	60
Tintinnopsis spp.	50	-	-	-	-	-	-	-
Unidentified ciliate	-		-	-	-	-	-	-
Unidentified ciliate	-		10	-	-	-	20	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	*10*	*10*	-	-	-	-	*20*	-
Miscellaneous								
Unidentified cell	-	-	*10*	-	-	-	*10*	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	40	30	-	-	20	40	-	-
Cocconeis spp.	30	40	10	-	10	-	-	-
Navicula spp.	30	2	20	30	20	10	-	-
Nitzschia spp.	120	229*	70	20	20	50	10	30
Skeletonema costatum	5490	1290	440	10	70	28	30	90
Thalassiosira spp.	40	30	10	-	10	-	-	10
Chrysophyceae	12460	12460	16090	14240	322180	8900	12460	-
Dinophyceae								
Glenodinium spp.	10	-	-	-	10	10	-	-
Peridinium sp.	-	-	-	-	-	-	-	10
Cryptophyceae	-	5340	-	-	8900	-	3560	
Chlorophyta								
Unidentified cell	-	-	-	-	1850	-	-	
Ciliata								
Strombidium spp.	10	10	20	10	40	-	-	
Tintinnopsis spp.	20	100	-	-	30	-	-	
Miscellaneous								
Bacteria	X	X	X	X	X	X	-	X

* *Note: Sample preservation poor.*

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	170	60	20	160	60	290	30	10
Cocconeis spp.	-	20	30	-	-	-	-	-
Navicula spp.	40	10	-	-	40	10	-	-
Nitzschia spp.	-	20	50	-	90	30	20	-
N. closterium	-	-	-	-	20	-	-	-
Skeletonema costatum	600	1640	290	890	710	1960	180	70
Thalassiosira spp.	10	10	20	-	-	-	-	-
Chrysophyceae	28480	8900	14240	10680	39160	7120	16020	-
Dinophyceae								
encysted Glenodinium	-	-	20	-	-	-	-	-
Cryptophyceae	5340	3560	5340	-	17800	-	3560	-
Rhodomonas spp.	-	-	-	-	8900	-	-	-
Chlorophyta								
Euglenophyceae								
Phacus c.f.	-	-	-	-	100	-	-	-
Ciliata								
Mesodinium rubrum	-	-	-	-	-	-	10	-
Strombidium spp.	-	-	-	10	-	-	-	10
Suctoria								
Trochiscia spp.	10	10	-	-	-	-	-	-
Miscellaneous								
Collar flagellate	-	10	-	-	20	-	-	-
Bacteria	X	X	X	X	X	-	X	X

• *Note: Sample preservation poor.*

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	100	-	230	120	10	-	20	10
Cocconeis spp.	10	-	-	20	10	-	10	-
Navicula spp.	10	10	10	20	160	-	20	-
Nitzschia spp.	20	80	20	10	210	30	10	-
N. closterium	-	30	10	-	20	10	10	10
Skeletonema costatum	970	730	60	610	970	60	-	30
Thalassiosira spp.	-	-	-	-	-	-	-	10
Chrysophyceae	12460	10680	10680	17800	46280	12460	7120	26700
Dinobryon spp.	-	-	-	-	-	-	10	-
Cryptophyceae	5340	3560	3560	5340	3560	-	-	-
Ciliata								
Strombidium spp.	-	-	-	-	20	-	-	-
Miscellaneous								
Collar flagellate	10	-	-	-	-	-	-	-
Bacteria	X	X	X	X	-	-	X	X

* *Note: Sample preservation poor.*

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora sp.	-	-	-	-	-	10	-	-
Chaetoceros spp.	60	50	220	290	100	-	-	-
Cocconeis spp.	-	30	40	30	-	100	-	10
Coscinodiscus spp.	10	10	-	-	-	10	-	10
Cyclotella spp.	-	1780	3560	8900	-	-	-	-
Licmophora spp.	10	10	10	10	-	-	-	-
Melosira spp.	-	-	-	-	-	40	-	-
Navicula spp.	30	70	20	10	10	50	10	10
Nitzschia spp.	60	240	210	360	170	180	80	50
N. closterium	10	90	70	60	40	10	10	20
Pleurosigma spp.	-	20	-	-	-	-	-	-
Skeletonema costatum	50	1330	150	2360	2300	-	70	50
Thalassiosira	40	-	10	20	60	20	20	10
Chrysophyceae	151300	1429340	295480	315060	72980	21340	30260	19580
Dinophyceae								
Glenodinium spp.	30	150	-	-	10	-	10	-
Gymnodinoid cell	-	-	10	20	-	40	10	10
Oxytoxum sp.	-	-	-	-	-	10	-	-
Peridinium sp.	10	-	-	-	-	-	-	-
Cryptophyceae	16020	26700	12460	8900	3560	3560	3560	3560
Rhodomonas	17800	24920	35600	37380	-	-	-	-
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	50	-	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	-	5850	30	10	-	30	-	-
Cyanophyta								
Cyanophyceae								
Oscillatoria c.f.	1500	-	-	-		-	-	-
Silicoflagellata								
Distephanus spp.	10	30	30	70	10	-	-	-
Ciliata								
Mesodinium rubrum	520	70	200	240	150	-	10	10
Stenosmella spp.	10	-	-	20	10	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata cont.								
Strombidium spp.	400	690	240	760	130	20	10	-
Tintinnopsis spp.	-	-	-	30	10	10	-	-
Unidentified ciliate	10	100	-	-		-	-	-
Suctoria								
Trochiscia spp.	-	10	-	-	10	-	-	-
Miscellaneous								
Bacteria	X	X	X	X	-	X	X	X
Unidentified cell	-	-	-	50	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10*	20*	30*
Chrysophyta								
Bacillariophyceae								
Biddulphia aurita	-	-	-	40	10	-	-	-
Chaetoceros spp.	280	140	240	280	20	-	-	-
Cocconeis spp.	30	-	20	-	10	-	-	-
Coscinodiscus spp.	170	260	320	300	1440	170	10	10
Cyclotella spp.	996800	1379500	1765200	1228200	99680	23140	7120	1780
Licmophora sp.	10	-	-	-	-	-	-	-
Melosira sp.	-	-	-	10	-	-	-	-
Navicula spp.	20	20	50	40	-	-	-	-
Nitzschia spp.	650	380	650	800	550	210	90	40
N. closterium	60	80	90	50	40	-	10	10
Rhizosolenia spp.	-	-	-	20	-	-	-	-
Skeletonema costatum	3300	1340	2620	4290	35660	2360	1500	740
Thalassiosira spp.	180	220	320	290	1010	110	20	20
Chrysophyceae	103240	56960	60520	76540	85440	42720	19580	21360
Dinophyceae								
Glenodinium spp.	140	240	360	370	30	20	-	-
Gonyaulax sp.	-	-	-	10	-	-	-	-
Peridinium spp.	1990	1120	1850	1060	150	30	10	-
Cryptophyceae	3560	5340	7120	7120	5340	8900	1780	3560
Rhodomonas spp.	-	5340	8900	1780	1780	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	70	-	-	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	-	10	-	20	50	-	-	-
Ciliata								
Mesodinium rubrum	50	-	20	20	30	10	10	-
Stenosmella sp.	-	-	-	-	10	-	-	-
Strombidium spp.	70	70	10	40	10	10	10	10
S. strobilis	40	-	20	-	10	-	-	-
Miscellaneous								
Unidentified cell	30	20	80	100	-	-	10	-
Bacteria	-	-	-	-	-	X	X	X

