APPENDIX A

Productivity Methods

Methods

Production Analyses by ^{14}C - Field Procedures.

From each of the 5 productivity depths at each productivity station, samples were obtained by filtration through 300 mm Nitex screen (to remove zooplankton) from the Niskin bottles into opaque 1 gal polyethylene bottles. Under subdued green light, sub-samples were transferred by siphon into individual 75 ml acid cleaned polycarbonate bottles. Each bottle was flushed with approximately 250 ml of sample. A total of 16 bottles (14 light bottles, 2 dark bottles) were filled for each depth and incubated in a light and temperature controlled incubator. Light bottles from each depth are incubated at 14 light intensities (250 W tungsten-halogen lamps attenuated with Rosco neutral density filters) and all bottles incubated within 2° C of the *in situ* temperature at each depth for 4-6 hr (actual time was recorded). Single bottles of sample collected from each depth was assayed for background (time-zero) activity.

The 75 ml samples were incubated with 5-10 μCi ^{14}C-bicarbonate (higher activity during winter and spring season) and biological activity terminated by filtration of the entire contents of the bottles through 2.5 cm diameter Whatman GF/F glass fiber filters and immediate contact of the filters with 0.2 ml of a 20% aqueous solution of acetic acid contained in pre-prepared 20 ml glass scintillation vials (vials immediately recapped). For specific activity determination 0.1 ml aliquots of sample were placed in pre-prepared 20 ml scintillation vials containing 0.2 ml of benzethonium hydroxide (approximately 1.0 M solution in methanol; Sigma Chemical Company) to covalently sequester the ^{14}C inorganic carbon (vials immediately recapped). Specific activity was determined from the measured activity and measurements of DIC.

Samples for DIC analysis were collected from the Niskin bottles into 300 ml BOD bottles, following collection procedures used for oxygen analyses. Within 6 hr. of BOD sample collection, duplicate 10 ml samples were injected into 20 ml crimp-sealed serum bottles containing 0.5 ml of a 2N aqueous solution of sulfuric acid for subsequent I.R. analysis (Beckman IR-315 infrared analyzer) of the gaseous phase (5 - 150 ml samples) at the W.H.O.I. laboratory.

During summer months 1995 some of the ^{14}C incubations (W9508-W9513) were incubated on shore in the MWRA laboratory at Deer Island. Samples were collected in opaque bottles and maintained at *in situ* temperature until transport to the lab. The ^{14}C incubations were begun approximately 2 - 3 hr from sample collection and should compare favorably with samples that are incubated aboard the ship.

Production Analyses by ^{14}C - Laboratory Procedures.

Sample processing. Upon arrival to the W.H.O.I. laboratory scintillation cocktail (10 ml Scintiverse II) were added to the scintillation vials containing the specific activity samples and analyzed using a Packard Tricarb 4000 liquid scintillation counter which possesses automated routines for quench correction. Vials containing acidified filters were opened and placed in a

ventilator in the hood for overnight to allow the filters to dry and excess ^{14}C carbon dioxide dissipate. The vials containing the filters were analyzed by scintillation spectroscopy as described above.

Calculation of Primary production. Volume specific primary production was calculated using equations similar to that of Strickland and Parsons (1972) as follows:

$$P(i) = \frac{1.05(DPM(i)-DPM(blk))}{V_s A_{sp} T}$$

$$P(d) = \frac{1.05(DPM(d)-DPM(blk))}{V_s A_{sp} T}$$

$$A_{sp} = \frac{DPM(sa)-DPM(back)}{V_{sa} DIC}$$

where:

P(i) = primary production rate at light intensity i, ($\mu gC\ l^{-1}h^{-1}$ or $mgC\ m^{-3}h^{-1}$)
P(d) = dark production, ($\mu gC\ l^{-1}h^{-1}$ or $mgC\ m^{-3}h^{-1}$)
A_{sp} = specific activity (DPM/μgC)
DPM(i) = dpm in sample incubated at light intensity i
DPM(blk) = dpm in zero time blank (sample filtered immediately after addition of tracer)
DPM(d) = dpm in dark incubated sample
DPM(back) = background dpm in vial containing only scintillation cocktail
V_s = volume of incubated sample (l)
T = incubation time (h)
V_{sa} = volume counted of specific activity sample (ml)
DIC = concentration of dissolved inorganic carbon (μg/ml)

P-I curves. For each of the 5 depths for each photosynthesis station a P-I curve was obtained from the data P(I) = P(i)-P(d) vs. the irradiance (I, $\mu E\ m^{-2}s^{-1}$) that the incubating sample is exposed. The P-I curves were fit via one of two possible models, depending upon whether or not significant photoinhibition occurs. In cases where photoinhibition is evident the model of Platt et al. (1980) was fit (SAAM II, 1994) to obtain the theoretical maximum production, and terms for light-dependent rise in production and degree of photoinhibition:

$$P(I) = P_{sb}"(1 - e^{-a})e^{-b}$$

$$P\max" = P_{sb}"[\alpha"/(\alpha" + \beta")][\beta"/(\alpha" + \beta")]^{\beta"/}$$ (Lohrenz et al., 1994)

where:

P(I) = primary production at irradiance I, corrected for dark fixation (P(i)-P(d))
P_{sb}"= theoretical maximum production without photoinhibition
a = α"I/Psb", and α"is the initial slope the light-dependent rise in production

b = β"I/Psb", and β"is a term relaying the degree of photoinhibition
P_{max}"= light saturated maximum production

If it is not possible to converge upon a solution the model of Webb et al. (1974) was similarly fit to obtain the maximum production and the term for light-dependent rise in production:

$$P(I) = P_{max}"\left(1 - e^{-a'}\right)$$

where:

P(I) = primary production at irradiance I corrected for dark fixation (P(i)-P(d))
P_{max}"= light saturated maximum production
a' = α"I/Pmax", and α"is the initial slope the light-dependent rise in production

Nearly all P-I curves obtained did not show evidence of photoinhibition and were fit according to the Webb model.

Light vs. depth profiles. To obtain a numerical representation of the light field throughout the water column bin averaged CTD light profiles (0.5 m intervals) was fit (SAAM II, 1994) to an empirical sum of exponentials equation of the form:

$$I_Z = A_1 e^{-a_1 Z} + A_2 e^{-a_2 Z}$$

which is an expansion of the standard irradiance vs. depth equation:

$$I_Z = I_0 e^{-kZ}$$

where:

I_Z = light irradiance at depth Z
I_0 = incident irradiance (Z=0)
k = extinction coefficient
A_1, A_2 = factors relating to incident irradiance ($I_0 = A_1+A_2$)
a_1, a_2 = coefficients relating to the extinction coefficient ($k = a_1+a_2$)

The expanded equation was used as pigment absorption and other factors usually resulted in significant deviation from the idealized standard irradiance vs. depth equation. The best fit profiles were used to compute percent light attenuation for each of the sampling depths.

Daily incident light field. During normal CTD hydrocasts the incident light field was routinely measured via a deck light sensor at high temporal resolution. The average incident light intensity was determined for each of the CTD casts to provide, over the course of the photoperiod (12 hr period centered upon solar noon), a reasonably well resolved irradiance time series consisting of 12-17 data points. A 48 point time series (every 15 min.) of incident was obtained from these data by linear interpolation.

Calculation of daily primary production. Given the best fit parameters (Pmax", α", β") of the P-I curves obtained for each of the 5 sampling depths, percent *in situ* light attenuation at each depth determined from the sum of exponential fits of the *in situ* light field, and the photoperiod incident light (I_o) time series it was possible to compute daily volumetric production for each depth. To do this at a given depth, hourly production was determined for the *in situ* light intensity computed for each 15 min. interval of the photoperiod, using the appropriate P-I parameters and *in situ* irradiance computed from the percent attenuation and incident irradiance. Daily production ($\mu gC\ l^{-1}d^{-1}$) was obtained by integration of the determined activity throughout the 12 hr photoperiod. An advantage of this approach is that seasonal changes in photoperiod length are automatically incorporated into the integral computation. For example, during winter months computed early morning and late afternoon production contributes minimally to whole day production, whereas during summer months the relative contribution during these hours is more significant. The investigator does not have to decide which factor to employ when converting hourly production to daily production. The primary assumption for the approach is that the P-I relationship obtained at the time of sample procurement (towards the middle of the photoperiod) is representative of the majority of production occurring during the photoperiod.

Calculation of daily areal production. Areal production ($mgC\ m^{-2}d^{-1}$) was obtained by trapezoidal integration of daily volumetric production vs. depth from the sea surface down to the 0.5% light level. The P-I factors from the uppermost sampling depth (approximately 1.2 - 2.7 m, depending upon weather state) were used to compute the contribution of the portion of the water column between the sea surface interface and uppermost sampling depth to areal production (rather than to assume that the activity in the uppermost sample is representative of that section of the water column, which is not always the case).

Calculation of chlorophyll-specific parameters. Chlorophyll-specific measures of the various parameters were determined by dividing by the appropriate chlorophyll term obtained from independent measurements:

$$a = \frac{\alpha"}{[chla]}$$

$$P\max = \frac{P\max"}{[chla]}$$

where:

α = chlorophyll-a-specific initial slope of light-dependent production $[(gC(gchla)^{-1}h^{-1}(\mu Em^{-2}s^{-1})^{-1}]$

Pmax = light saturated chlorophyll-specific production $[gC(gchla)^{-1}h^{-1}]$

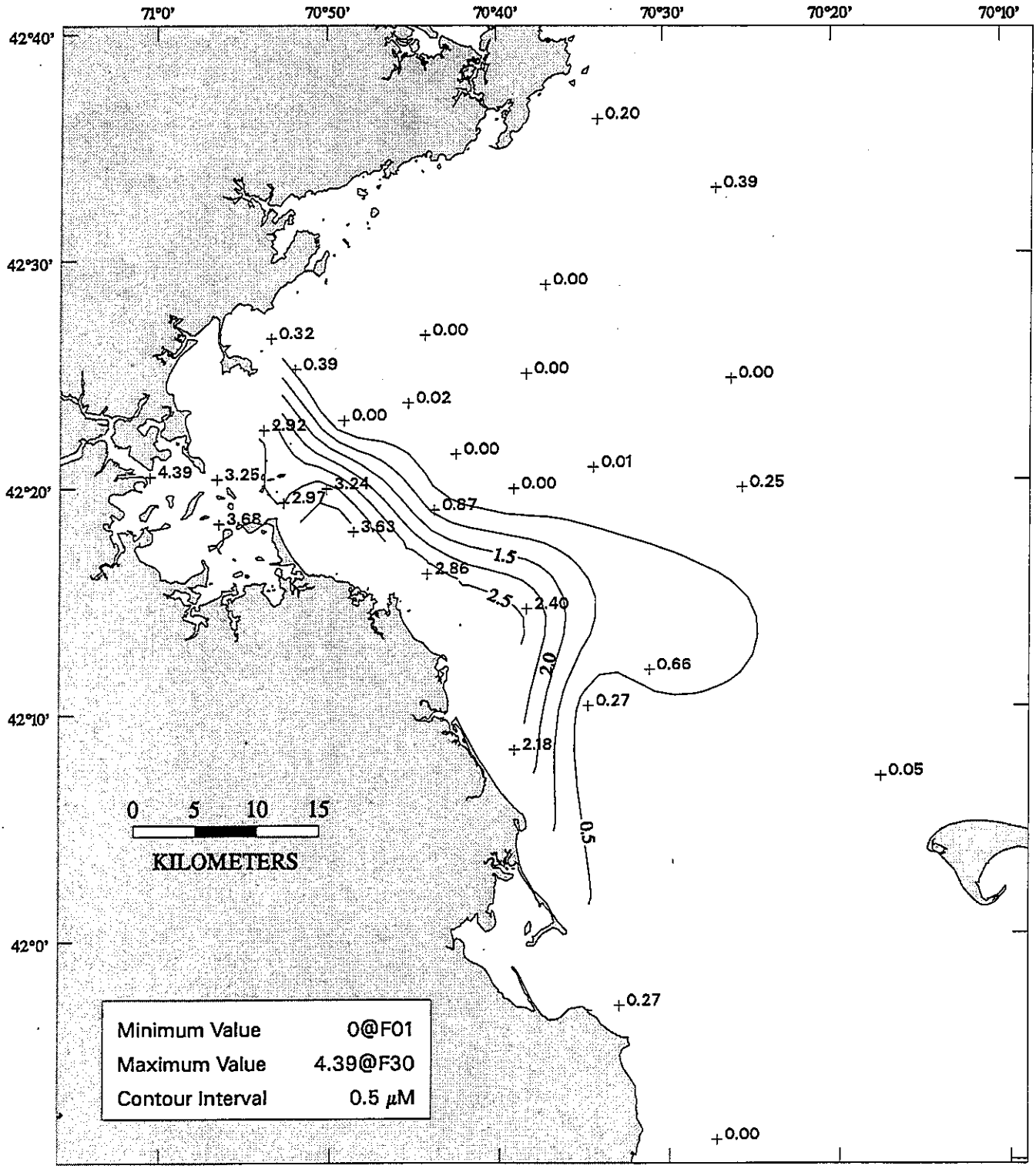
APPENDIX B
Surface Contour Plots - Farfield Surveys

All contour plots were created using data from the surface bottle sample (A). Each plot is labelled on the bottom right with the survey number ("9511"), and parameter as listed below. The minimum and maximum value, and the station where the value was measured, is provided for each plot, as well as the contour interval and parameter units.

Appendix B: Table of Contents

Parameter Name	Map Parameter Name	Units
Temperature	temp_lin	°C
Salinity	sal_lin	SU
Transmissivity (beam attenuation)	tran_lin	/m
Nitrate (NO_3)	no3_lin	µM
Phosphate (PO_4)	po4_lin	µM
Silicate (SiO_4)	sio4_lin	µM
Dissolved Inorganic Nitrogen (DIN*)	din_lin	µM
Chlorophyll *a*	fluo_lin	µg/L

*$NO_3 + NO_2 + NH_4$



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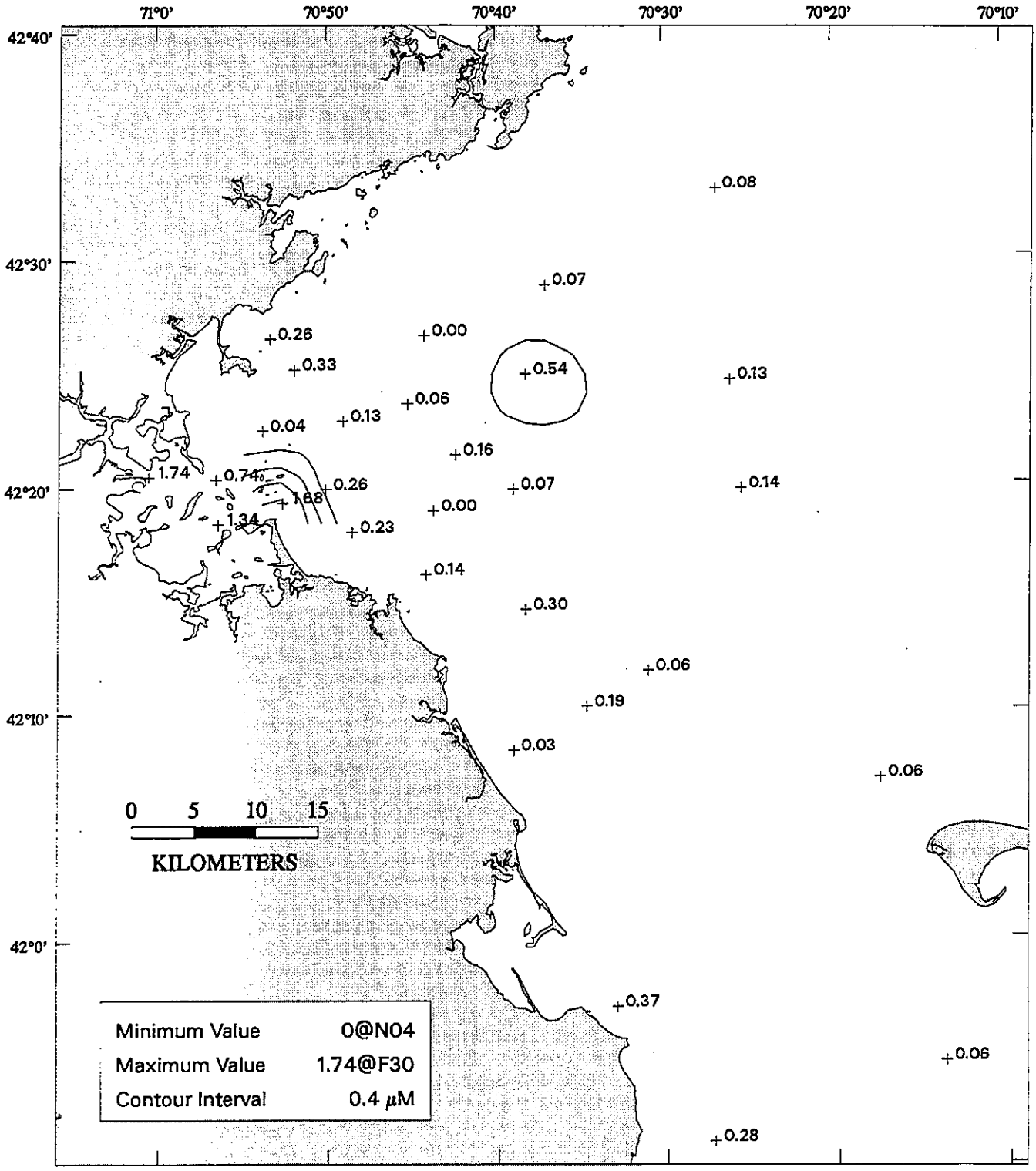

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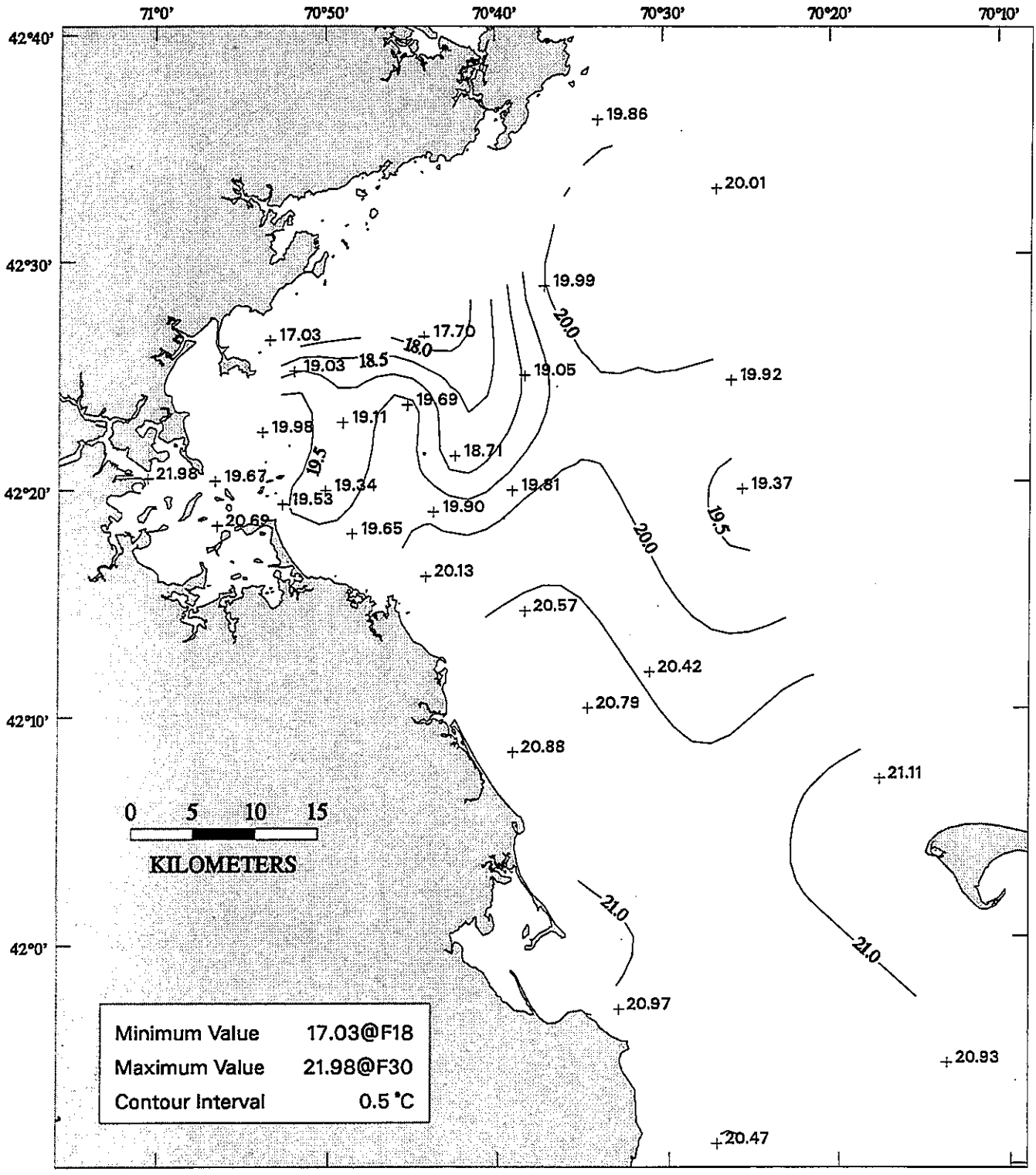
NO3



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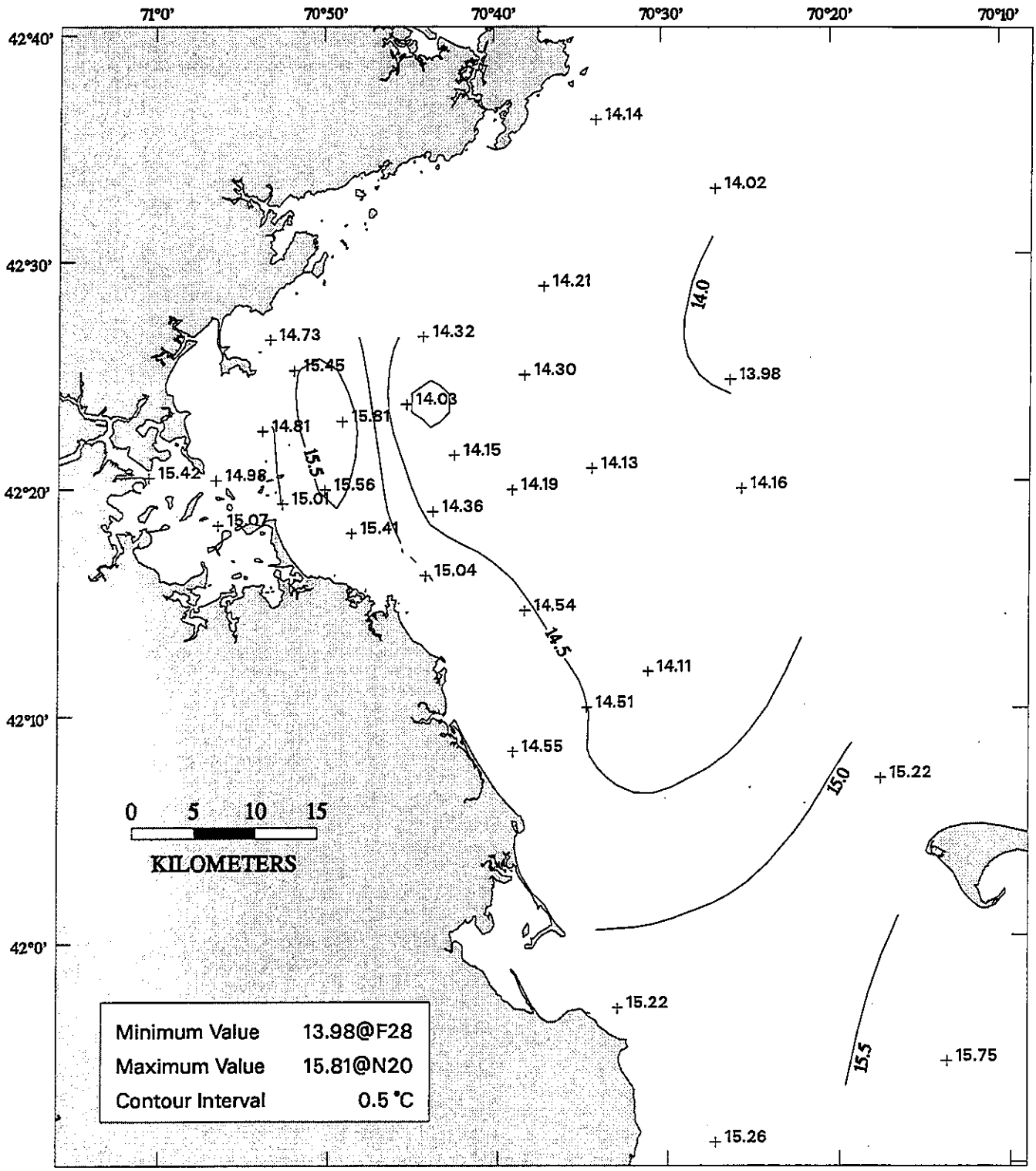
FLUO



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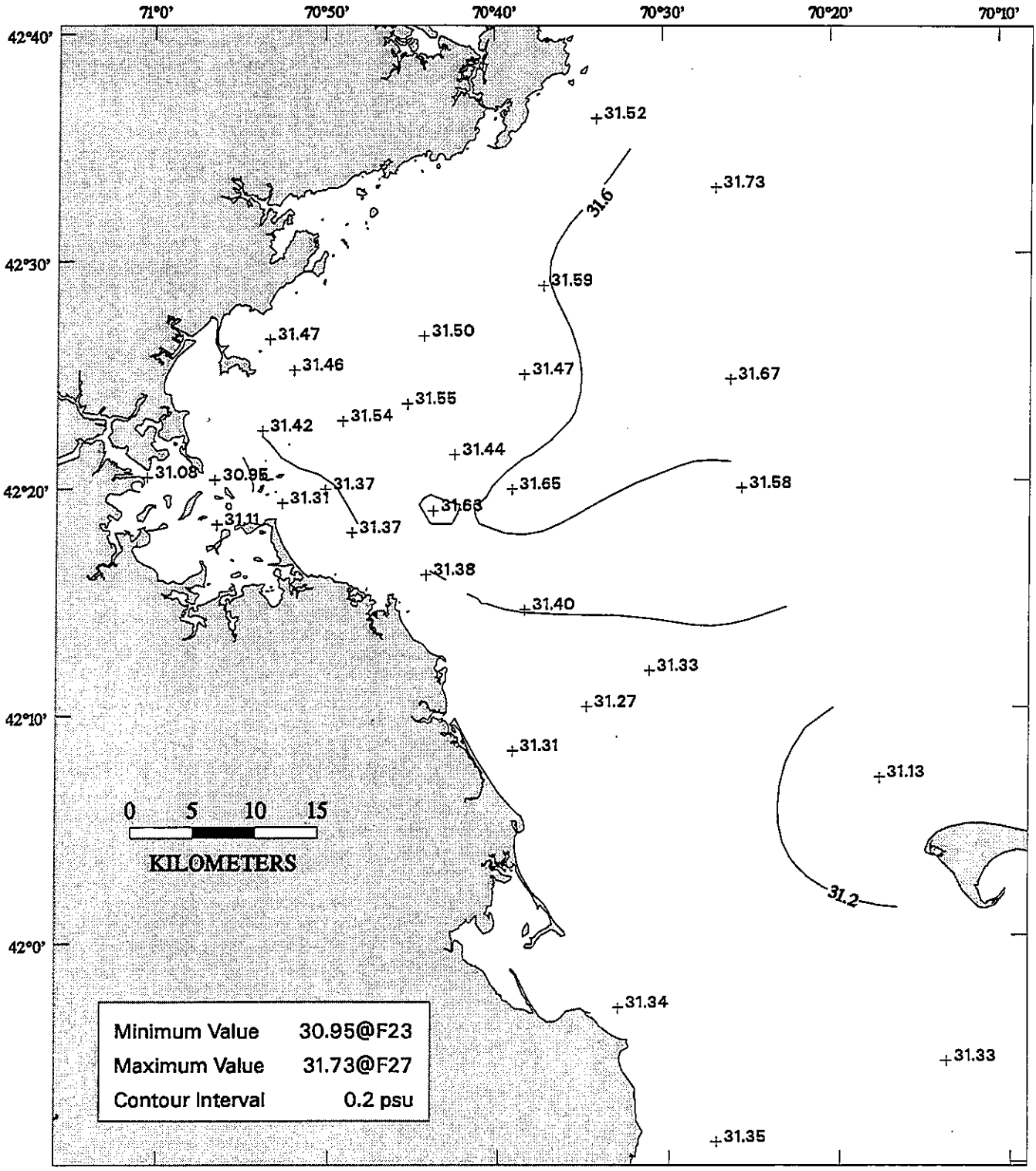

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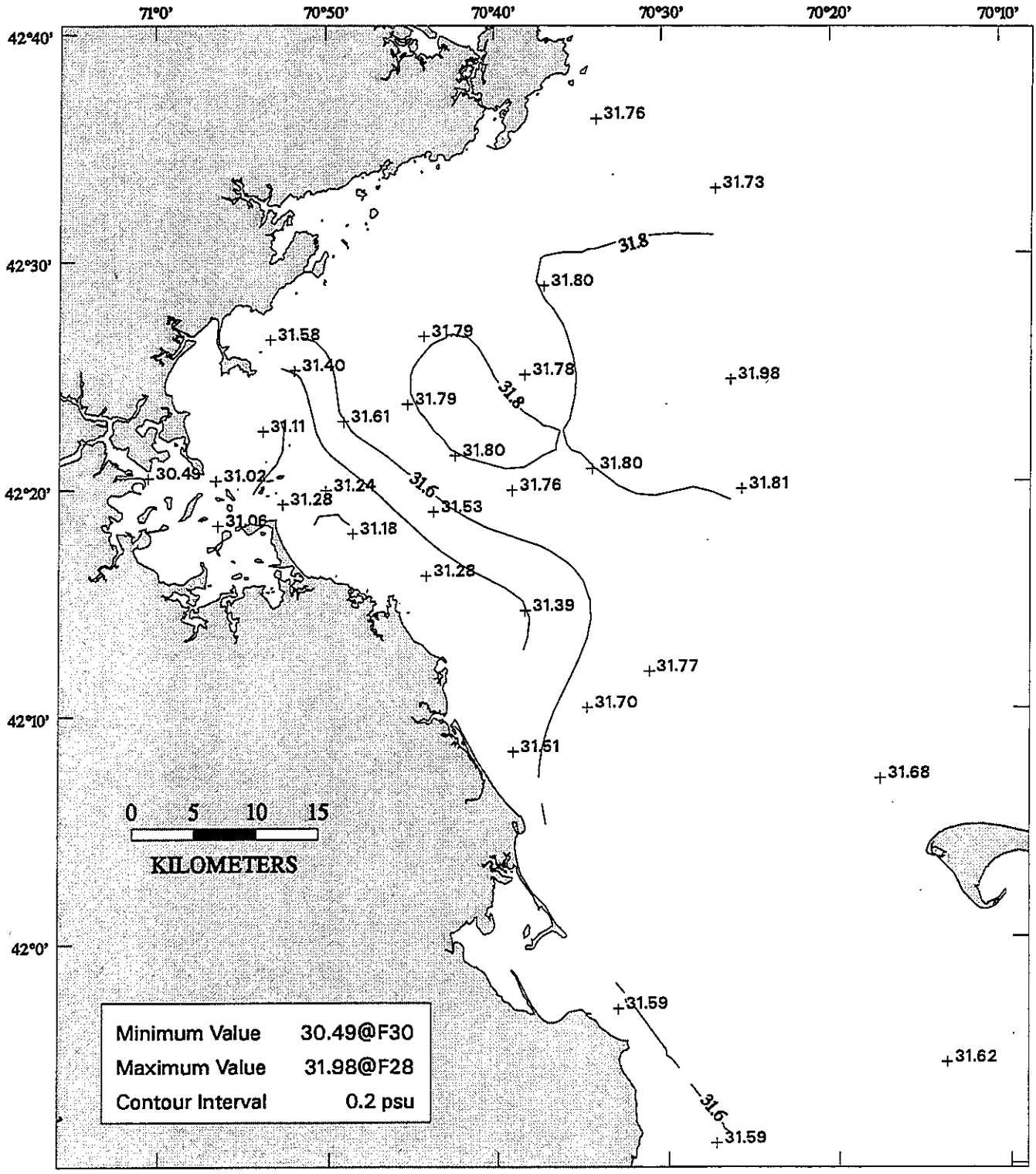
FLUO



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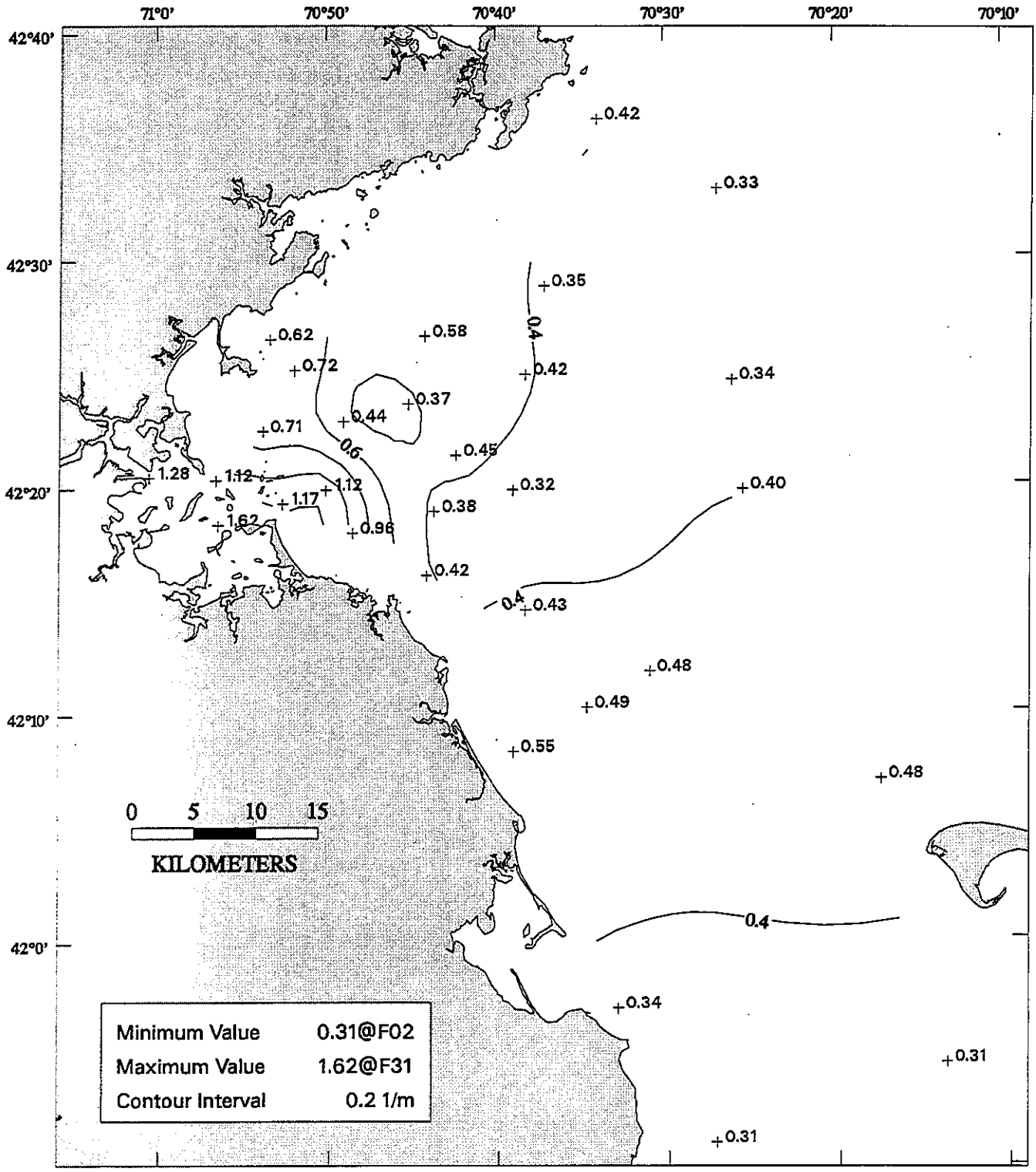

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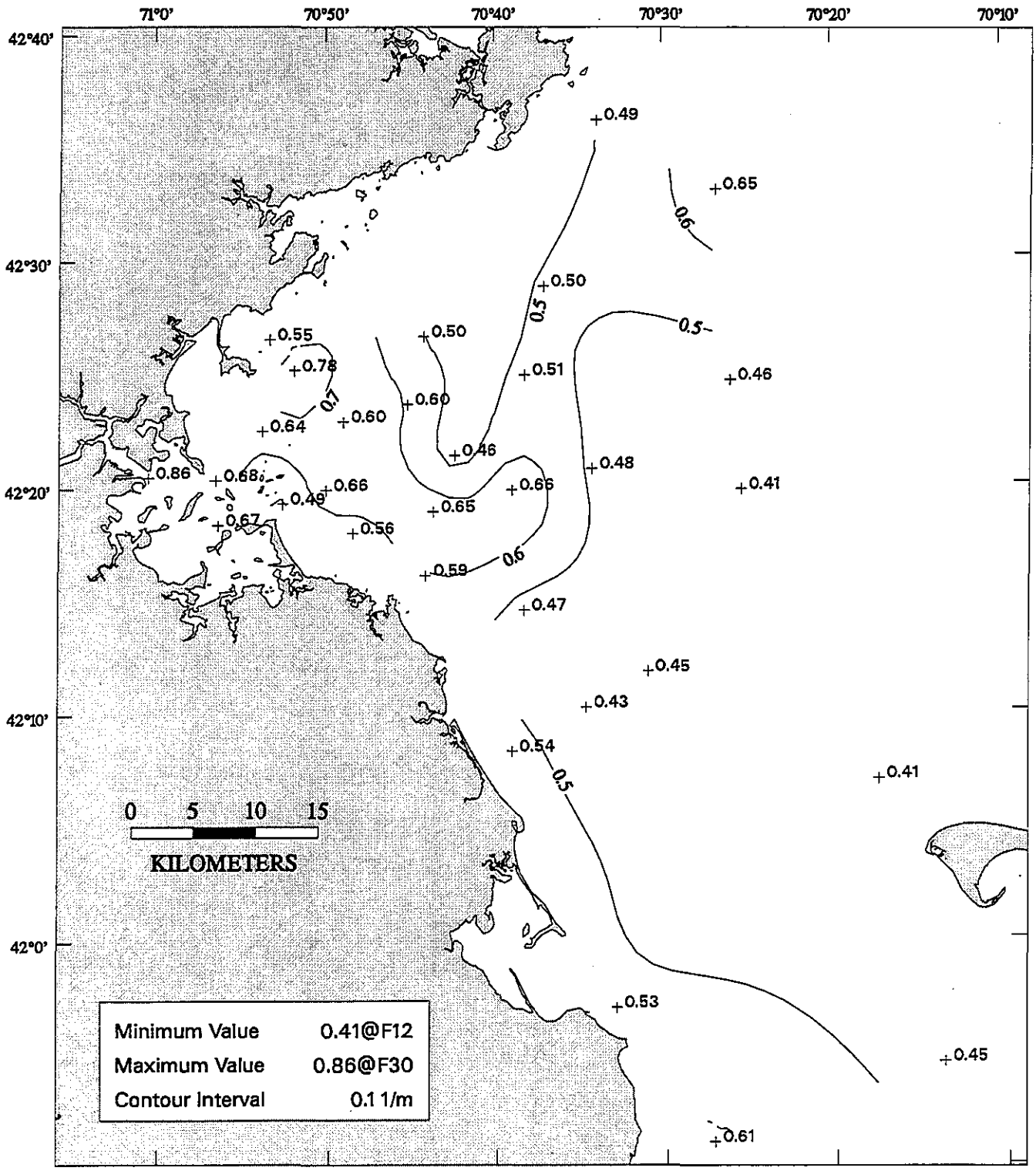

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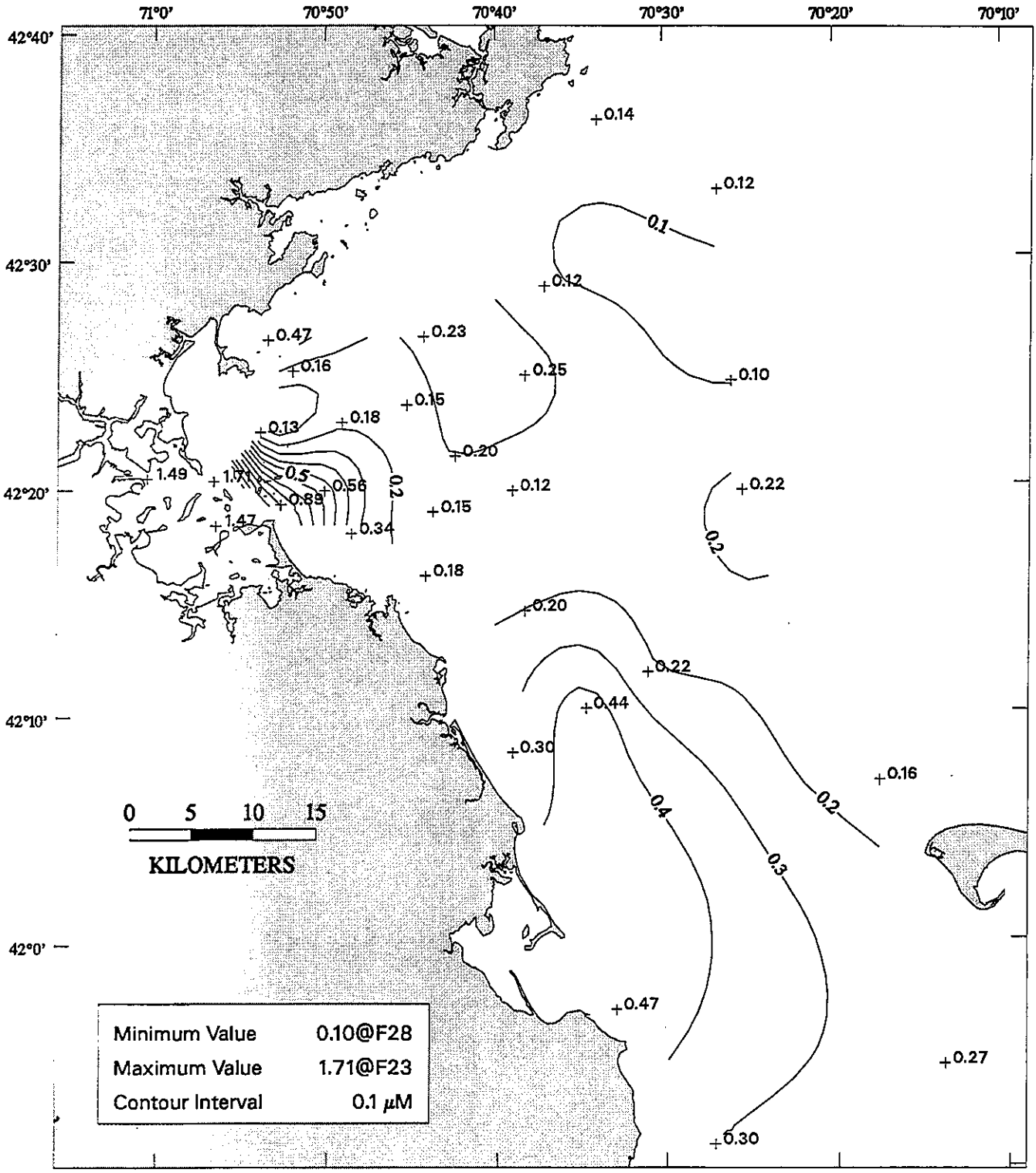

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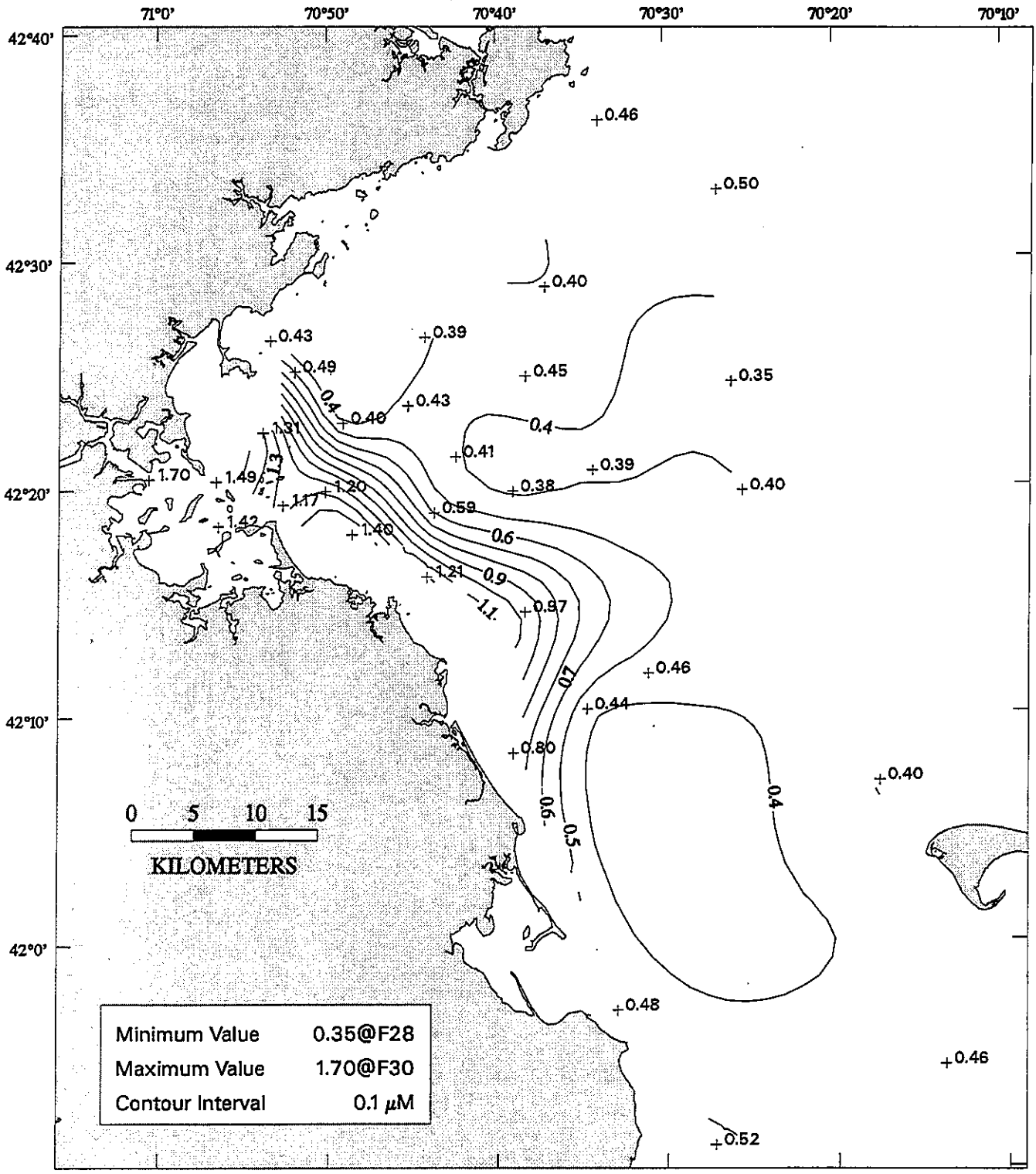
PO4



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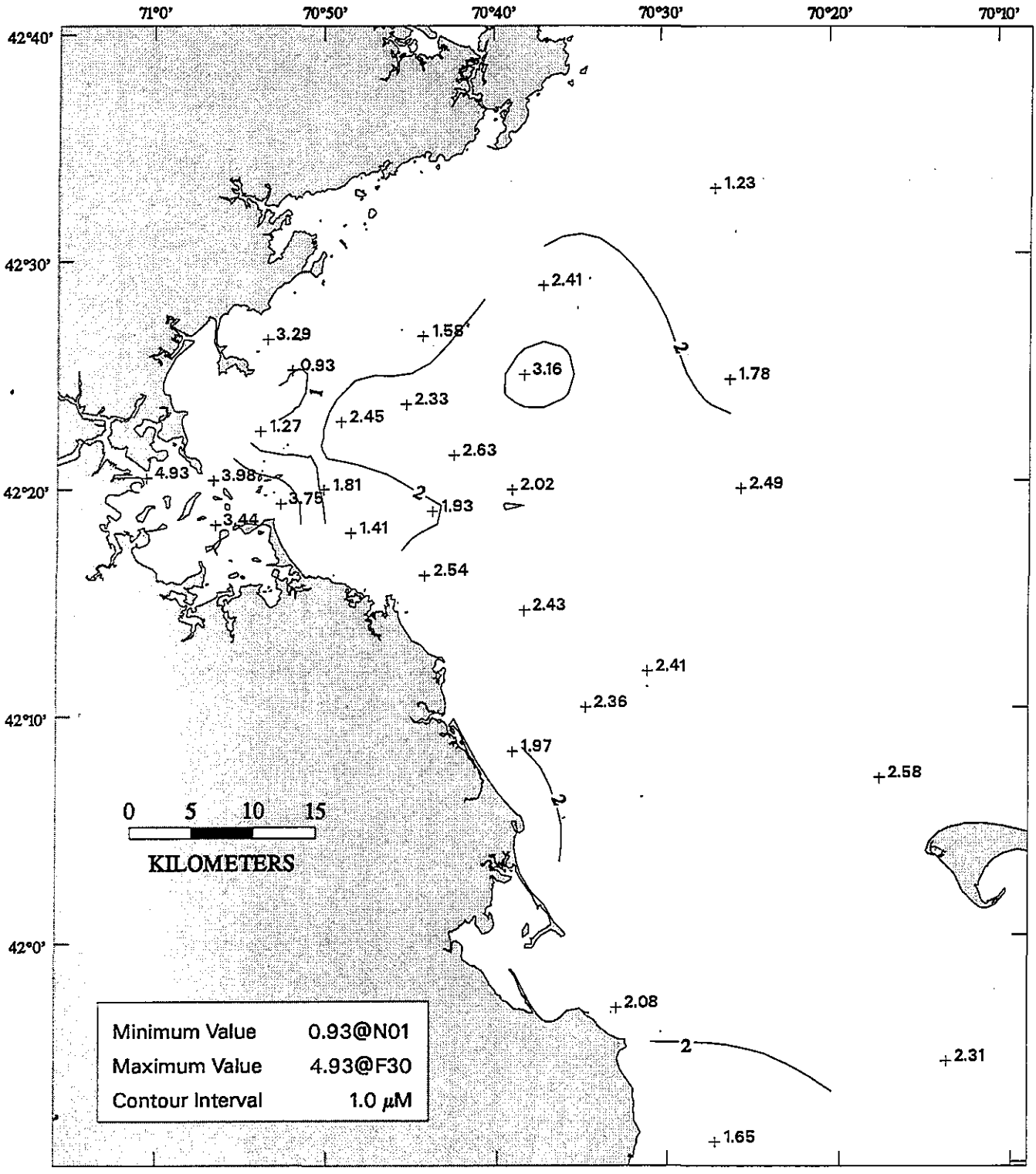
PO4



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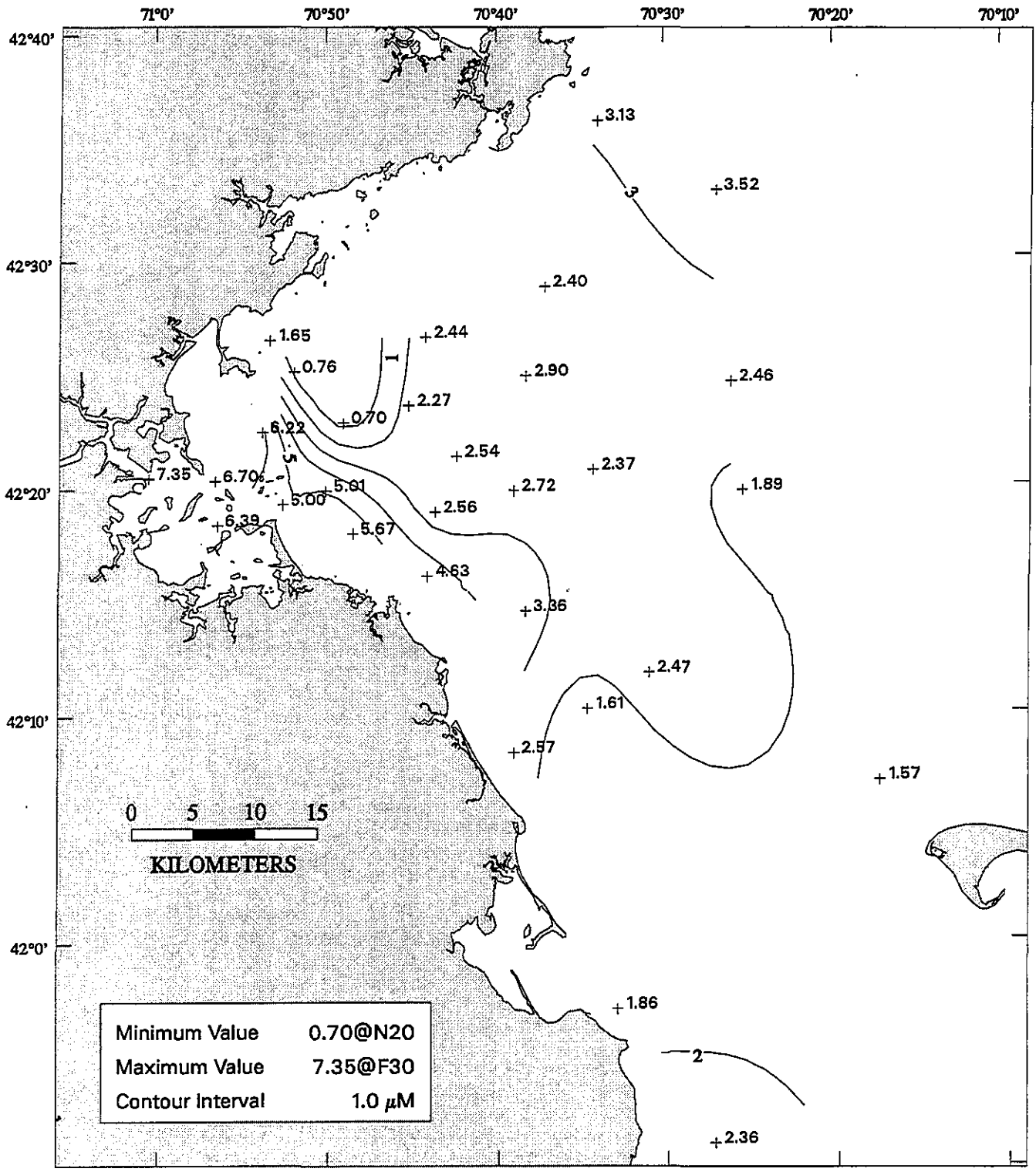
SIO4



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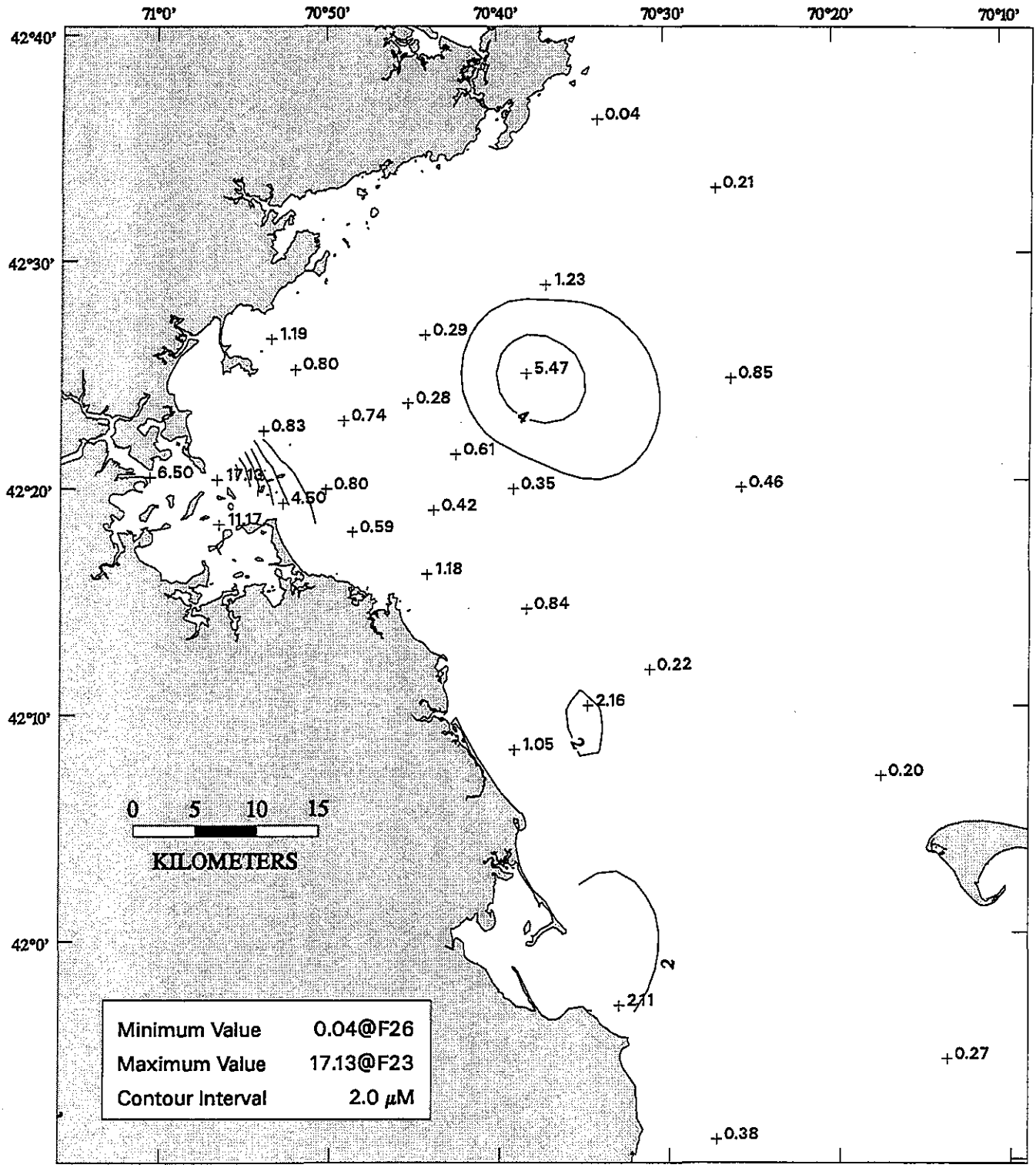
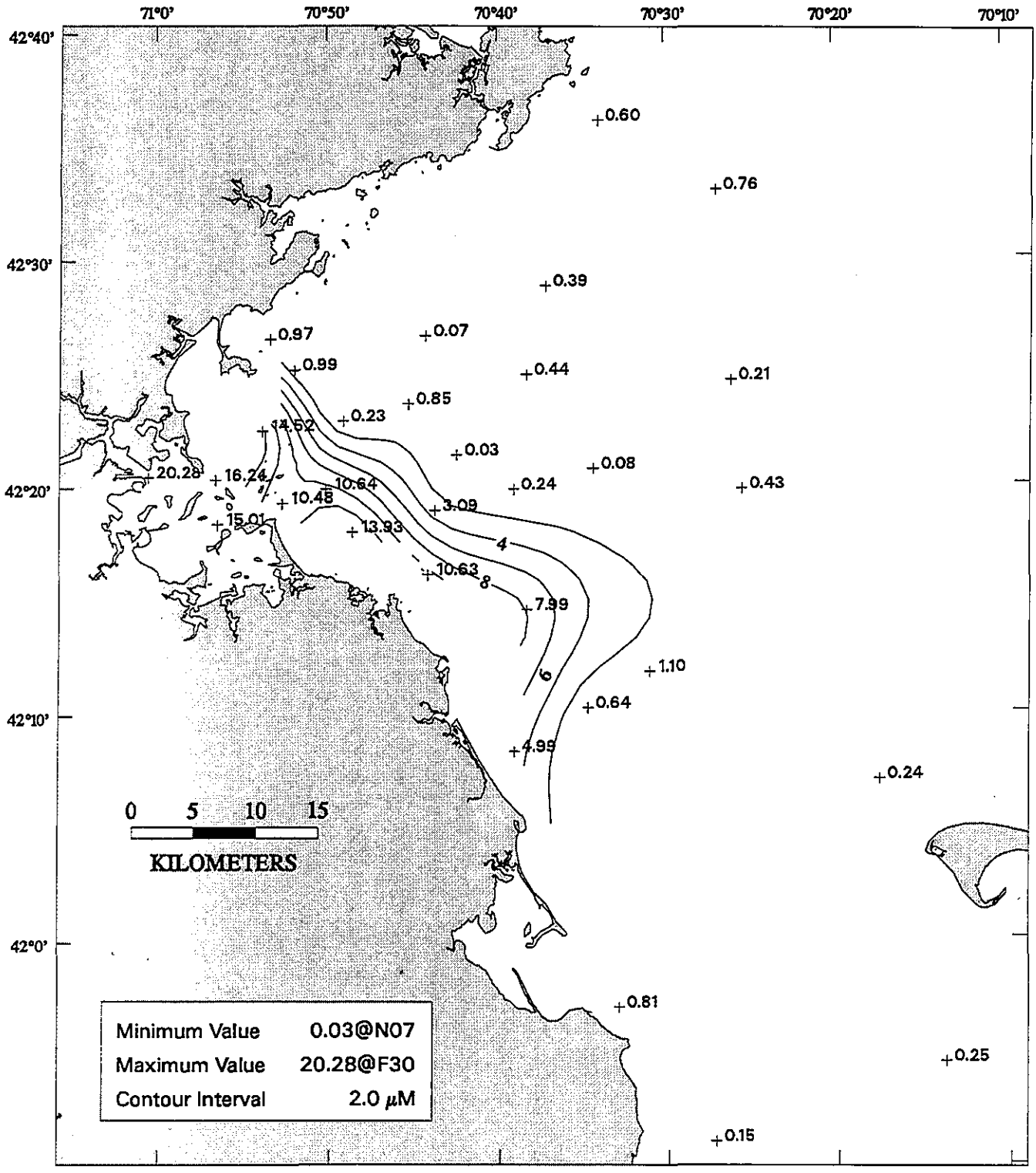
SIO4



9511din_lin
DIN



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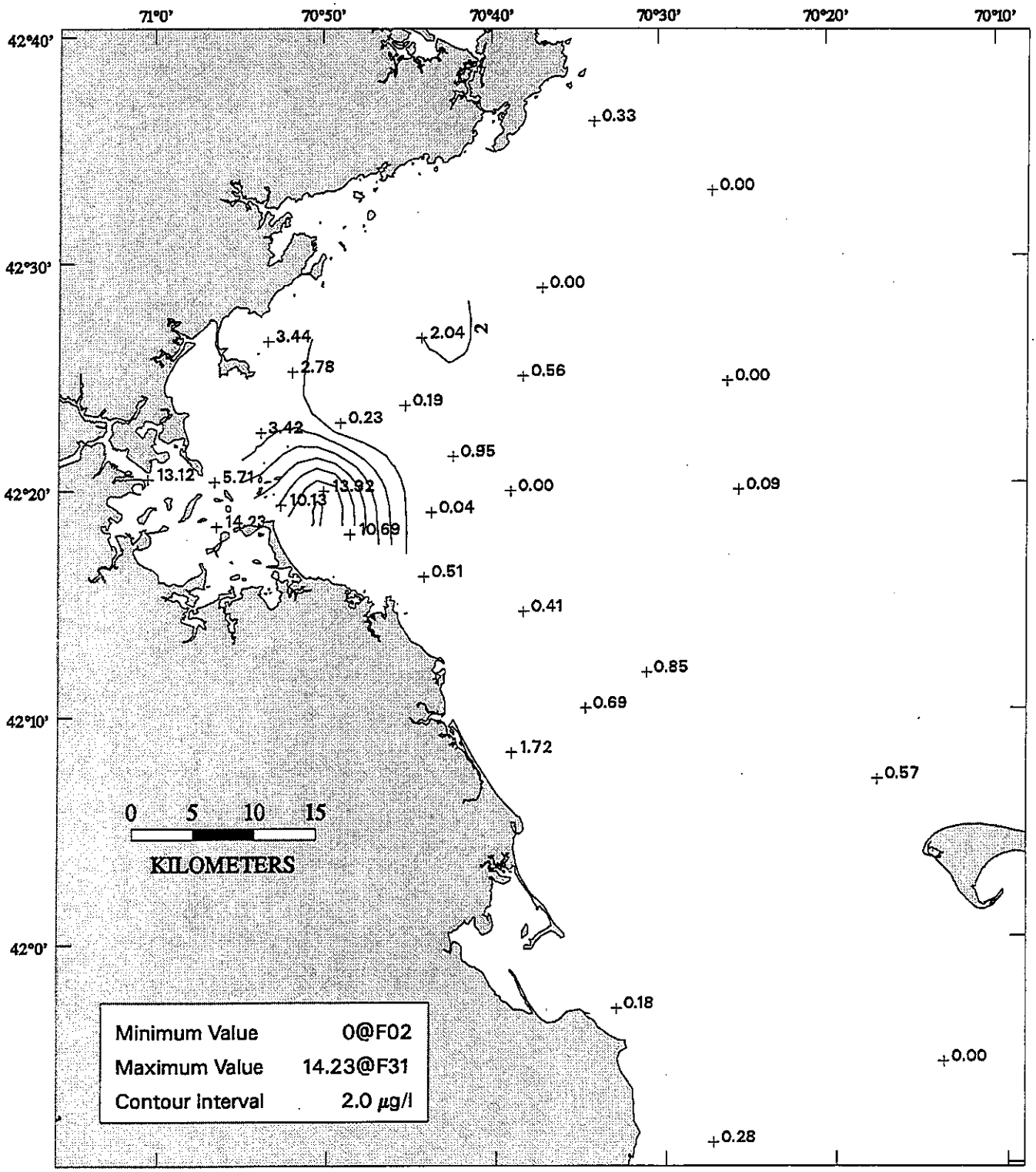
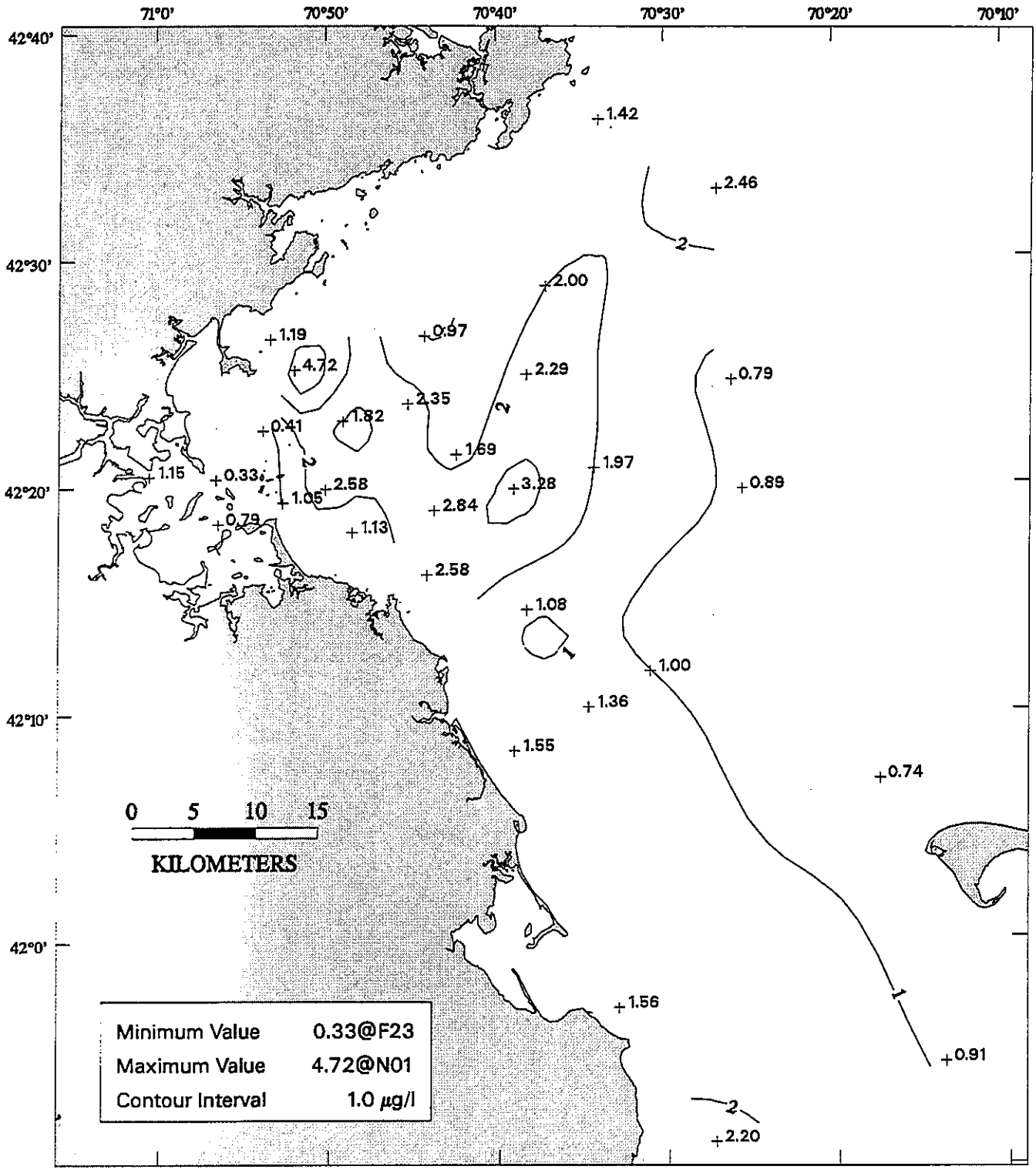
DIN



9511fluo_lin
FLUO



9514fluo_lin
FLUO

APPENDIX C

Transect Plots

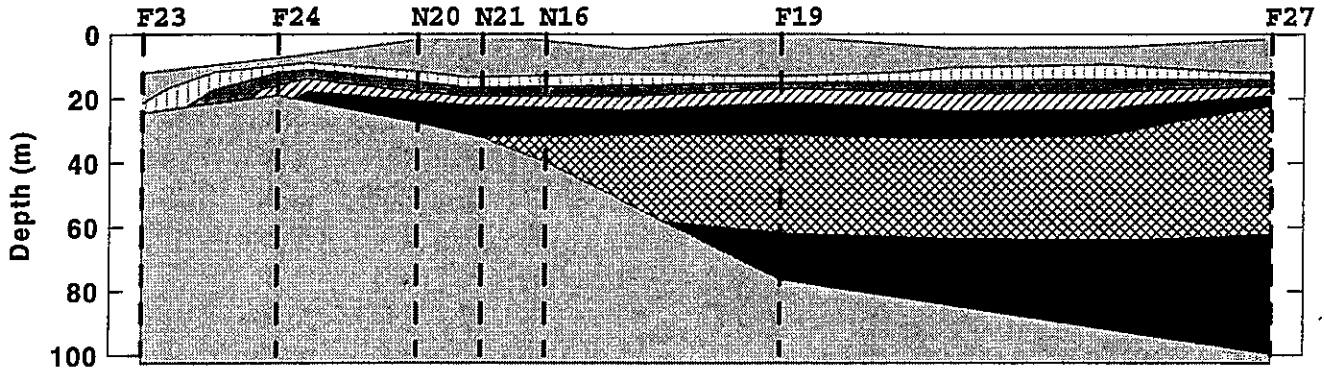
Data were contoured relative to water depth and distance between stations as shown on the transects (Figure 1-3, text). Relative distances between stations and water depth at each station is shown on the transect. Water depth is labelled with negative values in meters, with zero depth at the sea surface, and shaded with slanted lines. Three transects (Boston-Nearfield, Cohasset, and Marshfield) are provided on each plot, as well as shaded contour levels on the scale bar at the bottom of the plot. Contour units are as noted on the table below. Each plot is labelled on the bottom right with the parameter as listed below, and the survey number ("9511").

