DEPARTMENT OF ENVIRONMENT
ENVIRONMENTAL PROTECTION SERVICE
PACIFIC REGION

THE EFFECTS OF SULPHITE PULP MILL DISCHARGES ON PHYTOPLANKTON PRODUCTIVITY IN NEROUTSOS INLET AND QUATSINO SOUND 1974-1976

Regional Program Report No. 79-15

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January, 1979

ABSTRACT

During the period 1974 to 1976, the Environmental Protection Service conducted a surveillance program in Neroutsos Inlet and Quatsino Sound designed to examine the effects of sulphite pulp mill effluent discharges on marine phytoplankton productivity. The ambient water quality and phytoplankton productivity results obtained revealed a significant depression in productivity in the vicinity of the pulp mill and for several kilometres down the inlet. The reduction in productivity at the time of sampling appeared to be a direct result of limited light for photosynthesis. The strong coloration of the effluent appeared largely responsible for the high light attenuation in the vicinity of the pulp mill. The reduced phytoplankton productivity and high biological oxygen demand (BOD) of the pulp mill discharges contributed to significantly depressed dissolved oxygen levels in the vicinity of the pulp mill and for several kilometres down the inlet.

RÉSUMÉ

De 1974 à 1976, le Service de la protection de l'environnement a contrôlé, dans l'inlet Neroutsos et la baie Quatsino, les effets de rejets d'effluents de fabriques de pâte au bisulfite sur la productivité de phytoplancton marin. D'après une analyse de la qualité de l'eau, cette productivité baisserait de façon marquée près de l'usine et jusqu'à plusieurs kilomètres en aval dans l'inlet. Au moment de l'echantillonnage, cette réduction de la productivité semblait découler directement de la diminution de la lumière nécessaire à la photosynthèse. La forte coloration de l'effluent en serait la cause. La productivité réduite et la DBO elevée des rejets sont parmi les facteurs de l'importante réduction de la teneur en oxygène dissous au voisinage de la fabrique et jusqu'à plusieurs kilomètres en aval.

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SUMMARY AND CONCLUSIONS

One of the major environmental concerns in Neroutsos Inlet has been low dissolved oxygen (DO) levels in the water column. The Pollution Control Branch operating permit requires that a DO level of 5.0 mg/l (4.0 mg/l interim level during recovery system construction) be maintained in the surface waters at a station 19.4 km distance from the pulp mill. In the vicinity of the pulp mill, (DO) values have been considerably less that 5.0 mg/l. The high BOD of the Port Alice effluent probably accounts for the majority of the DO reduction in the water column, and therefore equally important under these circumstances is the replenishment of DO, in particular through photosynthesis. It has been well documented in British Columbia coastal waters that pulp mill effluents adversely affect phytoplankton productivity by reducing light available for photosynthesis and/or by imposing physiological or phytotoxic stresses (Sibert and Parker, 1972; Stockner et al, 1975; Stockner and Cliff, 1975). These effects are amplified in areas which are subject to limited tidal flushing or limited freshwater inflow, such as occurs at the head of Neroutsos Inlet. During each survey period, with the exception of the period of mill shutdown in 1975, phytoplankton production at the designated control site, Station V, was consistently greater, from 20 to 40 times, than at Station VII opposite the mill. Production rates were from 2 to 10 times greater at Station VI, near Cross Island, than opposite the mill (Station VII). During the inoperative period, July to October, 1975, differences in production between the control site and Station VII were reduced to 2 to 3 times, which illustrated the rapid recovery of phytoplankton production.

The single most important factor contributing to reduced phytoplankton productivity in Neroutsos Inlet appeared to be the limited light available for photosynthesis, due to the strong light attenuating properties of the sulphite pulp mill effluent. The euphotic zone at Station VII was greatly reduced in relation to conditions at Stations V, VI, and VIII. The depth of the euphotic zone never exceeded 3 metres at Station VII (i.e., 1% of total available light) when the pulp mill was operating. In a reduced euphotic zone, total phytoplankton production and oxygen generation might be expected to be lower.

Phytoplankton standing crop estimations at Station VII were consistently lower than those recorded at the other stations, especially during 1974. According to Stockner, Cliff, and Munro (1975), a reduction in phytoplankton density would tend to suggest a phytotoxic effect attributable to pulp mill effluent. Although there are indications that phytoplankton can adapt to relatively high concentrations of kraft mill effluent (Stockner and Costella, 1975), the same may not be true of sulphite effluents including spent sulphite liquor. Regardless of the cause, the lower standing crop could be partially responsible for lower productivity levels.

The low dissolved oxygen levels in Neroutsos Inlet appeared to result in part from the high BOD of the mill wastes and from a reduction in phytoplankton productivity. There are indications from experiences at other pulp mills, that the treatment of effluent for BOD alone will improve, but not necessarily resolve reduced DO conditions in the receiving waters.

1 INTRODUCTION

In 1974, the Environmental Protection Service initiated a study to monitor the effect of sulphite pulp mill wastes from the Rayonier Canada (B.C.) Ltd. mill at Port Alice, British Columbia, on phytoplankton productivity in Neroutsos Inlet.

Depressed dissolved oxygen (DO) levels have been frequently recorded at the head of Neroutsos Inlet and for a considerable distance away from the pulp mill (Waldichuk et al, 1968; Tollefson et al, 1970; Davis et al, 1977; Davis et al, 1978). A generally accepted theory of DO loss in receiving waters adjacent to pulp mills is that under certain circumstances the rate of respiration (i.e., biological oxygen demand [BOD]) may exceed the rate of oxygen production. Parker and Sibert (1972) and Sibert and Parker (1972) suggested that under these conditions the rate of phytoplankton productivity may be reduced resulting in a reduction in the level of DO being produced. With low initial levels, DO may be rapidly depleted in situations where high BOD loads exist.

The present program was designed to obtain estimates of photosynthetic rates and to examine the effects of sulphite pulp mill discharges on the phytoplankton community. Comparisons of relative production and physical and chemical parameters between stations have been used to assess the impact of industrial discharges on phytoplankton productivity. This report will present the results of the preliminary work conducted in 1974 and further surveys completed in 1975 and 1976. It will also assist in providing a basis for evaluating the effectiveness of the pollution abatement facilities currently being installed at the Port Alice mill.

To assist the reader, the large number of tables and figures referred to in the RESULTS AND DISCUSSION section can be found after the main body of the report.

1.1 Description of Study Area

Quatsino Sound, located on the northwest side of Vancouver Island, leads into three major inlets; Rupert and Holberg inlets located to the

north, and Neroutsos Inlet forming the southeast arm of Quatsino Sound. The oceanographic features of Neroutsos Inlet have been described by Pickard (1956), Waldichuk (1958), and Waldichuk (1968). The inlet is 20.8 km long with steep mountainous sides, has a mean width of 1.3 km, and a mean depth of 88 metres. Near Port Alice, the inlet becomes narrow and shallower, continuing in this manner to the head of the inlet.

The sulphite pulp mill at Port Alice began operations in 1917 and has since undergone numerous expansions and modifications. In 1970, the pulping process was converted from a calcium to an ammonia base sulphite process. In 1977, the mill installed a spent sulphite liquor recovery system with the intent of reducing the BOD load to the inlet. Further pollution abatement measures will be required subject to existing Federal and Provincial government requirements and environmental needs.

1.2 Station Locations/Sampling Frequency

All stations utilized in this program are identified in Figure 1. Station V, located near Brockton Island, was furthest removed from the influence of the pulp mill and was designated the control site for Neroutsos Inlet. Near Station VI, at Cross Island, a mixing of waters from Neroutsos Inlet and from the Rupert-Holberg system occurs. The Pollution Control Branch (PCB) operating permit for the Rayonier Canada Ltd. mill requires that 5.0 mg/l of dissolved oxygen be maintained in the surface waters of this area with an interim level of 4 mg/l during the period of recovery system installations. Station VII was located in mid-channel near the Rayonier Canada (B.C.) Ltd. pulp mill. In 1976, an additional site, Station VIII, midway between Stations VI and VII was monitored, while sampling at Station V was discontinued.

During the period of the program, 12 sampling trips were completed as follows: May, July, September, 1974; May, June, July, August, September, November, 1975; May, July, October, 1976.

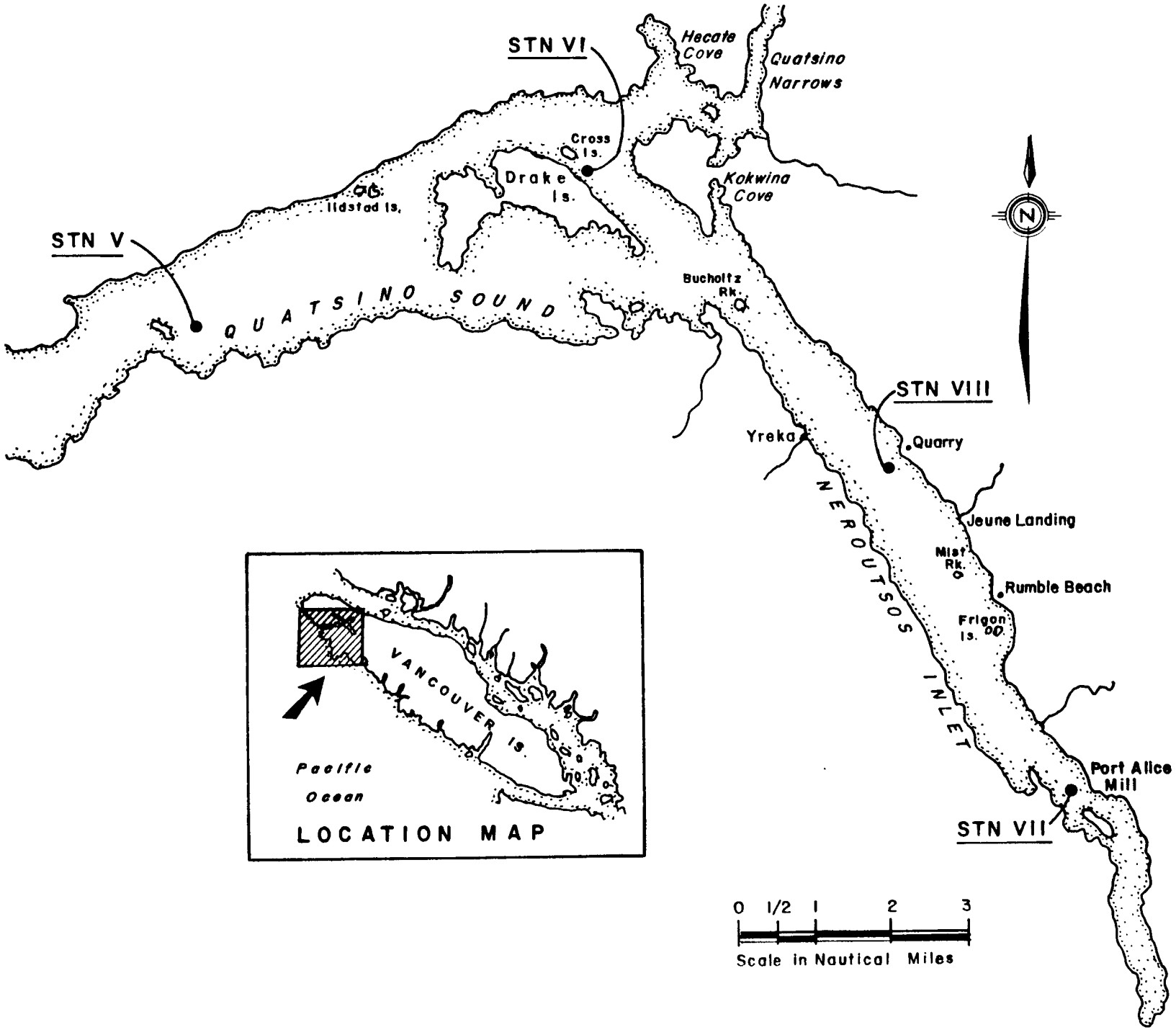

FIGURE 1 PHYTOPLANKTON PRODUCTIVITY STATIONS, 1974 - 76

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 the sample filtered immediately onto 45 μ cellulose nitrate filters. Filters were placed in 10 ml 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 metre depths were removed to 1-litre polyethylene bottles, filtered onto cellulose nitrate filters with $MgCO_3$ suspension, stored in dessicating chambers, and frozen. In the laboratory, the filters were dissolved in 90%

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

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 filters, 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 re-weighed (dry seston value) and ashed in a muffle oven at 550°C for approximately four hours. The loss of material on iginition (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. Water samples were taken from each depth and analyzed with a Guildline Autosal (Model 8400). Prior to 1976, density measurements were made at each depth and were used to calculate salinity from Sigma-T tables.

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 upon retrieval of the Van Dorn sampler.

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, isothermal conditions were evident in the top 20 metres at Stations V and VI during all three surveys. At Station VII, the influence of freshwater input resulted in a stratification at 1 - 3 metres with temperatures 2 - 3°C higher in this layer than at lower depths. The stratification was not as pronounced in July.

In 1975, near isothermal conditions were seen in the profiles recorded at Station V throughout the year with temperatures from 9.0 to 12.5°C. A negative temperature gradient occurred at all stations during the November survey with surface temperatures averaging 1.5°C lower than at 20 metre depths (8.5 - 10.8°C). At Stations VI and VII, stratifications had developed by July above 5 metres. The thermocline was more pronounced at Station VII probably because of freshwater inflow (14.7°C at 1 metre and 9.5°C at 20 metres). By the September survey the thermocline had been decreased and temperatures were more uniform through the water column (10.0 - 12.0°C). Temperatures at the surface ranged from a high of 17.0°C in August to a low of 8.5°C in November.

The 1976 profiles were similar to those observed in previous surveys; however, temperatures were slightly lower than for the same months in 1974 and 1975. Surface temperatures at Stations VII and VIII in July, 16.0 and 14.0°C respectively, were noticeably higher than at Station VI (11.0°C).

3.2 Salinity (Table 2)

Haloclines were weak in 1974 at Stations V and VI during all survey periods. Salinities ranged from 29.4^{o}/oo at one metre to a maximum of 32.3^{o}/oo at 20 metres. Station VII showed evidence of a well-developed halocline from 1 - 3 metres, largely due to the freshwater input. (Salinities recorded at the surface were generally 10 - 15°/oo less than values at 1 metre.)

The 1975 profiles recorded at all stations showed a well-mixed water column with very little variation of salinity at depth or through the year (27.8 - 33.4^{o}/oo). In November, salinities were slightly less at the surface, 25.8 - 27.7^{o}/oo, than at 20 metres, 31.2 - 31.8^{o}/oo. The depth of the halocline at Station VII gradually decreased throughout the year from 5 metres in June to 1 metre in August and September. (Surface salinities were 10 - 20°/oo less than at 1 metre at this station.) At the 20 metre depth, salinities were usually higher than in the upper 1 metre.

In 1976, salinities at one metre gradually decreased as one approached the pulp mill; however, below the surface, salinities were comparable.

3.3 Dissolved Oxygen (Tables 3 and 4)

At Stations V and VI in May and July, 1974, DO values between 6.3 to 10.6 mg/l were recorded at all sampling depths. Values were reduced during the September survey but remained above 5.0 mg/l in the top 20 metres. The surface waters at Station VII had no measurable DO during the May and September sampling periods and values were very low, between 0.1 to 4.6 mg/l, at the remaining depths. The surface concentration in July at Station VII was 3.5 mg/l, with levels at the other depths to 20 metres ranging from 6.3 to 6.6 mg/l.

In 1975, DO values at Station V increased steadily at all depths through the season to September (from 6.1 to 9.8 ppm at 1 metre and 6.8 to 9.0 ppm at 20 metres). In November, DO levels at all depths were approximately 2 ppm lower than levels recorded in September.

Station VI, located near Cross Island, is known to be affected by diluted SSL. (The pulp mill is required by permit to maintain certain levels of chemical parameters at this site.) Dissolved oxygen levels in the water column at 1 and 3 metres were below 5.0 mg/l during the May and July, 1975 surveys (3.7 to 4.8 ppm). During the period when the mill was not operating, levels at all depths, particularly the surface, rose to well above 5.0 mg/l. At 1 metre depth, values ranged from 3.7 mg/l in May to 8.5

mg/l in August. At 20 metre depth, values ranged from 4.7 mg/l to 6.0 mg/l. Values recorded at Station VI were always lower than those measured at the control site.

At Station VII, DO concentrations were extremely low at all depths when the pulp mill was operating (0.5 to 4.4 ppm). A significant increase in oxygen levels was recorded during the August survey after shutdown, with 9.0 mg/l measured at the surface. During September and November, DO values were from 5.3 to 6.5 mg/l above 5 metres, although levels recorded at 20 metres remained low.

The increase of DO at 1 and 3 metres before and after the closure period at Station V was negligible; however, at Station VII, for the same depths, DO values had increased approximately 9 times after closure (1.0 - 9.0 and 1.0 - 8.7 ppm, respectively).

Conditions were markedly different between surveys in 1976. In May, water column DO's were from 6.2 to 8.2 mg/l at all stations. By July, DO in the surface waters at Station VII was undetectable and at remaining depths was below 5 mg/l. A slight depression of DO (3.5 mg/l) was observed at the surface at Station VIII and at Station VI values were measured in a range from 6.4 - 6.8 mg/l. In October, DO had dropped below 5 mg/l at all depths measured, at all stations. At Station VI, DO ranged from 3.4 to 4.5 mg/l.

3.4 Inorganic Carbon and pH (Tables 5 and 6)

pH values showed little difference with depth or between stations during the three year survey period. The total range of pH values between stations, sampling periods and depths was from 6.3 to 8.4. Values at the surface at Station VII were slightly lower than at depth when the pulp mill was operating (an improvement was noted during the 1975 closure period). In 1976, the pH values at 1 metre at Station VIII were lower than at Station VI and at the pulp mill in July and October (6.30 to 7.90 and 7.30 in July and 6.77 to 7.52 and 7.39 in October, respectively).

Wide variations were recorded in total carbonate carbon at all stations, both with depth and sampling time. At 20 metre depths, less

variation was observed presumably because of more stable salinity and temperature conditions. At the surface, values ranged from 6000 to 25 000 mgC/litre while at 20 metres from 8000 to 25 000 mgC/litre. These results indicate that the water was well buffered and that the concentration of carbon available exceeded that required for growth.

3.5 Nutrients

3.5.1 Nitrate and Phosphate (Tables 7 and 8). In 1974, nitrate values recorded at Stations V and VI were above a postulated growth-limited level of 0.007 mg/N/litre (McAllister *et al*, 1964) (.019 - .203 mgN/litre). Decreases in levels were observed at both stations in July. At Station VII in July, nitrate values were slightly increased over levels measured in May (.084 to .114 mgN/litre at the surface). In September, at the surface, nitrate levels were below the detection limit (.010 mgN/litre).

In the 1975 profiles recorded at Station V, levels gradually decreased through the season until the September survey when levels at the surface were undetectable (from .282 to <.010 mgN/litre). Values were usually higher at 20 metre depths than at the surface. A similar pattern was observed at Station VI. At all stations, slight increases were recorded during the November sampling period. Station VII had unusually high nitrate levels in May and June at the surface (.830 and .313 mg/N/litre), presumably a result of chemical reduction of ammonia discharged from the pulp mill. Values dropped substantially during the closure period because of reduced ammonia input (from .830 - .06 mgN/litre at the surface). At 20 metres, there was less variation in nitrate levels throughout the season.

The levels of nitrate measured in 1976 were lowest during the July survey (.010 to .175 mgN/litre at the surface), as in previous years. At Station VIII, nitrate in the upper zone was frequently lower than at either Station VI or VII, and undetectable at the surface in July and October.

Total phosphate showed little variation with season or depth for all surveys. Average values of total phosphate at 20 metres showed slightly less variation than at 1 metre. The range of total phosphate levels (0.010 to 0.082 mgP/litre) was consistently above a suggested growth-limiting level of 0.009 mgP/litre (McAllister *et al*, 1964).

3.5.2 Silicate (Table 9). An accurate method for 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 phytoplankton group in Neroutsos Inlet throughout the year (Sullivan, 1978), silicate concentrations were measured as a possible growth-limiting factor. Jorgensen (1953) observed cessation of cell division in diatom cultures at 0.028 - 0.039 mgSi/litre.

The range of silicate measured for all surveys at all depths and stations was from 0.43 mgSi/litre to 14.5 mgSi/litre. The lowest value recorded is above the suggested lower limit, indicating an abundance of this element.

3.6 Chlorophyll a and Phaeopigments (Tables 10 and 11)

In Neroutsos Inlet, 1974, values were highest during the July survey. At this time, levels of chlorphyll concentrations decreased as one approached the pulp mill (from 6.3 to 0.6 µg/l at the surface). The season maximum recorded was 7.3 µg/litre at 3 metres, Station V in July.

In 1975, chlorophyll a values were highest in July at Stations V and VI (from 1.8 to 5.6 µg/l above 3 metres) and lowest in May at all stations (below the limit of detection). The season maximum recorded was 5.6 µg/litre at 3 metres at Station V in July. The increases of chlorophyll a at Stations V and VI in July were not observed at Station VII. In August and September, after the shutdown, chlorophyll a levels were comparable in the euphotic zone at all stations (0.5 to 1.70 µg/litre). By the November survey, typically low levels of chlorophyll a were measured.

In May, 1976, the high levels of chlorophyll a recorded, 2.85 to 10.71 µg/litre, corresponded to elevated productivity rates. In July, at all depths, with the exception of 1 metre at Station VI, chlorophyll a was undetectable. (It should be noted that in July a new methodology for chlorophyll a analysis was instituted with a detection limit of 0.80 mg/m^3). During all surveys, chlorophyll values at 20 metre depths were consistently lower than at the surface.

The levels of phaeopigments recorded during all surveys tended to follow a pattern similar to chlorphyll a; when chlorophyll values were high, levels of phaeopigments showed corresponding increases. Values over the three year period were measured in a range from 0.2 to 3.90 μg/litre.

3.7 Seston (Tables 12 and 13)

Seston values varied through the season and between stations and appeared to be only weakly related to either productivity or standing crop values.

In 1974-1975, the dry seston values were usually highest at Station VII (from 2.8 - 27.0 mg/litre). This was probably due to the presence of large amounts of wood fibre originating from the mill discharges, as standing crop estimates and production values were very low. After the closure in 1975, the levels of dry seston, as well as percent organic content, dropped considerably at Station VII (0.7 - 0.9 mg/litre). Seston values measured during the November, 1975, the survey were lowest of the season (0.4 - 1.1 mg/litre), except at Station VII (0.8 - 2.0 mg/litre). In 1976, the levels of seston recorded at all stations showed no relationship to the productivity levels or standing crop. The highest levels were measured at Station VIII during May and July (15.3 and 17.0 mg/litre) and at Station VI in October (15.8 mg/litre).

3.8 Light (Tables 14 and 15)

Percent extinction of light intensity with depth was recorded at each station to a depth of 1% surface intensity, and these values regressed to calculate the mean extinction coefficient "k".

There were large differences in mean extinction coefficients between stations in 1974. Values between Stations V and VII in May varied from 0.4880 to 1.3007 and in July from 0.5036 to 1.6642, respectively. September readings were not available.

A similar difference in "k" values between the control site and Station VII was evident in 1975, with the exception of August and September.

Mean extinction coefficients at Station VII dropped to 0.3773 and 0.4934, respectively. In November, after the pulp mill had resumed operations, the "k" value had risen to 2.1725. This demonstrates the effect of pulp mill effluent on the reduction of available light for photosynthesis in the water column.

In 1976, the mean extinction coefficients increased as one approached the pulp mill. In July, the "k" values at the control site and Station VII ranged from 0.9423 to 4.7641, indicating extreme light attenuation at Port Alice. Levels at individual stations were comparable throughout the year.

The percent of total available light energy utilized during incubation was similar at all stations during each survey (Table 15). Incubation times at Station VII were slightly shorter than at Stations V and VI to avoid excessive assimilation of the radioactive isotope by bacteria. Weather conditions during the observation period were frequently overcast.

Secchi depths varied considerably between stations from 1974-1976. Station VII was consistently lowest during the periods when the mill was operating. In 1974, values at Station VII ranged from 1 - 2 metres and in 1975 from 1 - 3.6 metres. Values at Station V were from 4.6 - 7.0 metres in 1974 and from 4.0 - 7.5 metres in 1975. The 1976 levels decreased as one approached the pulp mill. At Station VI, depths varied from 6.0 - 9.0 metres, while at Port Alice depths were measured from 1.0 - 2.5 metres. When the mill was closed, transparency rose to >13.0 metres at Station VII in August.

3.9 Phytoplankton Standing Crop (Appendix I)

In 1974, the highest concentrations and diversity of phytoplankton occurred during the September survey. The predominant group shifted from Bacillariophyceae to Dinophyceae during this survey period. During the July survey, there was a predominance of *Coscinodiscus* spp., except at Station V, Brockton Island, where *Rhizosolenia* spp. was most abundant. Maximum numbers were generally above 10 metres, except at Station VII. Here standing crop estimates were much lower, with the greatest concentrations at much

shallower depths, from 3 to 5 metres. In Neroutsos Inlet, cell numbers and species diversity decreased as one approached the pulp mill.

In 1975, during the closure period at the pulp mill, standing crop estimates rose significantly at Station VII. In August, when numbers had increased at Stations V and VI, there was a similar increase at Station VII, although the dominant phytoplankton species differed. Cyclotella sp. was most common at Stations V and VI and Chaetoceros spp. at Station VII. The September survey had the greatest species diversity and highest concentrations of phytoplankton, although no distinct bloom was recorded. The density of Dinophyceae also increased during this survey. In November, all concentrations were typical of winter populations.

