

Ocean Ecology Data Report: Coastal Waters Off Southwest Vancouver Island. Spring and Summer 1980.

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Sidney, B.C. V8L 4B2

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Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences*, Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêchés et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

Canadian Data Report of
Hydrography and Ocean Science No. 4.

1982

OCEAN ECOLOGY DATA REPORT:
COASTAL WATERS OFF SOUTHWEST VANCOUVER ISLAND.
SPRING AND SUMMER 1980.

by

S. Hill, K. Denman, D. Mackas and H. Sefton.

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ABSTRACT

Hill, S., K. Denman, D. Mackas, H. Sefton, 1982. Ocean Ecology Data Report: Coastal Waters off Southwest Vancouver Island. Spring and Summer 1980. Can. Data Rep. Hydrogr. Ocean Sci. 4: 103 p.

The results of a 1980 sampling program in coastal waters off the southwest coast of Vancouver Island are presented, including physical, chemical and biological data from analysis of bottle samples collected with an integrated vertical profiler, and zooplankton counts from vertical net hauls.

RÉSUMÉ

Hill, S., K. Denman, D. Mackas, H. Sefton, 1982. Ocean Ecology Data Report: Coastal Waters off Southwest Vancouver Island. Spring and Summer 1980. Can. Data Rep. Hydrogr. Ocean Sci. 4: 103 p.

Les résultats d'une étude des eaux côtières du sud-ouest de l'île de Vancouver sont présentés. On inclus les données physiques, chimiques et biologiques de l'analyse des échantillons d'eau recueillis durant les profile verticaux, et les comptes de zooplankton recueillis avec les coups de filet verticaux.

Acknowledgements

The authors wish to acknowledge Seakem Oceanography Ltd., for the nutrient analyses; J. Acreman (through Seakem Oceanography) and R. Waters (through EVS Consultants Ltd.), for phytoplankton counts; B. Smith and L. Benson for drafting and assistance in manuscript preparation, and Chart Production for providing photographic reductions of our figures and maps. Finally we wish to thank the officers and crew of all the ships used in this research programme.

Introduction

During the spring and summer of 1980, 2 research cruises in the area of Juan de Fuca Strait and the coastal waters off the southwest coast of Vancouver Island were undertaken by the Ocean Ecology group at the Institute of Ocean Sciences (IOS). The purpose of these cruises was to locate persistent areas of high planktonic biomass and productivity and to investigate oceanographic processes responsible for these areas of high productivity. On these cruises, physical, chemical and biological data were collected with an integrated oceanographic vertical profiler (OVP) consisting of several electronic sensors, a data acquisition system (DAS), and a remotely triggerable array of Niskin bottles (rosette sampler). In this report we present the results of the analysis of bottle samples, together with selected data from the electronic sensors, and a cruise-by-cruise inventory of the total data set available from the OVP. Data from the analysis of zooplankton samples collected by vertical net hauls is also included.

Sampling and analytical Methods

1. Electronic sensors.

Sensors used on the 1980 cruises include a Guildline Model 8701 CTD, a Variosens III in situ fluorometer set up to measure chlorophyll fluorescence and a Martek model XMS transmissometer. Outputs from these sensors were multiplexed, digitized, and communicated in serial mode to the surface via 7-conductor armoured cable through an oceanographic winch. The DAS was designed and constructed at IOS. At the surface, data from the DAS was sent to a Hewlett-Packard 9845 computer, which stored the data on 8-inch flexible disks and performed some real-time data analysis and graphics display. A typical cast of the OVP consisted of two phases. First, the package was lowered at a speed of 0.5 to 1.0 m/sec. During this time the electronic sensors were sampled and logged at a frequency of 8 Hz. Then, after determining the depths at which the bottles were to be tripped, the OVP was raised at a speed of approximately 0.5 m/sec and bottles were tripped "on the fly".

2. Bottle data

a) temperature: duplicate temperatures from protected reversing thermometers were taken periodically as a check on the CTD temperatures. An offset correction was later applied to the CTD temperatures.

b) salinity: salinity samples were collected periodically as a check on the CTD conductivity measurement. These samples were analysed later in the laboratory using an Autosal model 8400 induction salinometer. An offset correction was later applied to the CTD salinities.

c) chlorophyll: the chlorophyll content of phytoplankton samples was determined at sea using the fluorometric technique outlined in Strickland and Parsons (1972). These values were used to adjust the Variosens chlorophyll value (derived from a laboratory calibration using live phytoplankton cultures) for varying field conditions.

d) dissolved oxygen: the dissolved oxygen content of bottle samples was determined at sea using the Winkler technique outlined in Strickland and Parsons (1972). Samples were "fixed" with manganous sulphate and alkaline iodide solution within 15 minutes of being drawn; and titrations were carried out within 24 hours of sampling.

e) inorganic nutrients: reactive nitrate-nitrite, phosphate and silicate concentrations were measured in the laboratory using colorimetric methods with a Technicon II auto-analyser. The water samples were quick-frozen immediately after collection and kept frozen until analysis.

f) primary productivity: three sample bottles (1 dark, 2 light) were drawn from rosette bottles. These were inoculated with 1 ml of 5 $\mu\text{C}/\text{ml}$ ^{14}C (as bicarbonate) and incubated for at least 2 hours under fluorescent lights. These samples were then filtered onto 0.45 micron Millipore filters which were fumed over concentrated hydrochloric acid for 1 minute, and then placed in 15 ml

Aquasol. The activity of these samples was determined later using a scintillation counter, and the results used to estimate primary productivity.

g) phytoplankton counts: samples were drawn from rosette bottles, preserved in Lugol's solution, and stored for later analysis. Subsamples (ranging from 2.2 ml to 100 ml) were settled out and counted using an inverted microscope.

h) zooplankton counts: zooplankton samples were collected in vertical net hauls, using a net with one-half m² opening, #6 mesh (233 micron), and a mechanical flowmeter. Samples were preserved in 5% to 10% formalin in seawater for later analysis.

Estimated accuracy and precision of data

1. CTD values - the manufacturer gives the accuracy and precision of the sensors as follows:

<u>Variable</u>	<u>Accuracy</u>	<u>Precision</u>
Pressure	:±1.25 dbar	±0.25 dbar
Temperature	:±0.01 deg. C.	±0.003 deg. C.
Equivalent salinity	:±0.01 ppt	±0.005 ppt

2. Chlorophyll - Strickland and Parsons (1972) estimate that the fluorometric technique should give a value within 8% of the true value for any chlorophyll concentrations greater than 0.5 µg/l.

3. Dissolved oxygen - Strickland and Parsons (1972) estimate that the Winkler technique should give a value within 0.034 ml/l of the true value.