Appendix C: Table of Contents

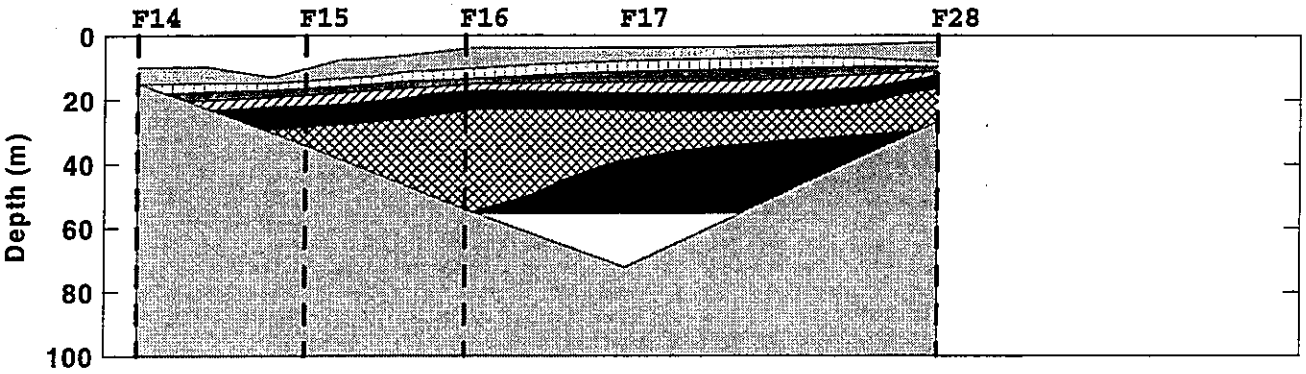
Parameter Name	Map Parameter Name	Units
Sigma-T (σ_t)	Sigma-T	n/a
Temperature	Temperature	°C
Salinity	Salinity	PSU
Transmissivity (beam attenuation)	Trans	/m
Nitrate (NO_3)	NO3	µM
Phosphate (PO_4)	PO4	µM
Silicate (SiO_4)	SiO4	µM
Dissolved Inorganic Nitrogen (DIN*)	DI Nitro	µM
Chlorophyll *a*	Fluorescence	µg/L
DO Saturation	DO % Saturation	%

*$NO_3 + NO_2 + NH_4$

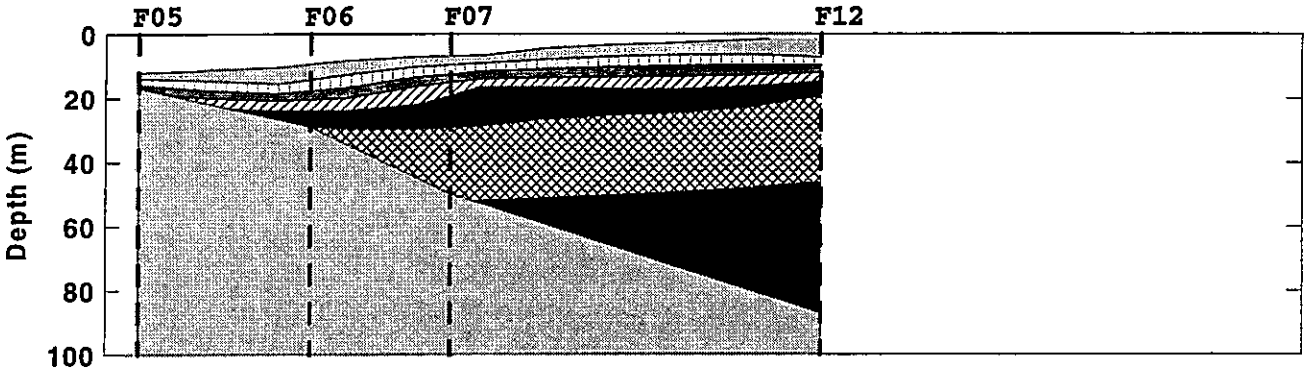
Boston-Nearfield Transect



Cohassett Transect

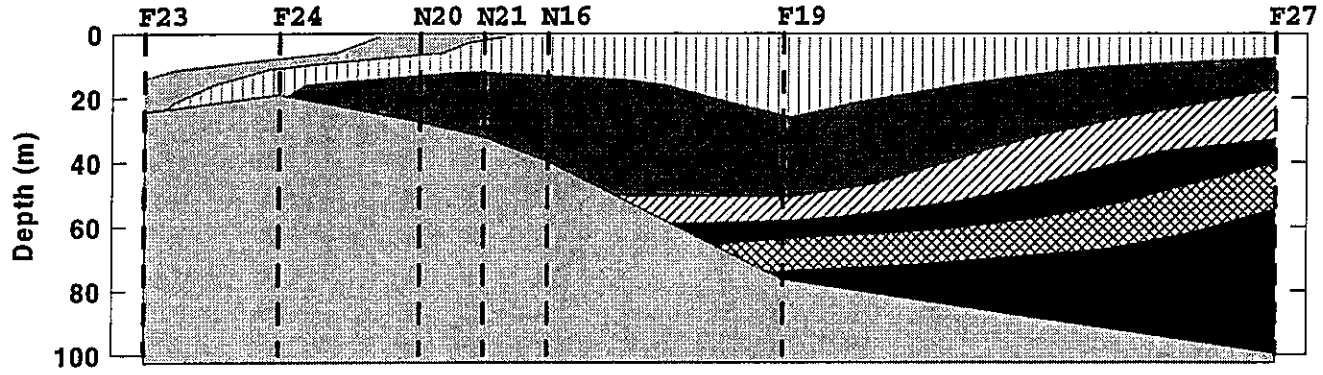


Marshfield Transect

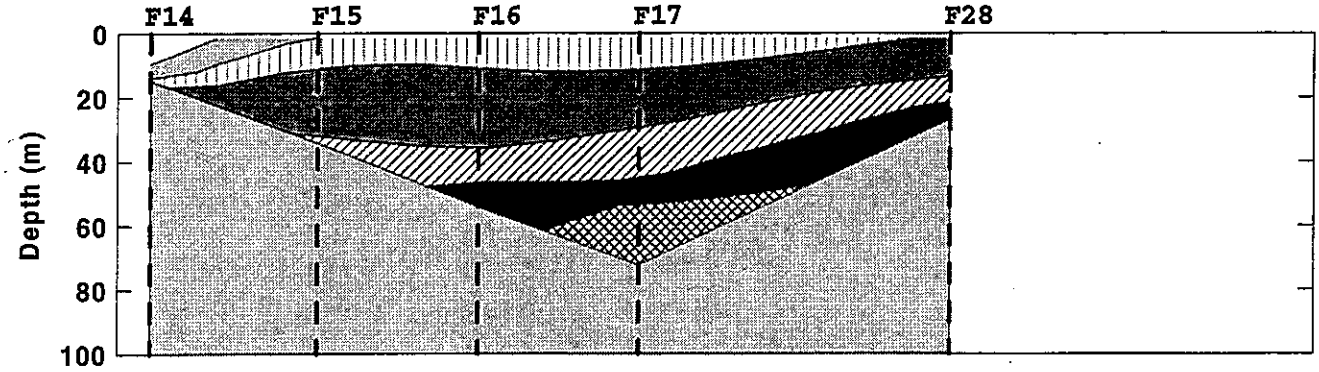


Sigma-T 9511

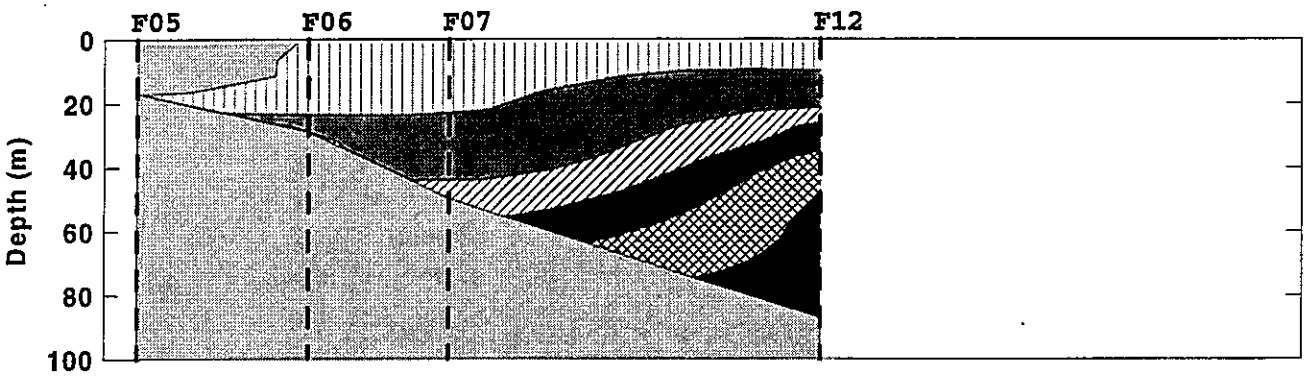
Boston-Nearfield Transect



Cohassett Transect

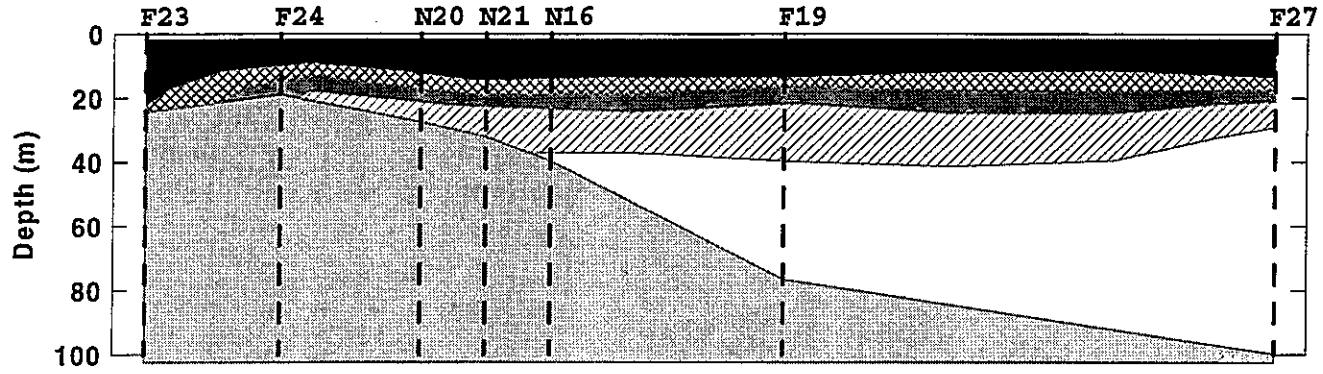


Marshfield Transect

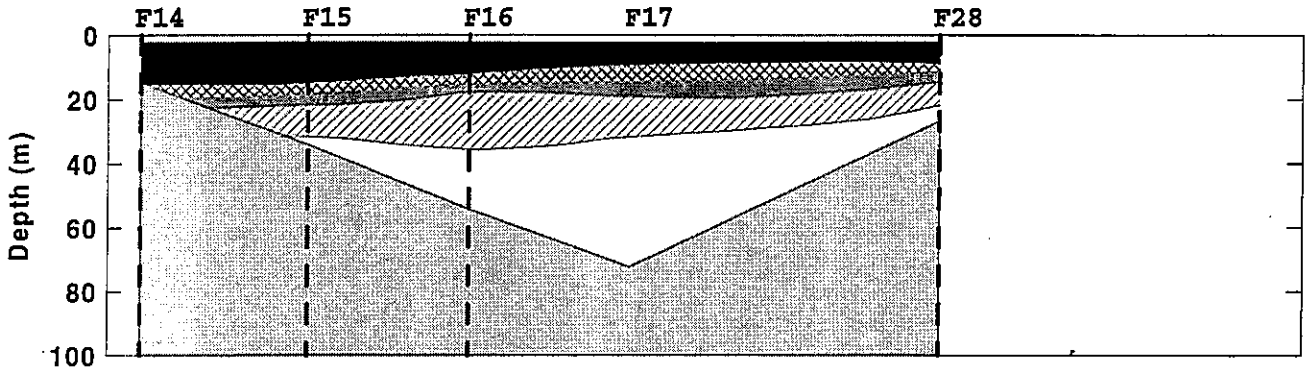


Sigma-T 9514

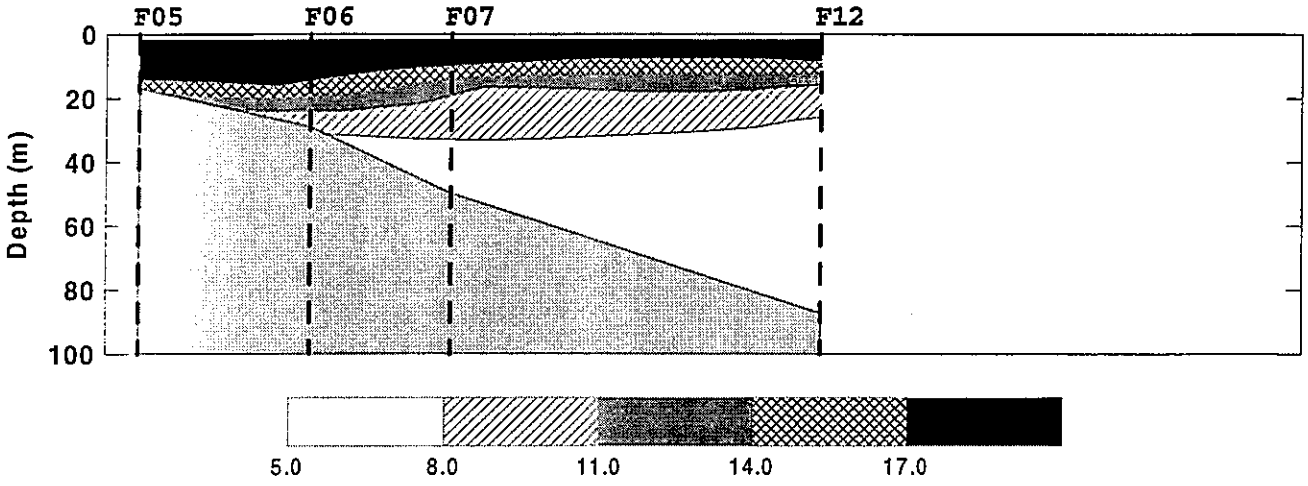
Boston-Nearfield Transect



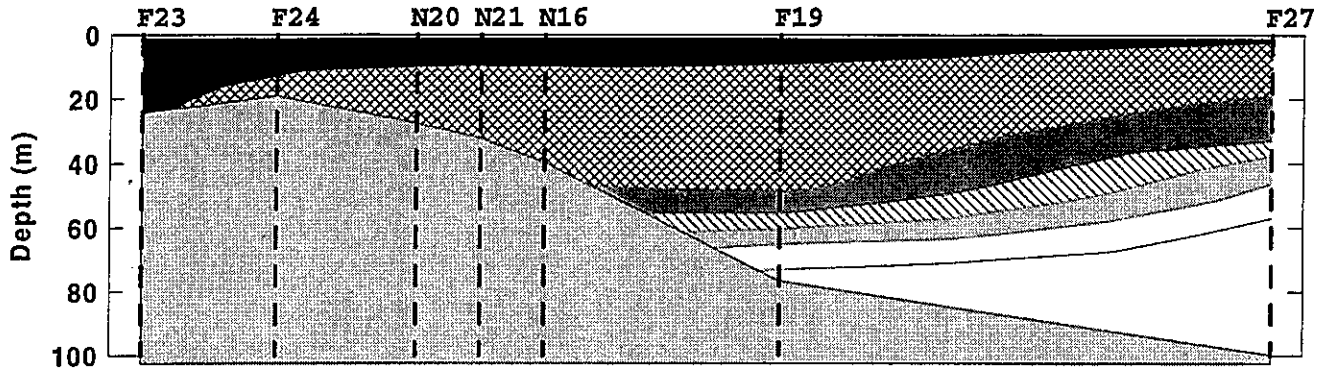
Cohassett Transect



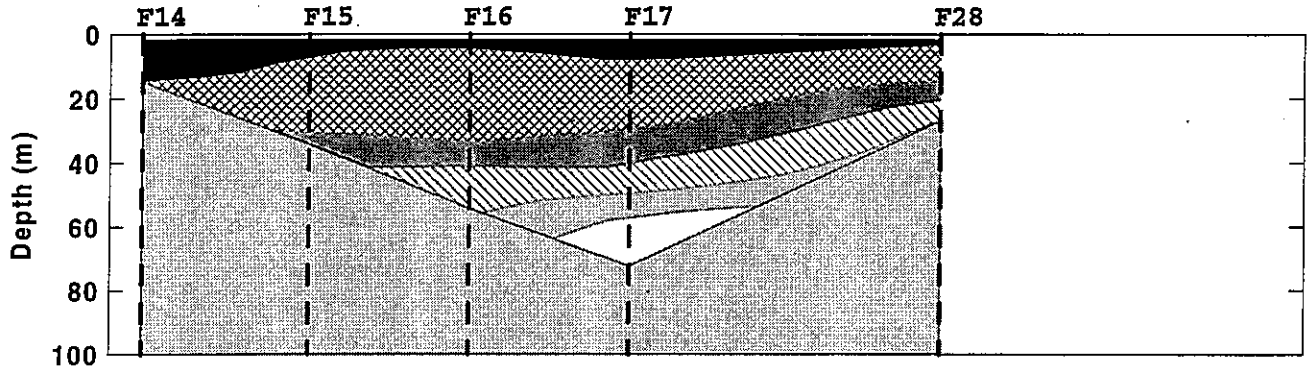
Marshfield Transect



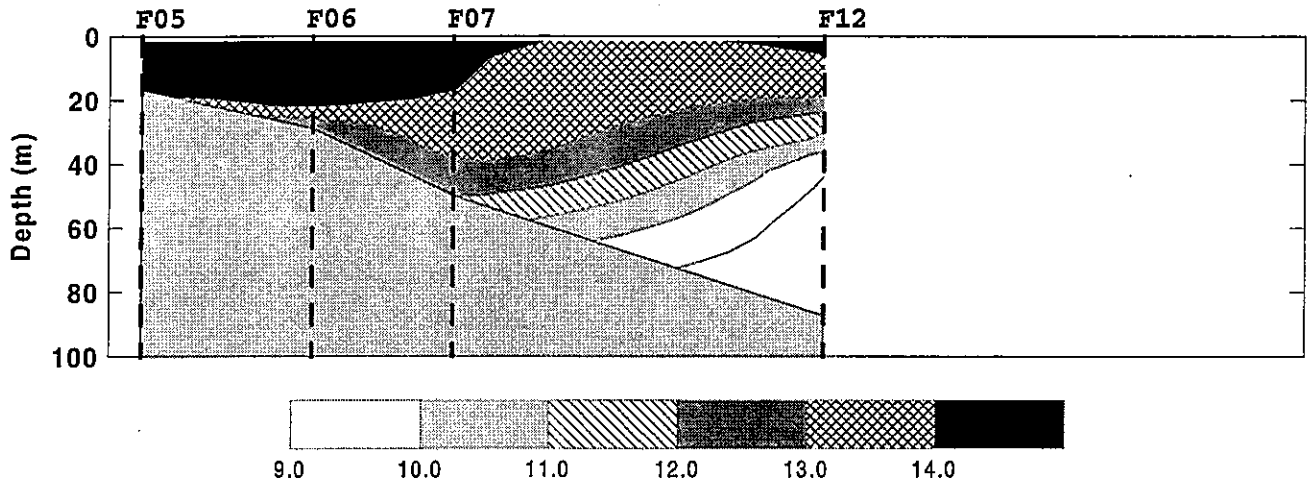
Boston-Nearfield Transect



Cohassett Transect

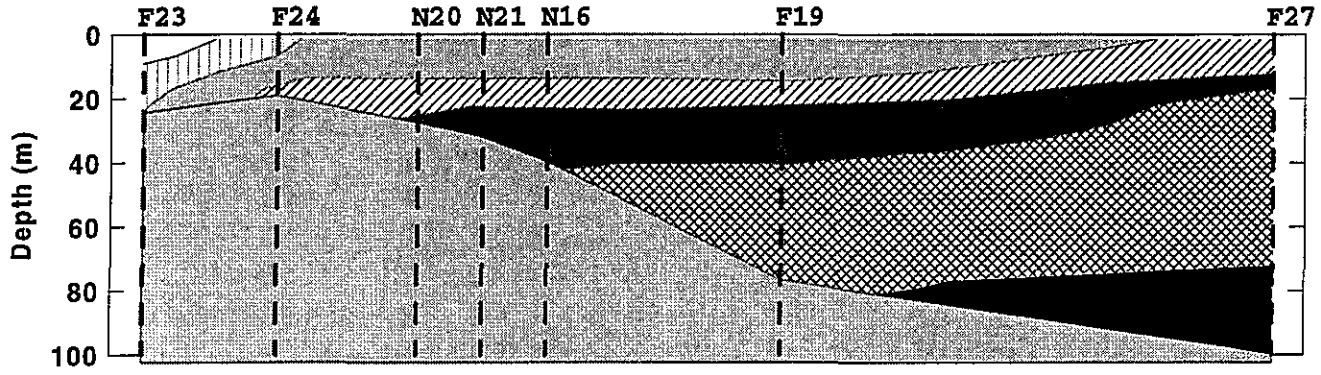


Marshfield Transect



Temperature 9514

Boston-Nearfield Transect



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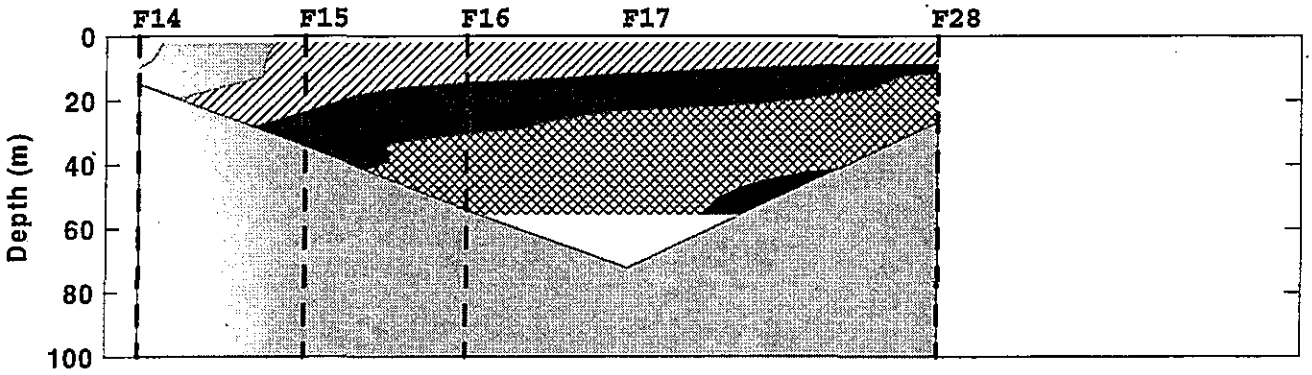
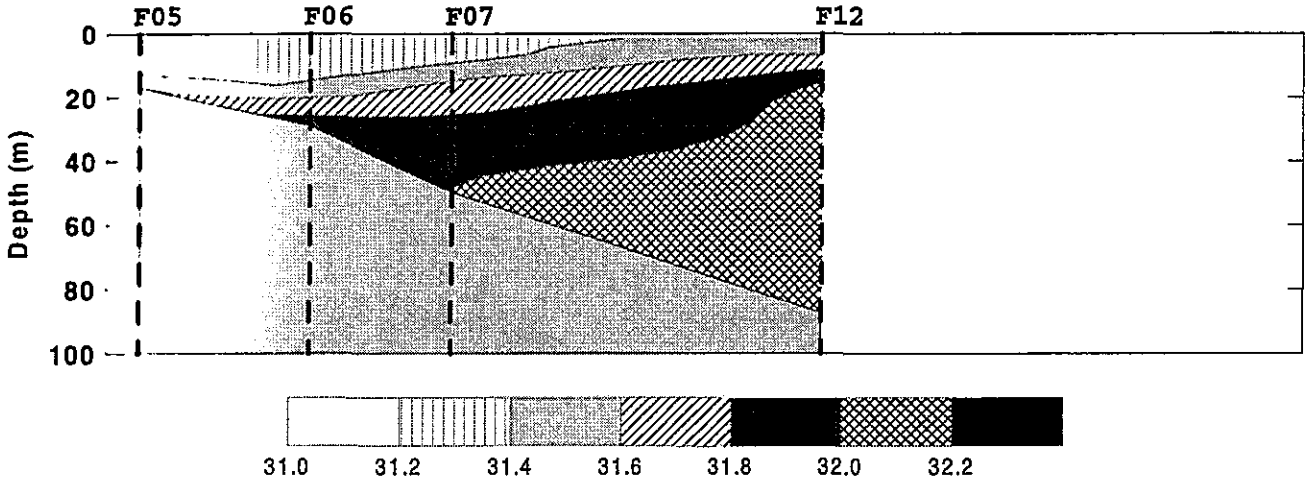
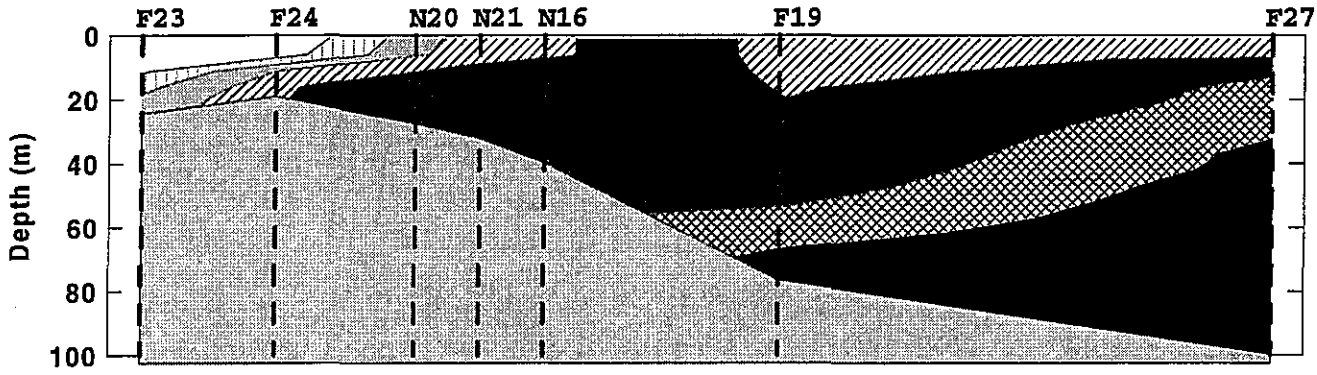


Marshfield Transect

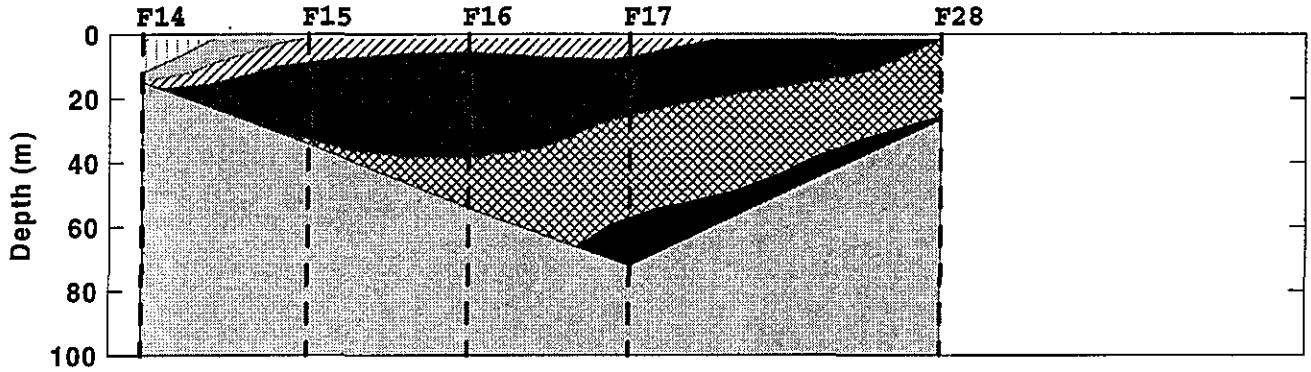


Salinity 9511

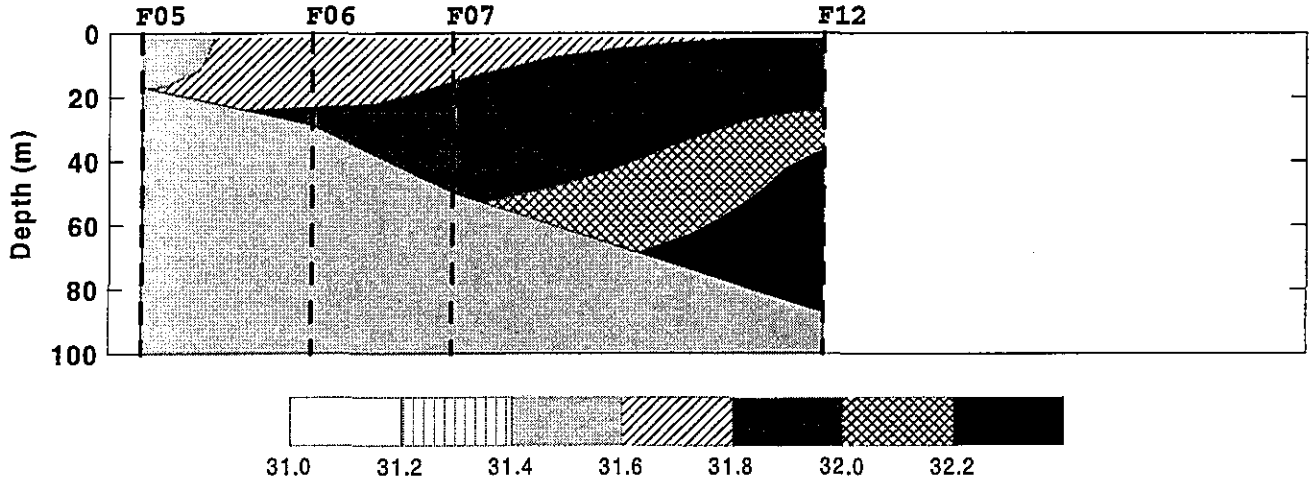
Boston-Nearfield Transect



Cohassett Transect

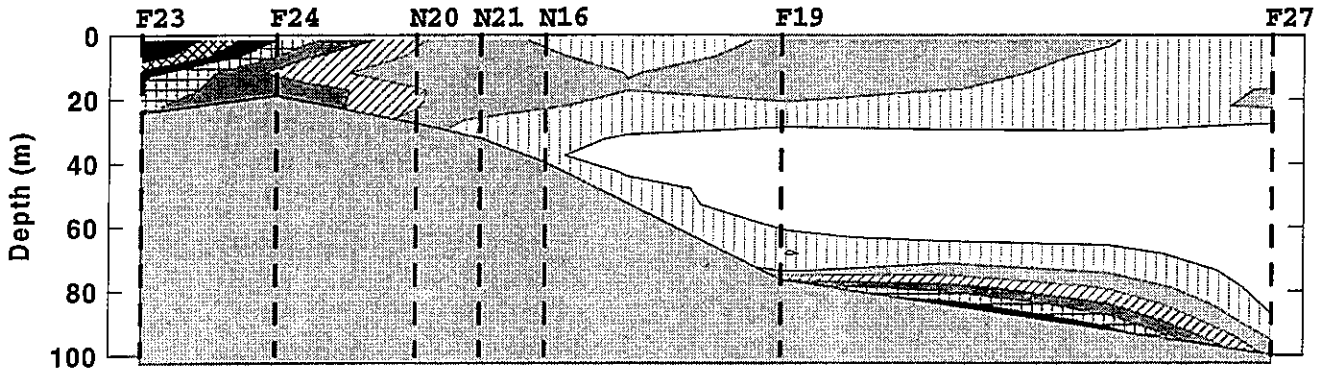


Marshfield Transect

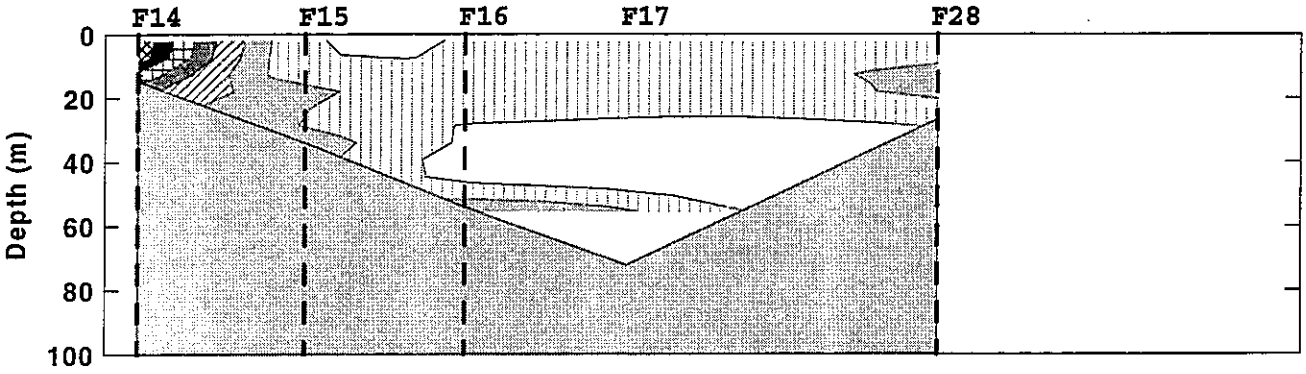


Salinity 9514

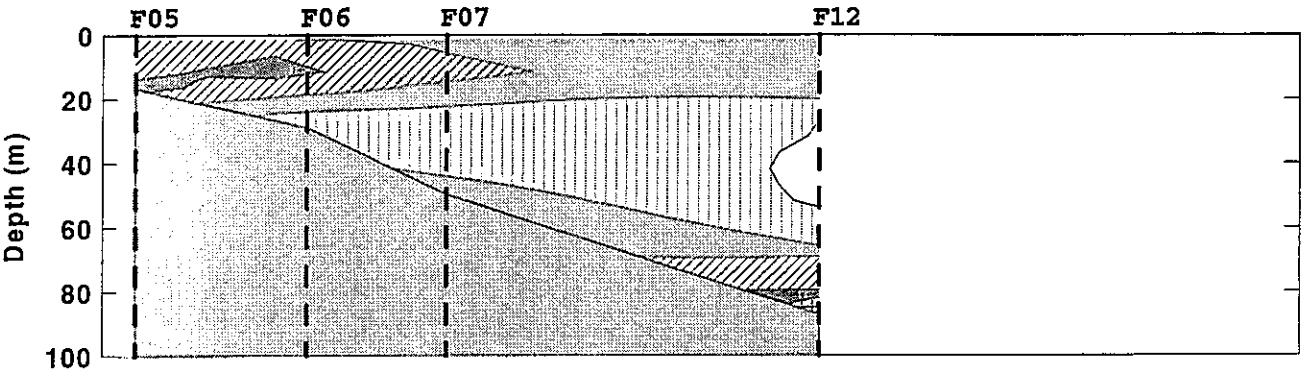
Boston-Nearfield Transect

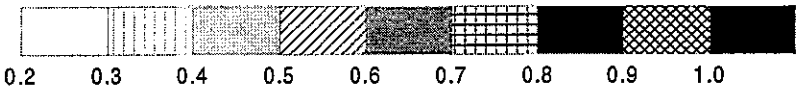


Cohassett Transect



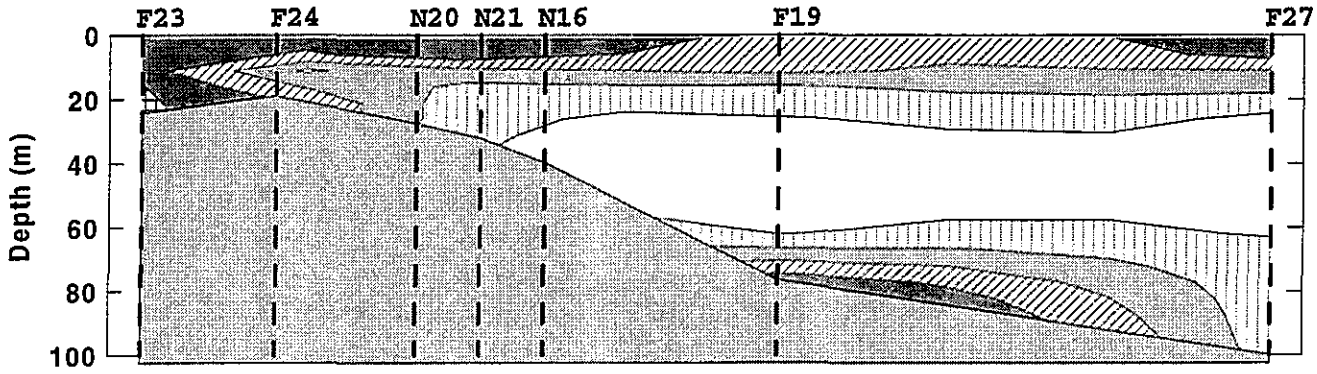
Marshfield Transect



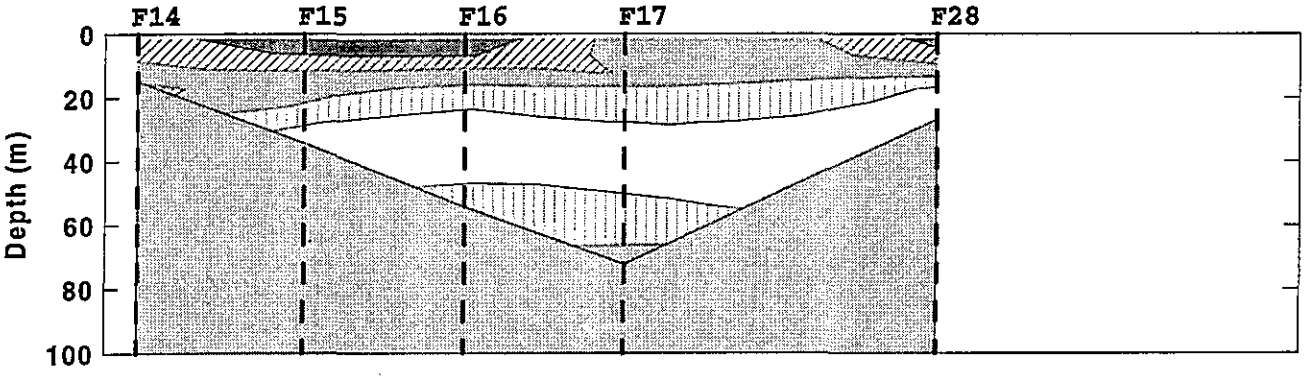


Trans 9511

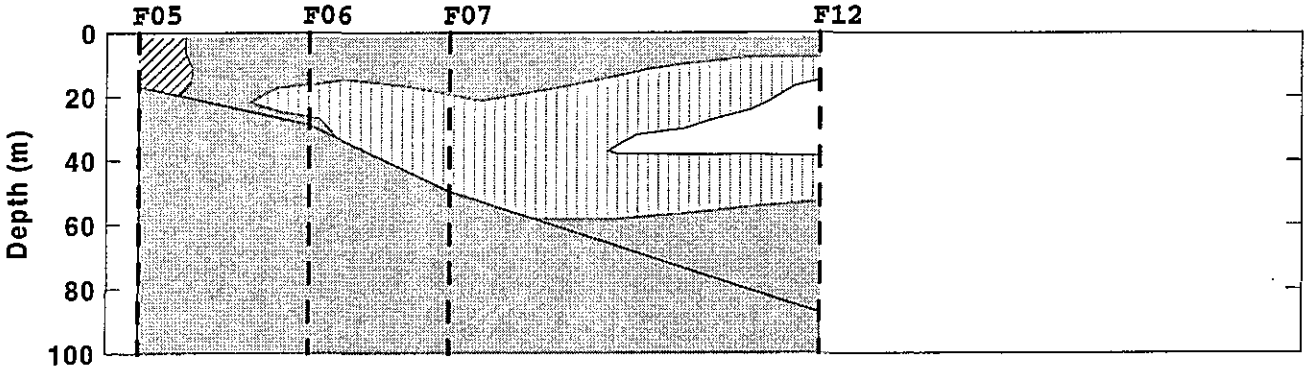
Boston-Nearfield Transect

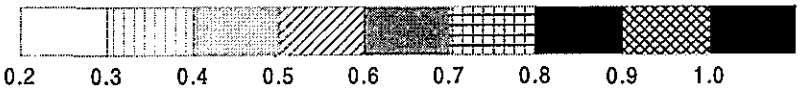


Cohassett Transect



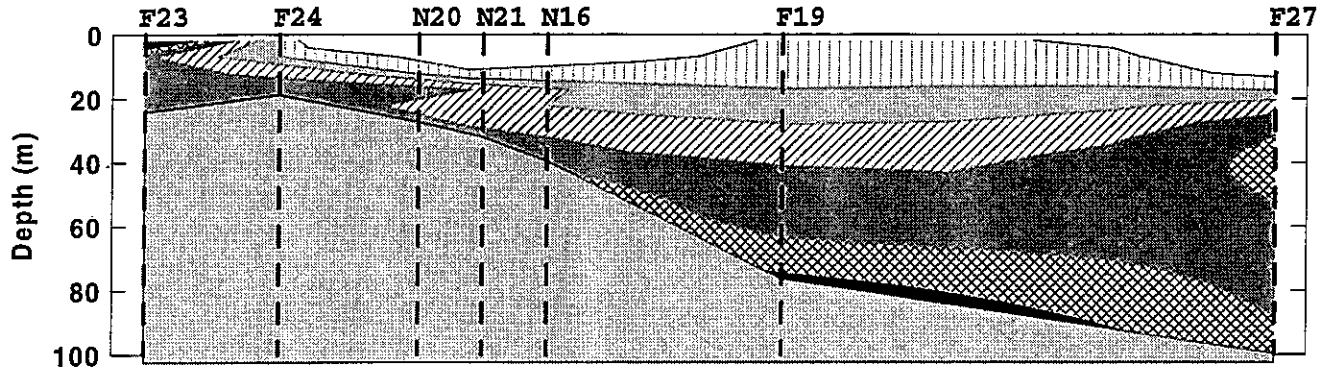
Marshfield Transect



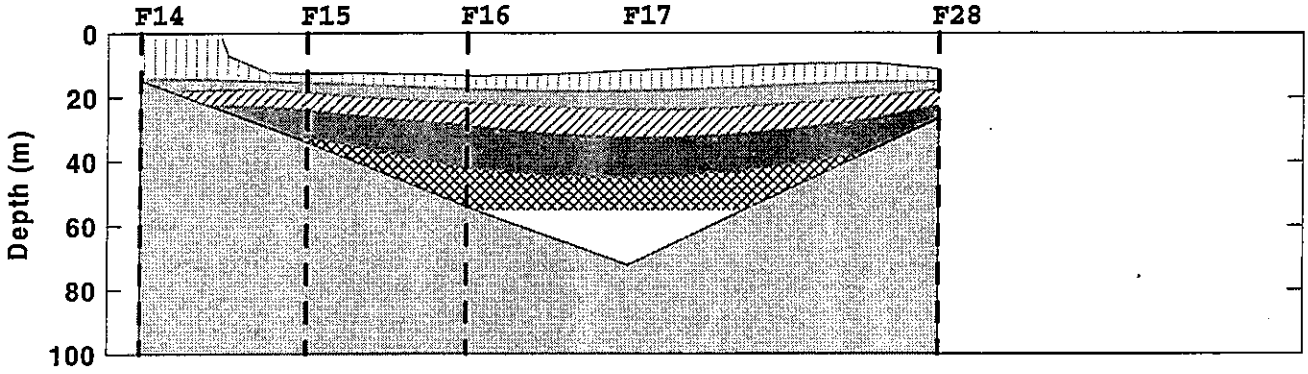


Trans 9514

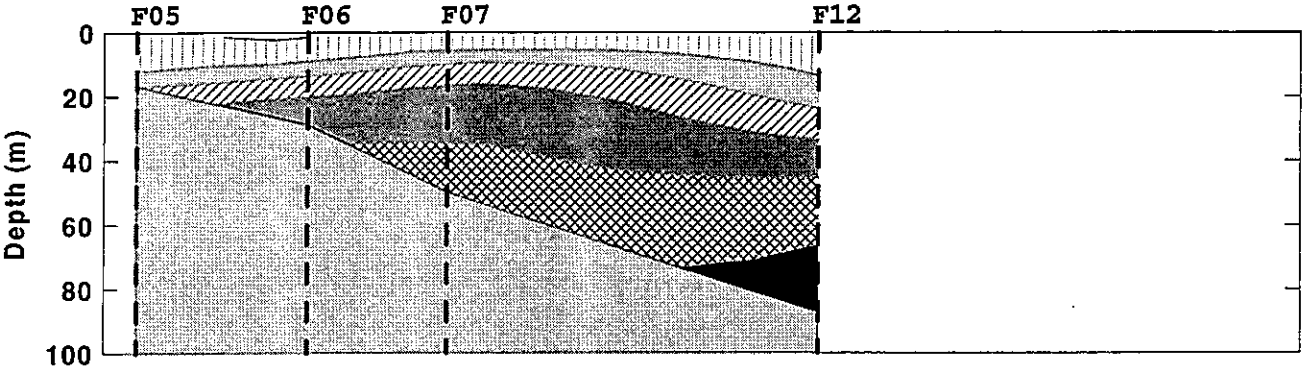
Boston-Nearfield Transect

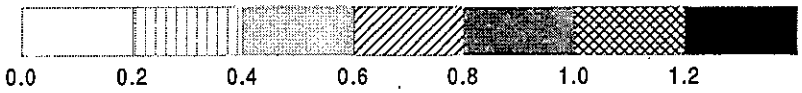


Cohassett Transect

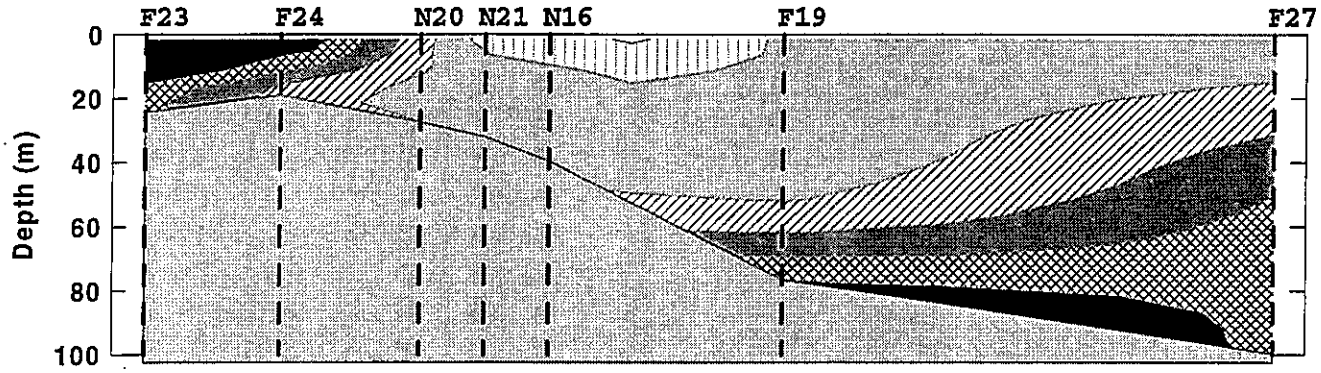


Marshfield Transect

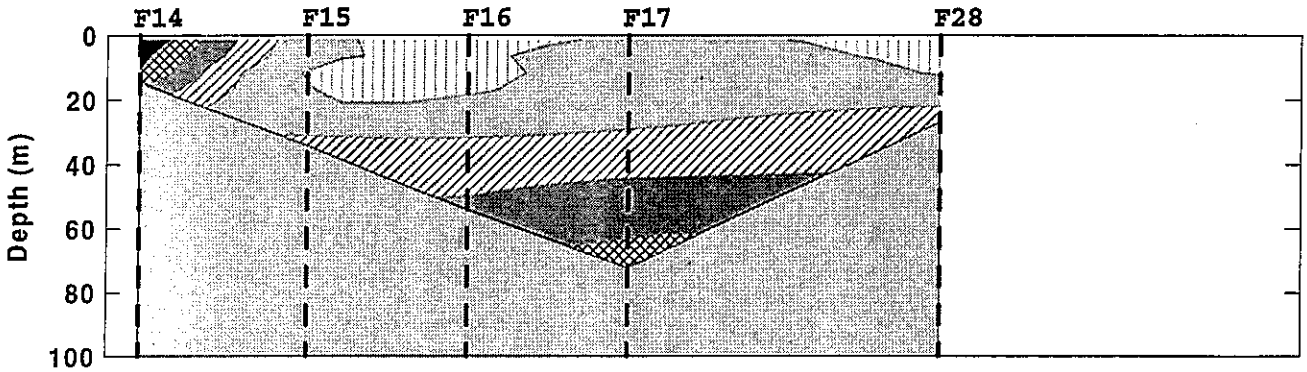




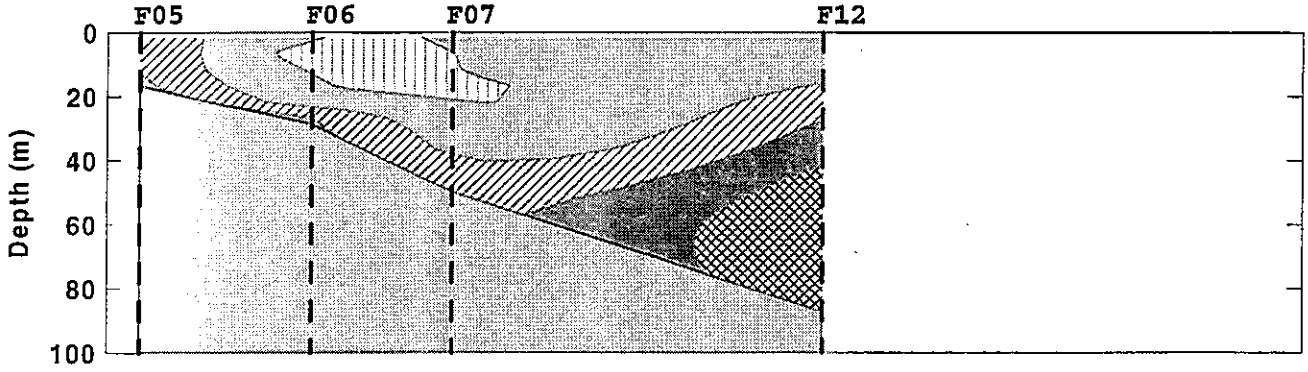
Boston-Nearfield Transect

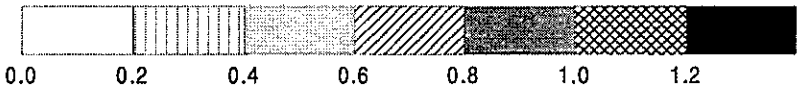


Cohassett Transect

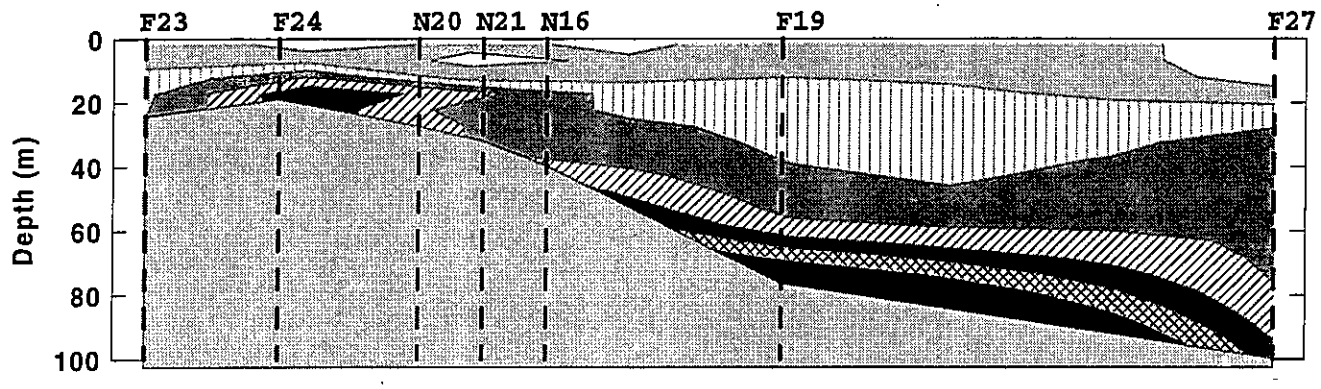


Marshfield Transect

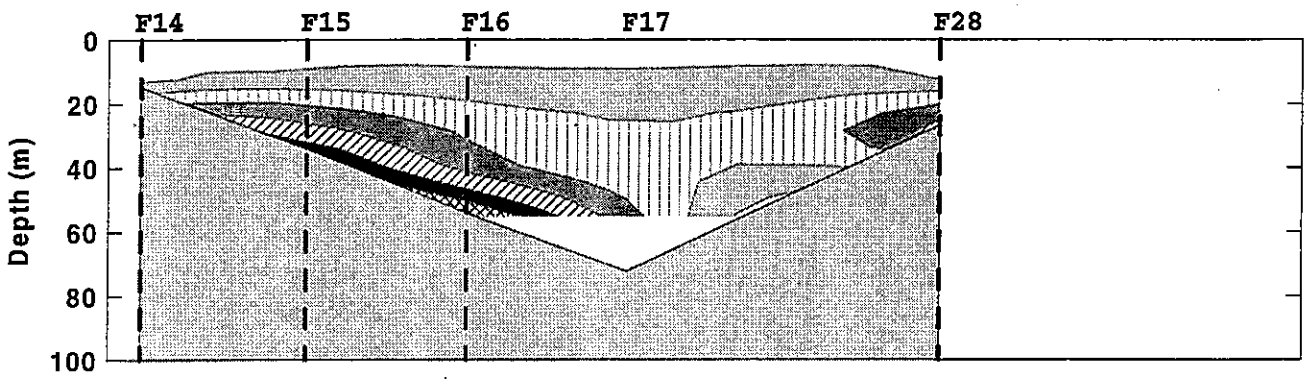




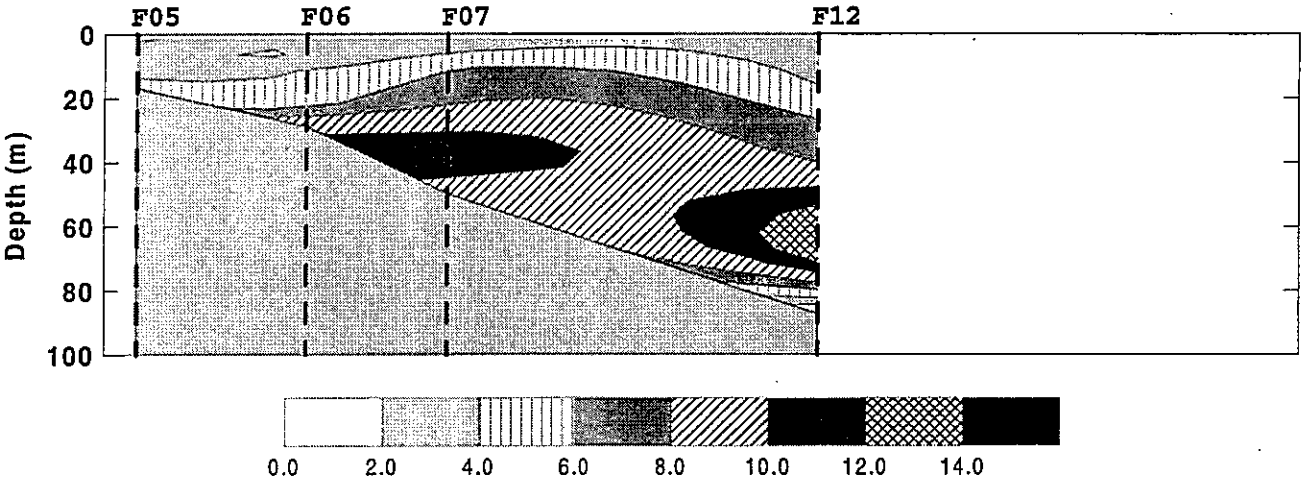
Boston-Nearfield Transect



Cohassett Transect

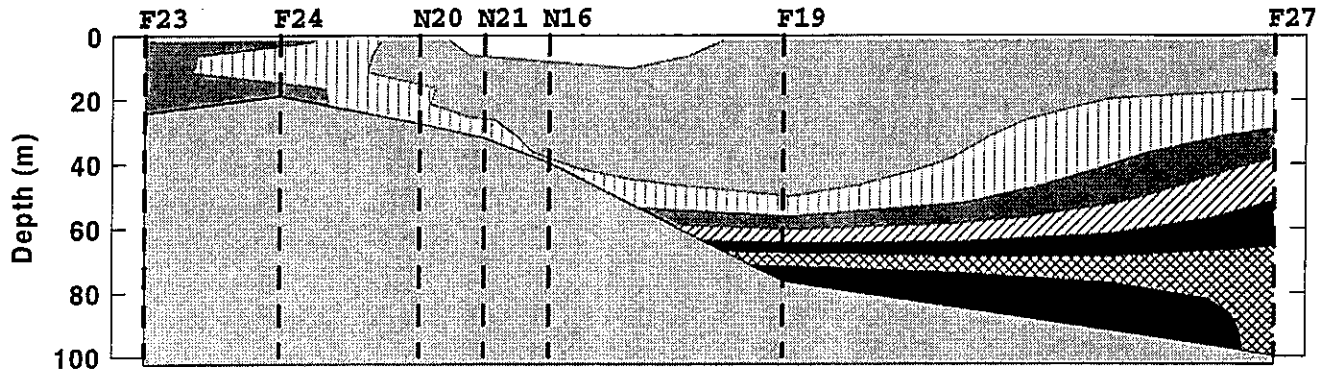


Marshfield Transect

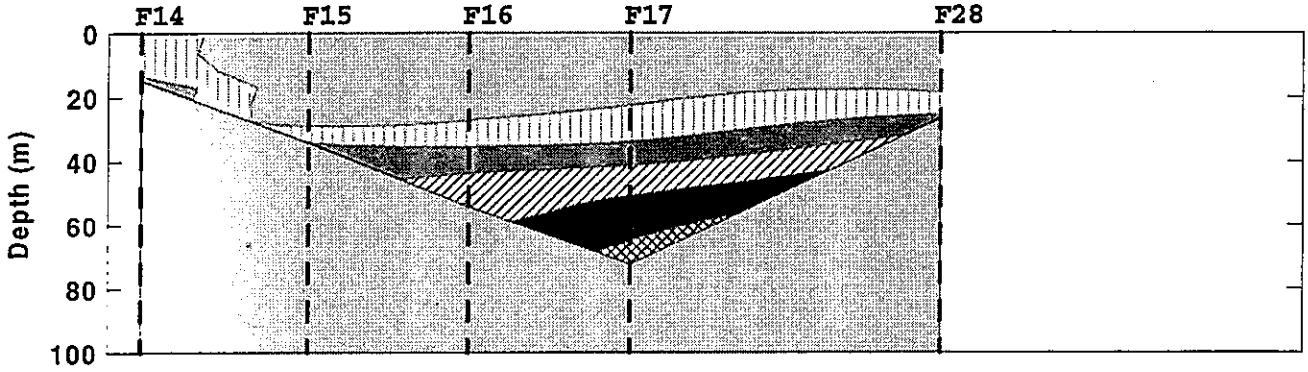


SIO4 9511

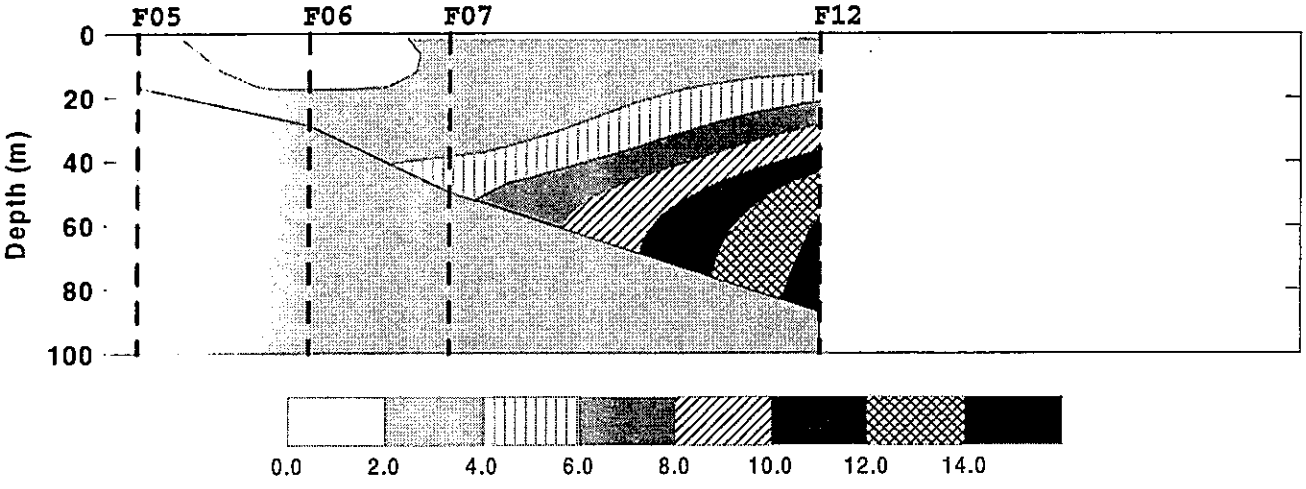
Boston-Nearfield Transect



Cohassett Transect

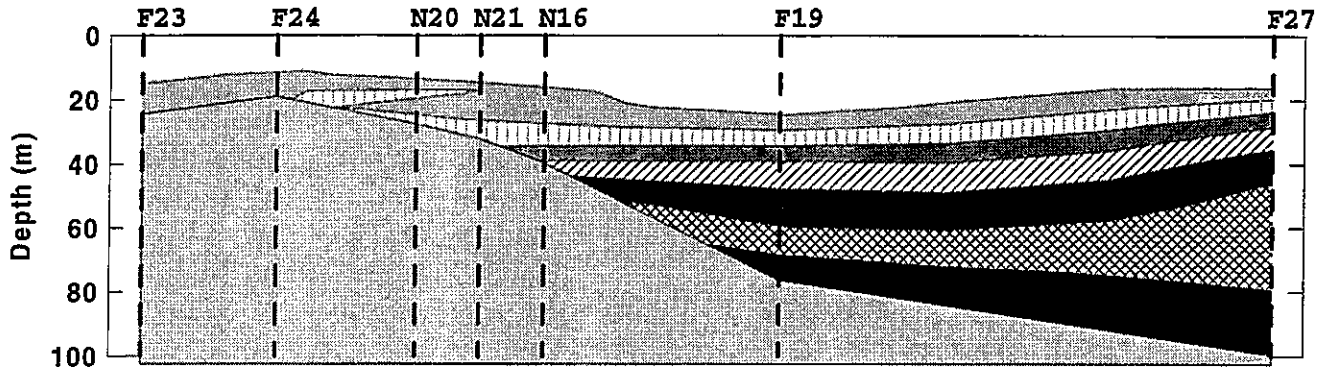


Marshfield Transect

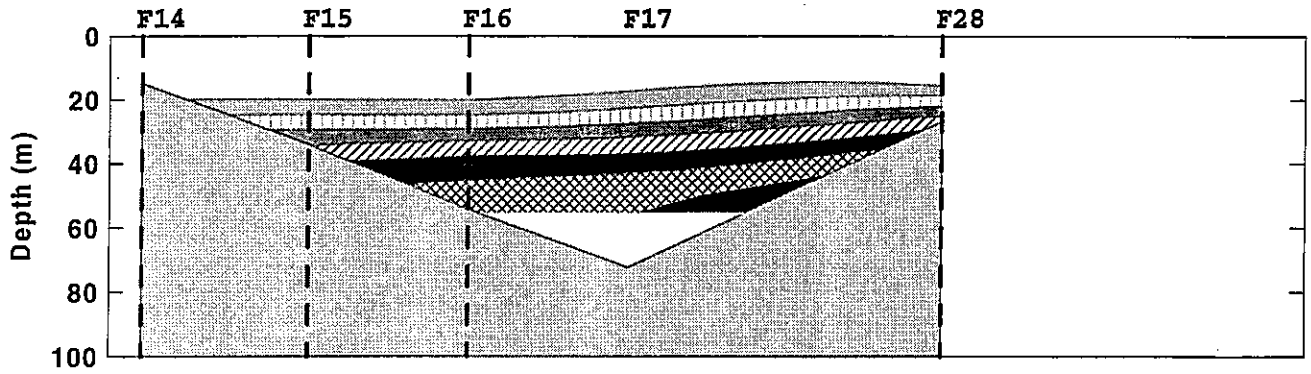


SIO4 9514

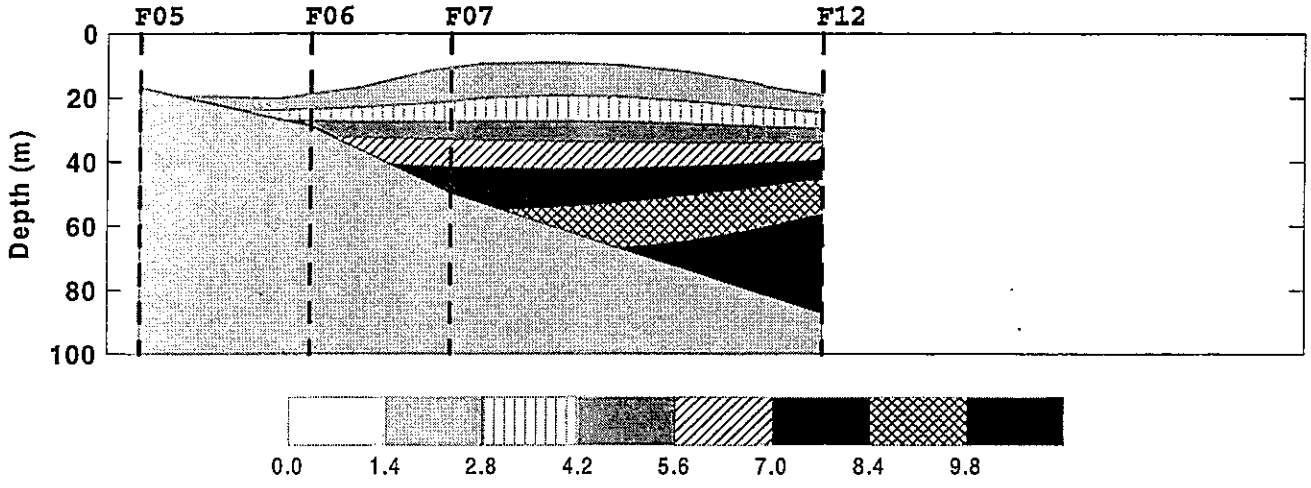
Boston-Nearfield Transect



Cohassett Transect

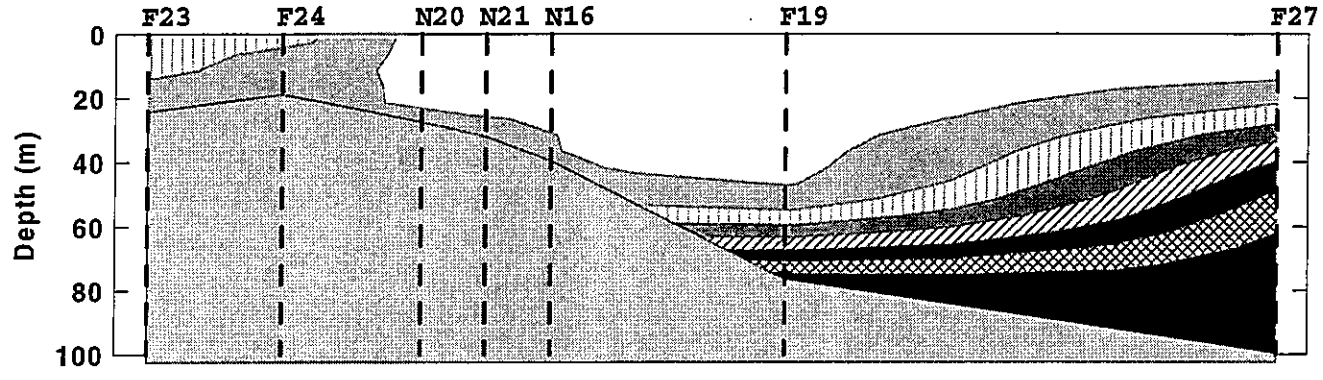


Marshfield Transect

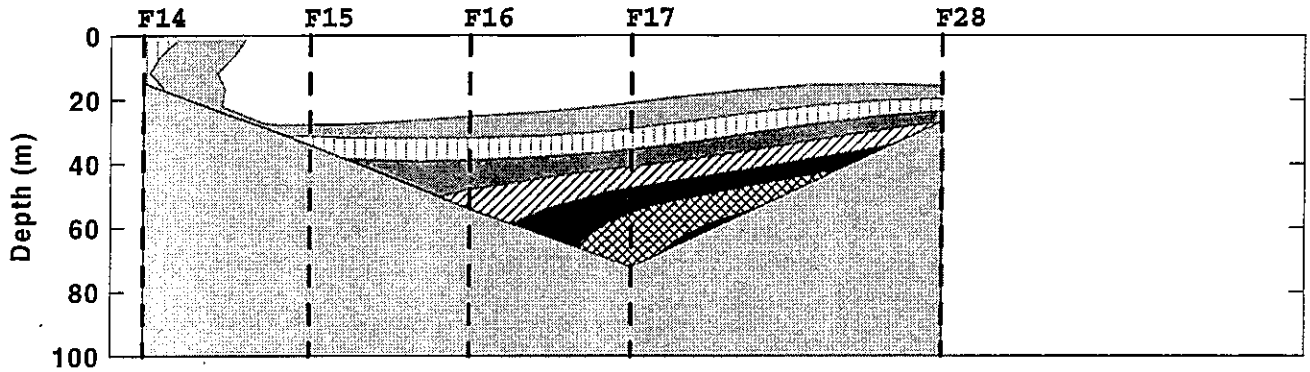


NO3 9511

Boston-Nearfield Transect



Cohassett Transect



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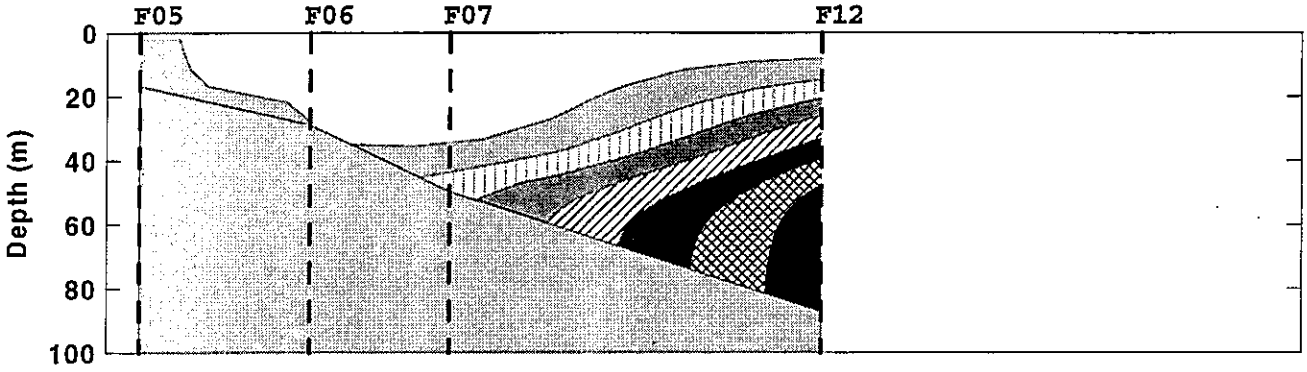
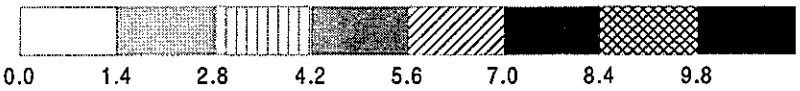
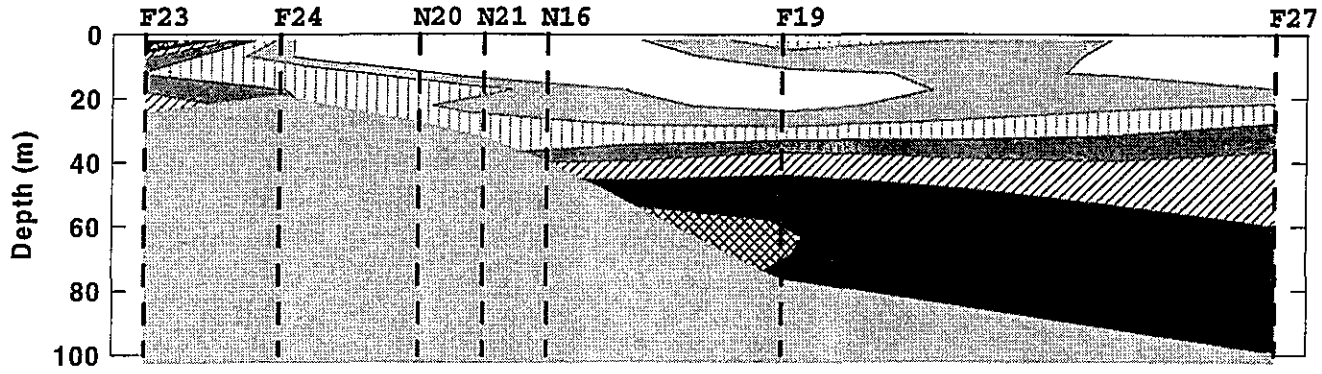