In 1976, significant differences in density and diversity were noted between stations in October when the standing crop at Station VII was lowest of the three stations. In May, Skeletonema costatum was the dominant diatom at all stations. During the July survey, Chrysophyceae were the most common phytoplankter at all stations and diatom numbers were low. Chrysophyceae were also dominant in October and the numbers of Dinophyceae showed a characteristic seasonal increase.

3.10 Phytoplankton Productivity (Table 16)

In 1974, Station V had the highest areal production rates for all three surveys, with a maximum of 3869 mgC/m^2/day in July. In that period, production/m^2 was 30 times greater at Station V than at Station VII (128 to 3869 mgC/m^2/day). In September, production between stations V and VII differed by a factor of 20 (29 to 581 mgC/m^2/day). Areal production rates between Station V and VI varied from 2 to 9.5 times greater at Station V. During the May survey, no uptake of radioactive carbon through photosynthesis could be measured at Station VII. The depth of the euphotic zone at Station VII never exceeded 2 - 3 metres.

In 1975, Station V again had the highest areal production rates for all surveys, with a maximum of 3972 mgC/m^2/day in August. During May and July, production was significantly greater, up to 40 times in May, at Station V than at either of Stations VI and VII (247 to 6 mgC/m^2/day).

No uptake of radioactive carbon through photosynthesis was recorded in July at Station VII. In August and September, following the closure, differences between the control site and Station VII were greatly reduced, averaging only 2 - 3 times greater at Station V (3972 and 252 mgC/m^2/day at Station V and 1525 and 134 mgC/m^2/day at Station VII, respectively). In

November, there was no production recorded in Neroutsos Inlet. In 1976, an atypical series of productivity measurements were believed to have been recorded. In July and October, productivity measurements at all stations were either zero or virtually negligible. The "k" values at Station VII were very high in both July and October and at Station VIII for the same period, nitrate levels were extremely low. At all stations during these months, the standing crop estimates were predominantly Chrysophyceae with low estimates of Bacillariophyceae and Dinophyceae. Any or all of these parameters may have contributed to the low productivity.
In May, the highest production, 630 mgC/m^2/day was measured at Station VIII, with Stations VI and VII being 267 and 193 mgC/m^2/day, respectively.

3.11 Mill Shutdown

The temporary shutdown of the pulp mill presented a unique opportunity to examine the head of Neroutsos Inlet without effluent discharges and to evaluate the recovery of the water column in the vicinity of the pulp mill.

During the inoperative period, the light regime at Station VII improved significantly. The depth of the euphotic zone increased from an average depth of 3 metres to 10 metres. Mean extinction coefficients dropped from 2.0686 in July to 0.3773 and 0.4934 in August and September, respectively. In comparison, changes in depth of euphotic zone and mean extinction coeffients at Station V, during the same period, were negligible. Phytoplankton standing crop estimates at Station VII, 30 days after closure, had increased to levels comparable with Stations V and VI. Chlorophyll a increases in the euphotic zone coincided with standing crop increases.

Phytoplankton production increases, a month after closure, were substantial at Station VII. Productivity differences of up to 40 times in

May (1208 to 0 mgC/m^2/day in July) between Port Alice and the control location had dropped to 2 - 3 times (3972 - 1525 mgC/m^2/day in August and 252 - 134 mgC/m^2/day in September) after the pulp mill ceased production. The increase in production rates, and temporary halt in effluent discharge, resulted in dramatically improved DO conditions particularly in the vicinity of the pulp mill (from 1.0 ppm in July to 9.0 and 5.4 ppm in August and September).

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ACKNOWLEDGEMENTS

The author would like to thank Dr. J.G. Stockner, D.D. Cliff, and D. Buchanan of the Pacific Environment Institute for their time and advice, and generous loan of equipment which made the project possible. Special thanks to R.A.W. Hoos who reviewed the manuscript, D. Goyette (Senior Project Biologist) who directed the project and to D. Brothers, H. Nelson, J. Landucci, and D. DeMill for their assistance in the field. The help and cooperation of Capt. M.J. Dyer and the crew of the CFAV "Laymore" is gratefully acknowledged. Thanks also to R. Woods for phytoplankton enumeration.

TABLES 1 to 16

TABLE 1 DEPTH AND VARIATION IN TEMPERATURE (°C) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	9.5	9.5	9.0	8.5	10.5	10.0	9.5	8.5	12.5	10.5	9.5	9.0
July 18	13.0	13.0	12.0	12.0	11.0	11.0	11.0	11.0	12.0	11.0	11.0	11.0
September 25	14.0	13.0	12.0	12.0	13.0	13.0	12.0	12.0	16.0	13.0	12.0	12.0
1975												
May 8	10.5	10.0	10.0	9.0	10.0	10.5	9.5	8.5	9.5	9.5	10.0	9.0
June 14	10.5	10.0	10.0	9.0	9.5	9.0	9.5	9.0	12.5	11.0	11.0	9.5
July 14	11.5	11.2	11.0	10.1	13.3	11.4	11.0	9.5	14.7	14.0	11.5	9.5
August 14	12.5	12.0	12.0	11.0	13.0	12.0	11.5	10.5	-	-	-	-
August 15	-	-	-	-	-	-	-	-	17.0	15.0	11.5	10.5
September 25	12.0	12.0	12.0	11.5	11.0	11.0	10.5	10.0	11.0	10.5	10.5	10.5
November 29	8.5	8.5	9.0	10.0	9.0	9.0	9.0	10.8	9.0	9.0	9.0	10.5
1976	STATION VIII											
May 31	9.0	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0	8.5	8.0
July 17	14.0	13.0	12.5	10.0	11.0	11.0	11.0	10.0	16.0	13.0	11.5	9.5
October 2	12.0	11.5	11.0	10.5	12.0	11.0	11.0	11.0	12.0	11.5	11.5	11.0

TABLE 2 DEPTH AND VARIATION IN SALINITY ($^{o}/oo$) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	29.7	29.7	29.6	30.8	30.0	29.8	29.7	32.1	22.6	27.4	29.1	29.6
July 18	29.9	30.5	31.4	31.6	29.4	30.7	30.7	32.0	26.4	29.4	30.7	31.4
September 25	32.1	31.9	31.6	31.6	31.9	31.9	31.6	32.3	28.7	31.2	31.6	32.9
1975												
May 8	30.0	30.5	31.1	32.2	29.8	30.0	31.0	33.4	31.0	31.0	31.8	32.2
June 14	31.2	31.1	31.1	31.6	30.3	32.2	31.0	30.9	27.8	28.8	29.4	32.3
July 14	32.1	32.1	32.6	33.1	31.3	31.4	32.0	33.0	29.7	29.5	31.5	32.3
August 14	31.7	32.3	32.9	33.4	32.5	32.9	32.8	33.2	-	-	-	-
August 15	-	-	-	-	-	-	-	-	29.7	31.7	32.1	32.5
September 25	32.9	32.9	32.9	32.8	32.6	32.6	32.5	32.4	31.4	32.5	32.5	32.5
November 29	27.7	27.7	27.1	31.8	26.5	26.5	26.5	31.3	25.8	27.1	26.5	31.2
1976	STATION VIII											
May 31	26.5	28.4	29.6	30.9	30.2	29.6	30.2	31.0	27.1	29.1	29.6	30.8
July 17	27.6	28.6	29.2	31.2	30.1	30.8	30.8	31.2	23.5	28.6	29.6	30.4
October 2	30.3	31.5	30.8	31.9	31.5	30.8	30.8	31.4	29.0	30.9	30.2	31.4

TABLE 3 DISSOLVED OXYGEN (ppm) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	7.6	7.6	7.5	7.2	7.0	7.3	7.2	6.3	0.0	2.0	4.6	4.5
July 18	10.2	10.6	10.3	9.1	9.0	8.4	7.8	7.3	3.5	6.3	6.6	-
September 25	6.5	6.6	6.0	5.7	5.4	5.7	5.9	5.4	0.0	0.1	3.1	3.4
1975												
May 8	6.1	6.7	7.0	6.8	3.7	4.2	5.0	6.0	2.9	3.7	4.4	4.1
June 14	6.4	6.4	6.2	6.1	5.9	6.4	6.4	5.4	1.1	0.5	1.4	2.7
July 14	7.3	7.6	7.3	5.7	4.1	4.8	5.4	5.3	1.0	1.0	1.7	2.8
August 14	7.9	7.9	7.2	6.1	8.5	7.8	6.2	5.9	-	-	-	-
August 15	-	-	-	-	-	-	-	-	9.0	8.7	8.5	3.6
September 25	9.8	10.1	9.6	9.0	6.7	6.7	6.6	5.8	5.4	5.3	5.6	4.1
November 29	7.0	7.6	8.0	7.0	7.1	6.5	6.6	4.7	5.6	6.5	6.5	3.7
	STATION VIII											
1976												
May 31	7.8	7.9	7.8	7.3	8.1	8.2	7.9	8.1	7.8	8.0	7.8	6.2
July 17	3.5	5.8	5.9	5.8	6.8	6.4	6.7	6.5	0.0	1.7	3.9	4.6
October 2	1.5	2.8	3.7	4.2	3.4	4.5	4.2	4.4	0.0	1.0	2.1	3.3

TABLE 4 PERCENT SATURATION OF DISSOLVED OXYGEN - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	82.6	82.6	80.6	77.0	76.3	80.4	78.2	68.1	0.0	21.9	49.8	48.3
July 18	120.0	125.4	119.8	106.0	101.1	95.1	88.3	83.4	39.9	70.8	74.7	-
September 25	78.3	78.6	69.8	66.3	64.3	67.9	68.6	62.8	0.0	1.2	36.0	40.0
1975												
May 8	68.0	74.0	77.0	74.0	40.0	46.0	54.0	65.0	31.0	40.0	48.0	44.0
June 14	71.0	71.0	68.0	66.0	64.0	69.0	70.0	58.0	12.0	5.0	15.0	29.0
July 14	84.0	87.0	83.0	64.0	49.0	55.0	61.0	58.0	12.0	11.0	19.0	30.0
August 14	93.0	92.0	84.0	70.0	101.0	91.0	72.0	67.0	-	-	-	-
August 15	-	-	-	-	-	-	-	-	114.0	107.0	98.0	40.0
September 25	115.0	118.0	112.0	104.0	76.0	76.0	74.0	65.0	61.0	60.0	63.0	46.0
November 29	73.0	79.0	84.0	78.0	74.0	68.0	69.0	53.0	58.0	68.0	68.0	41.0
1976	STATION VIII											
May 31	82.1	84.3	82.8	78.1	86.2	87.0	84.0	85.9	82.3	85.6	82.8	65.6
July 17	41.4	67.6	68.4	64.4	76.8	72.5	75.9	72.0	0.0	19.8	44.3	50.1
October 2	17.3	32.3	41.9	47.5	39.7	51.0	47.6	50.1	0.0	11.5	23.9	37.9

TABLE 5 pH MEASUREMENTS - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	7.9	7.9	7.9	8.0	7.7	7.9	7.9	7.9	6.9	7.5	7.7	7.8
July 18	7.9	8.1	8.1	8.1	6.7	7.8	7.8	7.4	6.5	7.5	7.2	7.7
September 25	7.8	7.8	7.8	7.7	7.7	7.8	7.4	7.7	6.8	7.0	7.8	7.5
1975												
May 8	7.70	7.78	7.72	7.80	7.53	7.66	7.76	7.90	7.89	7.71	7.76	7.83
June 14	7.15	7.25	7.32	7.21	7.31	7.31	7.35	7.31	6.97	7.10	7.18	7.40
July 14	7.6	7.7	8.0	7.8	7.2	7.5	7.4	7.7	7.08	7.36	7.50	7.77
August 14	7.92	7.89	7.84	7.74	7.92	8.06	7.75	7.84	-	-	-	-
August 15	-	-	-	-	-	-	-	-	7.98	7.88	7.82	7.57
September 25	8.2	8.3	8.4	8.2	8.0	8.1	8.1	8.0	7.8	8.0	8.0	7.9
November 29	7.73	7.73	7.54	7.88	7.55	7.56	7.59	7.64	6.77	7.35	7.48	7.44
1976	STATION VIII											
May 31	7.76	7.83	7.88	7.86	7.89	7.88	7.89	7.94	7.76	7.82	7.90	7.93
July 17	6.30	7.2	7.5	7.5	7.90	7.80	7.80	7.80	7.30	7.60	7.70	7.80
October 2	6.77	7.29	7.44	7.67	7.52	7.59	7.65	7.67	7.39	7.58	7.63	7.73

TABLE 6 DEPTH AND VARIATION IN TOTAL CARBONATE CARBON (mgC/litre) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	15052	13994	17522	13968	16080	15288	18346	17052	12949	14933	15840	17820
July 18	17898	18126	20520	20976	19266	15162	16302	16302	16302	15390	15390	19038
September 25	24028	24477	24561	23733	19919	20982	19352	21145	17772	19955	19919	19841
1975												
May 8	9283	11336	13840	7983	6210	11719	10543	16135	15857	10543	13165	15100
June 14	23645	24062	23752	24532	25029	24951	24951	25324	21990	22417	23421	25253
July 14	16249	16249	16249	16249	16471	16363	13393	16249	14394	16199	12573	13506
August 14	23818	23818	23417	24122	19010	17910	18698	21762	-	-	-	-
August 15	-	-	-	-	-	-	-	-	18024	19010	15100	21259
September 25	18242	15565	17900	24170	18470	18356	18356	18470	18698	18470	18470	18584
November 29	20033	20033	19557	22344	19352	19443	19644	22828	17772	18706	19557	22815
1976	STATION VIII											
May 31	18252	18021	17907	19992	19416	19010	19010	19613	17785	18698	19613	19805
July 17	13507	20986	20872	22189	22075	23417	22189	22189	22531	20758	22189	23417
October 2	18363	20069	19352	20469	19644	20033	18698	20289	18926	19443	20033	19329

TABLE 7 NITRATE MEASUREMENTS (NO_3^-) (mg N/litre) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	.140	.160	.151	.043	.180	.105	.100	.160	.084	.140	.133	.189
July 18	.026	.030	.019	.069	.081	.141	.129	.160	.114	.174	.190	.203
September 25	.160	.145	.166	.203	.094	.064	.157	.184	<.010	.047	.109	.236
1975												
May 8	.194	.355	.577	.266	.270	.227	.360	1.000	.830	.740	.244	.214
June 14	.282	.290	.283	.344	.281	.308	.290	.306	.313	.043	.193	.232
July 14	.25	.23	.20	.26	.17	.19	.21	.26	.06	.08	<.01	.25
August 14	.06	.13	.14	.19	.10	.12	.16	.20	-	-	-	-
August 15	-	-	-	-	-	-	-	-	.07	.07	.12	.18
September 25	<.01	.06	.08	.10	.17	.19	.19	.20	.17	.19	.24	.27
November 29	.24	.19	.19	.17	.29	.18	.19	.22	.18	.23	.18	.19
1976	STATION VIII											
May 31	.160	.190	.220	.250	.200	.180	.150	.180	.190	.200	.170	.230
July 17	.010	.087	.166	.194	.175	.187	.184	.196	.125	.158	.145	.218
October 2	.01	.22	.27	.34	.24	.26	.27	.29	.24	.27	.29	.34

TABLE 8 TOTAL PHOSPHATE MEASUREMENTS (TPO_4) (mg P/litre) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	0.091	<0.01	0.066	0.068	0.105	0.050	0.081	0.082	<0.01	0.101	0.018	0.020
July 18	0.042	0.042	0.038	0.051	0.047	0.052	0.059	0.055	0.044	0.043	0.050	0.044
September 25	0.052	0.089	0.052	0.059	0.041	0.038	0.046	0.041	0.068	<0.01	0.036	0.074
1975												
May 8	0.033	0.039	0.046	0.047	0.035	0.035	0.039	0.047	0.038	0.047	0.041	0.046
June 14	0.05	0.05	0.052	0.05	0.06	0.06	0.06	0.064	0.05	0.04	0.05	0.06
July 14	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.04	0.06
August 14	0.03	0.04	0.04	0.05	0.04	0.04	0.04	0.05	-	-	-	-
August 15	-	-	-	-	-	-	-	-	0.03	0.02	0.04	0.04
September 25	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05
November 29	0.045	0.020	0.030	0.040	0.030	0.030	0.035	0.045	0.010	0.030	0.020	0.046
1976	STATION VIII											
May 31	0.027	0.034	0.038	0.044	0.042	0.038	0.045	0.045	0.035	0.031	0.035	0.041
July 17	0.032	0.034	0.041	0.037	0.044	0.040	0.039	0.038	0.071	0.031	0.025	0.045
October 2	0.030	0.048	0.061	0.079	0.073	0.055	0.051	0.066	0.067	0.056	0.059	0.062

TABLE 9 SILICATE MEASUREMENTS (mg Si/litre) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	No analysis											
July 18	<0.43	<0.43	<0.43	0.43	0.75	0.86	0.96	1.18	1.29	0.96	0.96	1.29
September 25	0.65	0.65	0.55	0.65	0.75	0.90	0.50	0.30	0.55	0.80	0.50	0.55
1975												
May 8	0.6	0.7	0.8	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
June 14	0.9	0.9	0.9	1.0	0.9	0.9	0.9	1.0	0.8	0.8	0.8	0.9
July 14	0.7	0.6	0.5	0.6	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.7
August 14	0.6	0.6	0.6	0.8	0.7	0.6	0.7	0.8	-	-	-	-
August 15	-	-	-	-	-	-	-	-	0.6	0.6	0.7	0.8
September 25	4.2	4.2	4.6	5.7	7.0	7.6	7.2	8.6	7.1	7.8	8.9	14.5
November 29	0.9	0.7	0.7	0.7	0.7	0.9	0.7	0.8	0.7	0.7	0.7	0.7
1976	STATION VIII											
May 31	0.50	0.50	0.50	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
July 17	0.55	0.55	0.50	0.55	0.65	0.65	0.65	0.60	0.60	0.55	0.55	0.65
October 2	2.60	2.50	2.40	2.40	2.40	2.40	2.40	2.50	2.50	2.60	2.60	2.60

TABLE 10 DEPTH AND VARIATION IN CHLOROPHYLL-A (μg/litre) (July, 1976 - mg/m^3) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	1.5	1.3	1.2	0.4	1.8	1.5	1.2	0.2	1.8	0.9	0.4	1.8
July 18	6.3	7.3	6.4	5.2	2.2	1.8	1.8	0.9	0.6	0.3	2.5	1.6
September 25	0.7	0.6	0.3	----------Chemical analysis not completed----------								
1975												
May 8	0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
June 14	1.3	0.80	1.0	<0.10	<0.10	0.70	0.70	0.40	1.4	1.2	1.3	<0.10
July 14	4.1	5.6	3.7	1.1	1.9	1.8	1.5	1.0	0.50	0.20	0.20	<0.10
August 14	1.70	1.70	1.60	0.91	1.56	1.68	1.16	0.85	-	-	-	-
August 15	-	-	-	-	-	-	-	-	1.25	1.53	41.21[1]	32.66[1]
September 25	1.02	1.47	0.64	1.63	1.1	0.50	0.90	0.80	1.0	0.75	1.0	0.30
November 29	0.47	0.59	0.27	<0.1	0.49	0.49	0.26	<0.1	0.18	<0.1	0.87	0.37
1976	STATION VIII											
May 31	10.71	10.48	7.99	2.26	3.58	2.85	3.87	2.30	8.49	5.33	1.82	5.62
July 17	<0.80	<0.80	<0.80	<0.80	0.96	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
October 2	----------Results not available----------											

[1] Analytical result doubtful.

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

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.4	0.6	0.2	<0.2	<0.2
July 18	1.6	1.7	2.0	1.5	<0.2	0.3	0.7	<0.2	<0.2	<0.2	<0.2	<0.2
September 25	0.0	<0.1	0.0	----------Chemical analysis not completed----------								
1975												
May 8	<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 14	----------Chemical analysis not completed----------											
July 14	0.60	2.5	2.1	<0.2	0.50	0.30	0.60	1.2	<0.2	<0.2	<0.2	<0.2
August 14	0.27	0.72	0.53	<0.2	<0.2	0.27	0.24	0.59	-	-	-	-
August 15	-	-	-	-	-	-	-	-	0.88	4.62	0.2	0.2
September 25	<0.2	1.07	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
November 29	<0.2	<0.2	0.56	<0.2	<0.2	<0.2	<0.2	<0.2	1.28	<0.2	<0.2	<0.2
	STATION VIII											
1976												
May 31	3.07	3.42	2.75	2.30	2.08	4.14	6.27	2.30	3.23	3.90	1.09	3.36
July 17	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
October 2	----------Analysis results not available----------											

TABLE 12 DEPTH AND VARIATION IN SESTON (mg/litre) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	1.3	2.1	1.5	1.6	2.0	1.4	2.0	1.7	5.1	3.6	2.0	<1.0
July 18	1.6	1.9	1.8	10.6	2.6	1.2	2.4	3.0	19.7	2.1	1.8	1.8
September 25	4.9	1.7	6.4	1.7	1.4	2.0	7.5	1.3	>27.0	17.1	19.8	9.8
1975												
May 8	2.2	2.1	1.7	1.0	3.6	3.8	1.7	0.8	2.8	1.8	1.4	0.6
June 14	1.8	1.2	0.8	0.8	0.8	1.3	0.7	0.9	3.1	1.6	1.5	0.7
July 14	2.3	2.6	1.7	3.2	2.6	3.4	4.0	2.5	4.5	5.1	1.3	7.6
August 14	1.2	2.0	2.0	1.2	1.0	1.6	1.2	1.8	-	-	-	-
August 15	-	-	-	-	-	-	-	-	0.9	0.9	1.0	1.9
September 25	1.0	9.9	0.6	0.9	1.0	0.5	1.8	1.0	0.7	0.7	8.5	7.7
November 29	0.6	0.8	0.4	1.1	0.5	0.9	0.5	0.6	1.9	1.6	2.0	0.8
1976	STATION VIII											
May 31	15.3	8.8	10.2	10.5	6.7	7.0	9.2	8.8	7.6	9.9	11.0	12.0
July 17	17.0	2.8	2.9	1.7	0.9	1.3	1.8	1.3	2.2	5.4	1.6	2.1
October 2	2.9	15.4	15.2	16.1	15.8	17.4	15.4	16.8	13.8	14.9	16.8	14.2

TABLE 13 PERCENT ORGANIC CONTENT OF DRY SESTON - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V				STATION VI				STATION VII			
	Depth (Metres)				Depth (Metres)				Depth (Metres)			
	1	3	5	20	1	3	5	20	1	3	5	20
1974												
May 31	76.9	61.9	66.7	62.5	70.0	71.4	55.0	58.8	84.3	50.0	75.0	100.0
July 18	81.3	73.7	61.1	21.7	73.1	100.0	100.0	56.7	37.1	71.4	66.7	55.6
September 25	87.8	70.6	23.4	58.8	71.4	55.0	26.7	76.9	33.3	36.8	24.2	22.4
1975												
May 8	59.1	71.4	58.8	50.0	58.3	52.6	58.8	62.5	78.6	100.0	85.7	83.3
June 14	38.8	58.3	37.5	50.0	50.0	38.5	57.1	55.6	67.7	75.0	80.0	71.4
July 14	60.9	38.5	64.7	68.8	73.1	55.9	50.0	40.0	77.8	90.2	100.0	71.1
August 14	50.0	40.0	40.0	75.0	60.0	43.8	50.0	33.3	-	-	-	-
August 15	-	-	-	-	-	-	-	-	77.8	77.8	70.0	47.4
September 25	63.0	79.8	47.6	33.3	54.9	56.6	72.2	51.0	43.1	41.1	83.5	84.4
November 29	50.0	37.5	75.0	27.3	60.0	44.5	60.0	50.0	26.3	31.3	20.0	50.0
1976	STATION VIII											
May 31	21.6	21.6	22.6	19.0	19.4	17.1	32.6	20.5	27.6	26.3	20.9	19.7
July 17	54.1	71.4	37.9	17.6	33.4	23.1	33.4	23.1	68.2	31.5	43.8	19.0
October 2	72.4	22.7	44.7	19.9	17.1	13.8	17.5	15.5	22.5	20.8	17.3	19.7

TABLE 14 MEAN EXTINCTION COEFFICIENTS (k) AND SECCHI DEPTH (m) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V		STATION VI		STATION VII	
	Extinction Coefficient	Secchi Disc	Extinction Coefficient	Secchi Disc	Extinction Coefficient	Secchi Disc
1974						
May 31	0.4880	4.6	0.5573	5.3	1.3007	1.0
July 18	0.5036	7.0	0.4841	10.0	1.6642	2.0
September 25	-	-	-	6.0	-	1.3
1975						
May 8	0.5084	7.5	0.8272	3.3	0.7955	3.6
June 14	0.3857	6.0	0.3726	7.0	1.6179	2.0
July 14	0.5473	4.0	1.3789	3.75	2.0686	2.75
August 14	0.5745	6.0	0.7635	6.0	-	-
August 15	-	-	-	-	0.3773	>13.0
September 25	0.4200	>13.0	0.4343	8.5	0.4934	9.5
November 29	0.7826	8.0	0.8847	5.0	2.1725	1.0
1976	STATION VIII					
May 31	2.3677	3.0	1.5937	6.0	2.4154	2.5
July 17	1.9053	2.0	0.9423	9.0	4.7641	1.0
October 2	1.6100	3.5	1.0948	6.5	2.7878	1.5

TABLE 15 PERCENT OF TOTAL DAYLIGHT UTILIZED FOR CARBON-14 INCUBATION - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V	STATION VI	STATION VII
1974			
May 31	75.0	59.0	67.0
July 18	67.0	55.0	80.0
September 25	50.0	55.0	73.0
1975			
May 8	53.3	58.3	50.0
June 14	58.8	64.7	58.8
July 14	73.9	60.9	39.1
August 14	51.9	64.8	-
August 15	-	-	44.4
September 25	66.7	66.7	43.2
November 29	75.0	50.0	50.0
	STATION VIII		
1976			
May 31	53.5	61.4	46.0
July 17	64.4	80.4	45.7
October 2	72.9	84.3	46.8

TABLE 16 DAILY AREAL PRODUCTION RATES ($mgC/m^2/day$) - STATIONS V TO VIII, NEROUTSOS INLET, 1974-1976

	STATION V	STATION VI	STATION VII
1974			
May 31	545	272	0
July 18	3869	1255	128
September 25	581	61	29
1975			
May 8	247	15	6
June 14	*	*	*
July 14	1203	197	0
August 14	3972	2805	-
August 15	-	-	1525
September 25	252	52	134
November 29	0	0	0
1976	STATION VIII		
May 31	630	267	193
July 17	53	81	10
October 2	1	46	0

* Results not available.