4. Inorganic nutrients - replicate analyses were done for some samples from cruises 79-04, 79-05, and 80-05. Measurement precision was estimated through a statistical treatment of these data, and the values found are summarized below (all values are in µM/l):

Cruise	Nitrate error	Phosphate error	Silicate error
79-04	0.101	0.056	0.087
79-05	0.154	0.152	0.157
80-05	0.182	0.024	0.067
SUM	0.150	0.112	0.124

5. Primary productivity - the precision of this method is described in Strickland and Parsons (1972).

References

Strickland, J.D.H. and Parsons, T.R., 1972. A Practical Manual of Seawater Analysis. Bulletin 167 (2nd ed.), Fisheries Research Board of Canada.

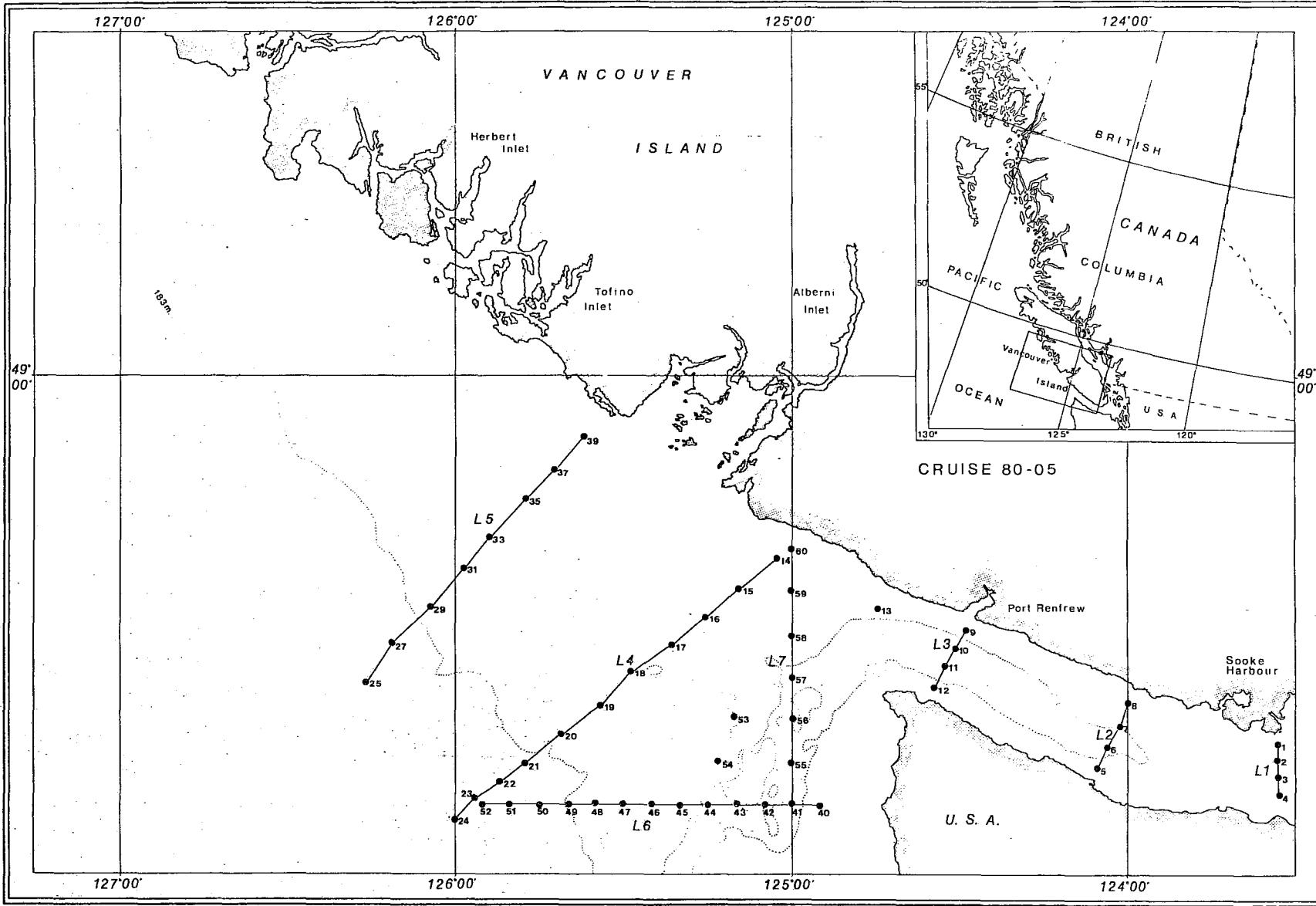
Notes

1. The horizontal sections of dissolved oxygen and nutrient concentrations in this report were plotted with a minimum of interpretation. Vertical (and occasionally horizontal) interpolation between data points was used to compute the isopleth points, and the isopleths were then drawn by a "join-the-dots" technique. Extrapolation of isopleths to the surface or to the bottom was not attempted.