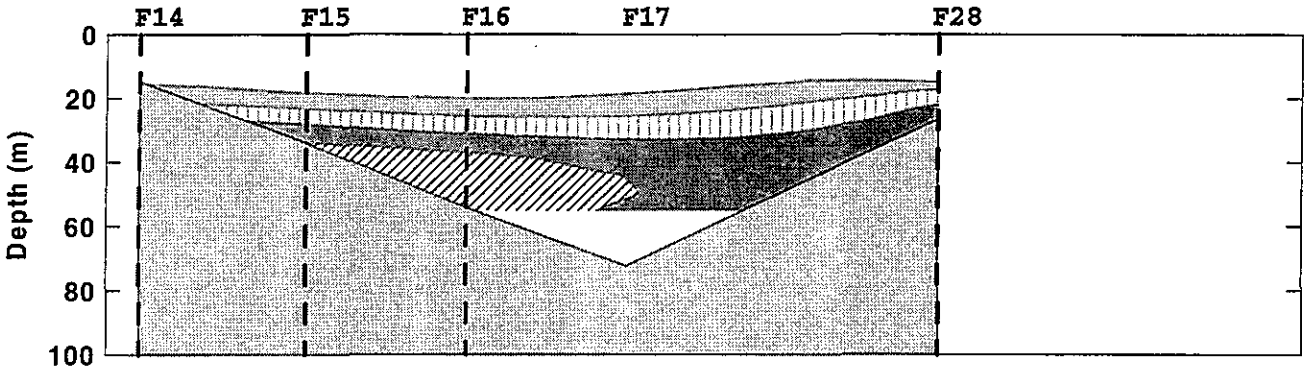


NO3 9514

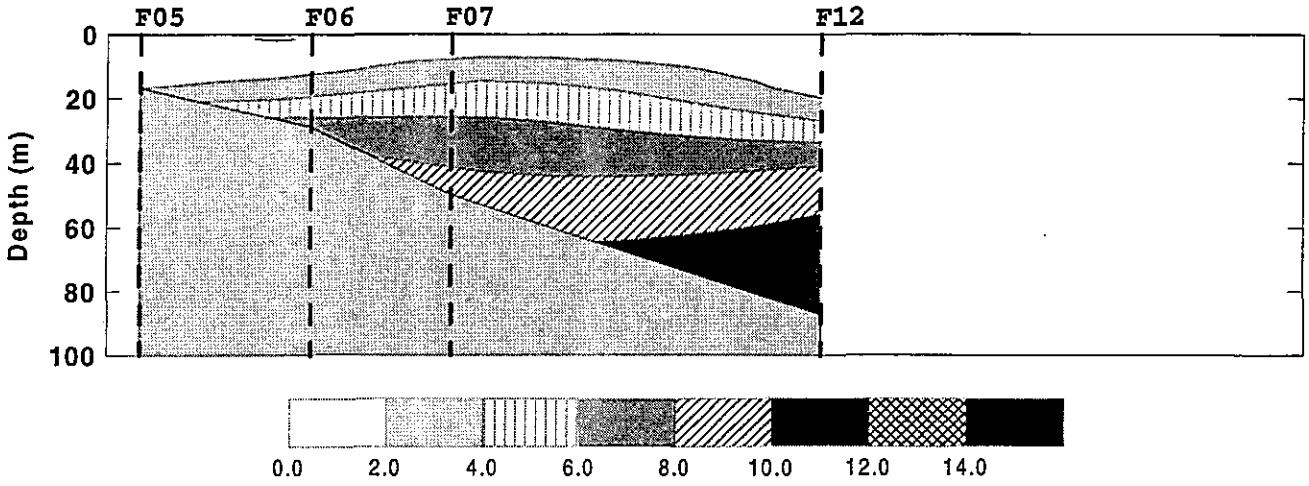
Boston-Nearfield Transect



Cohassett Transect

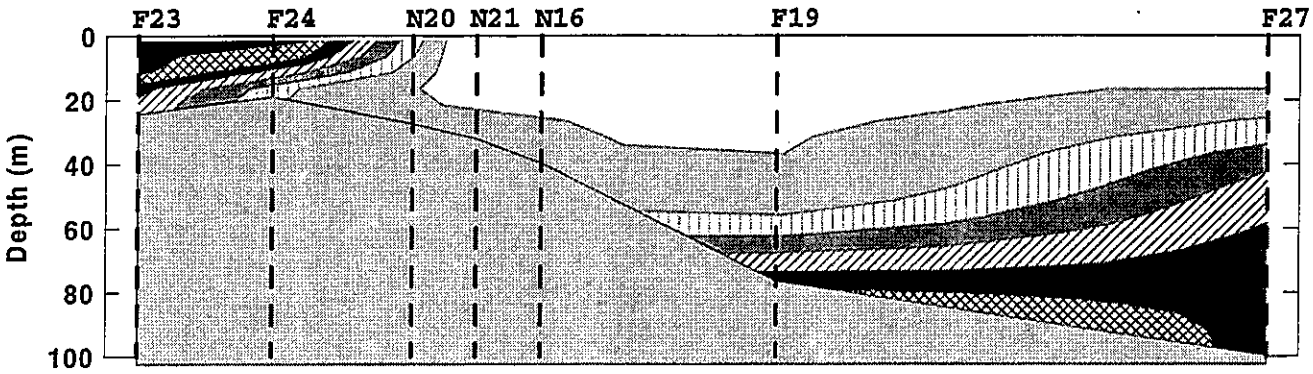


Marshfield Transect

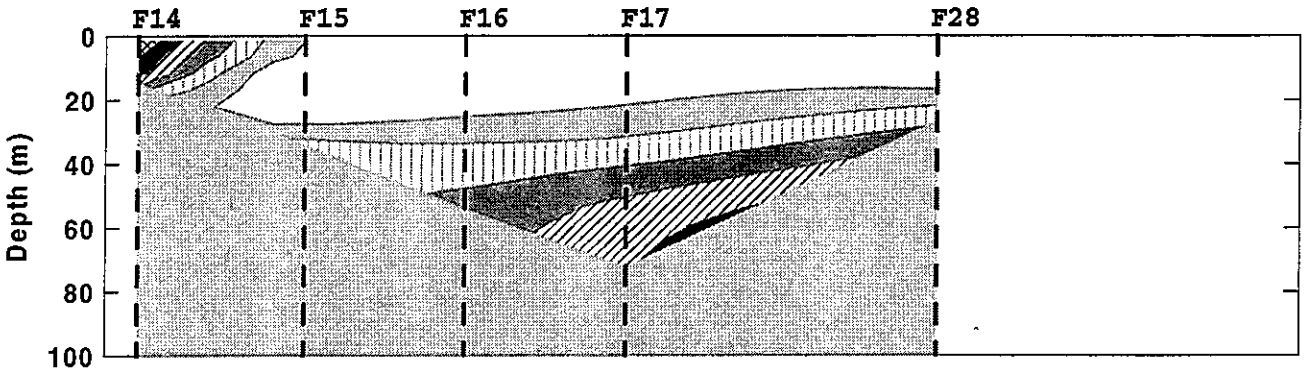


DI Nitro 9511

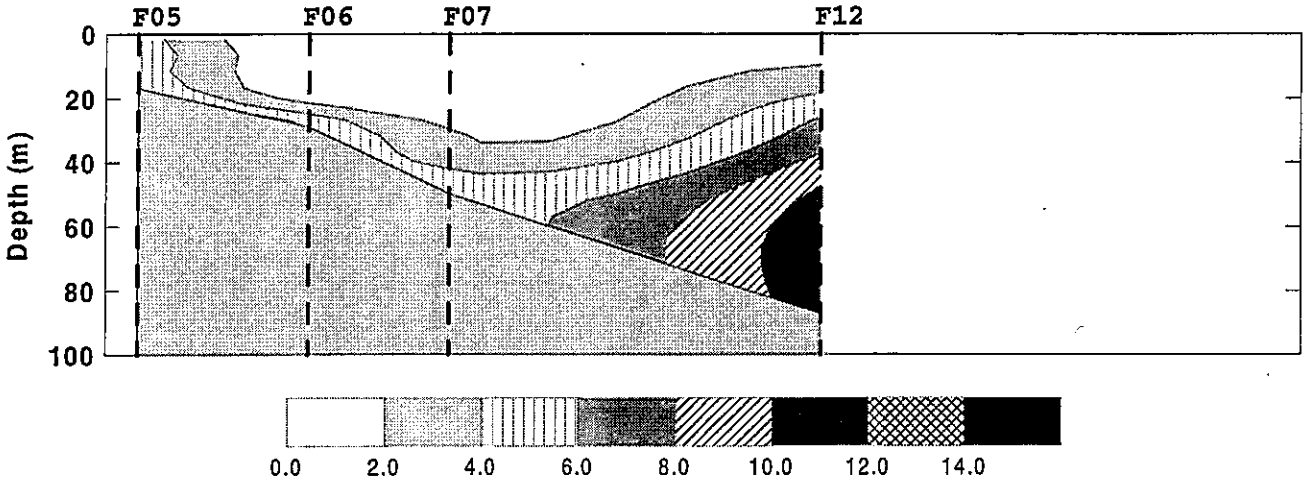
Boston-Nearfield Transect



Cohassett Transect

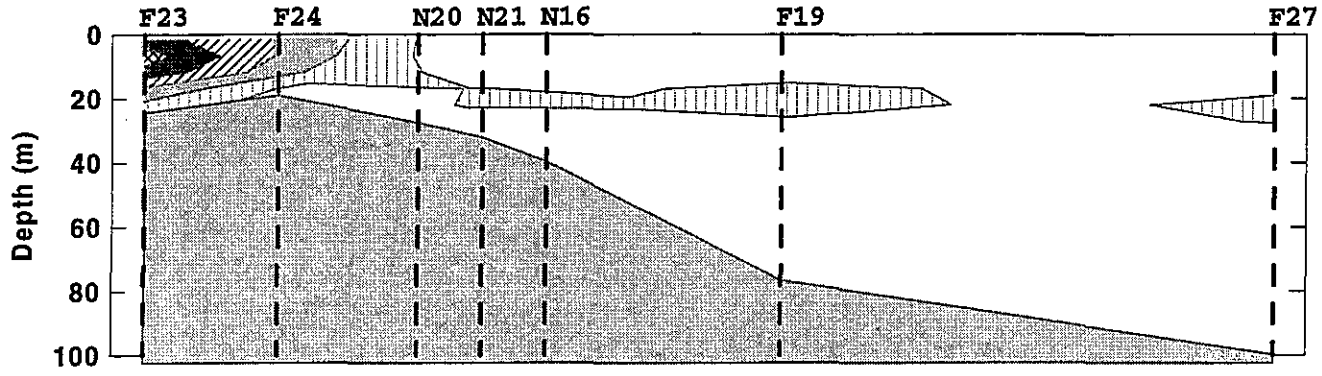


Marshfield Transect

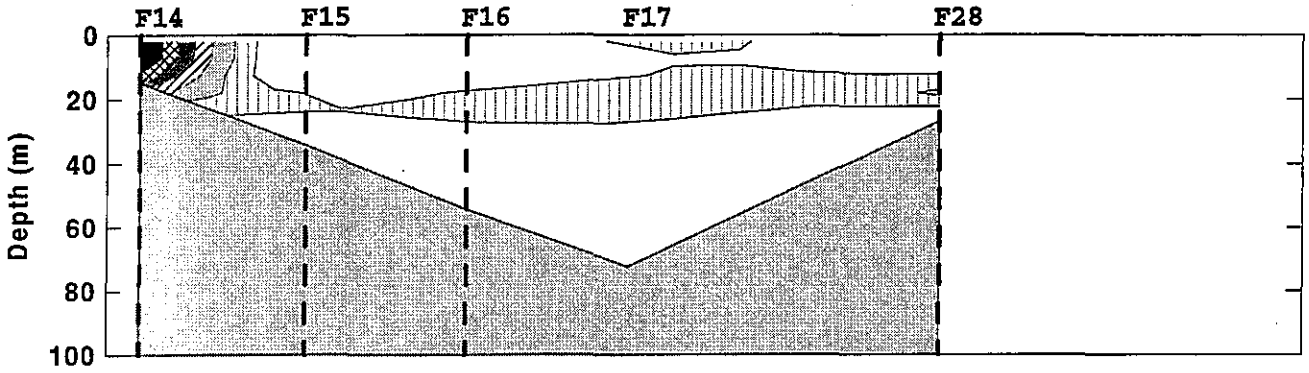


DI Nitro 9514

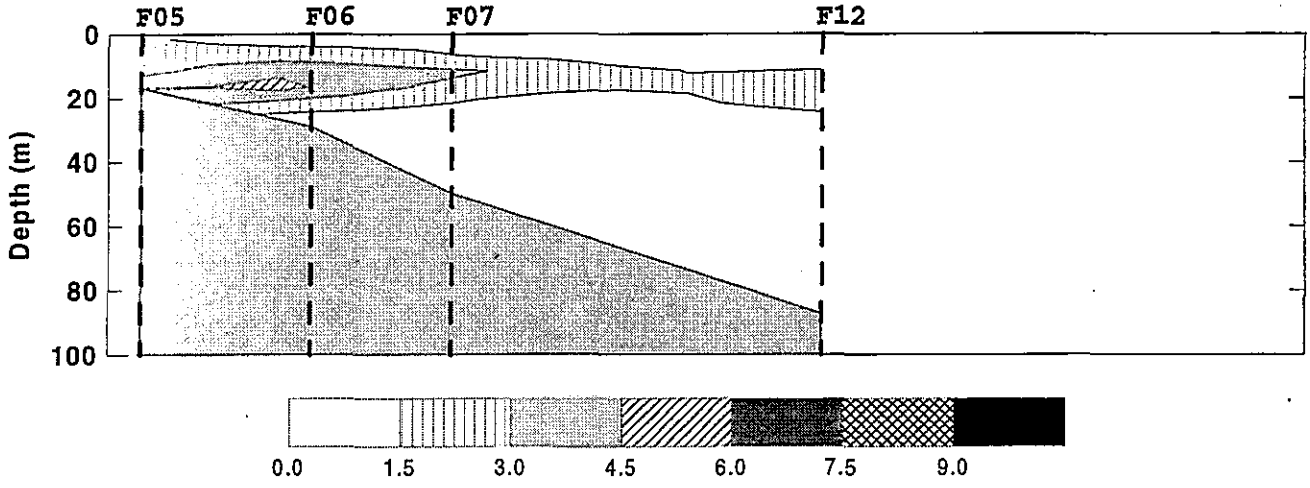
Boston-Nearfield Transect



Cohassett Transect

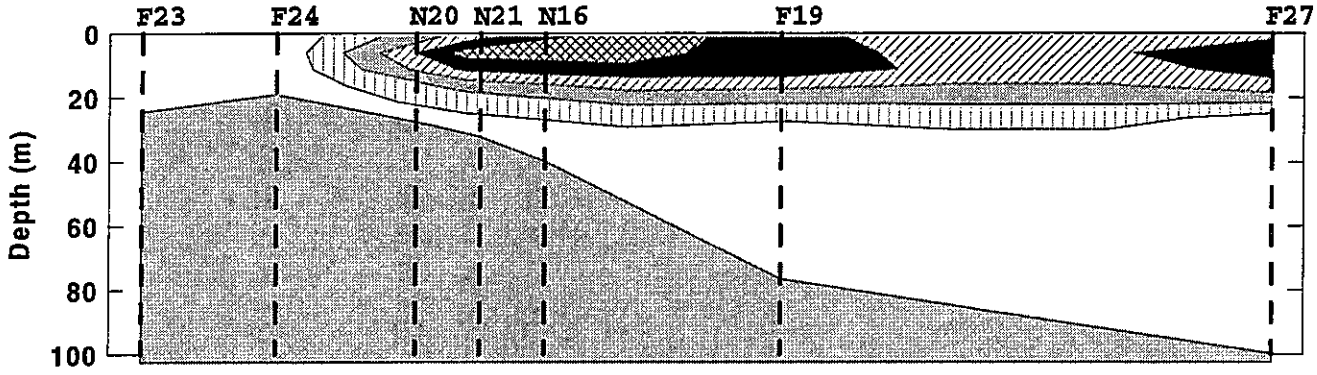


Marshfield Transect

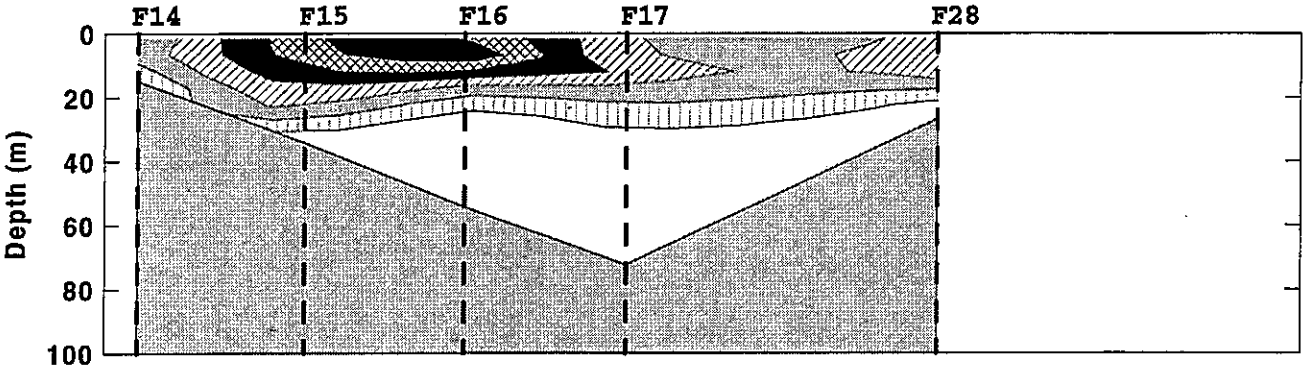


Fluorescence 9511

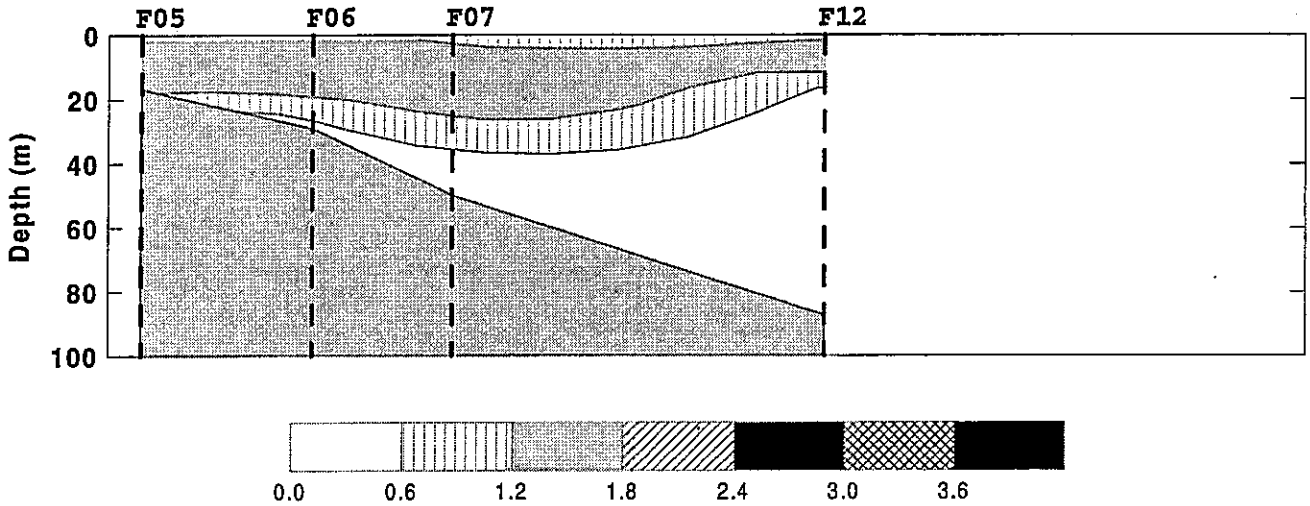
Boston-Nearfield Transect



Cohassett Transect

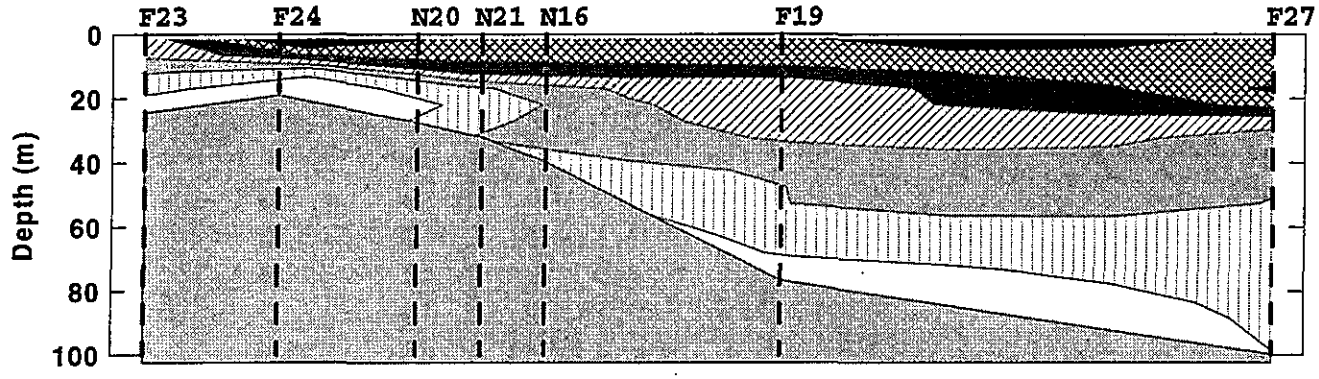


Marshfield Transect

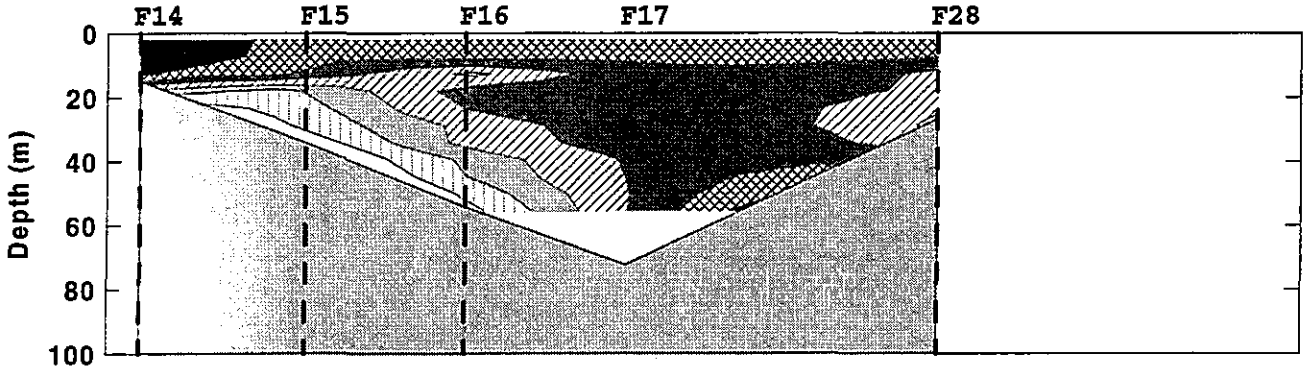


Fluorescence 9514

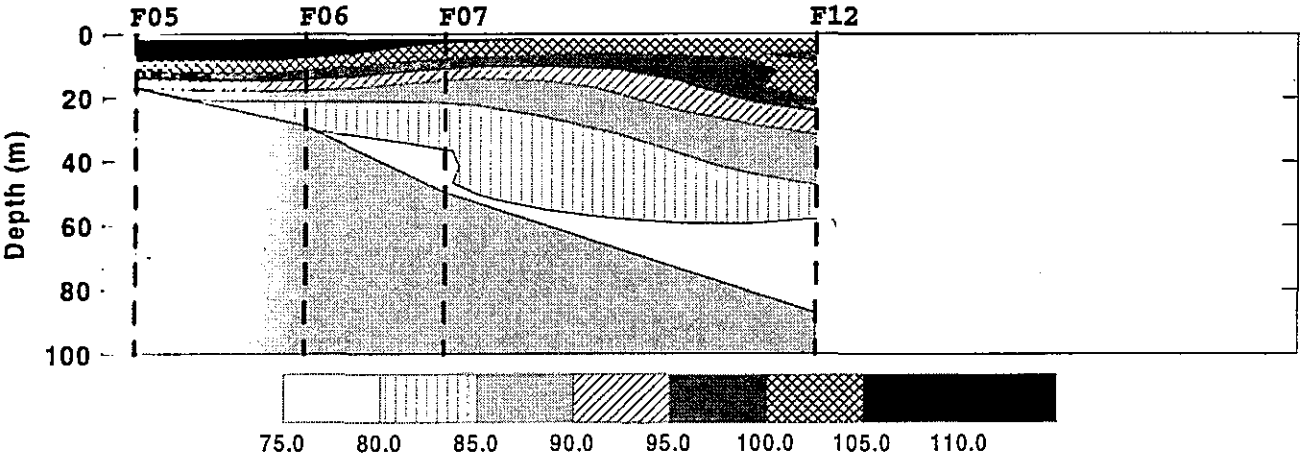
Boston-Nearfield Transect



Cohassett Transect

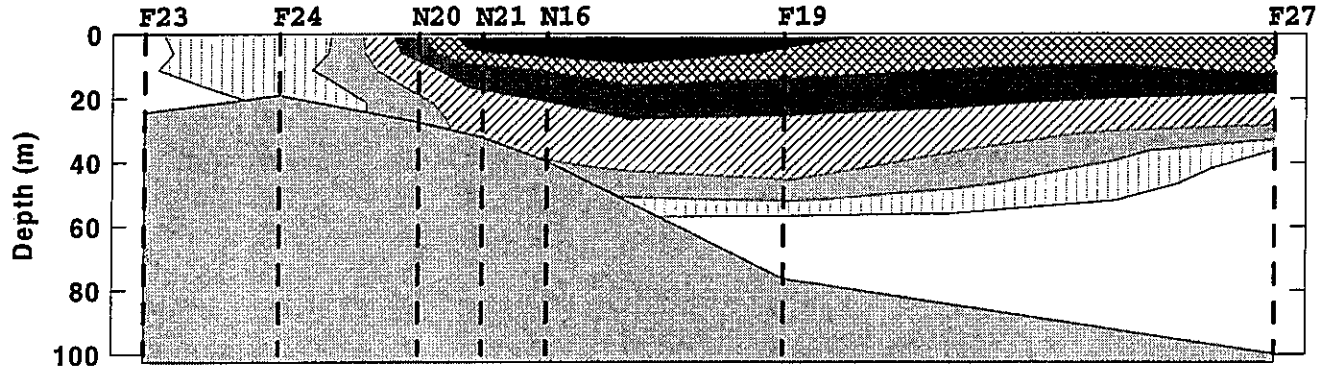


Marshfield Transect

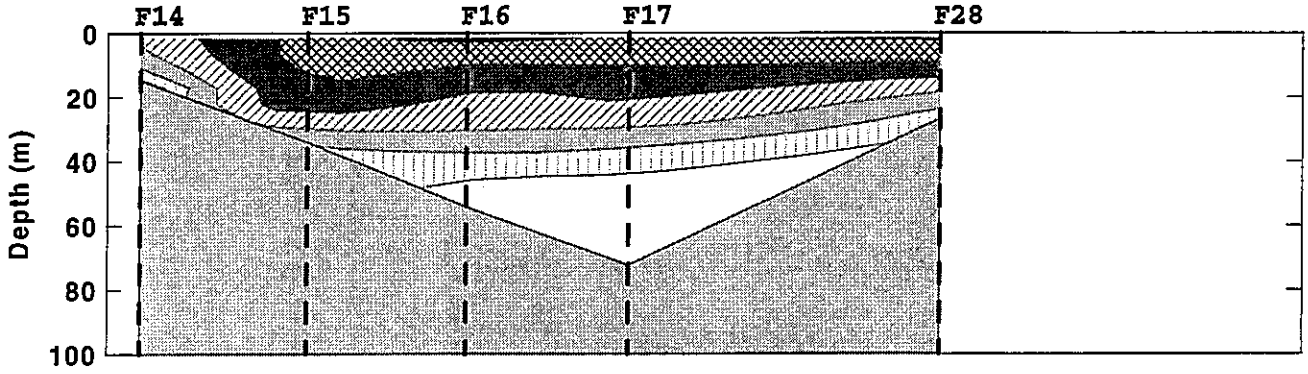


DO % Saturation 9511

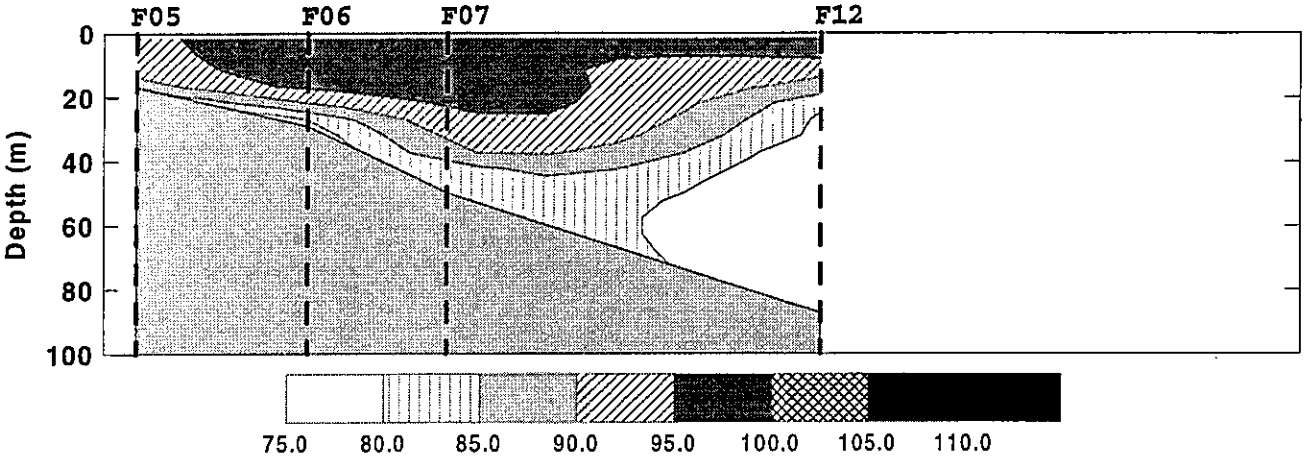
Boston-Nearfield Transect



Cohassett Transect



Marshfield Transect



DO % Saturation 9514

APPENDIX D

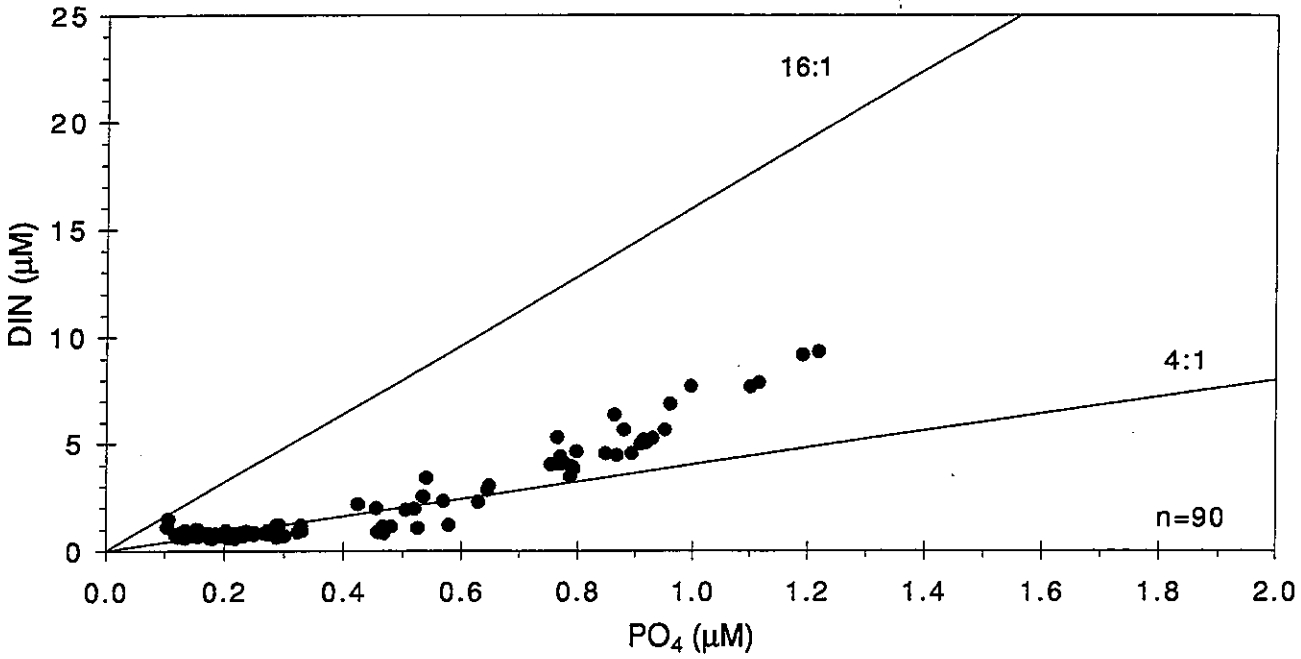
Nutrient Scatter Plots

Scatter plots are included for every survey conducted during the semi-annual period. Each plot includes all stations and all depths unless otherwise noted. The plots are organized by type of plot, and then by survey. Combined nearfield/farfield surveys show the regions with different symbols, including boundary (BOU), Cape Cod Bay (CCB), coastal (COA), Boston Harbor (BH), nearfield (NEA), and offshore (OFF). Available plots, in the order they appear in the appendix, are summarized in the table below.

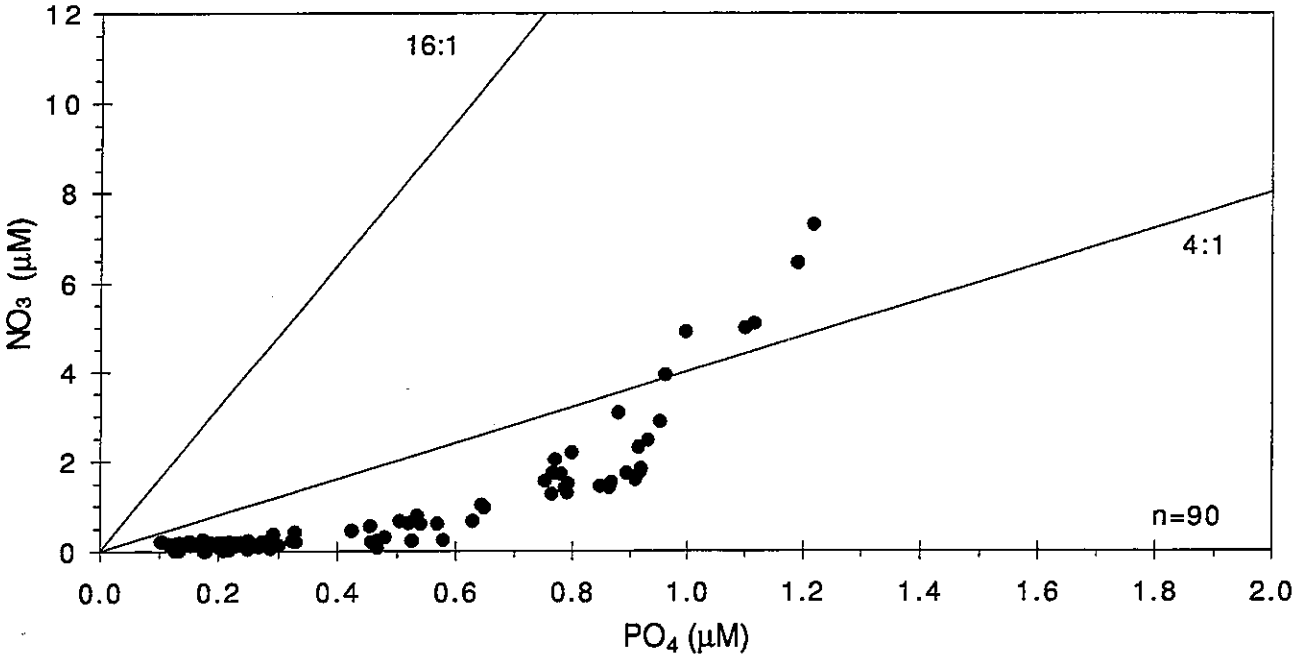
Type of Plot	Surveys	Comments
PO_4:DIN; PO_4:NO_3	W9511-17	Lines of nitrogen:phosphate
PO_4:NH_4; SiO_4:NH_4	W9511-17	
SiO_4:DIN; SiO_4:NO_3	W9511-17	Lines of nitrogen:silicate
Salinity:DIN	W9511-17	Stations types A,D,F,G
Salinity:NH_4 and NO_3	W9511-17	
Salinity:PO_4 and SiO_4	W9511-17	
Salinity:TN and DIN+PON	W9511-17	Station types A,D,F,G
Depth:DIN	W9511-17	
Depth:NH_4 and NO_3	W9511-17	
Depth:PO_4 and SiO_4	W9511-17	

Acronyms:
DIN = dissolved inorganic nitrogen
PON = particulate organic nitrogen
TN = total dissolved nitrogen + PON

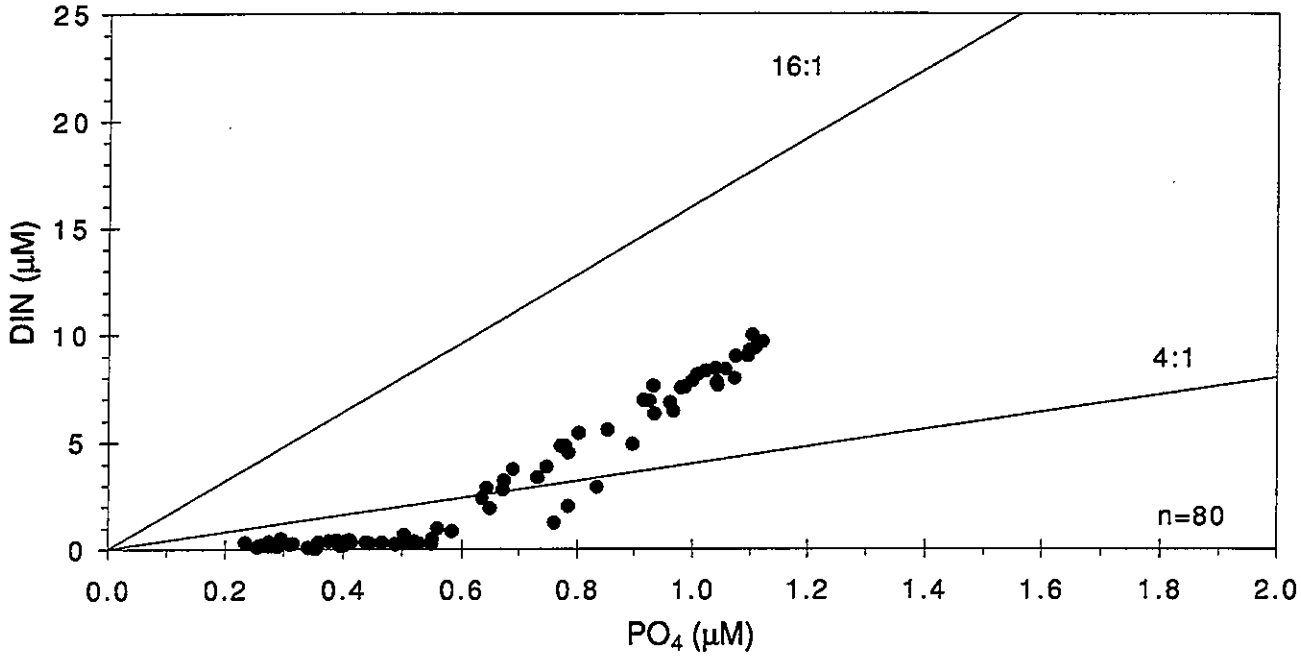
W9510 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=90
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

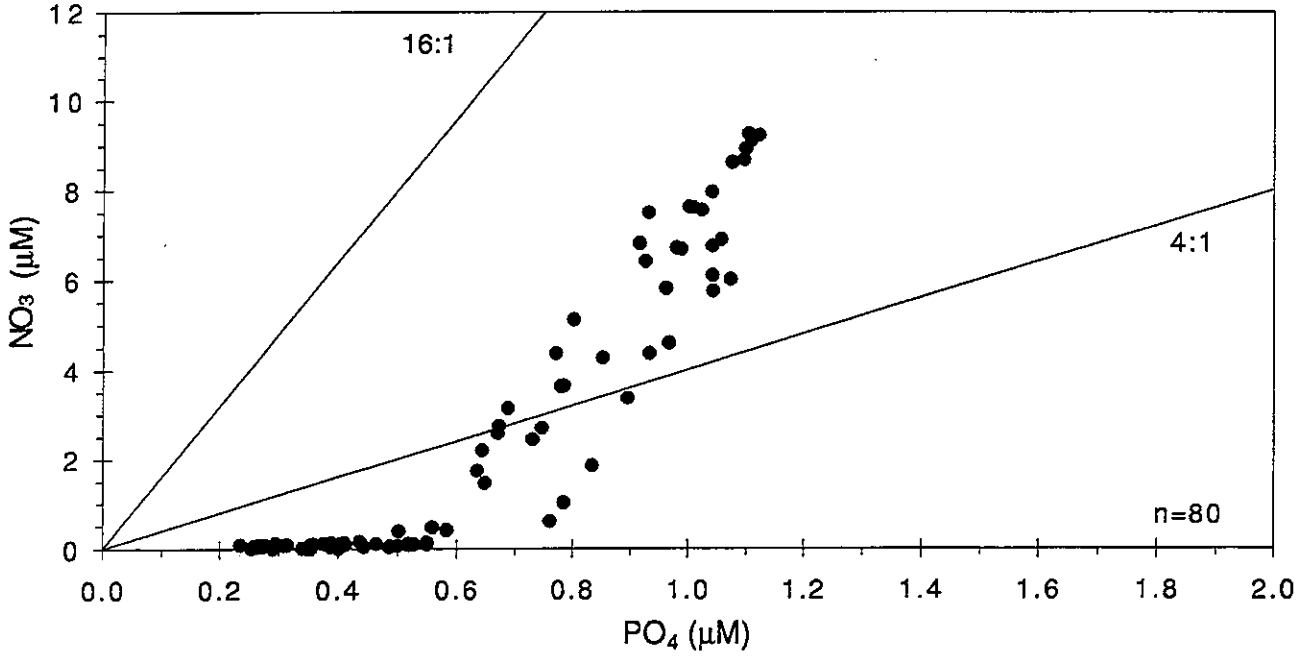
W9510 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=90
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

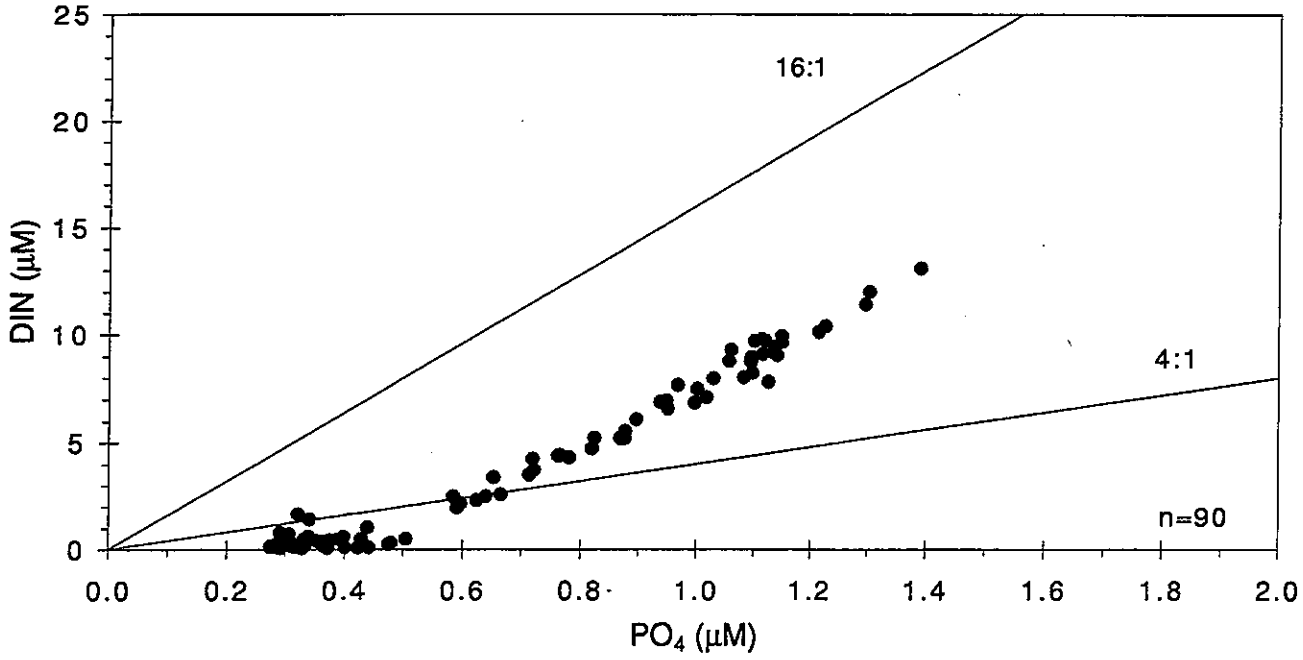
W9512 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=80
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

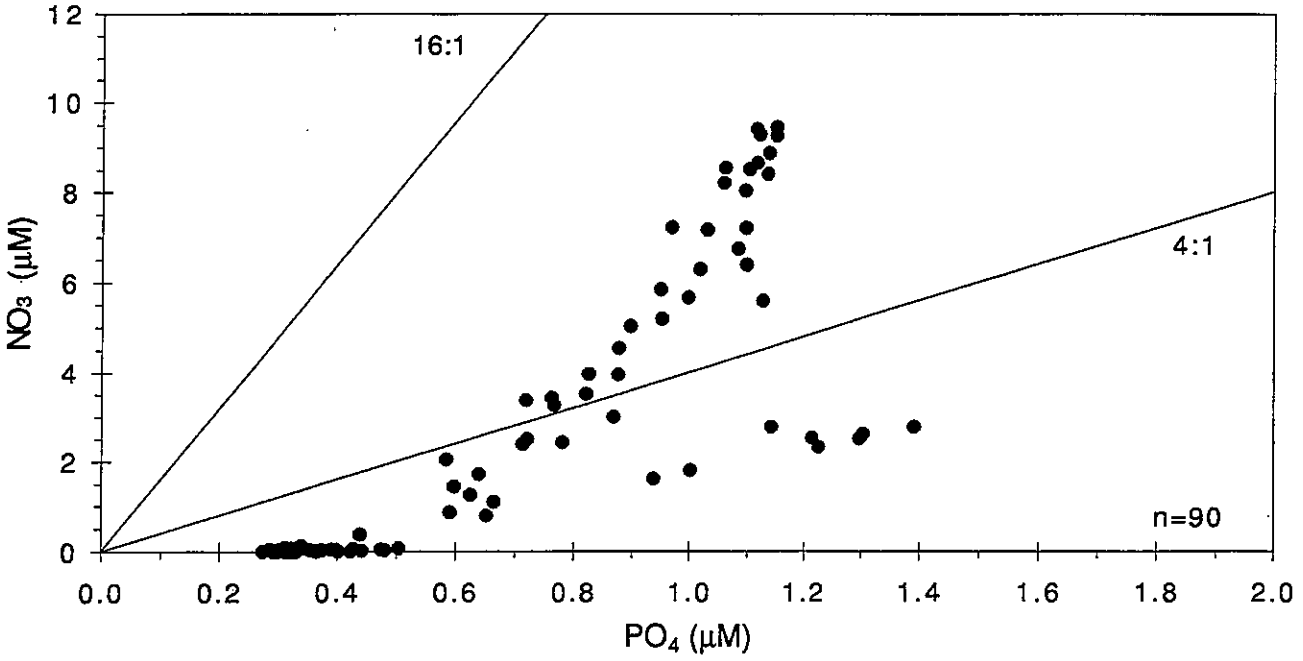
W9512 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=80
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

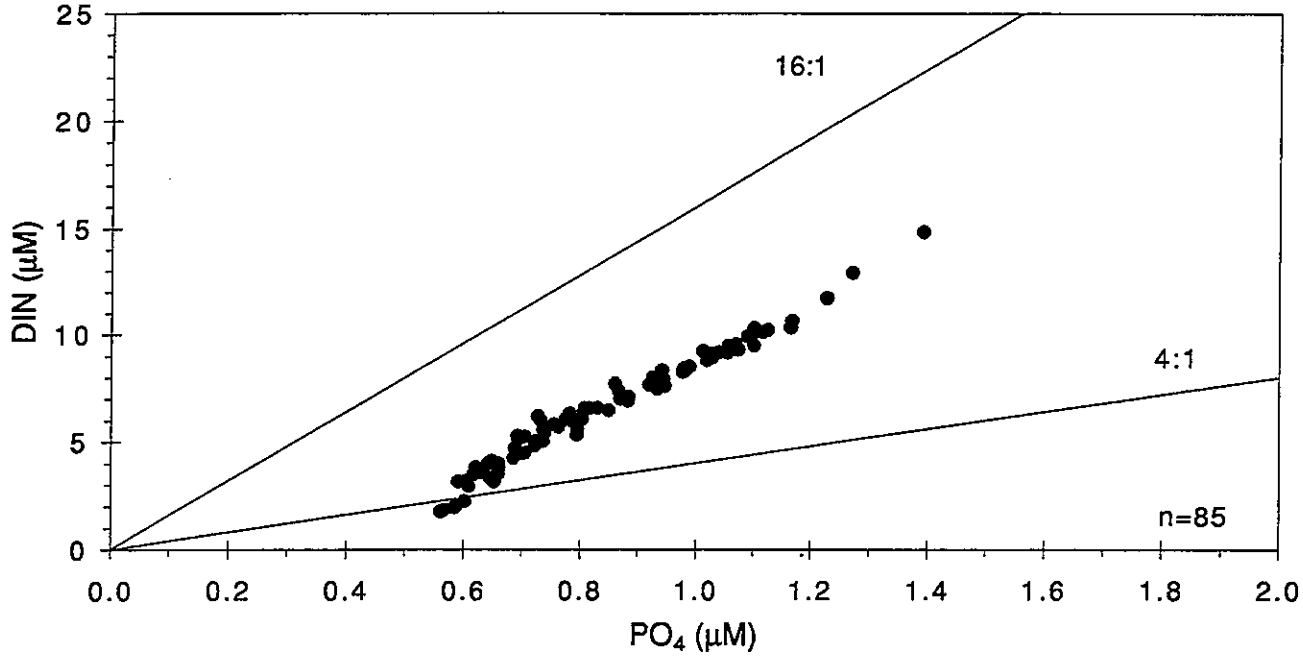
W9513 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=90
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

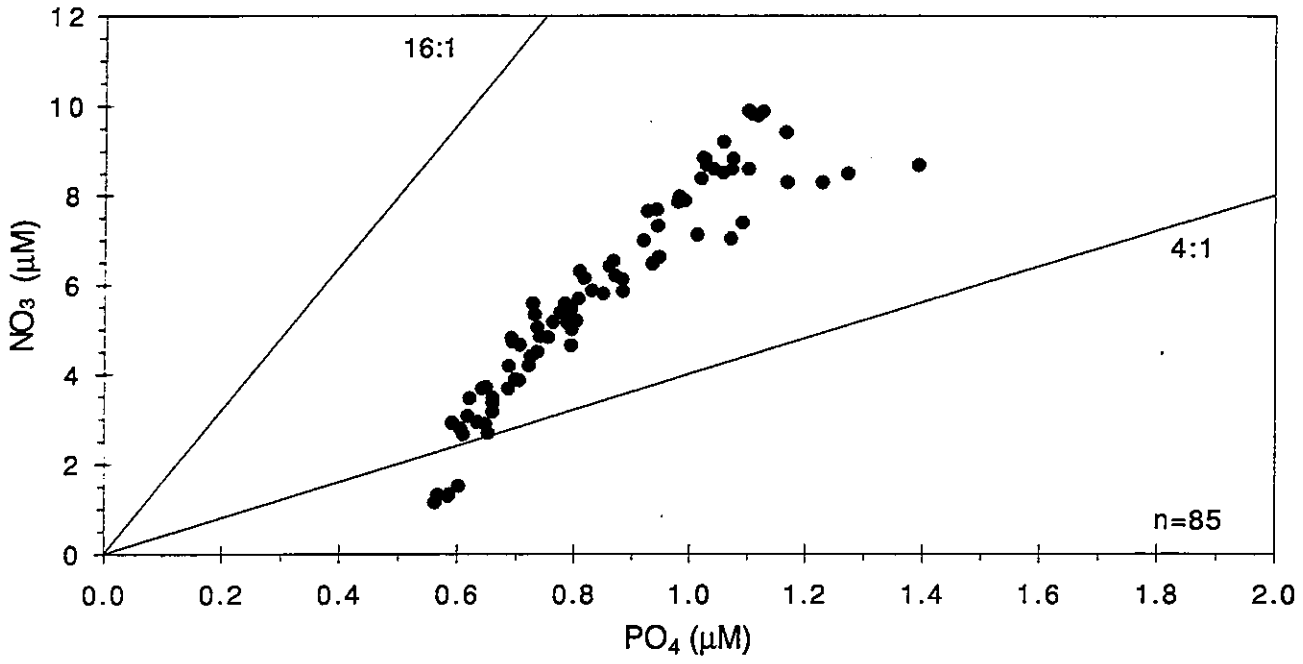
W9513 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=90
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

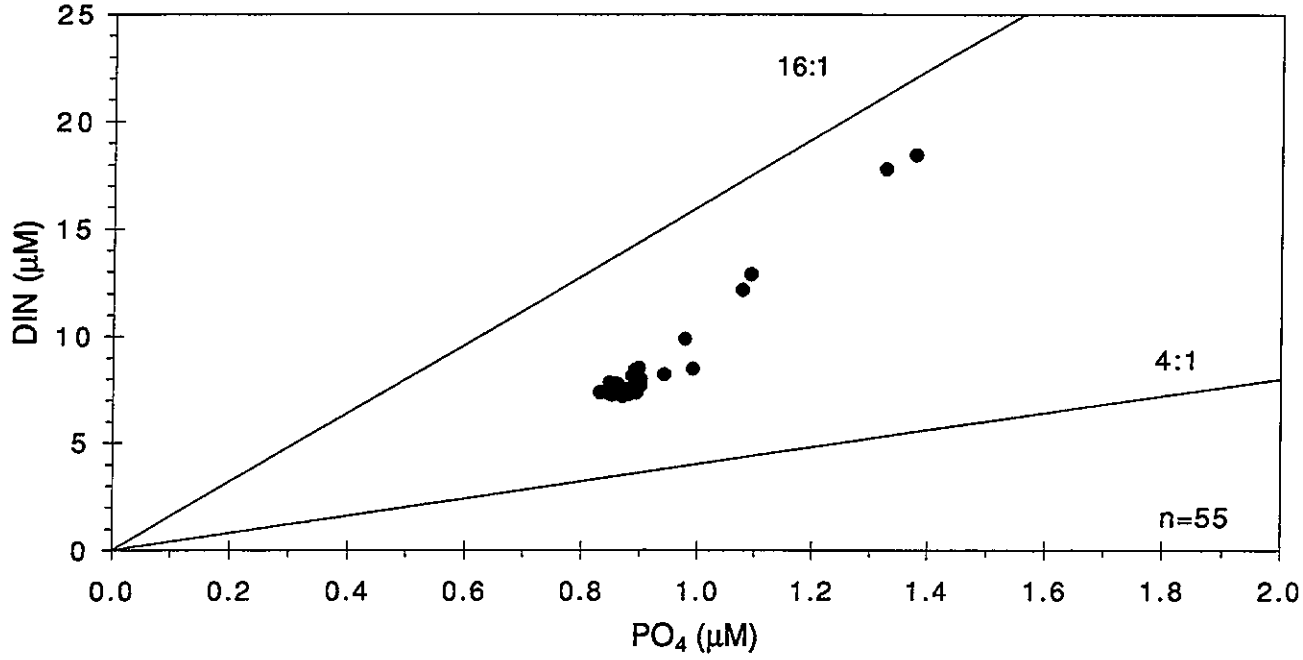
W9515 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=85
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

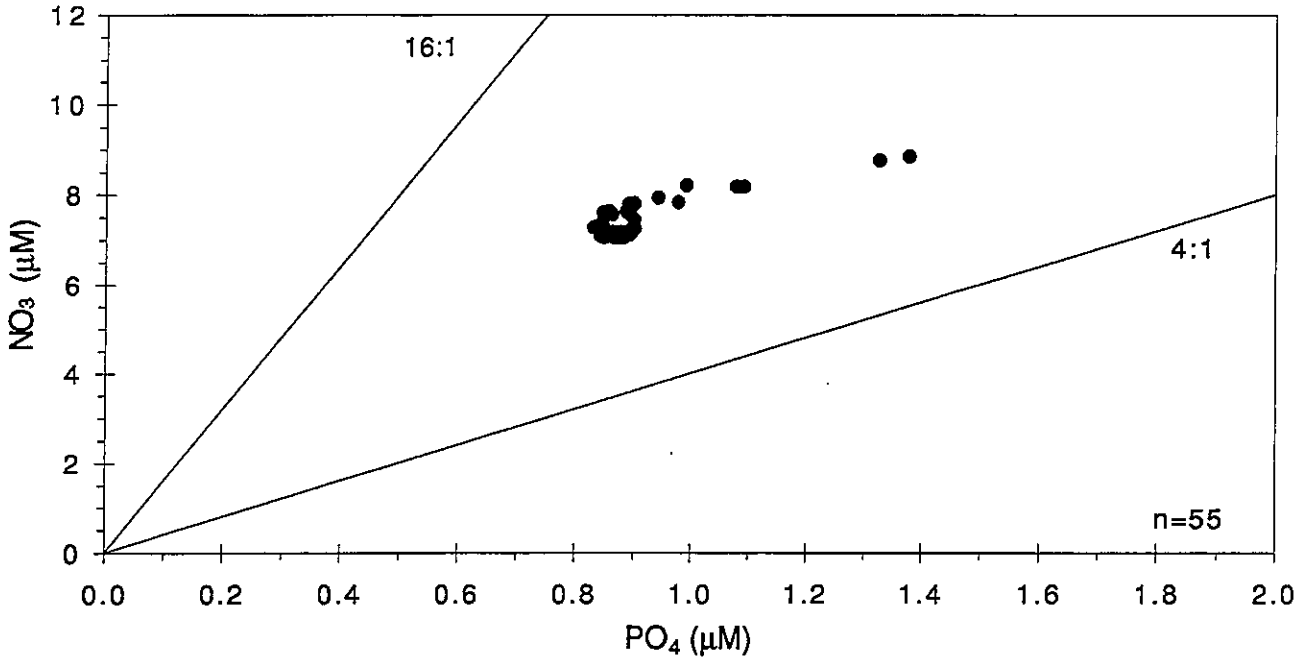
W9515 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=85
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

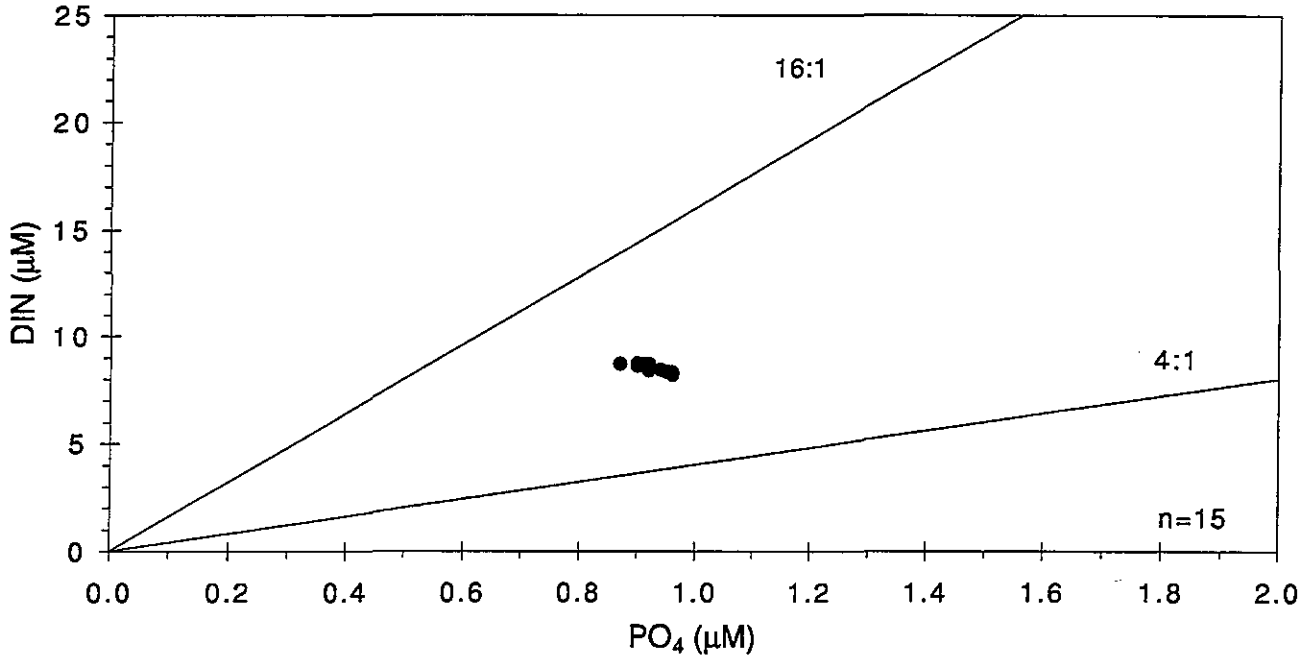
W9516 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

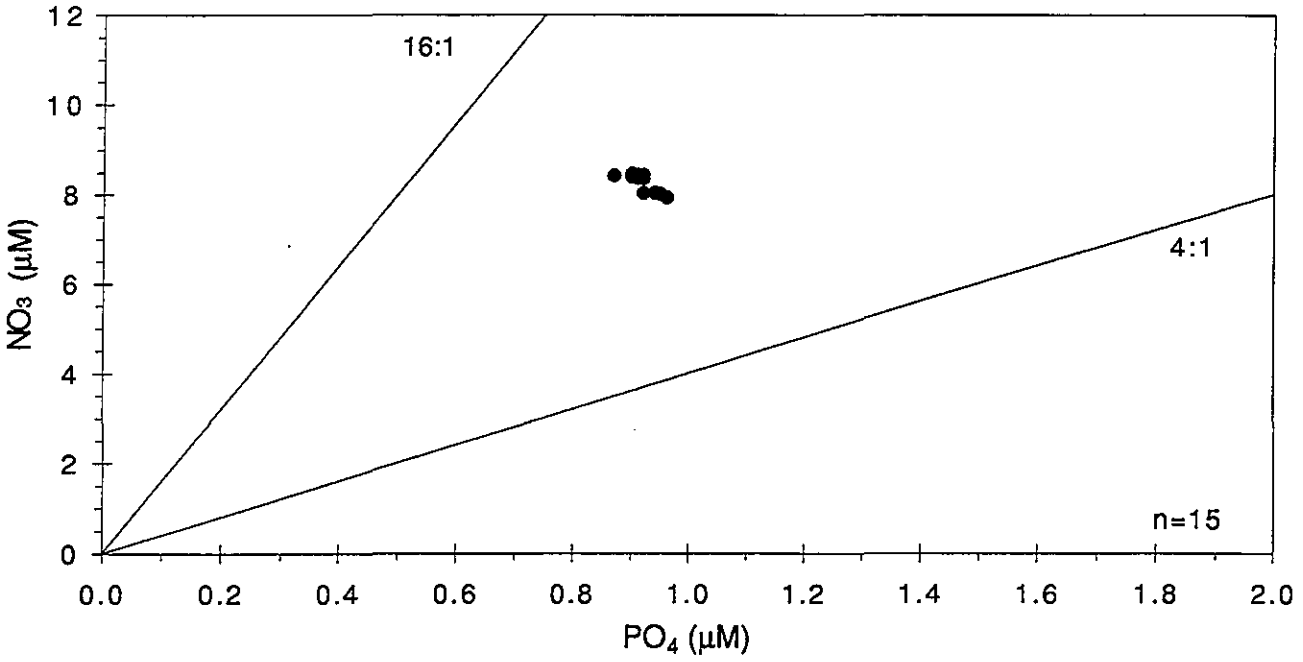
W9516 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

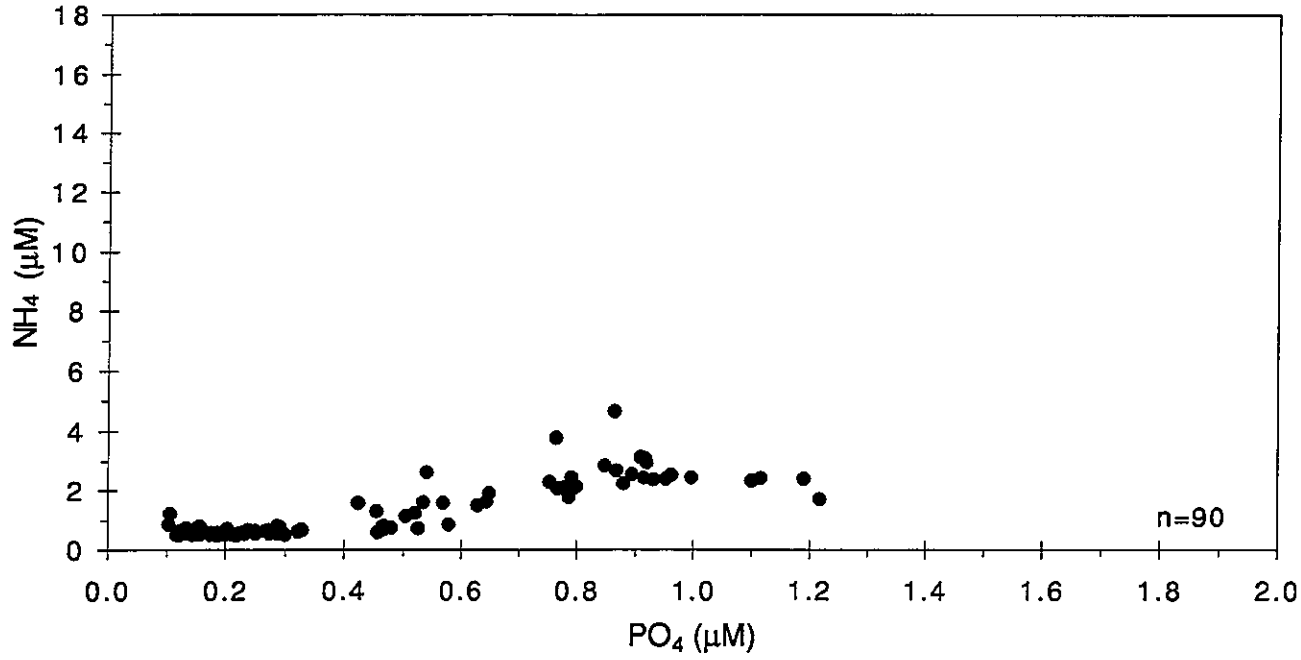
W9517 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=15
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

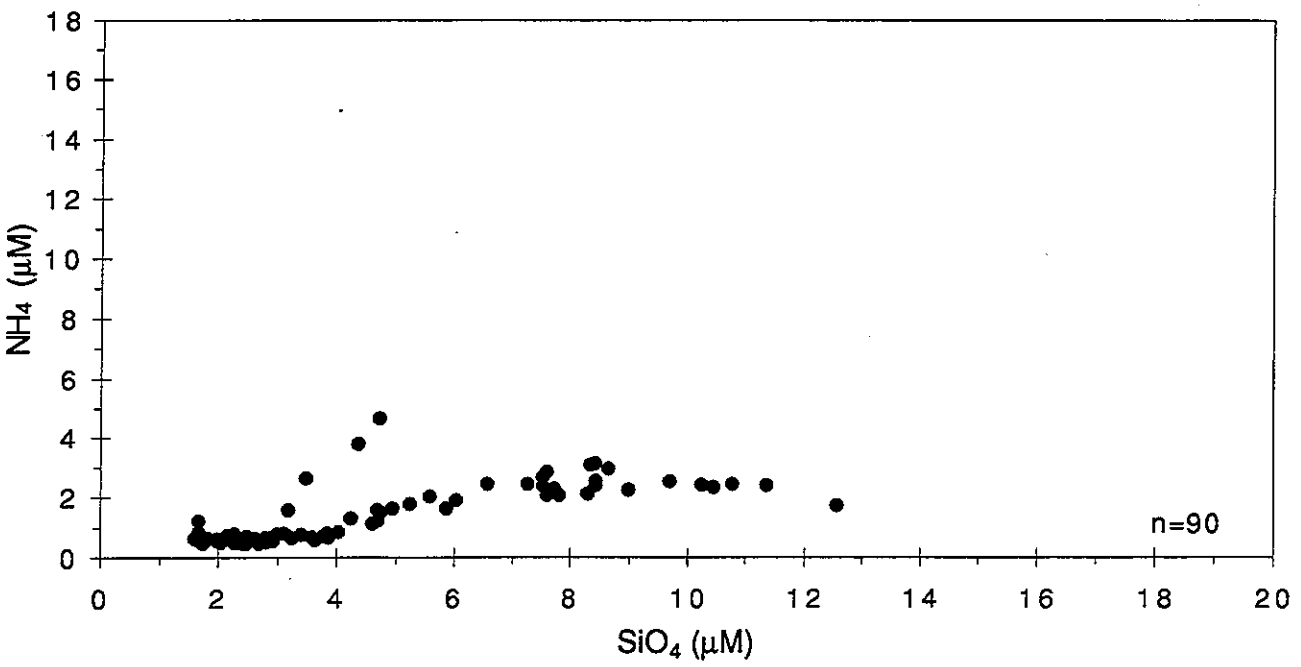
W9517 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=15
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

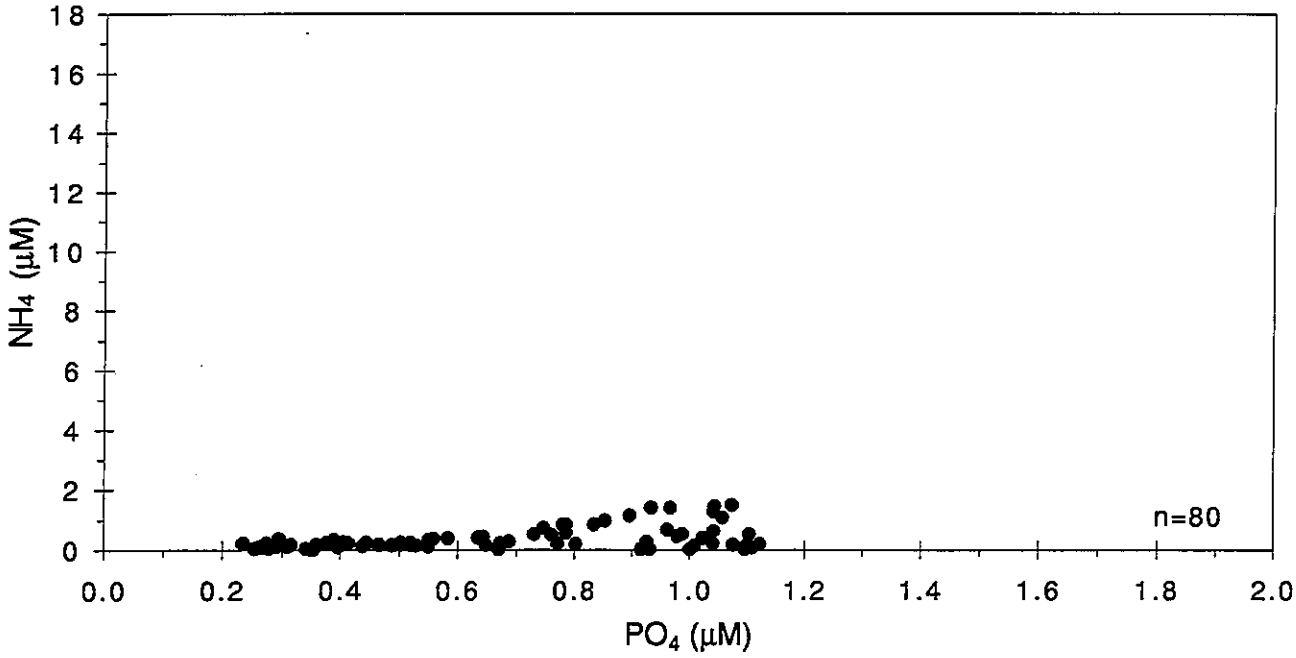
W9510 .


NH4 (µM)
PO4 (µM)
n=90
0
2
4
6
8
10
12
14
16
18
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

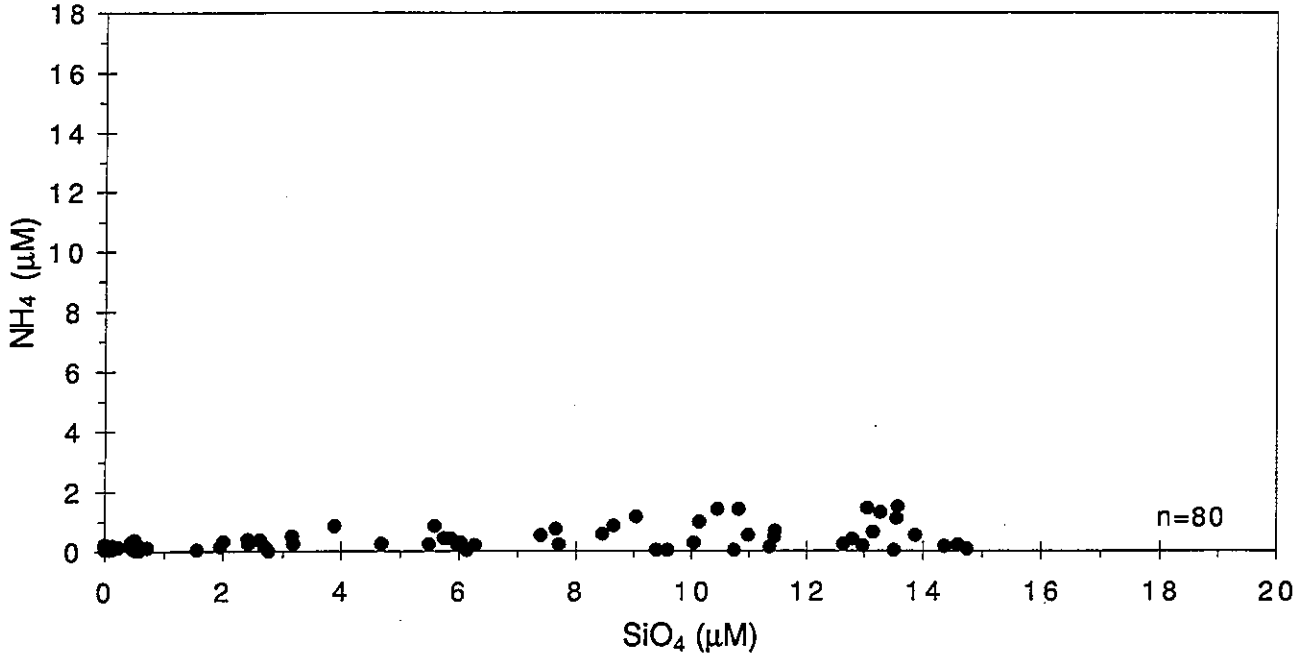
W9510 .


NH4 (µM)
SiO4 (µM)
n=90
0
2
4
6
8
10
12
14
16
18
20

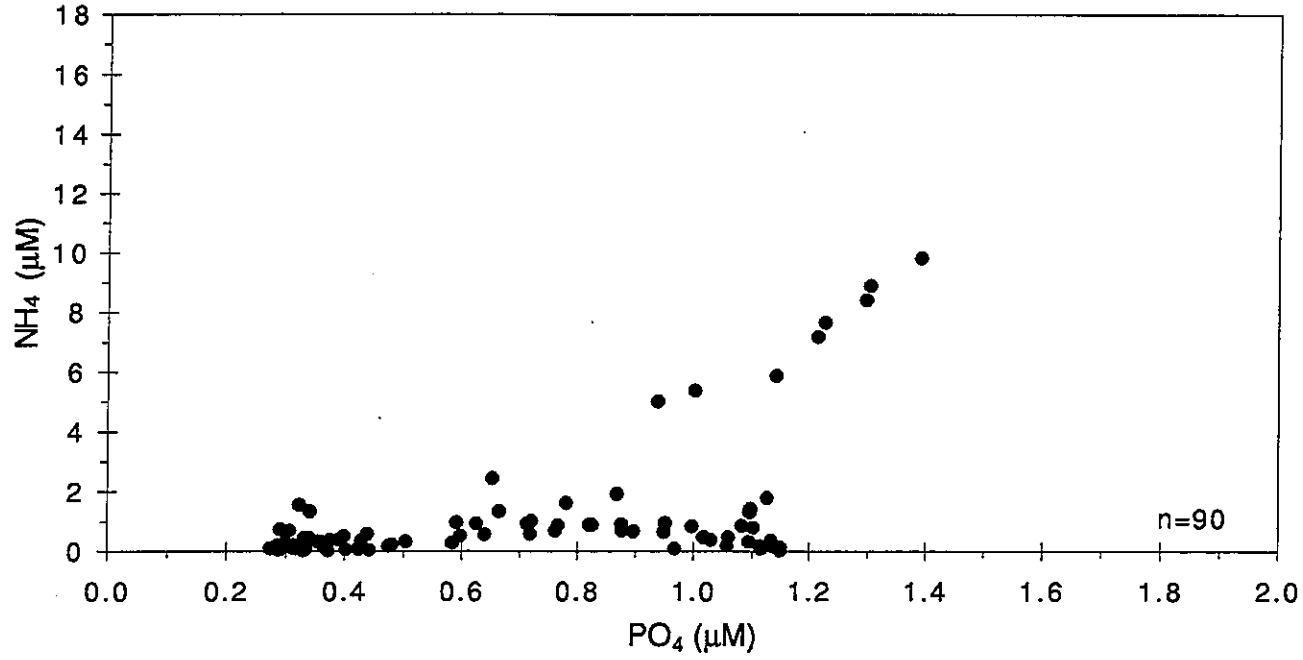
W9512 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=80
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

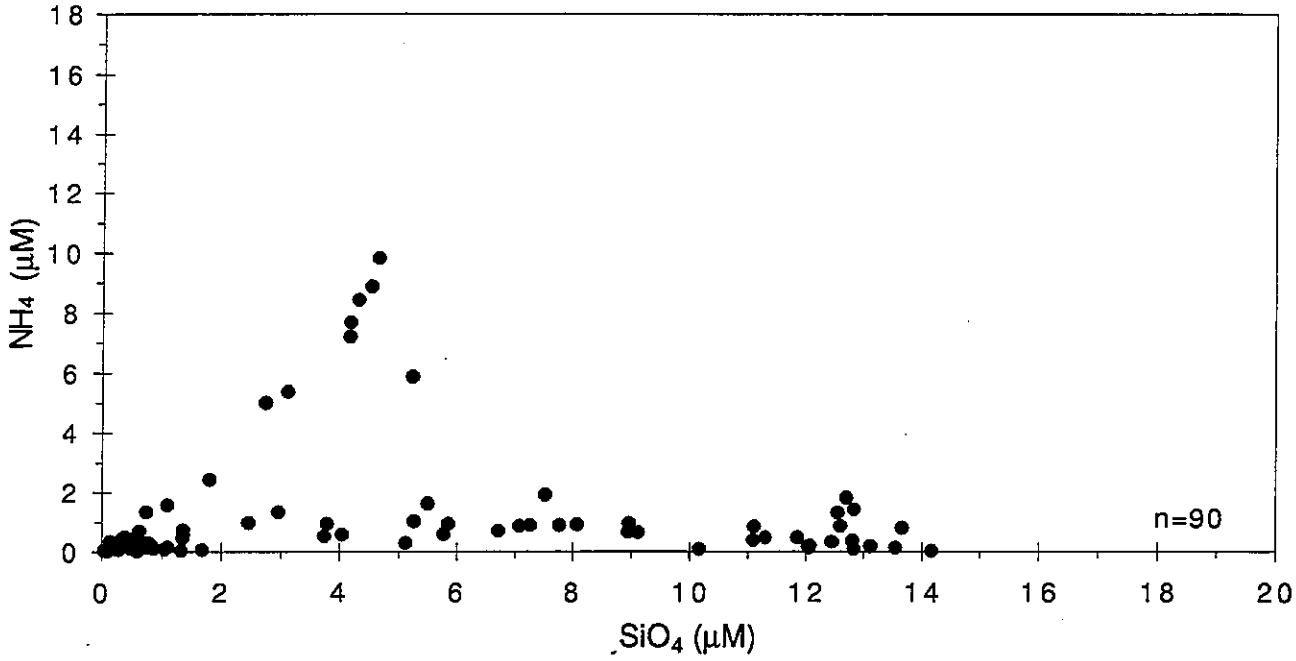
W9512 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=80
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9513 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)
n=90

W9513 .