FIGURES 2 to 23

PHYTOPLANKTON PRODUCTIVITY VALUES

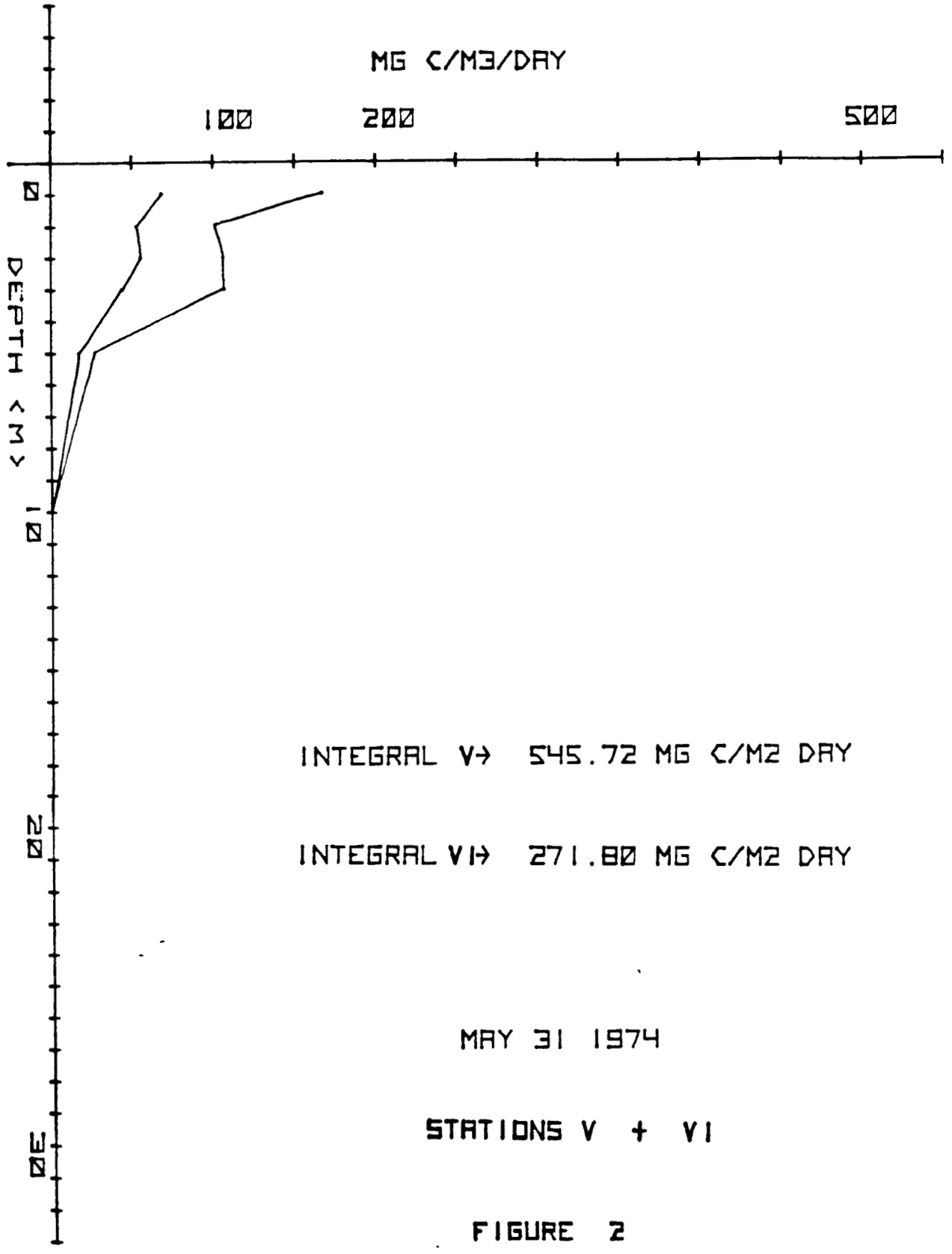

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH <M>
INTEGRAL V→ 545.72 MG C/M2 DAY
INTEGRAL VI→ 271.80 MG C/M2 DAY
MAY 31 1974
STATIONS V + VI

FIGURE 2

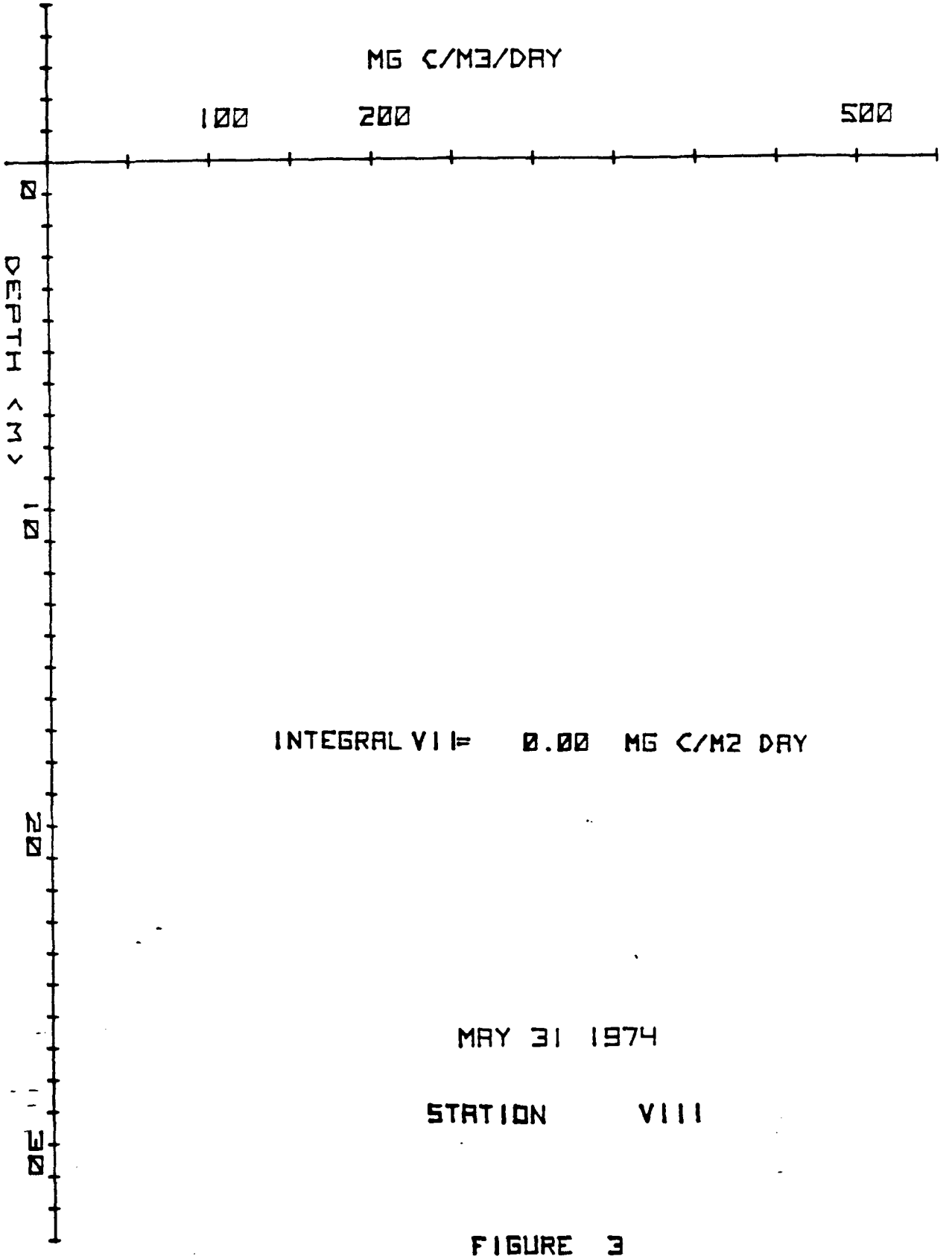

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH <M>
INTEGRAL VII= 0.00 MG C/M2 DAY
MAY 31 1974
STATION VIII

FIGURE 3

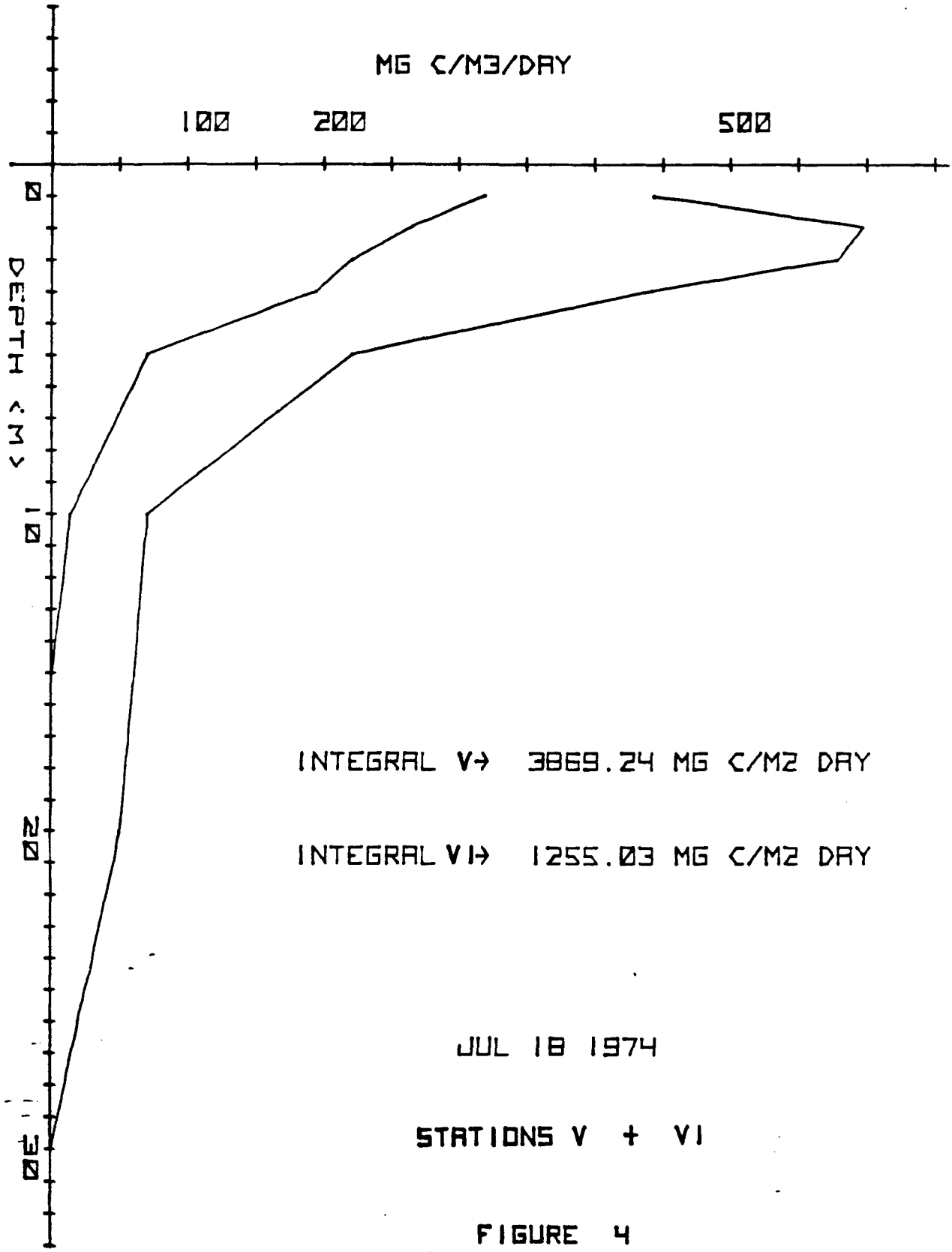

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL V→ 3869.24 MG C/M2 DAY
INTEGRAL VI→ 1255.03 MG C/M2 DAY
JUL 18 1974
STATIONS V + VI

FIGURE 4

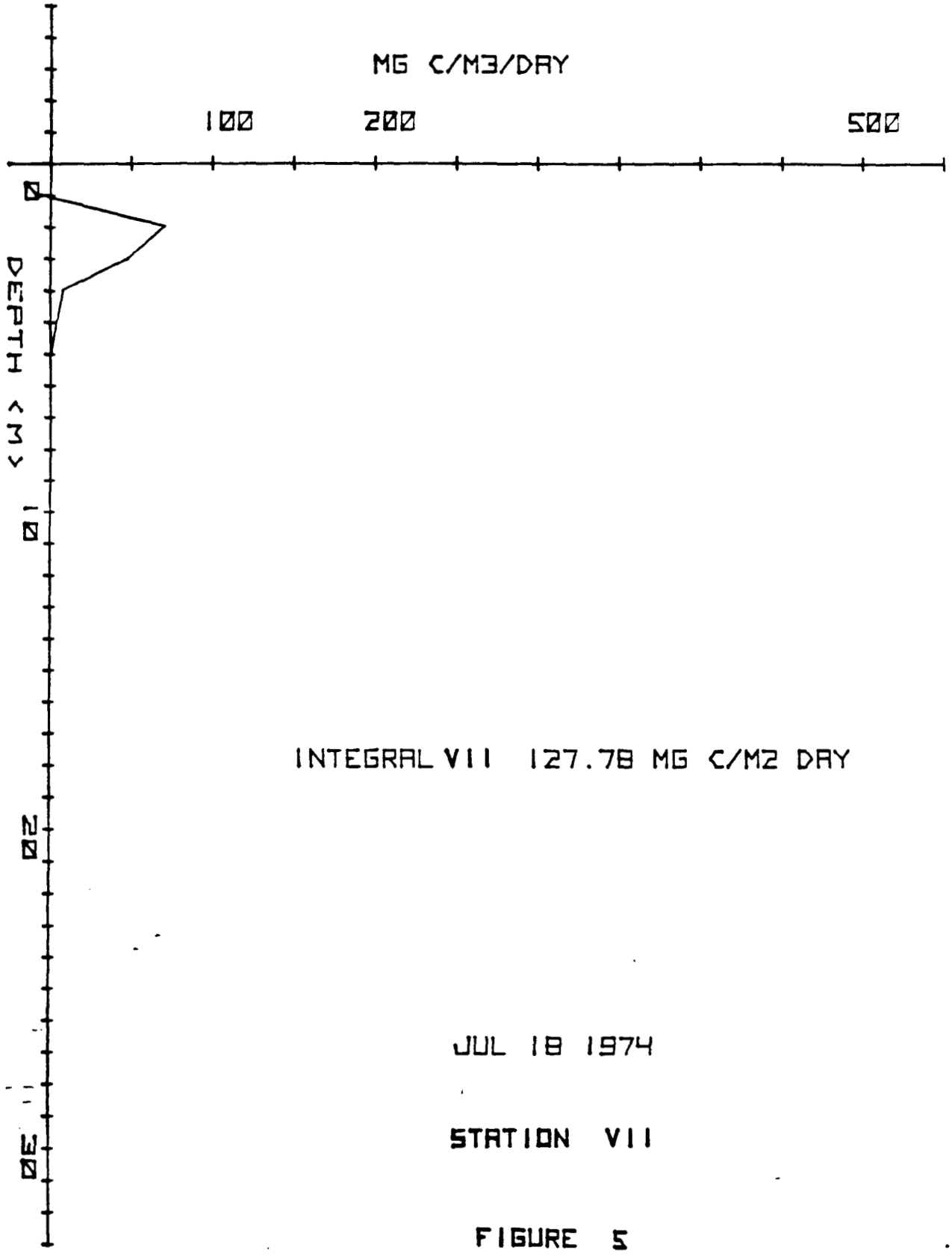
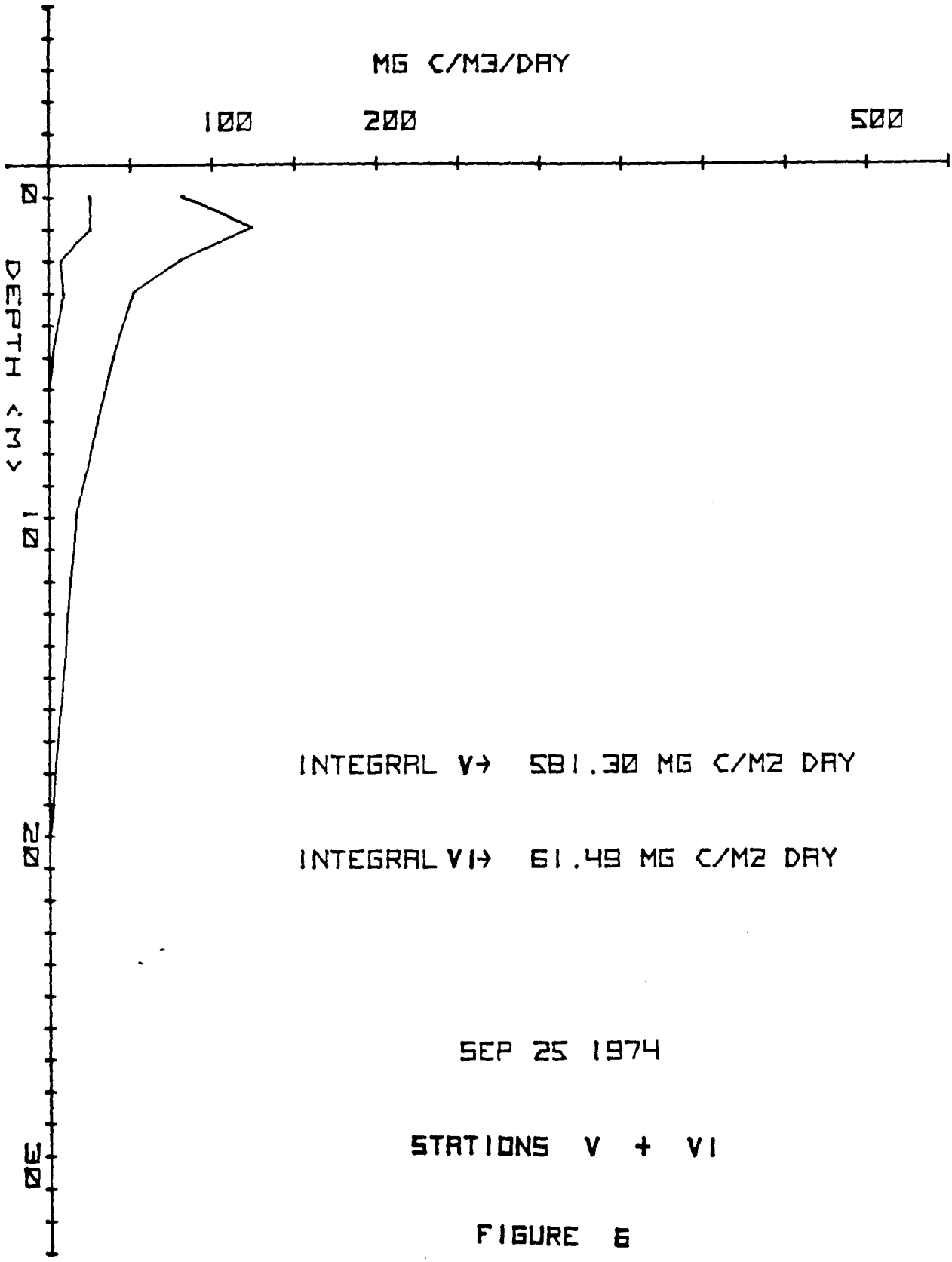

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH <M>
INTEGRAL VII 127.78 MG C/M2 DAY
JUL 18 1974
STATION VII

FIGURE 5



SEP 25 1974

STATIONS V + VI

FIGURE 6

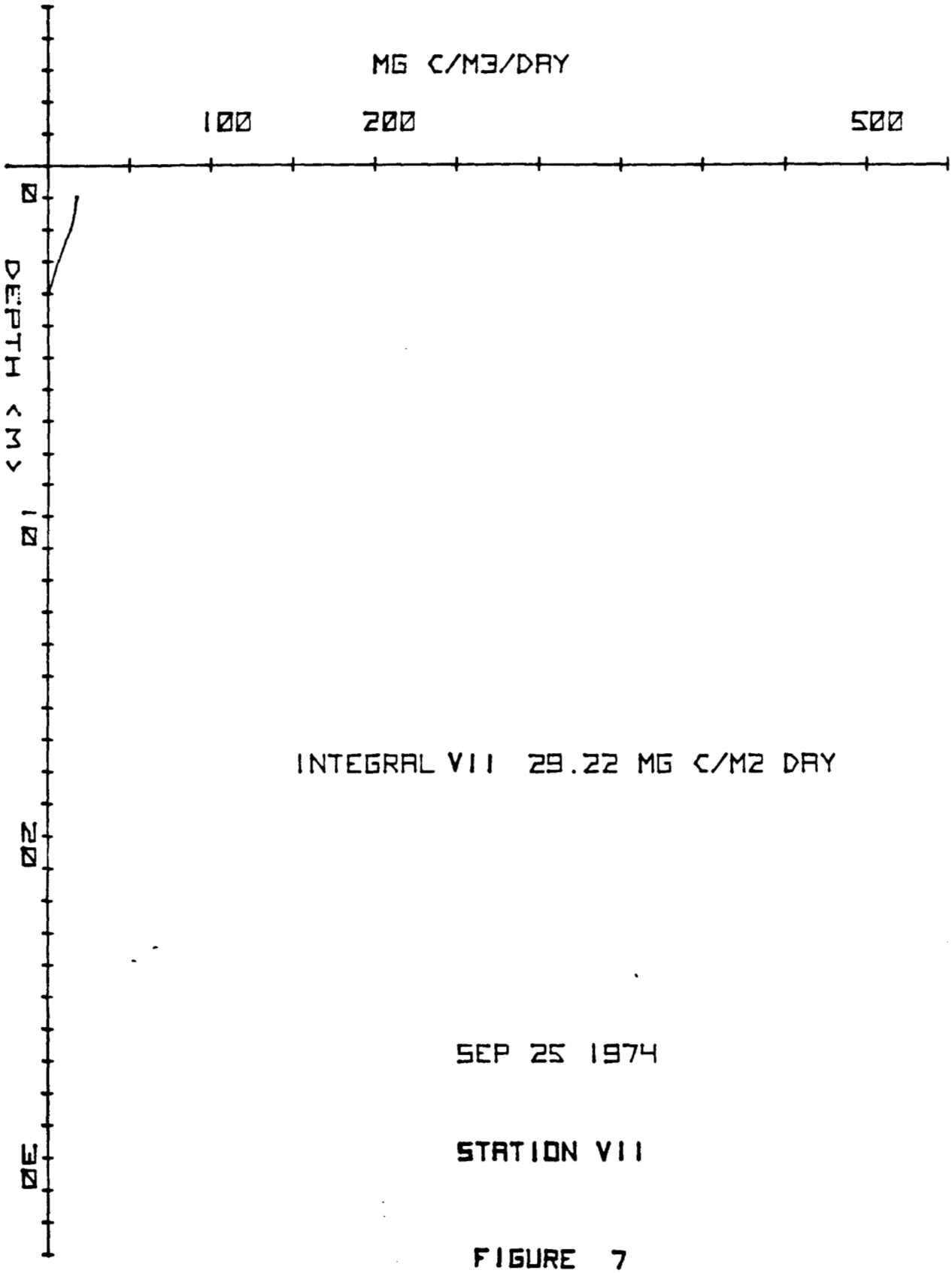

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL VII 29.22 MG C/M2 DAY
SEP 25 1974
STATION VII