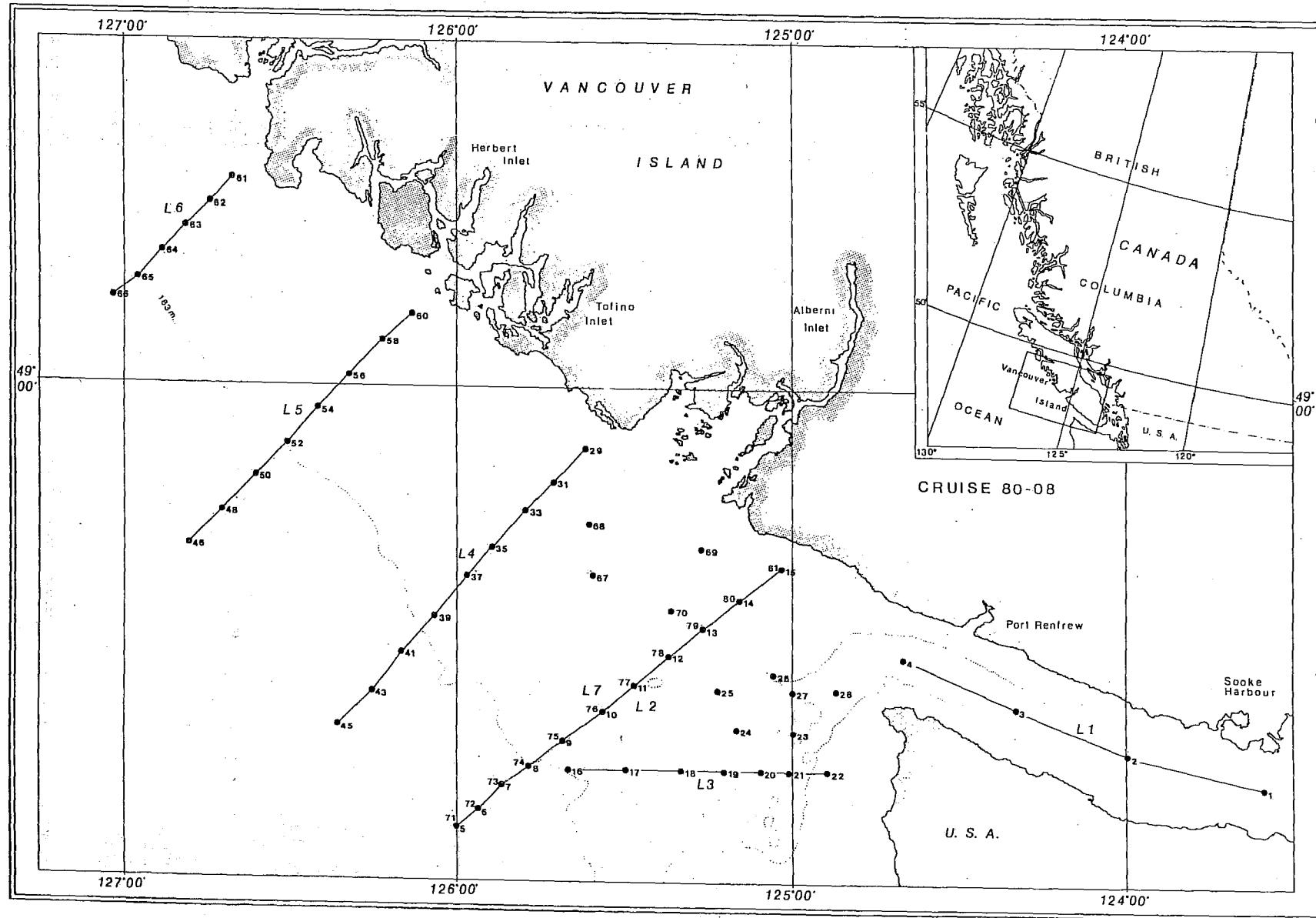
2. The zooplankton samples described in this report were all analyzed by the same worker (H. Sefton). However there were two workers, differing in expertise and local knowledge, analyzing phytoplankton data. Samples analyzed by each of these workers are detailed below:

J. Acreman: 80-05 Stations 1,7,10,16,18,20,23,27,31,35,39,40,46,50,53,57.

R. Waters: All of 80-08, remainder of 80-05.



5



CRUISE 8005

DATA TYPES AVAILABLE: "+" = available; "-" = not available

STN NO.	DATE DA/MO	TIME (PDT)	LAT	LONG	CTD	VARIO. CHL a	pH	O ₂	NUTRI- ENTS	CHL a	¹⁴ C	PHYTO - PLANKTON	ZOO - PLANKTON
1	02 06	15 45	48°17.4'	123°33.0'	+	+	+	+	+	+	+	+	-
2	02 06	16 28	48°15.4'	123°33.0'	+	+	+	+	+	+	+	-	+
3	02 06	18 08	48°13.4'	123°33.0'	+	+	-	+	+	+	-	-	-
4	02 06	19 09	48°11.4'	123°33.0'	+	+	+	+	+	+	+	+	+
5	03 06	09 15	48°14.3'	124°05.2'	+	+	+	+	+	+	+	+	+
6	03 06	10 01	48°17.0'	124°03.5'	+	+	+	+	+	+	+	-	-
7	03 06	10 03	48°19.6'	124°01.8'	+	+	+	+	+	+	+	+	+
8	03 06	11 49	48°22.2'	124°00.0'	+	+	+	+	+	+	+	-	-
9	03 06	14 10	48°30.5'	124°28.6'	+	+	+	+	+	+	+	+	+
10	03 06	14 45	48°28.4'	124°30.5'	+	+	+	+	+	+	+	+	-
11	03 06	15 40	48°26.2'	124°32.4'	+	+	+	+	+	+	+	+	+
12	03 06	16 18	48°24.0'	124°34.4'	+	+	+	+	+	+	+	-	-
13	03 06	18 13	48°33.0'	124°45.0'	+	+	+	+	+	+	+	+	+
14	04 06	07 55	48°39.0'	125°02.5'	+	+	+	+	+	+	+	+	+
15	04 06	08 53	48°35.6'	125°09.0'	+	+	+	+	+	+	+	-	-
16	04 06	09 44	48°32.2'	125°15.5'	+	+	+	+	+	+	+	-	-
17	04 06	10 51	48°28.9'	125°21.8'	+	+	+	+	+	+	+	+	+
18	04 06	11 52	48°25.5'	125°28.3'	+	+	+	+	+	+	+	+	-
19	04 06	12 47	48°22.0'	125°34.7'	+	+	+	+	+	+	+	-	-
20	04 06	13 54	48°18.6'	125°41.2'	+	+	+	+	+	+	+	+	+
21	04 06	15 32	48°15.1'	125°47.7'	+	+	+	+	+	+	+	-	-
22	04 06	16 21	48°12.9'	125°52.0'	+	+	-	+	+	+	-	-	-
23	04 06	18 57	48°10.6'	125°56.2'	+	+	+	+	+	+	+	+	+
24	04 06	20 14	48°08.5'	126°00.0'	+	+	+	+	+	+	+	-	-
25	05 06	06 11	48°24.6'	126°15.8'	+	+	+	+	+	+	+	-	-
26	05 06	06 49	48°26.9'	126°12.8'	+	+	-	-	-	+	-	-	-
27	05 06	08 15	48°28.8'	126°10.0'	+	+	+	+	+	+	+	+	+
28	05 06	09 43	48°31.0'	126°07.1'	+	+	-	-	-	+	-	-	-
29	05 06	10 28	48°33.1'	126°04.1'	+	+	+	+	+	+	+	-	-
30	05 06	11 00	48°35.2'	126°01.4'	+	+	-	-	-	+	+	-	-
31	05 06	12 54	48°37.9'	125°58.5'	+	+	+	+	+	+	+	+	+
32	05 06	13 20	48°39.3'	125°55.8'	+	+	-	-	-	+	-	-	-
33	05 06	14 02	48°41.2'	125°53.0'	+	+	+	+	+	+	+	-	-
34	05 06	15 31	48°43.2'	125°50.2'	+	+	-	-	-	+	-	-	-
35	05 06	15 12	48°45.4'	125°47.4'	+	+	+	+	+	+	+	-	+
36	05 06	16 20	48°47.3'	125°44.8'	+	+	-	-	-	-	-	-	-
37	05 06	16 50	48°49.2'	125°42.0'	+	+	+	+	+	+	+	-	-
38	05 06	17 09	48°51.1'	125°39.3'	+	+	-	-	-	-	-	-	-
39	05 06	18 01	48°53.1'	125°36.7'	-	-	+	+	+	+	-	+	+
40	06 06	07 49	48°10.0'	124°55.0'	+	+	+	+	+	+	+	+	+
41	06 06	08 35	48°10.0'	125°00.0'	+	+	-	+	+	+	-	-	-
42	06 06	09 19	48°10.0'	125°05.0'	+	+	+	+	+	+	+	+	-
43	06 06	10 07	48°10.0'	125°10.0'	+	+	-	+	+	+	-	-	-
44	06 06	10 48	48°10.0'	125°15.0'	+	+	+	+	+	+	+	-	-
45	05 06	11 26	48°10.0'	125°20.0'	+	+	-	+	+	+	-	-	-
46	06 06	12 57	48°10.0'	125°25.0'	+	+	+	+	+	+	+	+	+
47	06 06	13 33	48°10.0'	125°30.0'	+	+	+	+	+	+	-	-	-
48	06 06	14 07	48°10.0'	125°35.0'	+	+	+	+	+	+	-	-	-
49	06 06	11 49	48°10.0'	125°40.0'	+	+	-	+	+	+	-	-	-