* *Note: Sample preservation poor.*

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	90	60	30	-	-	-	30	40
Cocconeis spp.	30	20	-	20	10	30	-	-
Coscinodiscus spp.	430	370	290	110	70	20	30	160
Cyclotella spp.	53400	67640	14240	3560	1780	-	1780	7120
Licmophora sp.	-	10	-	-	-	-	-	-
Navicula spp.	30	-	20	40	80	10	-	20
Nitzschia spp.	3930	310	2840	2790	1410	580	250	460
N. closterium	90	40	10	20	10	-	-	10
Skeletonema costatum	338900	373100	129450	48020	43310	1840	5060	21270
Thalassiosira spp.	1190	1410	1300	830	360	70	-	90
Chrysophyceae	67640	113920	60520	28480	24920	30260	28480	39160
Dinophyceae								
Cochlodinium spp.	140	40	-	10	-	-	-	-
Glenodinium spp.	170	320	10	-	20	-	-	20
Peridinium spp.	230	240	80	140	20	10	20	70
Cryptophyceae	5340	14240	5340	3560	3560	7120	1780	5340
Rhodomonas spp.	8900	16020	17800	3560	1780	7120	3560	5340
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	20	-	-	10	-	-	-
Silicoflagellata								
Distephanus spp.	20	-	390	280	-	30	50	50
Ciliata								
Mesodinium rubrum	40	70	20	10	-	50	-	-
Stenosmella spp.	-	-	10	-	30	-	10	-
Strombidium spp.	200	130	-	20	10	20	20	30
Tintinnopsis spp.	710	190	10	-	-	-	-	30
Suctoria								
Trochiscia sp.	-	-	-	-	-	-	-	10
Miscellaneous								
Unidentified cell	240	30	-	-	20	40	-	10

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora sp.	10	-	-	-	-	-	-	
Chaetoceros spp.	80	120	80	-	20	-	-	
Cocconeis spp.	-	50	20	-	10	-	-	
Coscinodiscus spp.	110	480	550	350	380	100	10	10
Cyclotella spp.	30260	14240	1780	14240	10680	-	1780	
Licmophora spp.	10	-	20	-	-	10	-	
Melosira spp.	-	-	20	-	-	-	-	
Navicula spp.	40	150	100	40	90	40	-	10
Nitzschia spp.	7310	10070	9340	4710	3980	1880	100	100
N. closterium	70	80	90	30	50	30	-	
Skeletonema costatum	5985000	14026400	14774000	216550	78200	14660	1680	2930
Thalassiosira spp.	1520	2080	3610	2070	1880	600	10	30
Chrysophyceae	64080	60520	40940	51620	40940	23140	32040	21360
Dinophyceae								
Cochlodinium spp.	1670	-	-	-	-	-	-	
encysted Cochlodinium	430	-	-	-	-	-	-	
Glenodinium spp.	680	150	60	20	-	-	-	
Gymnodinoid cell	80	-	-	-	-	-	-	
Peridinium spp.	120	540	160	60	30	40	10	
Cryptophyceae	5340	8900	3560	5340	5340	1780	3560	3560
Rhodomonas spp.	33820	51620	17800	3560	1780	1780	-	1780
Chlorophyta								
Euglenophyceae								
Euglena c.f.	1790	110	-	-	-	-	-	
Silicoflagellata								
Distephanus spp.	10	-	210	100	290	20	-	10
Radiolaria								
Lithomelissa sp.	-	-	-	-	-	-	-	10
Ciliata								
Mesodinium rubrum	-	70	130	40	80	30	-	
Salpingella spp.	10	20	-	-	-	-	-	
Stenosmella spp.	-	-	30	80	110	40	-	
Strombidium spp.	230	550	110	20	-	-	-	20
S. strobilis	-	10	20	-	-	-	-	10
Tintinnopsis spp.	50	100	30	10	30	-	-	

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	10	30	-	-	-	-	-	
Miscellaneous								
Unidentified cell	350	210	60	-	-	-	-	

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes sp.	-	10	-	-	-	-	-	-
Amphiprora spp.	-	10	30	-	-	-	-	-
Chaetoceros spp.	200	110	30	490	20	-	-	-
Cocconeis spp.	80	80	30	-	-	-	10	-
Coscinodiscus spp.	330	400	380	760	250	80	20	20
Cyclotella spp.	12460	10680	19580	7120	5340	8900	-	-
Grammatophora sp.	10	-	-	-	-	-	-	-
Licmophora spp.	70	140	10	-	10	-	-	-
Melosira spp.	20	20	-	10	-	-	10	-
Navicula spp.	390	690	250	90	50	-	10	-
Nitzschia spp.	8210	7030	8480	8720	5230	1890	360	410
N. closterium	190	150	80	90	60	-	10	-
Pleurosigma spp.	10	10	-	-	-	-	-	-
Skeletonema costatum	1812040	1174800	785336	660380	51290	10150	4420	5650
Striatella sp.	-	-	-	10	-	-	-	-
Thalassiosira spp.	1100	2170	2200	2910	1530	550	30	30
Chrysophyceae	147740	76540	76540	67640	32040	32040	46280	21360
Dinophyceae								
Cochlodinium spp.	110	-	-	-	-	-	-	-
Glenodinium spp.	1890	230	110	15[illegible]	60	-	20	10
Gymnodinium sp.	-	-	-	[illegible]	-	-	-	-
Gymnodinoid cell	730	50	10	[illegible]0	-	-	-	-
Peridinium spp.	90	30	50	70	10	-	-	-
Cryptophyceae	16020	12460	12460	3560	7120	7120	10680	1780
Rhodomonas spp.	19580	32040	24920	8900	7120	5340	3560	-
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	-	80	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	40	60	10	-	-	10	-	-
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	-	-	33170	2170	-	-	-	-
Silicoflagellata								
Distephanus spp.	-	140	200	290	1510	110	-	20

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Euplotes c.f.	-	10	-	30	-	-	-	-
Mesodinium rubrum	-	-	-	-	10	10	-	-
Strombidium spp.	540	50	40	180	20	20	-	-
S. strobilis	10	-	-	-	-	-	-	-
Tintinnopsis spp.	-	30	20	20	-	-	-	-
Unidentified ciliate	50	-	-	-	-	-	-	-
Suctoria								
Trochiscia spp.	-	20	10	140	-	-	10	-
Miscellaneous								
Unidentified cell	250	50	30	90	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	10	10	-	-	-	-	-	-
Cyclotella spp.	7120	-	1780	-	-	1780	-	3560
Nitzschia spp.	100	120	60	100	210	140	70	150
Skeletonema costatum	-	-	-	-	-	-	20	250
Thalassiosira sp.	10	-	-	-	-	-	-	-
Chrysophyceae	320400	291920	286580	210040	210040	190460	396940	329300
Dinophyceae								
Dinophysis spp.	10	20	10	10	-	-	-	-
Glenodinium spp.	40	30	10	10	10	-	-	-
Gymnodinoid cell	20	-	-	-	-	-	20	10
Peridinium spp.	-	-	-	20	-	-	-	
Cryptophyceae	60520	40940	90780	42720	53400	17800	21360	16080
Rhodomonas spp.	17800	85440	110360	42720	65860	16020	14240	3560
Ciliata								
Colpidium sp.	-	-	-	-	-	-	-	10
Strombidium spp.	20	110	140	60	140	90	10	-
Unidentified ciliate	-	40	80	60	20	80	50	20
Miscellaneous								
Collar flagellate	1780	-	-	-		3560	3560	1780