FIGURE 7

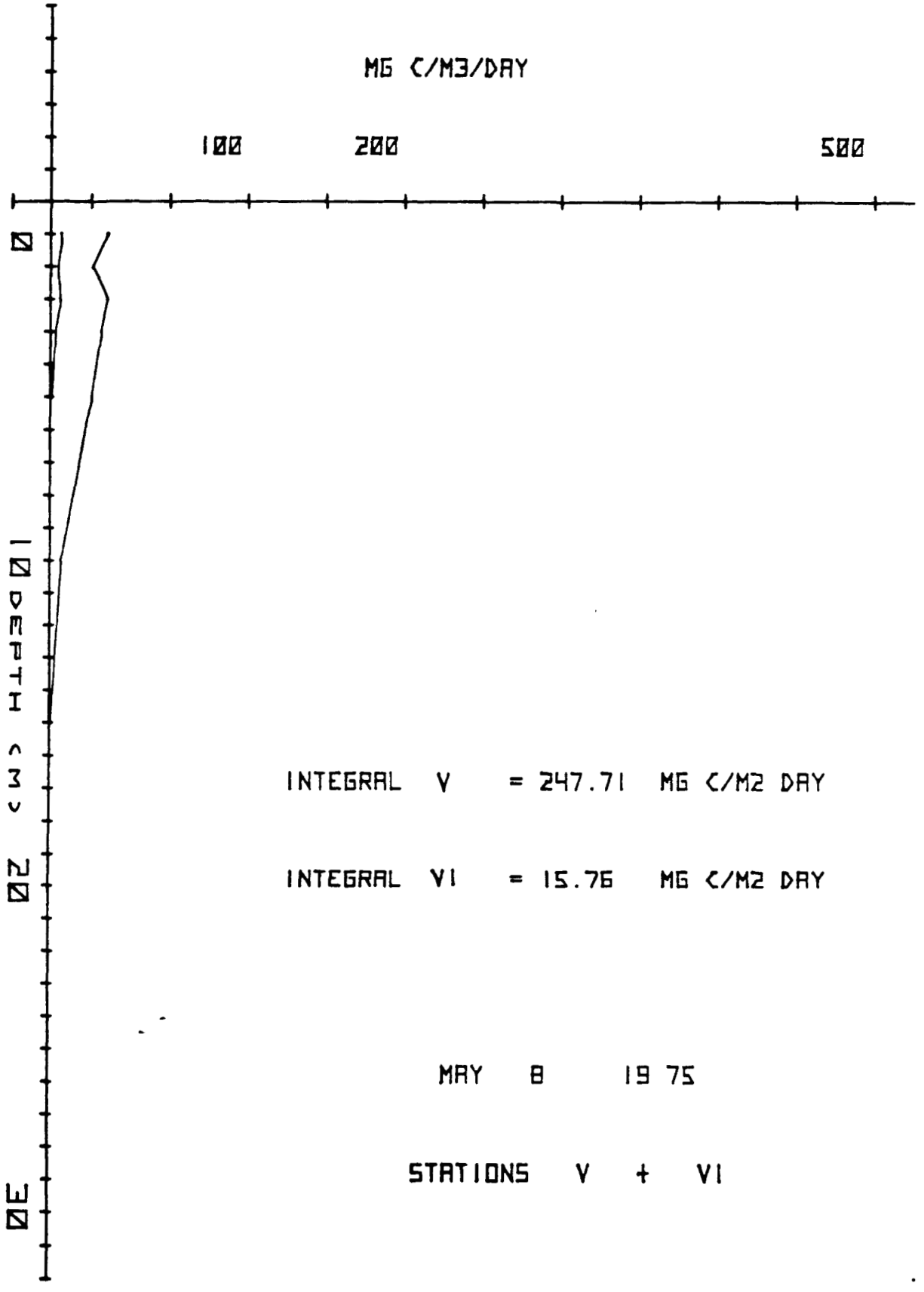

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL V = 247.71 MG C/M2 DAY
INTEGRAL VI = 15.76 MG C/M2 DAY
MAY 8 1975
STATIONS V + VI

FIGURE 8

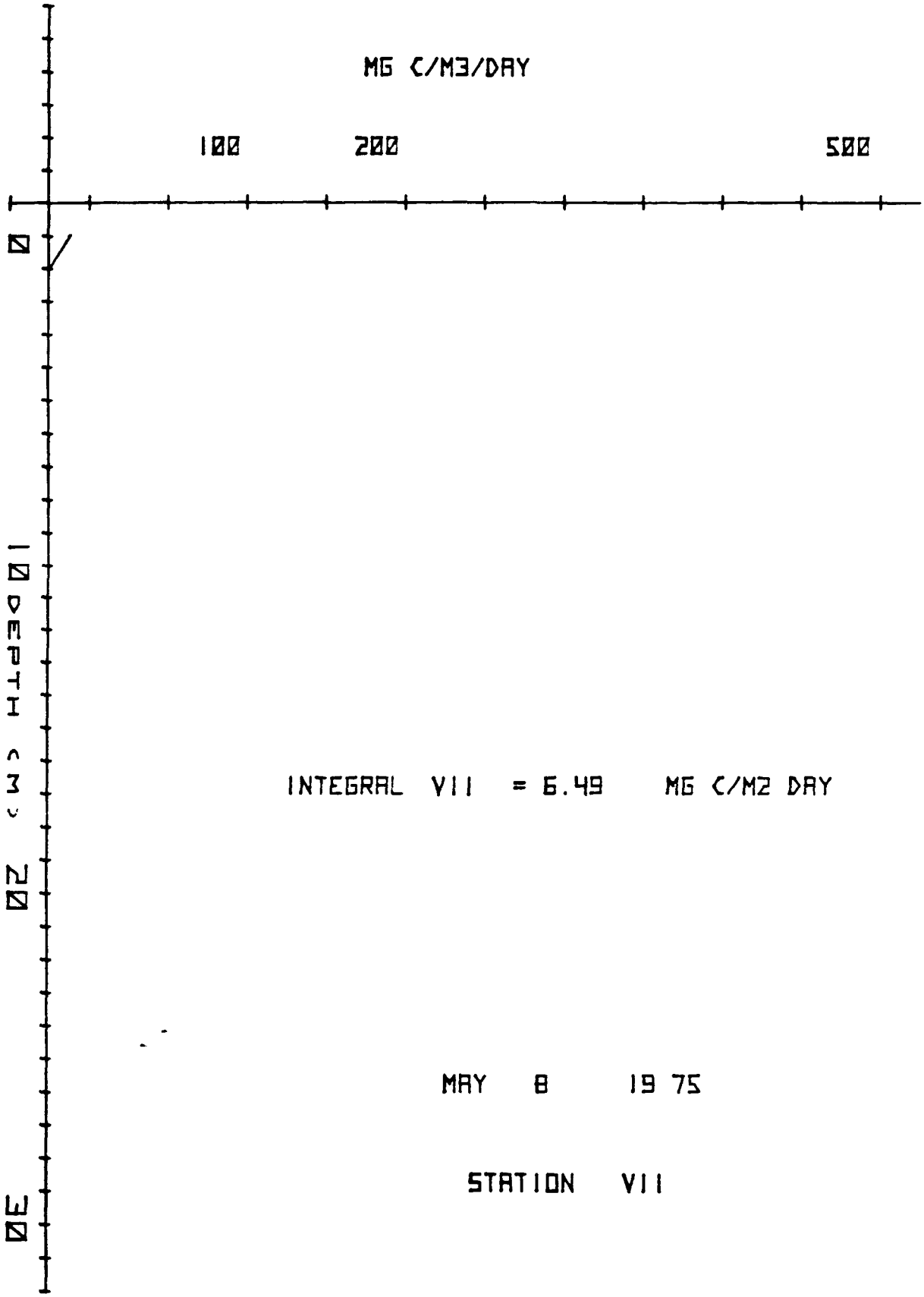

MG C/M3/DAY
0
100
200
500
DEPTH CM
0
100
200
300
INTEGRAL VII = 6.49 MG C/M2 DAY
MAY 8 19 75
STATION VII

FIGURE 9

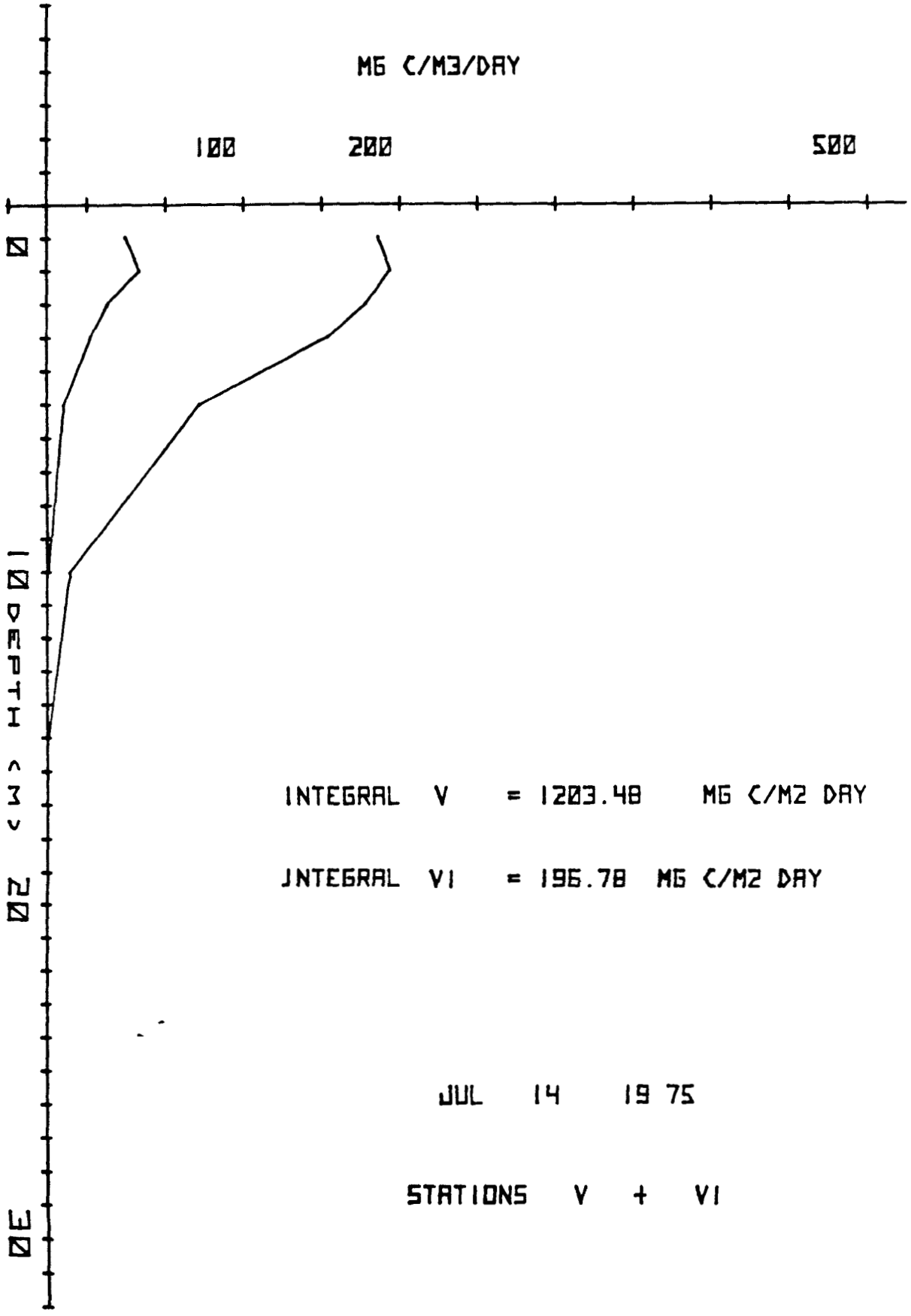

MG C/M3/DAY
100
200
500
0
100
DEPTH (M)
200
300
INTEGRAL V = 1203.48 MG C/M2 DAY
INTEGRAL VI = 196.78 MG C/M2 DAY
JUL 14 1975
STATIONS V + VI

FIGURE 10

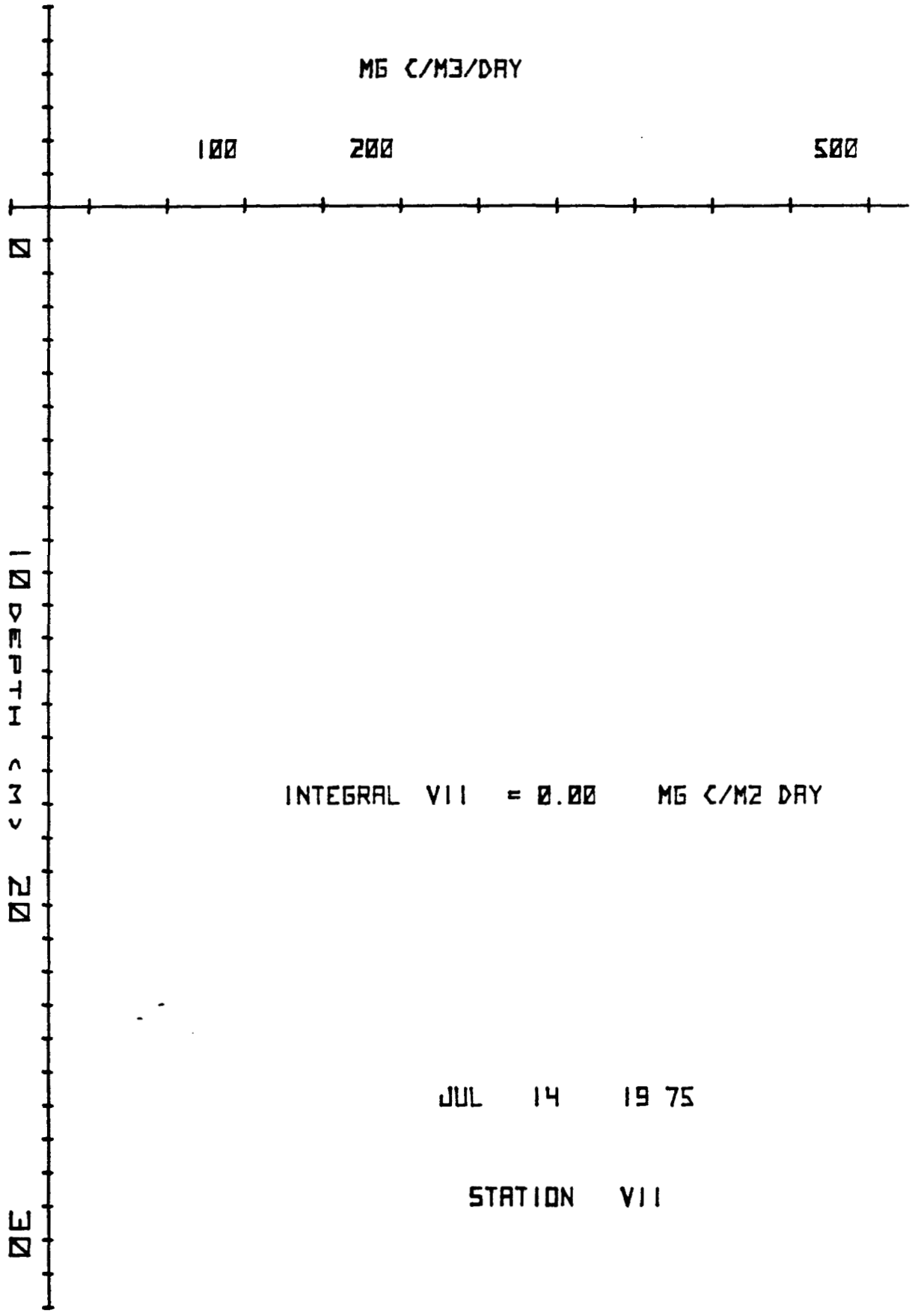

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL VII = 0.00 MG C/M2 DAY
JUL 14 1975
STATION VII

FIGURE 11

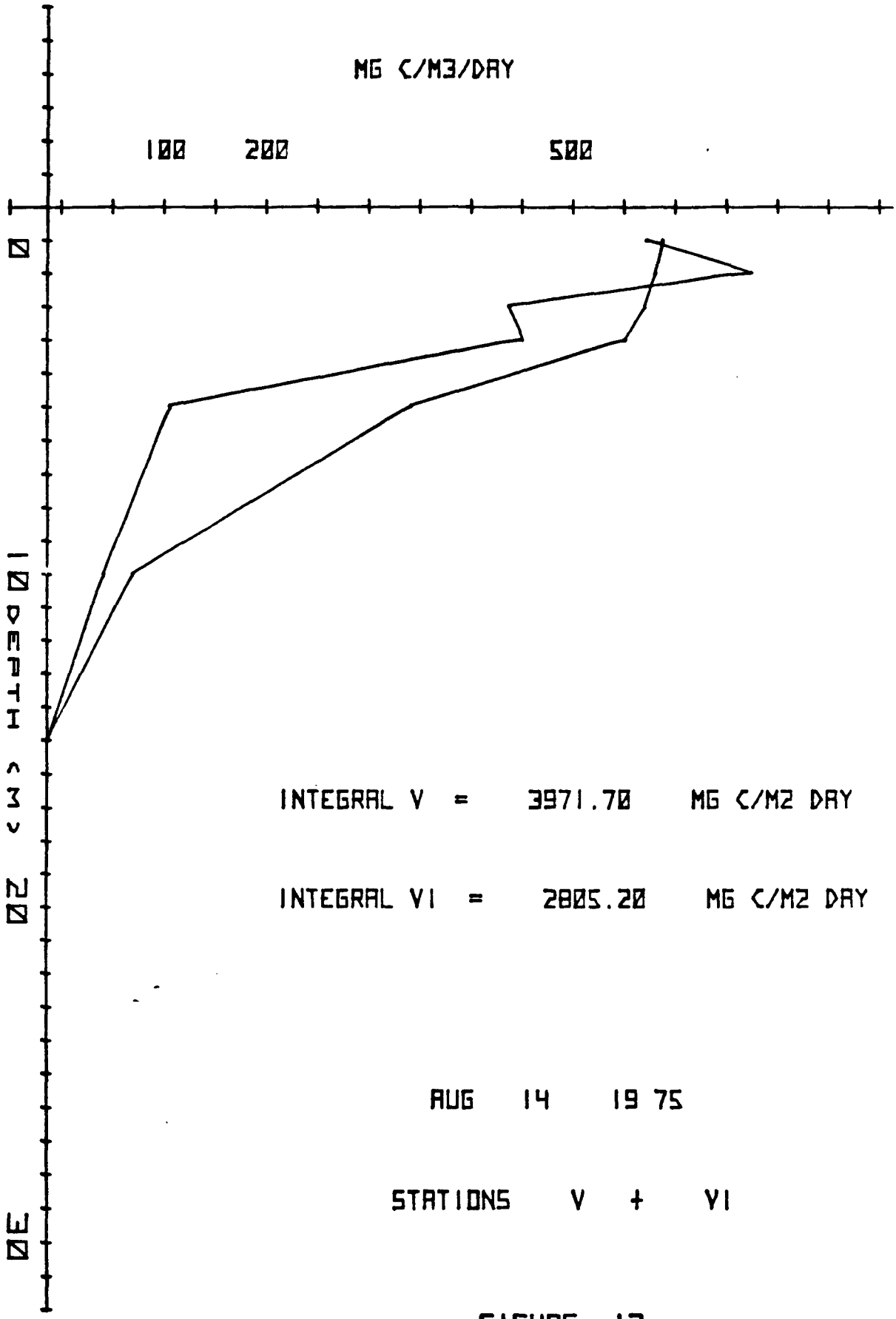
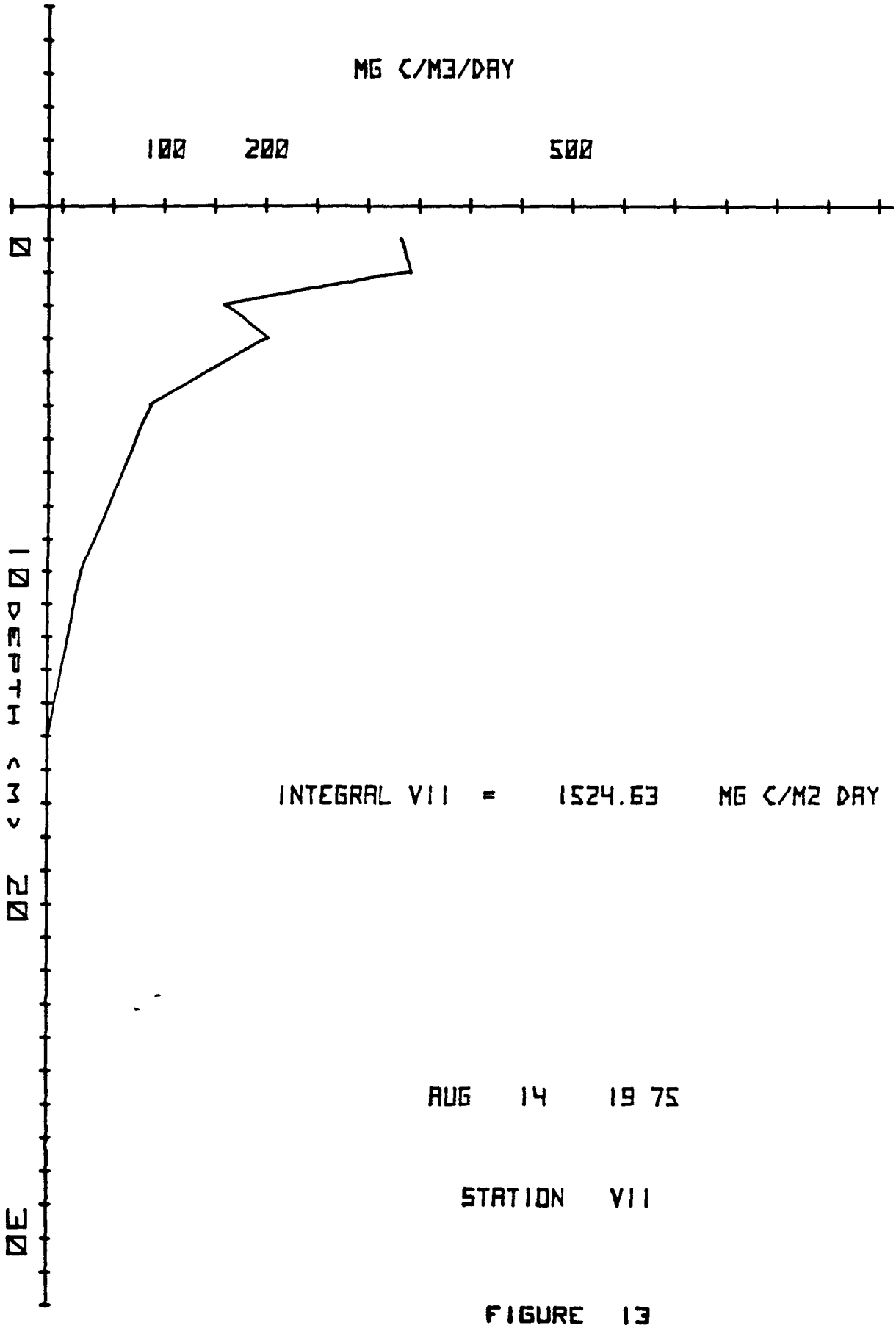

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL V = 3971.70 MG C/M2 DAY
INTEGRAL VI = 2805.20 MG C/M2 DAY
AUG 14 19 75
STATIONS V + VI