CRUISE 8005 CONT'D

DATA TYPES AVAILABLE: "+" = available; "-" = not available

STN NO.	DATE DA/MO	TIME (PDT)	LAT	LONG	CTD	VARIO. CHL a	pH	O ₂	NUTRI- ENTS	CHL a	¹⁴ C	PHYTO - PLANKTON	ZOO - PLANKTON
50	06 06	15 30	48°10.0'	125°45.0'	+	+	+	+	+	+	+	+	-
51	06 06	16 11	48°10.0'	125°50.0'	+	+	-	+	+	+	-	+	-
52	06 06	18 36	48°10.0'	125°55.0'	+	+	+	+	+	+	-	+	-
53	07 06	08 27	48°20.0'	125°10.0'	+	+	+	+	+	+	+	+	+
54	07 06	10 14	48°15.0'	125°12.5'	+	+	+	+	+	+	+	+	+
55	07 06	11 20	48°15.0'	125°00.0'	+	+	+	+	+	+	-	-	-
56	07 06	12 19	48°20.0'	125°00.0'	+	+	+	+	+	+	-	-	-
57	07 06	13 28	48°25.0'	125°00.0'	+	+	+	+	+	+	-	-	-
58	07 06	15 10	48°30.0'	125°00.0'	+	+	+	+	+	+	+	+	+
59	07 06	15 53	48°35.0'	125°00.0'	+	+	+	+	+	+	-	-	-
60	07 06	16 42	48°40.0'	125°00.0'	+	+	+	+	+	+	-	+	-

CRUISE 8008

DATA TYPES AVAILABLE: "+" = available; "-" = not available

STN NO.	DATE DA/MO	TIME (PDT)	LAT	LONG	CTD	VARIO. CHL a	pH	O ₂	NUTRI- ENTS	CHL a	¹⁴ C	PHYTO - PLANKTON	ZOO - PLANKTON
1	29 07	15 17	48°14.0'	123°35.0'	+	+	+	+	+	+	+	+	-
2	29 07	18 39	48°17.8'	124°00.0'	+	+	+	+	+	+	+	+	-
3	29 07	20 33	48°23.2'	124°20.0'	+	+	+	+	+	+	+	-	-
4	29 07	22 16	48°28.8'	124°40.0'	+	+	+	+	+	+	+	-	-
5	30 07	07 57	48°08.5'	126°00.0'	+	+	+	+	+	+	+	+	+
6	30 07	09 34	48°10.6'	125°56.2'	+	+	+	+	+	+	+	+	+
7	30 07	10 32	48°12.9'	125°52.0'	+	+	+	+	+	+	+	-	-
8	30 07	11 17	48°15.1'	125°47.7'	+	+	+	+	+	+	+	-	-
9	30 07	12 30	48°18.6'	125°41.2'	+	+	+	+	+	+	+	-	-
10	30 07	13 17	48°22.0'	125°34.7'	+	+	+	+	+	+	+	+	+
11	30 07	14 19	48°25.5'	125°28.3'	+	+	+	+	+	+	+	-	-
12	30 07	15 20	48°28.9'	125°21.8'	+	+	+	+	+	+	+	-	-
13	30 07	16 21	48°32.2'	125°15.5'	+	+	+	+	+	+	+	+	+
14	30 07	17 10	48°35.6'	125°09.0'	+	+	+	+	+	+	+	-	-
15	30 07	18 13	48°39.0'	125°02.5'	+	+	+	+	+	+	+	-	-
16	31 07	07 58	48°15.0'	125°40.0'	+	+	+	+	+	+	+	+	+
17	31 07	09 04	48°15.0'	125°30.0'	+	+	+	+	+	+	+	+	+
18	31 07	10 04	48°15.0'	125°20.0'	+	+	+	+	+	+	+	-	-
19	31 07	11 31	48°15.0'	125°12.5'	+	+	+	+	+	+	+	-	-
20	31 07	12 32	48°15.0'	125°06.0'	+	+	+	+	+	+	+	+	+
21	31 07	13 25	48°15.0'	125°01.0'	+	+	+	+	+	+	+	-	-
22	31 07	14 17	48°15.0'	124°54.0'	+	+	+	+	+	+	+	-	-
23	31 07	15 22	48°20.0'	125°00.0'	+	+	+	+	+	+	+	+	+
24	31 07	16 23	48°20.0'	125°10.0'	+	+	+	+	+	+	+	-	-
25	31 07	17 32	48°25.0'	125°13.0'	+	+	+	+	+	+	+	-	-
26	31 07	18 31	48°27.0'	125°03.0'	+	+	+	+	+	+	+	+	+
26A	31 07	18 20	48°27.0'	125°03.0'	-	-	-	-	-	+	+	-	-
27	31 07	19 02	48°25.0'	125°00.0'	+	+	+	+	+	+	+	-	-
28	31 07	20 04	48°25.0'	124°52.0'	+	+	+	+	+	+	+	+	-
29	01 08	06 05	48°53.1'	125°36.7'	+	+	+	+	+	+	+	+	+