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	30	-	10	-	10	10	-	10
Coscinodiscus sp.	-	-	-	-	10	-	-	-
Cyclotella spp.	1780	-	1780	1780	1780	-	-	-
Licmophora sp.	-	-	10	-	-	-	-	-
Melosira spp.	-	-	-	-	20	-	-	-
Navicula spp.	20	-	-	10	20	-	-	70
Nitzschia spp.	2090	2870	2180	1650	330	120	170	150
N. closterium	-	10	-	40	-	10	10	-
Thalassiosira spp.	-	-	10	-	20	30	-	-
Chrysophyceae	368460	437880	336420	158420	169100	138840	402280	304380
Dinophyceae								
Dinophysis spp.	20	-	-	-	-	10	-	-
Glenodinium spp.	190	160	70	90	60	20	30	30
Gymnodinoid cell	10	10	-	-	10	10	40	-
Peridinium spp.	50	20	-	10	-	-	-	-
Cryptophyceae	49840	65860	90780	26700	39160	24920	37380	26700
Rhodomonas spp.	30260	33820	26700	8900	21360	3560	8900	14240
Chlorophyta								
Euglenophyceae								
Euglena c.f.	260	250	120	40	50	60	-	10
Phaeophyta								
Unidentified cell	50	30	140	130	1400	360	590	920
Silicoflagellata								
Distephanus spp.	-	-	-	-	10	-	10	-
Ciliata								
Strombidium spp.	210	140	70	10	10	280	70	50
Tintinnopsis spp.	90	20	-	-	-	-	-	-
Unidentified ciliate	-	20	10	170	-	30	30	-
Miscellaneous								
Collar flagellate	3560	1780	1780	-	1780	-	3560	1780

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	10	-	-	-	10	-	-	-
Cyclotella spp.	-	7120	-	-	-	1780	1780	1780
Licmophora sp.	10	-	-	-	-	-	-	-
Navicula spp.	20	-	-	-	-	-	-	10
Nitzschia spp.	2140	1580	970	980	940	300	150	120
N. closterium	20	-	-	-	-	10	-	10
Chrysophyceae	3132080	261660	379140	420080	396940	11540	484160	555360
Dinophyceae								
Glenodinium spp.	90	-	10	-	-	-	10	-
Cryptophyceae	37380	16020	12460	21360	10680	14240	10680	17800
Rhodomonas spp.	8900	7120	5340	3560	7120	1780	1780	3560
Chlorophyta								
Euglenophyceae								
Euglena c.f.	20	10	20	-	-	-	-	-
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	-	-	-	80	-	-	-	-
Ciliata								
Unidentified ciliate	-	30	10	130	50	10	-	-
Miscellaneous								
Collar flagellate	-	7120	-	-	1780	-	3560	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	20	-	-	-	-	-	-	
Amphora spp.	10	10	-	-	-	-	-	
Cocconeis spp.	110	-	10	10	10	-	-	
Navicula spp.	40	-	-	-	-	-	-	
Nitzschia spp.	2120	1100	1010	670	660	410	130	50
Pleurosigma spp.	20	-	-	-	-	-	-	
Thalassiosira sp.	-	-	-	-	-	-	10	
Chrysophyceae	208260	218940	218940	284800	174440	151300	74760	185120
Dinophyceae								
Ceratium sp.	-	-	10	-	-	-	-	
Dinophysis sp.	10	-	-	-	-	-	-	
Glenodinium spp.	1080	20	10	-	-	-	-	10
Peridinium spp.	110	40	30	-	-	-	-	
Cryptophyceae	103240	72980	65860	65860	26700	21360	12460	17800
Rhodomonas spp.	16020	5340	10680	14240	10680	8900	1780	8900
Chlorophyta								
Euglenophyceae								
Euglena c.f.	60	20	10	20	10	10	-	
Phaeophyta								
Unidentified cell	630	140	140	390	50	300	380	780
Ciliata								
Mesodinium rubrum	210	60	80	30	100	-	20	
Stenosmella spp.	-	-	10	-	30	10	70	
Strombidium spp.	770	130	10	30	120	30	-	40
Tintinnopsis sp.	-	-	-	-	-	10	-	
Unidentified ciliate	-	-	-	-	-	-	-	20
Miscellaneous								
Collar flagellate	-	-	-	1780	-	1780	-	7120

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora sp.	-	-	-	10	-	-	-	-
Chaetoceros spp.	190	270	100	260	220	20	-	90
Cocconeis spp.	-	20	20	10	-	10	-	-
Corethron sp.	10	-	-	-	-	-	-	-
Coscinodiscus spp.	120	40	50	30	30	10	-	-
Cyclotella spp.	-	26700	40940	7120	5340	-	-	-
Eucampia sp.	-	-	-	-	-	10	-	-
Licmophora spp.	10	-	10	-	-	-	-	-
Navicula spp.	-	-	-	-	30	-	10	10
Nitzschia spp.	20	40	20	30	550	260	170	180
N. closterium	-	-	-	10	10	-	-	-
Rhizosolenia delicatula	20	-	-	-	10	-	-	-
R. robusta	10	-	-	-	-	-	-	-
Skeletonema costatum	-	-	-	-	40	110	40	100
Thalassiosira spp.	70	60	40	90	80	10	10	10
Chrysophyceae	323640	471700	199360	525100	224280	185120	254540	76540
Dinophyceae								
Dinophysis sp.	-	-	-	10	-	-	-	-
Glenodinium spp.	910	120	70	100	20	60	-	40
Gymnodinoid cell	80	-	110	-	10	-	-	-
Peridinium spp.	10	110	10	70	10	10	10	-
Cryptophyceae	72980	39160	40940	48060	17800	10680	17800	14240
Rhodomonas spp.	42720	14240	10680	7120	1780	1780	1780	1780
Phaeophyta								
Phaeophyceae								
Unidentified cell	210	180	670	350	170	60	-	-
Heliozoa	-	10	-	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	-	-	-	-	-	10	-	10
Ebria tripartita	-	10	-	-	-	-	-	-
Ciliata								
Mesodinium rubrum	60	-	-	20	10	20	-	-
Strombidium spp.	590	180	160	30	30	20	10	30
Tintinnopsis spp.	-	10	-	-	40	150	-	-
Unidentified ciliate	340	230	260	300	-	30	60	310