FIGURE 12



AUG 14 1975

STATION V11

FIGURE 13

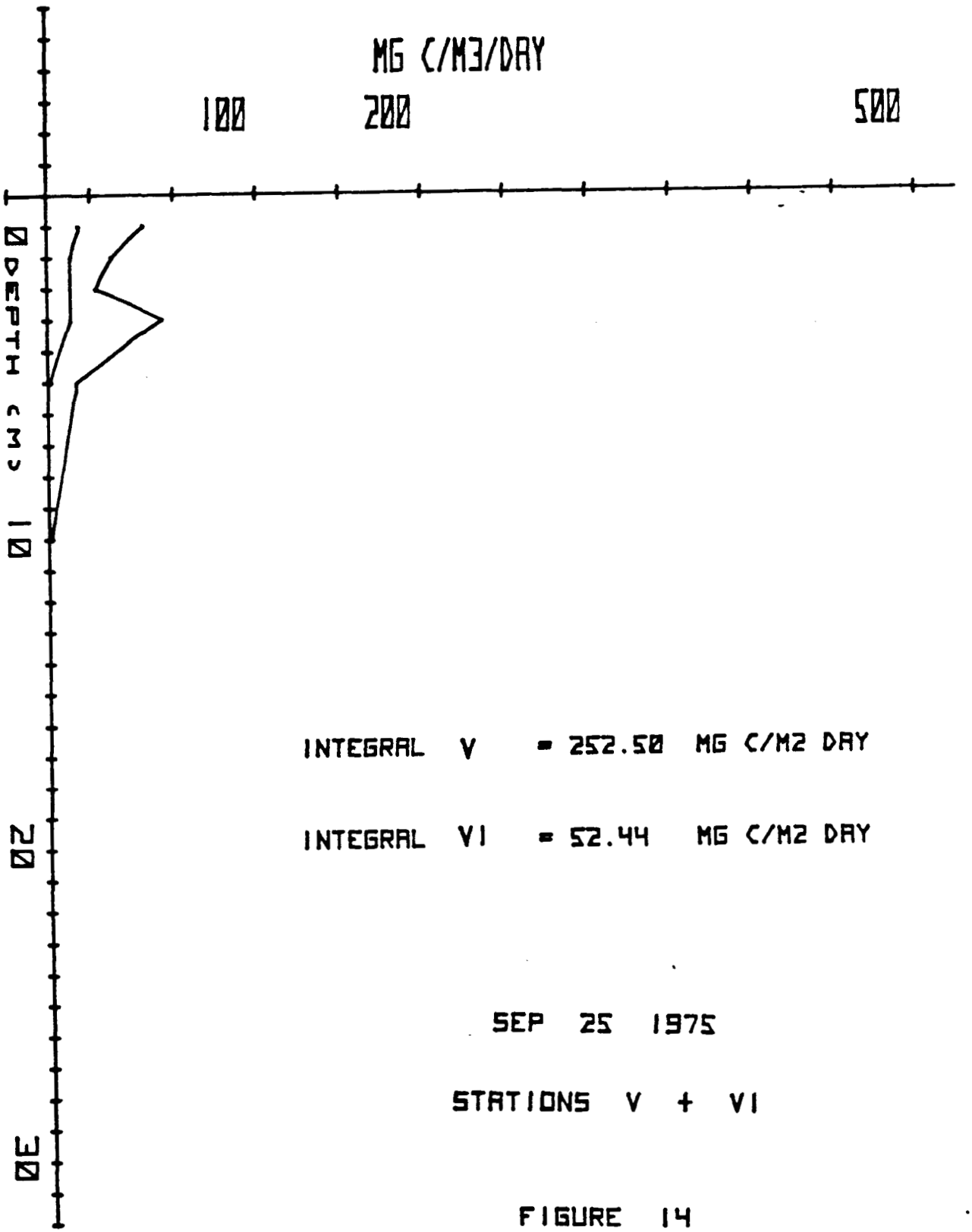
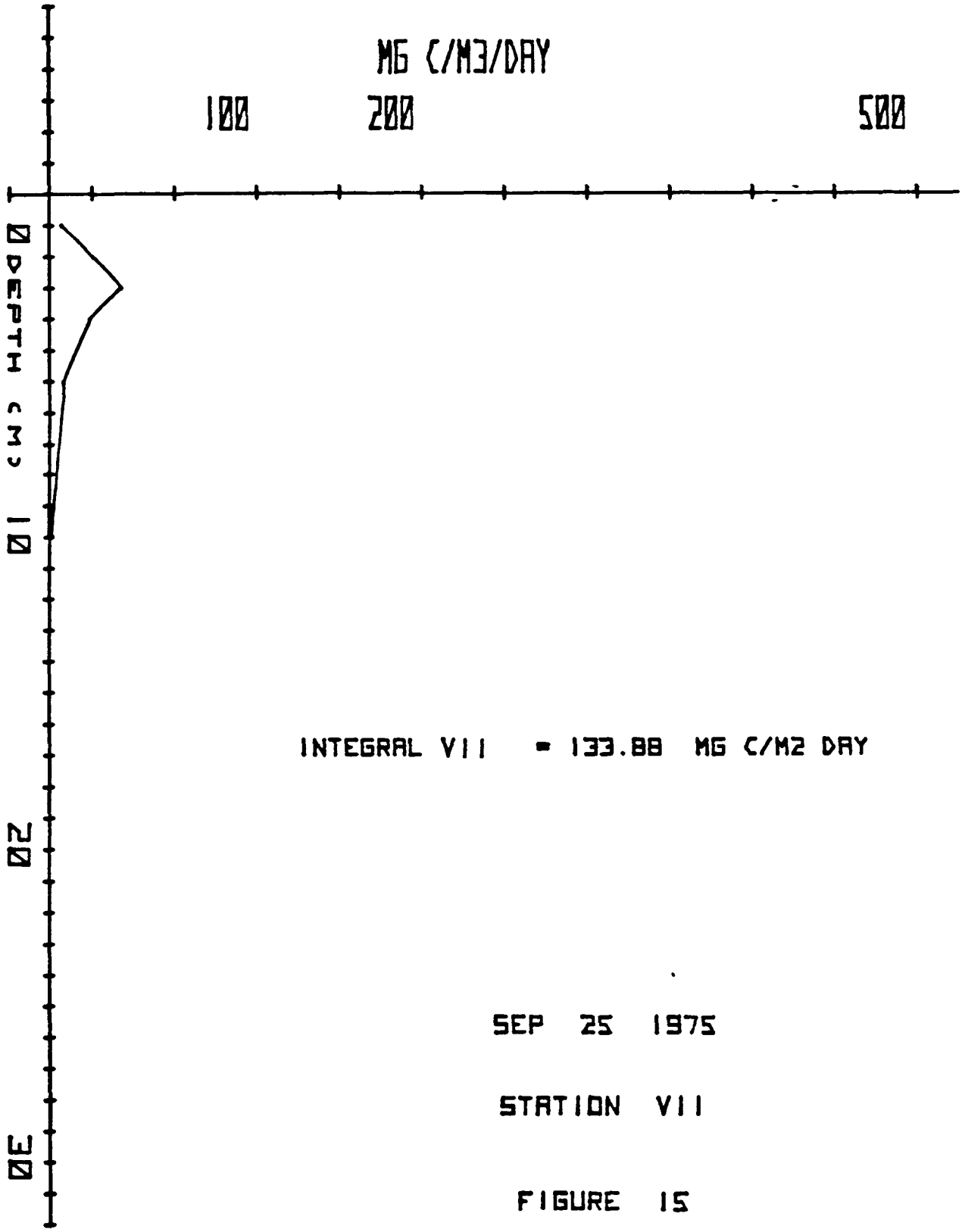

MG C/M3/DAY
100
200
500
DEPTH CMS
0
10
20
30
INTEGRAL V = 252.50 MG C/M2 DAY
INTEGRAL VI = 52.44 MG C/M2 DAY
SEP 25 1975
STATIONS V + VI

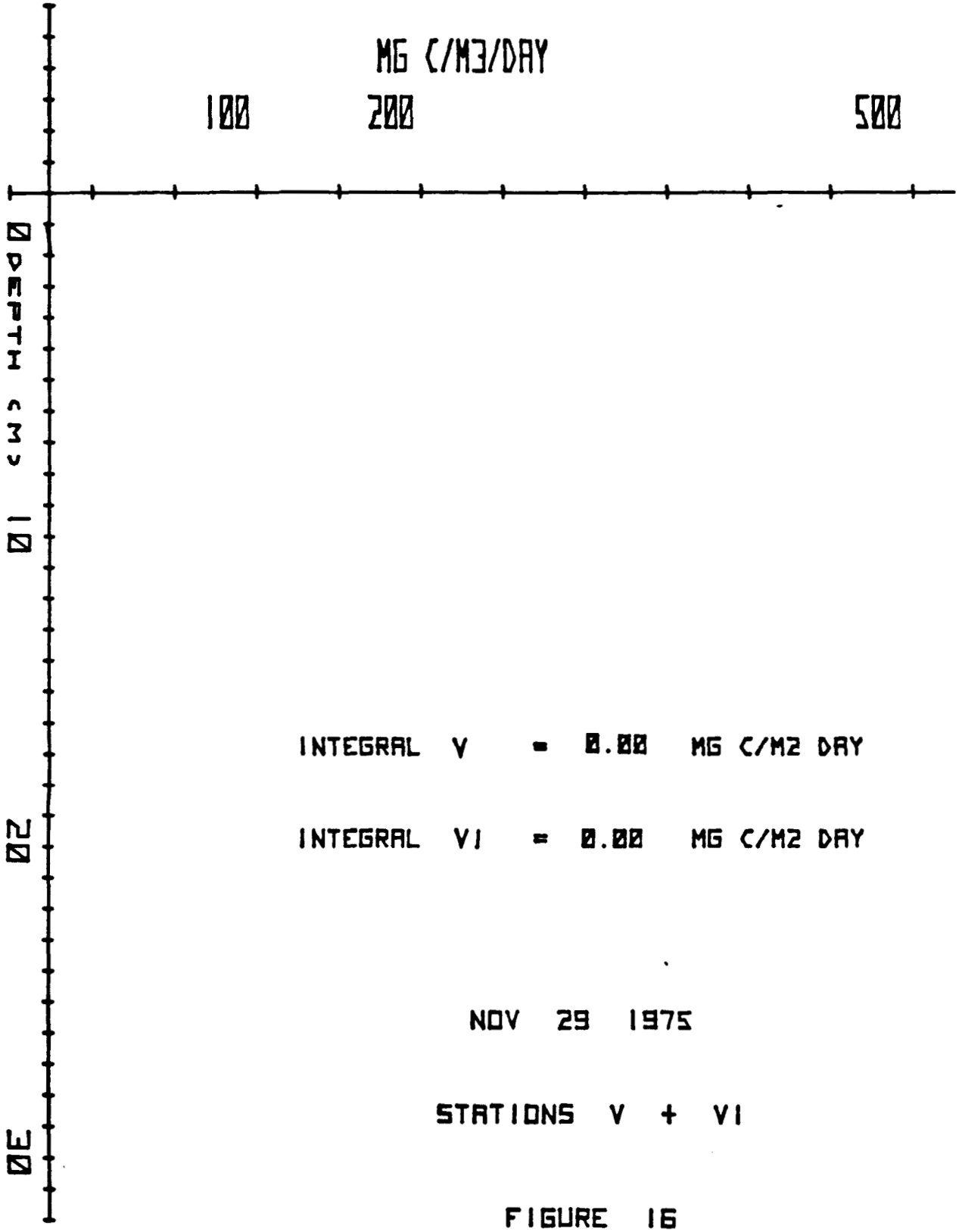
FIGURE 14



SEP 25 1975

STATION VII

FIGURE 15



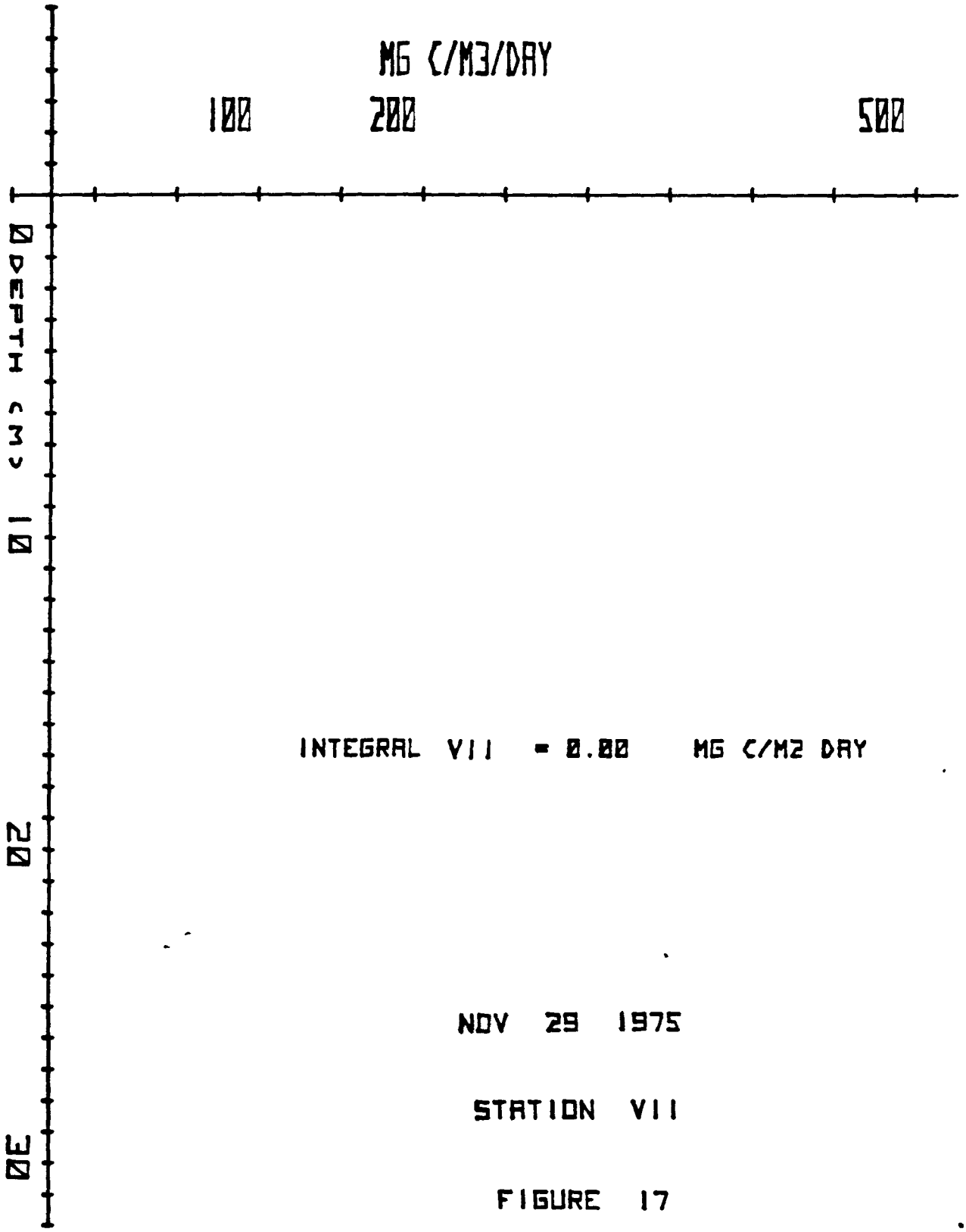
INTEGRAL V = 0.00 MG C/M2 DAY

INTEGRAL VI = 0.00 MG C/M2 DAY

NOV 29 1975

STATIONS V + VI

FIGURE 16



INTEGRAL VII = 0.00 MG C/M2 DAY

NOV 29 1975

STATION VII

FIGURE 17

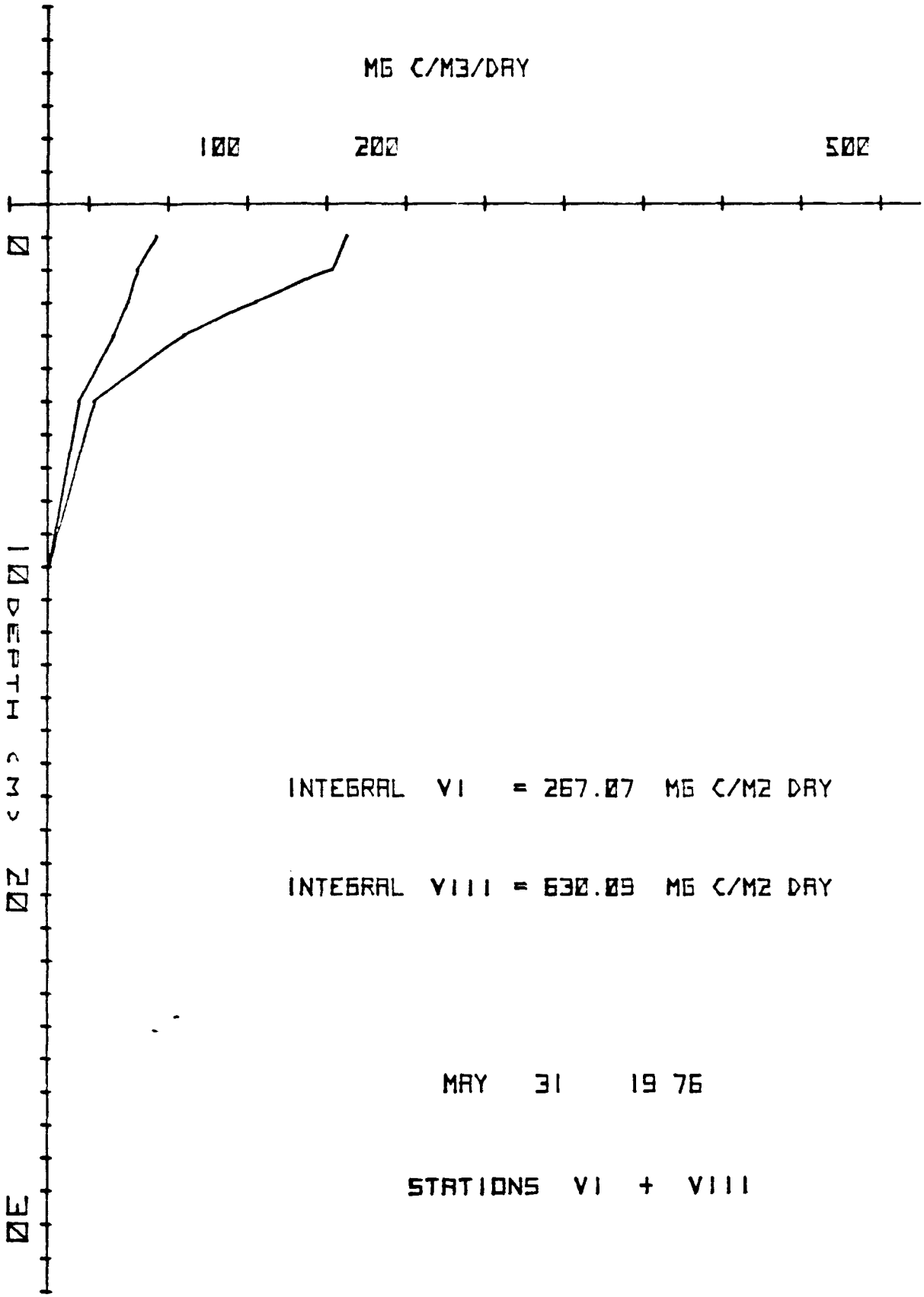

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH CM
INTEGRAL VI = 267.07 MG C/M2 DAY
INTEGRAL VIII = 630.09 MG C/M2 DAY
MAY 31 19 76
STATIONS VI + VIII

FIGURE 18

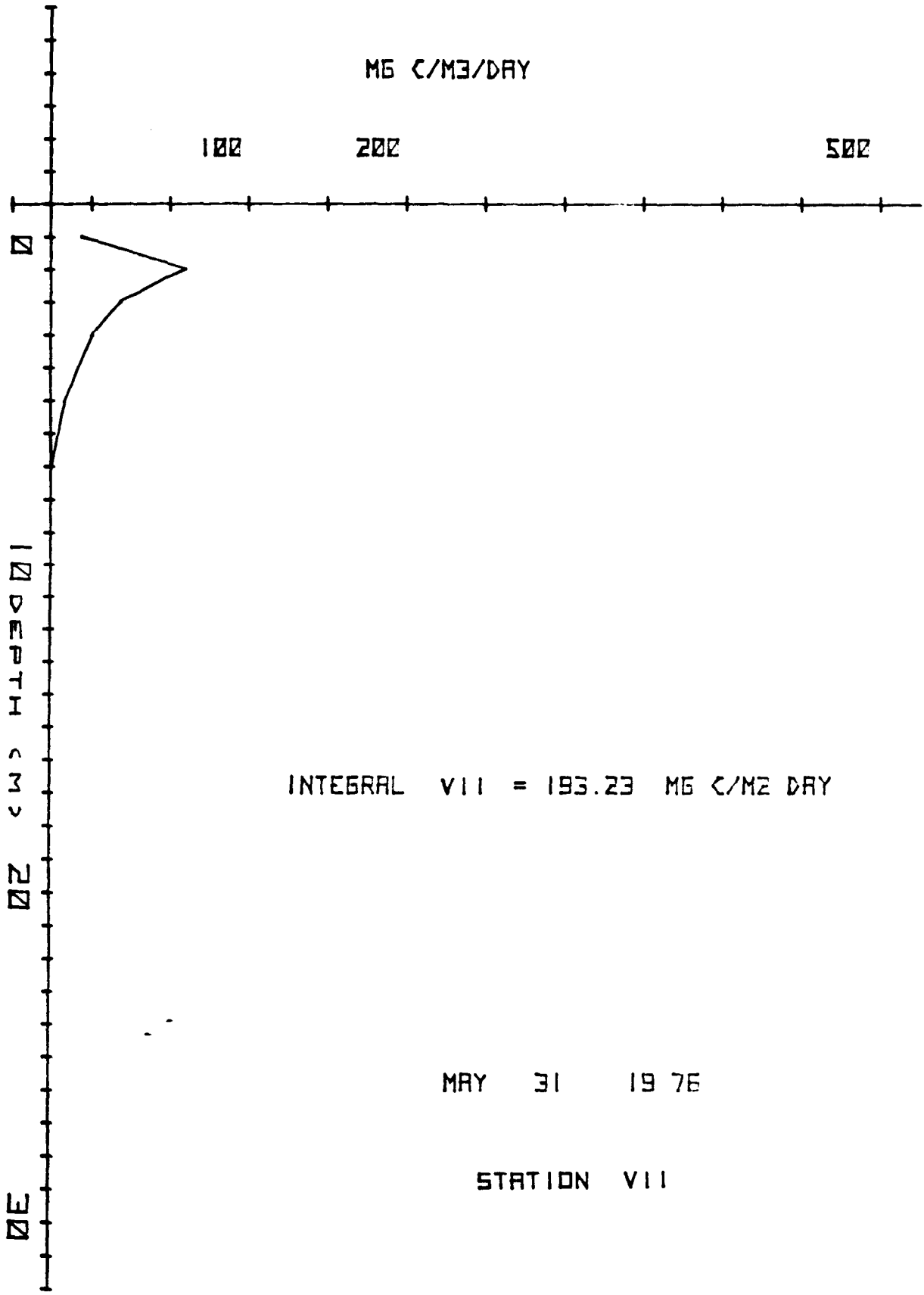

MG C/M3/DAY
100
200
500
0
10
20
30
DEPTH (M)
INTEGRAL VII = 193.23 MG C/M2 DAY
MAY 31 1976
STATION VII

FIGURE 19

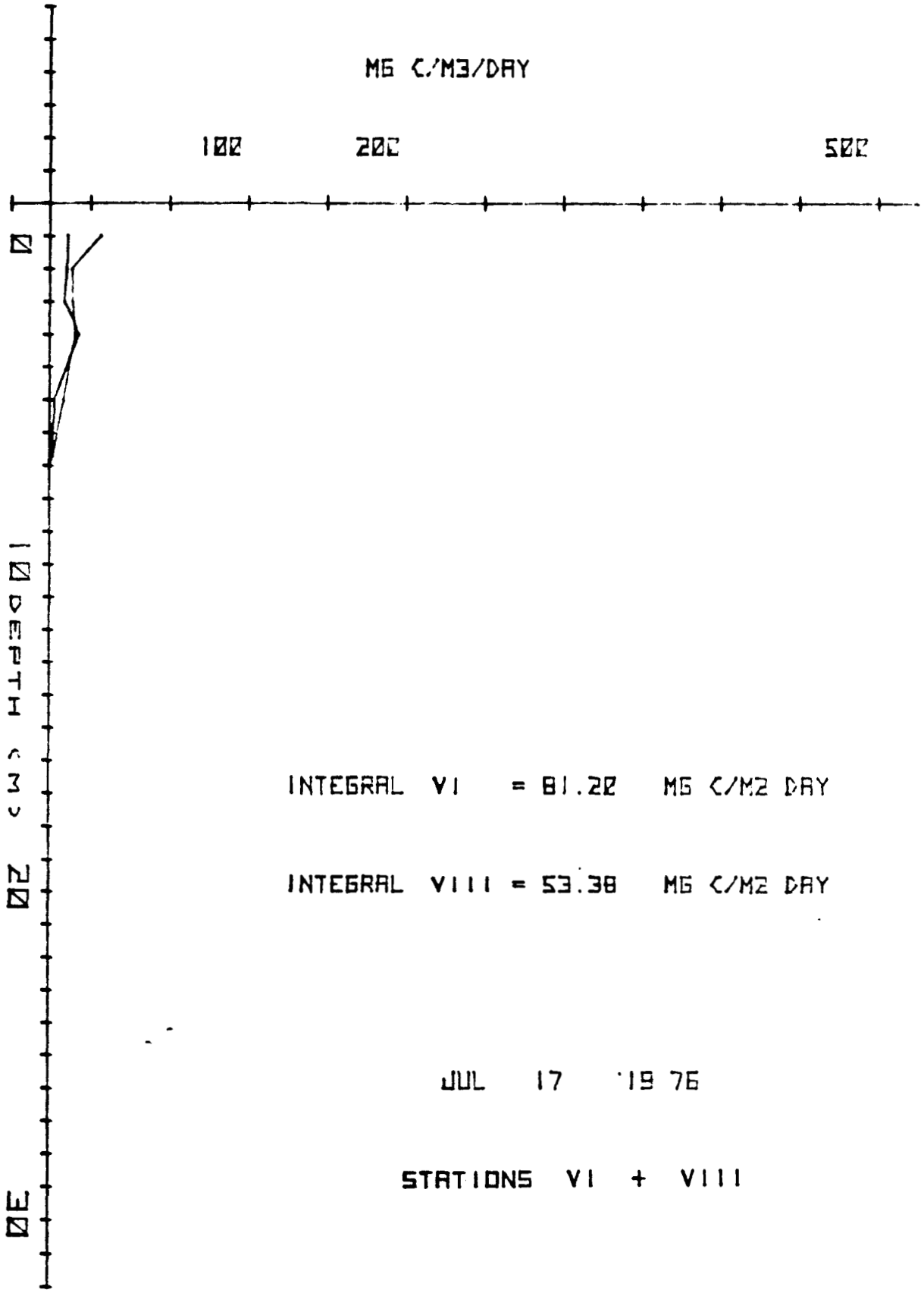

MG C/M3/DAY
100
200
500
0
100
200
300
DEPTH (M)
INTEGRAL VI = 81.20 MG C/M2 DAY
INTEGRAL VIII = 53.38 MG C/M2 DAY
JUL 17 1976
STATIONS VI + VIII