CRUISE 8008 CONT'D

DATA TYPES AVAILABLE: "+" = available; "-" = not available

STN NO.	DATE DA/MO	TIME (PDT)	LAT	LONG	CTD	VARIO. CHL a	pH	O ₂	NUTRI- ENTS	CHL a	¹⁴ C	PHYTO - PLANKTON	ZOO - PLANKTON
30	01 08	06 31	48°51.1'	125°39.3'	+	+	-	-	-	+	-	-	-
31	01 08	07 50	48°49.2'	125°42.0'	+	+	+	+	+	+	-	-	-
32	01 08	08 20	48°47.3'	125°44.8'	+	+	-	-	-	+	-	-	-
33	01 08	09 05	48°45.4'	125°47.4'	+	+	+	+	+	+	+	+	+
34	01 08	10 35	48°43.2'	125°50.2'	+	+	-	-	-	+	-	-	-
35	01 08	11 11	48°41.2'	125°53.0'	+	+	+	+	+	+	+	-	-
36	01 08	11 39	48°39.3'	125°55.8'	+	+	-	-	-	+	-	-	-
37	01 08	13 27	48°35.9'	125°58.0'	+	+	+	+	+	+	+	+	+
37A	01 08	-	48°35.9'	125°58.0'	-	-	+	-	-	+	+	-	-
38	01 08	13 58	48°35.2'	126°01.4'	+	+	-	-	-	+	-	-	-
39	01 08	14 35	48°33.1'	126°04.1'	+	+	+	+	+	+	+	-	-
40	01 08	15 05	48°31.0'	126°07.1'	+	+	-	-	-	+	-	-	-
41	01 08	16 18	48°28.8'	126°10.0'	+	+	+	+	+	+	+	+	+
41A	01 08	-	48°28.8'	126°10.0'	-	-	+	-	-	+	+	-	-
42	01 08	16 50	48°26.9'	126°12.8'	+	+	-	-	-	+	-	-	-
43	01 08	17 43	48°24.6'	126°15.8'	+	+	+	+	+	+	+	-	-
44	01 08	18 18	48°22.4'	126°18.3'	+	+	-	-	-	+	-	-	-
45	01 08	19 04	48°20.2'	126°21.3'	+	+	+	+	+	+	+	+	+
46	02 08	08 04	48°41.3'	126°48.1'	+	+	+	+	+	+	+	+	+
47	02 08	08 44	48°47.5'	126°39.2'	+	+	-	-	-	+	-	-	-
48	02 08	09 48	48°45.3'	125°42.1'	+	+	+	+	+	+	+	-	-
48A	02 08	-	48°45.3'	125°42.1'	-	-	-	-	-	+	+	-	-
49	02 08	10 23	48°51.6'	125°33.3'	+	+	-	-	-	+	-	-	-
50	02 08	11 35	48°49.5'	126°36.2'	+	+	+	+	+	+	+	+	+
51	02 08	12 22	48°55.6'	126°27.6'	+	+	-	-	-	+	-	-	-
52	02 08	13 09	48°53.6'	126°30.5'	+	+	+	+	+	+	+	-	-
53	02 08	13 44	48°55.5'	126°27.8'	+	+	-	-	-	+	-	-	-
54	02 08	14 25	48°57.4'	126°25.0'	+	+	+	+	+	+	+	A+B+	+
55	02 08	15 15	48°59.4'	126°22.2'	+	+	-	-	-	+	-	-	-
56	02 08	16 12	49°01.3'	126°19.3'	+	+	+	+	+	+	+	-	-
57	02 08	16 44	49°03.2'	126°16.5'	+	+	-	-	-	+	-	-	-
58	02 08	17 17	49°05.0'	126°13.8'	+	+	+	+	+	+	+	-	+
59	02 08	18 08	49°06.9'	126°11.0'	+	+	-	-	-	+	-	-	-
60	02 08	18 40	49°08.6'	126°08.2'	+	+	+	+	+	+	+	+	-
61	04 08	06 30	49°24.0'	126°40.0'	+	+	+	+	+	+	+	+	-
62	04 08	07 03	49°21.5'	126°44.5'	+	+	-	+	-	+	-	-	-
63	04 08	07 52	49°18.3'	126°48.8'	+	+	+	+	+	+	+	-	-
64	04 08	08 35	49°15.5'	126°53.0'	+	+	-	+	-	+	-	-	-
65	04 08	09 21	49°12.8'	126°57.5'	+	+	+	+	+	+	+	-	-
66	04 08	10 08	49°10.0'	127°02.0'	+	+	+	+	+	+	+	+	-
67	05 08	17 08	48°38.1'	125°35.6'	+	+	+	+	+	+	+	-	-
68	05 08	18 10	48°44.0'	125°36.0'	+	+	+	+	+	-	+	+	+
69	05 08	20 10	48°41.7'	125°16.0'	+	+	+	+	+	+	+	-	-
70	05 08	21 23	48°34.0'	125°21.5'	+	+	+	+	+	+	+	+	+
71	06 08	03 44	48°08.5'	126°00.0'	+	+	+	+	+	+	+	+	-
72	06 08	04 32	48°10.6'	125°56.2'	+	+	+	+	+	+	+	+	-
73	06 08	05 25	48°12.9'	125°52.0'	+	+	+	+	+	+	+	+	-
74	06 08	06 07	48°15.1'	125°47.7'	+	+	+	+	+	+	+	-	-
75	06 08	07 45	48°18.6'	125°41.2'	+	+	+	+	+	+	+	-	-

CRUISE 8008 CONT'D

DATA TYPES AVAILABLE: "+" = available; "-" = not available

STN NO.	DATE DA/MO	TIME (PDT)	LAT	LONG	CTD	VARIO. CHL a	pH	O ₂	NUTRI- ENTS	CHL a	¹⁴ C	PHYTO - PLANKTON	ZOO - PLANKTON
76	06 08	08 42	48°22.0'	125°34.7'	+	+	+	+	+	+	+	-	-
77	06 08	09 42	48°25.5'	125°28.3'	+	+	+	+	+	+	+	-	-
78	06 08	10 40	48°28.9'	125°21.8'	+	+	+	+	+	+	+	+	-
79	06 08	11 40	48°32.2'	125°15.5'	+	+	+	+	+	+	+	-	-
80	06 08	12 51	48°35.6'	125°09.0'	+	+	+	+	+	+	+	-	-
81	06 08	13 33	48°39.0'	125°02.5'	+	+	+	+	+	+	+	+	-