18
16
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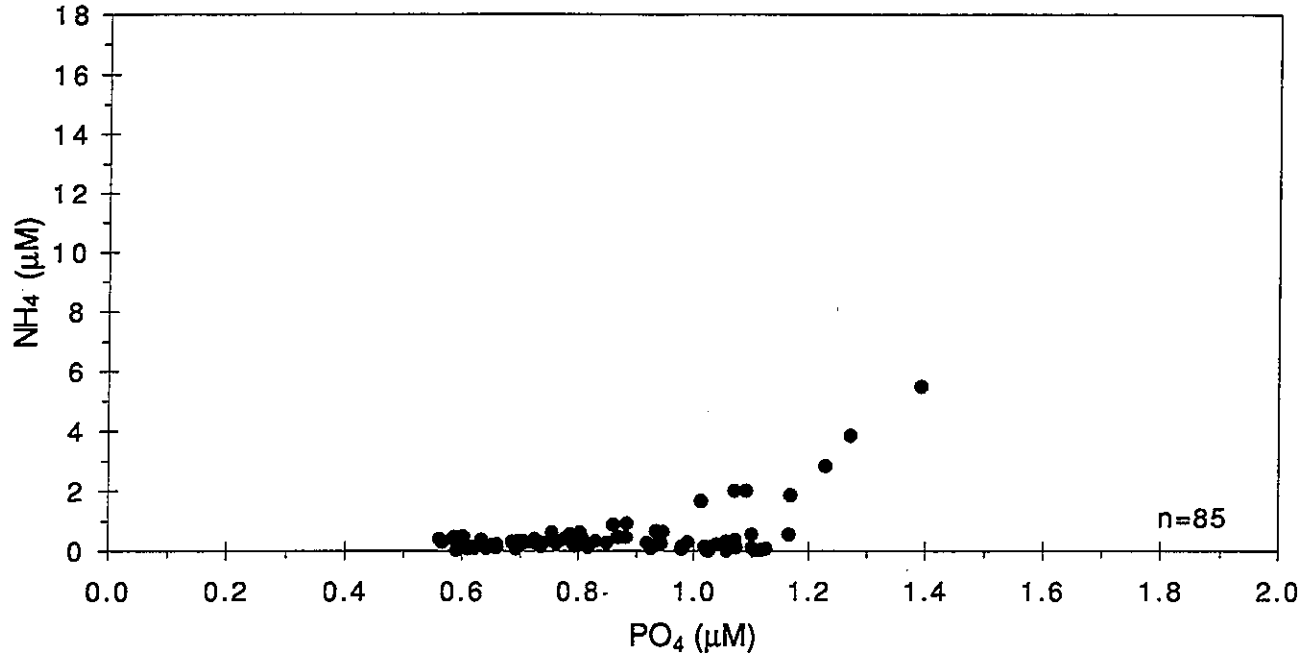
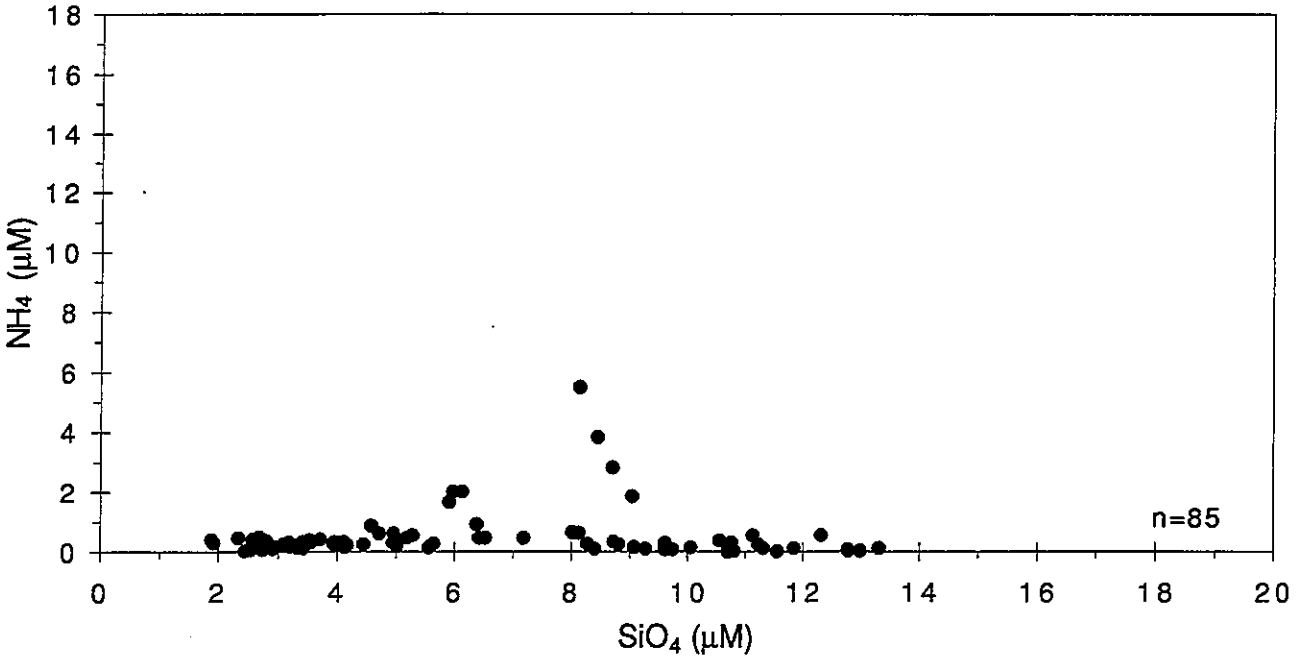
12
10
8
6
4
2
0
NH4 (µM)
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)
n=90

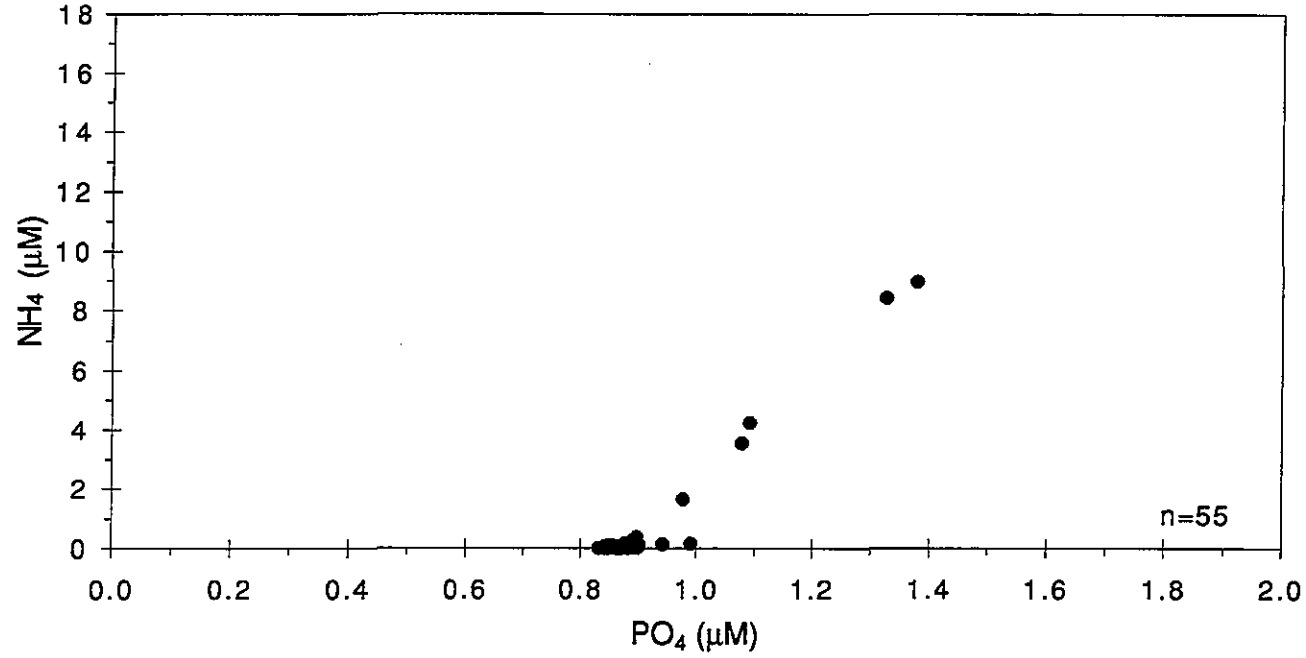
W9515 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=85
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

W9515 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=85
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9516 .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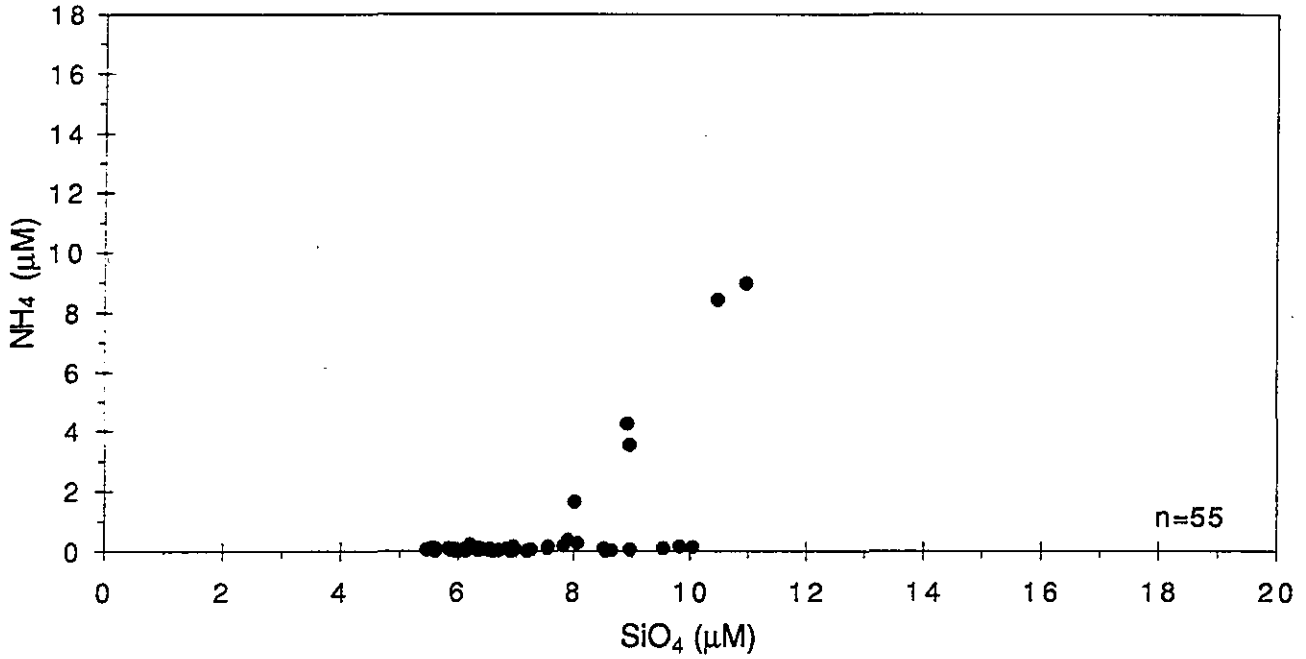
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

W9516 .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16
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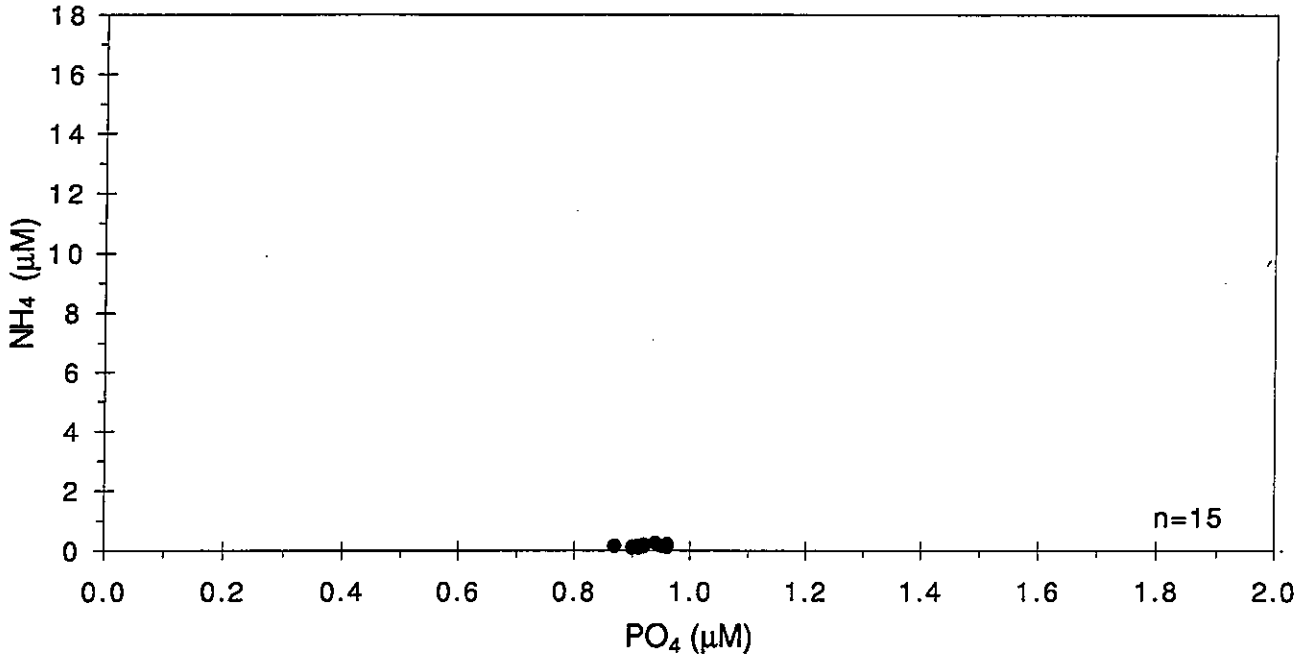
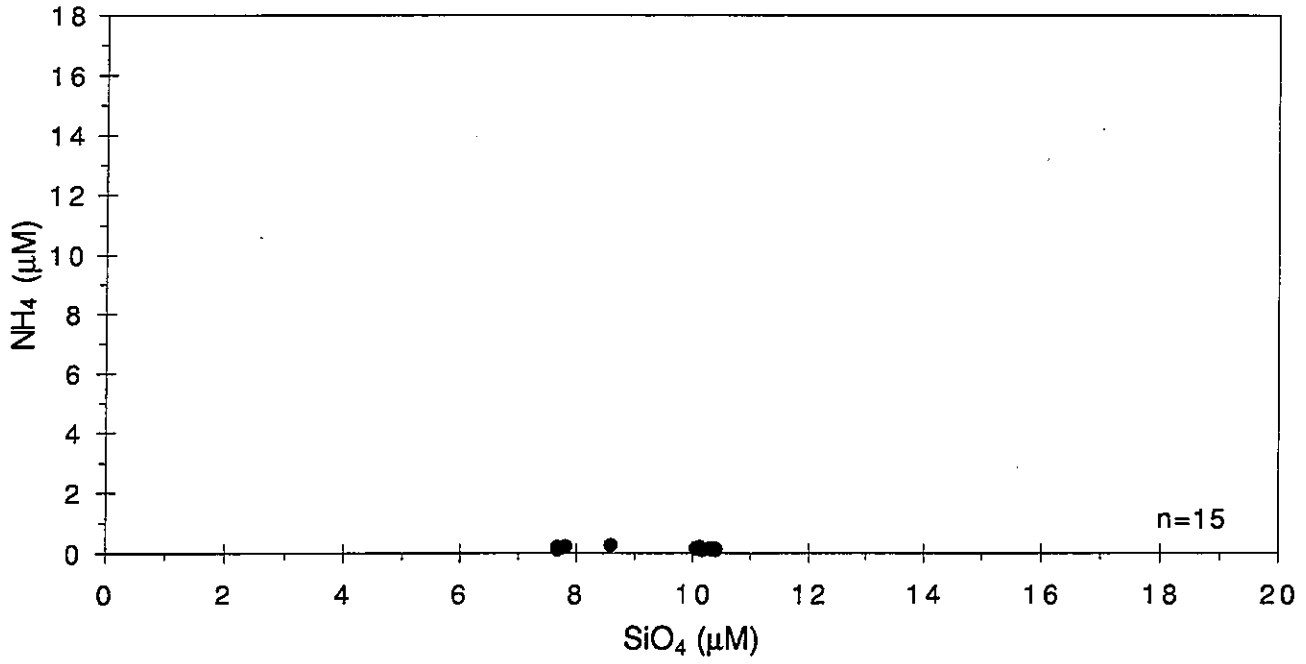
12
10
8
6
4
2
0
NH4 (µM)
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

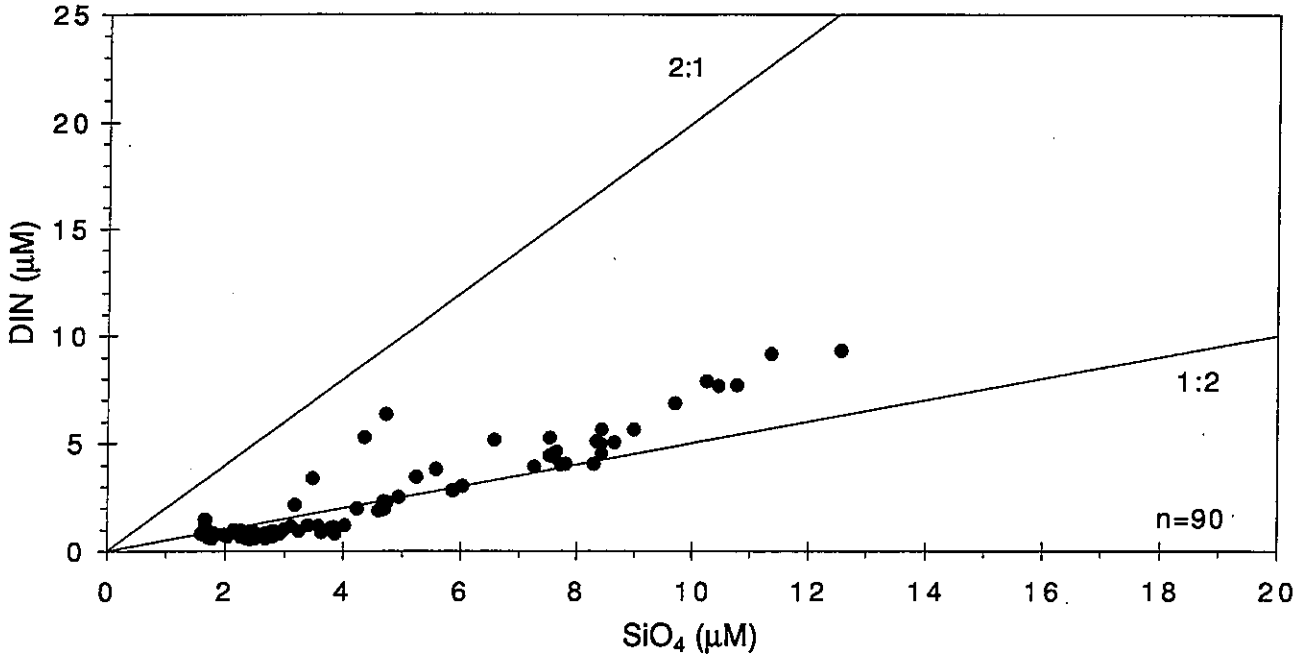
W9517 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=15
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

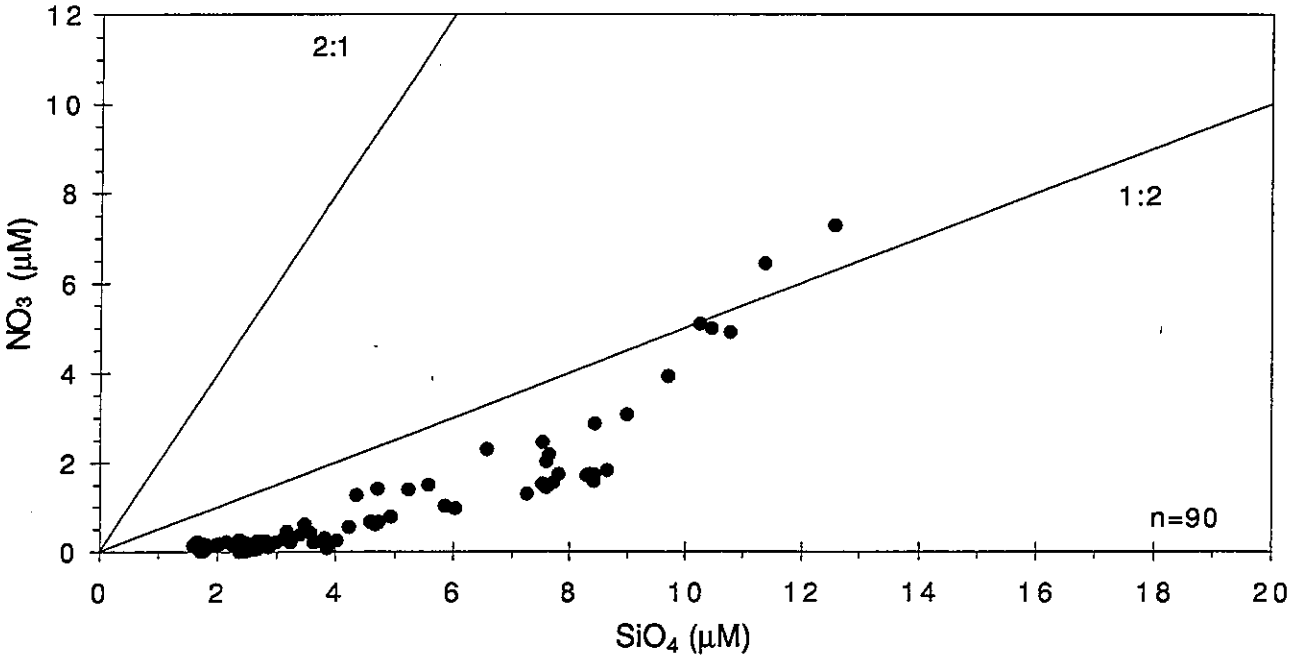
W9517 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=15
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

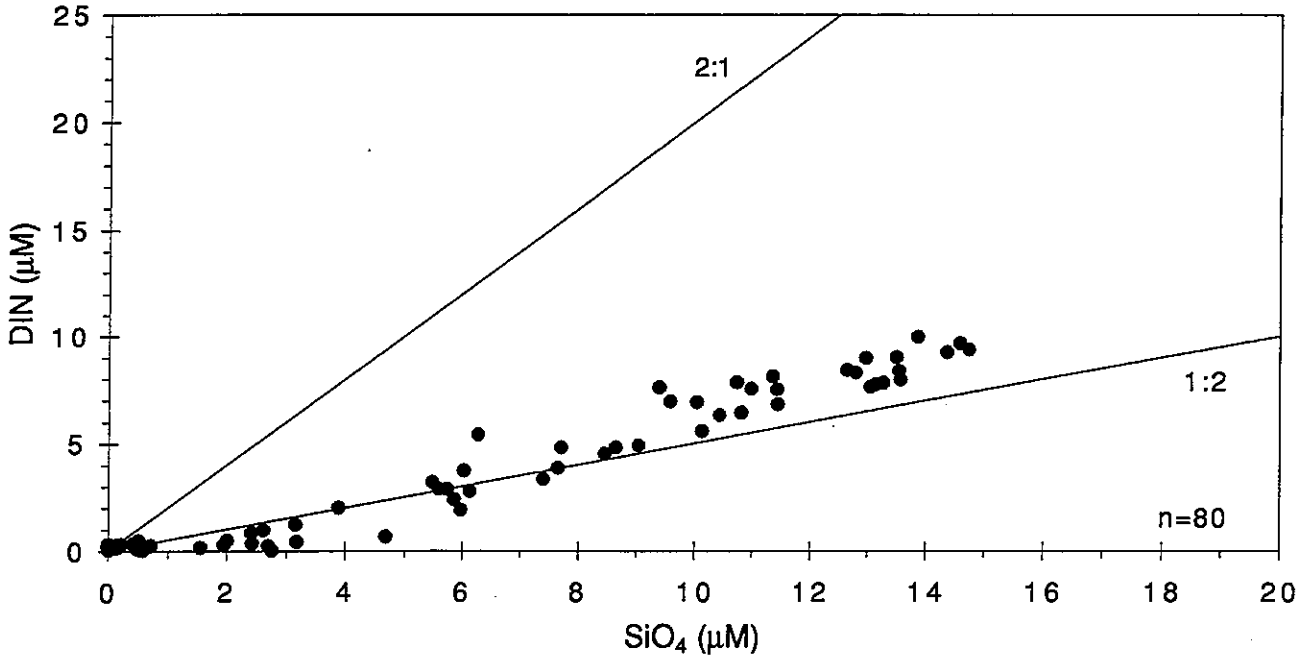
W9510 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=90
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9510 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=90
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9512 .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5
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DIN (µM)
2:1
1:2
n=80
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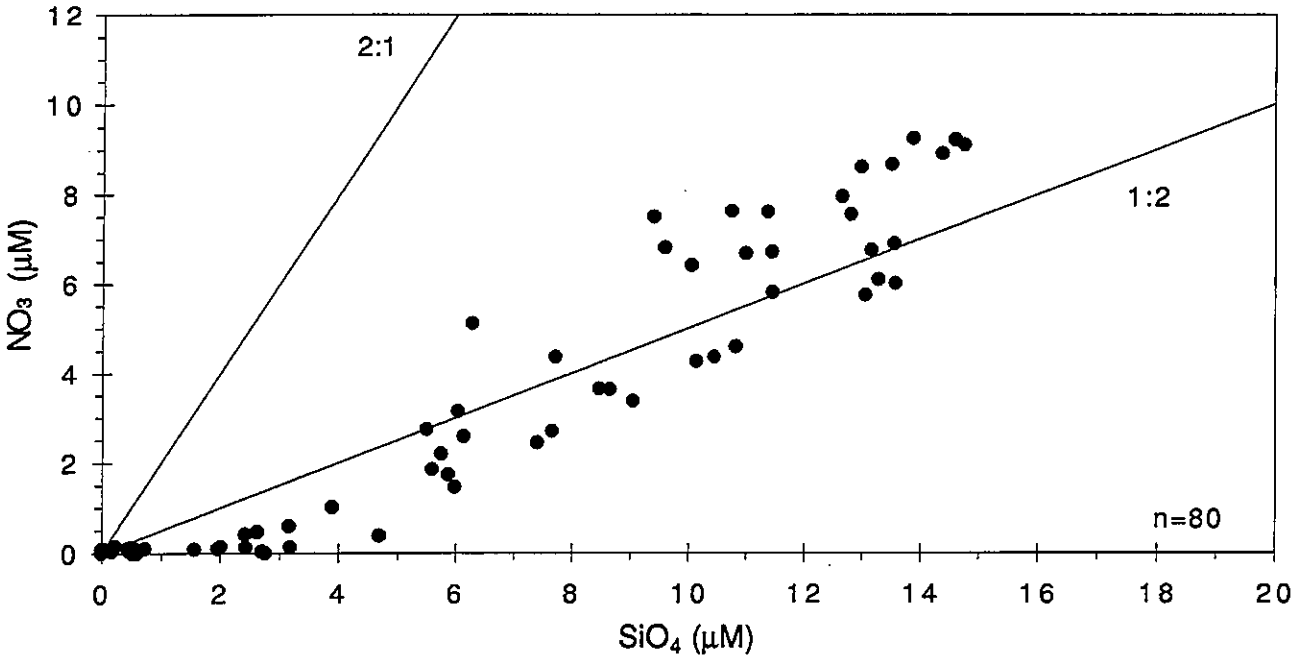
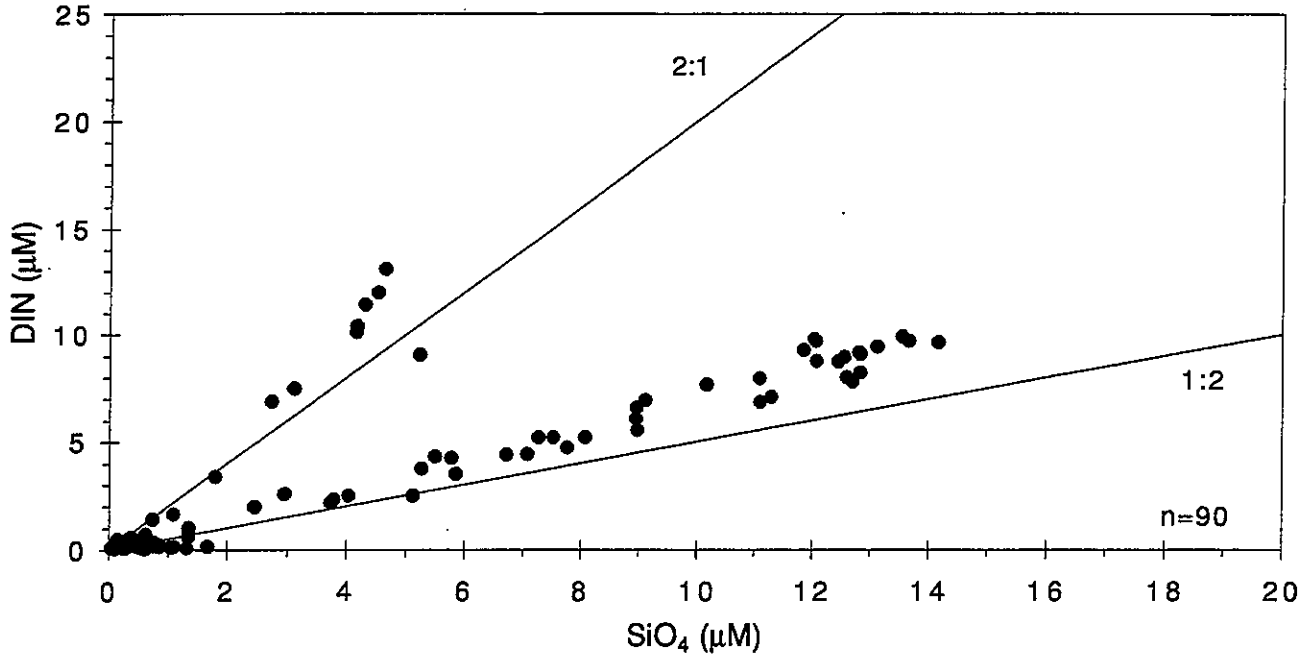
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9512 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=80
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9513 .


25
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15
10
5
0
DIN (µM)
2:1
1:2
n=90
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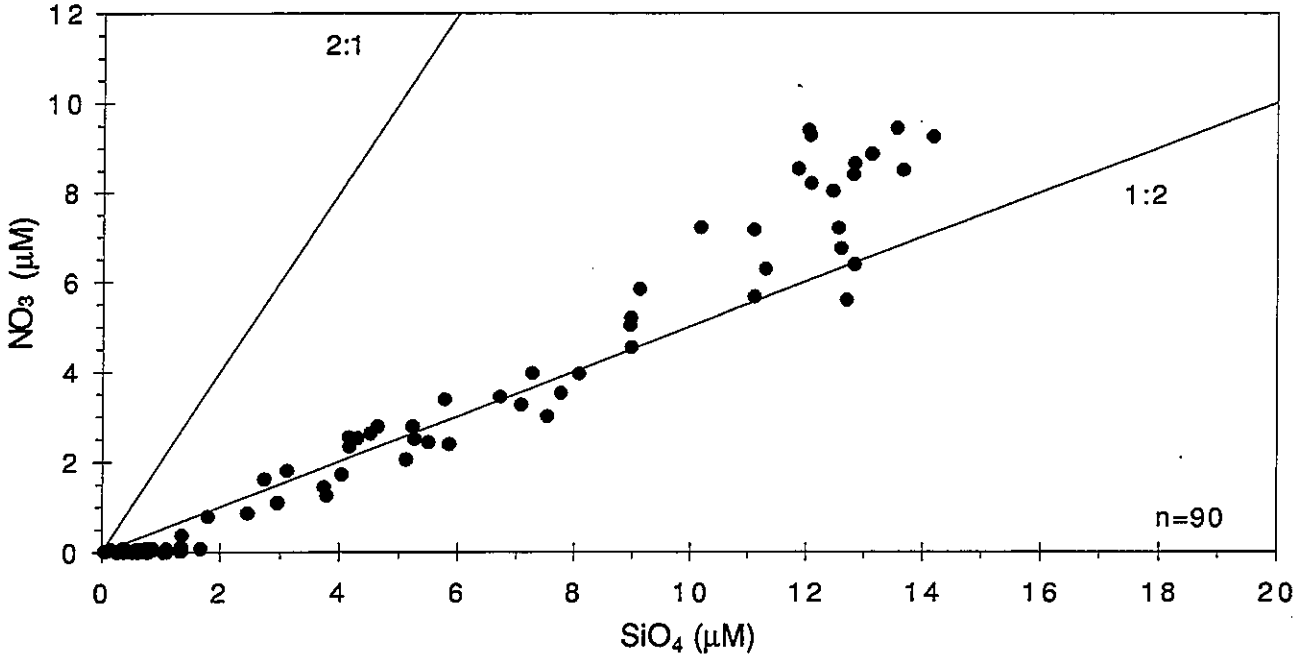
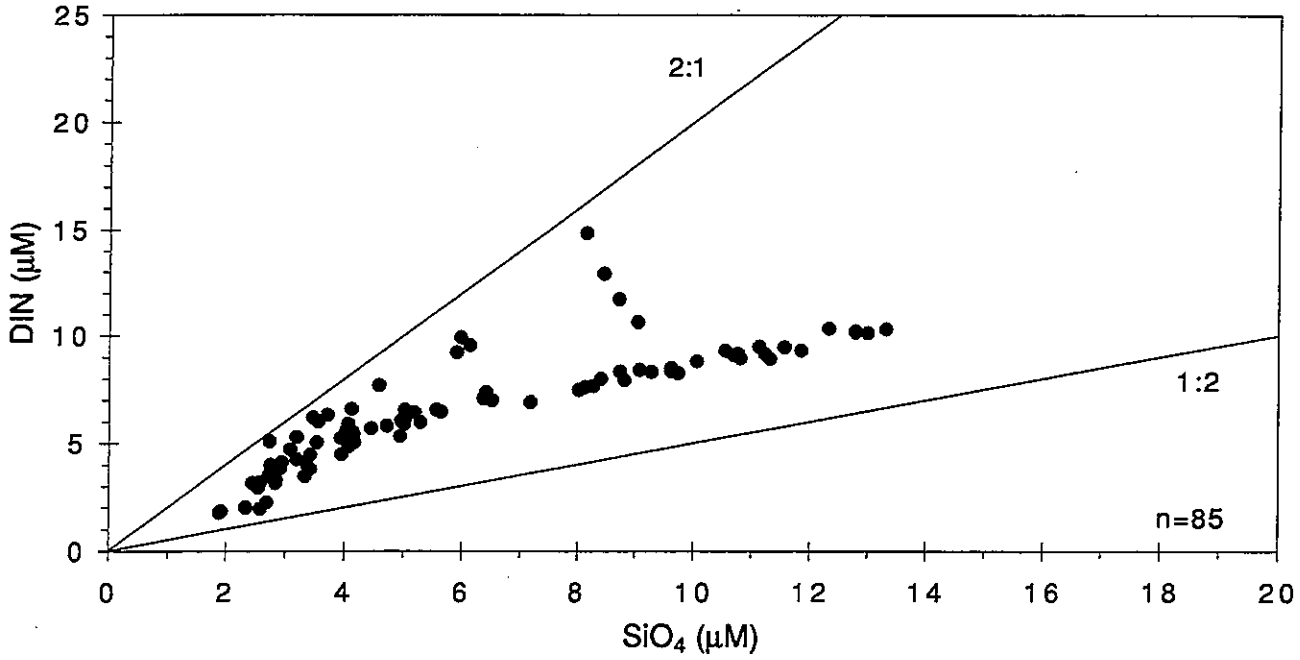
8
10
12
14
16
18
20
SiO4 (µM)

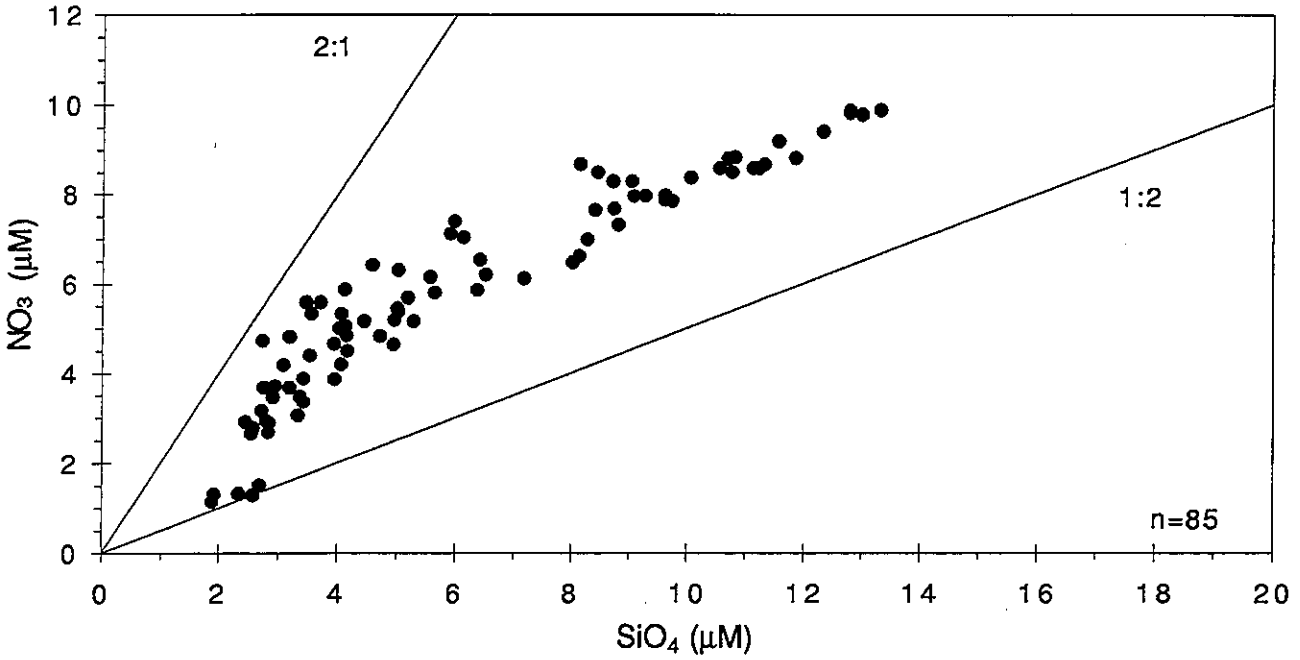
W9513 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=90
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

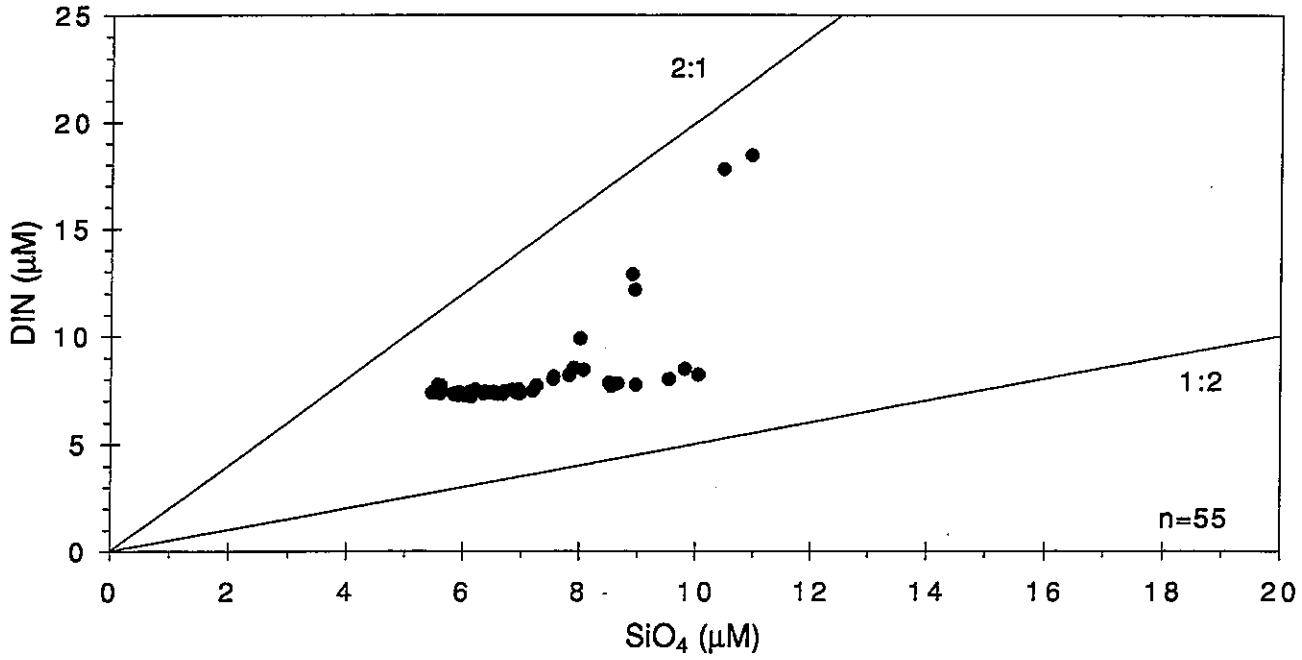
W9515 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=85
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

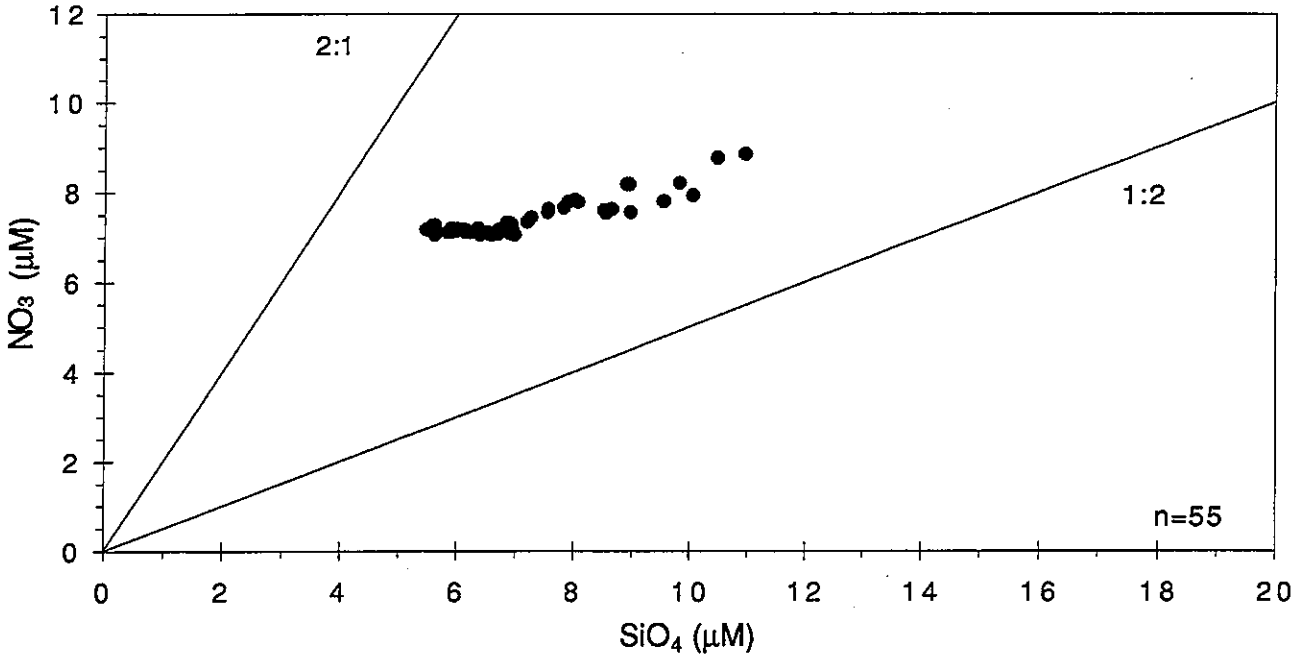
W9515 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=85
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

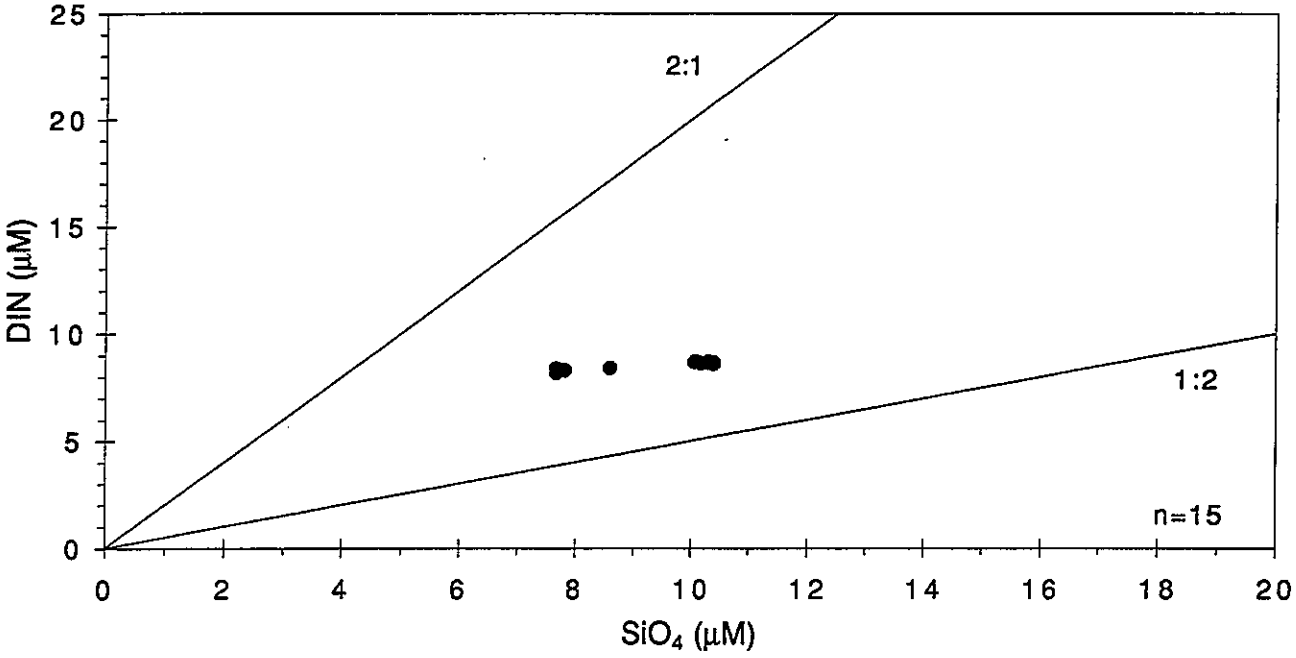
W9516 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

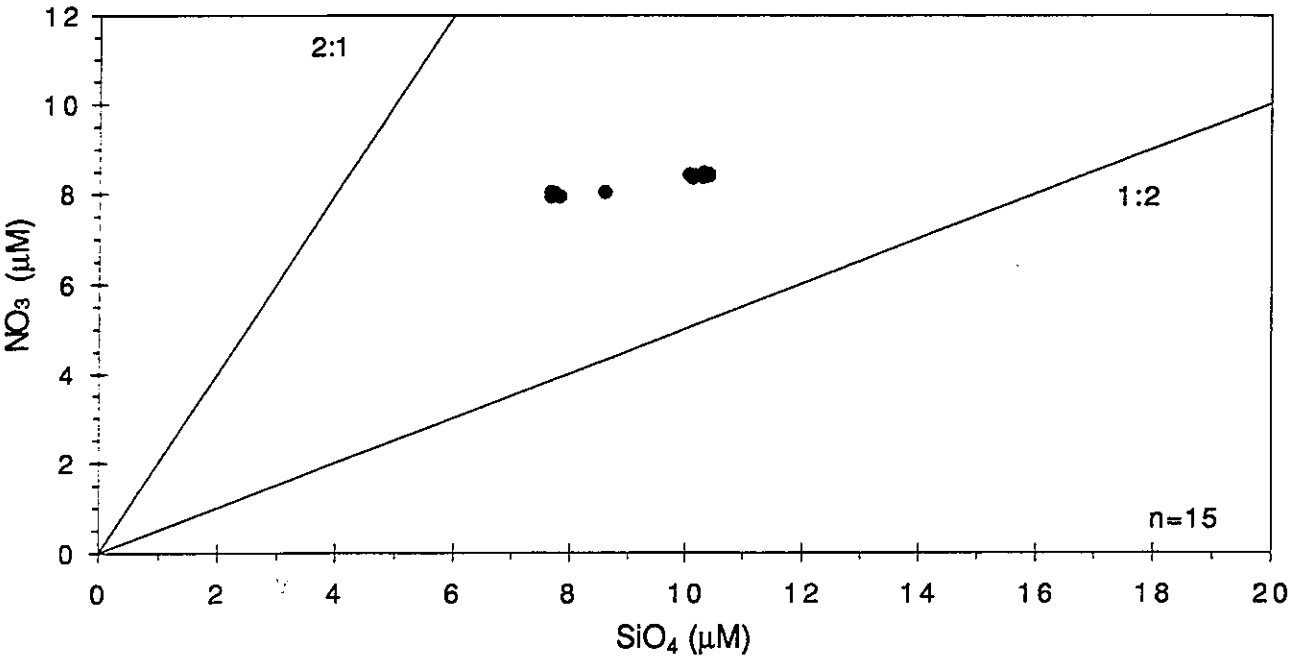
W9516 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

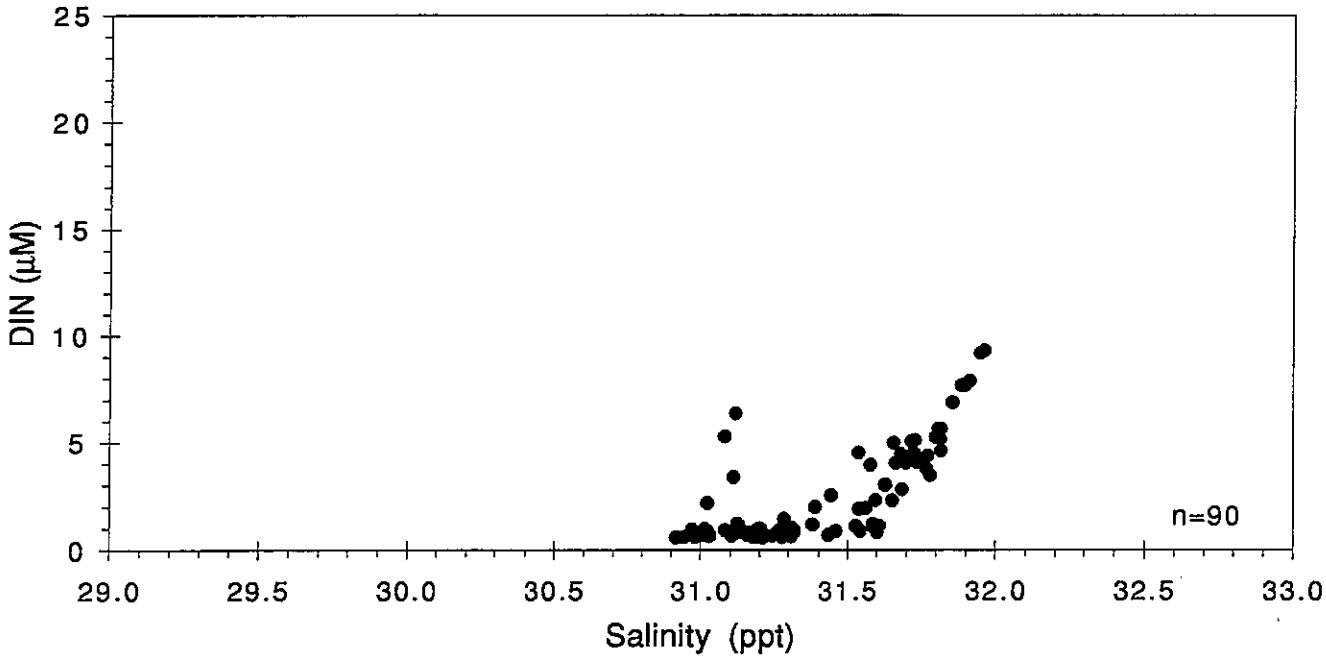
W9517 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=15
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

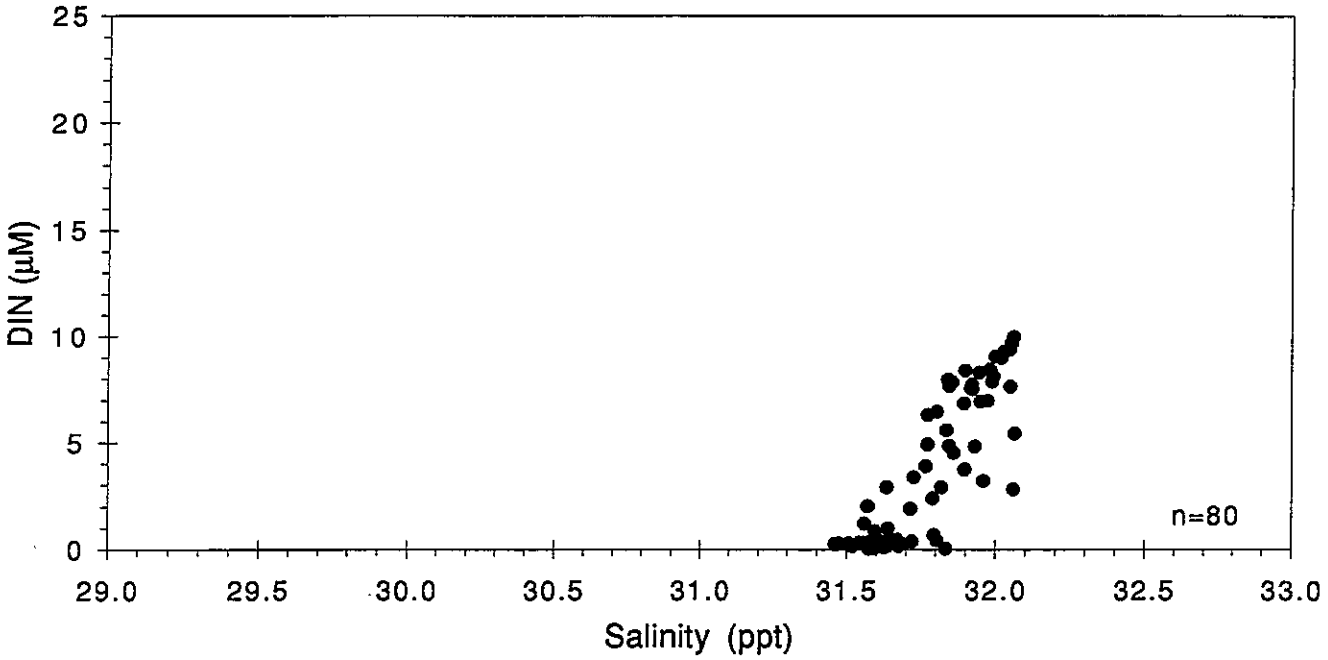
W9517 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=15
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

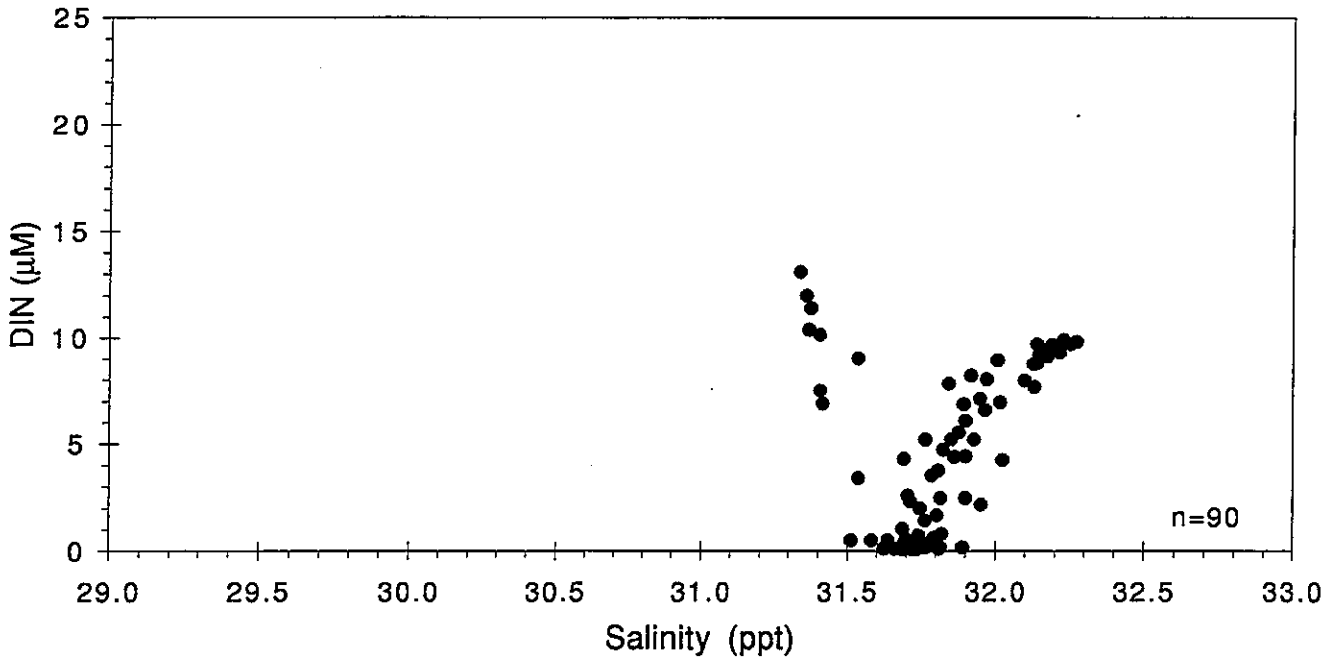
W9510 .


25
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=90

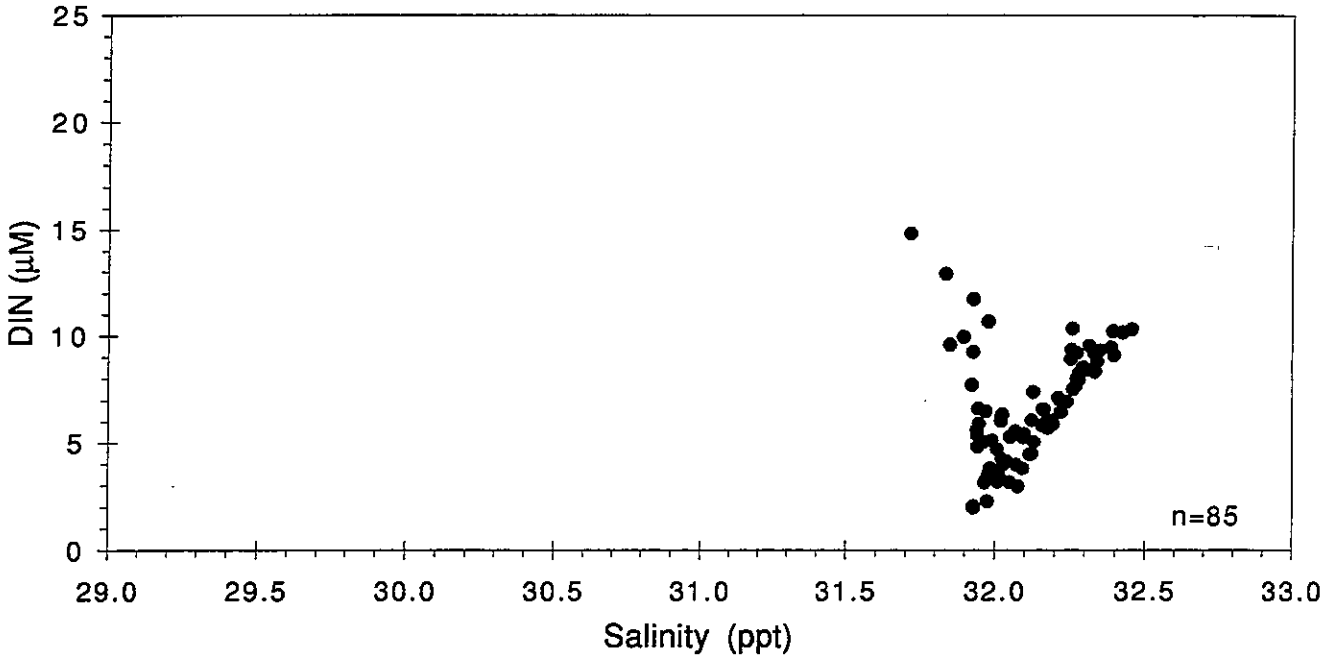
W9512 .


25
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=80

W9513 .


25
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=90

W9515 .


25
20
15
10
5
0
DIN (µM)
n=85
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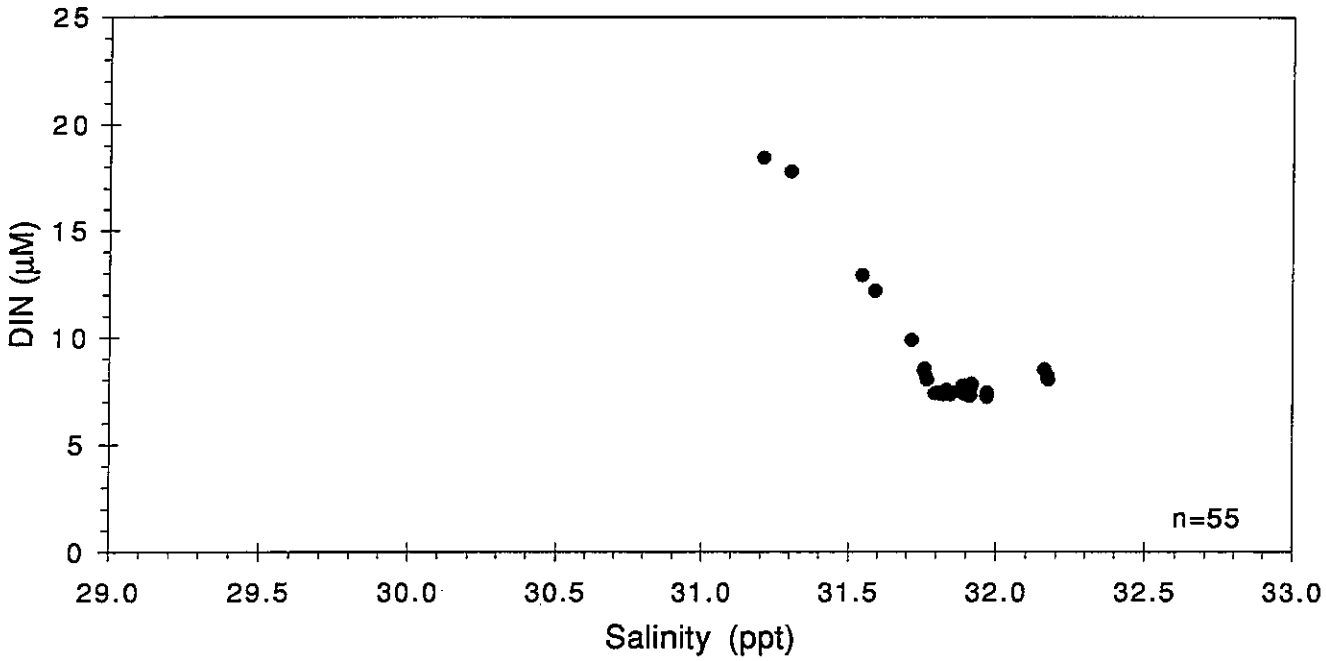
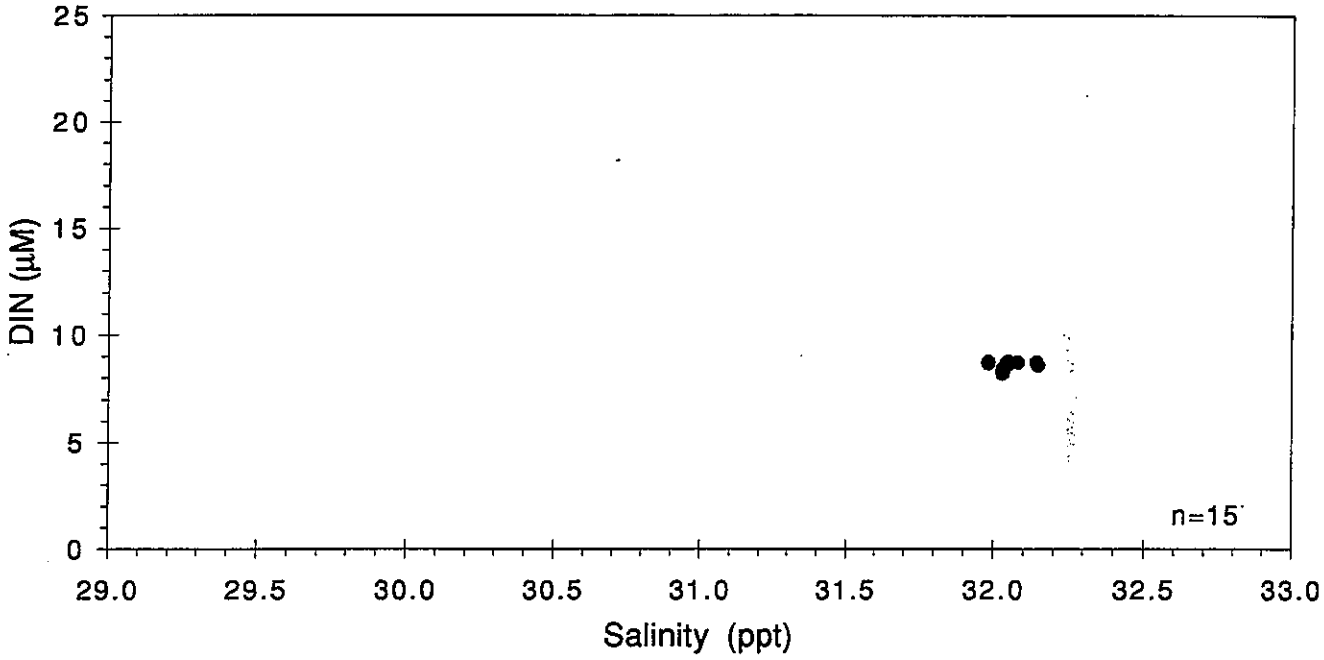
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

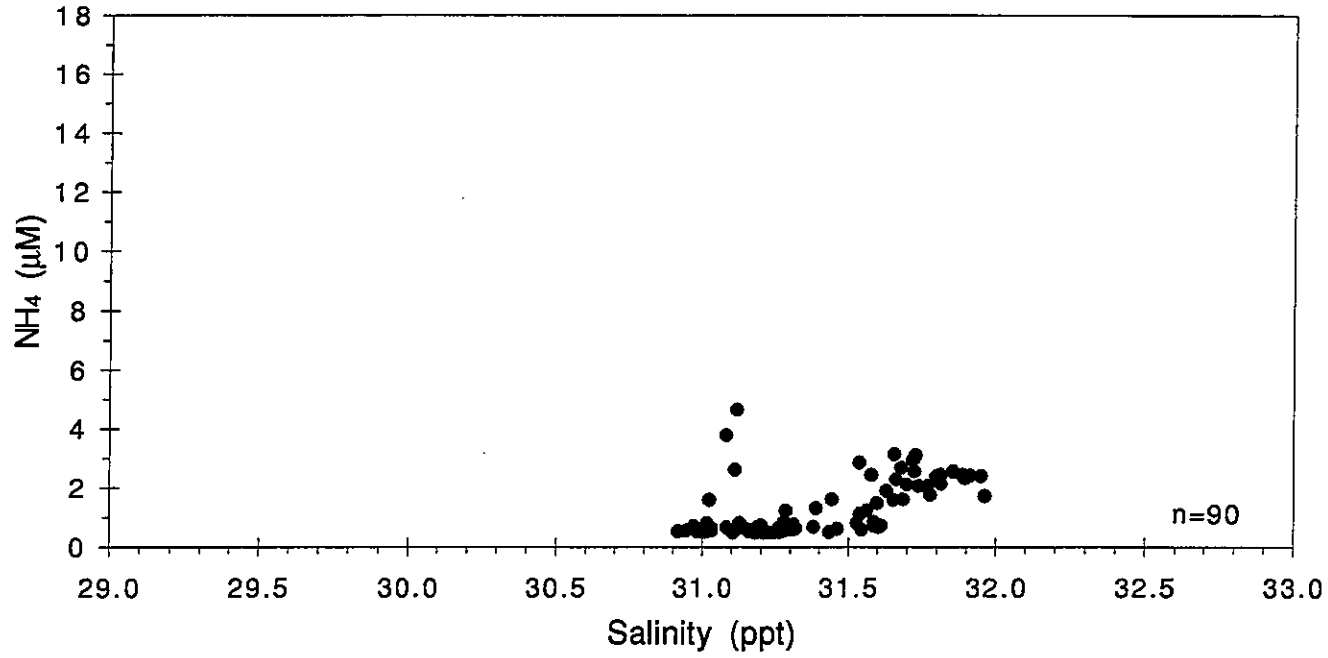
W9516 .


25
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=55

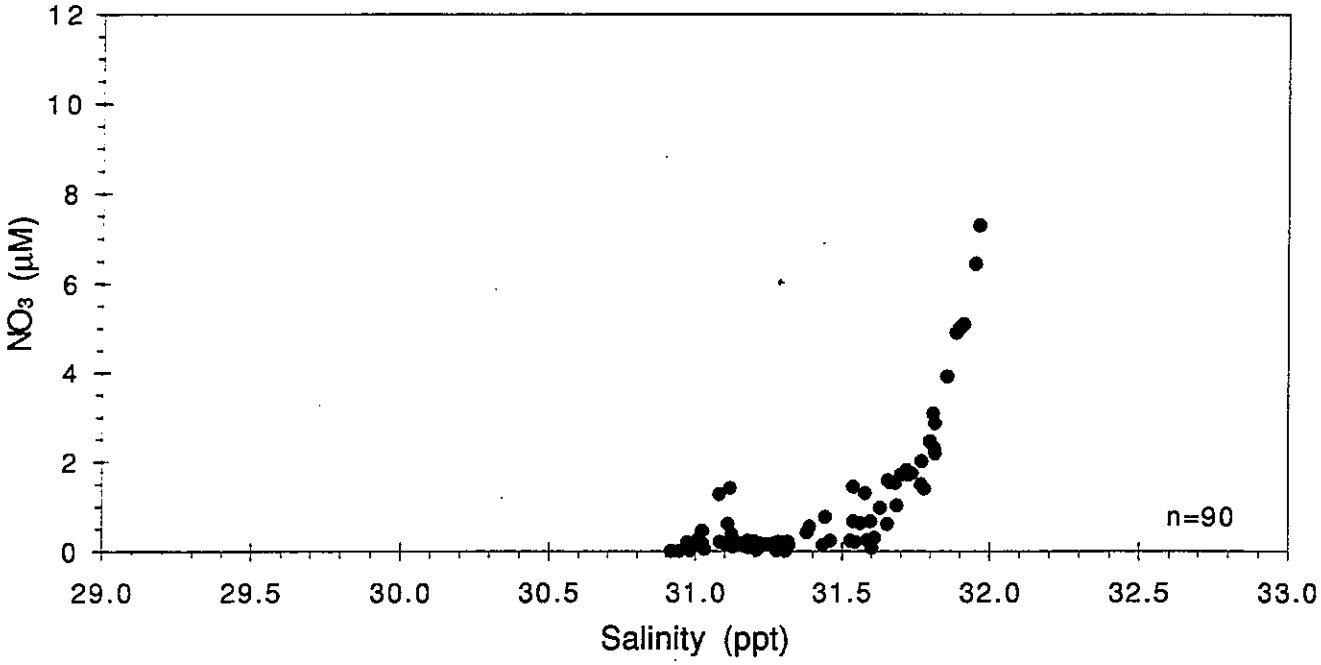
W9517 .


25
20
15
10
5
0
DIN (µM)
n=15
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

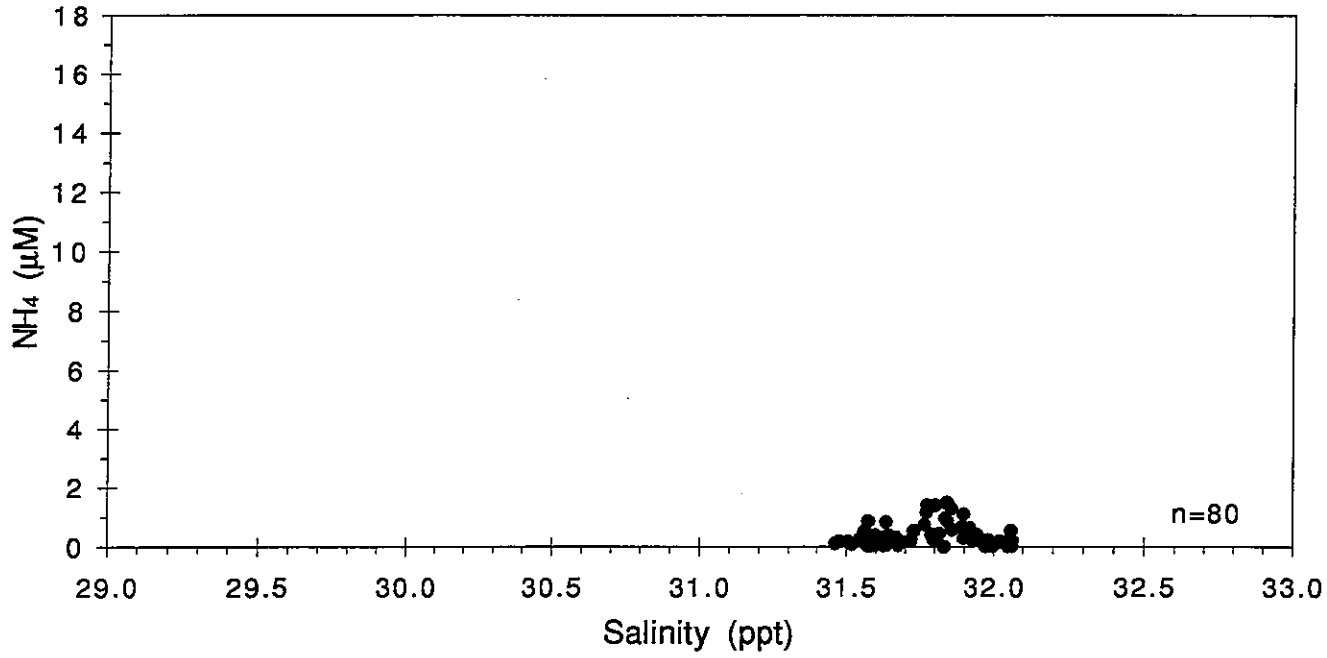
W9510 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

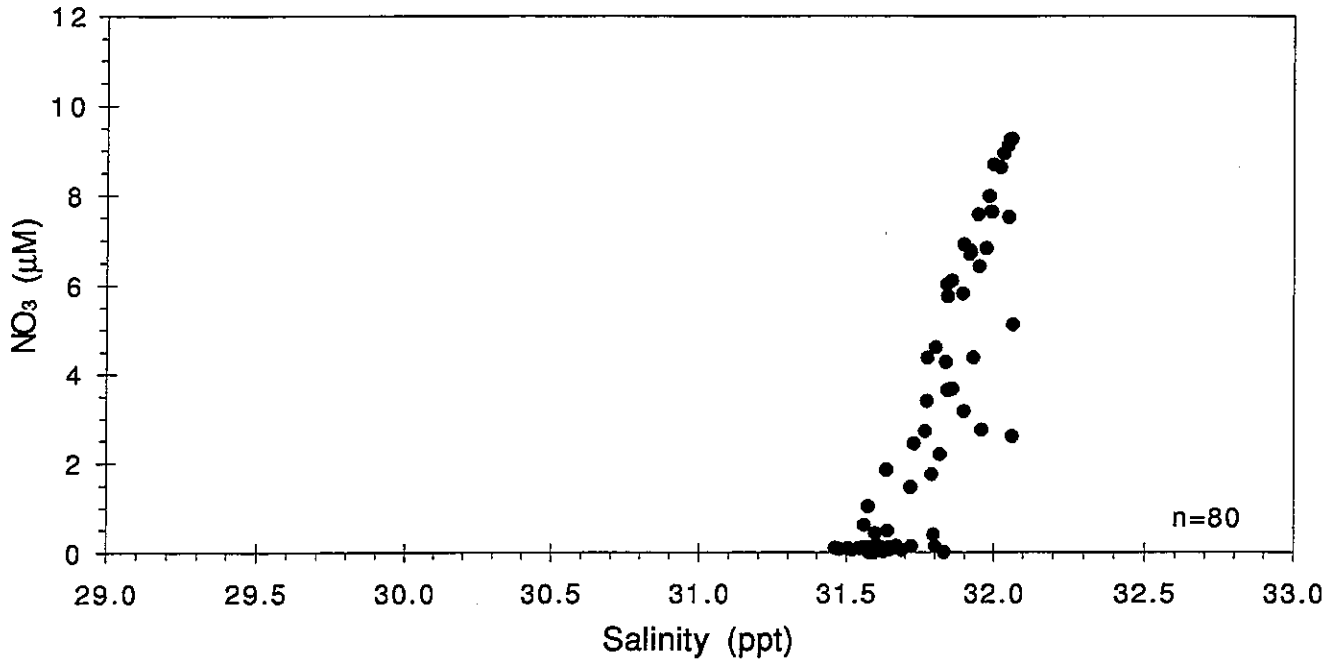
W9510 .