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Miscellaneous								
Collar flagellate	*3560*	*10680*	*3560*	*5340*	*5340*	*1780*	*1780*	*5340*
Unidentified cell	*80*	-	*90*	*140*	*30*	-	-	*10*
Planktonic Crustacean	*10*	-	-	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	40	-	10	-	-	-	-	-
Amphora sp.	10	-	-	-	-	-	-	-
Biddulphia spp.	30	-	-	-	-	-	-	-
Chaetoceros spp.	-	-	-	-	-	-	30	10
Cocconeis spp.	210	20	10	20	20	-	-	-
Coscinodiscus spp.	10	-	-	10	-	-	-	20
Cyclotella spp.	1780	-	-	-	-	-	-	-
Fragilaria spp.	70	-	-	-	-	-	-	-
Grammatophora spp.	-	50	-	-	-	-	-	-
Gyrosigma spp.	20	-	-	-	-	-	-	-
Melosira spp.	90	30	-	-	-	-	-	-
Navicula spp.	350	-	30	-	20	-	-	20
Nitzschia spp.	1120	190	270	580	500	410	280	240
N. closterium	20	-	-	-	-	-	-	-
Rhizosolenia robusta	-	-	-	-	10	-	-	-
Skeletonema costatum	60	-	-	-	-	50	-	50
Thalassiosira spp.	20	10	50	10	20	20	-	10
Chrysophyceae	250980	491280	304380	24560	192240	192240	388360	169100
Dinophyceae								
Amphidinium spp.	-	-	-	-	-	-	-	20
Dinophysis spp.	30	10	10	-	10	-	-	10
Glenodinium spp.	230	200	190	50	190	40	-	80
Gymnodinoid cell	10	-	-	10	10	-	-	10
Peridinium spp.	140	50	30	20	90	40	10	10
Prorocentrum sp.	10	-	-	-	-	-	-	
Cryptophyceae	35600	24920	30260	32040	14240	26700	24920	23140
Rhodomonas spp.	12460	17800	17800	17800	5340	33820	14240	14240
Chlorophyta								
Euglenophyceae								
Euglena c.f.	40	-	-	-	-	-	-	-
Phaeophyta								
Unidentified cell	-	20	30	40	130	170	30	50
Radiolaria								
Dictyophimus spp.	-	-	-	10	-	-	-	10
Unidentified radiolarian	-	-	-	-	40	10	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Distephanus spp.	-	-	30	10	-	80	30	40
Ebria spp.	-	-	10	-	-	-	-	
Ciliata								
Mesodinium rubrum	10	20	20	20	50	10	-	-
Strombidium spp.	110	70	70	30	180	-	60	110
Tintinnopsis spp.	-	30	-	-	330	30	-	240
Unidentified ciliate	10	-	-	20	-	10	20	10
Miscellaneous								
Collar flagellate	-	1780	10680	10680	5340	7120	5340	-
Unidentified cell	50	-	10	-	-	-	-	10
Planktonic Crustacean	-	-	10	10	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	10	20	10	30	10	-	-	-
Coscinodiscus spp.	10	-	-	10	-	-	-	-
Navicula spp.	-	40	10	-	10	30	40	-
Nitzschia spp.	230	650	770	920	730	260	170	270
Skeletonema costatum	-	-	-	-	-	80	-	-
Thalassiosira spp.	-	40	-	-	20	-	-	-
Chrysophyceae	373800	360920	181500	103240	176220	149520	170880	149520
Dinophyceae								
Amphidinium spp.	-	-	-	90	-	-	-	10
Dinophysis sp.	-	-	10	-	-	-	-	-
Glenodinium spp.	370	120	50	-	80	20	-	10
Peridinium spp.	50	60	10	-	10	-	-	-
Cryptophyceae	26700	19580	17800	12460	23140	3560	14240	12460
Rhodomonas spp.	19580	40940	10680	1780	5340	3560	5340	10680
Chlorophyta								
Prasinophyceae	-	20	-	30	20	-	-	-
Phaeophyta								
Phaeophyceae								
Unidentified cell	80	90	80	50	40	-	-	10
Radiolaria								
Unidentified radiolarian	-	-	-	10	-	-	-	-
Silicoflagellata								
Distephanus spp.	-	80	-	10	-	10	-	10
Ebria spp.	10	10	-	-	-	-	-	-
Ciliata								
Mesodinium rubrum	20	40	10	-	-	-	-	-
Strombidium spp.	400	130	80	30	-	-	10	20
Tintinnopsis spp.	-	60	170	80	40	-	10	20
Unidentified ciliate	1480	50	10	30	10	10	-	-
Miscellaneous								
Collar flagellate	5340	7120	5340	5340	7120	3560	1780	5340
Unidentified cell	60	-	-	10	-	-	-	-
Planktonic Crustacean	-	-	-	20	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	30	-	-	-	-	-	-	-
Cocconeis spp.	40	10	20	20	60	-	10	-
Coscinodiscus spp.	20	-	-	10	-	-	20	-
Cyclotella spp.	1780	-	-	-	-	-	-	-
Licmophora spp.	10	-	-	-	-	-	-	10
Melosira spp.	60	-	-	20	-	-	-	-
Navicula spp.	-	-	20	10	10	50	10	-
Nitzschia spp.	270	120	190	450	540	940	330	240
N. closterium	-	-	-	-	10	10	10	-
Skeletonema costatum	-	40	-	40	40	-	30	-
Thalassiosira spp.	-	-	10	-	20	-	-	-
Chrysophyceae	357780	202920	224280	169100	113920	190460	135280	42720
Dinophyceae								
Amphidinium sp.	-	-	-	-	-	10	-	-
Dinophysis spp.	-	-	20	10	-	-	-	-
Glenodinium spp.	110	340	150	250	30	20	10	-
Gymnodinoid cell	-	20	-	-	-	-	10	-
Peridinium spp.	80	90	100	50	50	-	-	-
Cryptophyceae	19580	26700	7120	1780	10680	28480	14240	1780
Rhodomonas spp.	14240	5340	5340	-	3560	14240	28480	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	10	-	-	-	-	-
Phaeophyta								
Phaeophyceae								
Unidentified cell	30	70	90	70	30	20	20	-
Radiolaria								
Unidentified radiolarian	-	-	-	-	-	10	-	-
Silicoflagellata								
Distephanus sp.	-	-	10	-	-	-	-	-
Ciliata								
Mesodinium rubrum	20	40	20	30	-	-	-	-
Stenosmella spp.	-	10	-	-	-	10	-	-
Strombidium spp.	100	90	80	30	30	40	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata cont.								
Tintinnopsis spp.	-	210	10	30	170	20	-	-
Unidentified ciliate	50	30	80	-	-	-	20	-
Miscellaneous								
Collar flagellate	8900	5340	3560	8900	8900	-	7120	-
Planktonic Crustacean	-	-	-	10	-	-	-	-
Unidentified cell	-	10	10	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION I

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	-	10	-	10	-	-	-
Navicula spp.	10	-	-	-	-	-	-	10
Nitzschia spp.	-	10	10	30	30	10	20	10
Rhizosolenia sp.	-	10	-	-	-	-	-	-
Rhoicosphenia spp.	-	10	-	-	10	-	-	-
Chrysophyceae	58740	64080	106800	131720	44500	24920	16020	16020
Dinophyceae								
Dinophysis sp.	-	-	-	-	-	10	-	-
Glenodinium spp.	10	30	70	150	70	20	20	20
Gymnodinium spp.	-	-	20	-	10	-	-	-
Cryptophyceae	21360	14240	12460	14240	7120	1780	1780	3560
Rhodomonas spp.	10680	1780	1780	1780	-	-	-	1780
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	10	-	-
Ciliata								
Mesodinium rubrum	10	20	60	30	-	10	10	-
Stenosmella spp.	-	-	-	30	10	-	-	-
Strombidium spp.	40	50	90	150	60	40	10	20
S. strobilis	-	-	10	10	10	-	10	-
Tintinnopsis spp.	20	10	10	20	80	10	-	-
Tintinnus sp.	10	-	-	-	-	-	-	-
Unidentified ciliate	-	-	-	-	10	10	10	-
Suctoria								
Trochiscia multispinosa	-	-	-	-	-	-	10	-
T. ovata	-	-	-	-	10	-	-	-
Miscellaneous								
Planktonic Crustacean	-	-	10	-	-	-	-	10
Unidentified cell	-	-	-	10	-	-	-	-
Bacteria	-	-	-	-	-	-	X	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION II