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 1
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL* TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	N03 (uM/l)	P04 (uM/l)	Si04 (uM/l)
1 01		114.1	7.38	33.33		2.90		31.90	2.58	49.70
1 02		75.4	7.54	33.14		3.13		31.50	2.63	49.50
1 03		52.6	8.32	32.32		4.06		28.30	2.41	45.40
1 04		31.0	8.48	32.14		4.12		27.80	2.38	44.80
1 05		22.3	8.53	32.08		4.13		27.70	2.37	44.50
1 06		9.3	8.60	31.93	.68	4.24	3.0	27.20	2.33	44.10
1 07		3.0	8.79	31.63	.71	4.42	3.1	26.60	2.28	43.50
2 01		132.9	7.48	33.42		2.86		33.40	2.54	52.80
2 02		101.4	7.72	33.06		3.14		30.70	2.49	47.60
2 03		73.3	8.14	32.52		3.60		29.10	2.42	45.90
2 04		51.3	8.41	32.14		4.04		27.90	2.35	44.80
2 05		30.7	8.50	31.96		4.17		27.40	2.31	45.00
2 06		13.0	9.38	31.31	.98	5.23	4.9	24.60	2.14	40.40
2 07		9.0	9.49	31.20	1.19	5.34	4.8	24.20	2.13	42.00
3 01		131.0	7.08	33.71		2.40		33.10	2.64	51.80
3 02		121.9	7.31	33.54		2.80		32.00	2.57	49.20
3 03		98.9	7.74	33.11		3.04		30.60	2.46	47.20
3 04		75.6	7.77	33.08		3.39		30.60	2.45	47.00
3 05		51.3	8.30	32.34		3.88		28.20	2.33	45.50
3 06		30.1	8.72	31.88		4.28		26.90	2.27	43.30
3 07		19.7	8.84	31.78		5.30		26.20	2.22	42.40
3 08		9.5	9.51	31.39	.75	4.88	3.0	24.80	2.13	40.90
4 01		96.5	7.23	33.66		2.26		32.60	2.57	49.40
4 02		73.4	7.26	33.63		2.18		32.40	2.55	49.90
4 03		49.9	7.38	33.51		2.57		31.80	2.51	48.10
4 04		30.8	7.57	33.29		2.93		30.20	2.49	46.80
4 05		20.2	7.81	33.03		3.24		29.90	2.40	47.00
4 06		6.2	9.18	31.86	.84	5.50	3.0	26.40	2.21	42.70
5 01		139.7	7.17	33.71		2.53		32.40	2.48	49.20
5 02		123.7	7.20	33.69		2.54		33.90	2.82	51.60
5 03		100.7	7.33	33.59		2.62		34.10	2.49	51.60
5 04		75.3	7.47	33.47		2.73		32.70	2.43	49.40
5 05		50.3	7.89	33.05		3.12		31.90	2.37	47.70
5 06		29.9	8.68	32.16		4.43		2.23		
5 07		13.5	9.25	31.67	1.51	5.22	6.2	24.80	2.13	41.40
5 08		5.3	9.50	31.62		5.43		27.90	2.08	46.80
6 01		169.1	6.94	33.85		2.38		33.70	2.63	52.70
6 02		150.2	6.97	33.83		2.50		33.50	2.68	51.40
6 03		124.8	7.13	33.78		2.44		32.60	2.56	49.20
6 04		100.7	7.39	33.65		2.78		31.60	2.48	48.10
6 05		75.0	7.84	33.36		3.11		29.20	2.32	42.50
6 06		50.3	8.30	32.43		4.13		22.80	2.28	35.50
6 07		28.7	8.84	32.00		4.73		26.60	2.20	43.10
6 08		14.0	8.94	31.75	.97	5.00	3.7	26.30	2.19	43.10
6 09		6.4	9.12	31.71		5.05		26.00	2.19	43.60
7 01		163.0	6.90	33.86		2.25		33.50	2.62	51.80
7 02		150.2	6.90	33.85		2.38		33.60	2.62	52.10
7 03		124.6	6.91	33.84		2.40		34.00	2.71	53.40
7 04		100.0	7.14	33.70		2.47		32.80	2.58	50.10
7 05		73.1	7.73	33.01		2.51		30.70	2.46	48.80
7 06		50.6	8.42	32.47		3.95		28.50	2.43	44.20
7 07		28.8	8.58	32.03		4.63		27.30	2.50	43.80
7 08		19.2	8.81	31.83		5.07		25.90	2.34	42.50
7 09		11.2	9.31	31.65	1.57	5.83	4.0	25.20	2.34	42.00
8 01		104.8	7.63	33.08		3.87		31.20	2.49	49.90
8 02		72.5	8.13	32.60		4.47		29.20	2.35	49.70

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 2

* - Indicates that data is from an electronic sensor.

STN NO.	BOT (dbar)	DEPTH (dbar)	TEMP * (deg C)	SAL' TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
8 03	49.6	8.67	31.95		4.43			27.20	2.23	44.70
8 04	29.0	8.80	31.89		4.54			27.00	2.22	43.80
8 05	19.1	8.93	31.84		5.11			26.80	2.19	43.30
8 06	10.5	9.09	31.72	1.07	5.92	4.7	26.10	2.17	42.90	
9 01	110.4	7.07	33.60		4.35			29.20	2.68	46.80
9 02	73.0	8.36	32.42		4.63			28.50	2.35	46.80
9 03	49.6	8.71	32.06		4.35			27.00	2.27	44.00
9 04	30.5	9.02	31.90		4.79			25.80	2.18	42.30
9 05	20.0	9.27	31.90		5.38			24.40	2.05	40.50
9 06	9.5	9.34	31.84		5.27			24.10	2.02	40.30
9 07	4.5	9.78	31.80	4.54	5.84	22.8		22.10	1.89	38.80
10 01	192.7	6.73	33.91		2.38			34.30	2.60	54.50
10 02	146.9	6.83	33.88		2.49			33.90	2.62	52.10
10 03	124.0	7.08	33.84		2.50			32.80	2.50	48.70
10 04	99.5	7.61	33.28		3.25			31.80	2.50	49.30
10 05	78.1	8.24	32.50		4.31			29.20	2.35	45.40
10 06	51.3	8.76	31.90		4.52			26.80	2.22	42.60
10 07	31.3	8.98	31.72		4.47			26.00	2.17	41.70
10 08	23.3	9.04	31.65		4.70			25.90	2.16	42.00
10 09	11.1	9.68	31.66	2.82	5.73	9.2		22.00	1.81	38.10
10 10	4.2	9.97	31.62		6.11					
11 01	222.2	6.72	33.94		2.57			33.90	2.62	51.50
11 02	198.7	6.75	33.93		2.40			34.30	2.61	52.90
11 03	147.5	7.26	33.83		2.61			32.10	2.44	45.90
11 04	124.7	7.44	33.77		2.78			31.00	2.40	42.90
11 05	98.5	7.87	33.44		3.29			27.90	2.19	38.50
11 06	72.2	8.07	33.07		3.35			28.90	2.27	42.00
11 07	49.6	8.43	32.27		4.02			28.40	2.28	44.20
11 08	28.5	9.09	31.75		4.86			25.80	2.12	40.90
11 09	18.8	9.12	31.65		5.20			25.40	2.10	42.20
11 10	7.5	9.40	31.63	1.74	6.11	9.0		24.50	2.03	36.60
12 01	84.1	7.53	33.44		2.92			31.30	2.43	47.00
12 02	79.9	7.53	33.43		2.97			31.80	2.43	47.70
12 03	51.4	7.76	32.21		3.67			30.90	2.39	46.40
12 04	30.1	8.19	32.77		4.16			29.10	2.30	44.90
12 05	20.6	9.14	31.97		5.03			25.70	2.09	41.40
12 06	12.4	9.42	31.65	2.43	6.07	10.1		24.70	2.03	41.00
13 01	119.4	7.29	33.73		2.64			31.40	2.44	46.20
13 02	99.9	7.66	33.53		3.73			29.20	2.29	41.80
13 03	72.6	8.32	32.57		3.07			28.50	2.30	42.50
13 04	49.9	8.64	32.24		4.26			27.30	2.20	42.30
13 05	28.7	8.92	31.76		4.58			26.10	2.15	41.20
13 06	19.7	9.63	31.51		5.68			22.90	1.88	37.90
13 07	12.2	10.03	31.46		6.26	12.7		21.30	1.77	37.10
14 01	51.0	8.65	32.28		4.21			27.70	2.19	43.60
14 02	28.1	9.17	31.68		4.97			25.00	2.05	41.00
14 03	18.2	9.40	31.53		5.42			24.60	1.99	40.60
14 04	8.1	10.28	31.48		6.08			20.90	1.71	37.50
14 05	5.8	10.37	31.48	4.20	6.21	18.2		21.10	1.62	38.00
15 01	100.2	7.13	33.69		2.49			32.40	2.54	50.00
15 02	73.0	7.99	33.32		3.67			26.90	2.13	38.00
15 03	50.4	8.13	33.02		3.93			27.50	2.20	40.60
15 04	29.0	8.31	32.73		3.86			27.70	2.22	42.40
15 05	19.7	8.53	32.47		4.20			27.30	2.18	41.90
15 06	9.8	9.06	31.92		4.30			25.50	2.05	42.20
15 07	4.8	9.42	31.91	3.23	0.00	14.4		23.90	1.97	40.00