12
10
8
6
4
2
0
NO3 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

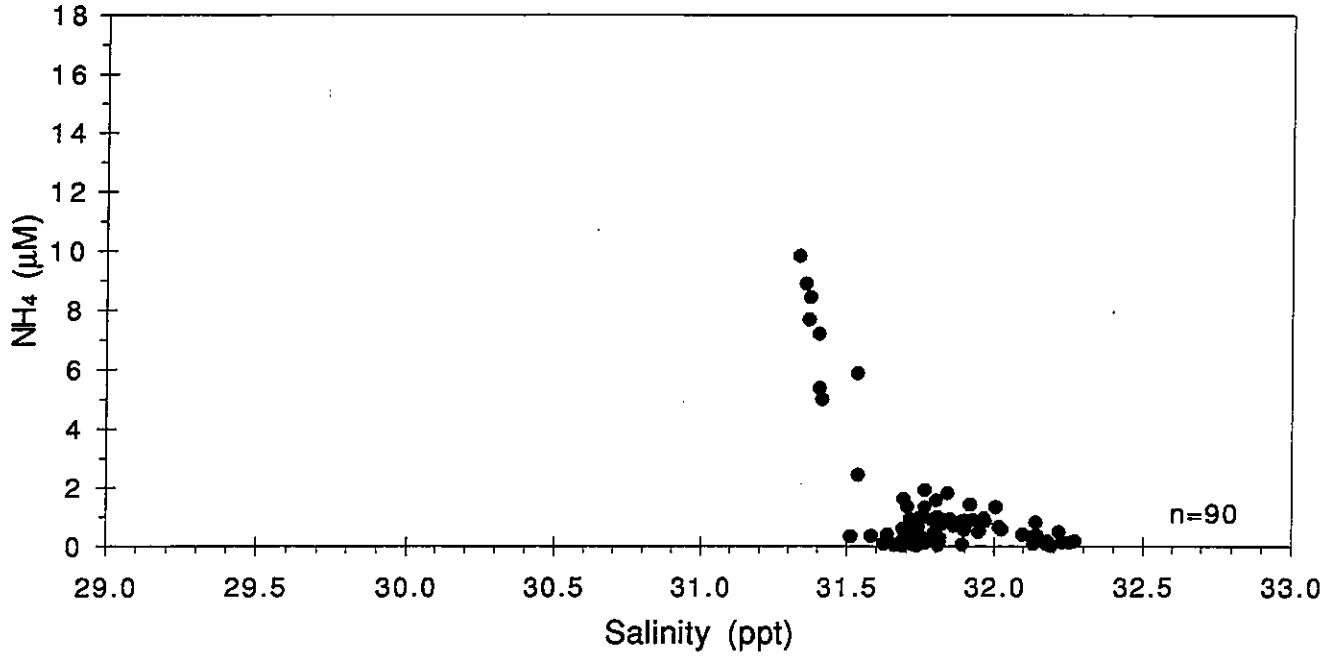
W9512 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=80
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

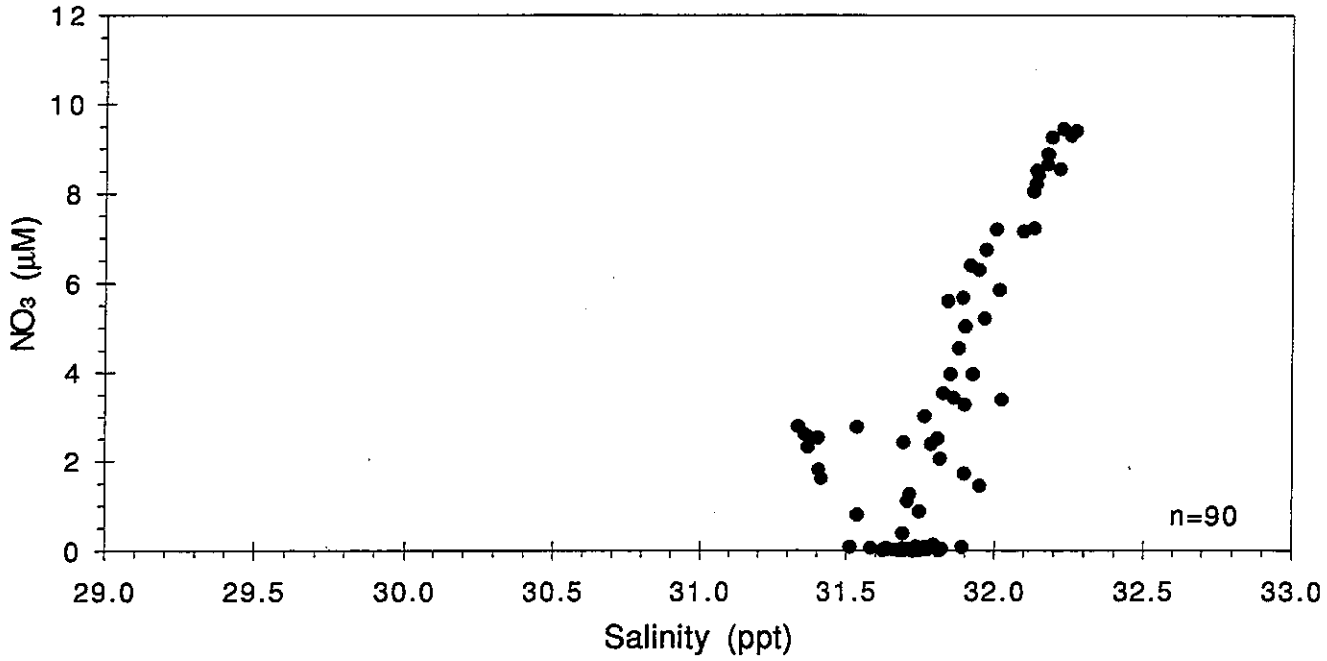
W9512 .


12
10
8
6
4
2
0
NO3 (µM)
n=80
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

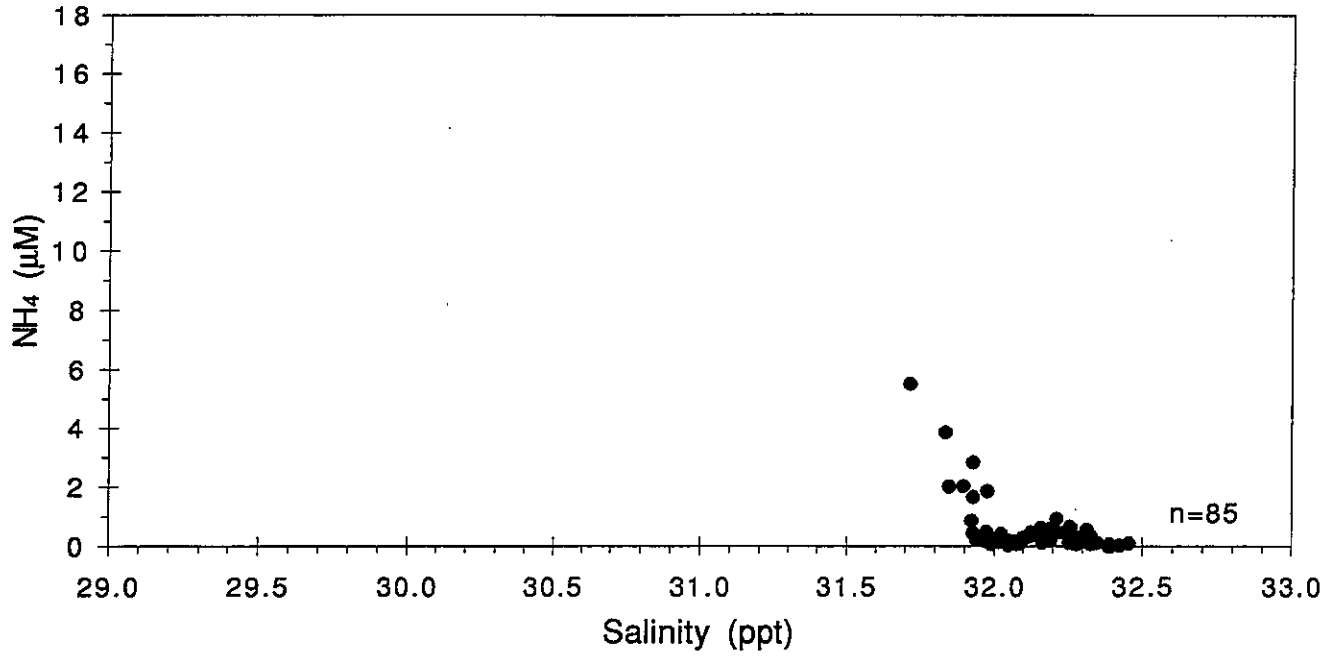
W9513 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

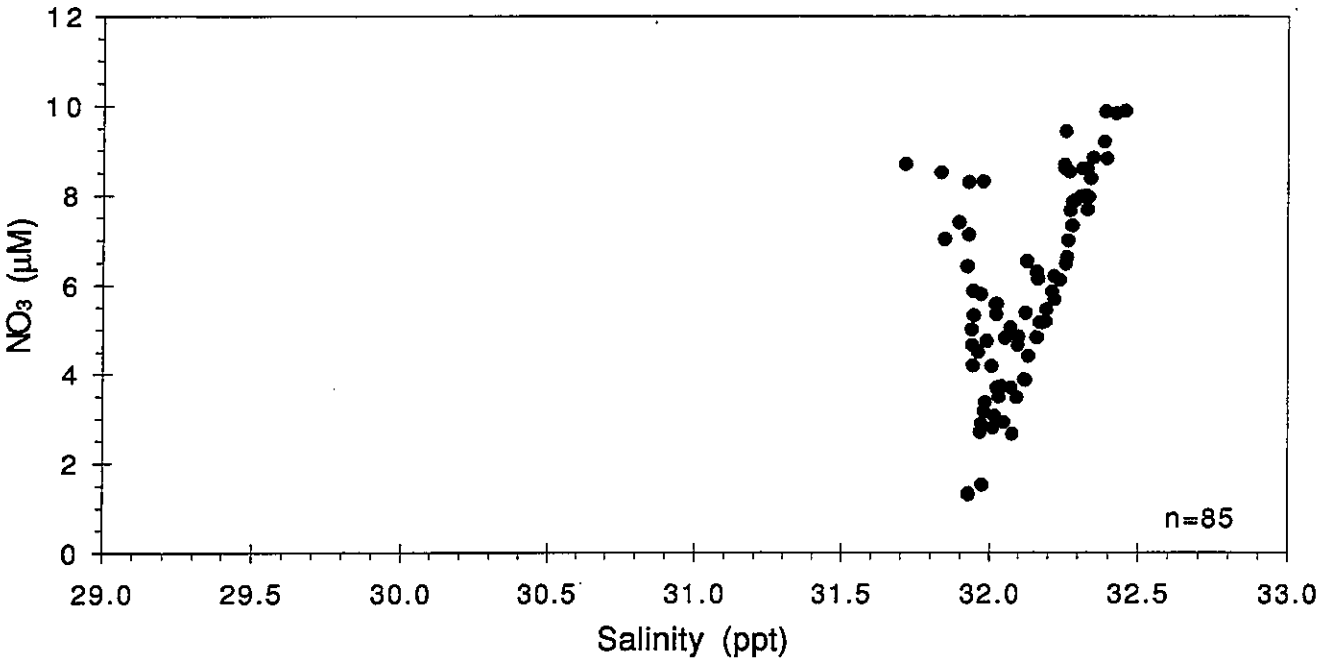
W9513 .


12
10
8
6
4
2
0
NO3 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

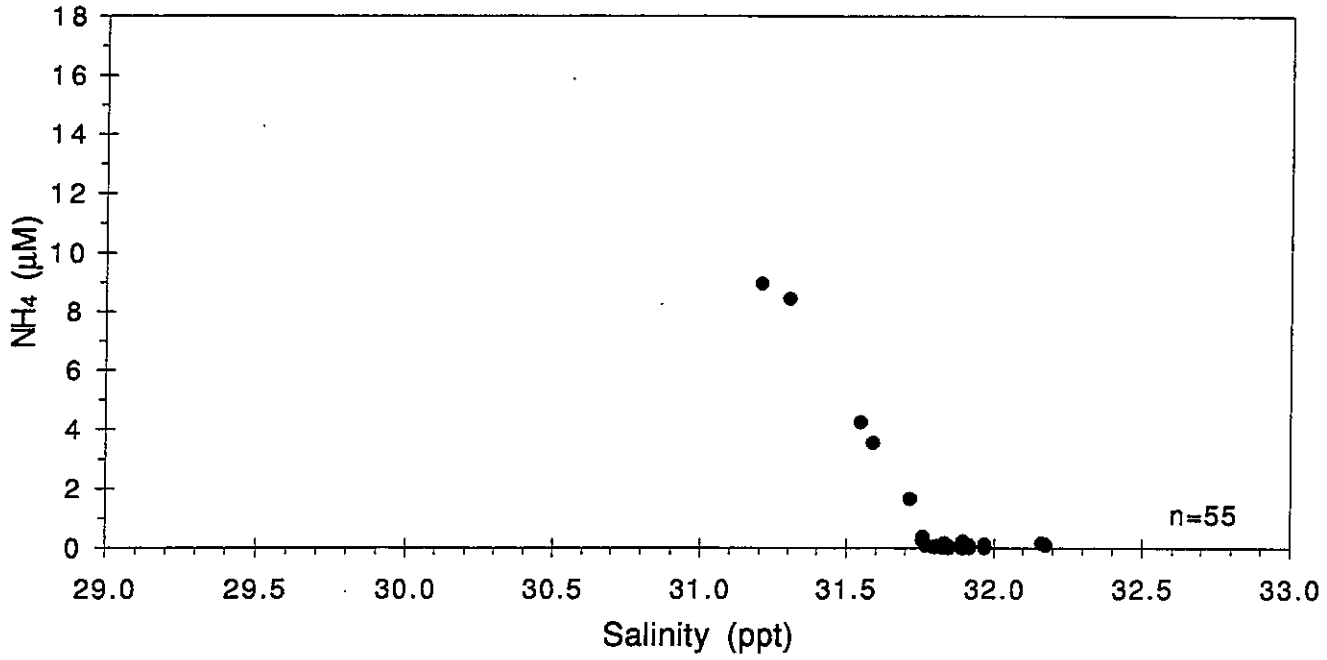
W9515 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=85
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

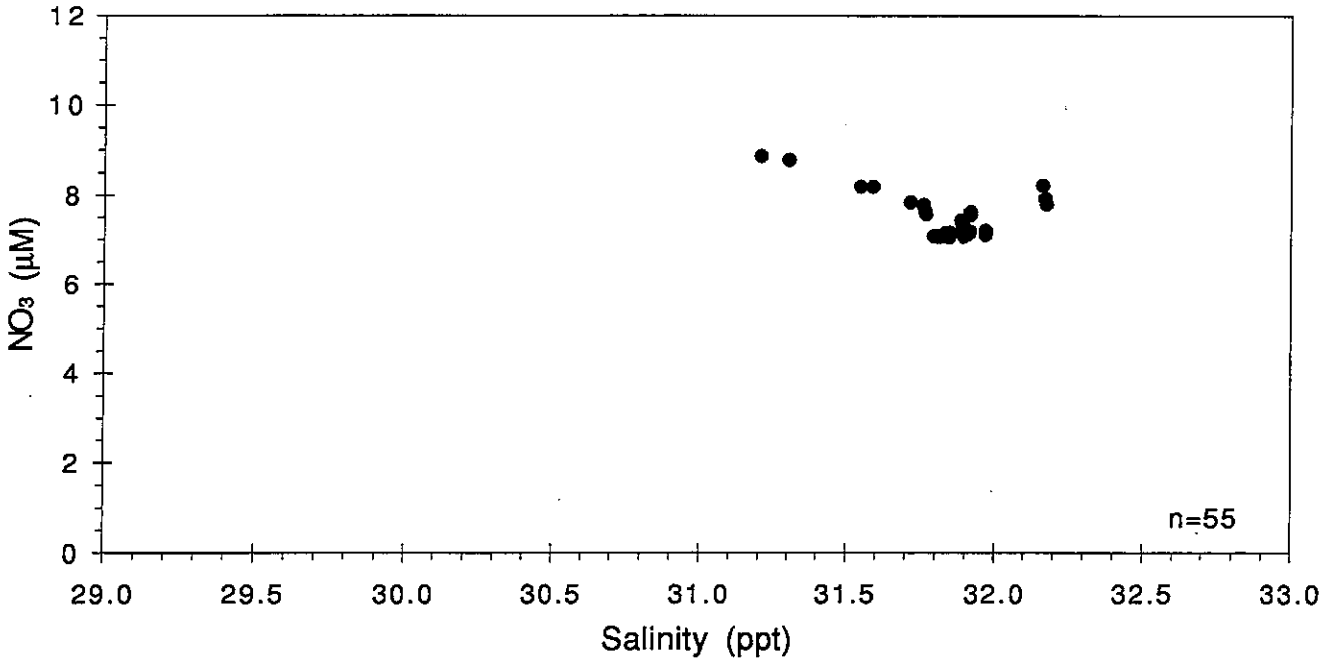
W9515 .


12
10
8
6
4
2
0
NO3 (µM)
n=85
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

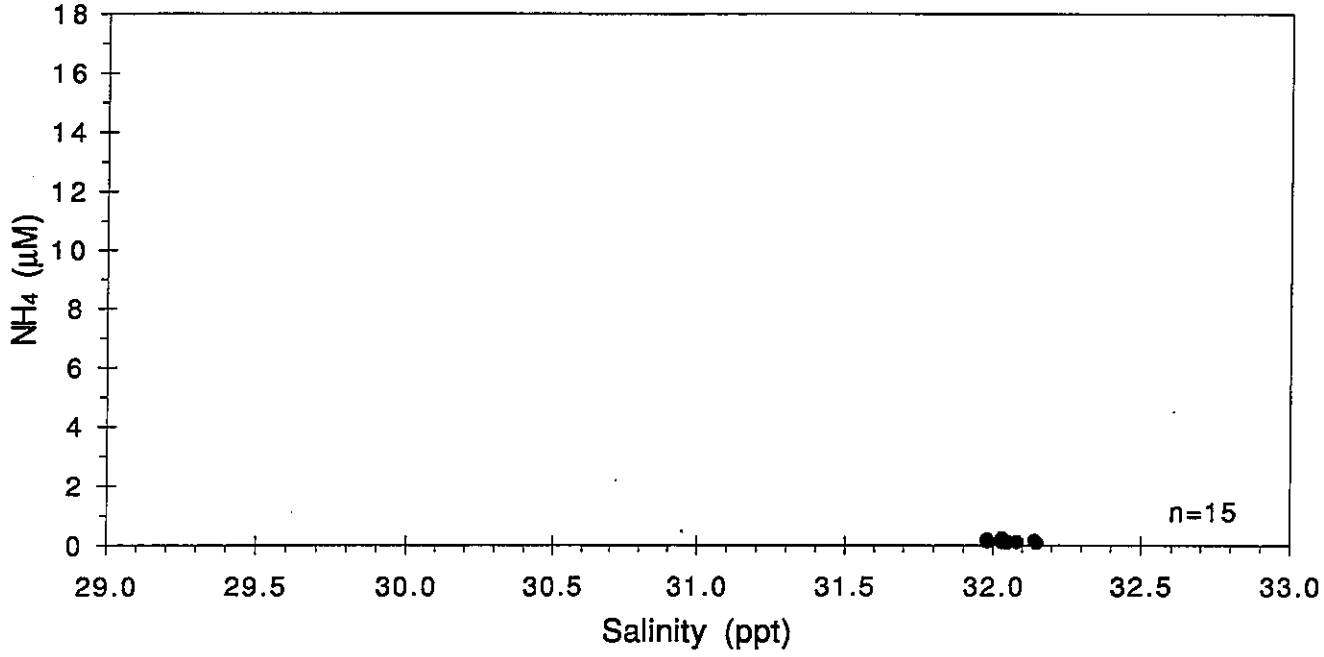
W9516 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

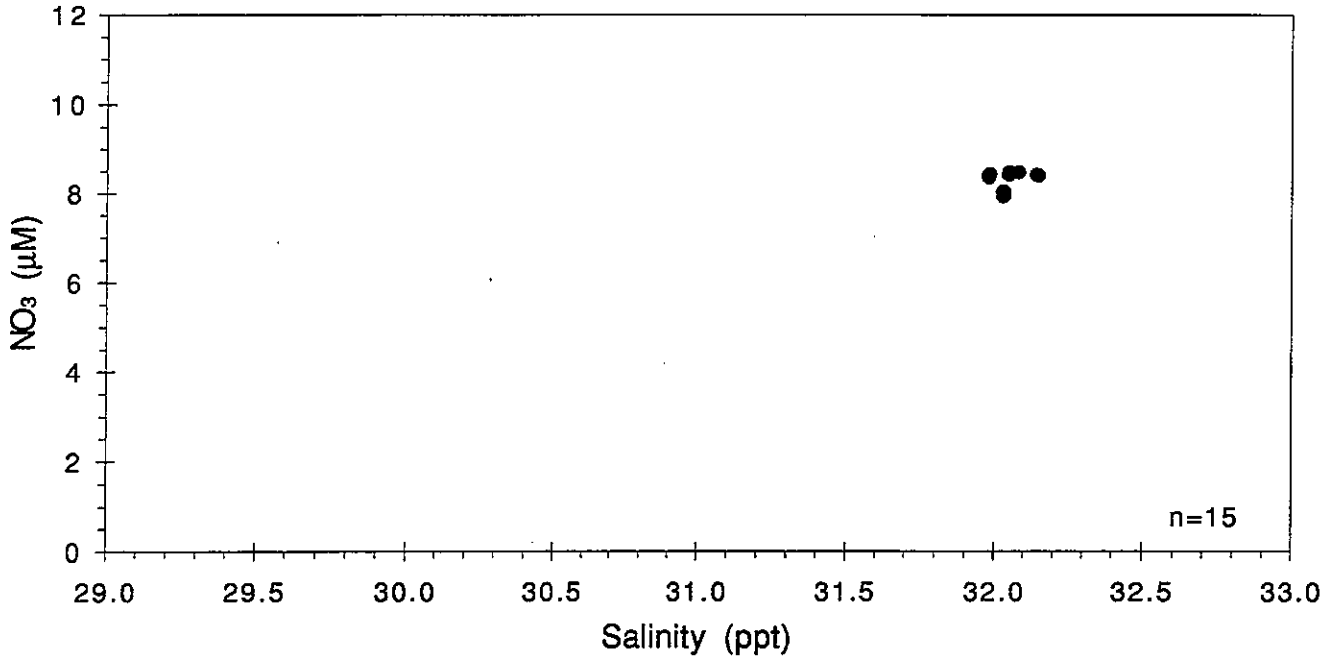
W9516 .


12
10
8
6
4
2
0
NO3 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

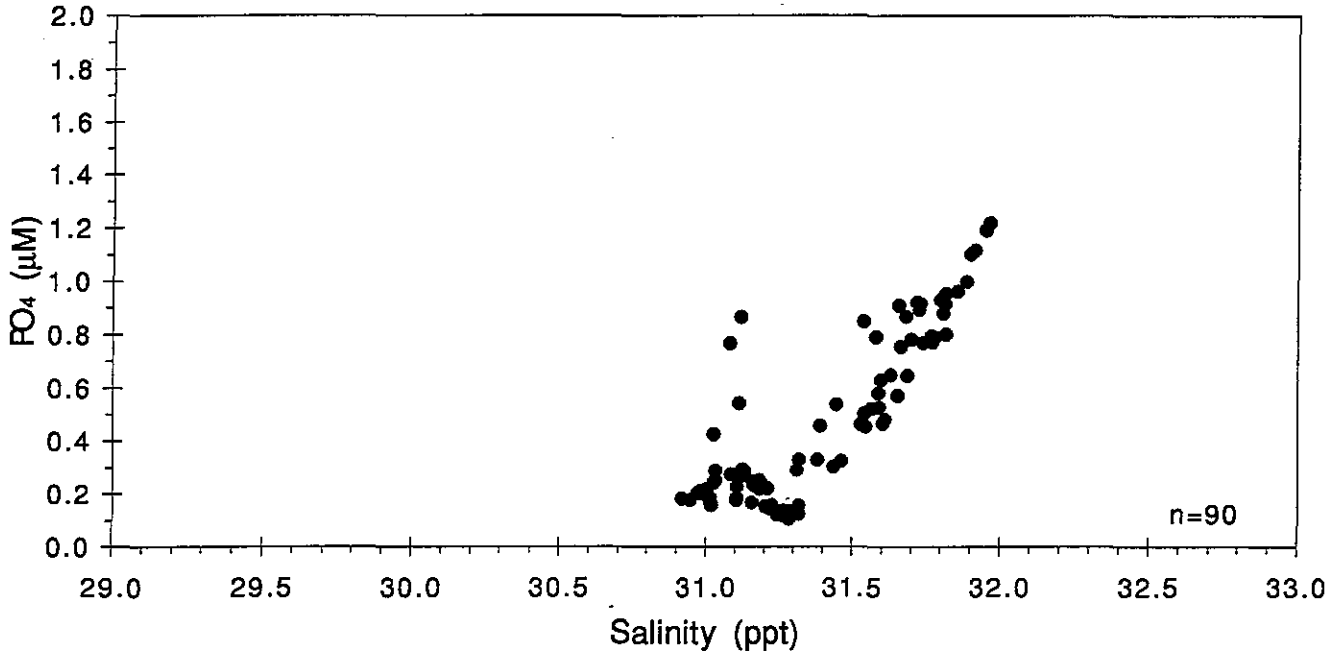
W9517 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=15
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

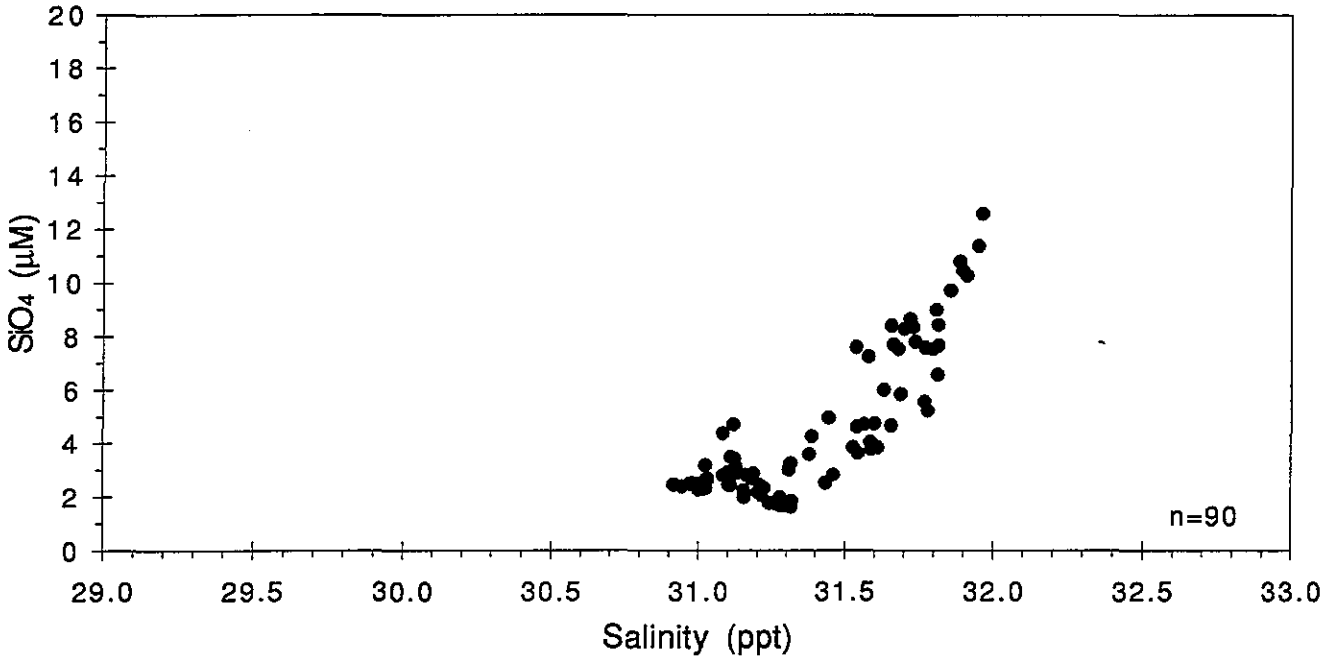
W9517 .


12
10
8
6
4
2
0
NO3 (µM)
n=15
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

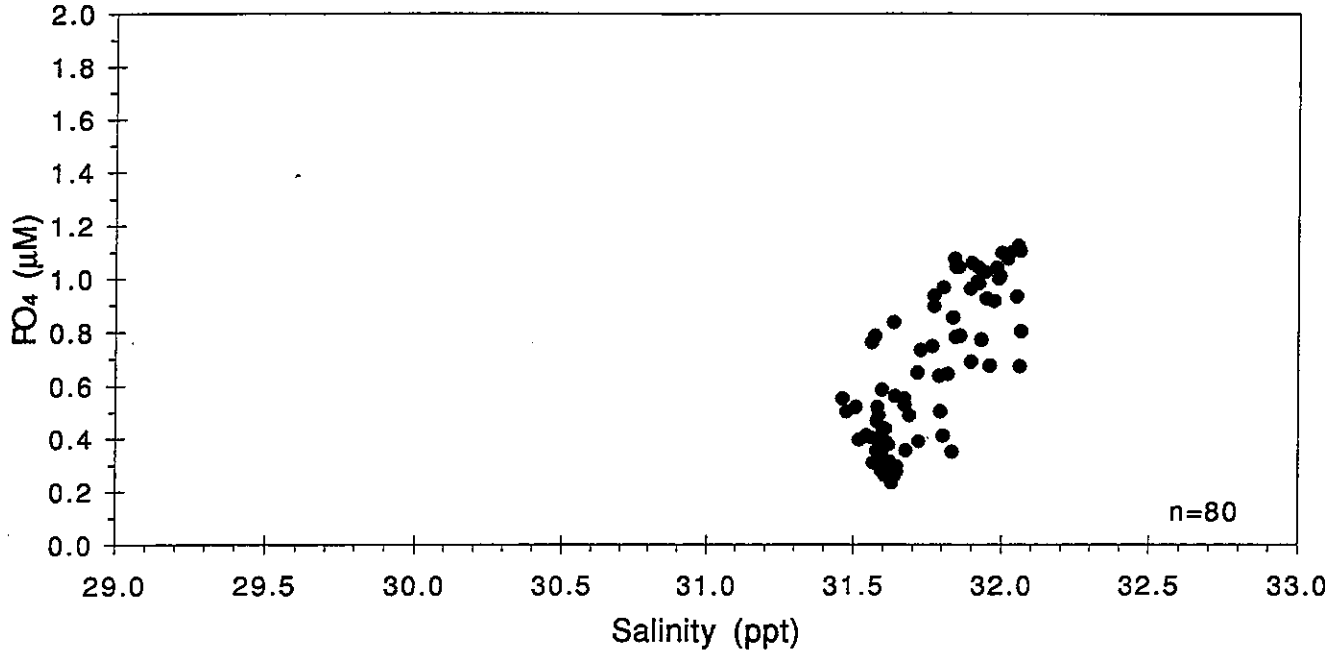
W9510 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

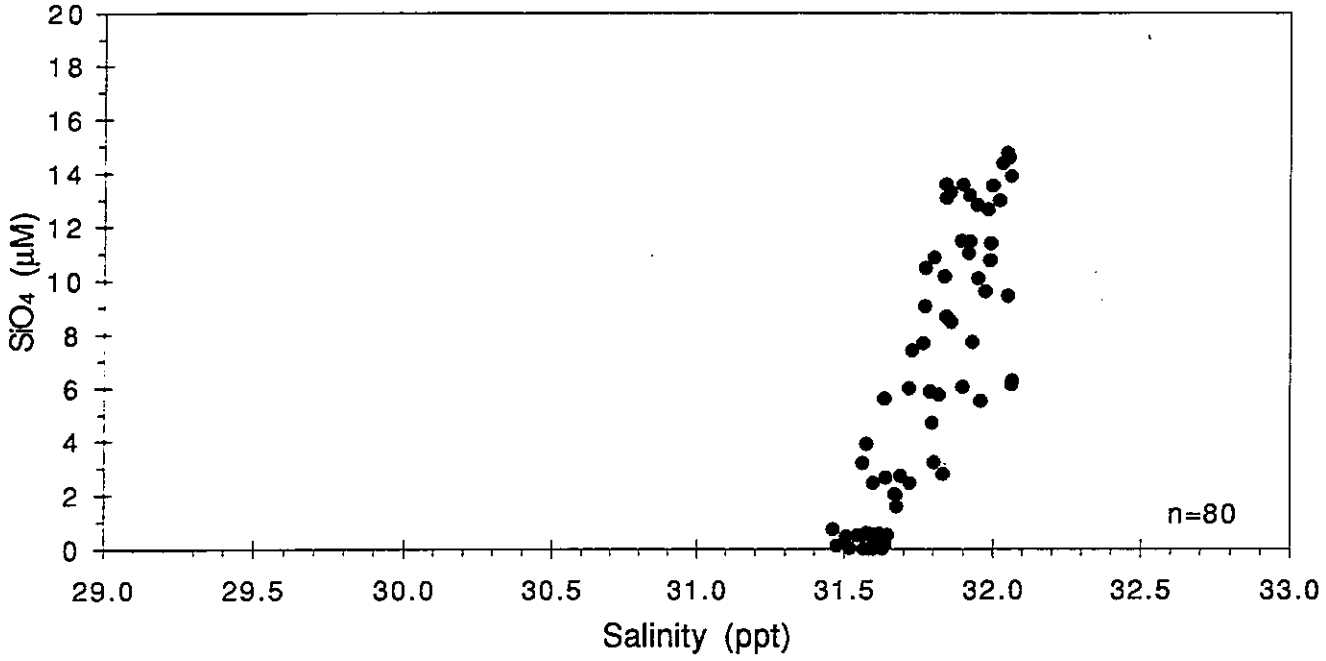
W9510 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

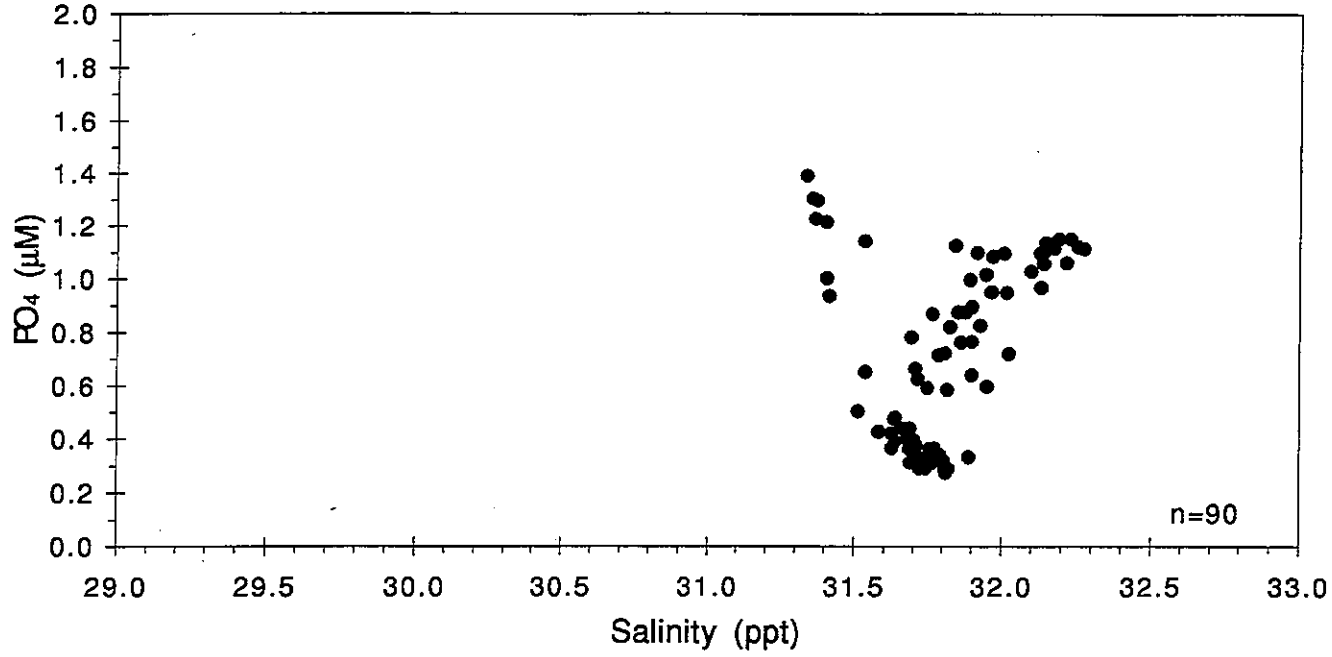
W9512 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=80
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

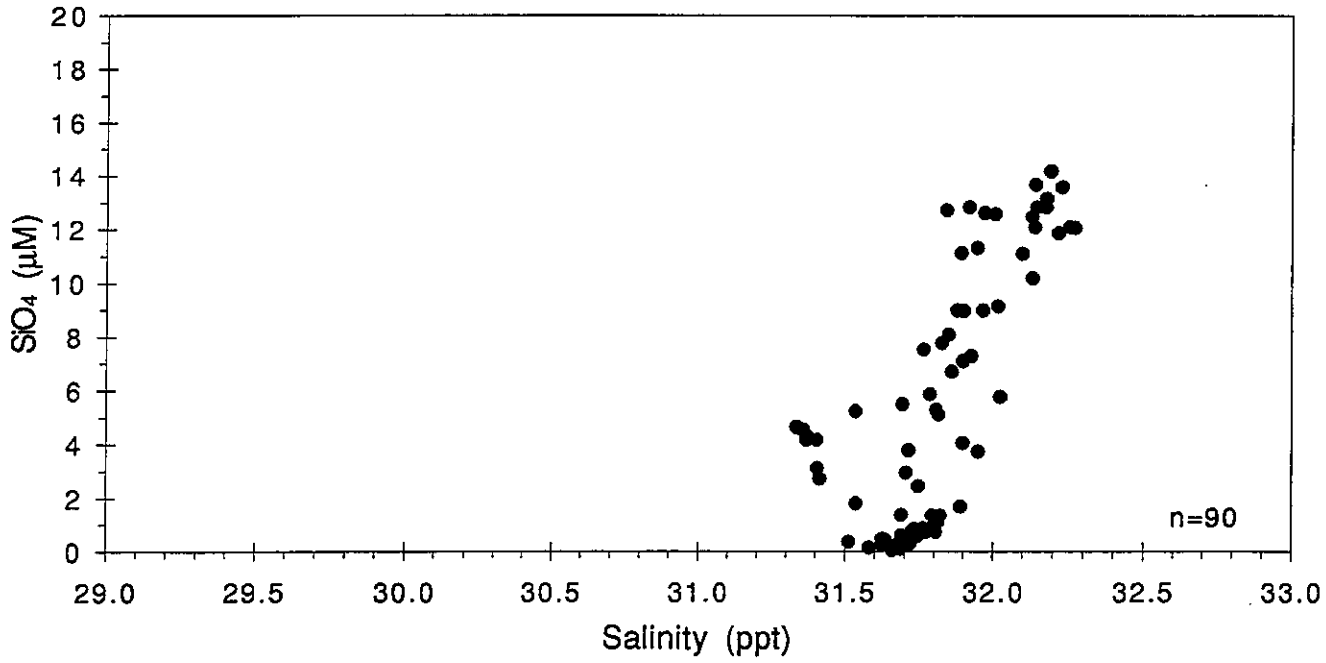
W9512 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=80
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

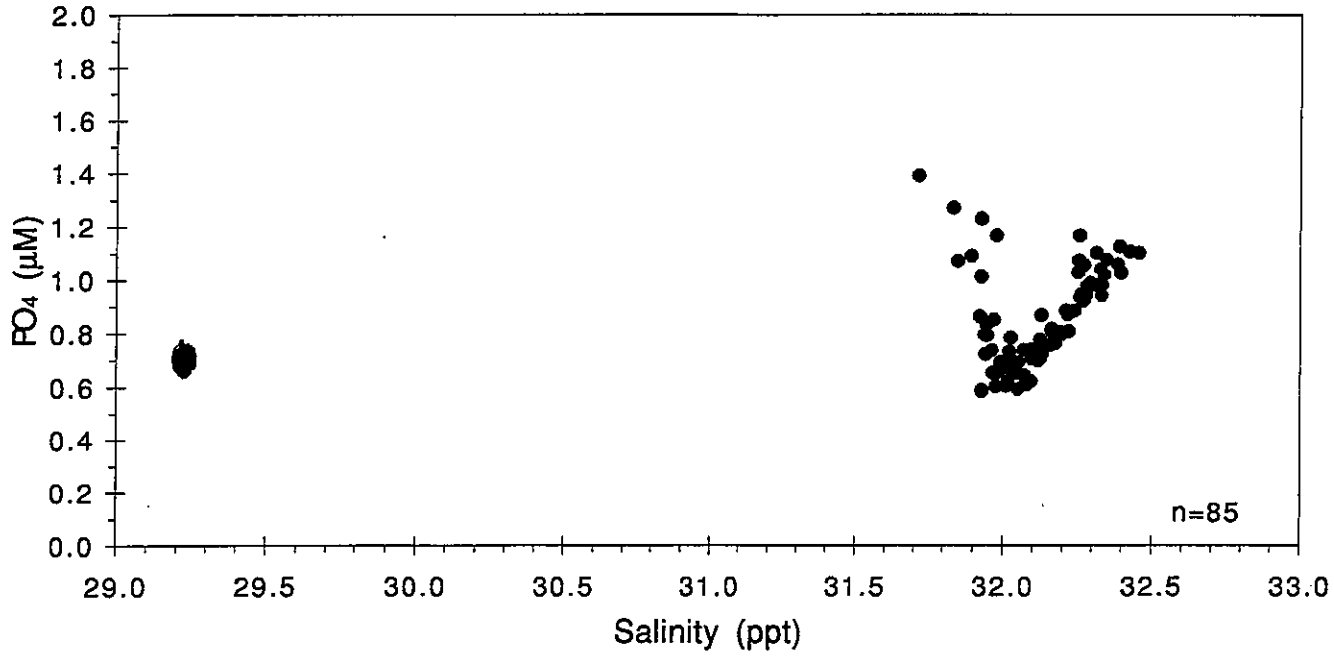
W9513 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

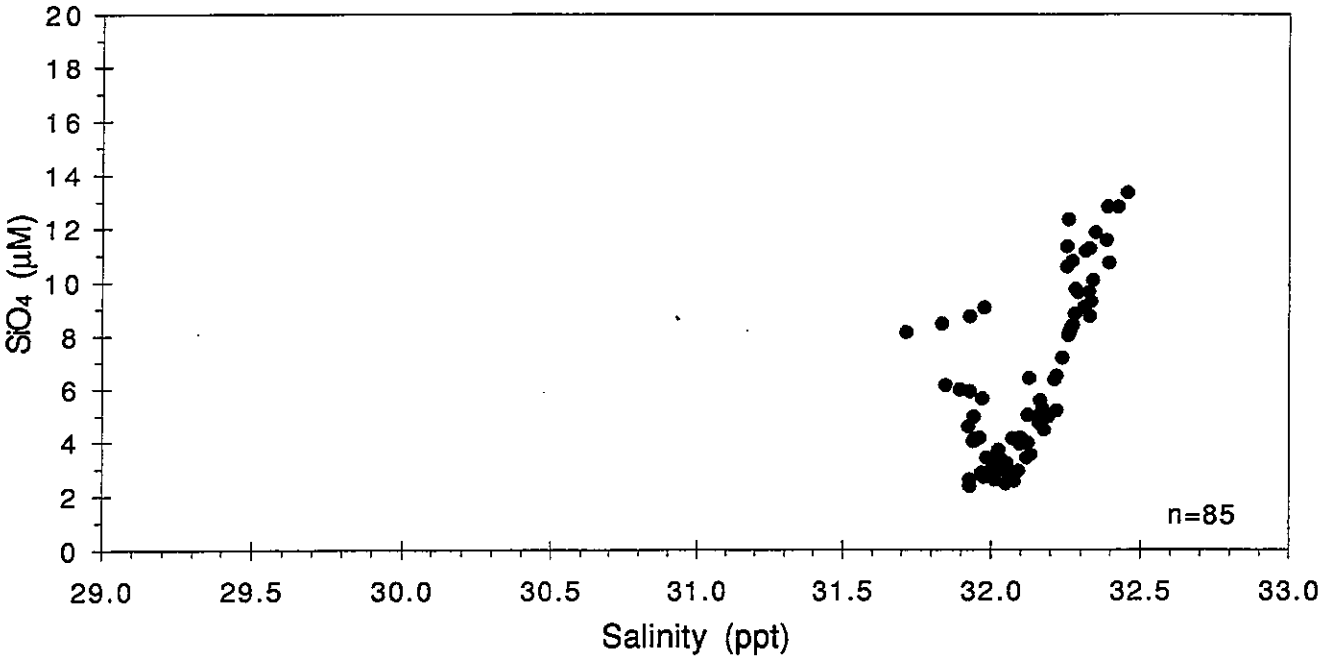
W9513 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

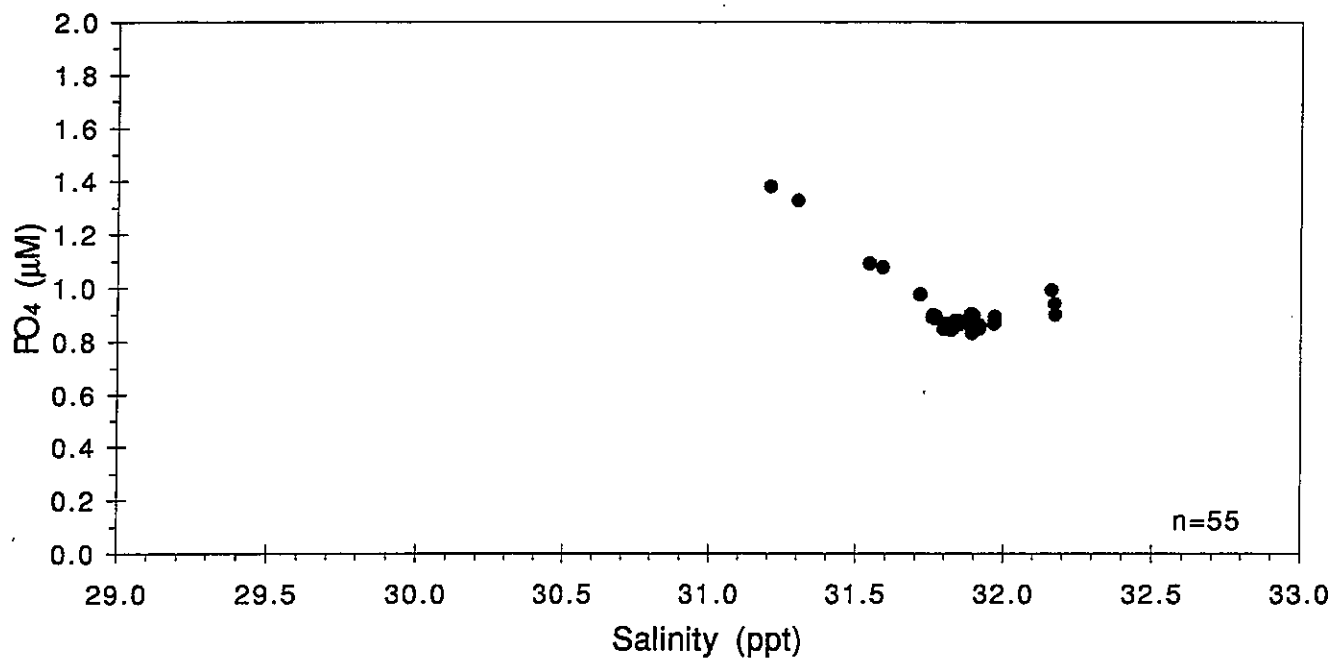
W9515 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=85
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

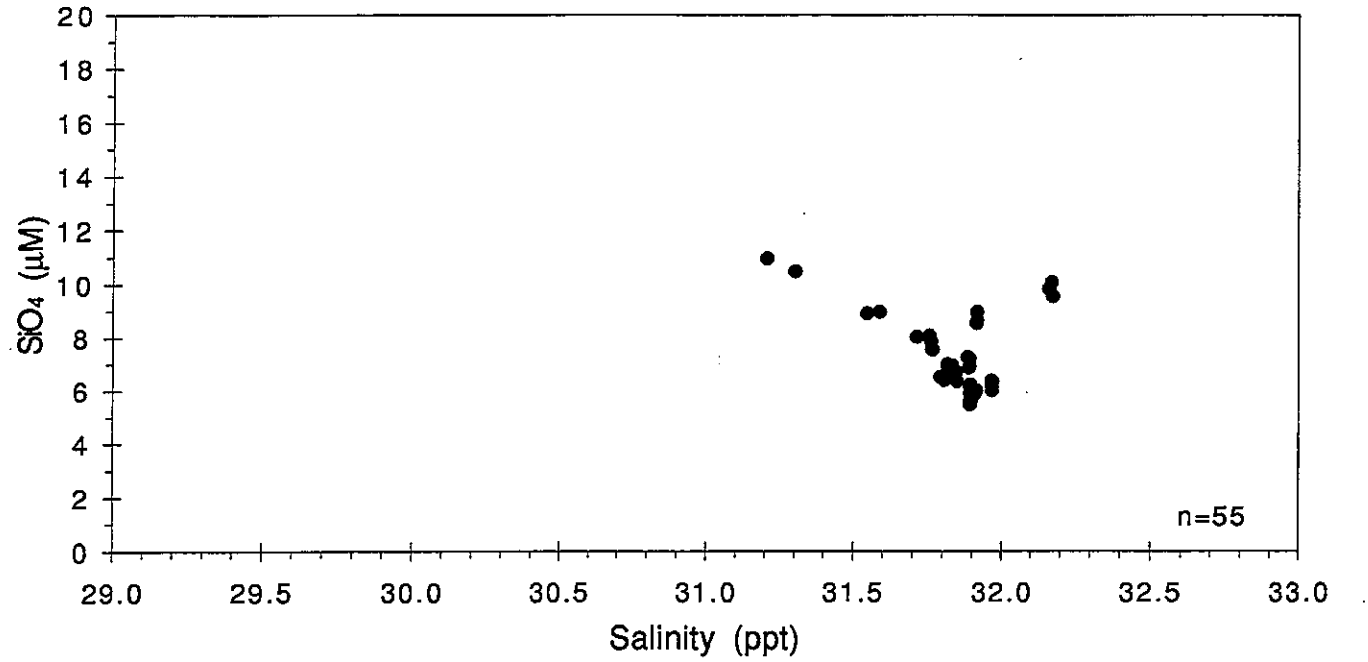
W9515 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=85
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

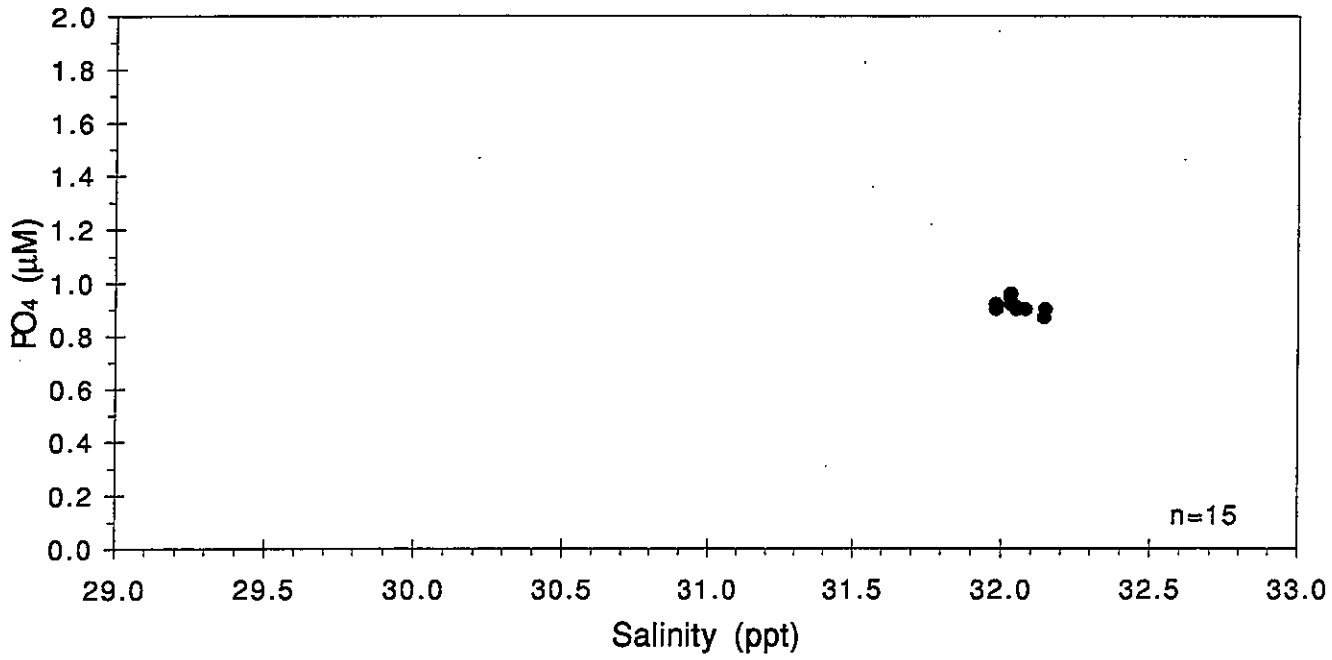
W9516 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

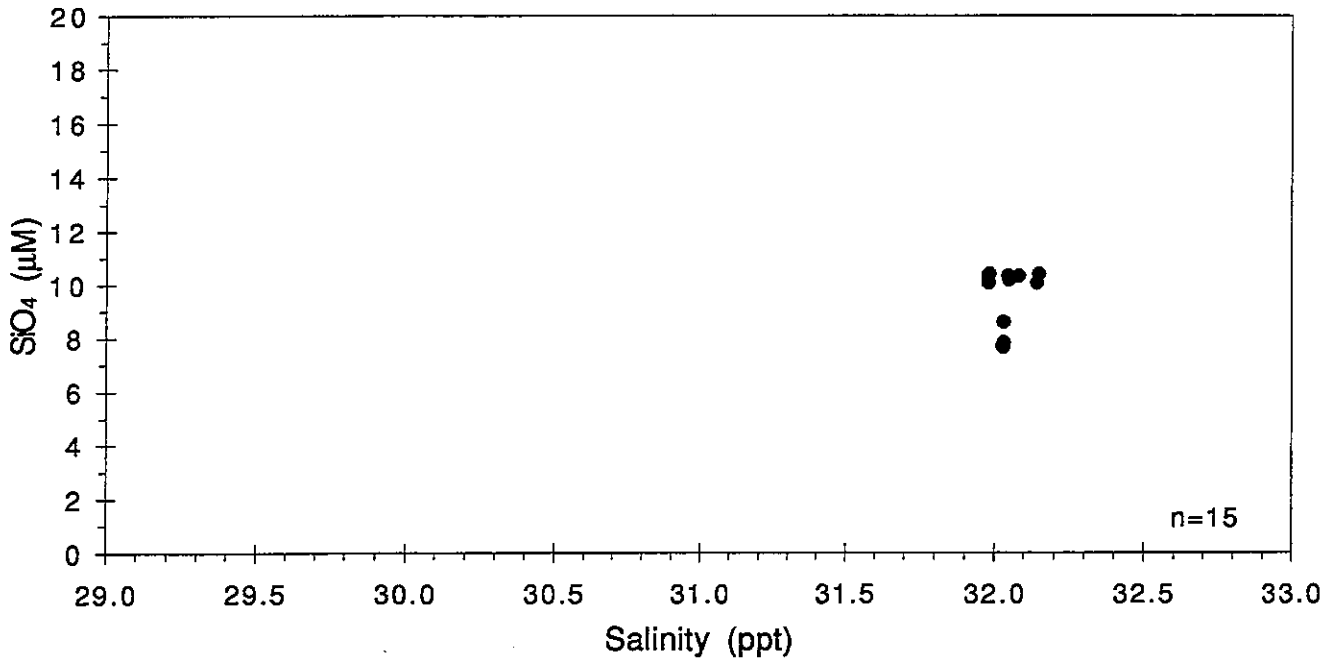
W9516 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

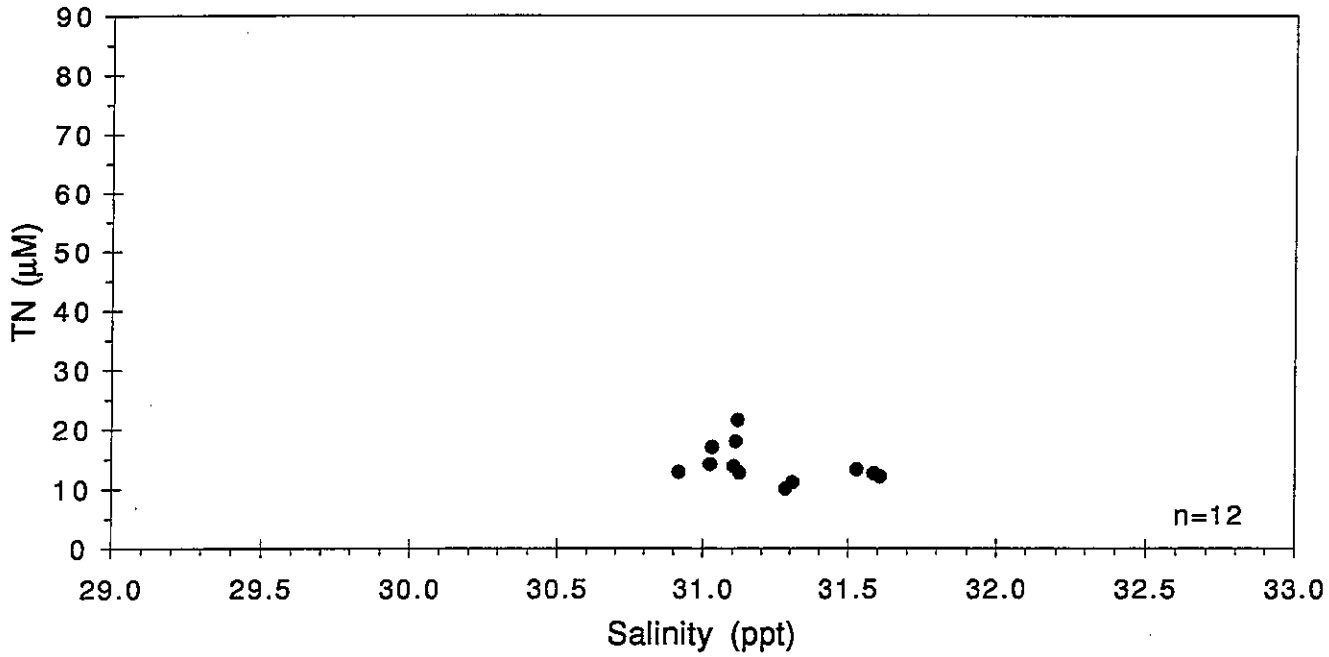
W9517 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=15
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

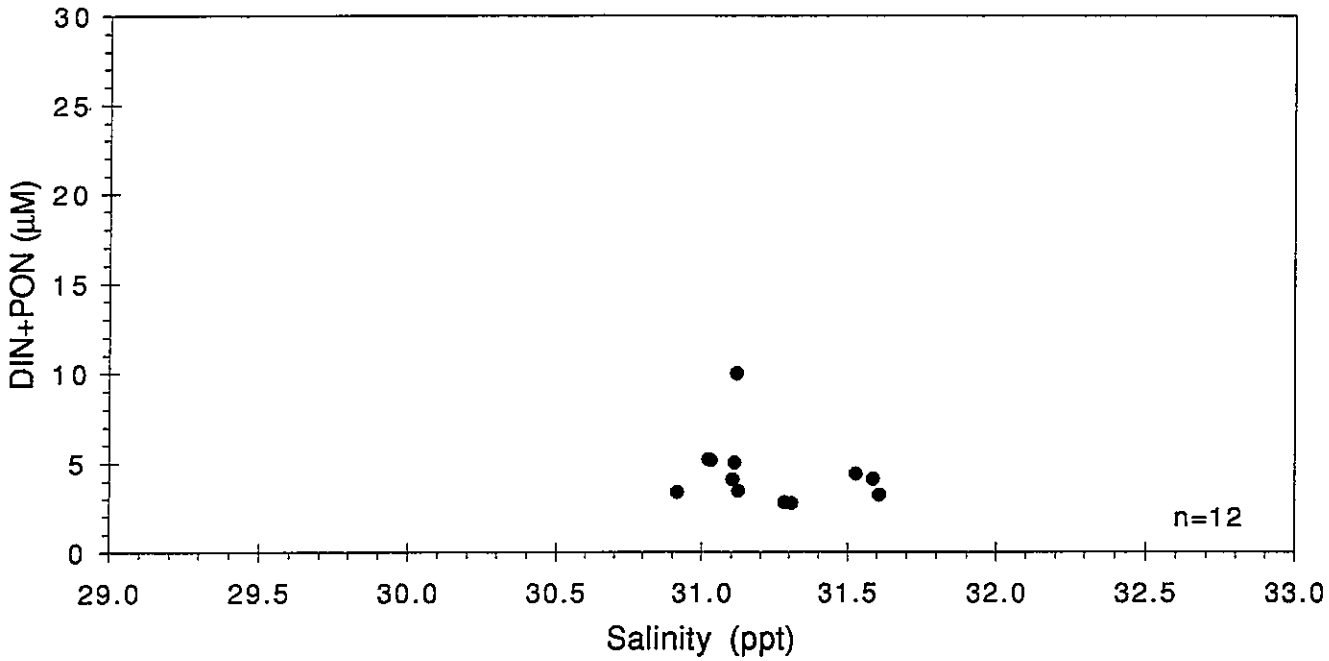
W9517 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=15
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

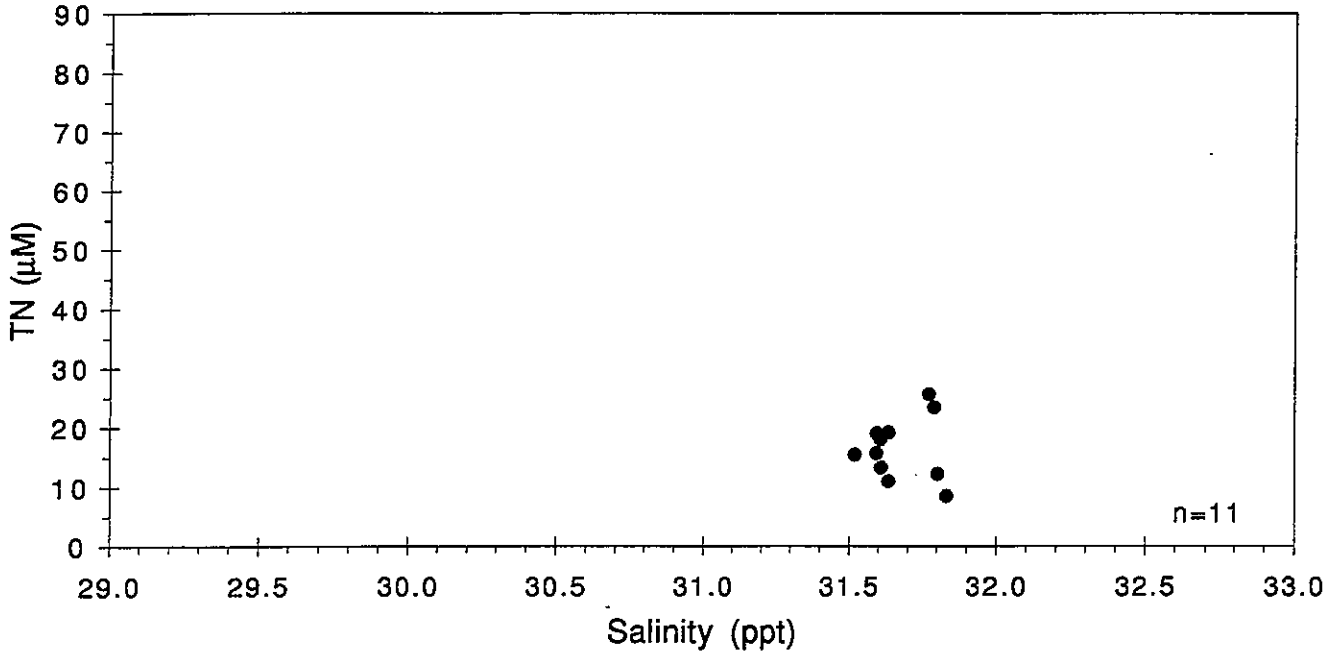
W9510 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

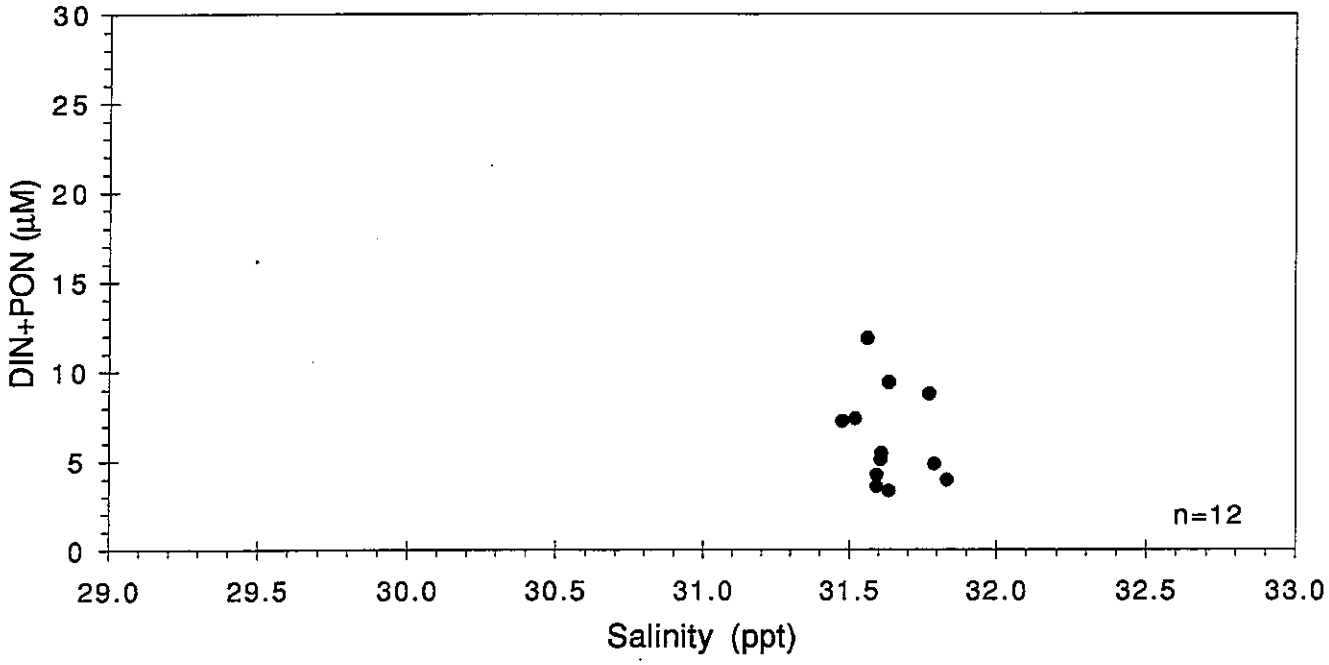
W9510 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

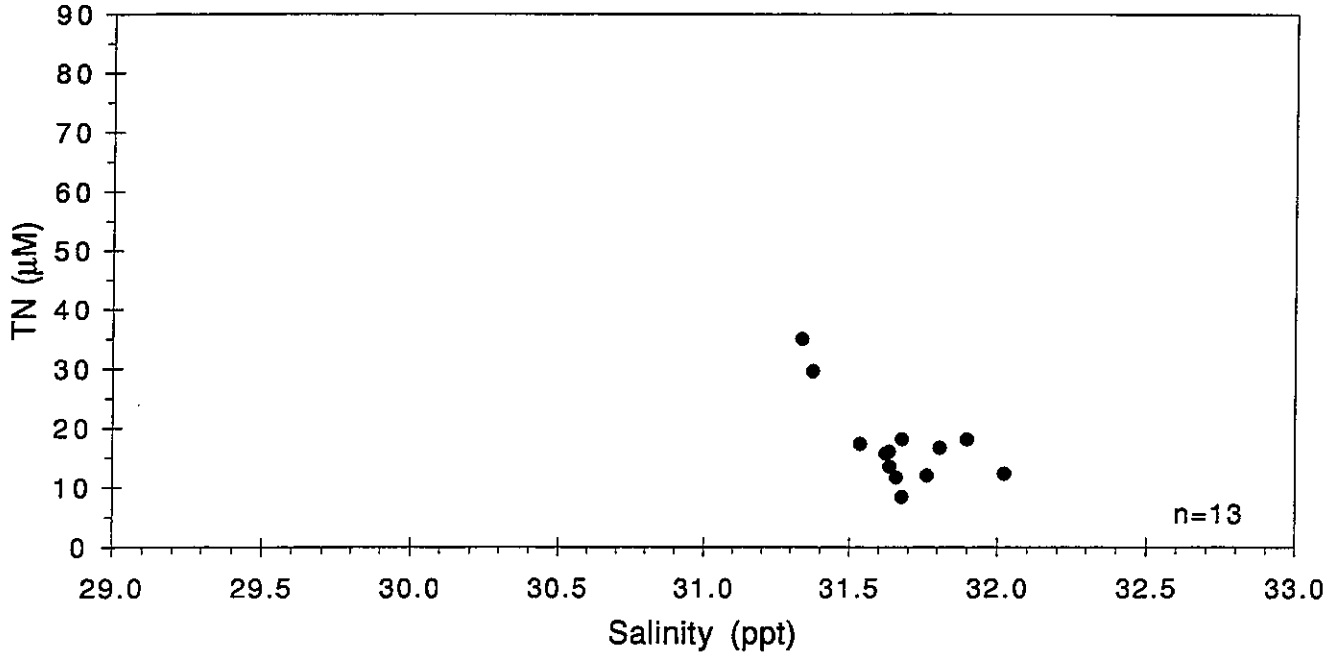
W9512 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=11

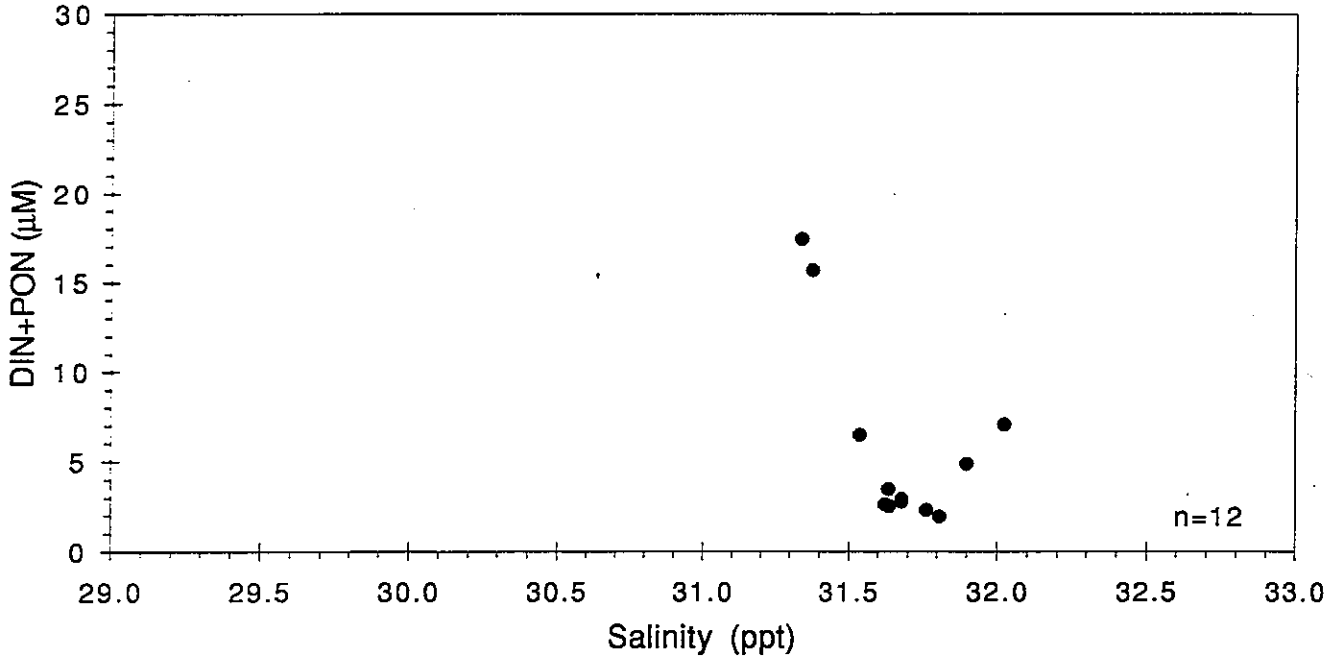
W9512 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

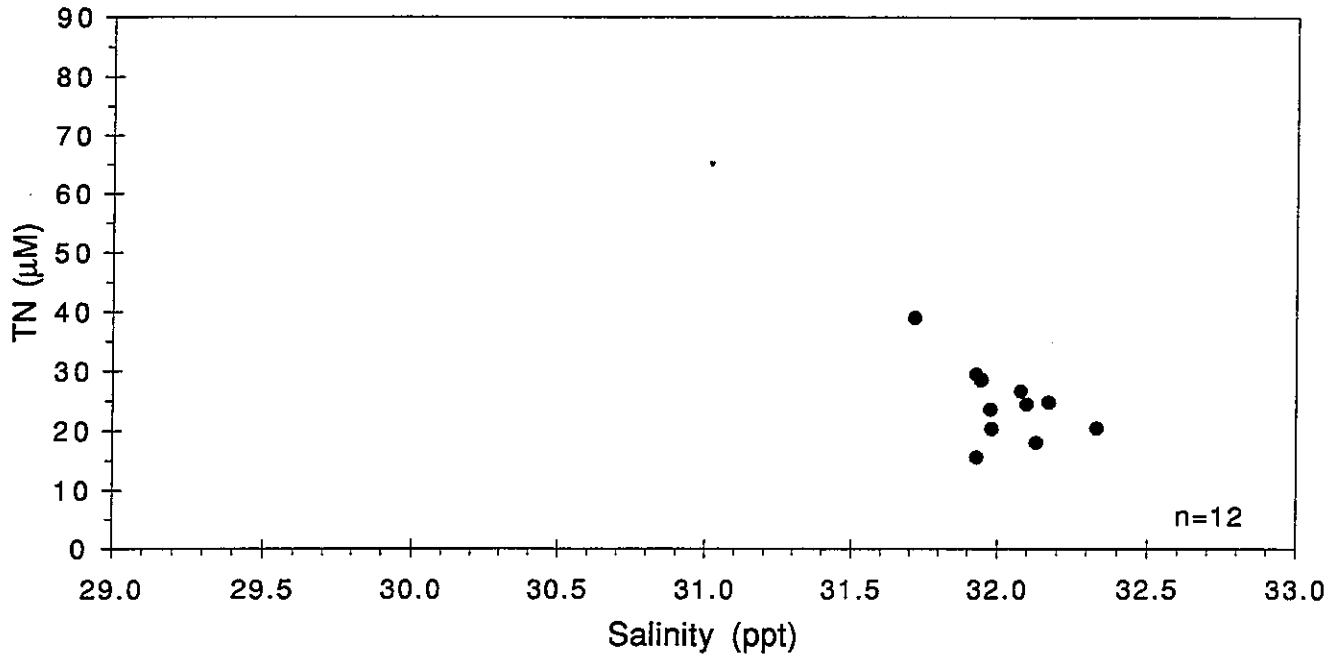
W9513 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=13

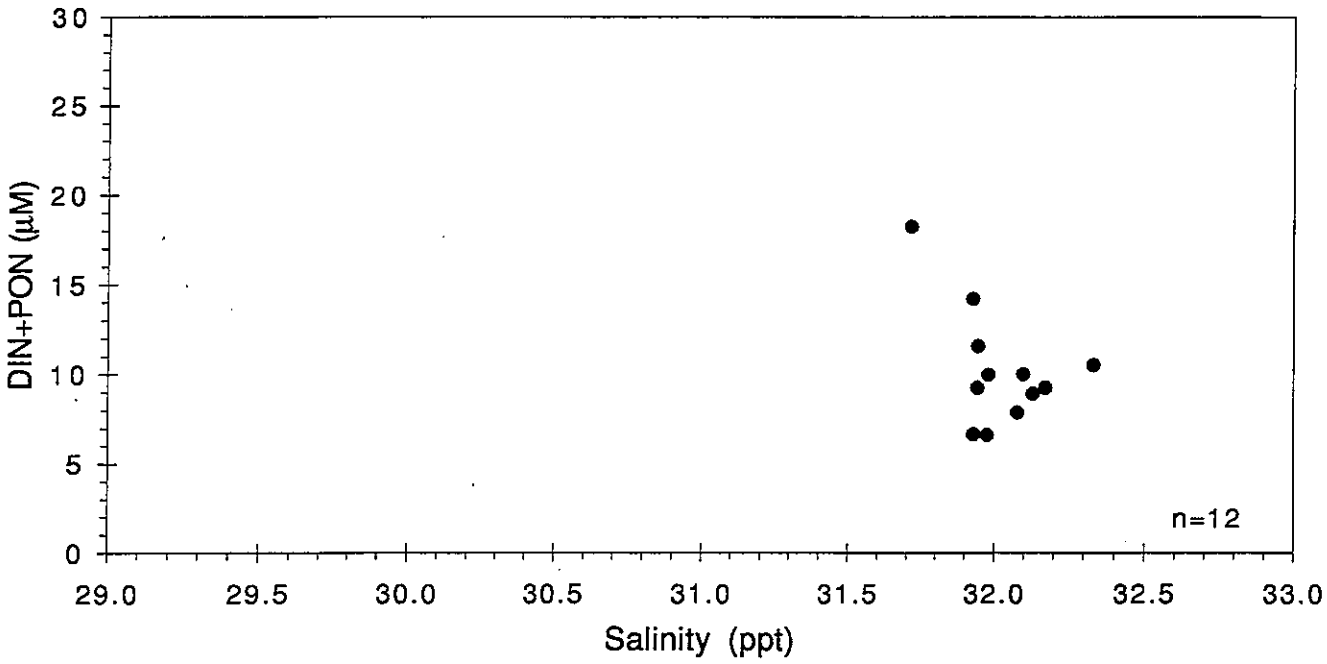
W9513 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

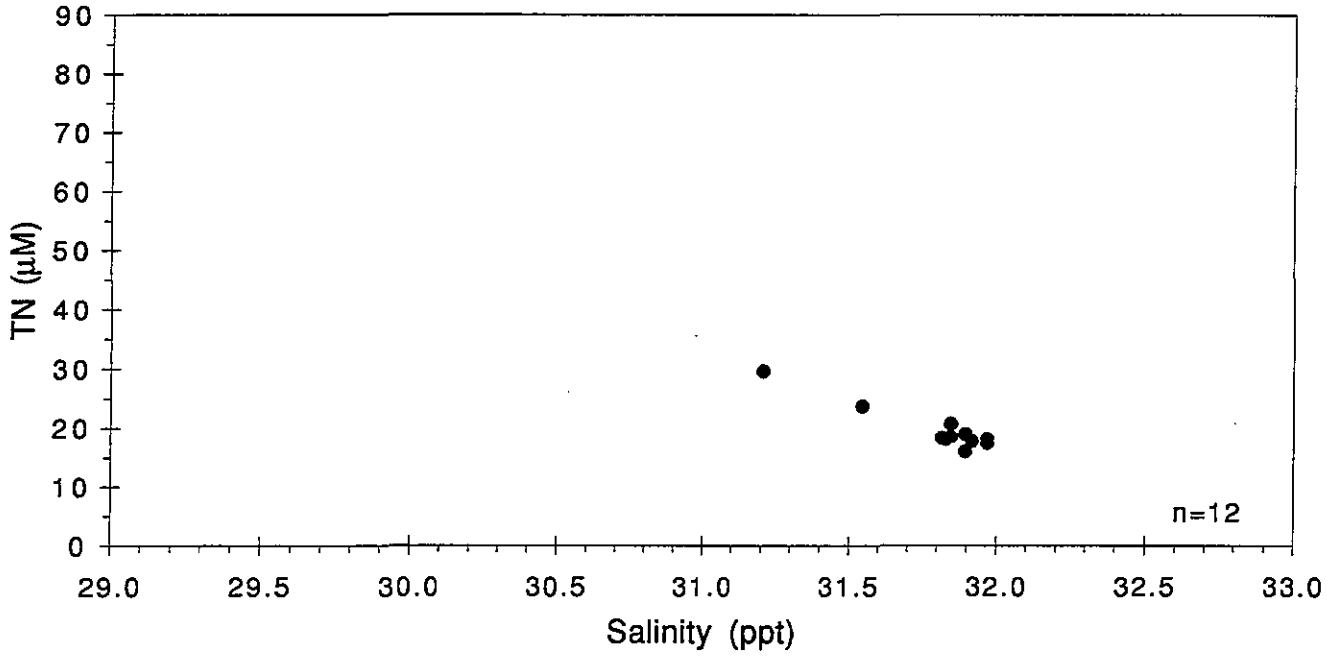
W9515 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

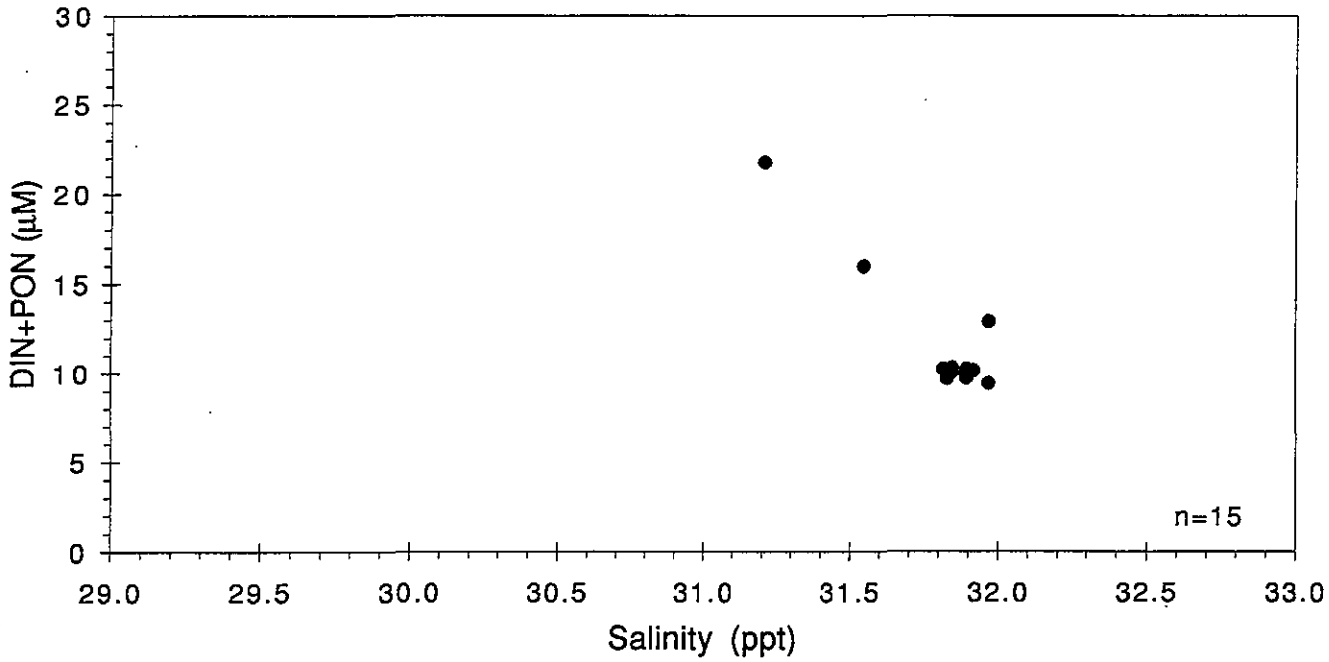
W9515 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

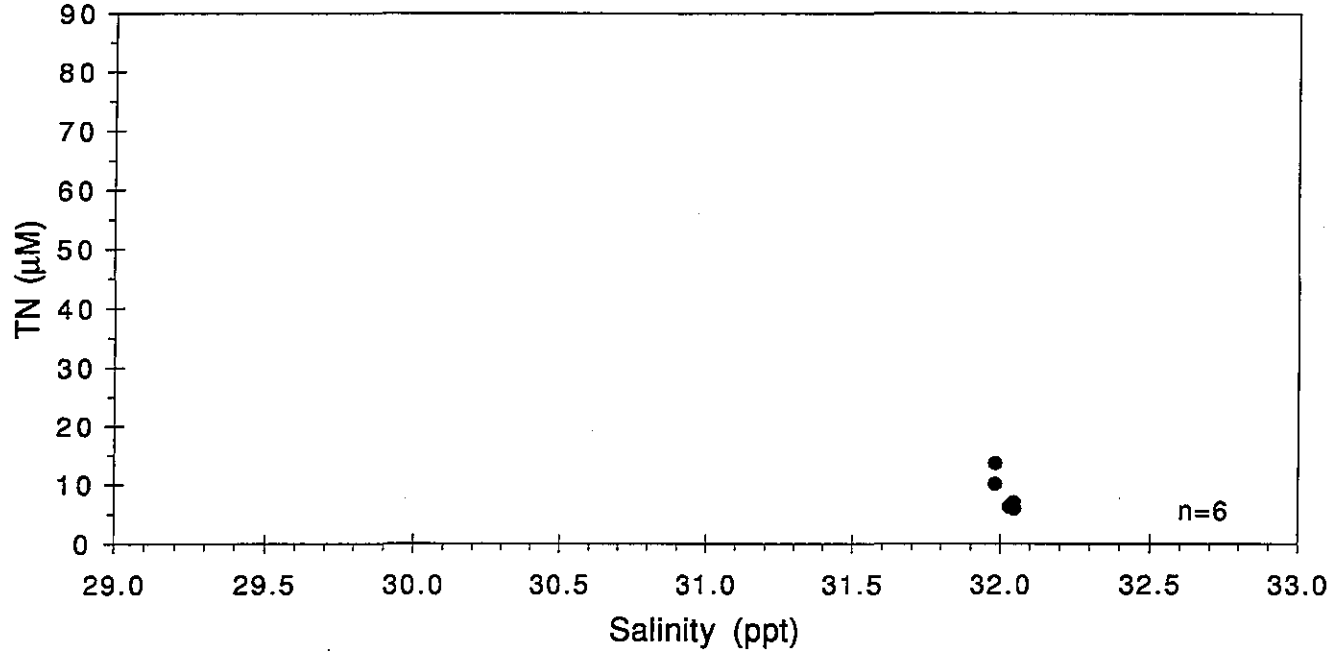
W9516 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

W9516 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=15

W9517 .