FIGURE 20

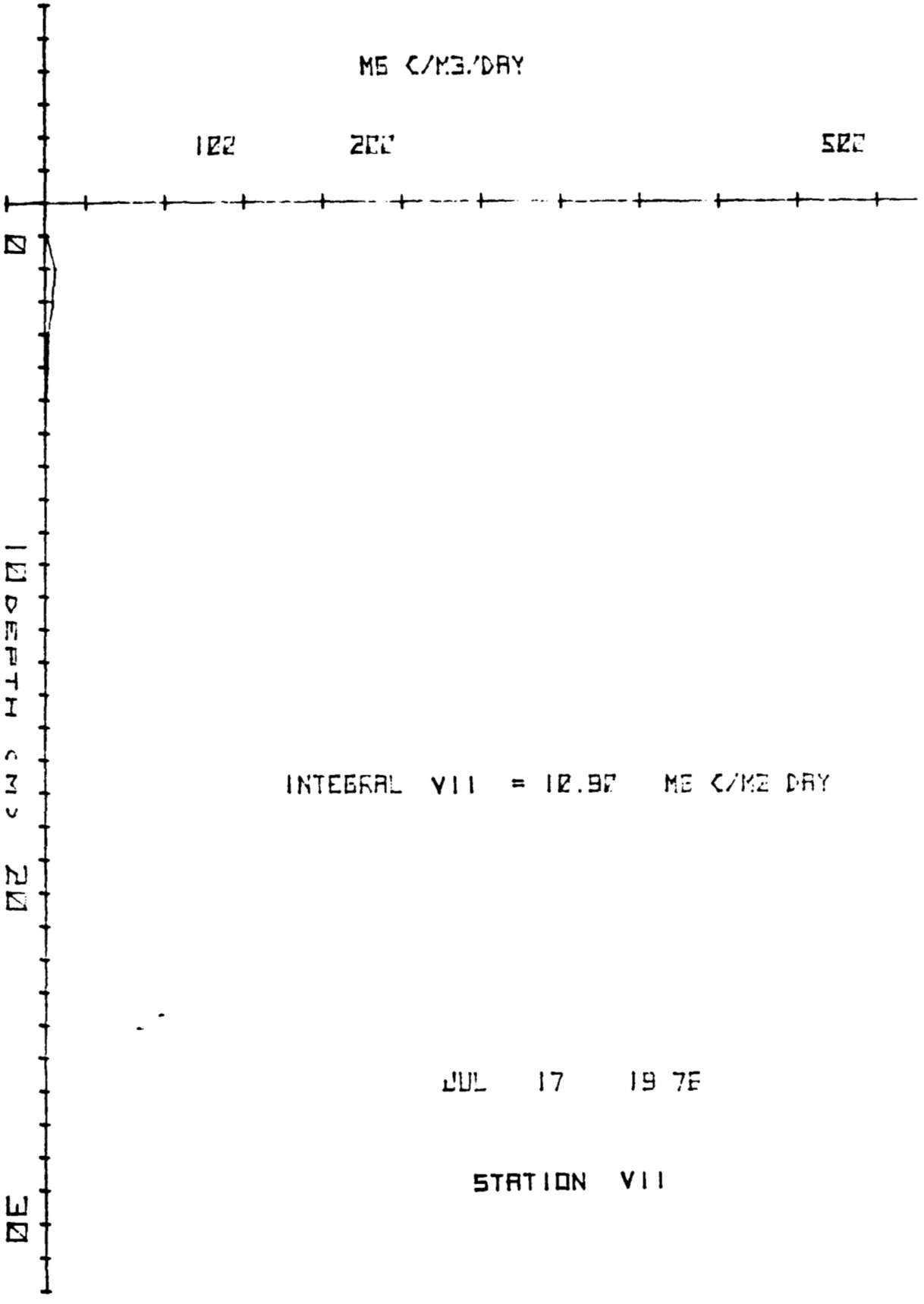

MG C/M3./DAY
100
200
500
0
100
200
300
DEPTH (M)
INTEGRAL V11 = 10.90 MG C/M2 DAY
JUL 17 1978
STATION V11

FIGURE 21

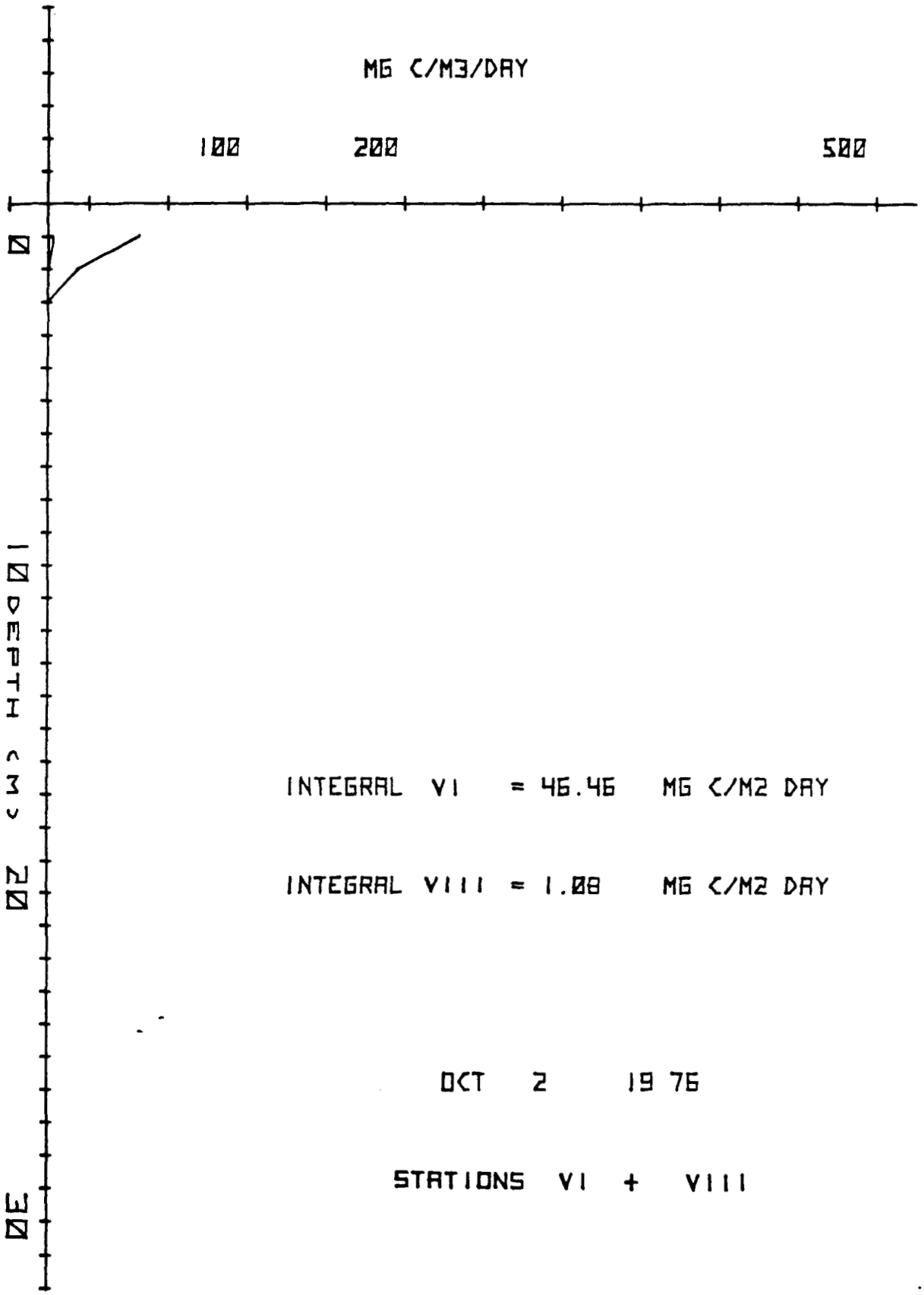

MG C/M3/DAY
100
200
500
0
100
DEPTH (M)
200
300
INTEGRAL VI = 46.46 MG C/M2 DAY
INTEGRAL VIII = 1.08 MG C/M2 DAY
OCT 2 19 76
STATIONS VI + VIII

FIGURE 22

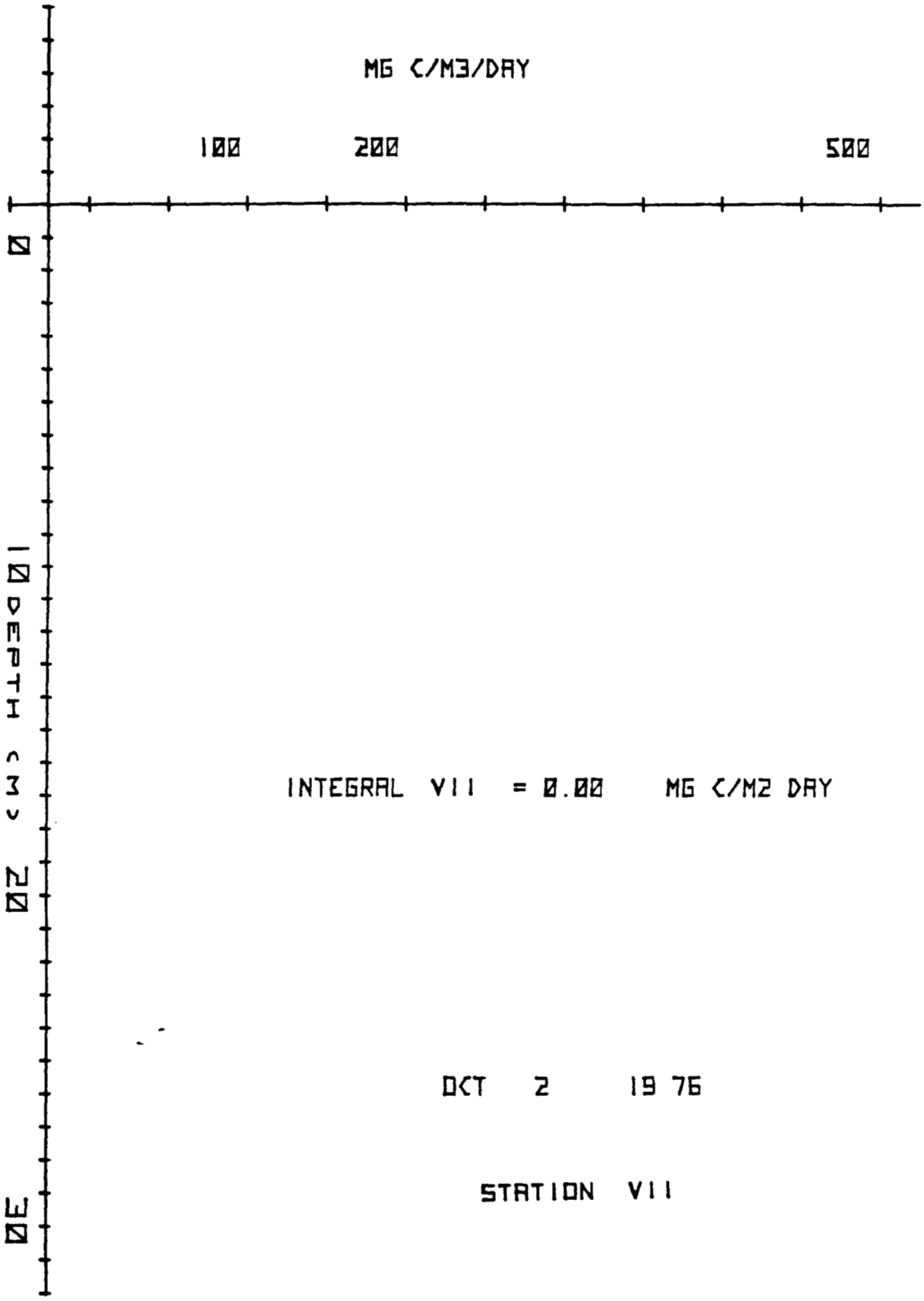

MG C/M3/DAY
100
200
500
0
100
200
300
DEPTH (M)
INTEGRAL V11 = 0.00 MG C/M2 DAY
OCT 2 19 76
STATION V11

FIGURE 23

APPENDIX I

PHYTOPLANKTON STANDING CROP
(1974, 1975, 1976)

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

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	-	*	*	-	-	*	-	-

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	*	*	*	*	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	10	10	20	10	-	-	70
Amphora spp.	-	-	-	-	-	-	-	30
Cocconeis spp.	20	-	60	30	40	10	30	380
Coscinodiscus sp.	-	10	-	-	-	-	-	-
Fragilaria spp.	-	-	-	-	50	-	-	10
Grammatophora sp.	-	-	-	-	-	-	-	10
Licmophora spp.	40	-	70	70	10	30	10	1360
Melosira spp.	-	-	30	-	-	-	-	-
Navicula spp.	70	30	60	70	40	30	20	330
Nitzschia spp.	80	50	120	140	80	40	110	620
N. closterium	40	10	30	20	-	20	30	50
Planktoniella sp.	-	-	-	-	10	-	-	-
Pleurosigma spp.	30	-	10	10	20	-	-	60
Skeletonema costatum	1900	1520	2640	1370	600	1070	740	100
Thalassiosira spp.	20	40	20	30	10	80	50	80
Chrysophyceae	813460	784980	893560	473480	220720	170880	112140	24920
Dinophyceae								
Cochlodinium spp.	90	80	40	70	10	20	10	-
Glenodinium spp.	540	190	400	140	90	10	70	70
Gymnodinium spp.	20	-	-	-	-	-	10	10
Gymnodinoid cell	-	20	10	-	-	-	20	-
Oxytoxum spp.	10	-	-	-	-	-	10	-
Peridinium spp.	10	10	10	10	10	10	20	-
Cryptophyceae	33820	35600	19580	12460	17800	14240	8900	1780
Rhodomonas spp.	140620	140620	129940	621220	58740	48060	3560	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	10	-	-	-	-	80	80	-
Phacus c.f.	10	-	-	-	-	-	-	-
Cyanophyta								
Cyanophyceae								
Oscillatoria c.f.	-	-	500	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	170	180	150	60	90	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Dysteria spp.	10	-	-	-	-	-		
Mesodinium rubrum	220	110	150	130	80	40	20	40
Stenosmella sp.	-	-	-	-	-	10	-	-
Strombidium spp.	1880	2210	2190	970	1170	510	210	120
Tintinnopsis spp.	30	20	20	10	10	50	40	10
Unidentified ciliate	140	30	80	30	20	-	-	-
Unidentified ciliate	-	20	-	-	-	-	-	-
Suctoria								
Trochiscia spp.	230	220	50	40	50	80	10	-
Miscellaneous								
Unidentified cell	110	80	140	110	30	70	30	20
Bacteria	-	X	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	20	-	-	-	-	-	-	10
Amphora spp.	30	10	10	-	-	10	-	-
Cocconeis spp.	170	90	20	60	10	20	10	40
Cyclotella spp.	-	-	-	-	1780	1780	-	-
Fragilaria spp.	-	-	10	-	-	10	10	50
Licmophora spp.	30	60	20	20	20	-	10	60
Melosira spp.	-	30	10	-	-	-	10	-
Navicula spp.	70	70	100	30	70	-	30	40
Nitzschia spp.	70	200	180	90	70	100	170	190
N. closterium	10	30	-	20	10	20	10	-
Pleurosigma spp.	50	80	100	40	10	20	10	-
Planktoniella spp.	-	-	-	-	-	-	10	10
Skeletonema costatum	2810	2880	3830	2170	2400	880	180	190
Thalassiosira spp.	50	110	100	180	20	30	40	20
Chrysophyceae	165540	1911720	1747960	1639380	776080	124600	37380	21360
Dinobryon sp.	-	-	-	-	-	10	-	-
Dinophyceae								
Cochlodinium spp.	40	10	60	10	30	20	40	-
Glenodinium spp.	50	20	30	50	60	60	80	30
Gymnodinium spp.	20	-	20	20	10	-	-	
Gymnodinoid cell	-	-	-	10	80	-	20	-
Oxytoxum spp.	40	10	30	10	30	10	-	10
Peridinium spp.	-	-	20	-	20	-	-	-
Cryptophyceae	39160	51620	40940	42720	33820	5340	5340	1780
Rhodomonas spp.	10680	21360	24920	32040	14240	7120	3560	3560
Chlorophyta								
Euglenophyceae								
Euglena c.f.	30	10	50	10	50	30	30	20
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	-	-	300	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	10	20	-	10	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Dysteria spp.	10	-	10	-	10	-	-	-
Mesodinium rubrum	140	200	190	230	170	120	90	50
Strombidium spp.	1810	1520	1720	1480	110	420	60	10
S. strobilis	10	-	10	10	10	10	-	-
Tintinnopsis spp.	40	70	60	-	10	10	40	10
Unidentified ciliate	140	220	230	250	130	-	10	-
Suctoria								
Trochiscia spp.	90	180	230	260	50	20	-	10
Miscellaneous								
Unidentified cell	40	60	70	70	-	40	40	30
Unidentified cell	-	10	-	-	-	-	-	
Bacteria	X	X	X	X	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

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	-	-	-	-	-		-
Bacteriastrum sp.	10	-	-	-	-	-		-
Cocconeis spp.	-	10	10	10	20	-		-
Coscinodiscus sp.	-	10	-	-	-	-		-
Fragilaria spp.	-	-	-	-	80	10		-
Licmophora spp.	30	10	-	10	40	10		-
Melosira spp.	-	20	-	10	10	-		-
Navicula spp.	90	60	30	80	90	50		330
Naviculoid cell	-	-	-	-	-	-		1780
Nitzschia spp.	170	100	60	60	230	40		70
N. closterium	-	30	10	30	-	-		10
Pleurosigma spp.	20	60	50	40	70	-		10
Skeletonema costatum	960	2490	1730	1920	370	280		-
Thalassiosira spp.	50	70	140	90	20	10		10
Unidentified filament	-	-	240	-	50	-		-
Unidentified filament	-	-	500	-	-	-		-
Chrysophyceae	190460	142400	165540	81880	64080	64080		17970
Dinophyceae								
Cochlodinium spp.	10	-	-	10	50	20		30
Glenodinium spp.	30	50	100	120	130	70		40
Gymnodinium spp.	-	30	50	50	30	10		-
Gymnodinoid cell	-	-	-	-	10	-		-
Oxytoxum spp.	30	-	10	50	350	130		10
Peridinium spp.	-	30	20	80	30	-		10
Cryptophyceae	8900	3560	7120	7120	8900	8900		3560
Rhodomonas spp.	-	-	-	-	1780	-		-
Chlorophyta								
Chlorophyceae								
Unidentified cell	-	-	-	200	-	-		-
Euglenophyceae								
Euglena c.f.	140	550	970	1240	110	40		0
Ciliata								
Didinium spp.	-	50	120	80	20	-		-
Dysteria spp.	-	30	10	30	10	-		-
Mesodinium rubrum	20	150	350	250	130	40		30
Stenosmella spp.	40	-	-	-	-	10		10
Strombidium spp.	1340	4720	6990	6730	1210	140		130
Tiarina spp.	-	-	20	20	-	10		
Tintinnopsis spp.	-	-	50	60	50	-		
Unidentified ciliate	250	380	240	230	50	-		
Unidentified ciliate	-	-	10	-	-	-		

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

May 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia spp.	*40*	*210*	*150*	*150*	*80*	*30*		*60*
Miscellaneous								
Unidentified cell	-	*40*	*20*	*120*	*90*	*40*		*10*
Unidentified cell	-	-	-	*30*	-	*10*		-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora sp.	-	-	-	-	-	-	10	-
Cocconeis spp.	40	-	-	-	-	10	20	-
Chaetoceros spp.	90	50	-	-	-	-	-	-
Cyclotella spp.	-	1780	-	-	-	-	1780	-
Licmophora sp.	10	-	-	-	-	-	-	-
Melosira spp.	20	20	40	-	-	-	-	-
Navicula spp.	6	20	40	-	-	50	50	10
Nitzschia spp.	170	60	60	60	10	30	80	50
N. closterium	20	-	20	-	-	-	10	10
Pleurosigma spp.	-	90	-	10	-	-	-	
Skeletonema costatum	890	300	1590	450	60	750	1250	160
Thalassiosira spp.	20	-	-	10	-	-	20	20
Chrysophyceae	199360	30260	158420	39160	14240	33820	37380	32040
Dinophyceae								
Cochlodinium spp.	40	-	-	-	-	-	-	-
Glenodinium spp.	40	40	10	-	-	-	10	-
Oxytoxum sp.	-	-	-	-	-	-	-	10
Peridinium spp.	20	-	10	10	-	-	-	-
Cryptophyceae	44500	8900	16020	3560	-	3560	8900	1780
Rhodomonas spp.	8900	3560	1780	-	-	5340	-	1780
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	330	-	-	-	-	-	-	-
Unidentified cell	10	10	10	-	10	-	10	-
Unidentified cell	220	-	-	-	-	-	-	-
Euglenophyceae								
Euglena c.f.	40	710	80	10	20	30	10	10
Silicoflagellata								
Distephanus spp.	50	-	20	30	-	-	-	-
Ciliata								
Mesodinium rubrum	610	10	10	-	-	20	-	-
Stenosmella spp.	-	-	-	10	-	10	10	-
Strombidium spp.	330	60	450	20	-	40	-	10
Tintinnopsis spp.	20	-	-	-	-	20	-	-
Unidentified ciliate	-	-	-	-	-	-	10	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

June 1975

Data Expressed as Total Count/100 ml

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

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

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	30	-	60	80	180	30	20
Cocconeis spp.	10	-	-	20	10	10	-	-
Coscinodiscus spp.	10	-	-	20	10	20	-	-
Fragilaria spp.	-	-	-	-	-	-	30	-
Navicula spp.	-	30	10	10	80	90	40	30
Nitzschia spp.	-	70	30	70	90	170	40	20
N. closterium	-	-	-	30	10	50	10	-
Pleurosigma spp.	-	-	-	20	-	60	-	-
Skeletonema costatum	1890	2140	1030	4520	1850	5710	2570	300
Thalassiosira spp.	-	-	-	30	10	10	20	-
Chrysophyceae	24920	110360	12460	553580	412960	688860	128160	37380
Dinophyceae								
Glenodinium spp.	-	-	10	10	10	10	10	30
Peridinium spp.	-	-	-	10	10	10	-	10
Cryptophyceae	3560	3560	-	21360	10680	14240	8900	3560
Rhodomonas spp.	-	-	-	1780	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	20	-	-	10	40	10	10
Cyanophyta								
Cyanophyceae								
Oscillatoria c.f.	450	-	-	-	-	350	-	-
Silicoflagellata								
Distephanus sp.	-	-	-	10	-	-	-	-
Ciliata								
Strombidium spp.	20	100	10	170	40	40	70	50
Unidentified ciliate	-	10	10	20	10	10	20	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

June 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	-	-	10	10	30	-
Cocconeis sp.	-	-	10	-	-	-	-	-
Cyclotella spp.	-	-	-	-	-	-	-	1780
Licmophora sp.	-	-	-	-	-	-	10	-
Leptocylindrus spp.	60	-	-	-	-	-	-	-
Melosira spp.	-	-	-	20	-	10	-	-
Navicula spp.	110	130	90	210	90	90	60	10
Nitzschia spp.	370	180	220	160	70	100	20	40
N. closterium	20	10	-	-	10	10	-	10
Pleurosigma spp.	1530	1440	770	720	320	180	30	50
Skeletonema costatum	-	50	60	170	160	20	-	50
Thalassiosira sp.	-	-	-	10	-	-	-	-
Chrysophyceae	4930600	2242800	2634400	254500	1530800	2906740	1459600	268780
Dinobryon sp.	-	-	-	-	-	-	-	10
Dinophyceae								
Glenodinium spp.	10	-	10	30	40	40	40	-
Oxytoxum spp.	-	-	10	10	-	-	30	-
Peridinium spp.	-	10	-	-	-	20	10	-
Cryptophyceae	49840	30260	78320	55180	28480	19580	30260	8900
Rhodomonas	1780	-	-	1780	-	1780	10680	-
Chlorophyta								
Chlorophyceae								
Unidentified cell	180	-	-	-	-	-	-	-
Unidentified cell	160	20	70	80	-	80	90	-
Euglenophyceae								
Euglena c.f.	10	-	10	90	40	30	60	-
Phacus c.f.	10	-	-	-	-	-	-	-
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	1190	830	1630	460	-	-	-	-
Ciliata								
Dysteria spp.	-	10	60	40	40	-	-	-
Mesodinium rubrum	20	20	60	-	50	30	40	20
Strombidium spp.	820	210	430	550	6880	370	90	30
Unidentified ciliate	30	390	1220	970	1120	900	30	-
Unidentified ciliate	40	-	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

June 1975

Data Expressed as Total Count/100 ml

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

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	20	-	-	-	-	-	-	-
Cocconeis spp.	20	-	-	10	-	-	20	10
Coscinodiscus spp.	20	10	-	10	10	30	10	10
Cyclotella spp.	1780	8900	1780	-	3560	1780	3560	1780
Licmophora spp.	-	-	-	-	-	-	20	-
Melosira spp.	-	40	-	30	-	-	-	-
Navicula spp.	10	-	-	20	-	10	20	10
Nitzschia spp.	280	620	310	290	280	310	200	290
N. closterium	-	-	-	10	-	10	10	10
Skeletonema costatum	410	200	100	170	70	140	1440	800
Thalassiosira spp.	30	50	30	50	10	60	20	20
Chrysophyceae	649700	487720	439660	338200	154860	131720	51620	35600
Dinophyceae								
Glenodinium spp.	180	80	-	30	10	30	10	-
Gymnodinoid cell	50	40	-	10	-	20	-	-
Peridinium spp.	130	80	30	10	-	30	-	10
Cryptophyceae	64080	71200	23140	33820	16020	14240	5340	5340
Rhodomonas spp.	224280	160200	174440	190460	131720	56960	3560	3560
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	-	-	-	-	120	10	-	-
Euglenophyceae								
Euglena c.f.	120	250	-	-	-	20	-	-
Silicoflagellata								
Distephanus spp.	210	140	120	260	140	100	50	10
Ciliata								
Mesodinium rubrum	50	20	-	10	10	-	-	-
Strombidium spp.	-	560	20	360	220	100	-	10
S. strobilis	70	70	-	20	40	70	-	-
Tintinnopsis spp.	10	10	-	10	-	-	-	-
Unidentified ciliate	100	150	10	-	10	-	-	-
Unidentified ciliate	10	-	-	-	-	-	-	-
Suctoria								
Trochiscia spp.	-	10	-	10	-	-		-
Miscellaneous								
Unidentified cell	-	-	-	20	-	110	10	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora spp.	-	10	-	-	-	-	-	10
Chaetoceros spp.	30	30	40	40	20	80	30	50
Cocconeis spp.	20	40	-	10	10	-	-	20
Coscinodiscus spp.	-	20	-	40	-	50	20	10
Cyclotella spp.	-	-	10680	10680	19580	8900	10680	5340
Licmophora spp.	-	-	-	-	20	-	-	50
Melosira spp.	-	-	20	-	-	-	-	20
Navicula spp.	150	80	70	20	-	40	40	100
Nitzschia spp.	80	110	570	690	540	880	1330	930
N. closterium	-	-	20	30	10	-	10	30
Pleurosigma spp.	10	10	30	10	20	-	-	-
Skeletonema costatum	60	2380	10030	12380	14210	9160	19160	14990
Thalassiosira spp.	20	30	80	60	90	110	60	70
Chrysophyceae	1149880	1092920	681740	509080	309720	172660	99680	69420
Dinobryon sp.	-	-	-	10	-	-	-	-
Dinophyceae								
Cochlodinium spp.	10	10	-	-	-	-	20	10
Glenodinium spp.	90	80	40	30	70	80	80	40
Gymnodinoid cell	10	-	10	20	10	10	-	30
Peridinium spp.	40	40	90	40	30	10	20	-
Cryptophyceae	58740	32040	39160	17800	21360	8900	16020	10680
Rhodomonas spp.	121040	78320	81880	49840	39160	21360	17800	10680
Chlorophyta								
Chlorophyceae								
Unidentified cell	-	-	-	-	450	-	-	-
Euglenophyceae								
Euglena c.f.	180	120	70	130	50	10	10	10
Silicoflagellata								
Distephanus spp.	50	250	90	60	60	100	80	40
Ciliata								
Mesodinium rubrum	-	90	20	-	20	-	-	-
Platycola c.f.	-	-	-	-	10	-	-	-
Stenosmella sp.	-	-	-	-	-	-	-	10
Strombidium spp.	340	1310	960	920	680	280	80	90
S. strobilis	50	70	40	10	90	30	10	20
Tintinnopsis spp.	10	-	-	20	-	10	-	10
Unidentified ciliate	1460	2020	1010	1060	470	200	100	50
Unidentified ciliate	570	960	450	380	240	60	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