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 3
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL' TV* (ppt)	CHL A (mg/m3)	DXY (ml/l)	14C PRD mg/m3/h	N03 (uM/l)	P04 (uM/l)	Si04 (uM/l)
16 01	105.2	6.85	33.79		2.18			33.80	2.62	54.00
16 02	75.1	7.50	33.53		2.76			31.40	2.40	46.70
16 03	50.2	8.13	33.24		3.86			24.00	1.94	32.80
16 04	30.0	8.53	32.76		4.88			24.60	1.97	37.10
16 05	20.2	8.64	32.58		5.28			26.00	2.08	40.40
16 06	10.3	9.10	32.37	2.73	5.62	12.2		23.50	1.91	38.20
16 07	5.0	9.99	32.02	5.03	6.21	25.4		17.20	1.45	32.50
17 01	146.2	6.63	33.92		2.38			35.00	2.81	60.00
17 02	124.1	6.72	33.89		2.63			35.00	2.74	56.70
17 03	101.3	6.81	33.80		1.98			34.80	2.71	55.20
17 04	74.2	7.37	33.56		2.44			32.40	2.55	48.60
17 05	49.8	8.11	33.09		3.66			27.10	2.18	39.50
17 06	29.0	8.81	32.66		5.42			19.70	1.75	28.80
17 07	19.7	9.42	32.22		5.49			16.40	1.53	26.60
17 08	11.1	9.74	31.87	4.66	5.50	22.4		18.70	1.58	33.10
17 09	3.4	10.60	31.59	17.79	6.27	162.1		2.90	.57	20.10
18 01	119.2	6.70	33.89		2.07			34.50	2.75	57.10
18 02	100.5	7.19	33.71		2.74			33.40	2.67	52.30
18 03	73.5	7.41	33.51		2.79			35.00	2.66	54.90
18 04	47.7	8.35	32.72		3.59			26.90	2.24	39.20
18 05	28.2	8.44	32.42		3.77			27.90	2.29	42.00
18 06	19.9	9.25	32.06		5.58			18.00	1.60	32.00
18 07	9.9	10.47	31.70	6.79	6.58	22.2		10.20	1.04	20.20
18 08	3.2	11.14	31.64	15.97	7.99	94.6		2.20	.36	10.00
19 01	140.7	6.27	33.95		1.95			35.70	2.77	59.20
19 02	98.4	6.82	33.94		2.36			34.30	2.64	55.10
19 03	74.8	7.80	33.52		3.71			28.20	2.21	38.10
19 04	47.7	8.60	32.67		5.70			14.70	1.40	21.10
19 05	29.3	9.20	32.06		5.43			21.20	1.75	34.40
19 06	17.7	9.96	31.84		5.62			13.90	1.24	26.30
19 07	8.2	10.28	31.77	18.90	7.52	89.7		9.80	.88	23.30
19 08	2.2	10.43	31.75	21.55	8.07	134.7		5.40	.60	19.10
20 01	131.5	7.01	33.90		2.60			31.90	2.41	45.90
20 02	98.4	7.72	33.69		3.74			29.00	2.21	37.60
20 03	74.8	8.23	33.37		4.06			23.10	1.90	28.00
20 04	49.6	8.41	32.72		6.57			11.60	1.22	16.30
20 05	32.1	8.76	32.45		6.45			7.60	1.06	14.30
20 06	23.6	9.69	31.80		6.31			15.70	1.35	30.20
20 07	10.7	10.37	31.73	32.43	8.59	161.2		3.00	.53	14.30
20 08	2.7	10.70	31.74	10.53	10.53	158.4		.10	.30	6.90
21 01	182.0	6.40	33.96		2.17			34.00	2.56	53.60
21 02	149.2	7.15	33.93		2.91			30.90	2.32	43.20
21 03	99.9	7.80	33.71		4.21			33.70	2.21	44.00
21 04	73.6	8.14	33.40		5.64			25.10	1.94	30.50
21 05	49.0	8.44	32.84		7.03			15.10	1.40	19.60
21 06	30.7	10.37	32.08		5.03			2.70	.64	10.20
21 07	17.5	10.54	32.05		6.50			2.10	.60	12.40
21 08	9.5	10.68	31.99		6.86			2.80	.64	8.70
21 09	5.1	11.02	32.02	.86	6.95	5.0		1.80	.57	8.50
22 01	250.1	5.66	34.06		2.03			37.20	2.84	65.80
22 02	198.9	6.15	34.01		3.32			35.90	2.73	59.30
22 03	146.9	7.24	33.87		2.95			31.80	2.44	45.10
22 04	123.9	7.60	33.80		4.00			29.20	2.22	38.20
22 05	99.1	7.81	33.66		3.60			27.50	2.12	34.90
22 06	74.8	8.09	33.36		4.72			23.50	1.89	29.00
22 07	51.3	8.16	32.64		7.37			11.20	1.20	16.80