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	20	-	10	-	-	-	-
Coscinodiscus sp.	-	-	-	-	10	-	-	-
Grammatophora sp.	-	-	-	-	10	-	-	-
Melosira sp.	-	-	10	-	-	-	-	-
Navicula spp.	-	-	-	20	-	10	-	-
Nitzschia spp.	40	30	40	30	10	20	30	40
Rhizosolenia spp.	-	10	-	-	-	-	-	10
Skeletonema costatum	-	-	-	-	-	-	40	-
Thalassionema nitzschoides	-	-	-	20	-	-	-	20
Thalassiosira spp.	-	20	-	-	10	-	-	-
Chrysophyceae	72980	106800	122820	183340	110360	117480	67640	26700
Dinophyceae								
Cochlodinium spp.	20	-	-	-	10	-	-	10
Glenodinium spp.	30	40	60	50	20	20	30	30
Gymnodinium spp.	-	-	-	-	10	-	10	-
Peridinium sp.	-	-	10	-	-	-	-	-
Cryptophyceae	39160	37380	35600	17800	12460	7120	10680	7120
Rhodomonas spp.	49840	39160	24920	7120	-	-	3560	1780
Chlorophyta								
Euglenophyceae								
Euglena c.f.	20	60	30	30	-	-	10	-
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	-	100	-	-	-	-	-	-
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	10	-	-
Ciliata								
Mesodinium rubrum	220	490	100	10	10	10	-	-
Stenosmella spp.	-	-	-	20	10	10	-	-
Strombidium spp.	300	270	160	150	40	80	50	60
S. strobilis	40	-	10	10	-	-	10	10
Tintinnopsis spp.	-	-	-	-	20	10	-	
Miscellaneous								
Planktonic Crustacean	-	-	-	-	10	-	-	10
Unidentified cell	10	-	-	-	10	-	10	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	20	10	-	10	10	-	10	10
Melosira sp.	-	-	10	-	-	-	-	-
Navicula spp.	10	-	-	-	20	10	-	-
Nitzschia spp.	100	80	40	40	20	-	-	10
Pleurosigma spp.	10	-	10	-	-	-	-	-
Rhizosolenia sp.	-	-	-	10	-	-	-	-
Thalassiosira sp.	10	-	-	-	-	-	-	-
Chrysophyceae	101460	97900	174440	135280	64080	89000	64080	78320
Dinophyceae								
Cochlodinium sp.	-	-	-	-	-	10	-	-
Glenodinium spp.	20	-	90	30	80	20	30	50
Gymnodinium spp.	10	-	10	20	-	20	-	-
Peridinium sp.	-	-	-	-	-	-	10	-
Cryptophyceae	19580	23140	19580	26700	10680	8900	10680	8900
Rhodomonas spp.	35600	69420	7120	5340	1780	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	100	180	10	-	-	10	-	-
Silicoflagellata								
Ebria spp.	-	-	-	-	-	-	10	-
Radiolaria								
Unidentified radiolarian	-	-	-	-	-	-	-	10
Ciliata								
Mesodinium rubrum	390	450	80	180	80	20	40	-
Parundella sp.	10	-	-	-	-	-	-	-
Stenosmella spp.	-	-	40	30	-	10	-	-
Strombidium spp.	220	310	130	100	80	40	30	-
S. strobilis	-	-	10	-	-	-	-	10
Tiarina c.f.	-	-	-	-	10	-	-	-
Tintinnopsis spp.	10	-	10	-	10	10	-	-
Miscellaneous								
Collar flagellate	-	-	-	-	-	1780	1780	-
Planktonic Crustacean	-	10	10	-	-	-	10	-
Unidentified cell	-	-	-	-	10	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IV

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	20	-	20	10	-	20	-	
Coscinodiscus spp.	-	-	-	-	10	-	-	20
Navicula spp.	-	-	-	-	20	10	-	
Nitzschia spp.	30	10	-	40	-	10	-	
N. closterium	-	10	-	-	-	-	-	
Skeletonema costatum	-	-	-	-	-	-	70	40
Thalassionema nitzschoides	20	-	-	-	-	10	-	
Thalassiosira spp.	-	-	10	-	-	-	-	10
Chrysophyceae	194020	199360	156640	108580	65860	39160	58740	44500
Dinophyceae								
Cochlodinium spp.	10	10	-	-	-	10	-	
Dinophysis sp.	-	-	-	-	-	10	-	
Glenodinium spp.	20	30	80	10	30	40	40	20
Gymnodinium spp.	10	20	20	-	-	-	-	
Peridinium spp.	-	-	20	-	-	-	10	
Cryptophyceae	24920	17800	7120	10680	1780	7120	1780	7120
Rhodomonas spp.	26700	12460	-	-	-	-	7120	
Chlorophyta								
Euglenophyceae								
Euglena c.f.	60	50	10	10	-	-	-	
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	10	-	
Unidentified radiolarian	-	-	-	-	-	-	-	10
Ciliata								
Mesodinium rubrum	150	90	-	-	10	-	-	
Stenosmella spp.	-	-	30	-	-	-	10	
Strombidium spp.	160	140	70	50	60	20	40	70
Tintinnopsis spp.	-	-	-	30	20	40	-	-
Tintinnus sp.	-	-	-	-	-	-	-	10
Unidentified ciliate	20	-	10	10	-	10	-	-
Miscellaneous								
Ascidian tadpole	-	-	-	10	-	-	-	-
Planktonic Crustacean	-	-	-	10	-	-	-	10
Unidentified cell	-	10	-	-	-	-	-	-
Unidentified cell	-	-	20	-	-	-	-	-

May 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	20	10	20	-	-	-	
Amphora spp.	10	-	-	-	-	-	-	
Chaetoceros spp.	-	-	20	-	-	-	-	10
Cocconeis spp.	10	10	20	10	-	10	-	20
Coscinodiscus spp.	30	40	60	40	-	30	-	20
Diploneis spp.	-	30	-	-	-	-	-	
Leptocylindrus danicus	-	-	-	-	-	10	20	
Licmophora spp.	20	10	-	10	-	-	-	
Melosira spp.	10	40	-	-	-	20	-	
Navicula spp.	20	60	20	40	20	-	-	
Nitzschia spp.	140	260	140	200	140	120	40	20
N. closterium	-	-	-	10	-	20	-	10
Rhizosolenia stolterfothii	-	-	-	-	-	-	10	
Skeletoneima costatum	112000	196000	224000	315000	8750	154000	19020	34580
Striatella spp.	-	10	-	-	-	-	-	
Synedra spp.	-	10	10	20	-	-	-	
Thalassiosira spp.	340	1080	1200	930	730	430	120	110
Chrysophyceae	10680	8900	5340	8900	10680	8900	12460	7120
Dinophyceae								
Cochlodinium spp.	20	-	40	50	10	20	-	
Glenodinium spp.	20	-	-	30	-	-	-	
Gymnodinium spp.	-	-	-	-	-	-	-	
G. splendens	-	-	-	-	-	10	-	
*Encysted Gymnodinium**	-	-	-	-	20	-	-	
Gymnodinoid cell	-	-	-	10	-	20	-	
Peridinium spp.	40	10	110	80	30	40	10	30
Prorocentrum	-	-	-	-	-	10	-	
Cryptophyceae	1780	-	5340	-	3560	1780	1780	
Rhodomonas spp.	5340	-	-	-	-	-	-	
Chlorophyta								
Euglenophyceae								
Euglena spp.	20	-	-	10	-	10	-	
Silicoflagellata								
Distephanus spp.	10	10	60	10	10	30	20	20
Ebria spp.	-	10	20	-	-	-	-	

* 2 cysts with 4 cells each

May 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Radiolaria								
Unidentified radiolarian	-	-	-	-	-	-	10	
Ciliata								
Mesodinium rubrum	10	-	230	140	-	-	10	
Strombidium spp.	-	-	100	40	80	30	-	70
S. conicum	600	-	-	-	-	80	20	
S. strobilis	-	-	10	-	-	-	-	
Unidentified ciliate #(1)	-	-	-	-	-	-	10	
Tintinnidae								
Stenosemella spp.	-	-	-	-	10	-	-	
Tintinnopsis spp.	-	-	-	30	-	10	-	
Suctoria								
Trochiscia spp.	-	-	20	-	-	-	10	
Miscellaneous								
Crustacean #(2)	-	30	-	-	-	10	-	
Tunicate larva	-	-	-	-	-	-	10	
Unidentified cell #(1)	-	-	80	120	100	310	100	40
Unidentified cell #(2)	-	-	-	10	-	-	20	
Monosiga, a collar flagellate	-	-	-	-	-	-	60	