90
80
70
60
50
40
30
20
10
0
TN (µM)
n=6
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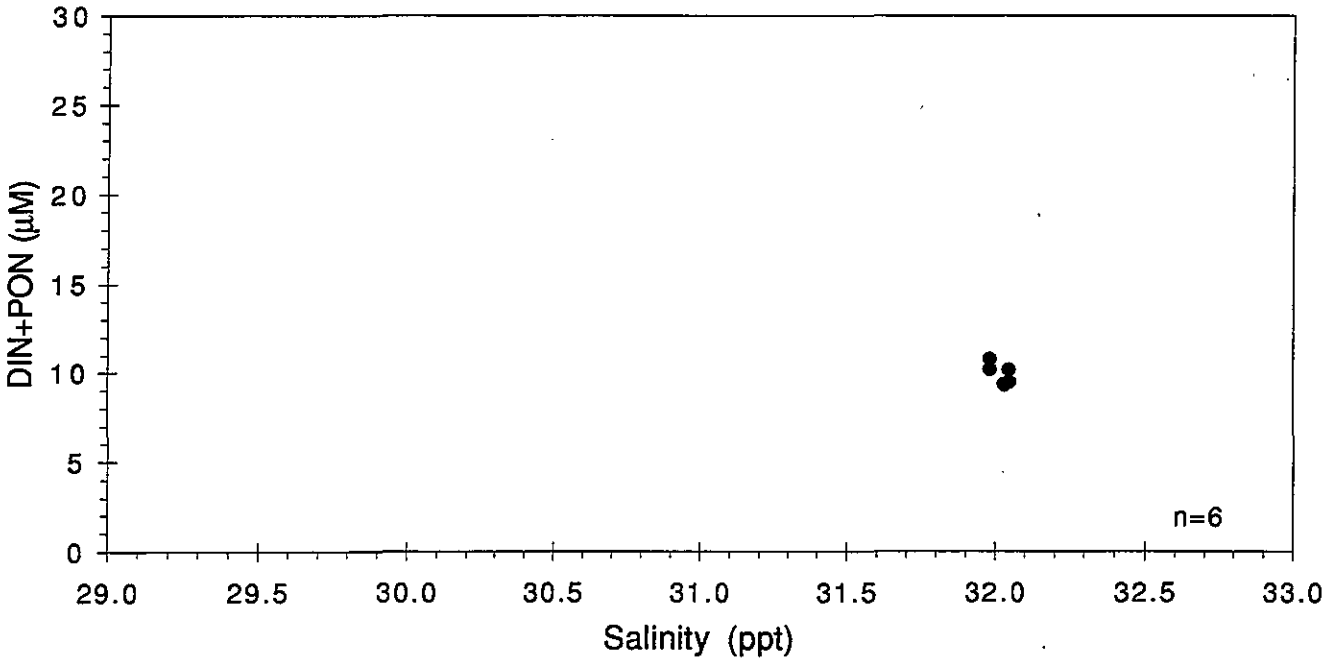
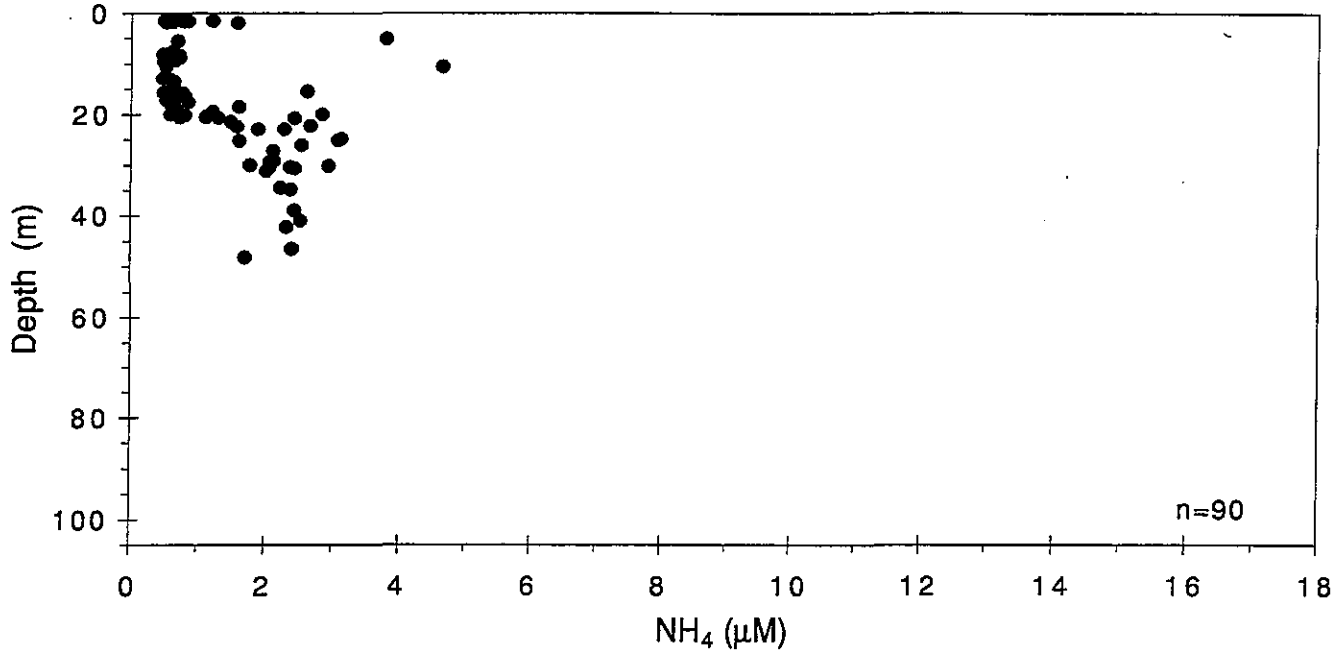
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

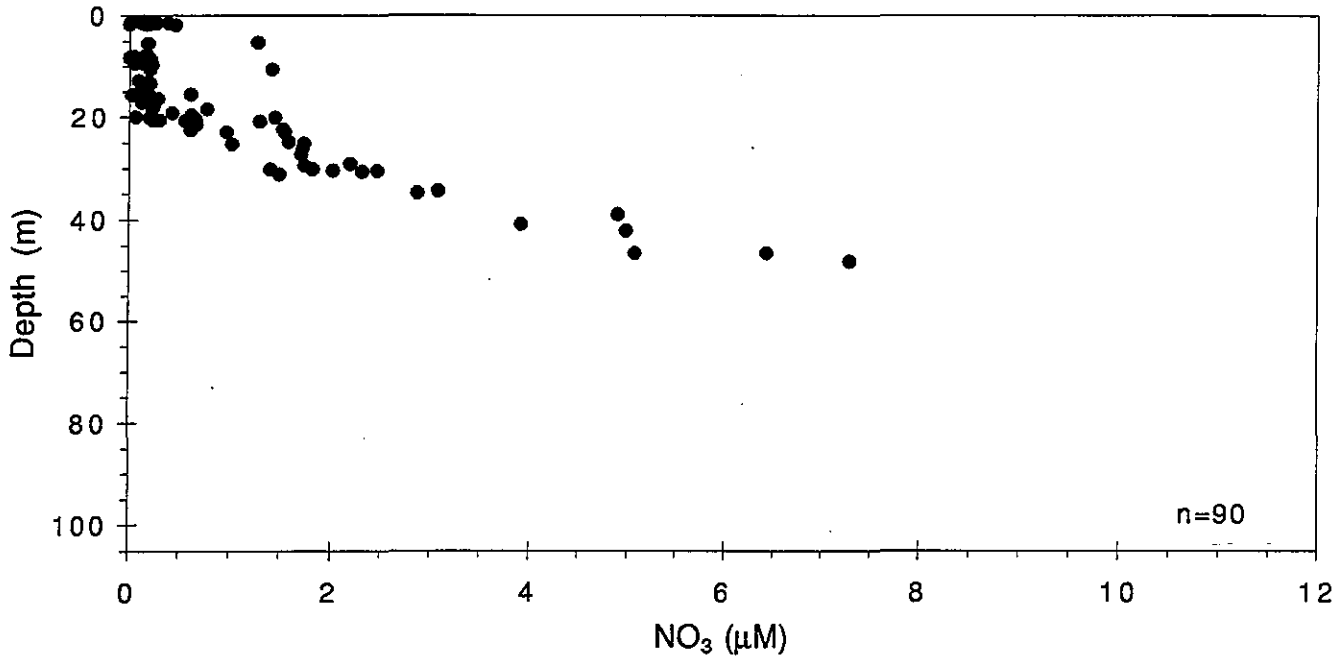
W9517 .


30
25
20
15
10
5
0
DIN+PON (µM)
n=6
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9510 .


Depth (m)
0
20
40
60
80
100
n=90
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

W9510 .


Depth (m)
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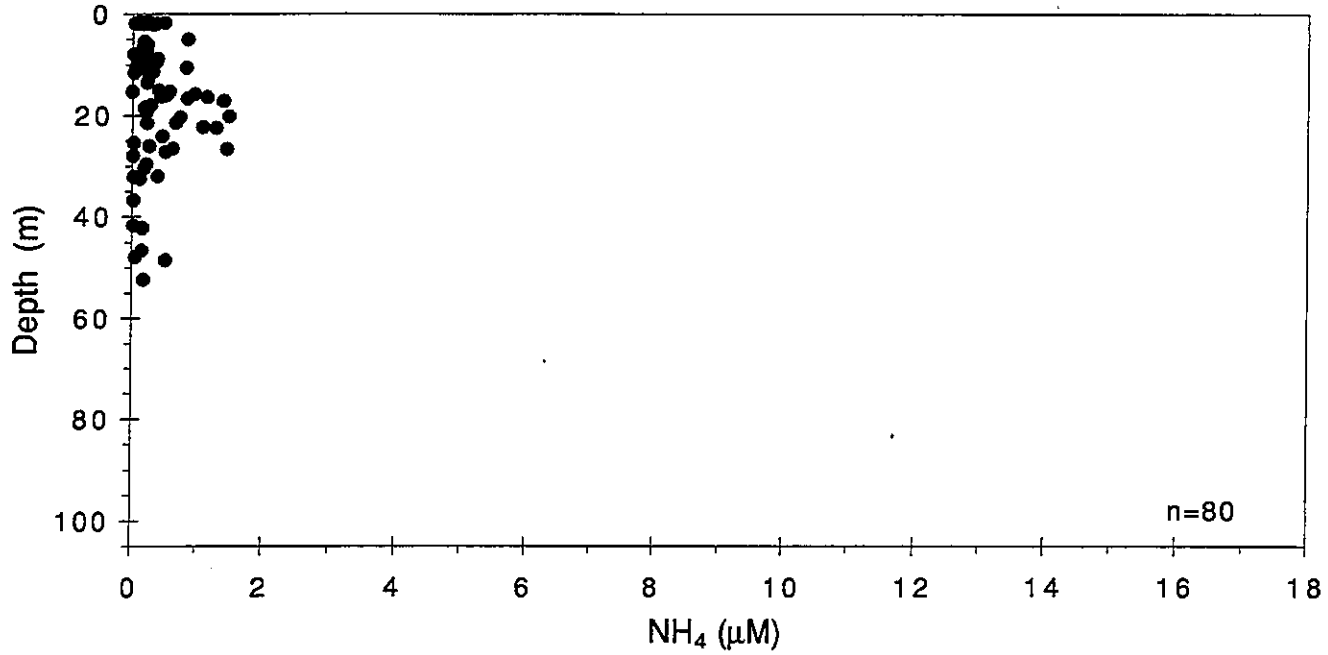
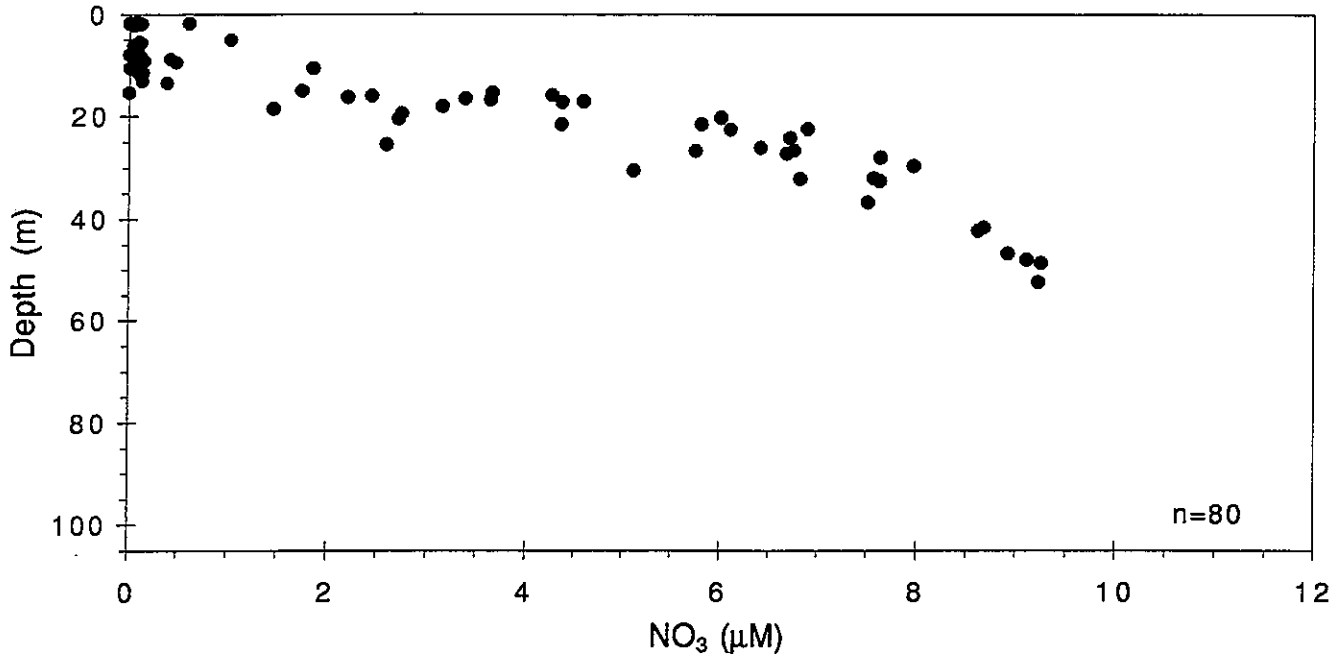
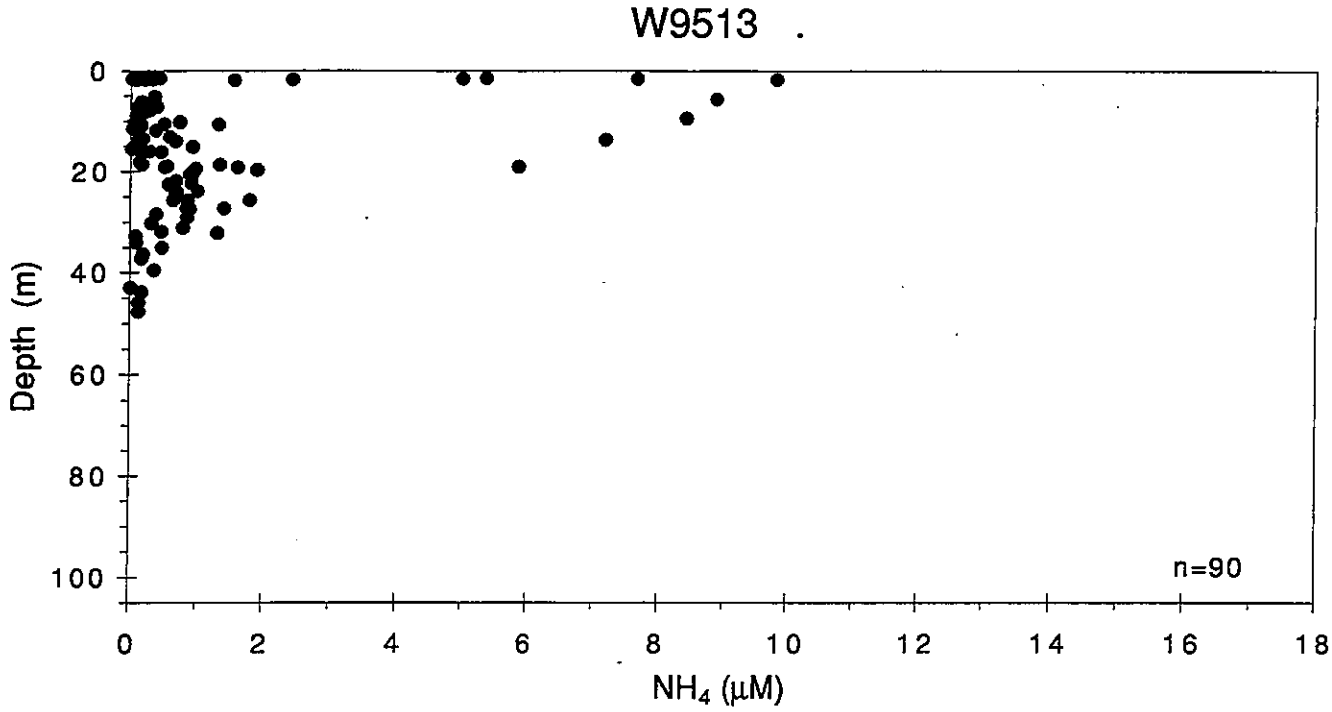
20
40
60
80
100
n=90
0
2
4
6
8
10
12
NO3 (µM)

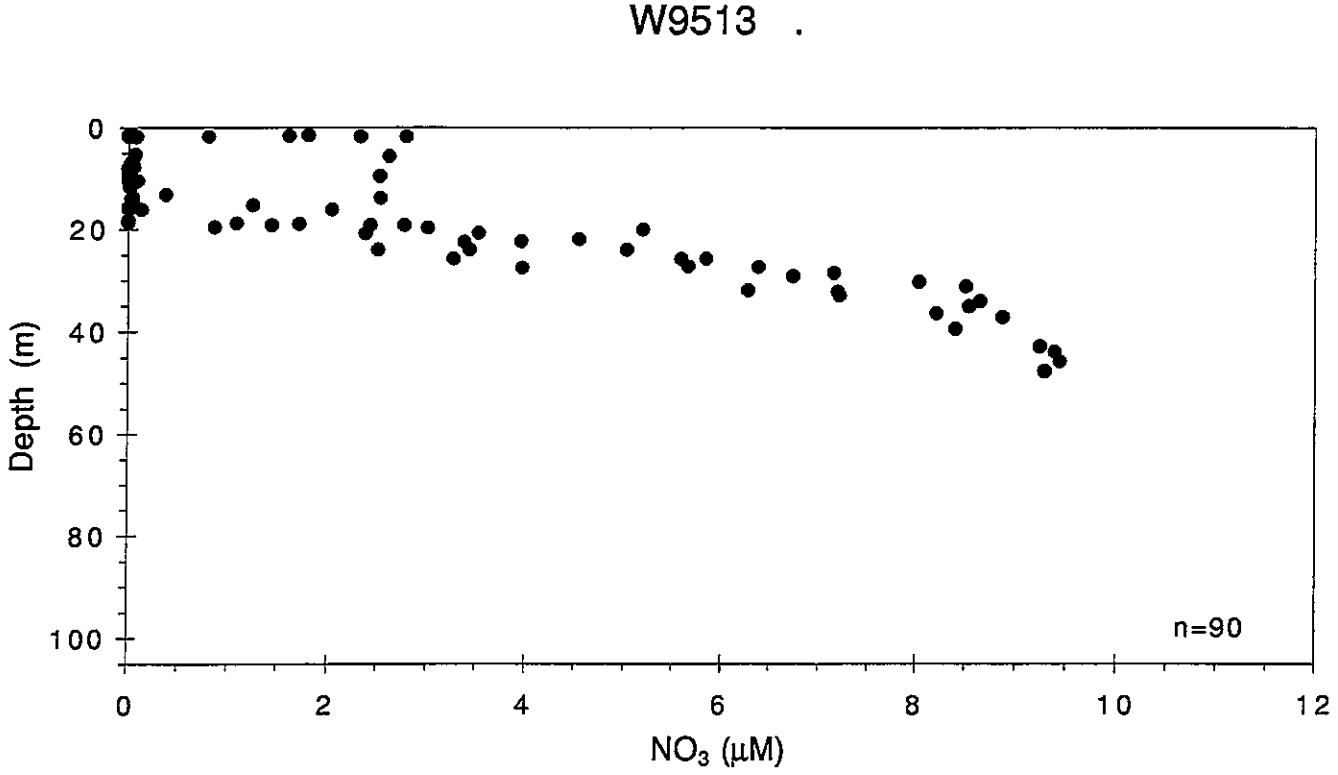
W9512 .


Depth (m)
0
20
40
60
80
100
n=80
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

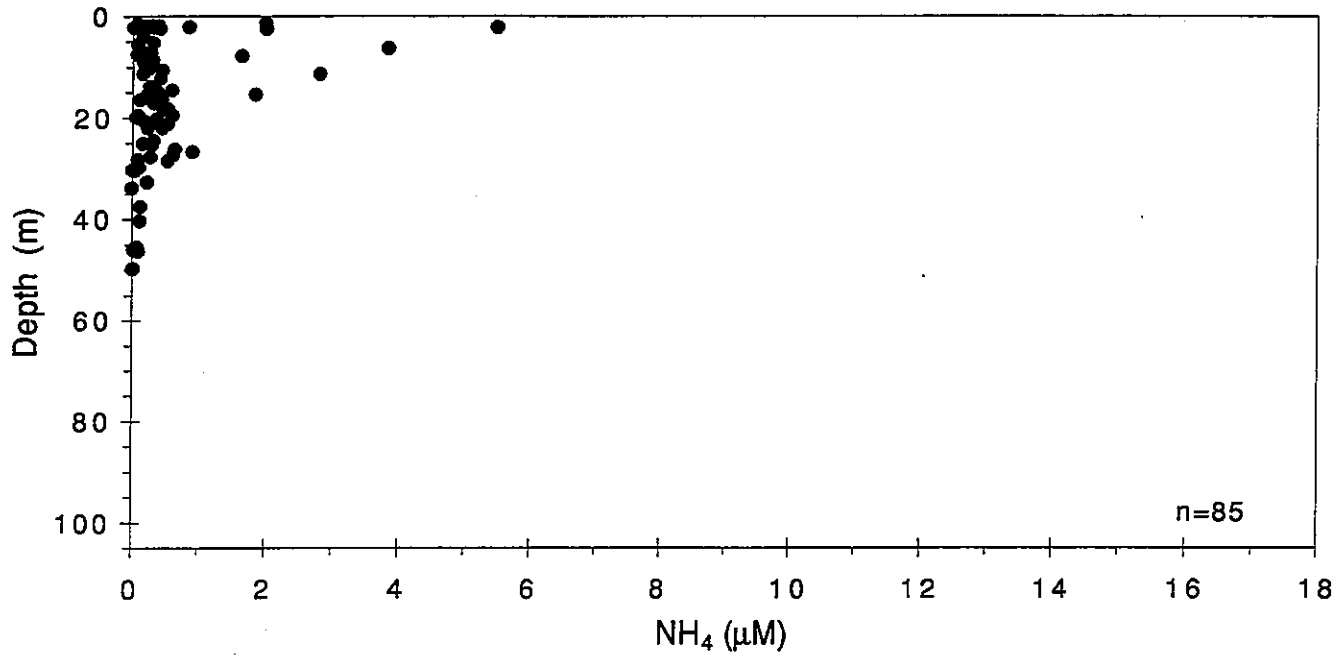
W9512 .


Depth (m)
0
20
40
60
80
100
n=80
0
2
4
6
8
10
12
NO3 (µM)

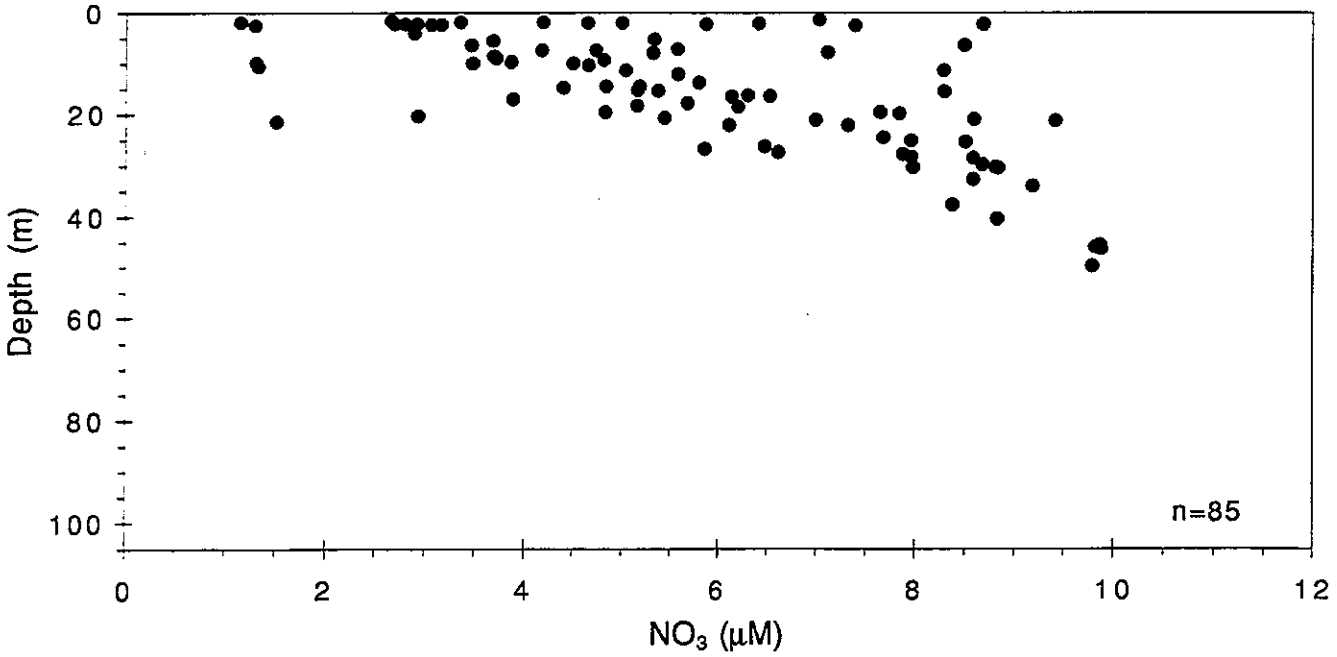

W9513 .
Depth (m)
0
20
40
60
80
100
n=90
0
2
4
6
8
10
12
14
16
18
NH4 (µM)


W9513 .
Depth (m)
0
20
40
60
80
100
n=90
0
2
4
6
8
10
12
NO3 (µM)

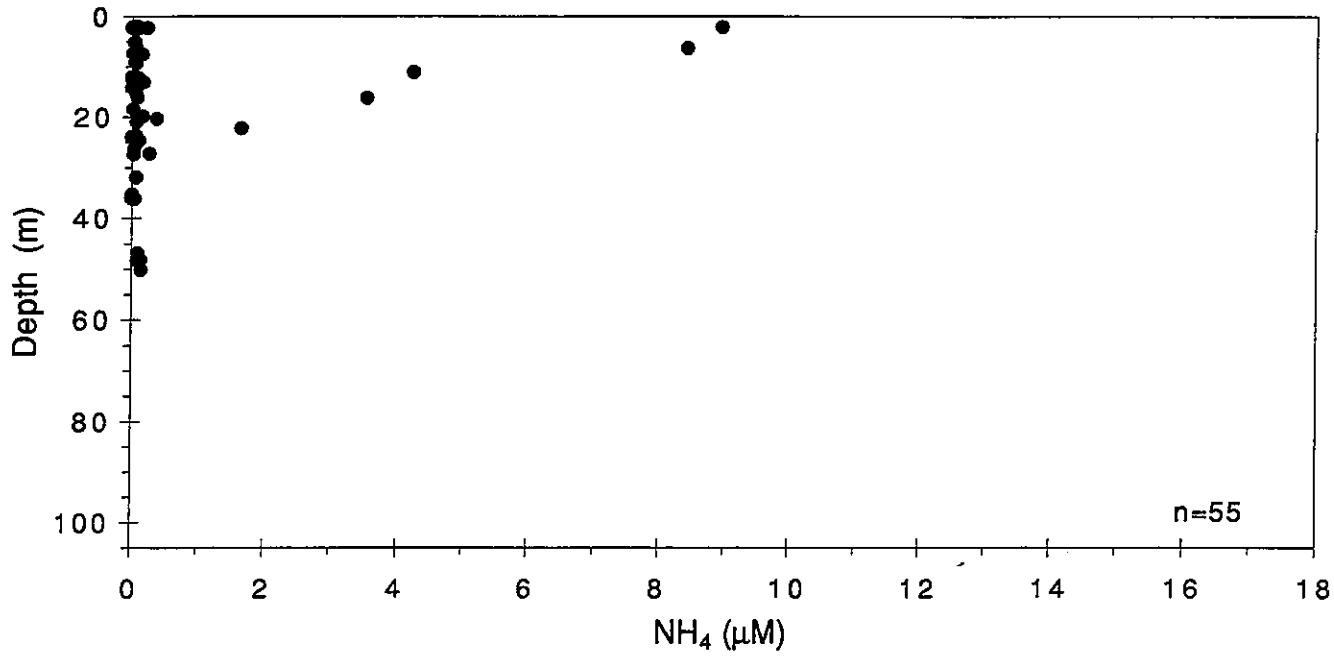
W9515 .


Depth (m)
0
20
40
60
80
100
n=85
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

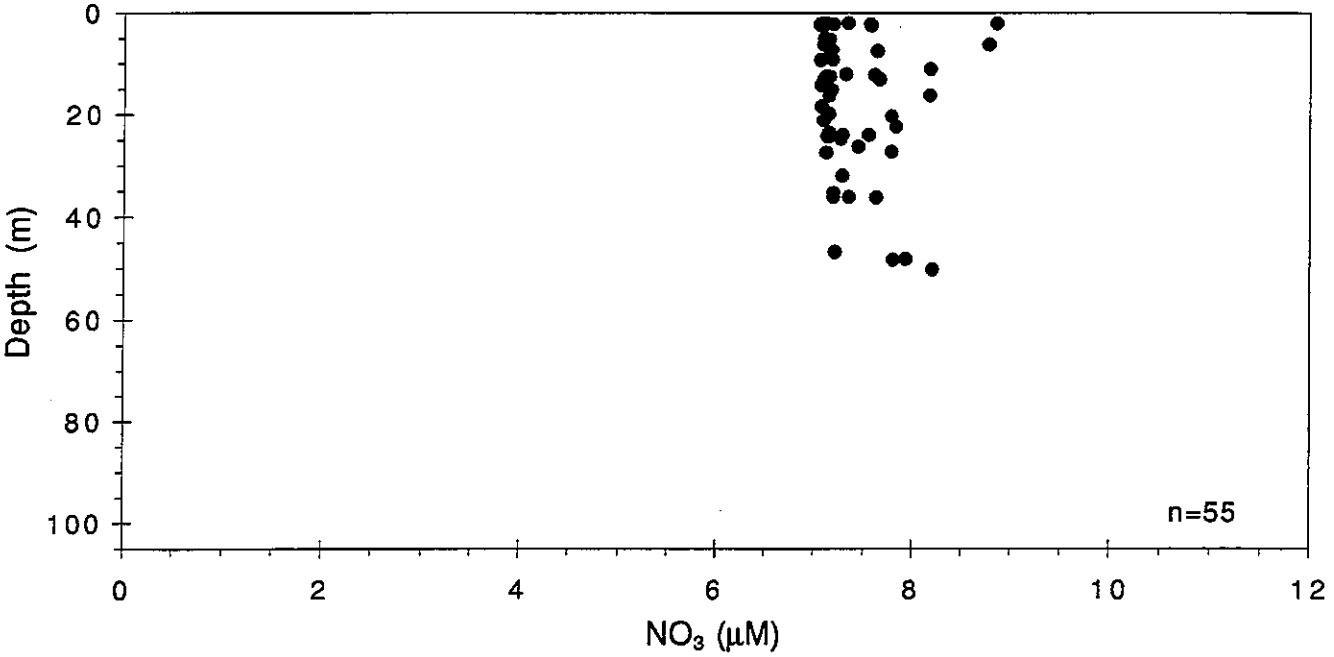
W9515 .


Depth (m)
0
20
40
60
80
100
n=85
0
2
4
6
8
10
12
NO3 (µM)

W9516 .


Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
n=55
NH4 (µM)

W9516 .


Depth (m)
0
20
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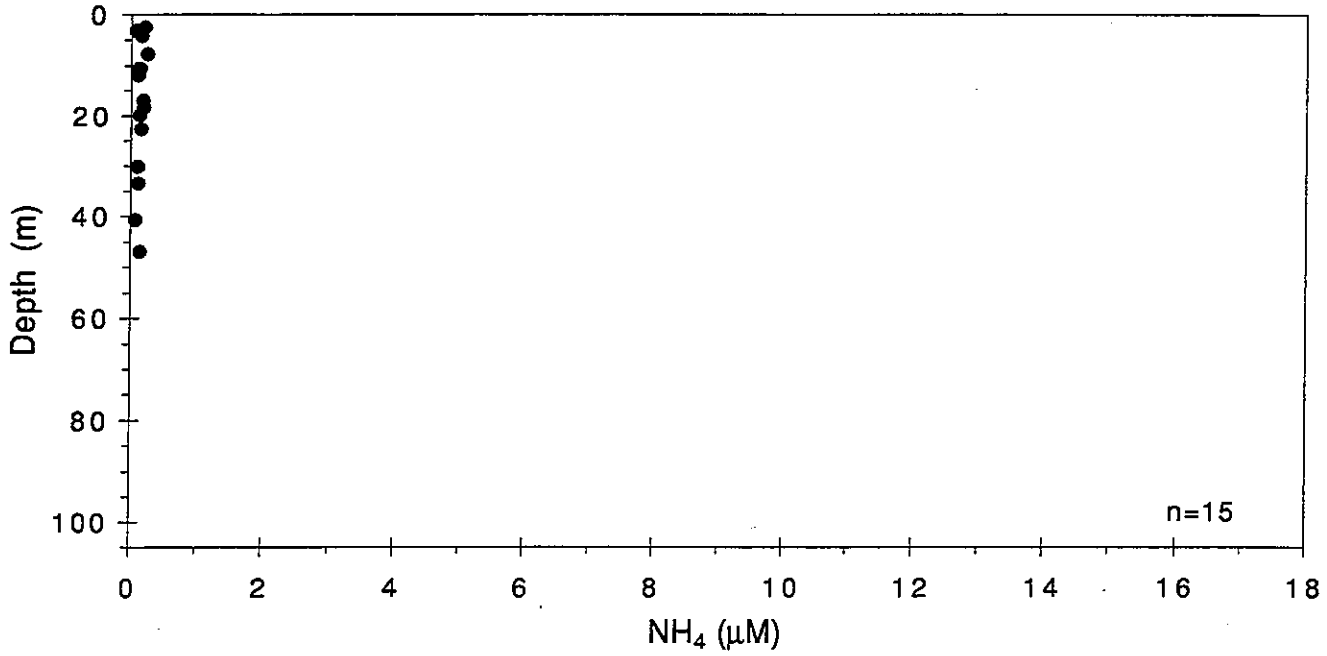
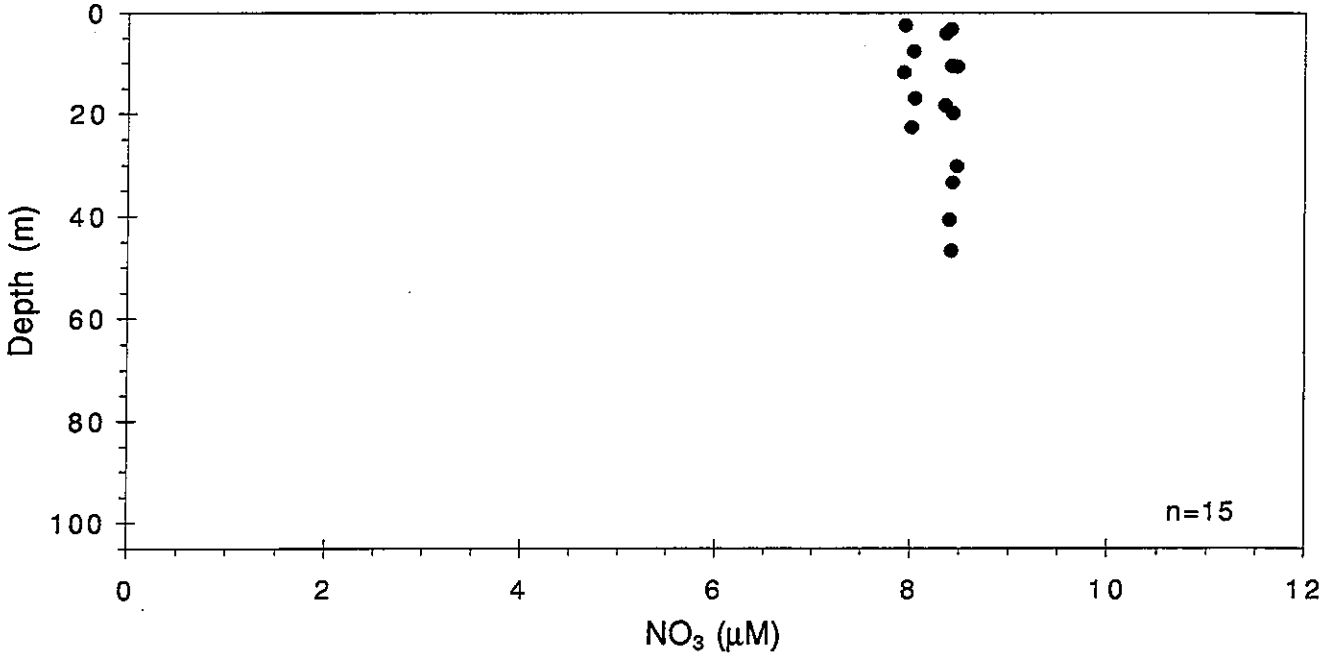
60
80
100
0
2
4
6
8
10
12
n=55
NO3 (µM)

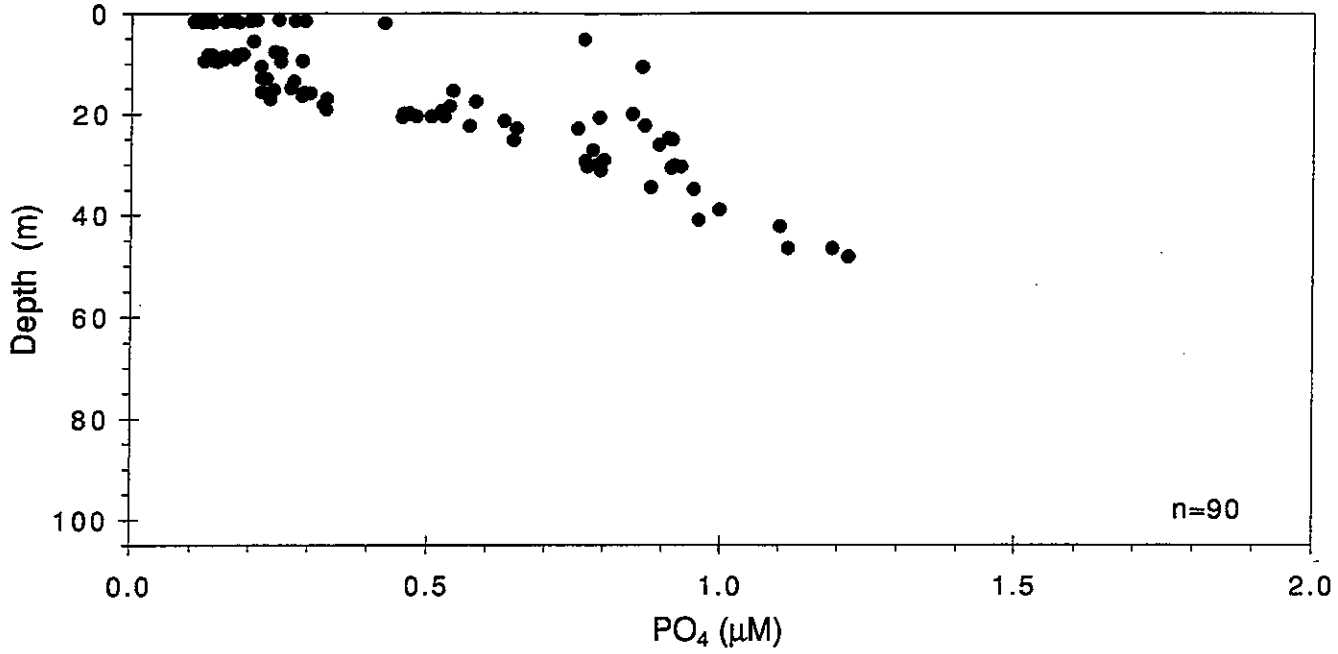
W9517 .


Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
n=15
NH4 (µM)

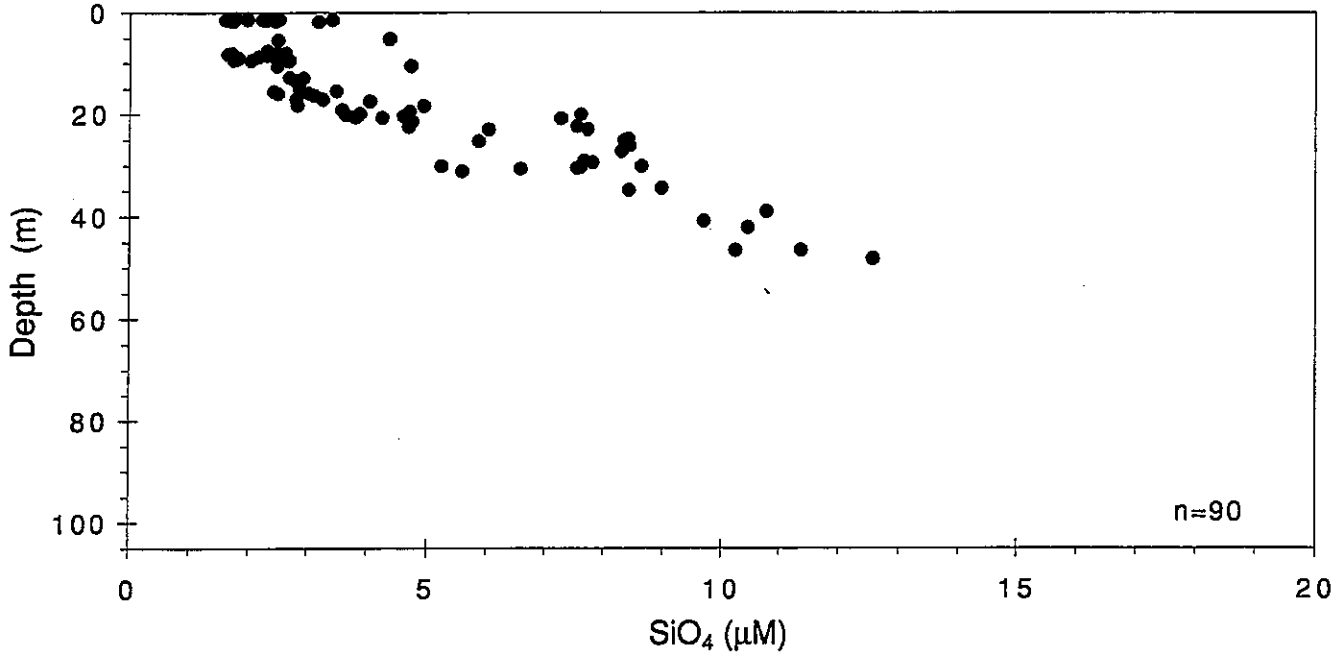
W9517 .


Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
n=15
NO3 (µM)

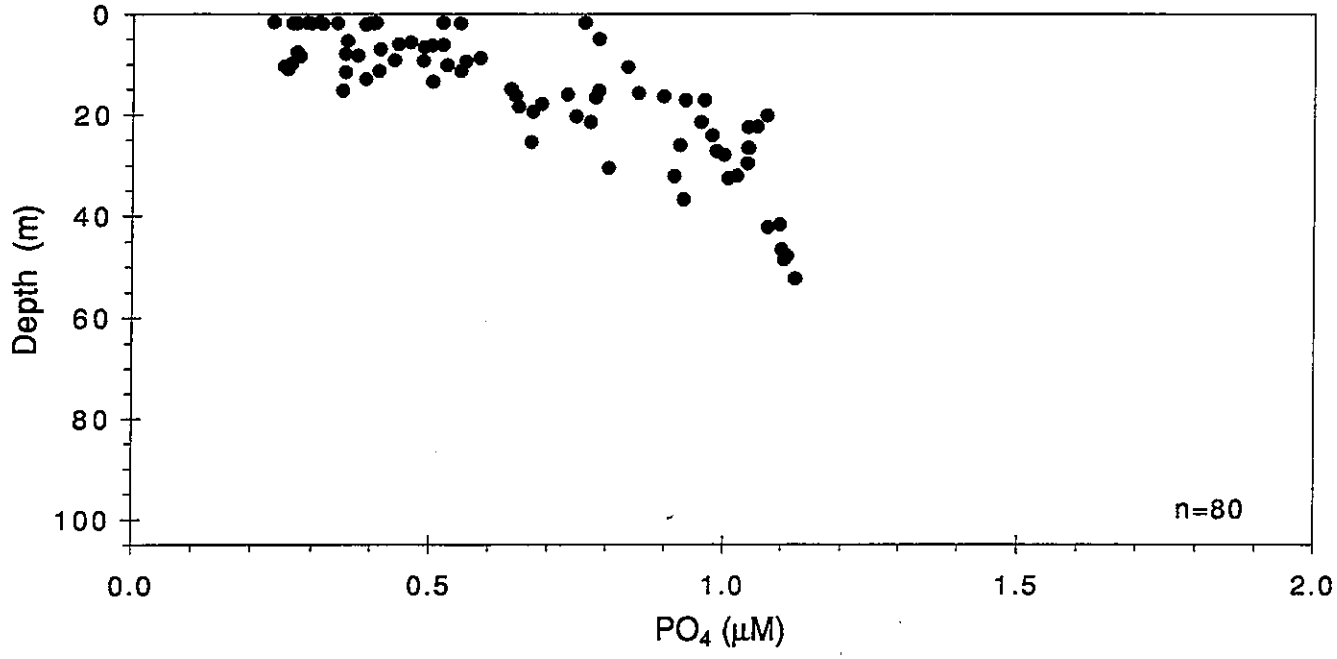
W9510 .


0
20
40
60
80
100
Depth (m)
n=90
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

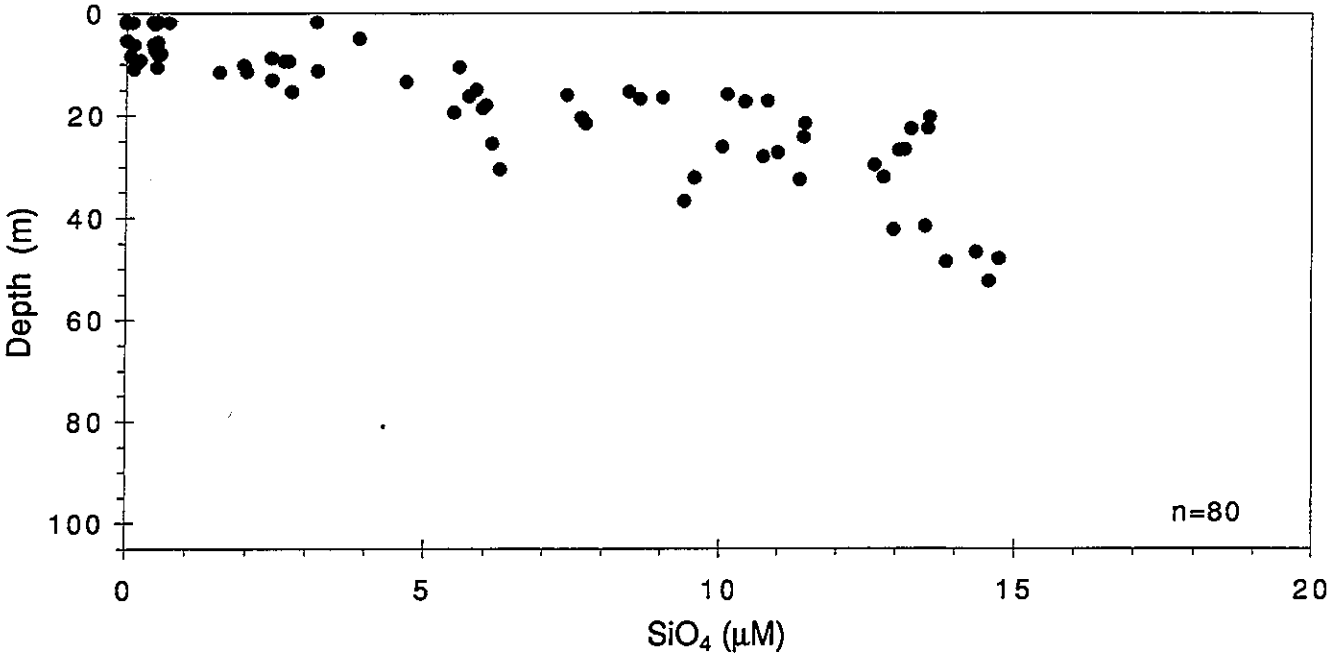
W9510 .


0
20
40
60
80
100
Depth (m)
n=90
0
5
10
15
20
SiO4 (µM)

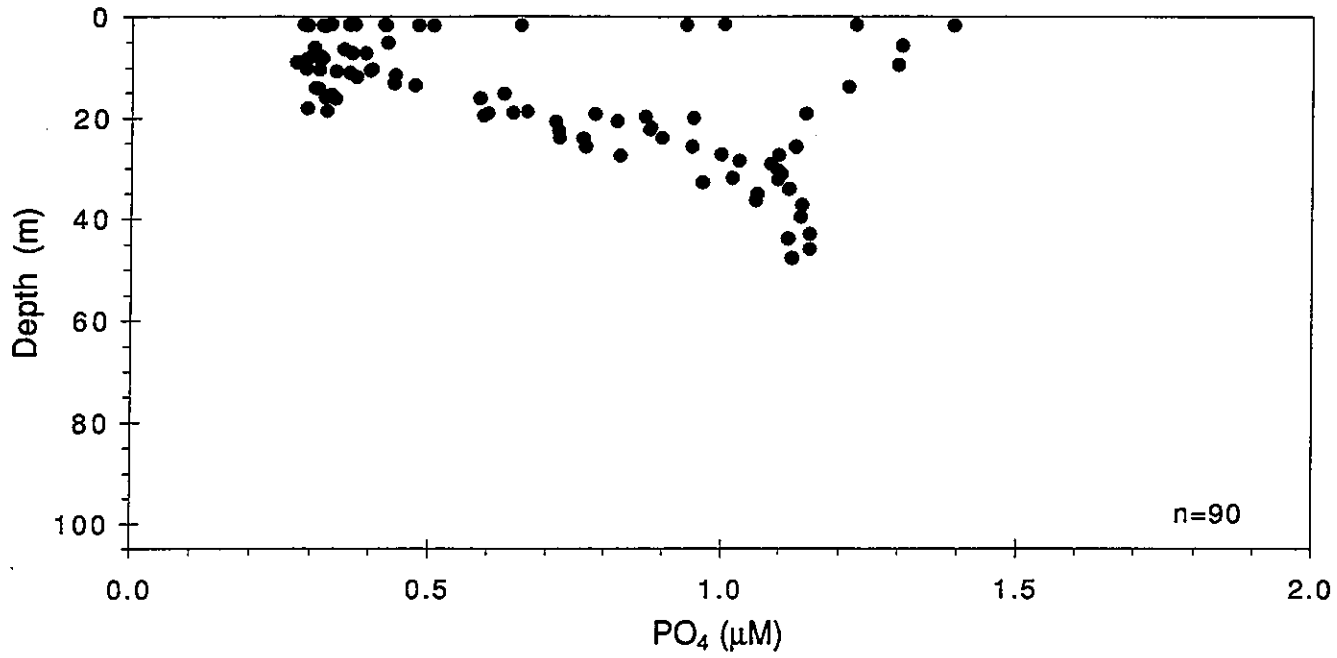
W9512 .


0
20
40
60
80
100
Depth (m)
n=80
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

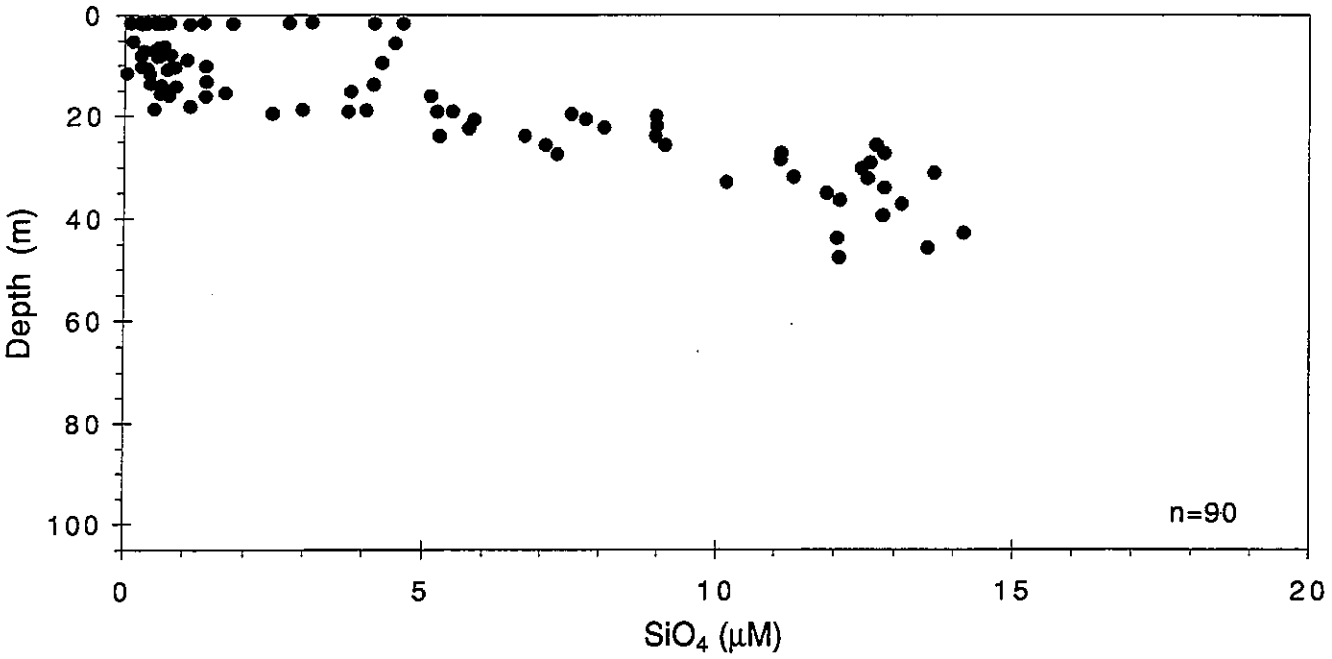
W9512 .


0
20
40
60
80
100
Depth (m)
n=80
0
5
10
15
20
SiO4 (µM)

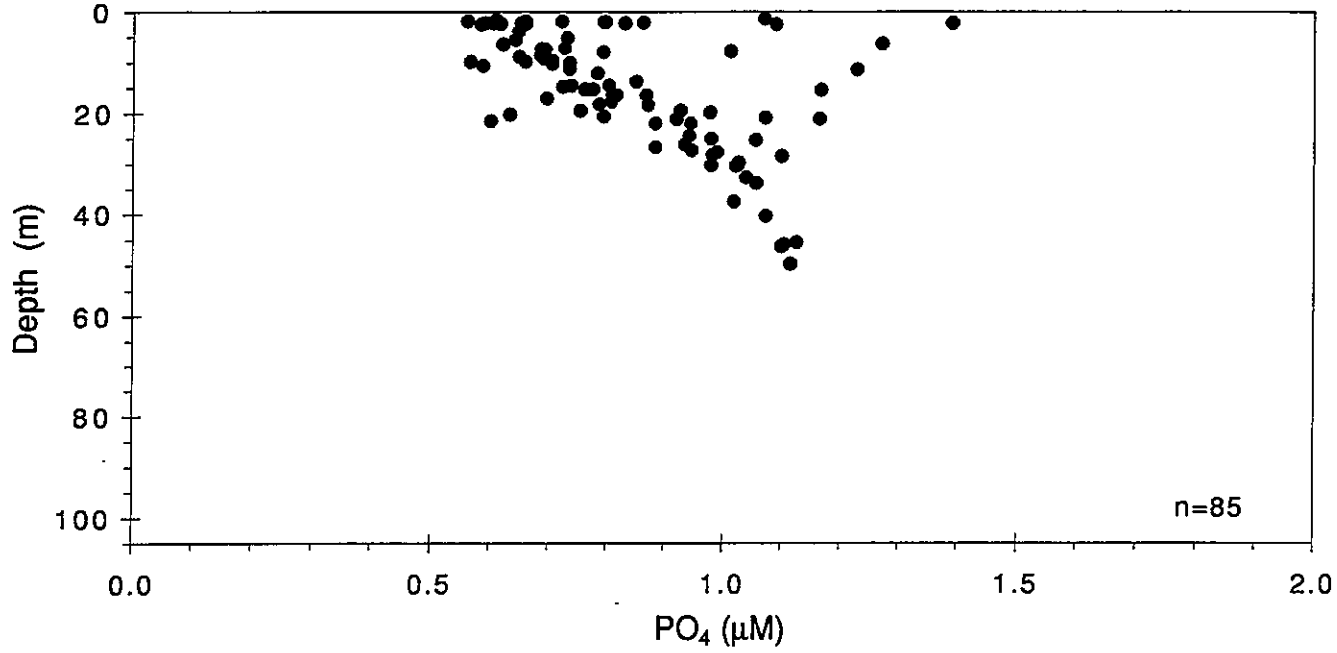
W9513 .


0
20
40
60
80
100
Depth (m)
n=90
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

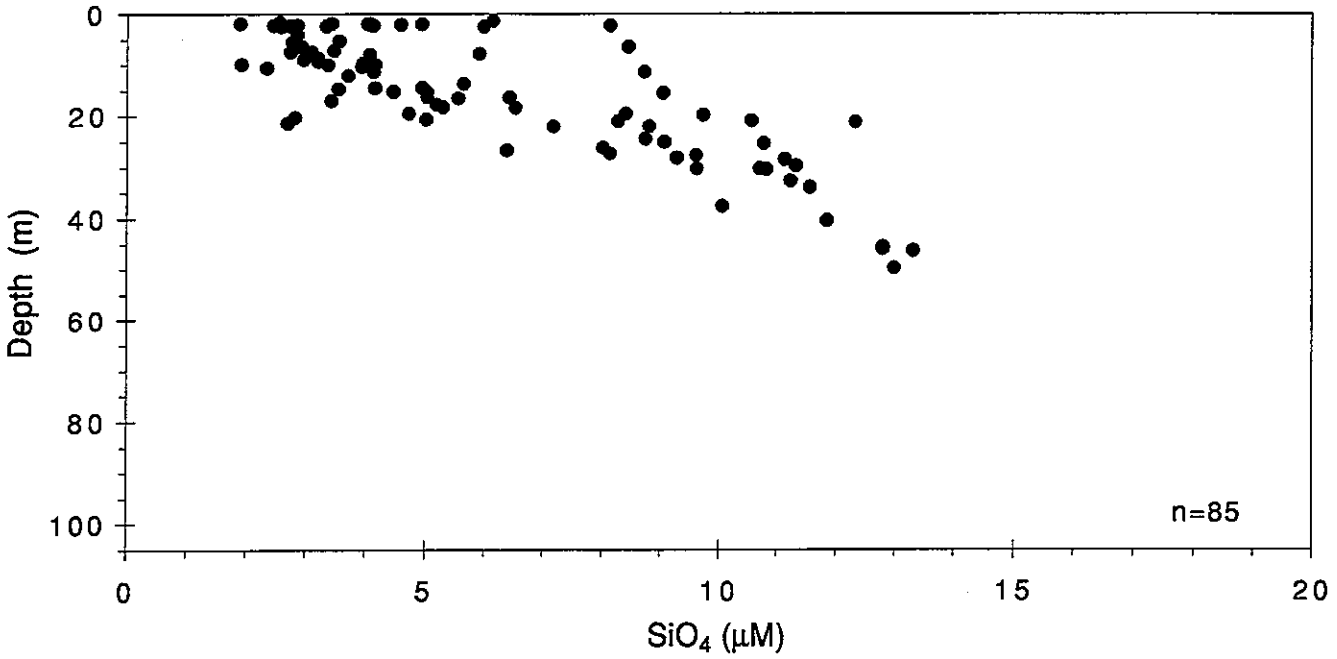
W9513 .

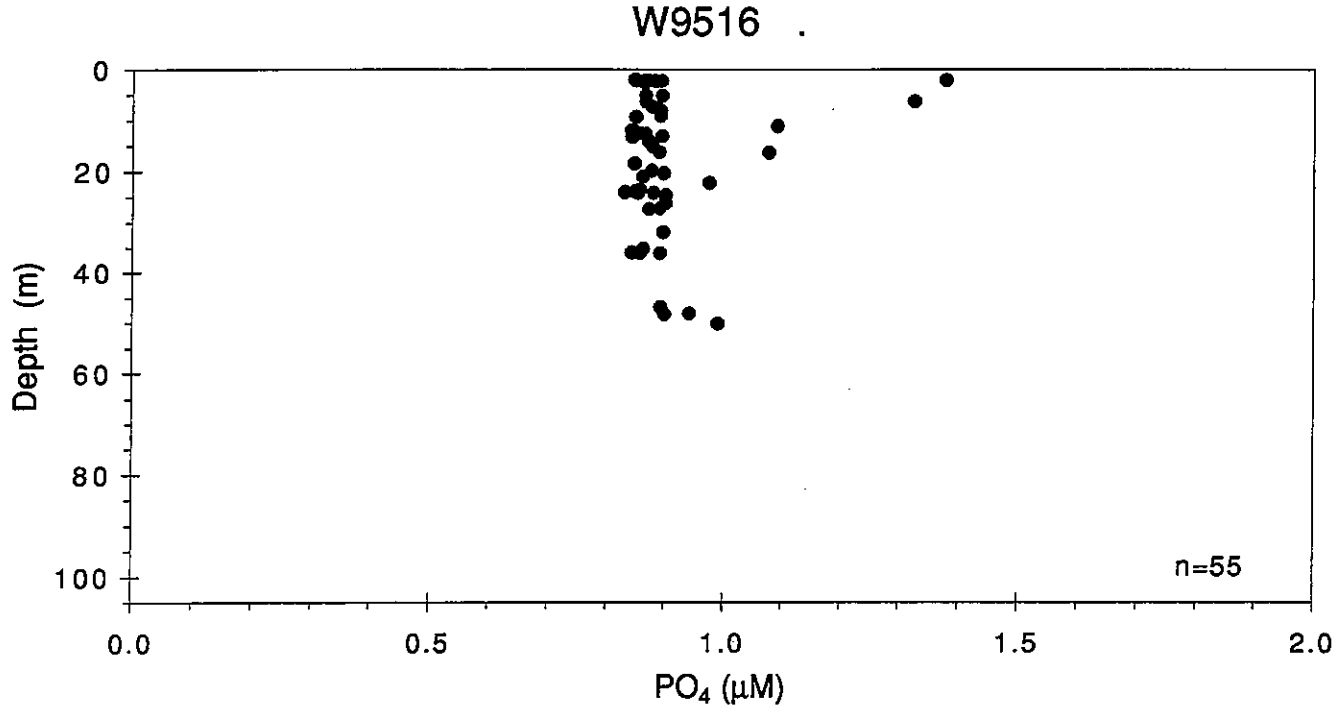

0
20
40
60
80
100
Depth (m)
n=90
0
5
10
15
20
SiO4 (µM)

W9515 .


0
20
40
60
80
100
Depth (m)
n=85
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

W9515 .