July 1975

Data Expressed as Total Count/100 ml

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

NEROUTSOS INLET PHYTOPLANKTON SAMPLES — STATION VII

July 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	10	10	-	-	-	-	-
Amphiprora spp.	20	-	-	-	-	-	-	-
Amphora sp.	-	-	10	-	-	-	-	-
Cocconeis spp.	20	30	10	30	-	-	20	10
Coscinodiscus spp.	20	-	10	-	-	-	-	10
Fragilaria spp.	-	-	20	30	70	-	50	30
Licmophora spp.	10	10	20	20	10	-	10	-
Melosira spp.	-	-	-	40	40	-	-	-
Navicula spp.	60	40	100	50	10	-	-	-
Nitzschia spp.	160	190	240	120	60	90	140	90
N. closterium	-	20	-	20	-	10	10	-
Pleurosigma spp.	20	120	80	80	50	20	10	-
Thalassiosira spp.	40	10	10	20	40	40	10	20
Chrysophyceae	286580	590960	539340	633680	165540	71200	64080	76540
Dinophyceae								
Amphidinium sp.	-	-	-	-	-	10	-	-
Glenodinium spp.	60	20	20	-	40	50	60	50
Gymnodinoid cell	-	-	-	-	10	40	20	40
Oxytoxum sp.	-	-	-	-	-	-	10	-
Peridinium spp.	20	-	10	30	-	-	20	-
Cryptophyceae	19580	12460	17800	10680	10680	12460	7120	8900
Rhodomonas spp.	3560	8900	7120	7120	5340	5340	1780	5340
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	-	10	-	-	10	20
Silicoflagellata								
Distephanus spp.	-	-	10	-	10	-	-	-
Ciliata								
Euplotes c.f.	-	-	-	10	-	-	-	-
Strombidium spp.	210	210	180	200	2230	550	190	280
Unidentified ciliate	590	820	780	690	60	10	-	-
Unidentified ciliate	-	-	-	-	30	-	-	-
Unidentified ciliate	640	1050	850	1340	100	-	-	-
Miscellaneous								
Unidentified cell	10	-	-	-	130	120	30	-
Unidentified cell	10	-	-	-	40	20	-	-
Collar flagellate	5340	-	-	-	-	-	-	10680
Bacteria	X	X	X	X	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	30	-	20	20	-	-	-	-
Strombidium spp.	390	10	50	10	90	10	20	-
Tintinnopsis sp.	-	-	-	-	-	-	10	-
Unidentified ciliate	10	-	-	-	-	-	-	-
Miscellaneous								
Collar flagellate	3560	5340	8900	5340	-	3560	7120	5340

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

August 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 sp.	-	-	-	-	10	-	-	-
Chaetoceros spp.	-	-	-	-	-	10	40	-
Cocconeis spp.	-	20	-	-	-	20	10	10
Cyclotella spp.	24920	16020	16020	19580	12460	5340	-	-
Grammatophora spp.	-	-	-	-	-	-	-	40
Leptocylindrus spp.	-	-	-	20	-	-	-	-
Navicula sp.	-	-	-	-	-	-	-	10
Nitzschia spp.	230	180	180	250	310	260	180	20
N. closterium	30	20	20	10	50	10	20	10
Pleurosigma spp.	10	-	-	10	-	-	-	-
Rhizosolenia robusta	100	10	20	20	60	50	40	10
Thalassiosira spp.	20	10	30	20	60	40	10	50
Chrysophyceae	259880	218940	174440	144180	172660	129940	151300	339720
Dinobryon sp.	-	-	10	-	-	-	-	-
Dinophyceae								
Cochlodinium sp.	-	-	10	-	-	-	-	-
Dinophysis spp.	70	20	-	10	10	-	10	-
Glenodinium spp.	140	30	-	30	30	20	10	-
Gymnodinium sp.	10	-	-	-	-	-	-	-
Gymnodinoid cell	20	-	10	-	-	-	-	-
Peridinium spp.	50	10	30	20	20	20	-	-
Cryptophyceae	49840	44500	49840	23140	24920	26700	28480	7120
Rhodomonas spp.	37380	46280	10680	12460	12460	7120	8900	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	850	190	-	30	60	60	-	-
Silicoflagellata								
Distephanus spp.	10	10	20	-	10	-	-	-
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

August 1975

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	20	-	-	-
Coscinodiscus sp.	-	-	-	-	-	-	10	-
Cyclotella spp.	14240	12460	10680	10680	3560	3560	-	-
Licmophora sp.	-	-	-	-	-	-	-	10
Melosira spp.	20	-	-	-	-	-	-	-
Navicula spp.	-	-	10	-	-	10	10	10
Naviculoid cell	14240	10680	10680	5340	-	1780	-	-
Nitzschia spp.	120	110	120	130	160	170	230	120
N. closterium	-	-	10	10	10	-	-	-
Rhizosolenia robusta	-	20	30	-	20	-	20	10
Thalassiosira spp.	-	30	-	10	-	10	20	-
Chrysophyceae	234960	291920	243860	201140	167320	122820	176220	121040
Dinophyceae								
Dinophysis	-	10	-	20	-	-	-	-
Glenodinium spp.	340	30	30	10	30	10	-	-
Gymnodinoid cell	480	-	-	-	20	-	-	-
Peridinium spp.	80	-	-	10	20	-	20	10
Cryptophyceae	44500	58740	35600	33820	28480	19580	17800	24920
Rhodomonas	21360	30260	23140	21340	19580	7120	3560	3560
Chlorophyta								
Euglenophyceae								
Euglena c.f.	210	400	30	-	-	10	-	-
Phaeophyta								
Unidentified cell	20	100	-	60	60	60	30	110
Silicoflagellata								
Distephanus spp.	-	10	-	30	-	-	-	-
Ciliata								
Mesodinium rubrum	340	10	40	60	100	10	-	-
Stenosmella spp.	-	-	-	-	-	20	-	-
Strombidium spp.	770	80	10	50	90	20	10	-
Unidentified ciliate	10	20	-	-	-	-	-	-
Miscellaneous								
Unidentified cell	10	-	-	-	-	-	-	-
Collar flagellate	1780	-	3560	1780	10680	1780	3560	1780

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

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	-	10	-	-	10
Amphiprora	10	-	20	-	-	-	-	10
Chaetoceros spp.	6030	4970	3220	1350	1510	290	-	80
Cocconeis sp.	-	-	10	-	-	-	-	-
Corethron spp.	-	30	20	-	20	-	-	-
Coscinodiscus spp.	120	140	80	50	50	20	-	-
Cyclotella spp.	-	-	1780	1780	3560	-	-	-
Gyrosigma spp.	10	-	-	-	10	10	-	-
Melosira spp.	20	60	380	10	-	-	10	20
Navicula spp.	40	50	50	40	50	10	-	20
Nitzschia spp.	250	250	270	150	210	150	60	60
N. closterium	10	-	-	-	-	-	-	10
Rhizosolenia spp.	-	-	-	-	30	-	-	-
R. robusta	20	-	20	-	10	-	-	-
Skeletonema costatum	-	-	-	-	-	-	80	30
Thalassiosira spp.	20	20	10	-	-	20	-	-
Chrysophyceae	240300	293700	158420	90780	83660	56960	147740	329300
Dinobryon sp.	-	-	-	-	-	10	-	-
Dinophyceae								
Cochlodinium spp.	10	-	-	-	-	-	-	50
Dinophysis spp.	240	130	50	30	150	-	-	-
Glenodinium spp.	110	110	80	40	20	60	110	120
Gymnodinium sp.	-	-	-	10	-	-	-	-
Gymnodinoid cell	1080	120	-	50	40	140	220	30
Noctiluca scintillans	-	10	-	-	-	-	-	-
Peridinium spp.	230	110	90	10	20	20	10	-
Cryptophyceae	17800	24920	21360	7120	8900	32040	19580	16020
Rhodomonas spp.	3560	7120	1780	1780	1780	1780	3560	5340
Cyanophyta								
Cyanophyceae								
Anabaena c.f.	-	-	-	-	-	-	-	350
Oscillatoria c.f.	200	-	-	-	-	450	-	-
Phaeophyta								
Unidentified cell	40	30	-	10	10	80	100	200
Silicoflagellata								
Distephanus spp.	-	10	30	100	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

August 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	-	-	10
Ciliata								
Mesodinium rubrum	40	-	-	50	10	-	-	80
Stenosmella spp.	-	-	-	-	-	30	80	
Strombidium spp.	210	50	130	-	30	150	-	200
Unidentified ciliate	80	20	10	130	100	140	100	40
Unidentified ciliate	-	-	-	-	-	-	-	10
Miscellaneous								
Unidentified cell	20	-	-	30	-	50	40	10
Collar flagellate	1780	-	-	-	890	3560	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	10	10	-	-	-	-	-
Biddulphia longicruris	-	20	-	50	-	-	-	10
Chaetoceros spp.	4070	1590	3470	2100	2730	630	4530	2180
encysted Chaetoceros	40	40	120	20	120	100	90	30
Cocconeis spp.	-	60	30	10	20	20	-	50
Coscinodiscus spp.	230	320	210	140	310	40	240	70
Cyclotella spp.	3560	1780	-	1780	-	-	3560	-
Ditylum sp.	10	-	-	-	-	-	-	-
Eucampia spp.	-	60	60	90	90	10	40	-
Leptocylindrus spp.	150	50	390	30	570	220	100	60
Licmophora spp.	-	-	-	10	-	-	10	10
Navicula spp.	40	130	60	110	100	130	80	90
Nitzschia spp.	1700	1810	230	1110	2250	1160	1010	990
N. closterium	30	60	40	40	50	60	80	-
Rhizosolenia spp.	70	70	160	40	50	50	90	40
R. delicatula	400	860	1470	960	1340	1070	1560	920
R. fragilissima	10	10	10	10	40	-	50	20
R. robusta	20	-	20	-	-	-	10	-
Schroederella sp.	110	-	-	-	-	-	40	-
Skeletonema costatum	2460	2630	340	1020	1030	440	1490	130
Stephanopyxis spp.	-	-	10	10	-	-	20	-
Thalassionema nitzschoides	50	100	-	80	50	30	-	-
Thalassiosira spp.	150	300	140	200	150	30	100	70
T. subtilis	160	360	-	450	1360	310	740	150
Chrysophyceae	1619800	784980	1270920	519760	1842300	436100	1820940	544680
Dinophyceae								
Amphidinium sp.	-	-	-	-	10	-	-	-
Ceratium sp.	10	-	-	-	-	-	-	-
Dinophysis spp.	160	30	10	10	20	30	10	20
Glenodinium spp.	500	360	310	160	210	190	50	160
Gymnodinium spp.	30	-	-	-	50	-	10	-
Gymnodinium cyst	-	-	-	-	-	-	10	-
Gymnodinoid cell	140	30	100	50	60	30	10	10
Noctiluca scintillans	10	-	10	10	10	-	-	-
Oxytoxum spp.	80	-	-	-	-	-	-	-
Peridinium spp.	200	80	10	30	50	20	10	10
Prorocentrum spp.	40	10	-	10	10	-	-	10
Cryptophyceae	121040	48060	37380	10680	35600	21360	64080	17800
Rhodomonas spp.	7120	12460	7120	5340	1780	1780	10680	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	10	60	10	-	30	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Phaeophyta								
Phaeophyceae								
Unidentified cell	20	40	10	20	-	30	40	-
Radiolaria								
Unidentified radiolarian	-	-	-	-	10	-	-	-
Silicoflagellata								
Ebria spp.	120	-	30	-	80	-	-	-
Ciliata								
Mesodinium rubrum	240	40	10	-	50	-	50	10
Parafavella parundentata	-	-	10	-	-	-	-	-
Parundella sp.	10	-	-	-	-	-	-	-
Stentor multiformis	20	-	-	-	-	-	-	-
Strombidium spp.	140	180	-	40	120	50	10	80
S. strobilis	20	-	-	-	-	-	-	-
Tiarina c.f.	-	30	10	20	30	-	20	-
Tintinnopsis sp.	-	-	-	-	-	-	-	10
Trichophrya columbiae	10	-	-	-	-	-	-	-
Unidentified ciliate	110	-	10	20	50	20	-	20
Unidentified ciliate	-	-	-	-	10	-	-	-
Suctoria								
Trochiscia brachiolata	-	-	10	-	-	-	-	-
Miscellaneous								
Planktonic Crustacean	40	40	-	-	-	-	30	-
Unidentified cell	10	210	20	10	-	10	-	10
Unidentified cell	10	-	-	-	-	-	-	-
Unidentified cyst	100	-	-	-	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphiprora spp.	-	10	-	10	-	-	-	-
Amphora sp.	-	-	-	-	-	-	-	10
Biddulphia aurita	-	10	-	-	-	-	-	-
Chaetoceros spp.	260	210	90	90	190	220	60	60
encysted Chaetoceros	10	40	30	30	-	-	30	-
Cocconeis spp.	10	20	30	-	10	10	-	10
Coscinodiscus spp.	50	50	50	60	30	30	30	60
Cyclotella spp.	-	1780	1780	-	-	1780	1780	1780
Eucampia spp.	150	-	-	-	-	-	-	20
Grammatophora sp.	-	-	-	10	-	-	-	-
Leptocylindrus spp.	10	-	-	-	120	-	-	-
Licmophora sp.	-	-	-	-	-	-	10	-
Navicula spp.	10	10	10	-	10	-	30	10
Nitzschia spp.	190	110	180	210	230	260	180	90
N. closterium	10	-	-	10	-	-	-	-
Rhizosolenia spp.	-	10	-	20	-	-	10	-
R. delicatula	90	100	-	70	310	230	180	20
R. fragilissima	10	160	-	-	-	-	60	-
Rhoicosphenia sp.	10	-	-	-	-	-	-	-
Skeletonema costatum	-	-	170	440	40	-	-	10
Thalassiosira spp.	20	20	10	30	-	10	10	-
Chrysophyceae	582060	557140	537560	628340	356000	347100	550080	498120
Dinophyceae								
Amphidinium sp.	-	-	-	-	10	-	-	-
Cochlodinium sp.	-	-	-	-	-	-	10	-
Dinophysis spp.	-	30	20	10	-	-	-	-
Glenodinium spp.	20	120	70	80	170	20	-	-
Gymnodinoid cell	40	110	20	40	-	10	10	40
Noctiluca scintillans	-	10	-	-	-	-	-	-
Peridinium spp.	470	150	240	190	330	10	30	-
encysted Peridinium	-	20	-	-	-	-	-	-
Prorocentrum sp.	10	-	-	-	-	-	-	-
Cryptophyceae	65860	42720	92560	64080	42720	44500	64080	69420
Rhodomonas spp.	12460	8900	12460	10680	5340	8900	17800	3560
Chlorophyta								
Chlorophyceae								
Unidentified cell	-	-	-	-	-	-	10	-
Ulva spp.	-	-	-	-	-	-	160	-
Euglenophyceae								
Euglena c.f.	-	50	-	-	20	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Phaeophyta								
Phaeophyceae								
Unidentified cell	80	30	60	80	20	20	30	70
Silicoflagellata								
Distephanus spp.	-	110	-	60	10	90	70	-
Ebria spp.	10	50	20	60	60	30	10	10
Ciliata								
Mesodinium rubrum	40	50	30	20	-	40	50	20
Stenosmella spp.	-	10	10	-	10	-	10	30
Strombidium spp.	20	-	20	-	30	40	-	20
Tintinnopsis spp.	10	-	-	-	10	-	20	10
Unidentified ciliate	20	-	-	10	-	-	-	
Suctoria								
Trochiscia dictyon	-	-	-	-	-	-	-	10
Miscellaneous								
Collar flagellate	1780	16020	3560	7120	7120	3560	-	3560
Planktonic Crustacean	10	10	-	10	10	-	-	-
Unidentified cell	40	10	30	20	140	50	-	10
Unidentified cell	-	-	-	-	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Asteromphalus heptactis	20	30	50	20	-	-	-	10
Chaetoceros spp.	30	-	50	-	-	10	-	-
Cocconeis spp.	10	-	3560	-	-	10	-	-
Coscinodiscus spp.	170	280	180	120	80	70	30	10
Cyclotella spp.	3560	5340	-	1780	-	-	-	-
Ditylum spp.	10	20	-	-	-	20	-	-
Eucampia spp.	-	-	-	20	-	50	-	-
Leptocylindrus spp.	190	610	240	110	160	200	40	60
Melosira spp.	-	-	10	-	-	-	10	-
Navicula spp.	30	-	-	20	20	10	20	20
Nitzschia spp.	90	60	30	100	110	270	70	100
N. closterium	-	-	-	-	10	-	-	10
Pleurosigma spp.	10	10	-	-	-	-	-	10
Rhizosolenia spp.	10	-	10	-	-	-	-	-
R. delicatula	-	10	50	60	-	20	-	-
R. fragilissima	-	-	30	120	-	-	-	-
Skeletonema costatum	20	-	-	-	-	-	-	-
Thalassiosira spp.	-	130	-	20	30	-	40	10
Chrysophyceae	587400	548240	576720	695980	386260	320400	660380	420080
Dinophyceae								
Amphidinium spp.	10	20	40	20	-	20	-	-
Ceratium fusus	-	10	-	-	10	-	-	10
Dinophysis spp.	-	10	-	20	30	10	10	-
Glenodinium spp.	80	240	190	220	170	120	160	650
encysted Glenodinium	460	-	-	270	240	160	-	-
Gymnodinium spp.	-	10	30	-	-	-	-	-
Gymnodinoid cell	-	10	20	10	-	10	10	10
Peridinium spp.	60	240	200	240	360	250	140	40
encysted Peridinium	10	-	-	-	-	-	-	-
Cryptophyceae	56960	64080	81880	46280	32040	28480	49840	67640
Rhodomonas spp.	8900	48060	10680	5340	5340	5340	7120	3560
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	40	-	20	-	-	10	-
Prasinophyceae	40	-	-	-	-	-	-	-
Phaeophyta								
Phaeophyceae								
Unidentified cell	10	30	40	90	30	40	90	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

September 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Radiolaria								
Dictyophimus sp.	-	-	-	-	-	-	10	-
Unidentified radiolarian	-	-	-	-	-	-	10	-
Silicoflagellata								
Ebria spp.	10	-	-	40	10	20	-	-
Ciliata								
Mesodinium rubrum	-	100	140	50	20	30	-	-
Strombidium spp.	120	170	200	40	10	40	10	50
Tiarina sp.	-	-	-	-	-	10	-	-
Tintinnopsis sp.	-	-	10	-	-	-	-	-
Unidentified ciliate	40	40	-	-	-	-	-	-
Suctoria								
Trochiscia dictyon	-	-	-	-	-	10	-	-
Miscellaneous								
Collar flagellate	-	-	-	3560	-	5340	1780	-
Planktonic Crustacean	-	-	20	-	-	20	20	-
Unidentified cell	-	-	10	10	-	-	30	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

November 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.	-	-	-	-	-	-	20	-
Cocconeis sp.	-	-	-	-	10	-	-	-
Coscinodiscus spp.	10	-	-	20	-	10	-	-
Cyclotella spp.	-	-	-	1780	1780	-	-	-
Grammatophora sp.							10	-
Melosira spp.	20	-	-	-	-	-	-	20
Navicula sp.	-	-	-	-	-	-	-	10
Nitzschia spp.	40	20	50	40	20	10	80	70
N. closterium	10	-	-	-	-	-	-	-
Skeletonema costatum	40	-	-	-	-	-	-	-
Thalassionema nitzschoides	-	-	-	-	-	10	20	20
Thalassiosira spp.	10	20	20	-	-	10	-	40
Chrysophyceae	113920	113920	119260	96120	112140	64080	39160	37380
Dinophyceae								
Amphidinium sp.	-	-	10	-	-	-	-	-
Glenodinium spp.	10	20	40	20	50	60	30	30
Gymnodinium spp.	-	-	10	20	-	10	-	-
Cryptophyceae	26700	23140	39160	23140	10680	17800	3560	8900
Rhodomonas spp.	3560	8900	5340	7120	1780	-	1780	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	10	20	10	10	-	-	20
Prasinophyceae	-	-	-	10	-	-	-	-
Silicoflagellata								
Ebria spp.	-	-	-	10	-	10	-	-
Radiolaria								
Dictyophimus spp.	-	-	-	10	-	-	-	20
Unidentified radiolarian	-	-	-	10	-	20	-	-
Ciliata								
Mesodinium rubrum	30	20	10	30	40	-	-	20
Parundella sp.	-	-	10	-	-	-	-	-
Ptychocylis sp.	-	10	-	-	-	-	-	-
Stenosmella sp.	-	-	-	-	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION V

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres .							
	0	1	2	3	5	10	20	30
Ciliata cont.								
Strombidium spp.	20	70	90	70	140	120	70	60
S. strobilis	-	10	10	10	-	10	-	-
Tintinnopsis spp.	100	80	170	80	90	10	-	-
Unidentified ciliate	-	-	10	10	-	-	-	-
Miscellaneous								
Collar flagellate	-	-	-	-	-	-	3560	-
Unidentified cell	-	-	20	-	10	10	10	10

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Asterionella sp.	-	-	-	-	-	-	10	-
Chaetoceros sp.	-	10	-	-	-	-	-	-
Cocconeis spp.	-	10	-	20	-	-	-	10
Coscinodiscus sp.	-	-	-	-	-	-	-	10
Navicula spp.	10	10	-	-	-	-	-	-
Nitzschia spp.	20	30	-	10	20	10	20	50
N. closterium	-	-	-	-	-	-	-	-
Skeletonema costatum	20	-	-	-	-	-	-	-
Thalassionema nitzschoides	-	-	-	-	-	10	20	10
Chrysophyceae	425420	281240	286580	277680	179780	96120	46280	26700
Dinophyceae								
Cochlodinium sp.	-	-	-	-	-	-	10	-
Glenodinium spp.	40	60	60	80	30	40	40	-
Gymnodinium spp.	-	10	-	-	-	-	20	10
Cryptophyceae	133500	83660	78320	74760	51620	21360	7120	8900
Rhodomonas spp.	16020	7120	10680	7120	8900	1780	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	20	-	-	-	-	20	10	-
Silicoflagellata								
Distephanus sp.	-	-	-	-	-	10	-	-
Radiolaria								
Dictyophimus spp.	-	10	-	-	-	-	10	-
Unidentified radiolarian	-	-	-	-	-	-	10	10
Unidentified radiolarian	-	-	-	-	-	-	-	20
Ciliata								
Mesodinium rubrum	40	-	30	10	-	-	10	10
Parundella sp.	-	-	-	-	-	10	-	-
Stenosmella sp.	-	-	-	-	10	-	-	-
Strombidium spp.	150	130	190	260	210	110	70	50
S. strobilis	-	-	10	10	-	-	-	-
Tintinnopsis spp.	40	10	40	-	70	20	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Suctoria								
Trochiscia ovata	-	-	-	-	-	-	-	*10*
Miscellaneous								
planktonic Crustacean	-	-	-	*10*	-	-	-	-
Unidentified cell	-	-	*10*	*30*	-	-	-	-
Unidentified cell	-	-	-	-	*10*	-	*10*	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