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IIA

May 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	-	-	-	-	-	-	10
Amphora spp.	20	10	-	-	-	-	-	-
Biddulphia spp.	-	-	20	-	-	-	-	-
Cocconeis spp.	-	10	-	-	-	-	10	-
Coscinodiscus spp.	10	20	70	70	50	-	30	20
Grammatophora spp.	10	-	-	-	10	-	-	-
Licmophora spp.	20	-	-	10	-	20	-	10
Melosira spp.	20	-	10	-	10	-	-	-
Navicula spp.	20	10	20	10	10	-	10	-
Nitzschia spp.	250	110	160	130	80	150	70	120
N. closterium	-	10	-	-	-	-	-	10
Pleurosigma spp.	10	-	-	-	-	-	-	-
Rhizosolenia stolterfothii	-	-	-	-	-	30	-	-
Skeletonema costatum	122500	178500	64400	68600	113000	68600	66500	115500
Synedra spp.	20	20	-	-	-	-	-	10
Thalassiosira spp.	510	520	610	420	230	280	180	190
Chrysophyceae	7120	3560	7120	1780	5340	5340	5340	1780
Dinophyceae								
Cochlodinium spp.	-	10	30	-	10	-	-	-
Glenodinium spp.	40	10	20	20	30	20	10	-
Gymnodinium spp.	10	-	-	-	10	-	-	-
Encysted Gymnodinium	-	-	-	10*	-	-	-	-
Peridinium spp.	40	20	20	40	80	-	40	40
Cryptophyceae	-	-	-	-	-	-	3560	1780
Rhodomonas spp.	3560	1780	-	-	-	-	1780	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	20	-	10	-	20	-	-	-
Silicoflagellata								
Distephanus spp.	90	40	20	20	40	10	-	10
Ebria spp.	-	10	-	-	10	-	-	-

* one cyst with 8 cells in

May 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	50	40	70	60	30	20	20	10
Strombidium spp.	40	40	70	70	30	-	60	20
S. conicum	-	-	-	-	-	90	-	-
Unidentified diliate #(1)	-	-	-	-	-	-	10	-
Tintinnidae								
Stenosemella spp.	-	-	10	-	-	-	-	-
Tintinnopsis spp.	10	10	40	10	20	10	-	-
Suctoria								
Troschiscia spp.	-	-	-	10	-	-	-	-
Miscellaneous								
Crustacean #(1)	10	120	10	-	-	-	-	-
Crustacean #(2)	-	-	-	-	10	10	-	-
Monosiga sp. a collar flagellate	-	-	-	-	-	480	-	-
Unidentified cell #(1)	30	-	80	50	-	20	50	40
Unidentified cell #(2)	-	-	-	-	10	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

May 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	-	-	-	10	-	-	10
Cocconeis spp.	20	-	10	10	-	-	-	-
Coscinodiscus spp.	60	10	10	60	20	20	-	-
Leptocylindrus danicus	10	-	10	-	10	-	-	-
Licmophora spp.	-	10	10	10	-	10	-	-
Melosira spp.	-	20	-	-	-	-	-	-
M. sulcata	-	-	-	-	-	80	-	-
Navicula spp.	-	10	-	-	10	-	-	10
Nitzschia spp.	190	130	150	110	60	60	80	70
N. closterium	-	-	10	-	10	10	-	-
Okedenia spp.	-	10	-	-	-	-	-	-
Pleurosigma spp.	10	-	-	-	-	-	-	-
Rhizosolenia stolterfothii	-	80	-	-	-	10	-	10
Skeletonema costatum	171500	283500	171000	175000	72100	31500	20300	14700
Synedra spp.	10	10	-	-	10	-	-	-
Thalassiosira spp.	440	410	450	260	320	300	90	150
Chrysophyceae	5340	1780	1780	3560	1780	1780	5340	10680
Dinophyceae								
Amphidinium spp.	-	-	-	-	10	-	-	10
Cochlodinium spp.	10	10	-	-	20	10	-	20
Glenodinium spp.	10	-	20	-	30	20	10	30
Encysted Gymnodinium	-	-	10	-	-	-	-	-
Peridinium spp.	-	-	10	20	20	10	-	10
Cryptophyceae	1780	-	-	1780			3560	-
Rhodomonas spp.	3560	-	3560	-	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	10	10	10	-	-	20	-	-
Cyanophyta								
Cyanophyceae								
Anabaena spp.	-	-	150	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

Data Expressed as Total Count/100 ml

May 1976

	Depth in Metres							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Dictyocha spp.	-	60	-	-	10	-	-	-
Distephanus spp.	20	-	30	10	-	20	-	-
Ebria spp.	-	-	-	-	-	10	-	-
Ciliata								
Mesodinium rubrum	30	30	50	30	30	10	-	-
Strombidium spp.	110	70	130	90	50	-	10	40
Tintinnidae								
Stenosemella spp.	-	-	-	-	10	10	20	-
Tintinnopsis spp.	10	20	-	-	10	10	-	-
Suctoria								
Trochiscia spp.	10	-	-	-	-	-	10	-
Miscellaneous								
Crustacean #(1)	30	20	-	10	-	10	-	-
Unidentified cell #(1)	40	-	10	30	300	70	10	80
Unidentified cell #(2)	-	-	30	-	-	10	-	10
Tunicate larva	-	-	-	-	10	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IA

Data Expressed at Total Count/100 ml

July 1976

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	10	10	-	-	20	-	-	-
Conscinodiscus spp.	-	-	10	-	10	-	-	-
Navicula spp.	10	10	10	-	-	-	10	10
Nitzschia spp.	100	100	20	50	20	50	20	20
Skeletonema costatum	190	-	80	40	170	310	110	170
Thalassionema nitzschoides	10	-	-	-	-	-	-	-
Thalassiosira spp.	10	-	20	-	20	-	10	-
Chrysophyceae	138840	87220	60520	33820	39160	19580	16020	12460
Loricate chrysophycean	-	-	-	-	-	1780	1780	-
Dinophyceae								
Amphidinium spp.	20	-	-	-	-	-	-	-
Glenodinium spp.	820	80	60	10	10	10	20	10
Gymnodinium spp.	20	10	-	10	-	-	10	-
Encysted Gymnodinium	-	-	-	-	-	10	-	-
Peridinium spp.	50	10	40	10	10	30	10	-
Unidentified dinoflagellate	5120	420	260	100	40	70	70	20
Cryptophyceae	36380	39160	37380	23140	16020	8900	3560	7120
Rhodomonas spp.	121040	53400	42720	7120	16020	7120	-	5340
Chlorophyta								
Euglenophyceae								
Euglena spp.	1130	160	30	-	20	20	-	10
Silicoflagellata								
Distephanus spp.	-	10	10	10	-	-	-	-
Ebria spp.	-	10	20	120	80	10	-	-
Radiolaria								
Dictyophimus spp.	-	-	-	-	-	-	20	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IA

July 1976

Data Expressed at Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	50	30	70	40	40	40	-	-
Strombidium spp.	40	10	70	50	20	10	10	20
S. concicum	1010	1430	1750	720	130	60	10	70
S. strobilis	20	-	20	-	10	-	-	-
Tintinnidae								
Stenosemella spp.	-	-	-	110	140	140	130	10
Tintinnopsis spp.	150	10	10	-	30	-	20	-
Miscellaneous								
Crustacean #(1)	-	-	20	-	-	-	-	-
Crustacean #(2)	10	10	-	10	-	-	-	-
Phaephycean reproductive cell	10	10	-	-	-	-	-	-
Tunicate larva	-	-	10	-	-	-	-	-
Unidentified cell #(1)	-	-	30	-	10	10	10	-