0
20
40
60
80
100
Depth (m)
n=85
0
5
10
15
20
SiO4 (µM)


W9516 .
Depth (m)
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60
80
100
n=55
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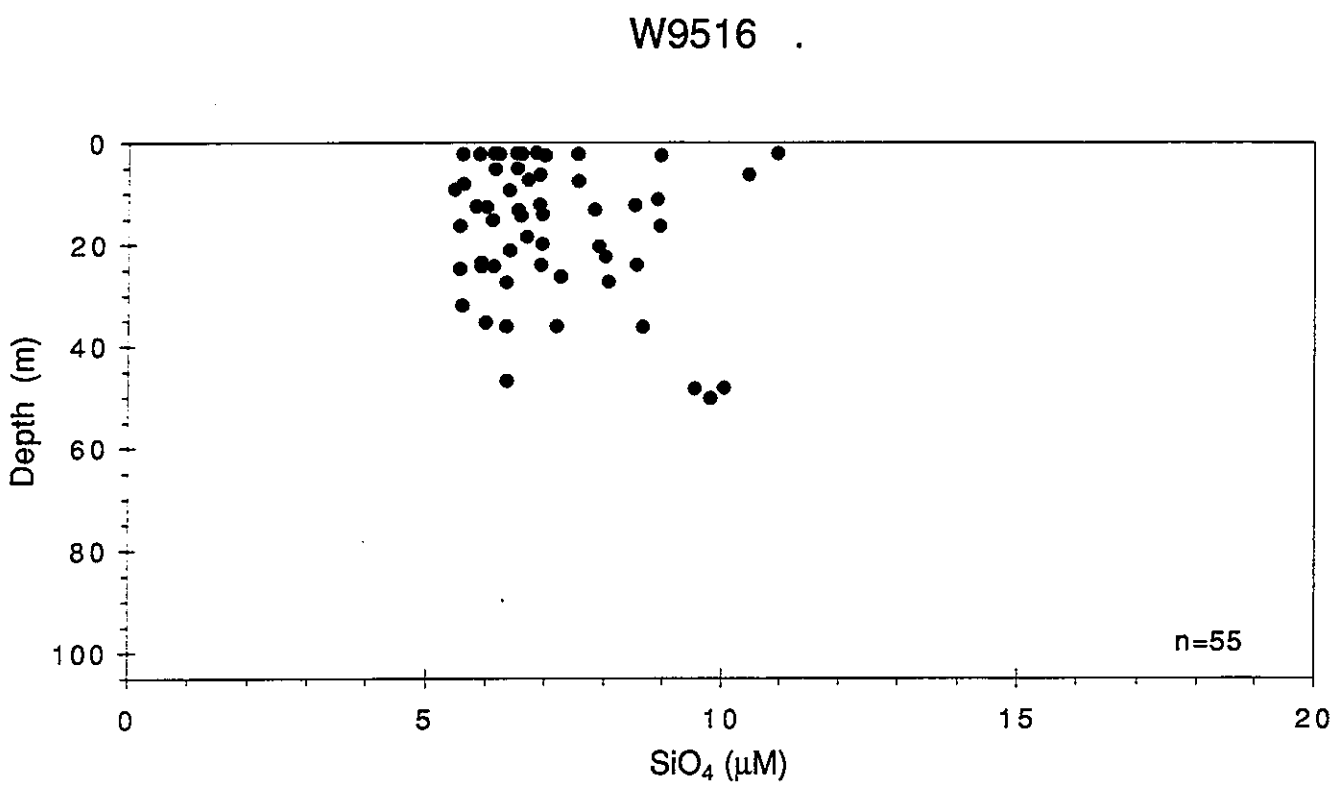
0.5
1.0
1.5
2.0
PO4 (µM)


W9516 .
Depth (m)
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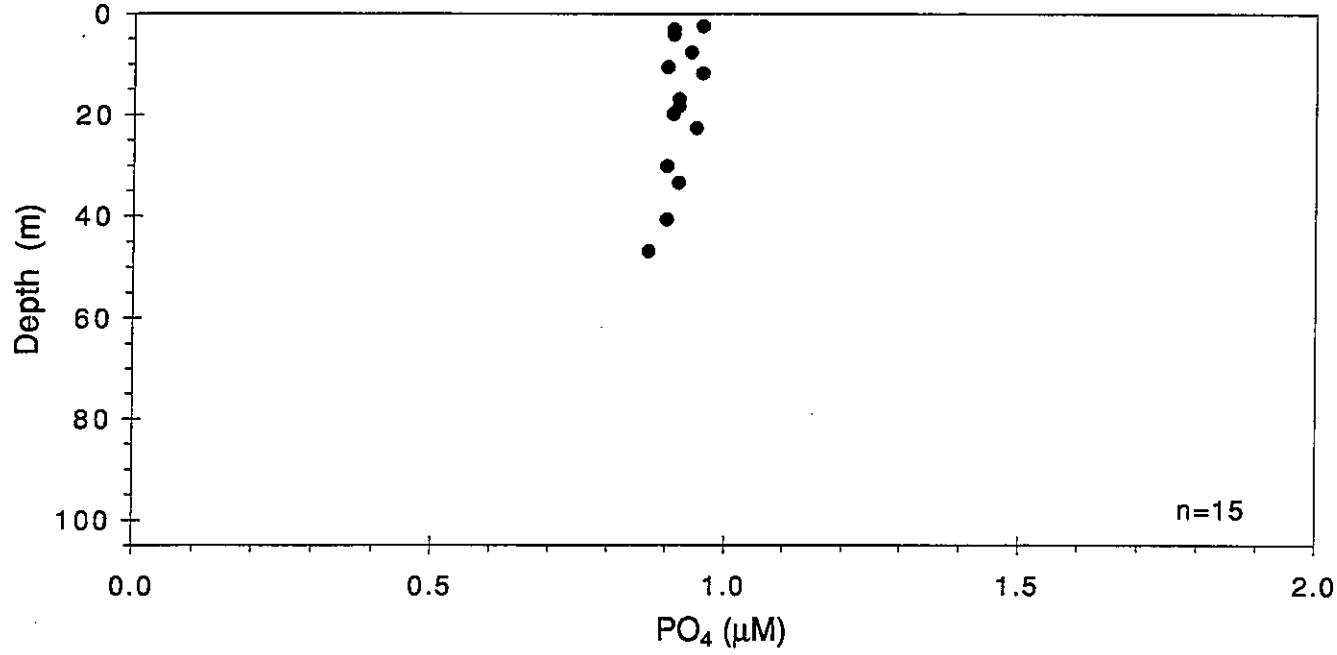
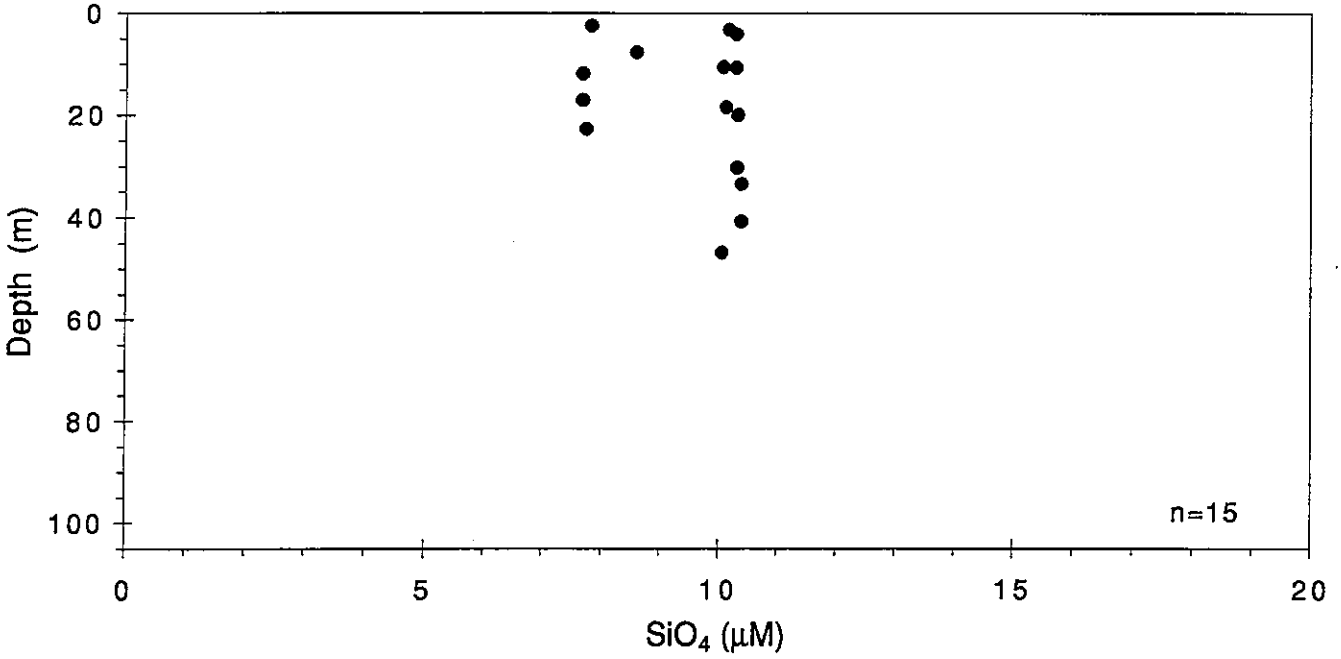
20
40
60
80
100
n=55
0
5
10
15
20
SiO4 (µM)

W9517 .


0
20
40
60
80
100
Depth (m)
n=15
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

W9517 .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20
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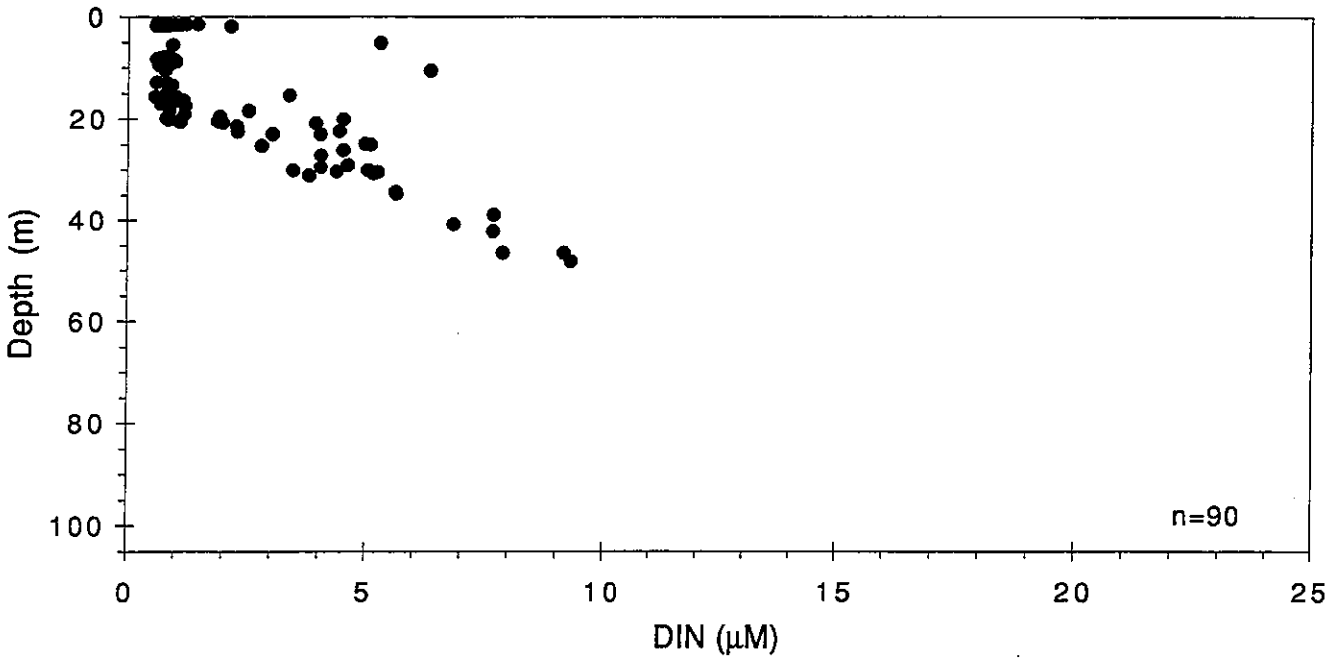
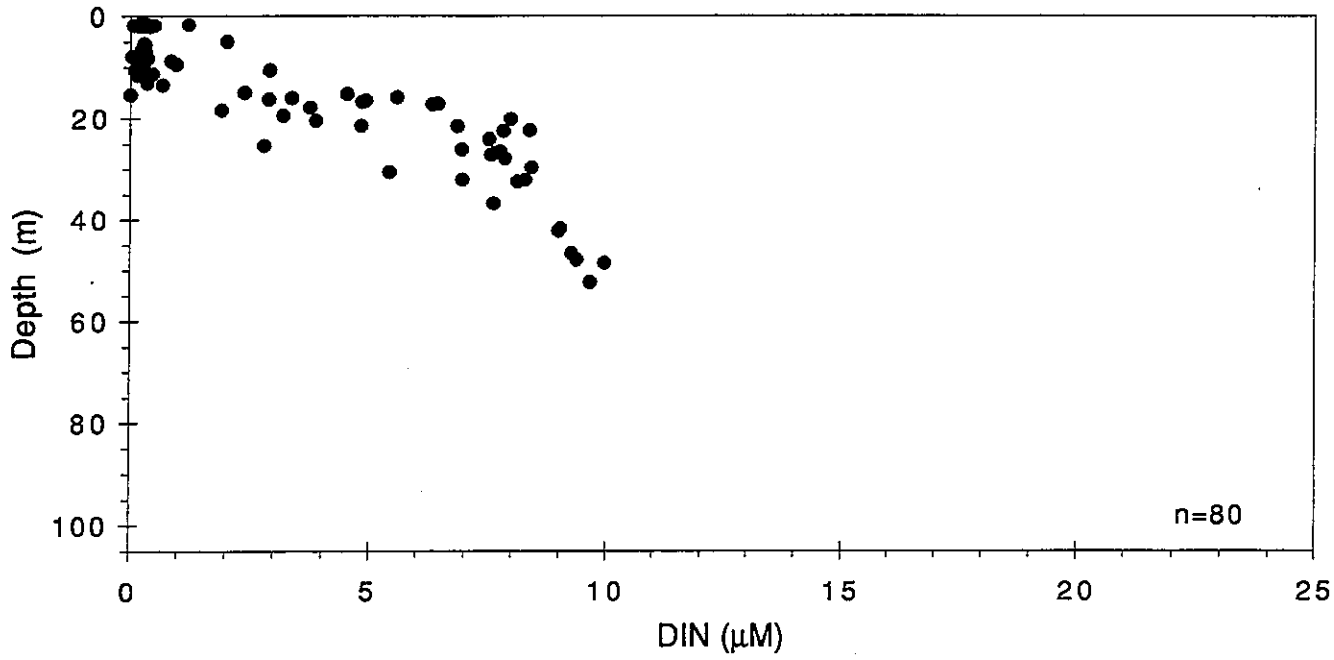
60
80
100
Depth (m)
n=15
0
5
10
15
20
SiO4 (µM)

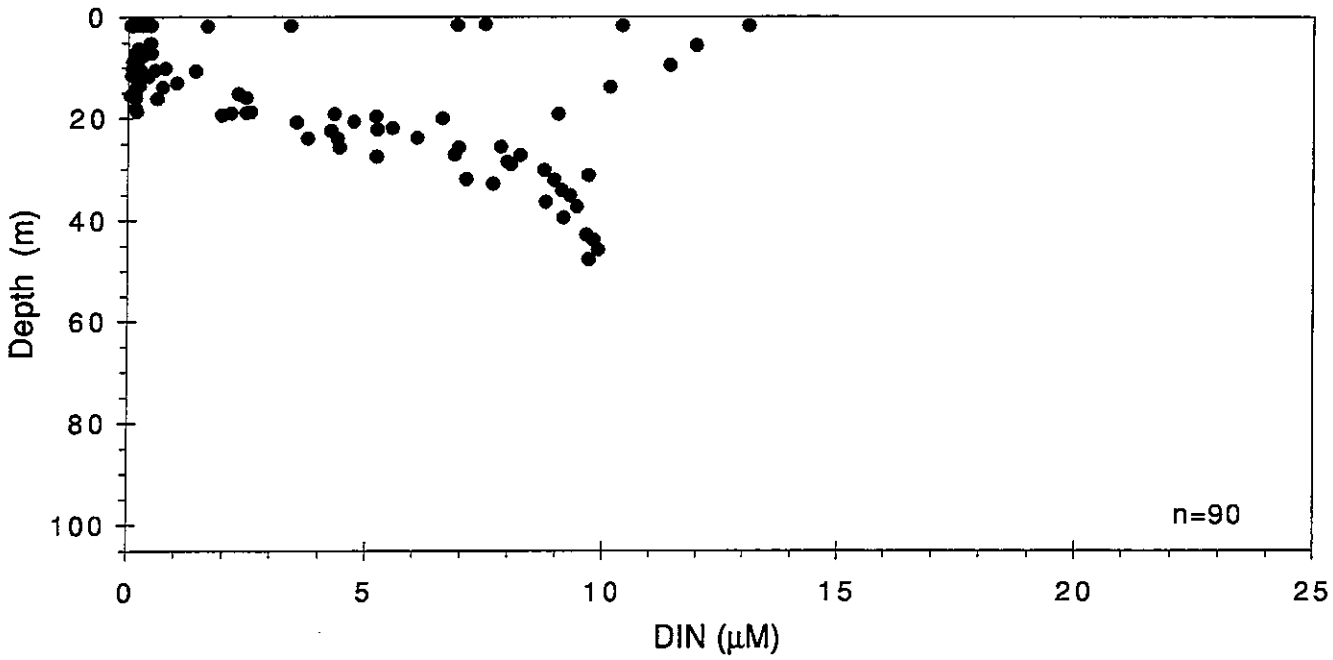
W9510 .



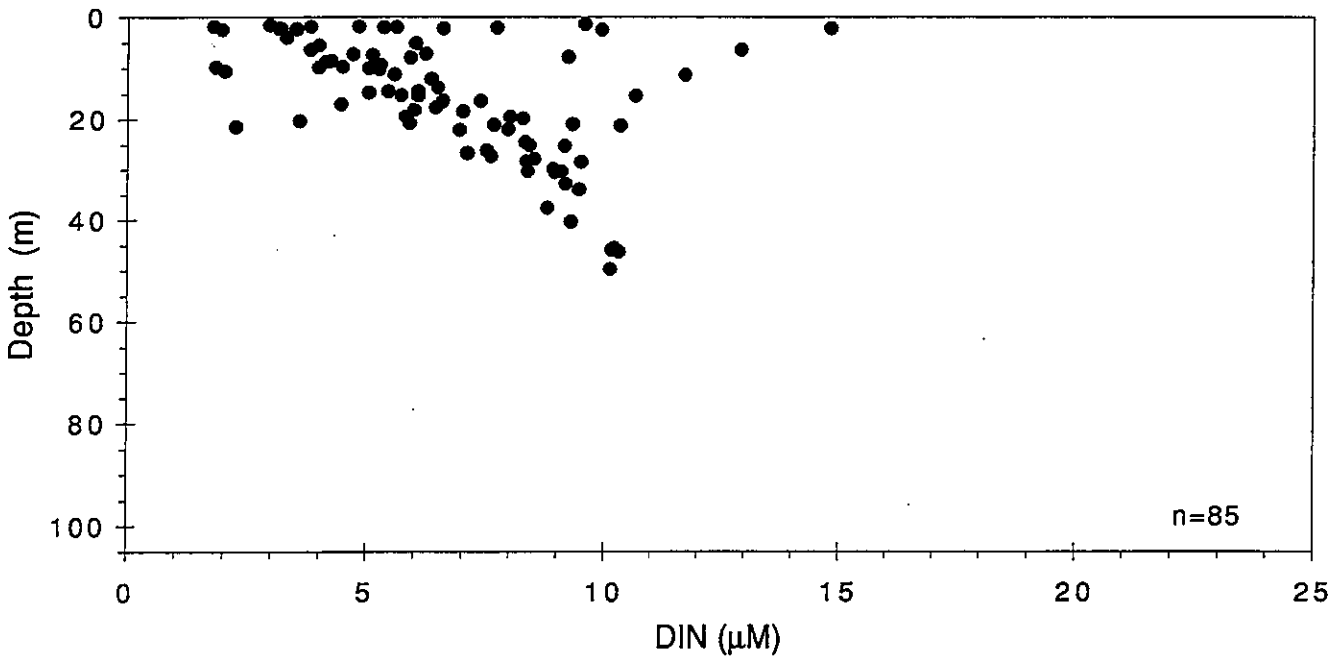
W9512 .



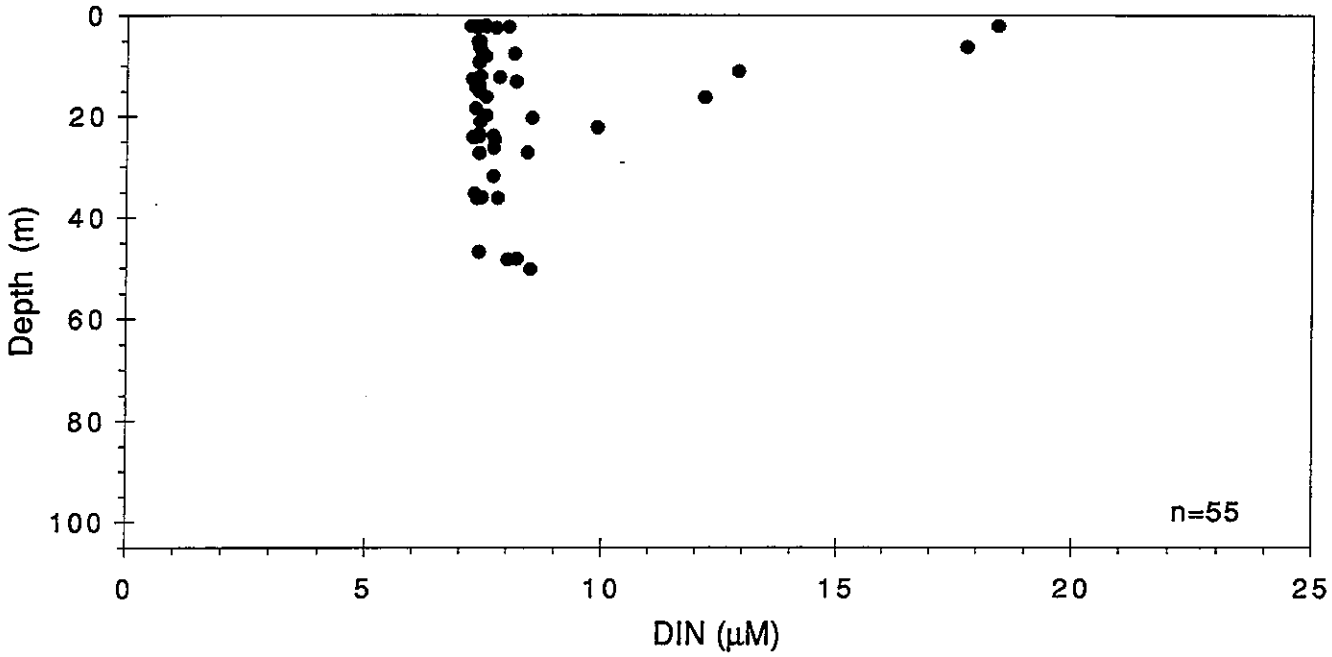
W9513 .



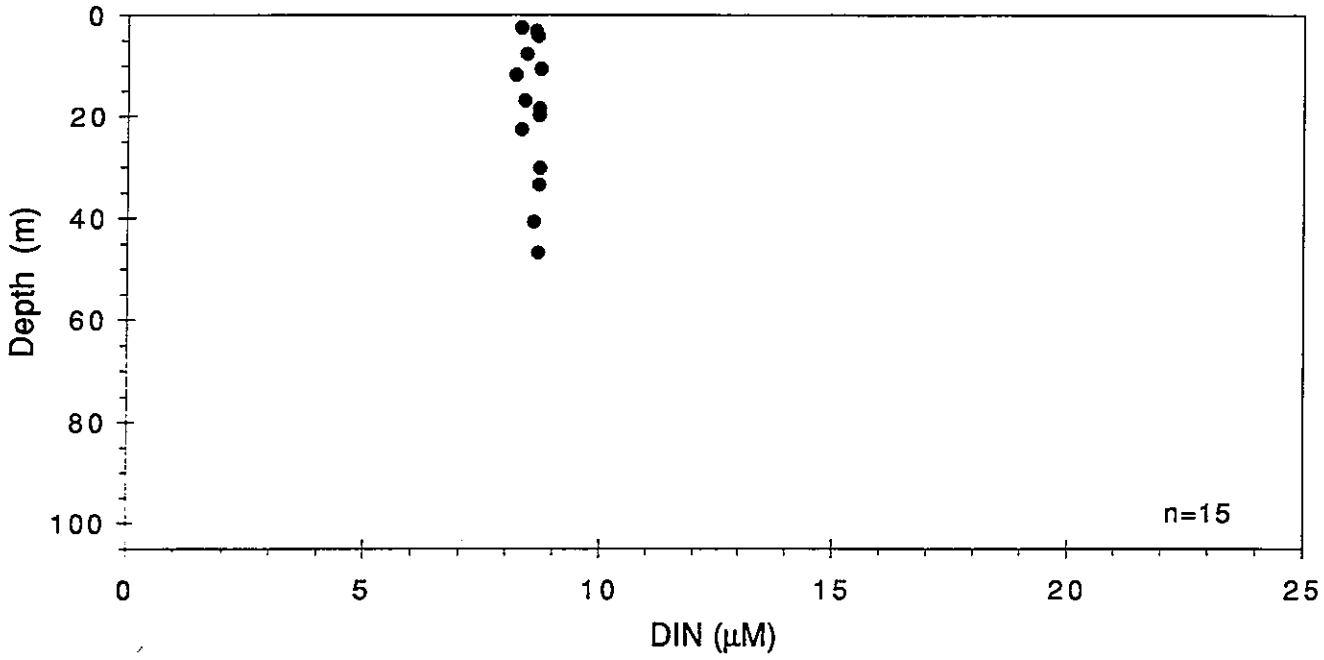
W9515 .



W9516 .



W9517 .

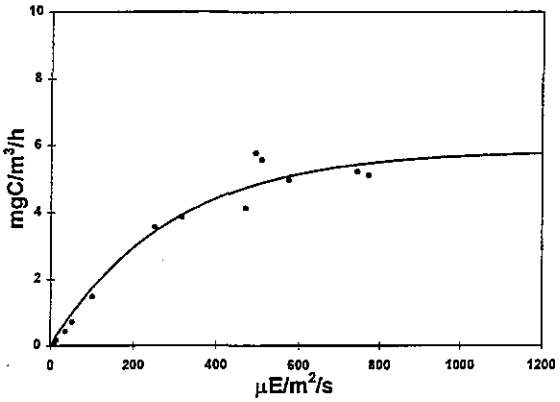


APPENDIX E

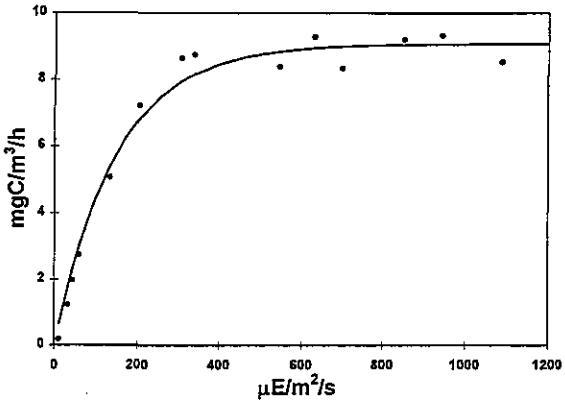
Photosynthesis-Irradiance (P-I) Curves

Productivity calculations (Appendix A) utilized light attenuation data from a CTD-mounted 4π sensor and incident light time-series data from an on-deck 2π irradiance sensor. After collection of the productivity samples, they were incubated in a temperature-controlled incubator. The resulting photosynthesis ($mgC/m^3/h$) versus light irradiance ($\mu E/m^2/s$, P-I) curves are comprehensively presented in this appendix. These data were used to determine hourly production at intervals throughout the day for each sampling depth.

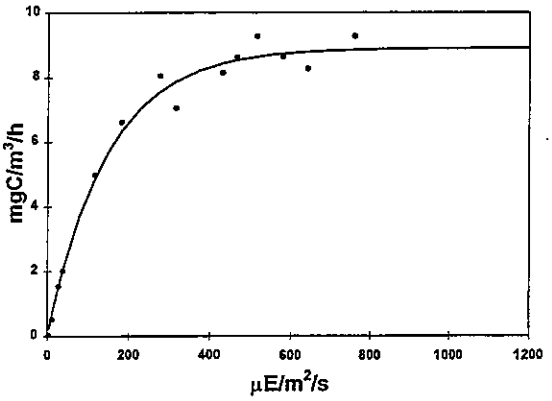
Surface



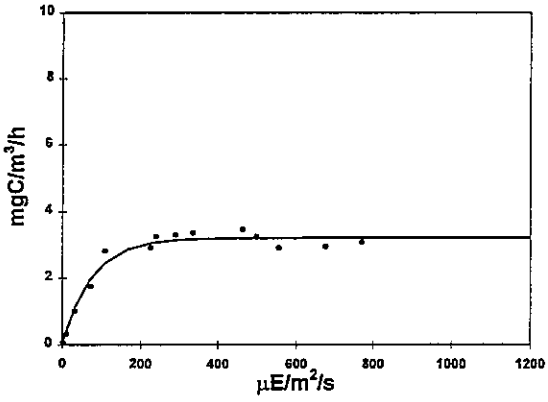
Mid Surface



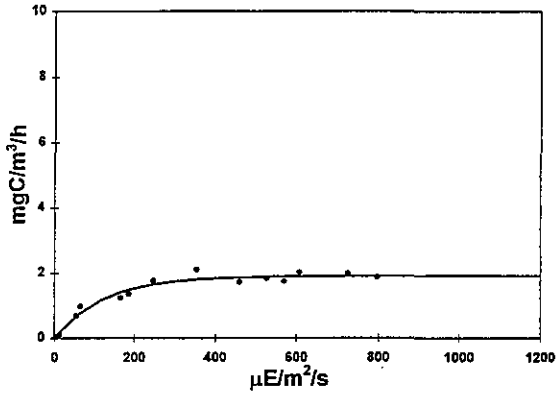
Middle



Mid Bottom

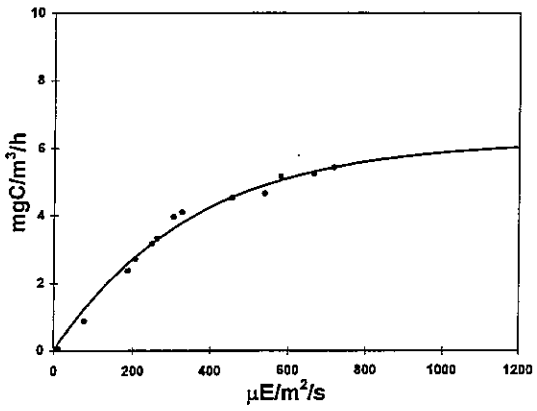


Bottom

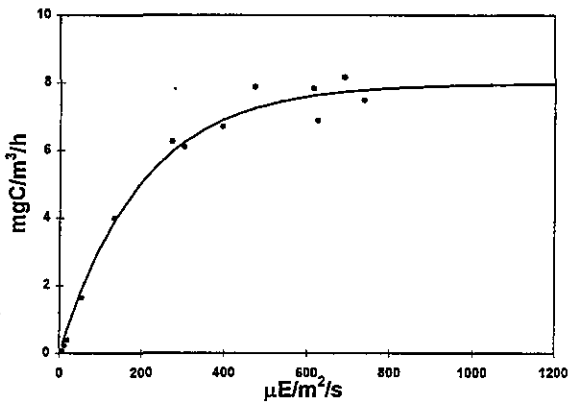


W9510 Station N16

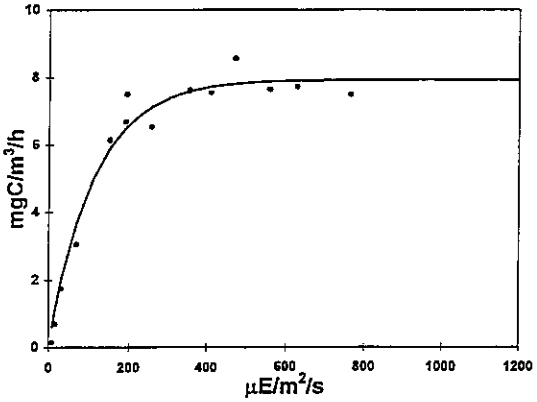
Surface



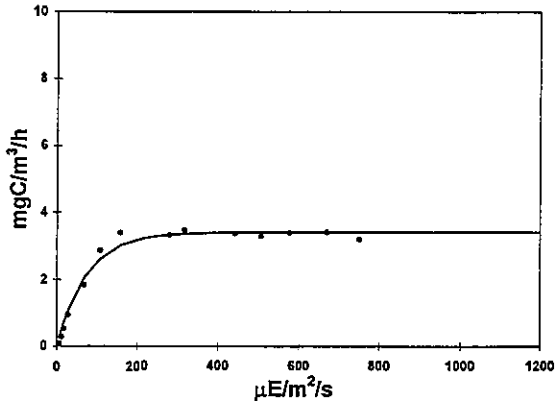
Mid Surface



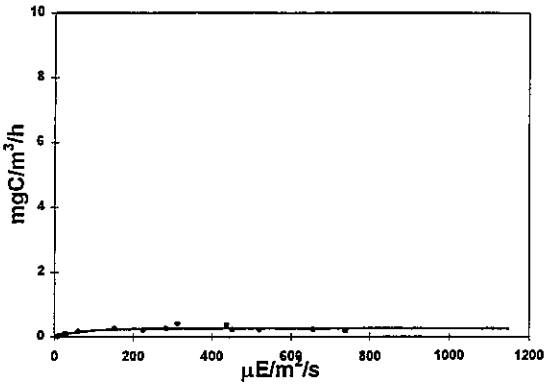
Middle



Mid Bottom

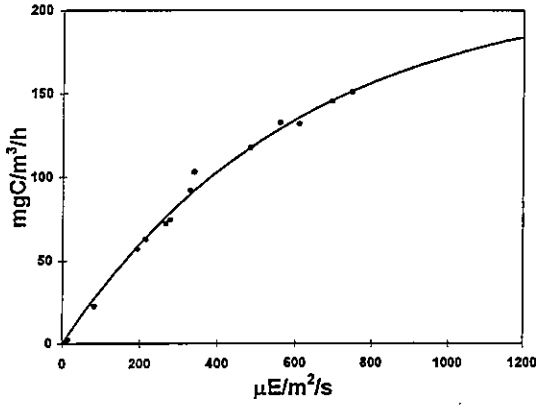


Bottom

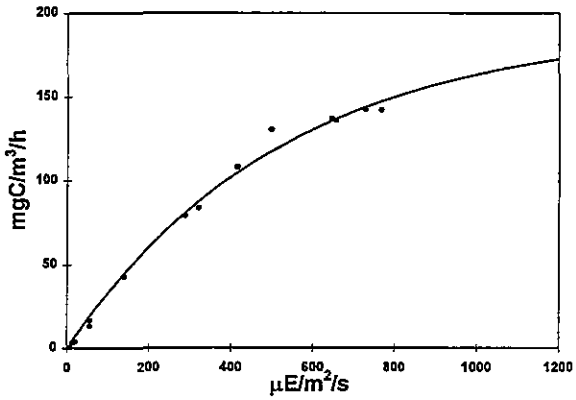


W9511 Station F23

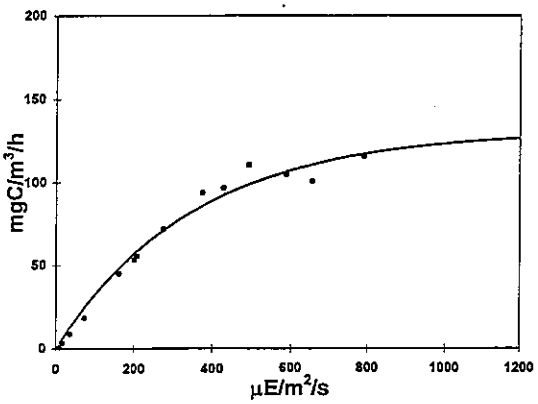
Surface



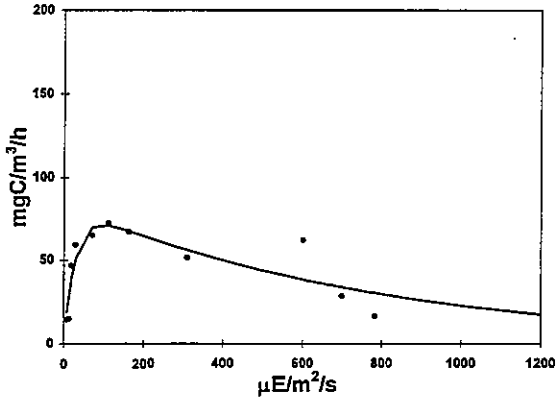
Mid Surface



Middle



Mid Bottom



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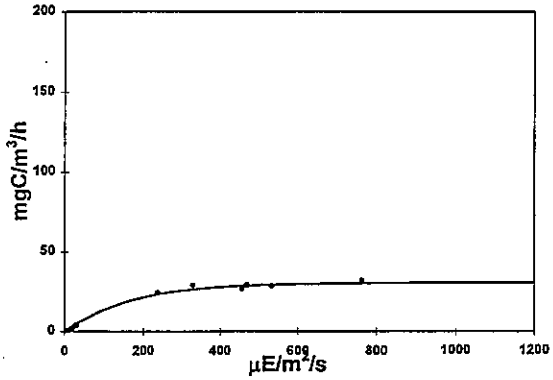
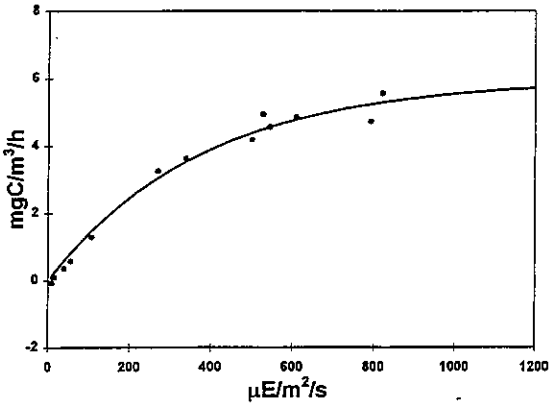


W9511 Station N16

Surface



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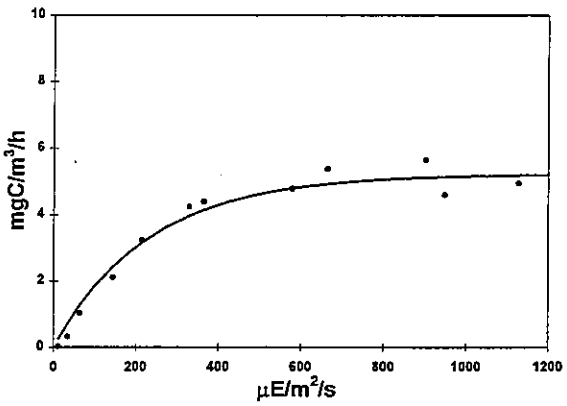

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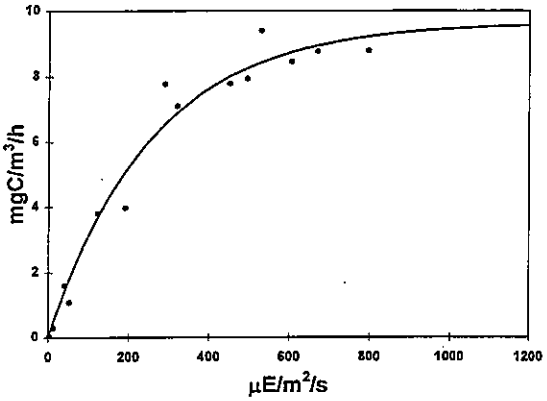

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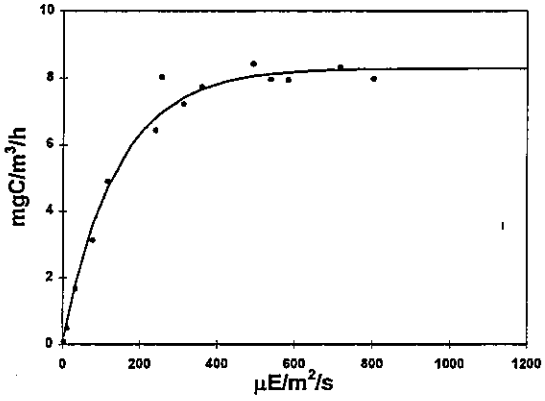

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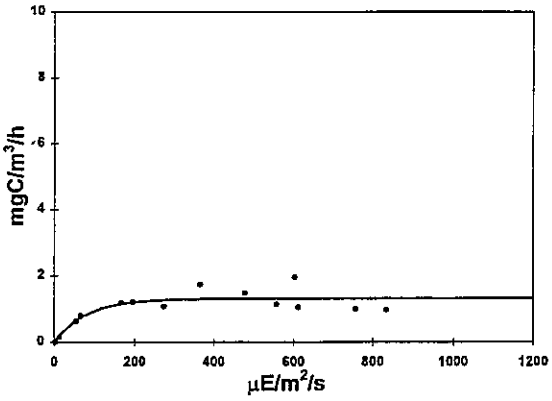

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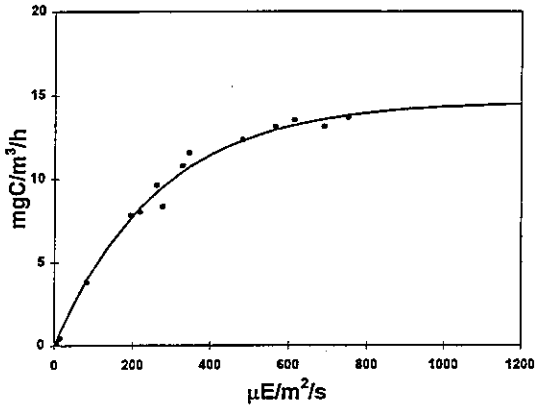

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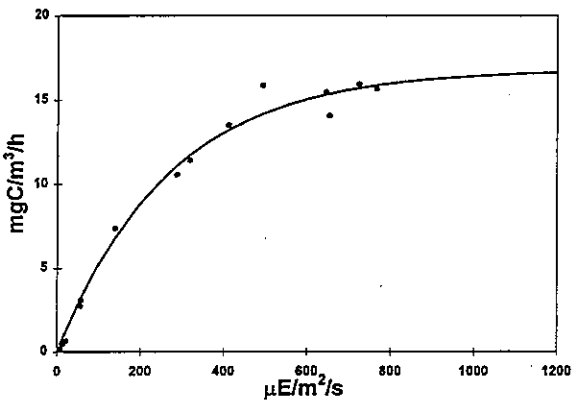

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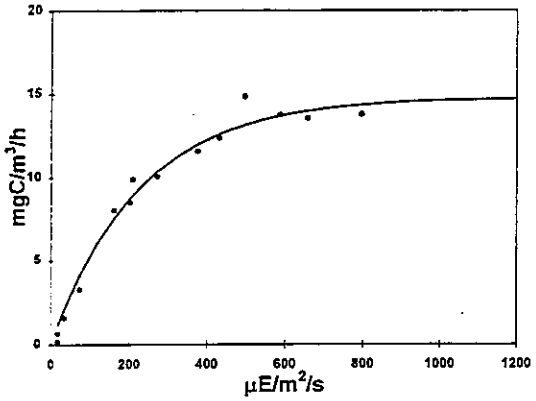

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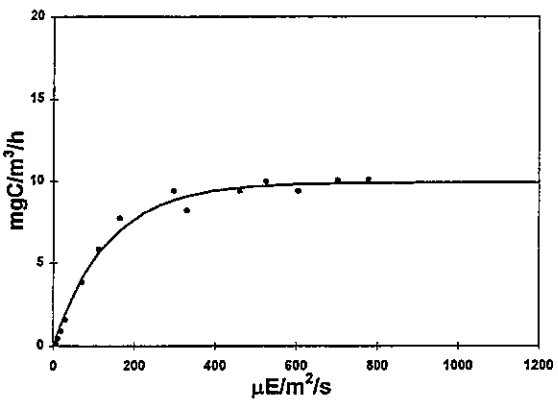

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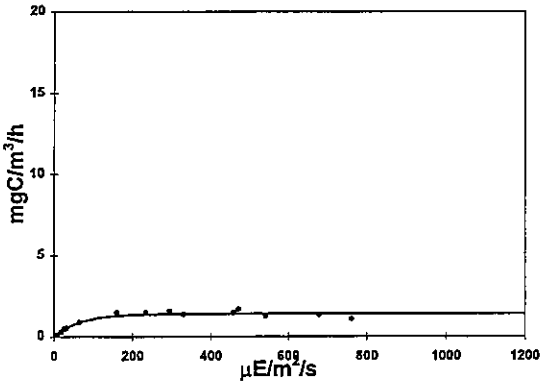

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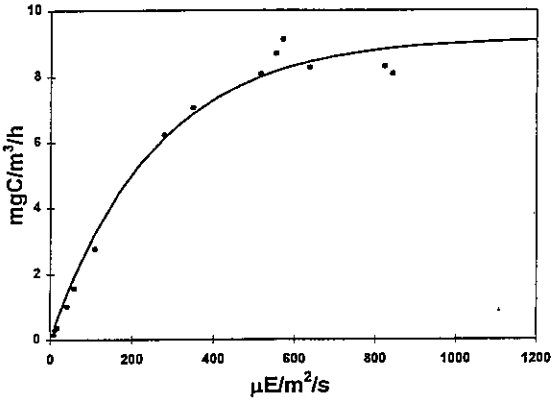

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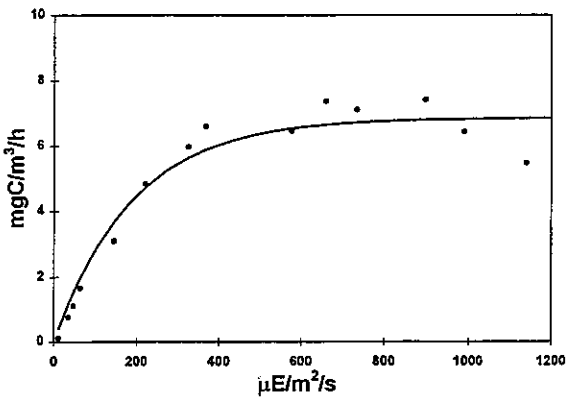

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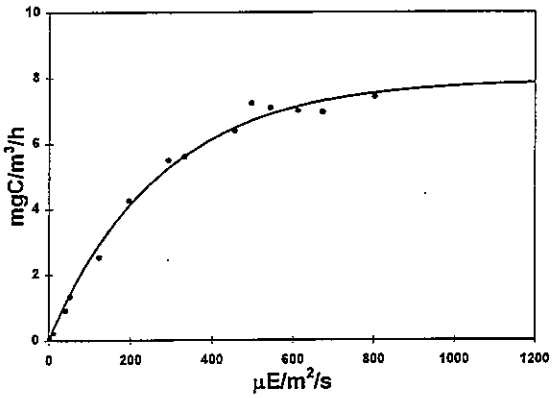

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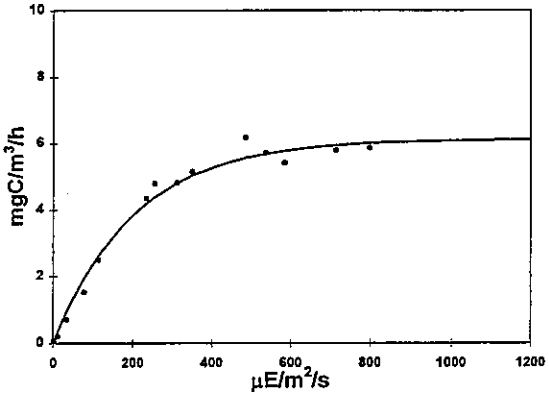

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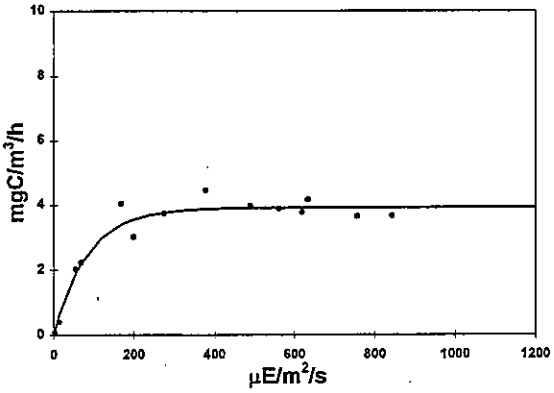
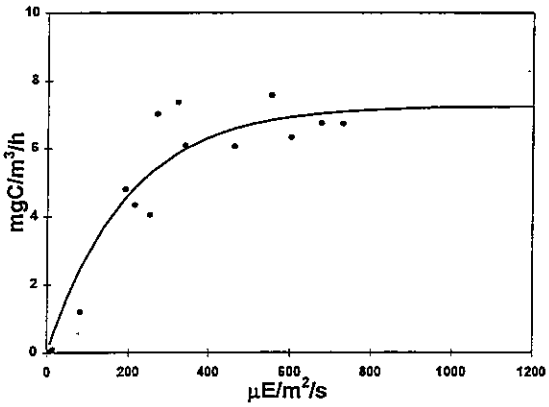


Surface



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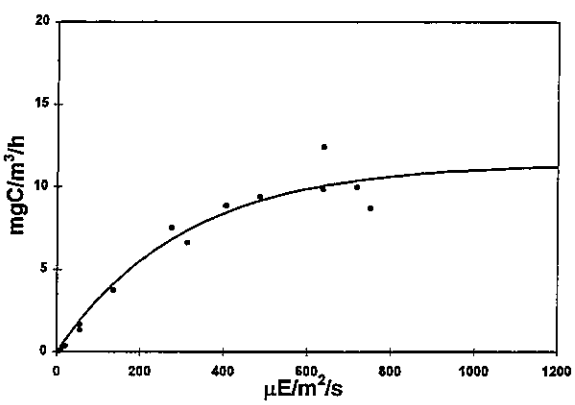

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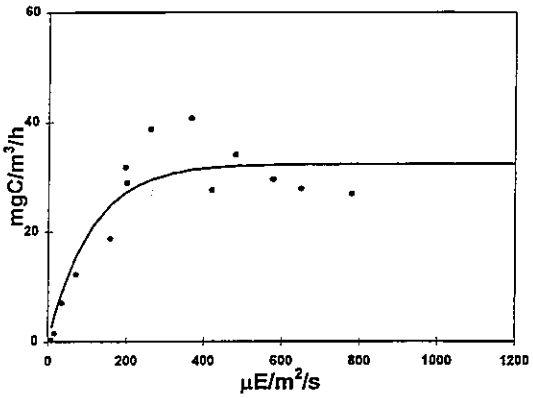

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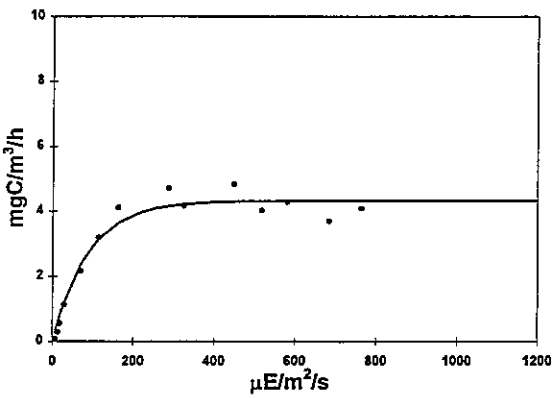

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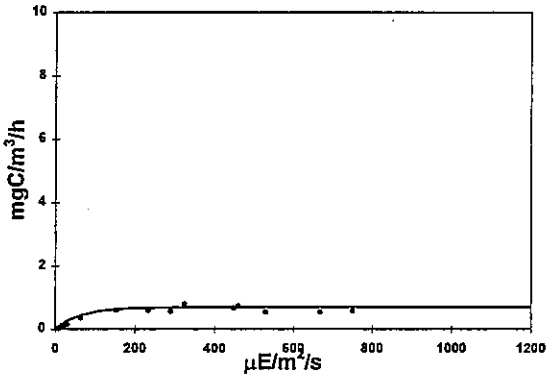
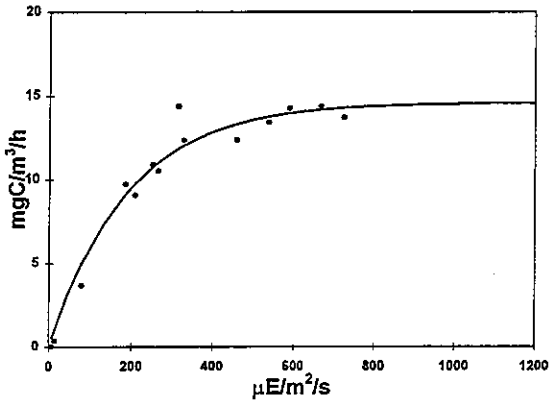


W9513 Station N16

Surface



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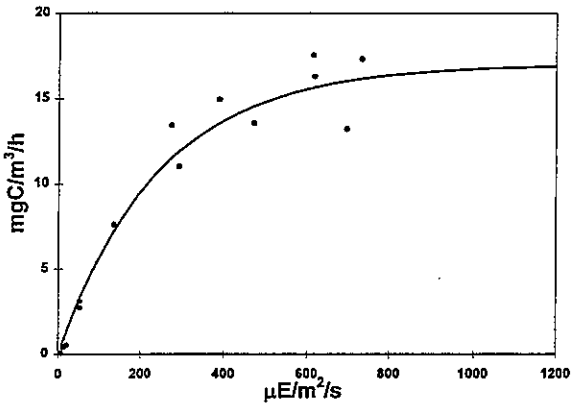

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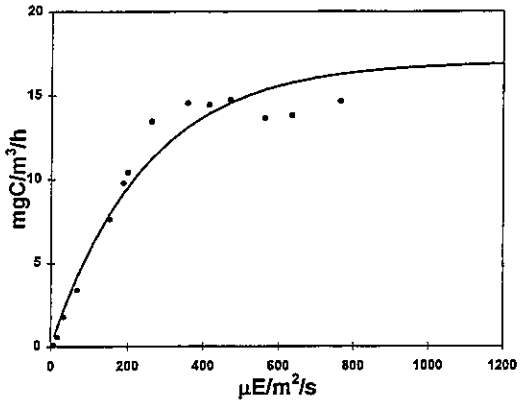

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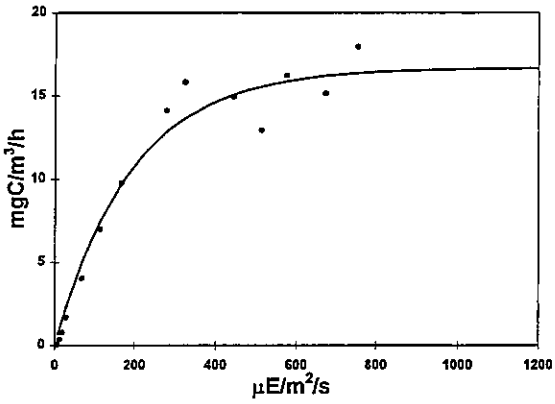

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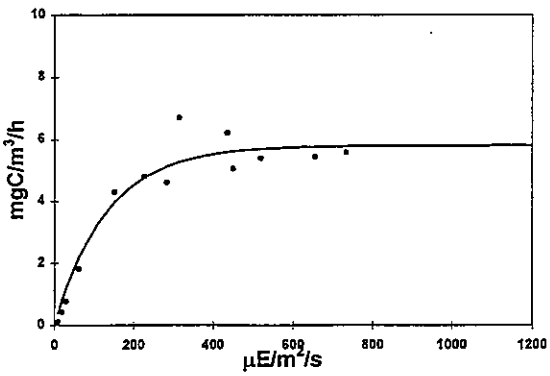

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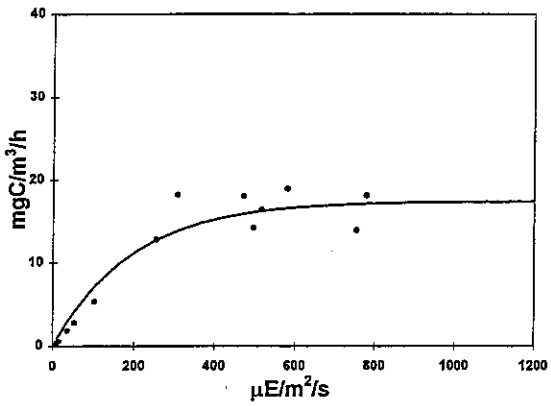

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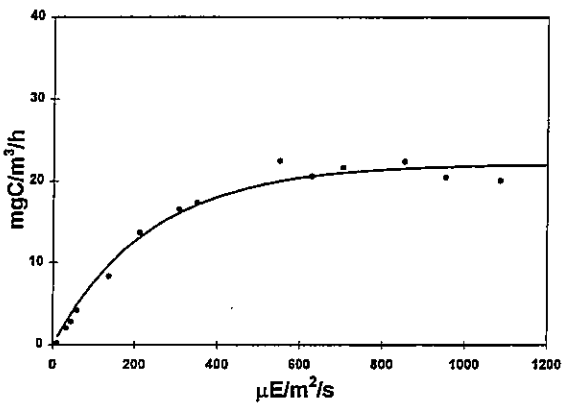

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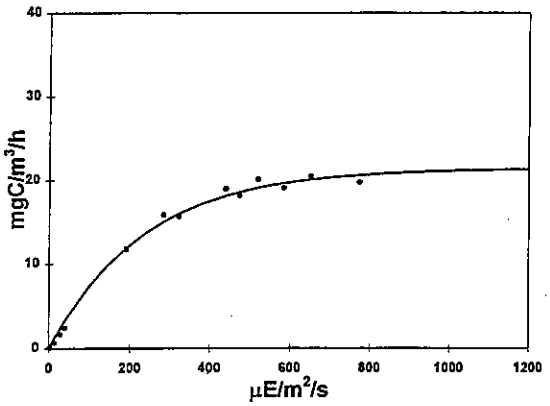

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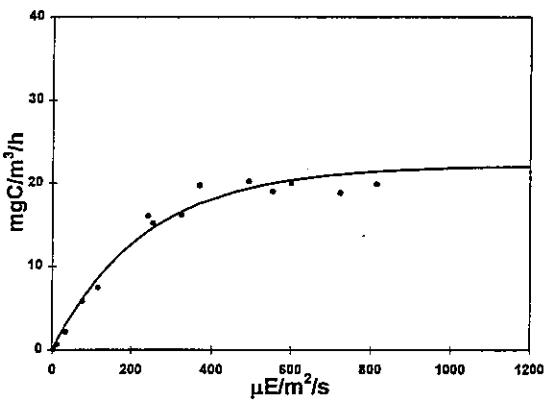

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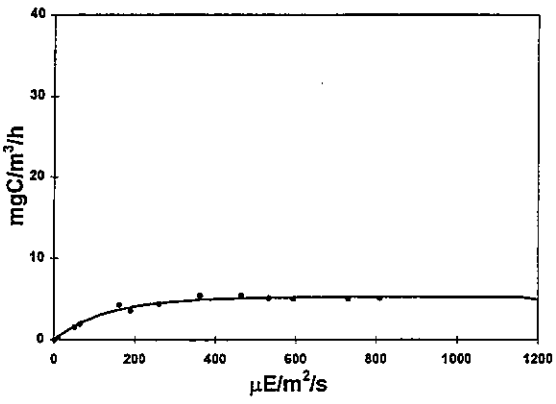

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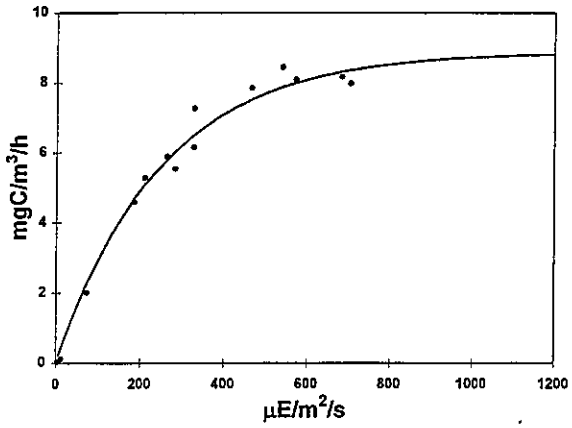

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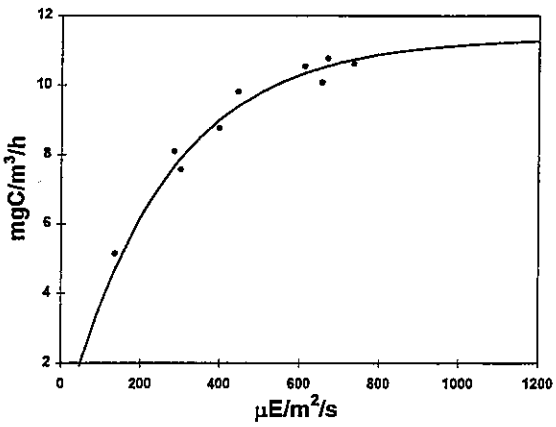

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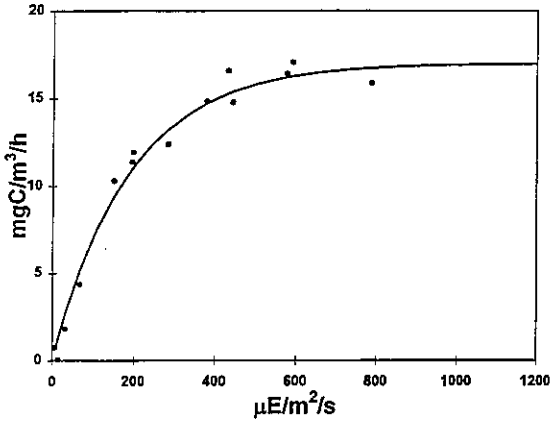

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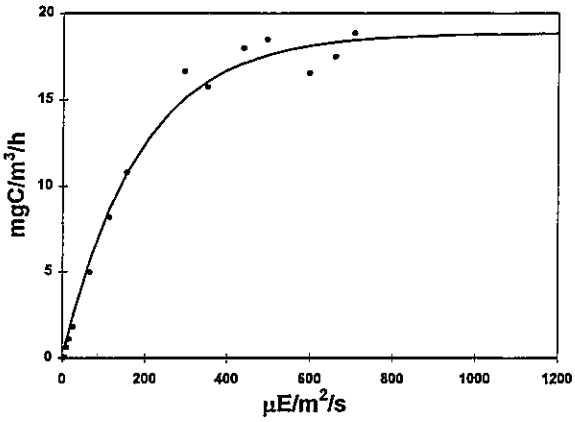

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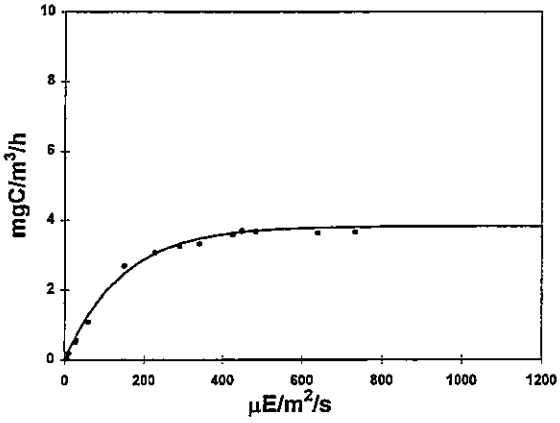

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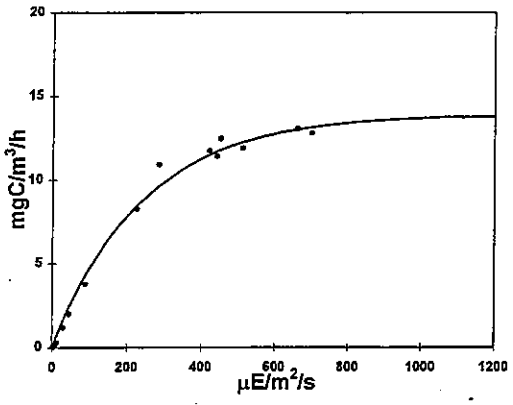

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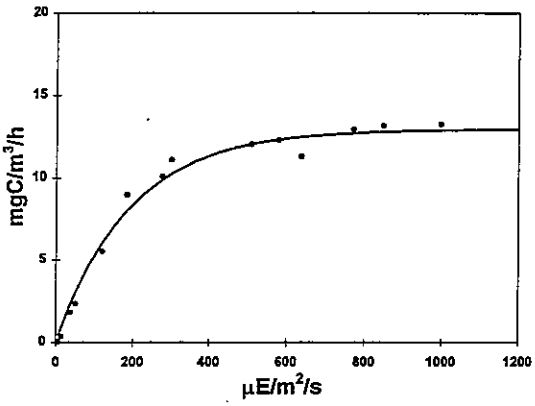

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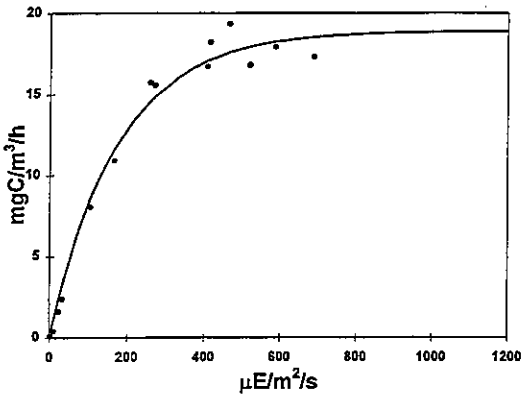

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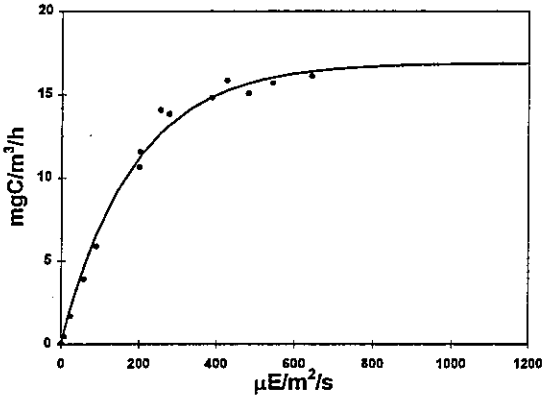

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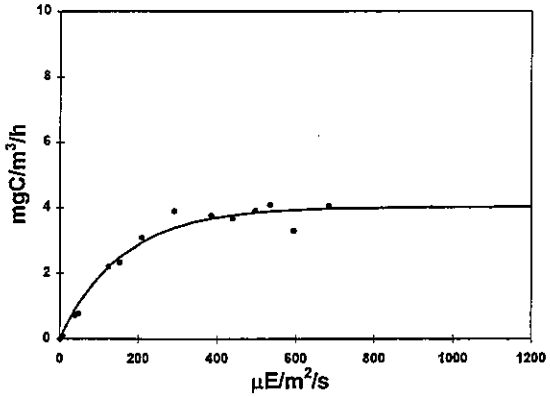
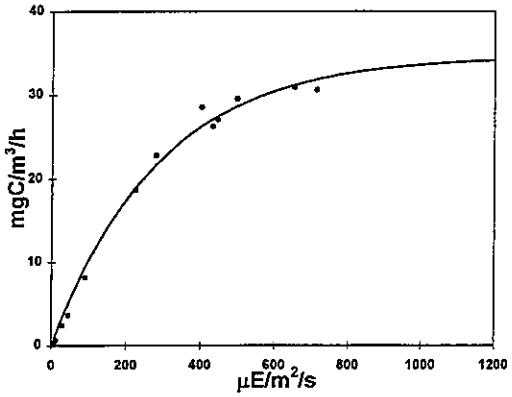
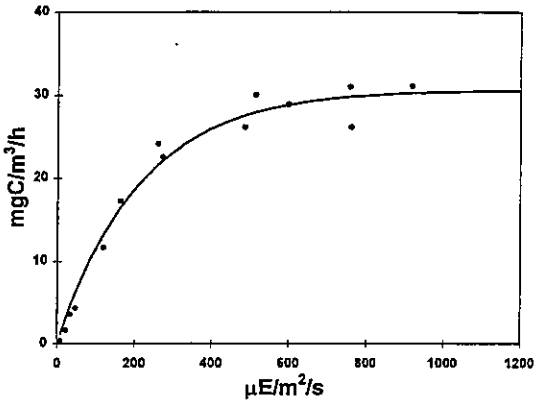


W9514 Station N16

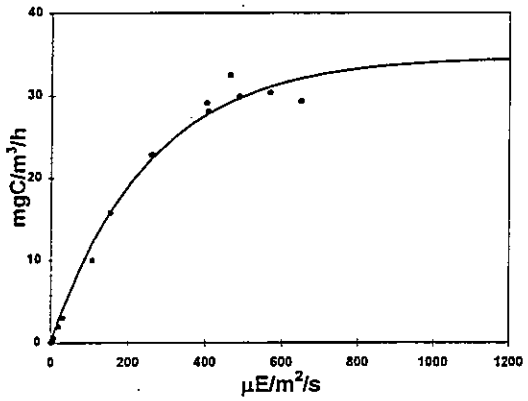
Surface



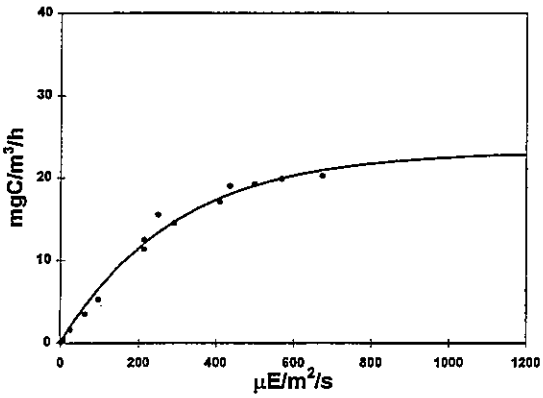
Mid Surface



Middle



Mid Bottom



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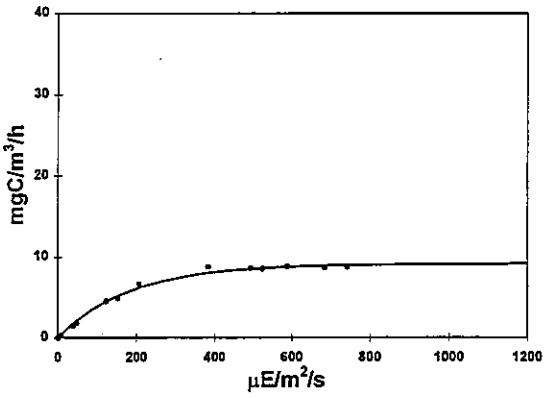
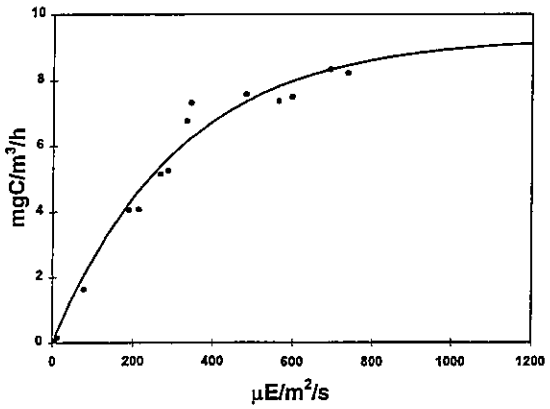
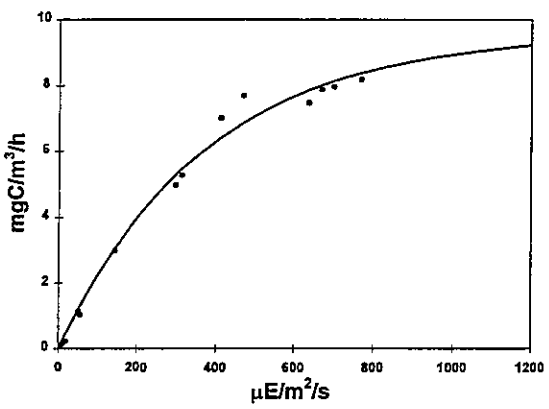


W9514 Station F23

Surface



Mid Surface



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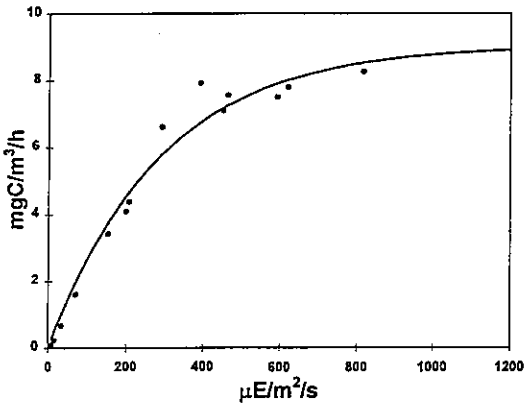
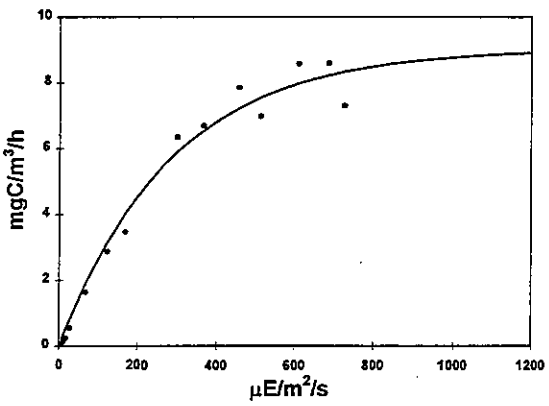


Mid Bottom



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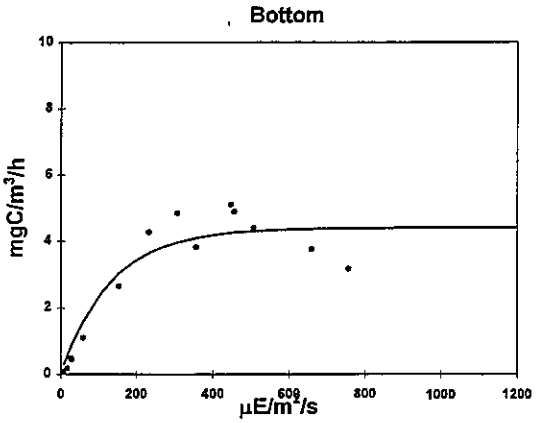
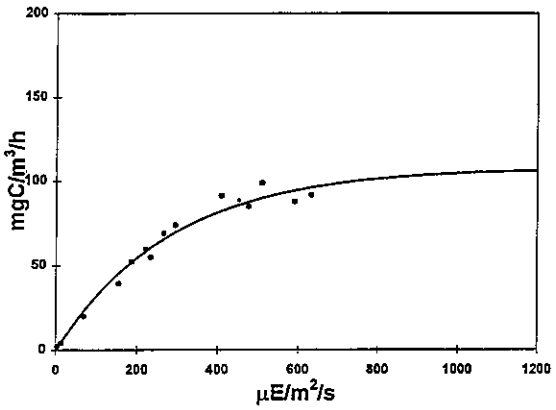
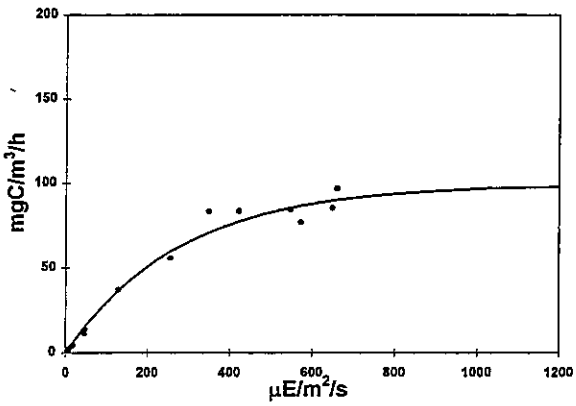


W9515 Station N16

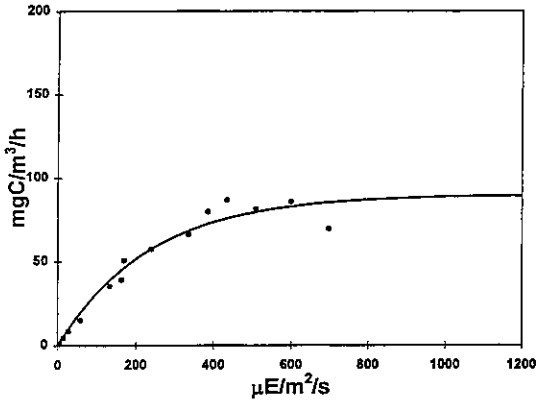
Surface



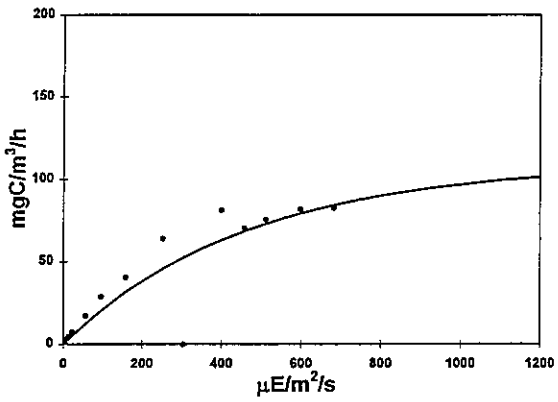
Mid Surface



Middle



Mid Bottom



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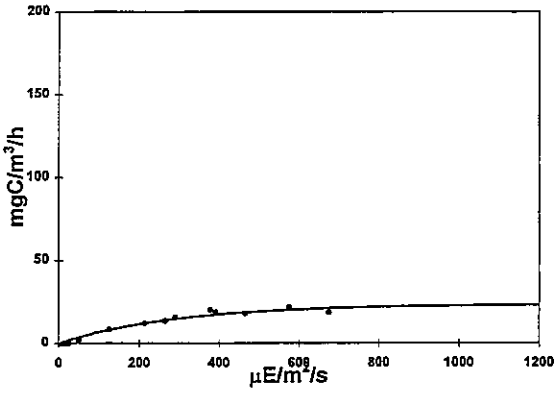
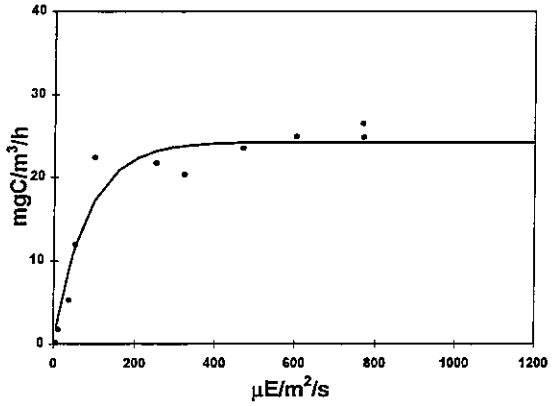
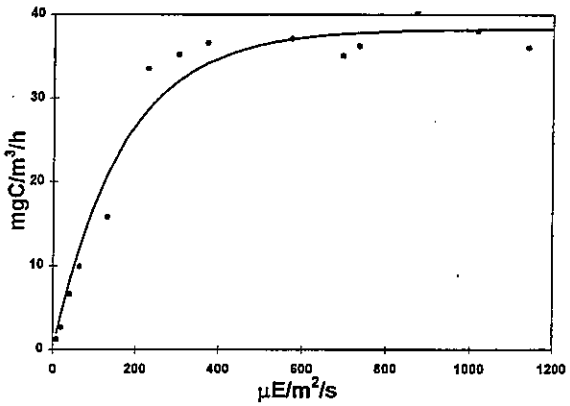