November 1975

Data Expressed as Total Count/100 ml

	Depth in Metres							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	20	-	-	-	-	-	-
Biddulphia aurita	-	-	-	-	-	20	-	-
Cocconeis spp.	-	-	-	-	-	-	10	20
Coscinodiscus sp.	-	-	-	-	-	10	-	-
Cyclotella spp.	3560	-	-	-	-	-	-	-
Licmophora spp.	-	-	-	-	-	-	20	-
Melosira spp.	-	20	-	10	-	-	-	-
Navicula spp.	-	10	-	-	10	-	-	-
Nitzschia spp.	10	20	20	-	20	10	-	-
Chrysophyceae	2883600	1594880	1336780	1190820	316840	131720	56960	167320
Dinophyceae								
Cochlodinium spp.	20	-	20	20	-	-	-	
Glenodinium spp.	40	50	200	110	110	100	70	80
Gymnodinium spp.	20	20	10	10	10	20	10	
Cryptophyceae	153080	135280	92560	65860	72960	8900	7120	23140
Rhodomonas spp.	26700	33820	23140	33820	3560	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena c.f.	-	-	-	-	-	-	-	10
Radiolaria								
Dictyophimus sp.	-	-	-	10	-	-	-	-
Unidentified radiolar ion	-	-	-	-	10	-	20	-
Unidentified radiolar ion	-	-	10	-	-	-	-	10
Ciliata								
Dysteria sp.	-	-	10	-	-	-	-	-
Mesodinium rubrum	30	20	10	-	-	-	-	-
Parundella sp.	-	-	-	-	-	-	10	-
Strombidium spp.	220	360	310	370	250	100	70	510
S. strobilis	-	-	-	-	-	-	-	40
Tintinnopsis spp.	60	40	120	90	180	20	20	-
Unidentified ciliate	-	-	10	-	-	-	-	-
Miscellaneous								
Ascidian tadpole	-	-	20	-	-	-	-	-
Collar flagellate	-	-	-	-	-	1780	-	-
planktonic Crustacean	-	-	-	-	10	-	-	-
Unidentified cell	-	-	10	20	-	-	-	-
Unidentified cell	-	-	10	-	-	-	-	-
Bacteria	X	X	X	X	X	X	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Amphora spp.	-	-	-	10	-	-	-	-
Chaetoceros spp.	-	-	-	60	20	-	-	-
Cocconeis spp.	-	-	10	-	-	-	10	-
Coscinodiscus spp.	30	20	40	30	30	20	40	20
Leptocylindrus danicus	-	-	-	40	20	-	10	-
Licmophora spp.	-	-	10	10	-	-	-	-
Melosira spp.	-	20	-	-	20	-	-	-
Navicula spp.	-	10	10	10	-	-	-	10
Nitzschia spp.	160	190	170	170	90	130	190	230
N. closterium	-	-	10	-	10	-	-	-
Rhizosolenia stolterfothii	-	-	-	30	20	30	50	160
Skeletonema costatum	158900	147000	60200	61600	95400	23800	60200	28000
Synedra spp.	-	-	10	-	-	10	-	-
Thalassiosira spp.	180	290	230	190	290	250	240	50
Chrysophyceae	5340	1780	3560	3560	3560	3560	1780	5340
Dinophyceae								
Cochlodinium spp.	10	-	10	-	20	10	-	-
Glenodinium spp.	10	-	10	-	10	-	10	-
Peridinium spp.	80	20	-	30	-	-	-	-
Unidentified dinoflagellate (Pouchetia, c.f.)	-	-	-	10	-	-	-	-
Cryptophyceae	-	-	1780	3560	1780	1780	1780	-
Rhodomonas spp.	-	1780	-	-	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	10	-	-	10	-	-	-	-
Silicoflagellata								
Distephanus spp.	30	10	10	10	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	30	-	-	-	10	10	-	20
Strombidium spp.	20	10	30	-	10	10	10	-
S. conicum	-	-	30	20	60	-	70	30
Unidentified ciliate #(1)	20	-	-	-	10	-	-	-
Tintinnidae								
Stenosemella spp.	10	-	-	-	20	-	-	10
Tintinnopsis spp.	30	-	10	-	10	-	-	10
Tintinnus spp.	-	-	-	10	-	-	-	-
Suctoria								
Trochiscia spp.	-	10	-	10	-	-	-	-
Miscellaneous								
Crustacean #(1)	10	-	-	20	-	-	60	-
Crustacean #(2)	-	20	-	-	-	-	-	-
Echinoderm larva	-	10	-	-	-	-	-	-
Tunicate larva	-	-	10	-	-	-	-	-
Unidentified cell #(1)	10	40	80	-	-	-	-	-
Unidentified cell #(2)	-	-	-	-	-	-	-	10
Phaeophycean reproductive cell	-	10	-	10	20	10	20	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	10	-	-	-	-	-	-	-
Amphora spp.	-	-	10	-	-	-	-	-
Chactoceros spp.	-	20	-	-	-	20	-	-
Cocconeis spp.	10	10	-	-	20	-	-	-
Coscinodiscus spp.	-	90	120	80	60	40	20	10
Diploneis spp.	-	-	-	-	-	10	-	-
Leptocylindrus danicus	-	-	-	-	10	-	-	-
Melosira spp.	-	-	-	10	-	20	10	-
Melosira sp.	-	190	-	-	-	-	-	-
Navicula spp.	40	80	30	40	-	-	20	-
Nitzschia spp.	360	160	240	510	80	90	20	70
N. closterium	10	-	40	-	20	-	-	10
N. sigmoides	20	10	-	10	-	-	-	-
Skeletonema costatum	44800	81900	79100	49100	56000	47200	49000	24640
Synedra spp.	10	10	-	10	-	-	10	-
Thalassionema nitzschoides	20	-	30	-	-	-	-	20
Thalassiosira spp.	70	630	700	440	540	200	100	60
Chrysophyceae	10680	21360	14240	10680	8900	3560	10680	1780
Dinophyceae								
Amphidinium spp.	-	-	10	10	20	-	-	-
Cochlodinium spp.	-	-	30	-	-	-	-	-
Dinophyis spp.	-	-	-	-	-	-	10	20
Glenodinium spp.	-	40	100	40	60	30	20	10
Gymnodinium spp.	-	30	-	-	10	20	-	10
G. splendens	-	-	-	-	10	-	-	-
Gyrodinium spp.	-	-	-	-	10	-	-	-
Peridinium spp.	-	30	60	20	10	10	-	-
Unidentified dinoflagellate (Pouchetia, c.f.)	-	10	30	30	50	-	10	10
Cryptophyceae	1780	5340	-	-	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglenia spp.	10	50	-	10	-	-	-	-
Cyanophyta								
Cyanophyceae								
Anabaena spp.	2980	-	-	-	-	-	-	-
Oscillatoria spp.	1040	-	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Distephanus spp.	-	20	-	-	10	-	-	-
Ciliata								
Mesodinium rubrum	-	40	70	110	90	20	40	-
Strombidium spp.	-	10	50	90	20	10	10	10
S. conicum	20	120	190	100	70	20	60	10
Tiarina, c.f.	-	-	-	-	-	10	-	-
Unidentified ciliate #(1)	70	70	70	70	20	30	40	-
Tintinnidae								
Stenosemella spp.	-	-	-	10	-	-	-	-
Tintinnopsis spp.	-	40	80	110	130	40	30	20
Tintinnus spp.	-	-	-	-	-	10	-	-
Suctoria								
Trochiscia spp.	-	-	-	-	10	-	-	-
Miscellaneous								
Bacteria	*	*	*	*	-	-	-	-
Crustacean #(1)	-	-	10	1170	-	-	-	-
Crustacean #(2)	-	-	10	10	10	10	-	10
Tunicate larva	-	10	20	10	-	-	-	-
Unidentified cell #(1)	10	640	760	-	1580	250	90	30
Unidentified cell #(2)	10	-	30	-	-	-	-	-
Phaeophycean reproductive cell	-	20	140	40	50	10	-	20
Unidentified filament	-	560	-	-	-	-	-	-

* *Bacteria present*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	10	-	110	-	-	-	-	20
Amphora spp.	-	-	-	-	10	-	-	
Biddulphia spp.	-	-	10	-	10	-	20	
Chaetoceros spp.	-	-	-	20	-	20	-	
Cocconeis spp.	-	50	20	20	-	20	-	50
Coscinodiscus spp.	30	70	90	70	100	30	20	10
Grammatophora spp.	-	-	-	10	-	-	-	
Licmophora spp.	-	-	-	10	-	20	-	40
Melosira spp.	90	10	30	-	-	-	-	
Navicula spp.	30	60	20	50	40	20	10	20
Nitzschia spp.	210	130	190	130	170	150	90	630
N. closterium	30	10	20	20	-	10	-	
N. sigmoides	-	50	-	-	-	-	-	
Rhizosolenia stolterfothii	-	-	10	80	50	20	30	
Skeletonema costatum	294000	220500	35700	86100	136500	44800	17220	27020
Synedra spp.	20	-	-	20	-	-	-	10
Thalassiosira spp.	680	690	780	930	590	220	160	70
Chrysophyceae	24920	26700	16020	71200	25920	7120	1780	3560
Dinophyceae								
Amphidinium spp.	-	-	-	-	20	-	-	
Cochlodinium spp.	-	-	-	-	40	-	-	
Dinophysis spp.	-	-	-	-	-	10	10	
Glenodinium spp.	-	40	10	20	130	20	30	
Gymnodinium spp.	-	-	10	-	50	10	-	
G. flavius	20	-	-	-	-	-	-	
Encysted Gymnodinium	-	-	-	-	-	-	-	10
Peridinium spp.	-	40	20	10	20	10	-	20
Unidentified dinoflagellate (Pouchetia, c.f.)	-	10	-	-	-	-	-	
Cryptophyceae	-	-	3560	5340	-	-	1780	
Chlorophyta								
Euglenophyceae								
Euglena spp.	30	60	-	-	-	-	-	

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VIII

May 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Cyanophyta								
Cyanophyceae								
Anabaena spp.	-	460	-	-	-	-	-	
Oscillatoria spp.	200	-	-	-	-	-	-	
Silicoflagellata								
Distephanus spp.	10	-	20	60	10	-	-	
Ebria spp.	10	-	-	-	-	-	-	
Ciliata								
Mesodinium rubrum	-	140	130	-	40	-	10	10
Strombidium spp.	-	20	150	40	30	10	-	30
S. conicum	410	250	-	140	130	20	10	30
Tiarina, c.f.	-	-	-	10	-	-	-	
Unidentified ciliate #(1)	90	100	100	210	130	20	50	70
Tintinnidae								
Stenosemella spp.	-	-	-	-	-	-	10	
Tintinnopsis spp.	10	-	10	100	230	60	30	20
Tintinnus spp.	-	10	-	-	-	-	-	
Miscellaneous								
Bacteria	*	*	*	*	-	-	-	
Crustacean #(1)	10	-	-	-	-	-	-	
Crustacean #(2)	10	10	-	20	10	10	-	
Tunicate larva	-	-	-	10	-	-	-	
Unidentified cell #(1)	70	520	760	290	360	90	60	10
Unidentified cell #(2)	-	-	-	-	10	-	10	
Phaeophycean reproductive cell	-	-	20	10	50	-	-	30

* *Bacteria present*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

Data Expressed as Total Count/100 ml

July 1976

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	20	20	-	20	10	-	-	-
Licmophora spp.	-	-	-	-	-	-	10	-
Melosira spp.	-	-	-	-	10	-	-	-
Navicula spp.	20	20	-	-	-	10	10	-
Nitzschia spp.	30	50	60	50	90	30	40	30
N. closterium	-	-	10	-	-	10	-	-
N. sigmoides	-	10	-	-	-	-	-	-
Rhizosolenia stolterfothii	-	-	10	10	-	-	20	10
Skeletonema costatum	90	90	70	80	70	90	200	190
Synedra spp.	-	-	10	-	-	-	-	-
Thalassionema nitzschoides	-	-	20	10	-	-	-	-
Thalassiosira spp.	-	-	-	-	-	-	20	-
Chrysophyceae	96120	35600	85440	26700	24920	16020	13140	8900
Loricate chrysophycean #(1)	-	10	-	-	-	-	-	-
Loricate chrysophycean #(2)	-	10	3560	1780	5340	-	-	-
Dinophyceae								
Amphidium spp.	-	-	-	-	-	10	-	-
Cochlodinium spp.	20	-	-	-	-	10	-	-
Dinophysis spp.	20	10	-	-	-	-	10	60
Glenodinium spp.	300	30	60	-	30	-	30	-
Gymnodinium spp.	10	10	10	-	-	-	-	-
Encysted Gymnodinium	-	-	10	-	-	-	10	-
Peridinium spp.	50	10	-	10	20	30	-	20
P. depressum	-	-	10	-	-	-	-	-
Unidentified dinoflagellate	1480	-	-	-	-	-	-	-
Cryptophyceae	33820	1780	14240	14240	3560	5340	5340	-
Rhodomonas spp.	21360	8900	19590	8900	1780	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	290	-	10	50	40	-	-	-
Prasinophyceae								
Unidentified prasinophyte	10	30	10	10	-	-	20	-

MEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

July 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	120	40	10	30	40	30	20	10
Strombidium spp.	30	20	50	60	10	-	-	10
S. conicum	1190	10	100	-	20	40	30	10
Tintinnidae								
Stenosemella spp.	-	-	10	10	-	-	20	-
Tintinnopsis spp.	190	-	10	-	-	10	10	-
Miscellaneous								
Crustacean #(1)	-	10	-	-	-	-	-	-
Crustacean #(2)	-	10	-	10	-	-	-	-
Phaeophycean reproductive cell	10	-	-	-	-	-	-	-
Unidentified cell #(1)	50	40	10	10	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

July 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	20	20	30	10	-	-	-
Coscinodiscus spp.	-	-	-	20	-	-	-	-
Melosira spp.	-	-	160	-	30	-	-	-
Navicula spp.	60	40	50	40	-	-	-	10
Nitschia spp.	2460	3860	3460	1340	190	30	20	50
N. closterium	10	60	60	20	-	-	-	-
N. sigmoides	1580	1990	1540	460	60	-	-	30
Pleurosigma spp.	-	-	-	10	-	-	-	-
Skeletonema costatum	-	-	-	-	-	40	30	-
Synedra spp.	200	640	280	60	20	10	-	-
Thalassionema nitzschoides	20	30	60	-	20	-	10	-
Thalassiosira spp.	-	-	20	-	-	-	-	10
Chrysophyceae	4503400	5126400	3310800	2474200	201140	62300	62300	65760
Loricate chrysophycean #(2)	-	-	-	-	-	-	1780	-
Dinophyceae								
Glendinium spp.	-	60	110	-	-	-	10	40
Gymnodinium spp.	-	-	10	-	-	-	10	-
Peridinium spp.	-	-	-	-	10	-	-	-
Cryptophyceae	119160	64080	80100	44500	14240	1780	1780	5340
Rhodomonas spp.	-	-	-	1780	1780	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	20	10	140	20	10	-	-	-
Cyanophyta								
Cyanophyceae								
Anabaena spp.	4700	1100	460	-	-	-	-	-
Oscillatoria spp.	2700	-	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

July 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	-	20	-	-	30	-	-	-
Strombidium spp.	-	-	20	-	-	10	-	-
S. conicum	-	-	-	240	40	20	40	80
Tiarina, c.f.	-	-	-	-	-	-	20	-
Unidentified ciliate #(1)	-	60	600	1260	20	50	10	30
Tintinnidae								
Stenosemella spp.	-	-	-	-	-	10	-	-
Miscellaneous								
Bacteria	*	*	*	-	-	-	-	-
Crustacean #(1)	-	-	-	30	40	-	-	10
Crustacean #(2)	-	-	-	-	20	-	-	10
Phaeophycean reproductive cell	-	-	60	-	-	-	20	-
Unidentified cell #(1)	-	-	-	-	-	-	30	10

* *Bacteria present*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VIII

July 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Cocconeis spp.	-	20	40	20	40	30	-	-
Diploneis spp.	-	-	-	-	-	10	-	-
Melosira spp.	-	20	-	20	-	-	-	-
Navicula spp.	100	10	40	-	40	-	50	-
Nitzschia spp.	2500	610	260	360	80	20	10	20
N. closterium	40	-	20	10	-	-	-	-
N. sigmoides	500	410	160	10	20	-	-	-
Skeletonema costatum	-	-	80	-	-	-	-	-
Synedra spp.	10	-	30	-	60	-	-	-
Tabellaria spp.	-	-	-	-	-	80	-	-
Thalassionema nitzschoides	10	-	-	-	-	-	-	-
Thalassiosira spp.	-	-	10	-	-	-	-	-
Chrysophyceae	2687800	982560	310500	252760	403960	21360	21360	10680
Loricate chrysophyte #(1)	-	-	-	-	-	-	3560	-
Loricate chrysophyte #(2)	-	-	-	-	-	-	1780	1780
Dinophyceae								
Dinophysis spp.	-	10	-	-	-	-	-	-
Glenodinium spp.	1080	180	90	60	60	60	120	40
Gymnodinium spp.	-	20	10	20	-	10	-	10
G. splendens	-	-	-	-	-	-	10	-
Encysted Gymnodinium	-	-	-	-	-	-	40	-
Peridinium spp.	60	-	-	-	-	-	-	20
Cryptophyceae	161980	123600	16020	12360	35600	3560	3560	1780
Rhodomonas spp.	21360	30160	5340	17800	16020	1780	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	510	100	20	60	-	-	70	10
Silicoflagellata								
Distephanus spp.	-	-	-	10	10	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VIII

July 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Ciliata								
Mesodinium rubrum	140	40	100	80	70	-	-	-
Strombidium spp.	-	-	-	-	10	-	-	-
S. conicum	2640	1560	440	820	420	-	40	20
Unidentified ciliate #(1)	240	280	120	-	-	-	-	-
Tintinnidae								
Stenosemella spp.	-	-	-	10	-	-	-	-
Miscellaneous								
Bacteria	*	*	*	-	*	-	-	-
Crustacean #(1)	-	10	-	-	-	-	-	-
Crustacean #(2)	-	10	30	30	-	-	-	-
Unidentified larva	10	720	700	320	-	10	-	-
Phaeophycean reproductive cell	420	10	-	-	140	-	-	-
Unidentified cell #(1)	60	20	-	-	-	40	-	60

* *Bacteria present*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

October 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Bacteriastrum spp.	10	-	10	-	-	-	-	-
Chaetoceros spp.	-	-	-	20	10	-	20	-
Cocconeis	-	10	10	10	10	20	-	-
Leptocylindrus danicum	-	-	-	-	10	-	-	-
Navicula spp.	10	-	-	-	-	10	-	10
Nitzschia spp.	10	20	30	-	20	-	-	-
Rhizosolenia delicatula	-	-	10	-	-	-	-	-
Skeletonema costatum	60	120	-	260	40	-	50	50
Chrysophyceae	67818	375580	327520	131720	147740	94340	60520	16020
Loricate chrysophycean	-	-	-	3560	1780	-	-	-
Dinophyceae								
Amphidinium spp.	-	10	-	30	30	20	-	-
Ceratium spp.	60	60	10	30	-	10	-	-
C. fusus	10	40	10	10	-	-	-	-
C. tricos var. atlanticum	-	30	40	-	-	-	-	-
Cochlodinium spp.	40	10	-	10	10	10	10	-
Dinophysis spp.	80	30	30	20	40	10	20	-
Dinophysoid cell	-	-	-	-	-	-	-	10
Glenodinium spp.	120	60	60	60	50	30	50	70
Gymnedinium spp.	120	40	20	20	-	10	-	10
G. splendens	20	-	-	-	-	-	-	-
Oxytoxum spp.	10	20	20	20	-	10	10	-
Peridinium spp.	60	30	10	40	20	20	-	30
Unidentified dinoflagellate (Pouchetia, c.f.)	350	120	90	340	340	320	160	130
Cryptophyceae	53400	28480	30260	21360	17800	3560	7120	-
Rhodomonas spp.	7120	7120	7120	5340	7120	3560	-	1780
Chlorophyta								
Euglenophyceae								
Euglena spp.	60	-	10	10	10	-	20	-
Silicoflagellata								
Distephanus spp.	5	20	30	20	20	-	10	-
Ebria spp.	1	-	-	-	-	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VI

October 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Radiolaria								
Dictyophimus spp.	-	-	10	-	-	-	10	-
Suctoria								
Trochiscia ovata	-	-	-	-	-	-	10	-
Ciliata								
Mesodinium rubrum	310	60	60	30	20	-	20	10
Strombidium spp.	980	830	540	550	530	190	290	120
S. conicum	2000	1110	600	540	620	110	230	160
S. strobilis	60	120	20	10	30	-	10	-
Unidentified ciliate #(1)	1380	730	370	50	110	-	40	-
Tintinnidae								
Stenosemella spp.	-	-	10	10	-	10	-	-
Tintinnopsis spp.	-	-	-	10	-	-	-	-
Miscellaneous								
Crustacean #(1)	-	-	20	-	-	10	-	-
Monosiga spp. (a collar flagellate)	620	490	70	-	290	30	-	-
Tunicate larva	-	-	-	10	-	-	-	-
Unidentified cell #(1)	280	20	60	40	-	10	-	-
Unidentified cell #(2)	280	40	-	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

October 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Achnanthes spp.	-	-	20	-	-	-	-	-
Cocconeis spp.	-	10	-	-	-	-	-	-
Melosira spp.	-	-	-	-	-	-	10	-
Navicula spp.	10	10	80	30	-	-	-	-
Nitzschia spp.	160	190	100	110	70	30	10	10
N. slosterium	-	10	-	-	-	-	-	10
N. sigmoides	190	230	120	160	30	10	30	-
Skeletonema costatum	-	-	80	50	320	200	190	170
Chrysophyceae	984340	825920	1869000	1018200	1815600	105020	33820	30260
Dinophyceae								
Amphidinium spp.	-	-	-	-	10	-	-	-
Ceratium spp.	-	-	20	-	-	-	-	-
Cochlodinium spp.	-	-	30	-	-	-	-	-
Dinophysis spp.	-	-	20	-	-	-	-	-
Glenodinium spp.	40	10	40	-	-	-	-	10
Peridinium spp.	-	10	-	20	-	-	10	-
Unidentified dinoflagellate (Pouchetia, c.f.	-	10	30	-	10	-	20	10
Cryptophyceae	78320	133500	53400	37380	21360	7120	8900	7120
Rhodomonas spp.	5340	5340	3560	-	-	-	-	-
Chlorophyta								
Euglenophyceae								
Euglena spp.	-	10	-	-	-	-	-	-
Silicoflagellata								
Distephanus spp.	-	10	-	10	10	-	-	-
Radiolaria								
Lithomelissa spp.	-	-	-	-	-	-	10	-
Unidentified radiolarian	-	-	-	-	-	10	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VII

October 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Ciliata								
Strombidium spp.	-	60	-	190	430	60	100	70
S. conicum	10	-	130	80	110	40	90	20
S. strobilis	-	10	-	-	-	-	-	-
Tiarina, c.f.	-	-	-	-	-	-	10	-
Unidentified ciliate #(1)	1200	1870	5060	6520	1730	90	20	-
Unidentified ciliate #(2)	-	20	70	-	-	-	-	-
Tintinnidae								
Stenosemella spp.	-	-	-	-	20	-	-	-
Miscellaneous								
Bacteria	*	*	*	*	*	-	-	-
Crustacean #(1)	-	-	10	10	-	-	-	-
Monosiga spp. (a collar flagellate)	3200	4200	2570	5200	120	-	-	-
Unidentified cell #(1)	-	30	100	-	-	-	10	10
Unidentified cell #(2)	-	-	-	-	20	-	-	-

* *Bacteria present*

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VIII

October 1976

Data Expressed as Total Count/100 ml

	Depth in Meters							
	0	1	2	3	5	10	20	30
Chrysophyta								
Bacillariophyceae								
Chaetoceros spp.	-	-	50	-	-	-	-	-
Cocconeis spp.	40	30	20	-	-	10	20	20
Melosira spp.	-	30	-	-	-	-	-	-
Navicula spp.	10	40	10	10	20	20	-	-
Nitzschia spp.	20	80	110	90	50	10	-	10
N. sigmoides	120	90	40	-	10	-	-	-
Skeletonema costatum	-	30	-	-	30	50	20	-
Thalassiosira spp.	-	-	-	-	-	10	-	-
Chrysophyceae	1619800	1940200	1505880	695980	183340	72980	74760	49840
Loricate chrysophycean #(1)	-	-	-	-	-	1780	-	-
Dinophyceae								
Amphidinium spp.	-	-	10	-	20	-	-	10
Ceratium fusus	10	20	10	-	-	-	-	-
C. tricos var. atlanticum	10	-	10	10	-	-	-	-
Cochlodinium spp.	10	10	-	-	10	-	-	-
Dinophysis spp.	10	20	-	-	-	-	-	-
Glenodinium spp.	40	30	30	-	30	40	50	30
Gymnodinium spp.	80	-	-	10	10	-	10	-
G. Splendens	-	10	-	-	10	-	-	-
Oxytoxum	-	10	10	-	-	-	-	-
Peridinium spp.	-	40	-	10	-	10	-	-
Phalacroma rotundata	-	-	-	10	-	10	-	-
Prorocentrum spp.	10	-	-	-	-	-	-	-
Unidentified dinoflagellate (Pouchetia, c.f.)	-	80	70	20	30	20	40	60
Cryptophyceae	37380	94340	60520	48060	12460	12460	14240	7120
Rhodomonas spp.	7120	7120	10680	14240	1780	1780	1780	-
Chlorophyta								
Chlorophyceae								
Ulothrix spp.	-	-	400	-	-	-	-	-
Euglenophyceae								
Euglena spp.	70	20	10	-	-	-	-	-

NEROUTSOS INLET PHYTOPLANKTON SAMPLES

STATION VIII

Data Expressed as Total Count/100 ml

October 1976

	Depth in Meters							
	0	1	2	3	5	10	20	30
Silicoflagellata								
Distephanus spp.	30	50	50	40	20	-	-	-
Ebria spp.	-	-	-	-	-	-	-	-
Radiolaria								
Dictyophimus spp.	-	-	10	-	-	-	-	-
Unidentified radiolarian #(1)	-	-	-	-	-	-	10	-
Ciliata								
Ephelota, c.f.	-	10	-	-	-	-	-	-
Strombidium spp.	1670	2270	1950	240	-	110	-	-
S. conicum	420	130	310	270	120	120	120	20
S. strobilis	20	150	100	120	260	10	-	80
Unidentified ciliate #(1)	6620	3140	1540	500	160	120	-	-
Tintinnidae								
Tintinnopsis spp.	-	-	-	10	-	-	-	-
Miscellaneous								
Crustacean #(1)	-	-	10	10	10	10	-	-
Echinoderm dipleurula larva	-	10	-	-	-	-	-	-
Phaeophycean reproductive cell	-	-	-	10	-	-	-	-
Monosiga spp. (a collar flagellate)	11550	8180	2640	260	100	-	-	-
Unidentified cell #(1)	40	10	40	230	80	70	40	10
Unidentified cell #(2)	-	-	-	-	-	-	20	10