July 1976

Data Expressed at Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	40	10	-	-	-	20	-
Licmophora spp.	10	-	-	-	-	-	10	-
Melosira spp.	40	10	-	-	-	-	-	20
Navicula spp.	10	50	10	20	-	20	-	-
Nitzschia spp.	270	220	130	210	70	20	40	20
N. closterium	-	-	-	10	10	-	-	10
Rhizosolenia spp.	-	-	10	10	10	-	-	30
R. stolterfothii	-	-	-	-	-	10	-	-
Skeletonema costatum	860	1370	150	240	550	990	1240	1140
Synedra spp.	10	10	-	10	10	-	-	-
Thalassionema nitzschoides	70	30	10	30	-	-	-	10
Thalassiosira spp.	10	10	-	10	-	-	-	-
Chrysophyceae	154860	261660	96120	72980	28480	33820	19580	19580
Loricate chrysophycean #(2)	-	-	-	-	1780	-	-	1780
Dinophyceae								
Amphidium spp.	20	10	-	-	-	-	-	-
Cochlodinium spp.	-	-	-	-	-	10	-	-
Dinophysis spp.	-	-	-	-	-	-	-	10
Glenodinium spp.	2670	140	70	70	50	40	30	10
Gymnodinium spp.	70	-	-	-	-	-	-	20
Peridinium spp.	40	60	30	20	60	10	10	-
Unidentified dinoflagellate	9090	1280	510	200	80	40	150	150
Cryptophyceae	30260	35600	26700	21360	10680	7120	5340	10680
Rhodomonas spp.	85440	103240	49840	30260	28480	7120	8900	5340
Chlorophyta								
Euglenophyceae								
Euglena spp.	3630	300	50	60	-	30	20	10
Silicoflagellata								
Distephanus spp.	-	10	10	10	-	10	-	-
Ebria spp.	-	-	20	20	10	-	-	10
Radiolaria								
Dictyophimus spp.	-	-	-	-	-	-	10	-
Plectacantha spp.	-	-	-	-	10	-	-	-

July 1976

Data Expressed at Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	30	100	110	80	60	10	10	30
Strombidium spp.	20	30	10	10	30	30	10	20
S. conicum	930	1440	1550	110	580	280	150	210
S. strobilis	10	20	-	-	10	-	-	-
Tintinnidae								
Stenosemella spp.	-	-	40	60	100	20	50	10
Tintinnopsis spp.	230	20	30	-	10	30	-	-
Tintinnus spp.	-	-	-	-	-	-	10	-
Miscellaneous								
Crustacean #(1)	-	-	10	10	-	-	-	-
Crustacean #(2)	-	10	10	10	10	-	-	-
Phaeophycean reproductive cell	-	-	20	10	-	-	-	-
Tunicate larva	-	-	-	-	-	-	10	-
Unidentified cell #(1)	-	-	10	-	20	-	20	10
Unidentified cell #(2)	-	-	-	-	10	-	-	10

July 1976

Data Expressed at Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	-	20	-	-	-	-	-
Cyclotella spp.	1780	-	-	-	-	-	-	-
Melosira spp.	-	-	-	20	-	-	-	-
Navicula spp.	-	80	60	60	10	10	-	-
Nitzschia spp.	100	160	120	60	50	10	20	-
Rhizosolenia stolterfothii	-	-	-	-	-	-	-	10
Skeletonema costatum	1120	960	420	180	370	190	270	420
Thalassiosira spp.	-	-	-	-	-	10	-	-
Chrysophyceae	375580	190460	101460	56960	48060	16020	24920	14240
Loricate chrysophycean #(2)	-	-	-	-	1780	-	-	1780
Dinophyceae								
Amphidinium spp.	40	-	-	-	-	-	-	-
Cochlodinium spp.	-	-	10	20	10	-	-	-
Glenodinium spp.	8460	680	260	80	-	-	40	-
Gymnodinium spp.	40	-	10	10	10	-	-	-
Peridinium spp.	160	70	40	20	-	-	10	-
Unidentified dinoflagellate	20400	1520	720	40	-	10	30	10
Cryptophyceae	49840	32040	25920	21360	12460	3560	5340	1780
Rhodomonas spp.	92560	96120	60520	30260	17800	5340	5340	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	4200	1060	420	90	20	-	-	-
Silicoflagellata								
Distephanus spp.	-	10	-	20	-	-	-	-
Ebria spp.	-	20	50	20	-	-	-	-
Radiolaria								
Dictyophimus spp.	-	-	-	-	-	-	-	10

Data Expressed at Total Count/100 ml

July 1976

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	20	160	100	30	-	-	-	10
Platycola, c.f.	-	10	-	-	-	-	-	-
Strombidium spp.	80	60	90	150	10	-	-	-
S. conicum	1060	520	1080	960	300	10	40	140
S. strobilis	-	-	10	10	-	-	-	-
Unidentified ciliate #(1)	-	60	-	-	-	-	-	-
Tintinnidae								
Stenosemella spp.	-	120	350	470	80	-	80	10
Tintinnopsis spp.	830	30	10	40	30	-	-	-
Tintinnus spp.	-	-	-	-	-	-	-	10
Miscellaneous								
Crustacean #(1)	-	-	-	10	-	-	-	-
Crustacean #(2)	10	10	20	-	-	-	-	-
Phaeophycean reproductive cell	80	80	60	-	-	-	-	-
Unidentified cell #(1)	40	50	-	10	70	-	-	10

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IA

October 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Biddulphia aurita	-	-	20	-	-	-	-	-
Chaetoceros spp.	120	120	490	150	720	90	90	100
Cocconeis spp.	10	-	-	10	-	10	-	-
Grammatophora spp.	-	-	-	-	-	-	-	10
Hemidiscus, c.f.	-	-	-	10	-	-	-	-
Leptocylindrus danicos	-	20	-	130	40	10	-	-
Licmophora spp.	-	-	10	-	-	-	-	-
Melosira spp.	-	-	-	10	-	-	-	-
Navicula spp.	-	20	-	20	-	-	-	-
Nitzschia spp.	20	30	-	20	10	-	-	10
N. closterium	-	10	-	-	-	-	-	-
Rhizosolenia delicatula	10	-	-	240	30	-	-	-
Skeletonema costatum	-	-	-	60	40	40	60	90
Thalassiosira spp.	-	-	-	-	10	-	-	-
Chrysophyceae	23140	28480	23140	26700	28480	16020	39160	23140
Dinophyceae								
Amphidinium spp.	30	20	-	-	-	-	-	10
Ceratium spp.	50	130	110	110	40	10	-	-
C. fusus	-	-	-	10	10	-	-	-
C. tricos var. atlanticum	10	20	10	10	-	-	-	-
Cochlodinium spp.	3680	2960	490	730	510	250	340	70
Dinophysis spp.	150	300	250	170	50	-	40	-
Glenodinium spp.	340	180	160	130	90	60	110	70
Gymnodinium spp.	350	110	10	20	-	10	20	-
Gyrodinium spp.	20	-	-	-	-	10	-	-
Oxytoxum spp.	-	10	10	30	30	-	-	-
Peridinium spp.	500	330	200	250	120	20	30	30
Prorocentrum spp.	-	10	-	20	-	-	-	-
Cryptophyceae	12460	5340	10680	8900	8900	5340	10680	5340
Rhodomonas spp.	8900	12460	7120	12460	5340	-	5340	-
Chlorophyta								
Euglenophyceae								
Euglena, c.f.	210	140	30	40	10	10	10	10
Silicoflagellata								
Distephanus spp.	30	60	20	-	10	10	20	40
Ebria spp.	30	30	10	-	-	-	-	-
Radiolaria								
Lithomelissa spp.	-	10	10	-	10	20	10	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IA

October 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	20	60	80	30	70	30	-	-
Strombidium spp.	70	-	-	-	-	-	-	-
S. conicum	820	870	650	880	650	350	190	170
S. strobilis	-	-	50	40	20	20	-	-
Tintinnidae								
Stenosemella spp.	-	10	-	10	-	-	10	-
Suctoria								
Trochiscia spp.	10	10	10	-	10	-	-	10
Miscellaneous								
Crustacean #(1)	10	50	20	-	-	-	-	-
Crustacean #(2)	-	-	-	-	-	-	10	-
Mollusc trochophore larva	-	-	-	-	-	-	10	-
Tunicate larva	-	70	10	10	20	-	10	-
Unidentified cell #(1)	1320	1010	1000	1440	830	450	420	140
Unidentified cell #(2)	10	-	10	-	40	20	20	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION IIA