W9515 Station N04

Surface



Mid Surface



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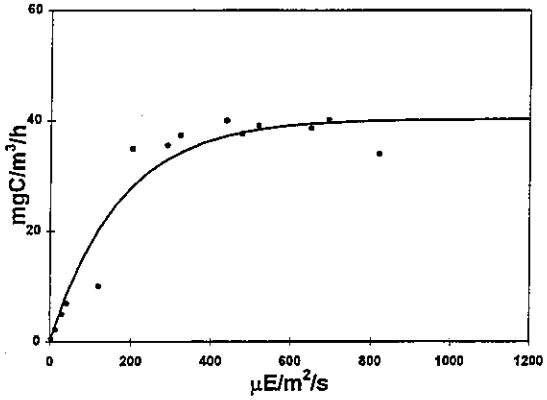

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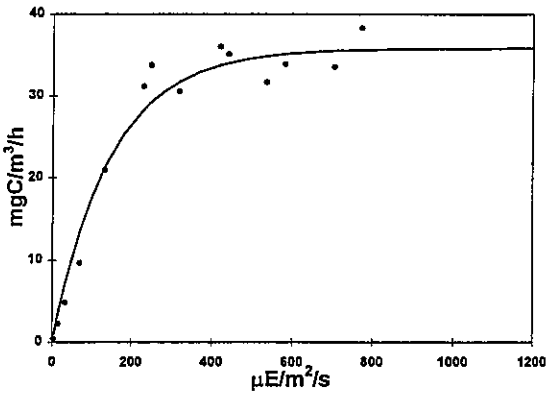

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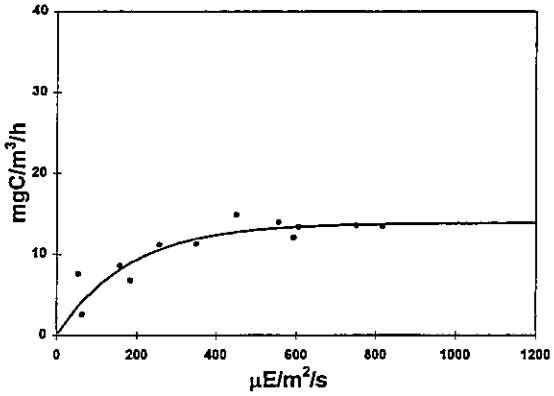

W9516 Station N16

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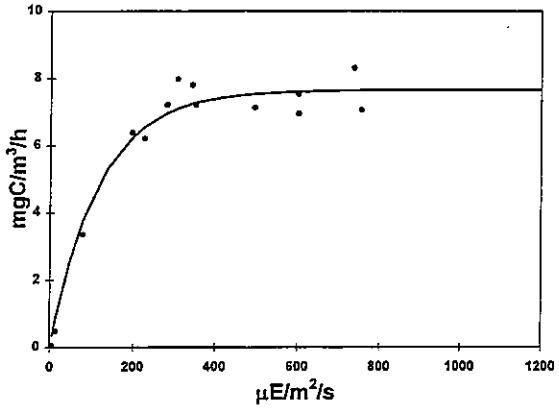

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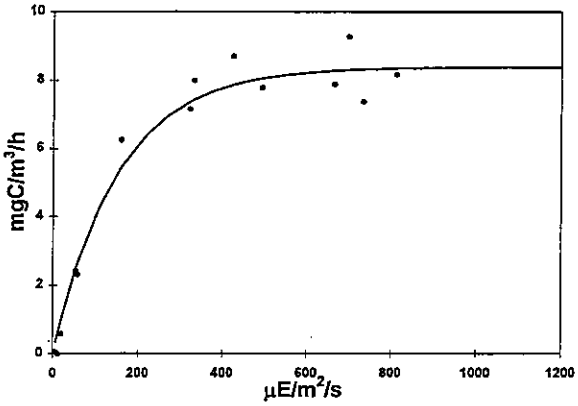

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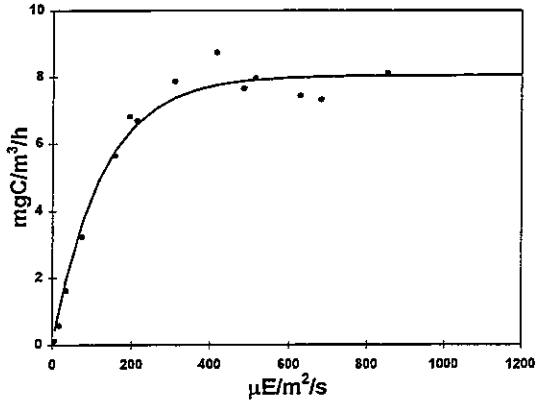

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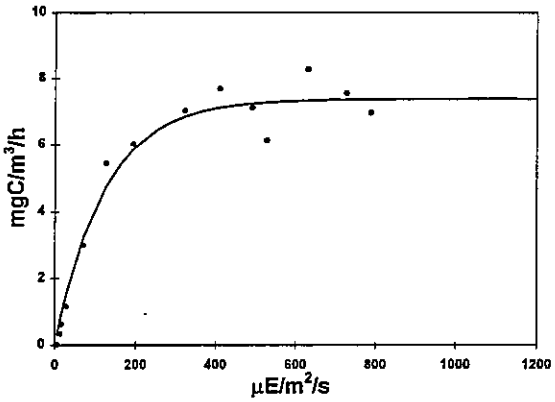

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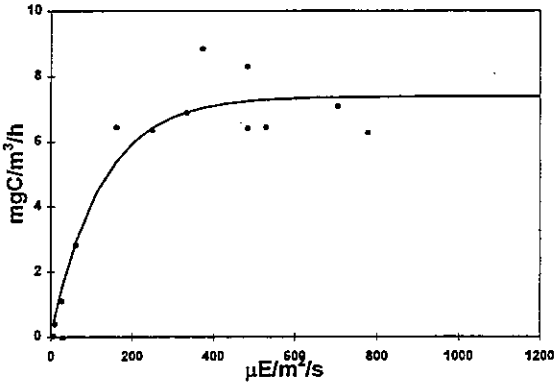

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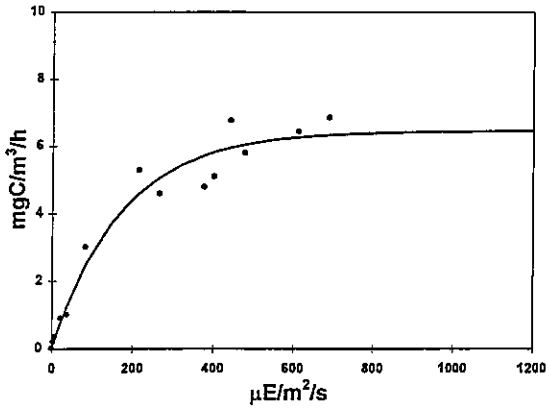

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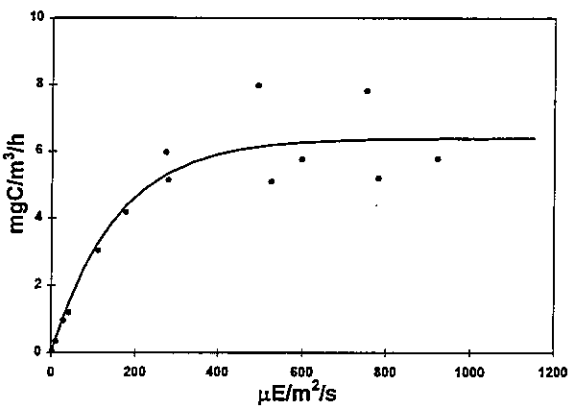

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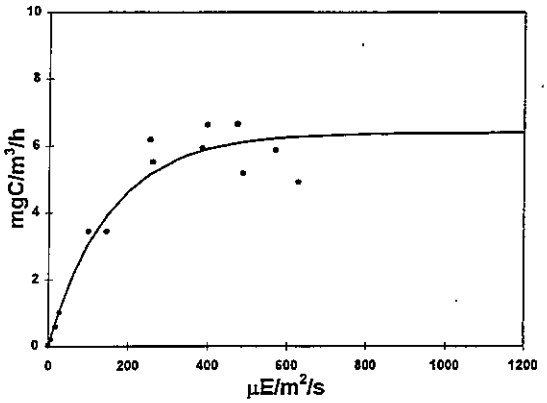

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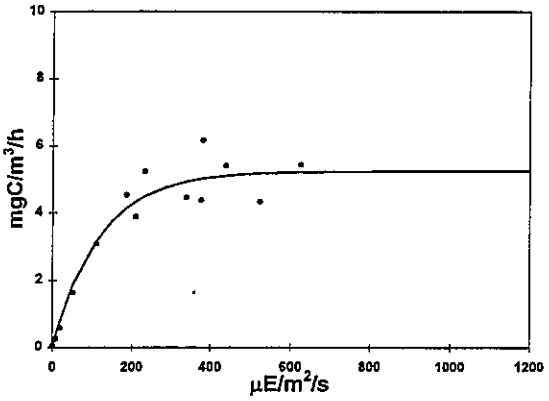

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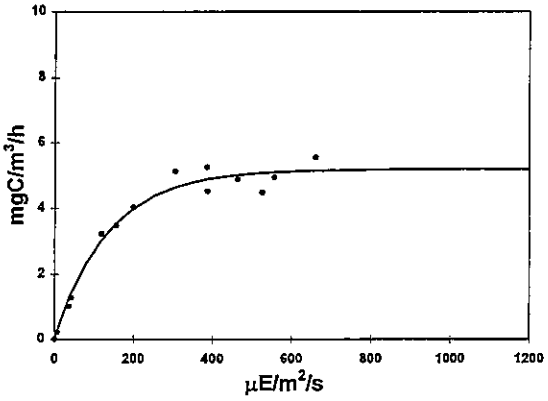
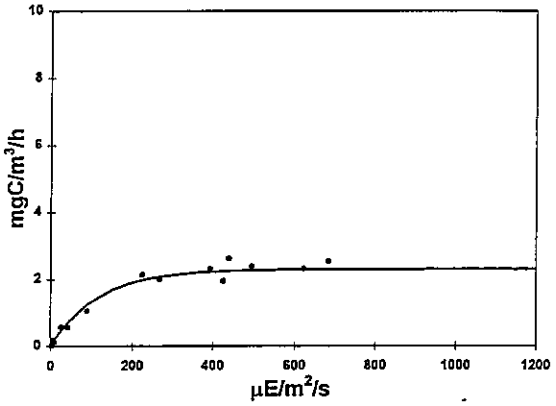


W9517 Station N16

Surface



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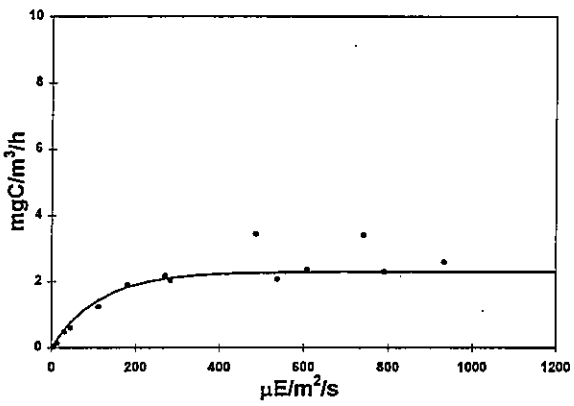

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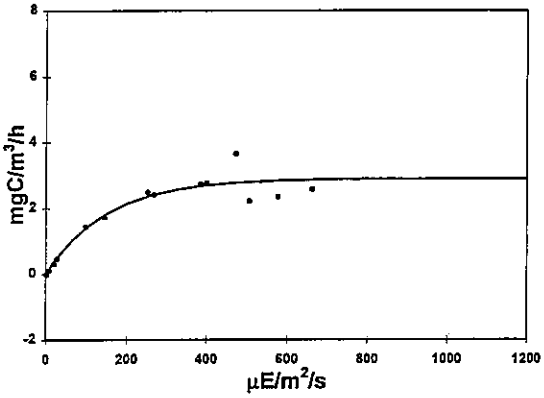

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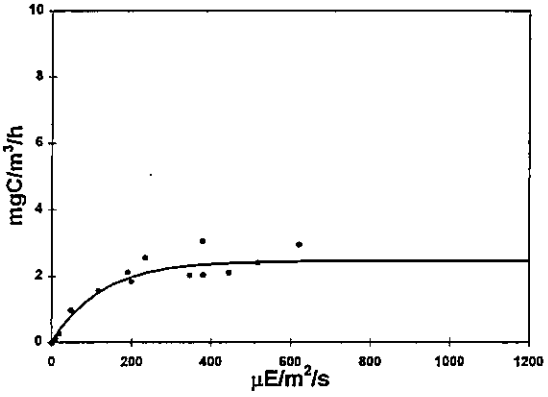

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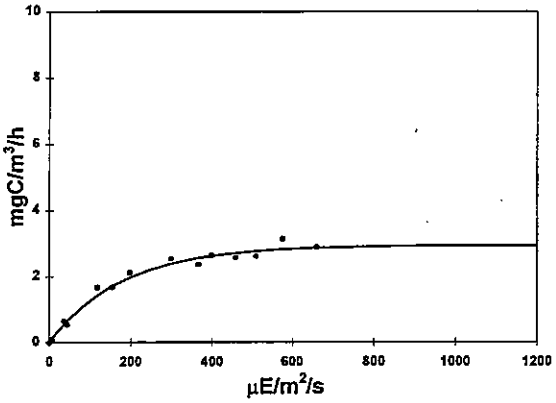

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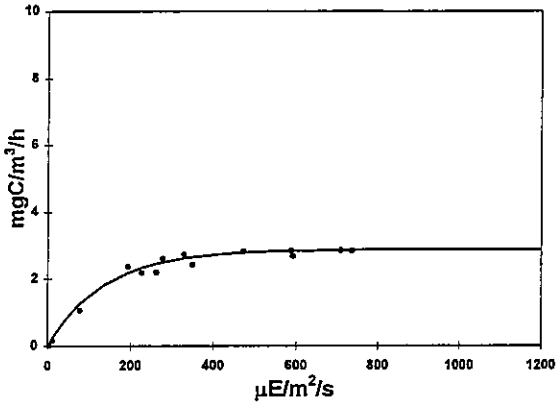

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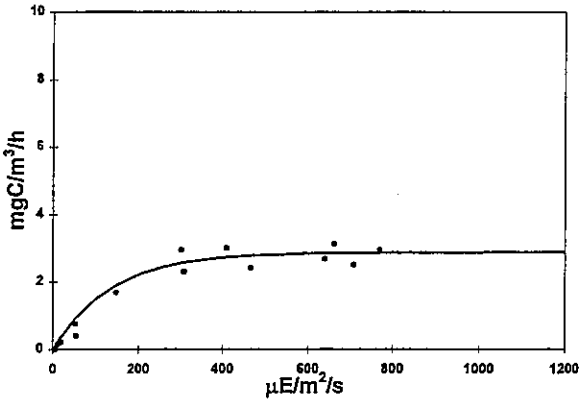

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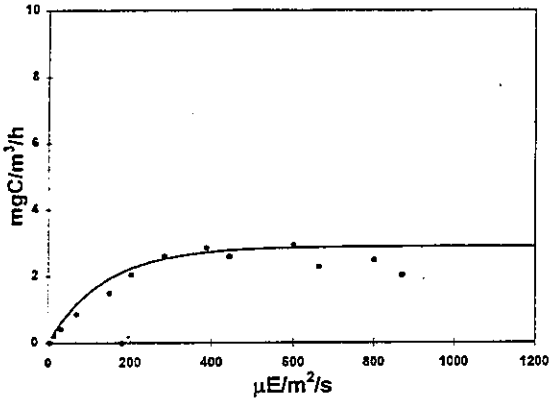

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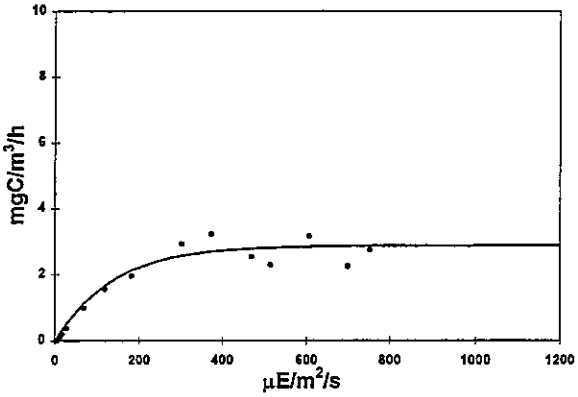

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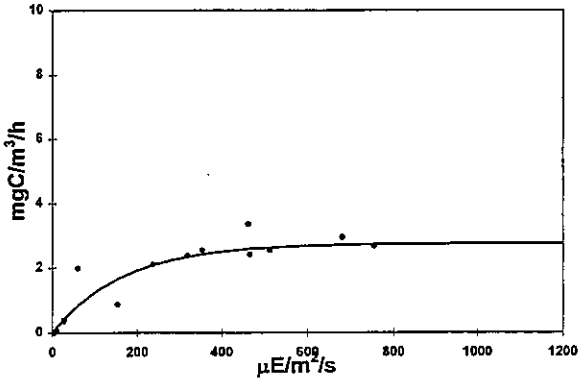

APPENDIX F-1

ABUNDANCE OF PREVALENT SPECIES IN SURFACE SAMPLE

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, August 8, 1995 - August 10, 1995 (W9510)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.479	
		%	8	
UNID. CENTRIC DIATOM DIAM. <10 MICRONS	CD	10^6 Cells/L	1.249	0.128
		%	21	11
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	3.456	0.981
		%	58	81

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5 % Total Count) In Surface Sample Whole Water Phytoplankton, August 21, 1995 - August 26, 1995 (W9511)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	**Group**	**Parameter**	**1F23**	**1F30**	**1F31**	**1F13**	**1F24**	**1F25**	**1N10**	**1N16**	**3N16**	**1F06**	**1F27**	**1F01**	**1F02**
CHAETOCEROS SP#1 DIAM <10 MICRONS	CD	10^3 Cells/L			2.409			0.915							
		%			15			8							
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^3 Cells/L		0.579			0.213	0.610	1.338						
		%		8			6	6	11						
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^3 Cells/L			0.976										
		%			6										
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^3 Cells/L				0.329	0.386			0.244	0.360	0.335	0.111	0.155	
		%				9	9			9	10	9	7	7	
RHIZOSOLENIA FRAGILISSIMA	CD	10^3 Cells/L		1.403										0.133	
		%		20										6	
SKELETONEMA COSTATUM	CD	10^3 Cells/L	2.328		1.220		0.476	0.584	1.684						
		%	20		7		12	5	14						
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^3 Cells/L	0.998	0.793	2.714		0.427	1.245	1.103			0.232			
		%	9	11	17		11	11	9			6			
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^3 Cells/L	5.211	2.383	5.366	2.836	1.752	4.678	4.648	2.147	2.647	2.659	1.248	1.780	1.504
		%	46	33	33	76	45	44	39	81	76	73	81	77	90

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, September 6, 1995 - September 8, 1995 and September 11, 1995 - September 14, 1995 (W9512)

Species	Group	Parameter	Nearfield Stations	
			1N10	2N16
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L	6.174	1.142
		%	69	49
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.139
		%		6
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	1.677	0.826
		%	19	35

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, September 25, 1995 - September 29, 1995 (W9513)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.177	
		%	7	
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L		0.122
		%		5
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L	0.201	0.177
		%	8	8
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.316
		%		14
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	1.451	1.142
		%	57	49

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) In Surface Sample Whole Water Phytoplankton, October 9 - October 13, 1995 (W9514)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	Parameter	1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	3N16	1F06	1F27	1F01	1F02
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.119	0.152	0.151		0.084	0.158	0.672		0.307		0.601		
		%	15	6	14		8	13	15		12		20		
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.055	0.482	0.061	0.316		0.167	1.146					0.235	
		%	7	18	7	13		14	25					9	
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L	0.090		0.059		0.082	0.100							0.122
		%	11		5		8	8							5
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L				0.166						0.071	0.209	0.567	0.139
		%				7						5	7	15	6
KATODINIUM ROTUNDATUM	DF	10^6 Cells/L										0.213	0.233		
		%										16	8		
LEPTOCYLINDRUS DANICUS	CD	10^6 Cells/L													
		%													
PYRAMIMONAS SP.	MF	10^6 Cells/L			0.073								0.153		
		%			7								5		
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L										0.136			
		%										10			
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L										0.078			
		%										6			
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.203		0.196		0.137	0.169	0.250		0.477				
		%	26		18		13	17	9		19				
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.200	1.37205	0.33877	1.303	0.516	0.357173	1.7522	6.02177	1.1606	0.633	1.37482	1.988	1.486
		%	26	51.66746	30.64118	53	49	29.84561	38.53119	75.647431	45.869276	48	46.11219804	54	61

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, November 1 - November 4, 1995 (W9515)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
ASTERIONELLA GLACIALIS	PD	10^6 Cells/L	0.538	1.594
		%	48	52
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.058	
		%	5	
PANDORINA SP.	O	10^6 Cells/L	0.082	
		%	7	
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L		0.191
		%		6
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.224
		%		7
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.104	
		%	9	

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, November 27, 1995 - December 5, 1995 (W9516)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
ASTERIONELLA GLACIALIS	PD	10^6 Cells/L	0.018	0.041
		%	5	9
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L		0.027
		%		6
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.036	
		%	10	
THALASSIONEMA NITZSCHIOIDES	PD	10^6 Cells/L		0.039
		%		8
THALASSIOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L	0.018	0.136
		%	5	29
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.044
		%		9
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L	0.031	
		%	9	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.142	0.026
		%	42	5

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1a. Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, December 17, 1995 - December 19, 1995 (W9517)

Species	Group	Parameter	Nearfield Stations	
			1N10	2N16
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.021	0.041
		%	21	22
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L		0.013
		%		7
CYLINDROTHECA CLOSTERIUM	PD	10^6 Cells/L	0.019	
		%	19	
DISTEPHANUS SPECULUM	O	10^6 Cells/L	0.006	
		%	6	
GYMNODINIUM SP #1 5-20UM W 10-20UM L	DF	10^6 Cells/L	0.006	0.011
		%	5	6
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.011	
		%	11	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.011	0.063
		%	10	33

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

APPENDIX F-2

ABUNDANCE OF PREVALENT SPECIES IN CHLOROPHYLL *a* MAXIMUM SAMPLE

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, August 8, 1995 - August 10, 1995 (W9510)

Species	Group	Parameter	Nearfield Stations 1N10	1N16
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.407	0.154
		%	7	7
UNID. BLUE GREEN SINGLE SPHERE	O	10^6 Cells/L		0.117
		%		5
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	1.045	
		%	17	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	3.760	1.819
		%	61	60

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll a Maxiumum Sample
Whole Water Phytoplankton, August 21, 1995 - August 26, 1995 (W9511)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore	Boundary	Cape Cod Bay Station	
Species	Group	Parameter	1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	3N16	1F06	1F27	1F01	1F02
CHAETOCEROS SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L	0.488	0.716	1.082			1.357	0.686						
		%	7	6	12			15	7						
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L		0.610	0.640				0.579		0.177				
		%		5	7				6		7				
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L													
		%													
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L					0.177					0.335	0.195		
		%					5					5	7		
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L		1.008					0.671						0.405
		%		9					7						18
SKELETONEMA COSTATUM	CD	10^6 Cells/L	1.585	1.167	0.579	0.256	0.470		2.256						
		%	24	10	6	10	14		23						
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.656	0.822	1.281	0.213	0.250	0.595	0.838			0.701			
		%	10	7	14	8	7	6	9			11			
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	2.666	5.276	3.644	1.317	1.762	4.025	3.156	3.965	2.177	4.223	2.336	2.195	1.513
		%	43	46	41	51	51	44	32	87	80	84	80	81	66

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll a Maximum Sample Whole Water Phytoplankton, September 6, 1995 - September 8, 1995 and September 11, 1995 - September 14, 1995 (W9512)

Species	Group	Parameter	Nearfield Stations	
			1N10	2N16
LEPTOCYLINDRUS DANICUS	CD	10^6 Cells/L	0.869	
		%	13	
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L	4.025	1.162
		%	59	48
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	1.250	0.889
		%	18	36
Group Definitions:	CD	Centric Diatom		
	DF	Dinoflagellate		
	MF	Microflagellate		
	O	Other		
	PD	Pennate Diatom		

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, September 25, 1995 - September 29, 1995 (W9513)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L		0.890
		%		30
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.213
		%		7
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L		1.427
		%		48
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.390	
		%	15	
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L	0.183	
		%	7	
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.140	
		%	5	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	1.250	
		%	47	

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll a Maximum Sample
Whole Water Phytoplankton, October 9 - October 13, 1995 (W9514)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	Parameter	1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	3N16	1F06	1F27	1F01	1F02
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.055		0.116		0.066	0.842			0.957	0.106	0.224		
		%	8		5		6	35			32	9	8		
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L		0.159	0.255	0.335								0.482	
		%		9	11	11								14	
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L	0.098	0.179			0.105	0.170					0.224		
		%	14	10			10	7					8		
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L								0.213				0.244	0.232
		%								6				7	9
KATODINIUM ROTUNDATUM	DF	10^6 Cells/L									0.221	0.163			
		%									7	14			
LEPTOCYLINDRUS DANICUS	CD	10^6 Cells/L	0.080				0.076								
		%	11				7								
PYRAMIMONAS SP.	MF	10^6 Cells/L													
		%													
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L										0.103			
		%										9			
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L							0.139			0.160			
		%							9			13			
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.098			0.187		0.113				0.191	0.195	
		%		5			18		8				7	8	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.307	0.955353	1.4358	1.707	0.408406	0.847573	1.00638	3.0429	1.49757	0.451	1.79172	2.043	1.359
		%	44	53.35121	62.34954	55	39.8167	35.36686	67.277674	78.65868	49.375921	38	67.36502125	58	55

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, November 1 - November 4, 1995 (W9515)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
ASTERIONELLA GLACIALIS	PD	10^6 Cells/L	0.616	1.067
		%	53	46
RHIZOSOLENIA FRAGILISSIMA	CD	10^6 Cells/L		0.128
		%		6
THALASSIONEMA NITZSCHIOIDES	PD	10^6 Cells/L		0.208
		%		9
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.055	0.229
		%	6	10
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.053	0.155
		%	5	7

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, November 27, 1995 - December 5, 1995 (W9516)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
ASTERIONELLA GLACIALIS	PD	10^6 Cells/L		0.036
		%		8
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.033	0.038
		%	10	9
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.042	
		%	13	
THALASSIONEMA NITZSCHIOIDES	PD	10^6 Cells/L		0.033
		%		8
THALASSIOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L	0.029	0.162
		%	9	37
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.022	
		%	7	
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L	0.023	
		%	7	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.073	0.027
		%	23	6

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Table 3-1b. Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, December 17, 1995 - December 19, 1995 (W9517)

Species	Group	Parameter	Nearfield Stations	
			1N10	2N16
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.064	0.085
		%	40	39
CYCLOTELLA SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L	0.008	0.012
		%	5	6
CYLINDROTHECA CLOSTERIUM	PD	10^6 Cells/L	0.011	
		%	7	
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		0.014
		%		6
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.019	0.046
		%	12	21

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

APPENDIX G-1

ABUNDANCE OF ALL IDENTIFIED TAXA IN SCREENED SAMPLES NEAR THE SURFACE

Table 3-2a. Abundance of all identified taxa in screened samples near the surface August 8 - 10, 1995 (W9510)

Species	Group	Nearfield Stations	
		1N10A	1N16A
CERATIUM FUSUS	DF	0.001	0.005
CERATIUM LONGIPES	DF	0.009	0.003
CERATIUM SP.	DF	0.002	
CERATIUM TRIPOS	DF	0.004	0.005
DINOPHYSIS ACUMINATA	DF		
DINOPHYSIS NORVEGICA	DF		0.001
DINOPHYSIS PUNCTATA	DF	0.001	
DIPLOPSALIS SP.	DF		0.001
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF	0.001	
KATODINIUM ROTUNDATUM	DF		
PROTOPERIDINIUM DEPRESSUM	DF		0.001
SCRIPPSIELLA TROCHOIDEA	DF	0.001	
PYRAMIMONAS SP.	MF		
UNID. SILICOFLAGELLATE	MF		
UNID. BLUE GREEN TRICHOME	O	0.044	
UNID. BLUE GREEN TRICHOME (CELL)	O		0.256

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface August 21 - 26, 1995 (W9511)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	3N16A	1F06A	1F27A	1F01A	1F02A
Species	Group													
CERATIUM FUSUS	DF	0.001	0.003	0.001	0.002	0.019	0.001	0.012	0.028	0.023		0.013		
CERATIUM LONGIPES	DF	0.008	0.012	0.004	0.007	0.022	0.003	0.024	0.004	0.035	0.011	0.028		
CERATIUM MACROCEROS	DF													
CERATIUM SP.	DF	0.001												
CERATIUM TRIPOS	DF	0.005	0.003	0.002	0.003	0.005	0.001	0.016	0.009	0.029	0.008	0.038	0.007	0.004
DINOPHYSIS ACUMINATA	DF					0.001					0.001	0.001		
DINOPHYSIS NORVEGICA	DF													0.003
DINOPHYSIS OVUM	DF		0.002											
DINOPHYSIS PUNCTATA	DF													
DIPLOPSALIS LENTICULA	DF		0.009											
DIPLOPSALIS SP.	DF	0.001	0.028	0.018				0.005		0.001				0.001
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.190	0.077		0.035		0.214	0.103		0.233	0.100		
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF	0.004	0.011	0.268	0.001		0.149	0.001			0.003		0.002	
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF		0.005	0.001										
HETEROCAPSA TRIQUETRA	DF		0.006											
KATODINIUM ROTUNDATUM	DF											0.033		
PROROCENTRUM BALTICUM	DF		0.066											
PROROCENTRUM MAXIMUM	DF													0.003
PROROCENTRUM MICANS	DF													
PROROCENTRUM MINIMUM	DF		0.002	0.077			0.001		0.052	0.001				
PROROCENTRUM TRIESTINUM	DF													
PROTOPERIDINIUM DEPRESSUM	DF	0.001			0.001					0.001				
PROTOPERIDINIUM DIVERGENS	DF													0.002
PROTOPERIDINIUM GRANII	DF													
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF	0.073	0.379	0.001			0.149	0.393						0.001
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.020	0.095	0.023				0.004		0.001			0.002	0.001
PROTOPERIDINIUM SP.#3 76-150W 81-150L	DF													
SCRIPPSIELLA TROCHOIDEA	DF	0.007	0.190	0.011				0.178			0.013		0.002	
UNID. DINOFLAGELLATE	DF		0.003											
UNID. DINOFLAGELLATE CYST	DF													
EUGLENA SP.	MF													
EUTREPTIA LANOWII	MF			0.077										
PYRAMIMONAS SP.	MF									0.070				
UNID. CHOANOFLAGELLATE	MF								0.052	0.106		0.017		
UNID. SILICOFLAGELLATE	MF													
ACANTHOICA SP.	O													
DICTYOCHA FIBULA	O													
DISTEPHANUS SPECULUM	O													
EBRIA TRIPARTITA	O													
RHABDOSPHAERA HISPIDA	O					0.104		0.001						
UNID. BLUE GREEN TRICHOME	O		0.003											
UNID. BLUE GREEN TRICHOME (CELL)	O			0.383										

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all screened taxa near the surface September 6 - 8, 1995 and September 11 - 14, 1995 (W9512)

Species	Group	Nearfield Stations	
		1N10A	2N16A
CERATIUM FUSUS	DF	0.013	0.020
CERATIUM LONGIPES	DF	0.017	0.004
CERATIUM MACROCEROS	DF		
CERATIUM TRIPOS	DF	0.019	0.060
DINOPHYSIS NORVEGICA	DF		
DIPLOPSALIS SP.	DF	0.036	0.018
GONYAULAX POLYGRAMMA	DF		0.002
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	0.117	0.103
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF		
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF		
PROROCENTRUM MICANS	DF		
PROTOPERIDINIUM DEPRESSUM	DF		0.002
PROTOPERIDINIUM GRANII	DF		0.002
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.002
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.027	
SCRIPPSIELLA TROCHOIDEA	DF	0.004	0.034
EUTREPTIA SP.	MF		
DICTYOCHA FIBULA	O		
EBRIA TRIPARTITA	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface September 25 - 29, 1995 (W9513)

Species	Group	Nearfield Stations	
		1N10A	1N16A
CERATIUM FUSUS	DF	0.049	0.274
CERATIUM LINEATUM	DF		0.007
CERATIUM LONGIPES	DF	0.023	0.064
CERATIUM MACROCEROS	DF		0.104
CERATIUM TRIPOS	DF	0.061	0.333
DINOPHYSIS ACUMINATA	DF		0.009
DINOPHYSIS NORVEGICA	DF		0.002
DINOPHYSIS SP.	DF		0.002
DIPLOPSALIS SP.	DF	0.003	0.002
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.287
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF		0.002
HETEROCAPSA TRIQUETRA	DF		
PROROCENTRUM BALTICUM	DF		
PROROCENTRUM MAXIMUM	DF		0.014
PROROCENTRUM MICANS	DF		
PROROCENTRUM MINIMUM	DF		0.014
PROTOPERIDINIUM DEPRESSUM	DF		0.005
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.005
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.005	0.005
SCRIPPSIELLA TROCHOIDEA	DF		
UNID. SILICOFLAGELLATE	MF		
EBRIA TRIPARTITA	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface October 9 - 13, 1995 (W9514)

		Harbor Stations			Coastal Stations			Nearfield Stations				Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	1F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	2N16A	3N16A	1F06A	1F27A	1F01A	1F02A
AMPHIDINIUM SPHENOIDES	DF														
CERATIUM FUSUS	DF	0.020	0.063	0.042	0.470	0.042	0.173	0.132	0.127		0.066	0.221	0.084	0.563	0.322
CERATIUM LINEATUM	DF	0.001	0.002	0.003	0.010	0.007	0.011	0.001	0.011		0.005	0.009	0.004	0.010	
CERATIUM LONGIPES	DF	0.009	0.003	0.001	0.050	0.049	0.007	0.048	0.052		0.013	0.011	0.038	0.012	0.107
CERATIUM MACROCEROS	DF											0.009			
CERATIUM SP.	DF	0.006										0.600	0.383	0.517	0.392
CERATIUM TRIPOS	DF	0.025	0.049	0.115	0.651	0.131	0.283	0.217	0.716		0.428	0.010		0.005	
DINOPHYSIS ACUMINATA	DF	0.001	0.001	0.004	0.011		0.003	0.003	0.005		0.001				
DINOPHYSIS CAUDATA	DF														
DINOPHYSIS NORVEGICA	DF	0.001	0.001	0.011	0.011	0.016	0.017	0.003	0.011		0.008	0.008	0.010		
DINOPHYSIS OVUM	DF														
DINOPHYSIS PUNCTATA	DF										0.003				
DINOPHYSIS SP.	DF					0.005	0.001								
DIPLOPSALIS SP.	DF		0.008		0.006	0.012	0.007		0.002		0.001		0.001		
GONYAULAX DIGITALIS	DF														
GONYAULAX POLYGRAMMA	DF			0.001			0.294				0.003				
GONYAULAX SP.	DF				0.005										
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	0.001	0.079	0.001	0.389	0.284		0.181			0.112		0.152	0.121	0.583
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF														
HETEROCAPSA TRIQUETRA	DF														
KATODINIUM ROTUNDATUM	DF	0.425	0.592	0.277	2.235	0.426		0.362				0.536	0.114	0.182	0.097
OXYTOXUM SP.	DF												0.038		
PROROCENTRUM BALTICUM	DF				0.002			0.121							0.097
PROROCENTRUM COMPRESSUM	DF			0.001	0.003		0.001				0.004	0.015	0.014	0.009	
PROROCENTRUM MAXIMUM	DF			0.009	0.069		0.024		0.016		0.012	0.015	0.009	0.547	0.194
PROROCENTRUM MICANS	DF	0.004	0.010	0.007	0.008	0.002	0.010	0.060				0.026	0.004	0.182	0.389
PROROCENTRUM MINIMUM	DF	0.003										0.003			
PROROCENTRUM TRIESTINUM	DF		0.005		0.011		0.001	0.001			0.001	0.016		0.003	
PROTOPERIDINIUM DEPRESSUM	DF	0.001	0.001	0.001	0.002		0.003	0.001	0.005		0.001		0.003	0.002	
PROTOPERIDINIUM DIABOLUM	DF														
PROTOPERIDINIUM PELLUCIDUM	DF														
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF			0.001							0.056			0.003	
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.001	0.003			0.002								0.001	
PROTOPERIDINIUM SP.#3 76-150W 81-150L	DF		0.001												
SCRIPPSIELLA TROCHOIDEA	DF		0.079	0.092	0.097	0.142							0.001		0.002
UNID. DINOFLAGELLATE CYST	DF						0.001								
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF														
PYRAMIMONAS SP.	MF										0.056				
UNID. CHOANOFLAGELLATE	MF														
UNID. MICRO-PHYTOFLAG LENGTH >10 MICRONS	MF														
CALCIOSOLENIA SP.	O				0.292						0.056	0.306		1.336	
CALYCOMONAS WULFII	O														
DICTYOCHA FIBULA	O			0.370	1.069		0.784	0.845	1.247		1.065	1.684	0.379	0.023	
DISTEPHANUS SPECULUM	O	0.128	0.079	0.185		0.284	0.098		0.002			0.077	0.076		
EBRIA TRIPARTITA	O														
EMILIANIA HUXLEYI	O						0.098								
OSCILLATORIA SP. (TRICHOME)	O														
PEDIASTRUM DUPLEX	O														
PEDIASTRUM DUPLEX V. CLATHRATUM	O		0.042												
PSEUDOPEDINELLA PYRIFORME	O		0.039												
RHABDOSPHAERA HISPIDA	O														
SCENEDESMUS QUADRICAUDA	O														
SCENEDESMUS SP.	O	0.006	0.158												
UNID. BLUE GREEN SINGLE SPHERE	O							1.448				3.903		9.051	10.302
UNID. BLUE GREEN TRICHOME	O		0.039												

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface November 1 - 4, 1995 (W9515)

Species	Group	Nearfield Stations	
		1N10A	1N16A
CERATIUM FUSUS	DF	0.005	0.080
CERATIUM LONGIPES	DF	0.005	0.035
CERATIUM TRIPOS	DF	0.047	0.270
DINOPHYSIS ACUMINATA	DF	0.002	0.002
DINOPHYSIS NORVEGICA	DF	0.002	0.002
DIPLOPSALIS SP.	DF		0.006
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		
PROROCENTRUM COMPRESSUM	DF		0.113
PROROCENTRUM MAXIMUM	DF	0.004	0.113
PROROCENTRUM MICANS	DF		0.113
PROROCENTRUM TRIESTINUM	DF		
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.004
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.002	0.004
DICTYOCHA FIBULA	O	0.126	3.955
DISTEPHANUS SPECULUM	O	0.126	2.034
EMILIANIA HUXLEYI	O	0.126	
SCENEDESMUS QUADRICAUDA	O	0.007	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface November 27 - December 5, 1995 (W9516)

Species	Group	Nearfield Stations	
		1N10A	1N16A
CERATIUM FUSUS	DF	0.042	0.081
CERATIUM LINEATUM	DF	0.003	0.001
CERATIUM LONGIPES	DF	0.009	0.006
CERATIUM TRIPOS	DF	0.249	0.178
DINOPHYSIS ACUMINATA	DF	0.002	0.004
DINOPHYSIS NORVEGICA	DF	0.033	0.003
DINOPHYSIS SP.	DF		
PROROCENTRUM COMPRESSUM	DF	0.002	0.005
PROROCENTRUM MAXIMUM	DF	0.003	0.009
PROROCENTRUM TRIESTINUM	DF		0.001
PROTOPERIDINIUM DEPRESSUM	DF	0.002	0.006
PROTOPERIDINIUM PALLIDUM	DF		
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF	0.002	
UNID. DINOFLAGELLATE CYST	DF		
UNID. CHOANOFLAGELLATE	MF	0.084	
DICTYOCHA FIBULA	O	0.293	3.110
DISTEPHANUS SPECULUM	O	0.481	1.788

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2a. Abundance of all identified taxa in screened samples near the surface December 17 - 19, 1995 (W9517)

Species	Group	Nearfield Stations	
		1N10A	2N16A
CERATIUM FUSUS	DF	0.006	0.025
CERATIUM LINEATUM	DF		0.012
CERATIUM LONGIPES	DF	0.001	0.005
CERATIUM SP.	DF	0.002	0.002
CERATIUM TRIPOS	DF	0.038	0.083
DINOPHYSIS ACUMINATA	DF		0.007
DINOPHYSIS CAUDATA	DF		0.001
DINOPHYSIS NORVEGICA	DF		0.004
PROROCENTRUM COMPRESSUM	DF	0.001	0.001
PROROCENTRUM MAXIMUM	DF		0.001
PROROCENTRUM MICANS	DF		0.015
PROROCENTRUM TRIESTINUM	DF	0.002	0.003
PROTOPERIDINIUM DEPRESSUM	DF	0.002	0.004
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.001
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		0.002
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF		
DICTYOCHA FIBULA	O		0.046
DISTEPHANUS SPECULUM	O	0.032	0.334
EBRIA TRIPARTITA	O		0.015
UNID. COCCOLITHOPHORE	O	0.032	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

APPENDIX G-2

ABUNDANCE OF ALL IDENTIFIED TAXA IN SCREENED SAMPLES NEAR THE CHLOROPHYLL MAXIMUM

Table 3-2b. Abundance of all identified taxa in screened samples near the Chlorophyll maximum August 8 - 10, 1995 (W9510)

Species	Group	Nearfield Stations	
		1N10C	1N16C
CERATIUM FUSUS	DF	0.003	0.010
CERATIUM LONGIPES	DF	0.034	0.155
CERATIUM SP.	DF		
CERATIUM TRIPOS	DF	0.010	0.016
DINOPHYSIS ACUMINATA	DF		0.001
DINOPHYSIS NORVEGICA	DF		0.001
DINOPHYSIS PUNCTATA	DF	0.001	
DIPLOPSALIS SP.	DF		
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.019
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF		
KATODINIUM ROTUNDATUM	DF		0.038
PROTOPERIDINIUM DEPRESSUM	DF		0.001
SCRIPPSIELLA TROCHOIDEA	DF		
PYRAMIMONAS SP.	MF	0.028	
UNID. SILICOFLAGELLATE	MF		0.395
UNID. BLUE GREEN TRICHOME	O	0.001	
UNID. BLUE GREEN TRICHOME (CELL)	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near the Chlorophyll maximum August 21 - 26, 1995 (W9511)

Species	Group	Harbor Stations			Coastal Stations			Nearfield Stations				Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23C	1F30C	1F31C	1F13C	1F24C	1F25C	1N10C	1N16C	2N16C	3N16C	1F06C	1F27C	1F01C	1F02C
CERATIUM FUSUS	DF	0.002	0.002	0.001	0.006	0.012	0.005	0.007	0.011		0.017	0.001	0.002	0.003	0.003
CERATIUM LONGIPES	DF	0.006	0.014	0.012	0.007	0.024	0.055	0.006	0.185		0.129	0.034	0.314	0.021	0.021
CERATIUM MACROCEROS	DF								0.017						
CERATIUM SP.	DF				0.002	0.003									
CERATIUM TRIPOS	DF	0.009		0.002	0.008	0.044	0.014	0.017	0.018		0.031	0.010	0.126	0.007	0.003
DINOPHYSIS ACUMINATA	DF						0.008		0.001		0.007		0.001		
DINOPHYSIS NORVEGICA	DF							0.001			0.004				
DINOPHYSIS OVUM	DF														
DINOPHYSIS PUNCTATA	DF											0.001	0.001		
DIPLOPSALIS LENTICULA	DF														
DIPLOPSALIS SP.	DF		0.025	0.009			0.006	0.034			0.001		0.001		
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.474						0.334			0.041	0.180	0.087	
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF			0.131										0.044	
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF													0.001	
HETEROCAPSA TRIQUETRA	DF														
KATODINIUM ROTUNDATUM	DF														
PROROCENTRUM BALTICUM	DF														
PROROCENTRUM MAXIMUM	DF										0.001				
PROROCENTRUM MICANS	DF		0.002											0.001	
PROROCENTRUM MINIMUM	DF		0.190	0.098					0.001						
PROROCENTRUM TRIESTINUM	DF		0.095												
PROTOPERIDINIUM DEPRESSUM	DF	0.001		0.002	0.001		0.001	0.001			0.003	0.013	0.001		
PROTOPERIDINIUM DIVERGENS	DF														
PROTOPERIDINIUM GRANII	DF							0.034							
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF	0.001	1.137			0.001		0.862			0.045			0.001	
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		0.009	0.024			0.015				0.004	0.007			
PROTOPERIDINIUM SP.#3 76-150W 81-150L	DF										0.001				
SCRIPPSIELLA TROCHOIDEA	DF		0.095	0.163		0.001	0.070	0.001			0.001	0.007			0.001
UNID. DINOFLAGELLATE	DF														0.001
UNID. DINOFLAGELLATE CYST	DF					0.002		0.001							
EUGLENA SP.	MF			0.098											
EUTREPTIA LANOWII	MF						0.070								
PYRAMIMONAS SP.	MF														
UNID. CHOANOFLAGELLATE	MF								0.030				0.045		
UNID. SILICOFLAGELLATE	MF										0.045				
ACANTHOICA SP.	O												0.022		
DICTYOCHA FIBULA	O							0.034							
DISTEPHANUS SPECULUM	O					0.001							0.045		
EBRIA TRIPARTITA	O			0.001			0.001							0.001	
RHABDOSPHAERA HISPIDA	O					0.001									
UNID. BLUE GREEN TRICHOME	O				0.001	0.001									
UNID. BLUE GREEN TRICHOME (CELL)	O														

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near the Chlorophyll maximum September 6 - 8, 1995 and September 11 - 14, 1995 (W9512)

Species	Group	Nearfield Stations	
		1N10C	2N16C
CERATIUM FUSUS	DF	0.013	0.011
CERATIUM LONGIPES	DF	0.014	0.047
CERATIUM MACROCEROS	DF	0.009	0.002
CERATIUM TRIPOS	DF	0.009	0.018
DINOPHYSIS NORVEGICA	DF	0.002	
DIPLOPSALIS SP.	DF	0.007	0.002
GONYAULAX POLYGRAMMA	DF		
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.136
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF		0.011
GYMNODINIUM SP.#3 41-70UM W 51-70UM L	DF		0.002
PROROCENTRUM MICANS	DF	0.002	
PROTOPERIDINIUM DEPRESSUM	DF	0.002	0.004
PROTOPERIDINIUM GRANII	DF		
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.002
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF	0.011	0.022
SCRIPPSIELLA TROCHOIDEA	DF	0.002	0.007
EUTREPTIA SP.	MF		0.136
DICTYOCHA FIBULA	O		0.007
EBRIA TRIPARTITA	O		0.002

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near Chlorophyll maximum September 25 - 29, 1995 (W9513)

Species	Group	Nearfield Stations	
		1N10C	1N16 B
CERATIUM FUSUS	DF	0.050	0.209
CERATIUM LINEATUM	DF		0.007
CERATIUM LONGIPES	DF	0.009	0.109
CERATIUM MACROCEROS	DF		0.075
CERATIUM TRIPOS	DF	0.074	0.273
DINOPHYSIS ACUMINATA	DF		0.002
DINOPHYSIS NORVEGICA	DF		0.002
DINOPHYSIS SP.	DF		
DIPLOPSALIS SP.	DF	0.006	
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF		
HETEROCAPSA TRIQUETRA	DF	0.004	
PROROCENTRUM BALTICUM	DF	0.002	0.011
PROROCENTRUM MAXIMUM	DF	0.226	
PROROCENTRUM MICANS	DF		0.004
PROROCENTRUM MINIMUM	DF	0.006	0.016
PROTOPERIDINIUM DEPRESSUM	DF		0.002
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		0.002
SCRIPPSIELLA TROCHOIDEA	DF		0.002
UNID. SILICOFLAGELLATE	MF		0.539
EBRIA TRIPARTITA	O	0.002	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near Chlorophyll maximum October 9 - 13, 1995 (W9514)

Species	Group	Harbor Stations 1F23C	Coastal Stations 1F13B	Coastal Stations 1F24B	Nearfield Stations 1N18B	Offshore Stations 1F06C	Boundary Stations 1F27B	Cape Cod Bay Stations 1F01C	Cape Cod Bay Stations 1F02B
AMPHIDINIUM SPHENOIDES	DF								0.097
CERATIUM FUSUS	DF	0.027	0.358	0.054	0.038	0.230	0.015	0.558	0.531
CERATIUM LINEATUM	DF		0.113	0.008		0.008		0.008	0.003
CERATIUM LONGIPES	DF	0.002	0.060	0.008	0.048	0.062	0.002	0.009	0.069
CERATIUM MACROCEROS	DF		0.021						
CERATIUM SP.	DF					0.054			0.019
CERATIUM TRIPOS	DF	0.090	0.453	0.166	0.372	0.565	0.061	0.606	0.586
DINOPHYSIS ACUMINATA	DF			0.002	0.004	0.004		0.006	0.097
DINOPHYSIS CAUDATA	DF		0.001						
DINOPHYSIS NORVEGICA	DF		0.007	0.019	0.008	0.006	0.001	0.002	
DINOPHYSIS OVUM	DF		0.024						
DINOPHYSIS PUNCTATA	DF								
DINOPHYSIS SP.	DF				0.004				
DIPLOPSALIS SP.	DF		0.002			0.001			0.003
GONYAULAX DIGITALIS	DF							0.001	
GONYAULAX POLYGRAMMA	DF							0.003	
GONYAULAX SP.	DF								
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF		0.565		1.021	0.467	0.034	0.078	0.389
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF		0.001						
HETEROCAPSA TRIQUETRA	DF		0.038						
KATODINIUM ROTUNDATUM	DF		1.017	0.530	2.211	0.175		0.076	0.389
OXYTOXUM SP.	DF			0.265	0.085				
PROROCENTRUM BALTICUM	DF								
PROROCENTRUM COMPRESSUM	DF			0.012	0.002	0.009	0.001	0.029	0.010
PROROCENTRUM MAXIMUM	DF	0.002	0.058	0.017		0.233	0.006	0.245	0.194
PROROCENTRUM MICANS	DF		0.006	0.010	0.006	0.058		0.013	0.027
PROROCENTRUM MINIMUM	DF								
PROROCENTRUM TRIESTINUM	DF		0.010						0.013
PROTOPERIDINIUM DEPRESSUM	DF	0.002	0.003	0.006		0.003	0.001	0.001	
PROTOPERIDINIUM DIABOLUM	DF							0.001	
PROTOPERIDINIUM PELLUCIDUM	DF						0.001		
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		0.038			0.001	0.001	0.001	0.006
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		0.002			0.001			0.003
PROTOPERIDINIUM SP.#3 76-150W 81-150L	DF								
SCRIPPSIELLA TROCHOIDEA	DF		0.075		0.085			0.078	0.002
UNID. DINOFLAGELLATE CYST	DF	0.003					0.001		
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF								
PYRAMIMONAS SP.	MF								
UNID. CHOANOFLAGELLATE	MF						0.034		
UNID. MICRO-PHYTOFLAG LENGTH >10 MICRONS	MF						0.034		
CALCIOSOLENIA SP.	O					0.408		1.366	1.361
CALYCOMONAS WULFII	O				0.255	0.117			
DICTYOCHA FIBULA	O	0.323		0.265	1.106	0.700	0.006	0.152	0.389
DISTEPHANUS SPECULUM	O	0.108	0.753	0.008		0.058	0.001	0.001	
EBRIA TRIPARTITA	O								
EMILIANIA HUXLEYI	O			0.002					
OSCILLATORIA SP. (TRICHOME)	O								
PEDIASTRUM DUPLEX	O								
PEDIASTRUM DUPLEX V. CLATHRATUM	O								
PSEUDOPEDINELLA PYRIFORME	O								
RHABDOSPHAERA HISPIDA	O						0.001		
SCENEDESMUS QUADRICAUDA	O			0.008					
SCENEDESMUS SP.	O								
UNID. BLUE GREEN SINGLE SPHERE	O		1.243		6.273	3.441			7.873
UNID. BLUE GREEN TRICHOME	O								

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near Chlorophyll maximum November 1 - 4, 1995 (W9515)

Species	Group	Nearfield Stations	
		1N10C	1N16C
CERATIUM FUSUS	DF	0.005	0.004
CERATIUM LONGIPES	DF	0.002	0.004
CERATIUM TRIPOS	DF	0.027	0.111
DINOPHYSIS ACUMINATA	DF		
DINOPHYSIS NORVEGICA	DF		
DIPLOPSALIS SP.	DF		
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	0.092	
PROROCENTRUM COMPRESSUM	DF		0.001
PROROCENTRUM MAXIMUM	DF	0.008	0.010
PROROCENTRUM MICANS	DF		
PROROCENTRUM TRIESTINUM	DF	0.002	
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		
DICTYOCHA FIBULA	O	0.092	0.099
DISTEPHANUS SPECULUM	O	0.185	0.013
EMILIANIA HUXLEYI	O		
SCENEDESMUS QUADRICAUDA	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near the Chlorophyll Maximum November 27 - December 5, 1995 (W9516)

Species	Group	Nearfield Stations	
		1N10C	1N16C
CERATIUM FUSUS	DF	0.031	0.071
CERATIUM LINEATUM	DF	0.003	0.006
CERATIUM LONGIPES	DF	0.017	0.010
CERATIUM TRIPOS	DF	0.273	0.325
DINOPHYSIS ACUMINATA	DF	0.001	0.004
DINOPHYSIS NORVEGICA	DF	0.004	0.006
DINOPHYSIS SP.	DF	0.001	
PROROCENTRUM COMPRESSUM	DF	0.001	0.012
PROROCENTRUM MAXIMUM	DF	0.007	0.022
PROROCENTRUM TRIESTINUM	DF		0.004
PROTOPERIDINIUM DEPRESSUM	DF		0.001
PROTOPERIDINIUM PALLIDUM	DF	0.001	
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		
UNID. DINOFLAGELLATE CYST	DF	0.003	
UNID. CHOANOFLAGELLATE	MF		
DICTYOCHA FIBULA	O	0.702	1.524
DISTEPHANUS SPECULUM	O	1.794	1.524

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Table 3-2b. Abundance of all identified taxa in screened samples near the Chlorophyll maximum December 17 - 19, 1995 (W9517)

Species	Group	Nearfield Stations	
		1N10C	2N16C
CERATIUM FUSUS	DF	0.007	0.016
CERATIUM LINEATUM	DF		0.003
CERATIUM LONGIPES	DF	0.001	0.001
CERATIUM SP.	DF	0.001	
CERATIUM TRIPOS	DF	0.042	0.056
DINOPHYSIS ACUMINATA	DF	0.002	0.004
DINOPHYSIS CAUDATA	DF	0.001	
DINOPHYSIS NORVEGICA	DF	0.008	0.002
PROROCENTRUM COMPRESSUM	DF		
PROROCENTRUM MAXIMUM	DF	0.003	0.001
PROROCENTRUM MICANS	DF	0.001	
PROROCENTRUM TRIESTINUM	DF		
PROTOPERIDINIUM DEPRESSUM	DF	0.001	0.001
PROTOPERIDINIUM SP.#1 10-30W 10-40L	DF		
PROTOPERIDINIUM SP.#2 31-75W 41-80L	DF		0.001
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF		0.022
DICTYOCHA FIBULA	O	0.173	
DISTEPHANUS SPECULUM	O	0.089	0.197
EBRIA TRIPARTITA	O		
UNID. COCCOLITHOPHORE	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

APPENDIX H

ZOOPLANKTON SPECIES DATA

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9510	ACARTIA TONSA	C	C											686				
W9510	ACARTIA TONSA	F	C											171				
W9510	BIVALVIA SPP.	L	O											1714	1585			
W9510	CENTROPAGES TYPICUS	C	C											343	528			
W9510	CENTROPAGES TYPICUS	M	C											343	132			
W9510	COPEPOD SPP.	-	C											171				
W9510	COPEPOD SPP.	C	C											171	132			
W9510	COPEPOD SPP.	N	C											22457	20739			
W9510	CRUSTACEA:UNIDED CRUSTACEAN	-	O												132			
W9510	EURYTEMORA HERDMANI	C	C											1371				
W9510	EURYTEMORA HERDMANI	F	C											514				
W9510	EURYTEMORA HERDMANI	M	C											171				
W9510	METRIDIA LUCENS	C	C												132			
W9510	METRIDIA LUCENS	F	C											171				
W9510	MICROSETELLA NORVEGICA	-	C											171	264			
W9510	OITHONA SIMILIS CLAUS	C	C											16800	12153			
W9510	OITHONA SIMILIS CLAUS	F	C											4629	2246			
W9510	OITHONA SIMILIS CLAUS	M	C											514	528			
W9510	PODON SPP.	-	O											343				
W9510	POLYCHAETE SPP.	-	O											343				
W9510	POLYCHAETE SPP.	T	O											171				
W9510	PSEUDOCALANUS NEWMANI	C	C											5486	2774			
W9510	PSEUDOCALANUS NEWMANI	F	C											1200	2246			
W9510	PSEUDOCALANUS NEWMANI	M	C											171	396			
W9510	TEMORA LONGICORNIS	C	C											1886	396			
W9510	TEMORA LONGICORNIS	F	C											514	132			
W9510	TEMORA LONGICORNIS	M	C											1029	396			
W9510	UNIDENTIFIED LARVAE	L	O												132			
W9511	ACARTIA HUDSONICA	C	C				62	4819		449		4800	1621	2651				
W9511	ACARTIA HUDSONICA	F	C					912				300		442				
W9511	ACARTIA HUDSONICA	M	C				62	521		128		1500	232	442				
W9511	ACARTIA TONSA	C	C	359	176	1176	744	3256	1943	1155	242	22500	10189	4713				
W9511	ACARTIA TONSA	F	C	135	59		62	1563	648	128		900	1853	442				
W9511	ACARTIA TONSA	M	C	359	351		124	521		64		1800	1621	442	116			
W9511	BIVALVIA SPP.	L	O	90	234	1176	62	1953	24615	3081	181	2100	6252	3829	463			2435
W9511	BRYOZOA SPP.	-	O			471				64			695	442				
W9511	CALANUS FINMARCHICUS	C	C	45	59										116			
W9511	CALANUS FINMARCHICUS	F	C	45														
W9511	CALANUS FINMARCHICUS	M	C		176	235									232			

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9511	CENTROPAGES TYPICUS	C	C	224	1404	471	1178		648		1391			1031	463			913
W9511	CENTROPAGES TYPICUS	F	C			235	434				181				347			913
W9511	CENTROPAGES TYPICUS	M	C		117	235	496				786			295	116			609
W9511	CIRRIPEDE SPP.	N	B				186					300						
W9511	COPEPOD SPP.	-	C	90	59	235		521	1296			300						3044
W9511	COPEPOD SPP.	C	C	45		3294			12955	385	847							4262
W9511	COPEPOD SPP.	N	C	2467	3569	34118	6509	31256		10012	5322	51600	25009	32105	9379			30139
W9511	CRUSTACEA;UNIDED CRUSTACEAN	-	O			235		130	648									
W9511	EURYTEMORA HERDMANI	C	C								60							
W9511	GASTROPODA;MOLLUSCA	L	O		117			521	648		121	600	695	295	116			304
W9511	HARPACTICOIDA SPP.	-	C					130				300						
W9511	METRIDIA LUCENS	C	C												232			913
W9511	MICROSETELLA NORVEGICA	-	C	404	117	235		260	5830	64	726	300			232			609
W9511	OIKOPLEURA DIOICA	-	O	224	936	235												
W9511	OITHONA ATLANTICA	-	C			706												
W9511	OITHONA SIMILIS CLAUS	-	C	179	59	235												
W9511	OITHONA SIMILIS CLAUS	C	C	2511	3861	24471	2913	2474	40161	1797	7015	2700	2084	4565	9842			27703
W9511	OITHONA SIMILIS CLAUS	F	C	404	1404	12471	992	260	6478	642	3870	600	463	1325	2895			17353
W9511	OITHONA SIMILIS CLAUS	M	C		59	2353	186		3239	257	181	300	463	442	695			1827
W9511	PARACALANUS PARVUS	C	C		59		992				1149		463	442				3653
W9511	PARACALANUS PARVUS	F	C				124				242		232					2131
W9511	PARACALANUS PARVUS	M	C		59		248			64	121		232	147				1522
W9511	PODON POLYPHEMOIDES	-	O					130										
W9511	PODON SPP.	-	O				186					1500						
W9511	POLYCHAETE SPP.	L	O		761			781		449		1200	695	295				
W9511	PSEUDOCALANUS NEWMANI	C	C	2825	1229	1412	186	1172	9716	385	605	1200			3011			609
W9511	PSEUDOCALANUS NEWMANI	F	C	897	234	1176		1042	5182	128	60				232			609
W9511	PSEUDOCALANUS NEWMANI	M	C		59			391	1298	64	242		232		116			304
W9511	TEMORA LONGICORNIS	C	C	179	234	3059	62	260	1943	193	181	300	695	295				1218
W9511	TEMORA LONGICORNIS	F	C		59	1176		391			60				232			609
W9511	TEMORA LONGICORNIS	M	C	45		3059		260	1296						116			304
W9511	UNIDENTIFIED LARVAE	L	O	45					4534	64	121	300	695	147				1218
W9512	ACARTIA HUDSONICA	M	C											104				
W9512	ACARTIA TONSA	C	C											5415			2021	
W9512	ACARTIA TONSA	F	C											2812			713	
W9512	ACARTIA TONSA	M	C											3020			832	
W9512	BIVALVIA SPP.	L	O											2708			1189	
W9512	BRYOZOA SPP.	-	O											312			238	
W9512	CENTROPAGES TYPICUS	C	C														951	

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9512	CENTROPAGES TYPICUS	F	C														238	
W9512	CENTROPAGES TYPICUS	M	C														119	
W9512	COPEPOD SPP.	-	C											417				
W9512	COPEPOD SPP.	C	C											417			951	
W9512	COPEPOD SPP.	N	C											6144			15808	
W9512	CRUSTACEA:UNIDED CRUSTACEAN	-	O											312				
W9512	ECHINODERM PLUTEI	-	O														119	
W9512	EURYTEMORA HERDMANI	C	C														119	
W9512	GASTROPODA;MOLLUSCA	L	O											1041				
W9512	HARPACTICOIDA SPP.	-	C											104				
W9512	MEDUSA	-	O											208			119	
W9512	METRIDIA LUCENS	-	C											208				
W9512	MICROSETELLA NORVEGICA	-	C											833			238	
W9512	OIKOPLEURA DIOICA	-	O											3645			7607	
W9512	OITHONA SIMILIS CLAUS	-	C														238	
W9512	OITHONA SIMILIS CLAUS	C	C											3020			2734	
W9512	OITHONA SIMILIS CLAUS	F	C											1250			951	
W9512	OITHONA SIMILIS CLAUS	M	C											312			594	
W9512	PARACALANUS PARVUS	C	C														951	
W9512	PARACALANUS PARVUS	F	C											104			119	
W9512	PARACALANUS PARVUS	M	C														119	
W9512	PODON SPP.	-	O											208				
W9512	POLYCHAETE SPP.	L	O											521				
W9512	POLYCHAETE SPP.	T	O											104				
W9512	PSEUDOCALANUS NEWMANI	C	C											521			119	
W9512	PSEUDOCALANUS NEWMANI	F	C											729				
W9512	TEMORA LONGICORNIS	C	C											208				
W9512	TEMORA LONGICORNIS	F	C											104				
W9512	UNIDENTIFIED LARVAE	L	O											104			357	
W9513	ACARTIA TONSA	C	C												746			
W9513	ACARTIA TONSA	M	C												166			
W9513	BIVALVIA SPP.	-	O												22204			
W9513	BRYOZOA SPP.	-	O												249			
W9513	CALANUS FINMARCHICUS	C	C												83			
W9513	CENTROPAGES TYPICUS	C	C												911			
W9513	COPEPOD SPP.	-	C												83			
W9513	COPEPOD SPP.	C	C												414			
W9513	COPEPOD SPP.	N	C												4060			
W9513	ECHINODERM PLUTEI	-	O												166			

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9513	EURYTEMORA HERDMANI	C	C												249			
W9513	GASTROPODA;MOLLUSCA	L	O												249			
W9513	MICROSETELLA NORVEGICA	-	C												580			
W9513	OIKOPLEURA DIOICA	-	O												2154			
W9513	OITHONA ATLANTICA	-	C												166			
W9513	OITHONA SIMILIS CLAUS	C	C												4391			
W9513	OITHONA SIMILIS CLAUS	F	C												663			
W9513	OITHONA SIMILIS CLAUS	M	C												331			
W9513	PARACALANUS PARVUS	C	C												331			
W9513	PARACALANUS PARVUS	M	C												83			
W9513	PSEUDOCALANUS NEWMANI	C	C												83			
W9513	PSEUDOCALANUS NEWMANI	F	C												83			
W9513	PSEUDOCALANUS NEWMANI	M	C												83			
W9513	TEMORA LONGICORNIS	C	C												166			
W9513	UNIDENTIFIED LARVAE	L	O												663			
W9514	ACARTIA HUDSONICA	C	C					251	186									
W9514	ACARTIA HUDSONICA	F	C					125										
W9514	ACARTIA HUDSONICA	M	C												140			
W9514	ACARTIA TONSA	C	C	492	384	216		2824	931	2962	188	3583		563	701			301
W9514	ACARTIA TONSA	F	C		128	216		816	466	987		156		282	280			
W9514	ACARTIA TONSA	M	C	1476	256	216		627	1025	889	188	260		1056				151
W9514	ALTEUTHA DEPRESSA	-	C									52						
W9514	ASCIDIAN SPP.	L	O									52						
W9514	BIVALVIA SPP.	-	O	36402														
W9514	BIVALVIA SPP.	L	O		11904	4104		1192	8476	14414	2638	2025		3731	1402			3013
W9514	BRYOZOA SPP.	-	O	984		216				197	188	104		70	280			301
W9514	CALANUS FINMARCHICUS	C	C								283				140			151
W9514	CALANUS FINMARCHICUS	M	C								94							
W9514	CENTROPAGES TYPICUS	C	C	6887	1920	5400		1380	2794	1678	4900	156		4224	12200			17477
W9514	CENTROPAGES TYPICUS	F	C	492	640	432		188	186	99	283			634	280			301
W9514	CENTROPAGES TYPICUS	M	C	984	512	864		251	466	494				774	140			603
W9514	COPEPOD SPP.	-	C	492	128	432		251	186	395	471	52		282	140			151
W9514	COPEPOD SPP.	C	C	492	896	864		314	466	494	565	52		493				452
W9514	COPEPOD SPP.	N	C	37878	23424	19872		3388	2701	5134	15735	11527		7744	21454			27120
W9514	CRUSTACEA:UNIDED CRUSTACEAN	-	O		256	648				99					140			
W9514	ECHINODERM PLUTEI	-	O	492					93									
W9514	EURYTEMORA HERDMANI	C	C					188				260						
W9514	EURYTEMORA HERDMANI	F	C								94							
W9514	EURYTEMORA HERDMANI	M	C												140			

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9514	EVADNE SPP.	-	O	5411		216		502	1118	1283	94	675		1126				
W9514	GASTROPODA;MOLLUSCA	L	O		256			627		987	283	727		70	280			
W9514	HARPACTICOIDA SPP.	-	C		128	648		188	186			104						
W9514	MEDUSA	-	O		512	216			93	99		52		70				151
W9514	MICROSETELLA NORVEGICA	-	C	984	512	1080		125	279	494	848			282	140			
W9514	OIKOPLEURA DIOICA	-	O	492	768	864		125	373	99		104		70	140			
W9514	OITHONA ATLANTICA	-	C	492							188	52						
W9514	OITHONA ATLANTICA	C	C												140			
W9514	OITHONA SIMILIS CLAUS	-	C												280			151
W9514	OITHONA SIMILIS CLAUS	C	C	11806	5120	9936		753	2049	3060	7632	779		2323	14724			11752
W9514	OITHONA SIMILIS CLAUS	F	C	3935	1280	4968		565	931	1283	1696	363		1197	3365			2712
W9514	OITHONA SIMILIS CLAUS	M	C		256	1080		125	93	691	283	104		141	421			151
W9514	PARACALANUS PARVUS	C	C	1476	1408	864				99	377			282	421			603
W9514	PARACALANUS PARVUS	F	C	984	128			63	93	494	1131			70				151
W9514	PARACALANUS PARVUS	M	C	984	128	432			93		94			141	140			301
W9514	PENILIA AVIROSTRIS	-	O	4919						99		52		70				
W9514	PODON SPP.	-	O					63				467						
W9514	POLYCHAETE SPP.	L	O	2952	384	216		627		395		2337						151
W9514	PSEUDOCALANUS NEWMANI	C	C		128			63	93		94				701			301
W9514	PSEUDOCALANUS NEWMANI	F	C						93		754			70	140			452
W9514	TEMORA LONGICORNIS	C	C		128	216			186	494	94	260						
W9514	TEMORA LONGICORNIS	F	C							99				70				301
W9514	TEMORA LONGICORNIS	M	C		128					99	94			211				
W9514	UNIDENTIFIED LARVAE	L	O	492		648		188	559	395		415		70	421			151
W9515	ACARTIA HUDSONICA	M	C											52				
W9515	ACARTIA TONSA	C	C											208	279			
W9515	ACARTIA TONSA	F	C											156				
W9515	ACARTIA TONSA	M	C											208				
W9515	BIVALVIA SPP.	L	O											3436	11517			
W9515	BRYOZOA SPP.	-	O											104				
W9515	CENTROPAGES TYPICUS	C	C											625	650			
W9515	CENTROPAGES TYPICUS	F	C												93			
W9515	COPEPOD SPP.	-	C											364				
W9515	COPEPOD SPP.	C	C											469	464			
W9515	COPEPOD SPP.	N	C											4738	23405			
W9515	EURYTEMORA HERDMANI	C	C											52				
W9515	EVADNE SPP.	-	O											625	464			
W9515	GASTROPODA;MOLLUSCA	L	O											729	93			
W9515	HARPACTICOIDA SPP.	-	C											208				

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9515	HYDROZOA SPP.	-	O											52				
W9515	MICROSETELLA NORVEGICA	-	C											521	743			
W9515	OIKOPLEURA DIOICA	-	O											104	1300			
W9515	OITHONA ATLANTICA	F	C												93			
W9515	OITHONA SIMILIS CLAUS	C	C											1614	2972			
W9515	OITHONA SIMILIS CLAUS	F	C											573	557			
W9515	OITHONA SIMILIS CLAUS	M	C											52	186			
W9515	POLYCHAETE SPP.	-	O											52				
W9515	POLYCHAETE SPP.	L	O											312				
W9515	PSEUDOCALANUS NEWMANI	C	C											417				
W9515	PSEUDOCALANUS NEWMANI	F	C											156				
W9515	PSEUDOCALANUS NEWMANI	M	C											260				
W9515	TEMORA LONGICORNIS	C	C											312				
W9515	TEMORA LONGICORNIS	M	C											52				
W9515	UNIDENTIFIED LARVAE	L	O											52	93			
W9516	ACARTIA TONSA	C	C											26			83	
W9516	ACARTIA TONSA	F	C											52				
W9516	ACARTIA TONSA	M	C											26				
W9516	BIVALVIA SPP.	L	O											3185			2241	
W9516	BRYOZOA SPP.	-	O											26			83	
W9516	CENTROPAGES TYPICUS	C	C											209			1494	
W9516	CENTROPAGES TYPICUS	F	C											26				
W9516	COPEPOD SPP.	-	C											52			166	
W9516	COPEPOD SPP.	C	C											157			664	
W9516	COPEPOD SPP.	N	C											4125			15936	
W9516	ECHINODERM PLUTEI	-	O														83	
W9516	GASTROPODA;MOLLUSCA	L	O											183			664	
W9516	HARPACTICOIDA SPP.	-	C														83	
W9516	MICROSETELLA NORVEGICA	-	C											78			830	
W9516	OITHONA ATLANTICA	-	C														83	
W9516	OITHONA SIMILIS CLAUS	C	C											1018			3071	
W9516	OITHONA SIMILIS CLAUS	F	C											470			1079	
W9516	OITHONA SIMILIS CLAUS	M	C											52			83	
W9516	PARACALANUS PARVUS	F	C											26			166	
W9516	PARACALANUS PARVUS	M	C											26				
W9516	POLYCHAETE SPP.	L	O											104				
W9516	PSEUDOCALANUS NEWMANI	C	C														166	
W9516	PSEUDOCALANUS NEWMANI	F	C														332	
W9516	PSEUDOCALANUS NEWMANI	M	C														83	

TABLE A3

Zooplankton Species Data (ind/m^3)

W9510 - W9517

Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9516	TEMORA LONGICORNIS	C	C											26				
W9516	TEMORA LONGICORNIS	F	C														83	
W9516	TEMORA LONGICORNIS	M	C											26				
W9517	ACARTIA TONSA	C	C											-			63	
W9517	BIVALVIA SPP.	L	O											576			251	
W9517	BRYOZOA SPP.	-	O											58			63	
W9517	CENTROPAGES TYPICUS	C	C											461			502	
W9517	CENTROPAGES TYPICUS	F	C											144			63	
W9517	CENTROPAGES TYPICUS	M	C											115				
W9517	COPEPOD SPP.	-	C											58			63	
W9517	COPEPOD SPP.	C	C											173			126	
W9517	COPEPOD SPP.	N	C											7436			12497	
W9517	GASTROPODA;MOLLUSCA	L	O														63	
W9517	HARPACTICOIDA SPP.	-	C											29				
W9517	MICROSETELLA NORVEGICA	-	C											404			188	
W9517	OIKOPLEURA DIOICA	-	O														314	
W9517	OITHONA ATLANTICA	-	C														63	
W9517	OITHONA SIMILIS CLAUS	C	C											2853			4208	
W9517	OITHONA SIMILIS CLAUS	F	C											951			754	
W9517	OITHONA SIMILIS CLAUS	M	C											115				
W9517	PARACALANUS PARVUS	C	C											86			126	
W9517	PARACALANUS PARVUS	F	C														63	
W9517	POLYCHAETE SPP.	L	O											29				
W9517	PSEUDOCALANUS NEWMANI	C	C											115				
W9517	PSEUDOCALANUS NEWMANI	F	C											58				
W9517	PSEUDOCALANUS NEWMANI	M	C											58				
W9517	TEMORA LONGICORNIS	C	C											29				
W9517	UNIDENTIFIED LARVAE	L	O											86			63	

Life Stage Definitions:

C	Copepodite stages I-V
F	Copepoda adult female
L	Larva
M	Copepoda adult male
N	Nauplii
T	Trochophore (larval stage of polychaete
Y	Cypris Larva of Barnacle

Group Definitions:

B	Barnacle
C	Copepod
OZ	Other Zooplankton