October 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	-	-	-	-	-	10
Chaetoceros spp.	240	240	-	30	280	390	70	30
Cocconeis spp.	10	10	30	100	10	-	-	-
Leptocylindrus danicum	60	10	-	-	-	20	-	-
Melosira spp.	-	-	-	-	-	-	10	-
Navicula spp.	-	-	-	-	-	20	-	10
Nitzschia spp.	50	40	20	-	10	30	10	-
Rhizosolenia delicatula	140	50	-	-	110	-	-	40
R. fragilissima	-	-	-	-	-	10	-	-
R. robusta	-	-	20	-	-	-	-	-
Skeletonema costatum	60	-	40	100	70	100	-	-
Thalassiosira spp.	-	60	-	-	-	-	-	-
Chrysophyceae	81880	74760	65860	32040	55180	40940	28480	19580
Loricate chrysophycean #(1)	-	1780	1780	-	-	3560	-	1780
Dinophyceae								
Amphidium spp.	20	10	10	-	40	10	10	20
Ceratium spp.	60	60	90	60	80	50	20	10
C. fusus	-	-	-	10	-	-	-	-
C. tricos var. atlanticum	30	10	10	-	-	-	-	-
Cochlodinium spp.	17280	3710	1770	2190	2800	2320	1370	740
Dinophysis spp.	150	200	70	90	90	40	50	70
Glenodinium spp.	490	350	290	340	290	240	220	70
Gymnodinium spp.	380	350	120	220	150	100	70	70
Oxytoxum spp.	10	20	20	-	-	10	20	-
Peridinium spp.	450	420	230	70	110	1180	50	-
Prorocentrum spp.	-	30	10	-	-	20	-	-
Cryptophyceae	3560	33820	16020	16020	14240	16020	10680	8900
Rhodomonas spp.	3560	32040	8900	17800	12460	5340	1780	-
Chlorophyta								
Chlorophyceae								
Scenedesmus spp.	-	-	40	-	-	-	-	-
Euglenophyceae								
Euglena spp.	300	330	110	80	60	130	70	70

October 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Distaphanus spp.	20	10	40	10	10	20	10	20
Ebria spp.	30	10	10	-	-	-	-	-
Radiolaria								
Lithomelissa spp.	10	-	-	-	10	10	10	-
Phormacantha hystix	-	-	-	-	-	10	-	-
Unidentified radiolarian	-	-	-	-	-	10	-	-
Ciliata								
Mesodinium rubrun	30	30	100	40	40	20	30	20
Strombidium spp.	-	490	-	-	-	-	-	-
S. conicun	610	-	720	640	-	330	250	180
S. strobilis	70	30	90	30	100	40	-	80
Tiarina, c.f.	10	10	-	-	10	-	50	-
Unidentified ciliata #(1)	-	-	10	-	-	-	-	-
Tintinnidae								
Stenosemella spp.	40	20	20	-	10	-	-	-
Tintinnopsis spp.	20	20	-	-	-	10	-	-
Tintinnus tubulosus	-	-	-	-	-	10	-	-
Suctoria								
Trochiscia spp.	-	-	10	-	-	-	-	-
Miscellaneous								
Crustacean #(1)	-	-	-	10	-10	-	-	-
Crustacean #(2)	10	-	-	10	-	-	-	-
Molluscan trochophore larva	-	-	-	-	-	-	-	20
Tunicate larva	-	-	10	-	-	-	-	-
Unidentified cell #(1)	1710	1460	730	710	910	470	510	280
Unidentified cell #(2)	20	70	10	20	-	20	-	-

Data Expressed as Total Count/100 ml October 1976

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	360	340	520	560	640	260	-	-
Chaetoceros sp	-	100	-	-	-	-	-	-
Cocconeis spp.	30	100	60	100	10	10	-	-
Leptocylindrus danicus	10	-	60	80	170	50	-	-
Licmophora spp.	10	-	-	-	10	-	-	-
Melosira spp.	-	-	-	40	-	-	-	-
Navicula spp.	20	30	10	10	20	40	-	-
Nitzchia spp.	160	120	460	270	20	20	10	-
Nitzchia closterium	20	-	-	-	-	-	-	-
Rhizosolenia delicatula	-	40	20	480	-	10	-	-
R. stolterfothii	60	-	-	-	80	-	-	-
Skeletonema costatum	120	140	60	120	100	10	30	-
Thalassionema nitzschoides	-	-	-	-	10	-	-	-
Chrysophyceae	78320	129940	99680	112140	135280	62300	26700	30260
Loricate chrysophycean #(1)	-	-	10	-	1780	-	1780	-
Dinophyceae								
Amphidinium spp.	120	10	50	40	20	-	10	-
Ceratium spp.	260	720	240	270	90	10	10	-
C. furca	10	-	10	10	10	-	-	-
C. fusus	20	-	-	20	10	-	-	-
C. tricos var. atlanticum	20	40	20	-	-	-	-	-
Cochlodinium spp.	890800	32030	1600	6190	2800	150	90	70
Dinophysis spp.	900	720	220	490	270	-	-	10
Glenodinium spp.	240	1140	500	320	170	140	90	40
Gymnodinium spp.	6880	11200	5010	480	160	10	-	-
G. splendens	7960	1660	540	260	50	10	-	-
Gyrodinium spp.	80	1120	-	-	-	-	-	-
Oxytoxum spp.	260	40	30	20	10	-	-	-
Peridinium spp.	800	640	320	550	150	-	20	20
Phalacroma rotundatum	10	-	-	-	10	-	-	-
Polykrikos spp.	40	10	-	-	-	-	-	-
Prorocentrum spp.	220	10	10	-	-	-	-	-
Torodinium spp.	60	20	-	-	20	-	-	-
Cryptophyceae	16020	80100	35600	49840	58740	10680	3560	3560
Rhodomonas spp.	16020	72980	78320	53400	32040	8900	-	1780
Chlorophyta								
Euglenophyceae								
Euglena spp.	6880	540	220	-	10	10	10	-
Prasinophyceae								
Unidentified prasinophyte	20	-	-	-	-	-	-	-

RUPERT INLET PHYTOPLANKTON SAMPLES

STATION III

October 1976

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Distephanus spp.	-	-	40.	-	20	20	20	-
Ebria spp.	20	-	10	30	-	-	-	-
Radiolaria								
Lithomelissa spp.	-	-	-	-	-	-	10	-
Unidentified radiolarian	20	-	-	-	-	-	-	-
Ciliata								
Mesodinium rubrum	-	220	170	100	10	30	-	-
Strombidium spp.	40	-	160	50	-	100	40	-
S. conicum	-	1340	1940	1860	1150	140	50	140
S. strobilis	-	140	220	140	80	-	10	20
Tiarina, c.f.	-	10	10	-	-	-	-	-
Unidentified ciliate #(2)	20	-	-	-	-	-	-	-
Tintinnidae								
Stenosemella spp.	-	10	-	-	-	-	-	-
Tintinnopsis spp.	30	-	-	10	-	-	-	-
Tintinnus spp.	-	-	-	-	-	10	10	-
Suctoria								
Trochiscia spp.	20	10	-	10	20	-	-	-
Miscellaneous								
Crustacean #(1)	10	-	-	30	-	-	240	-
Crustacean #(2)	20	20	20	-	-	-	-	-
Unidentified cell #(1)	3580	9920	2800	2620	1840	240	-	10
Unidentified cell #(2)	-	80	-	60	-	20	-	-