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 4
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL*TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	P04 (uM/l)	SiO4 (uM/l)
22 08	31.0	9.26	32.33		6.46		6.00	.92	13.70	
22 09	21.7	10.61	32.10	1.18	6.73	2.2	2.00	.59	9.40	
23 01	243.9	5.88	34.03		1.96		36.30	2.75	61.30	
23 02	199.8	6.34	33.97		2.11		30.40	2.71	41.40	
23 03	149.0	7.41	33.86		2.93		31.30	2.31	42.50	
23 04	123.9	7.51	33.78		3.12		29.60	2.24	39.70	
23 05	99.0	7.98	33.53		3.93		25.30	2.00	32.30	
23 06	74.3	8.25	33.19		5.12		20.30	1.70	25.50	
23 07	47.3	8.11	32.59		7.28		20.30	1.72	25.70	
23 08	28.6	9.33	32.26		6.57		5.70	.86	13.30	
23 09	18.8	10.03	32.16	1.29	6.71	2.5	3.40	.71	13.30	
23 10	10.0	10.23	32.15				2.60	.65	14.00	
24 01	253.1	6.15	34.02		1.99		35.60	2.70	59.10	
24 02	193.2	6.84	33.97		2.99		22.30	2.39	33.10	
24 03	146.2	7.31	33.89		3.01		30.30	2.26	42.30	
24 04	123.3	7.59	33.81		3.20		28.80	2.18	37.90	
24 05	98.5	7.85	33.63		3.70		26.20	2.00	34.40	
24 06	72.2	8.32	33.10		4.88		18.30	1.57	24.00	
24 07	50.4	8.29	32.65		6.23		10.60	1.12	17.40	
24 08	30.3	8.90	32.60		6.72		5.30	.84	14.20	
24 09	18.1	9.93	32.24		6.58		3.70	.70	14.40	
24 10	7.8	10.34	32.19	2.76	7.11	4.4	1.70	.66	12.90	
25 01	241.4	6.48	34.00		2.44		33.70	2.51	49.30	
25 02	198.2	6.80	33.94		2.70		31.60	2.38	46.60	
25 03	147.6	7.35	33.81		3.25		28.80	2.17	39.20	
25 04	123.8	7.59	33.72		3.28		28.30	2.15	37.00	
25 05	100.5	7.96	33.55		3.67		26.20	2.01	33.30	
25 06	75.9	8.23	33.02		5.03		17.40	1.49	22.40	
25 07	51.0	8.49	32.53		6.48		8.40	1.01	14.60	
25 08	30.5	10.25	32.04		6.56		2.20	.62	11.80	
25 09	19.7	10.28	32.03		6.49		2.00	.61	11.50	
25 10	13.1	10.44	32.02	2.04	6.91	4.1	1.10	.55	12.20	
27 01	253.4	5.84	34.03		1.79		35.60	2.73	58.80	
27 02	199.8	6.56	33.95		2.29		34.00	2.59	52.70	
27 03	151.4	6.88	33.90		2.64		32.30	2.46	47.50	
27 04	125.8	7.38	33.81		3.01		30.00	2.28	41.40	
27 05	100.3	7.72	33.70		3.78		28.10	2.15	36.60	
27 06	74.9	8.02	33.32		4.15		23.10	1.85	29.40	
27 07	51.4	8.35	32.62		5.56		10.30	1.11	15.50	
27 08	30.5	10.06	32.13		6.45		3.00	.70	12.60	
27 09	16.3	10.35	32.07	4.37	6.77	13.8	1.30	.60	8.70	
27 10	4.7	10.65	32.03	2.90	7.26	13.1	.30	.47	12.00	
29 01	146.6	6.51	33.94		2.34		34.70	2.71	50.90	
29 02	123.9	6.67	33.91		2.70		34.10	2.69	49.40	
29 03	100.6	7.57	33.76		2.99		30.20	2.32	42.20	
29 04	74.2	7.99	33.48		3.72		25.20	2.05	31.70	
29 05	50.6	8.38	32.99		4.82		18.90	1.60	26.20	
29 06	30.4	8.67	32.52		6.45		9.40	1.14	18.60	
29 07	14.0	10.13	31.96	1.37	6.39	3.0	7.40	.99	17.90	
29 08	3.9	10.96	31.97	8.21	7.55	46.1	1.90	.70	18.60	
31 01	96.2	7.36	33.71		2.48		33.80	2.56	52.70	
31 02	73.0	7.89	33.47		3.25		26.70	2.22	37.60	
31 03	48.8	8.39	32.92		5.60		16.00	1.45	21.70	
31 04	30.1	8.53	32.52		6.64		7.60	1.03	14.60	
31 05	19.5	9.99	32.04		6.17		8.80	1.10	19.60	
31 06	4.6	11.10	31.90	8.43	7.67	43.6	.10	.61	19.60	

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 5
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL * TYS* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NDS (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
31 07		1.1	11.45	31.90	6.66	7.69	29.9	0.00	.58	16.90
33 01		66.8	8.07	33.23		3.17		30.00	2.24	45.50
33 02		48.7	8.49	32.77		5.36		14.70	1.39	23.60
33 03		30.4	8.77	32.62		6.25		8.00	1.07	13.50
33 04		18.5	10.18	31.89		6.28		5.70	.90	15.00
33 05		9.1	10.73	31.78	2.18	6.79	15.2	4.40	.81	17.10
33 06		3.5	11.35	31.81	1.84	6.96	15.7	3.30	.72	16.20
35 01		66.7	8.02	33.11		2.88		28.30	2.43	45.10
35 02		48.1	8.33	32.95		3.39		25.10	2.16	39.40
35 03		29.4	8.83	32.62		4.73		17.20	1.64	27.40
35 04		18.6	10.13	32.14		6.20		7.20	.94	14.30
35 05		5.1	11.36	31.68	4.42	7.18	22.2	2.70	.73	17.90
35 06		1.6	11.65	31.70	5.54	7.42	28.7	2.30	.72	15.40
37 01		43.5	8.53	32.52		3.83		30.00	2.23	45.70
37 02		29.9	8.63	32.40		3.94		26.10	2.22	41.30
37 03		20.0	8.91	32.19		4.31		24.30	2.13	38.70
37 04		7.2	9.97	31.65	2.08	5.84	8.5	16.60	1.63	29.90
37 05		2.2	10.67	31.77	2.84	6.63	14.9	13.20	1.38	26.50
39 01		40.4	8.80	32.36		4.24		23.30	2.09	37.00
39 02		29.5	8.98	32.19		4.89		22.90	2.02	37.50
39 03		18.6	9.61	31.96		5.36		19.30	1.77	34.50
39 04		9.6	9.73	31.93	4.30	5.84	12.1	18.00	1.67	33.00
39 05		3.1	10.05	31.78	19.30	8.53	94.3	9.50	1.02	24.40
40 01		77.5	7.62	33.72		2.93		29.60	2.30	39.40
40 02		50.6	7.99	33.53		2.95		26.00	2.04	31.60
40 03		29.8	8.75	32.61		6.10		10.00	1.15	15.00
40 04		20.9	9.20	32.45		6.53		8.80	1.06	18.60
40 05		11.7	9.76	32.00	2.61	6.71	13.0	15.60	1.46	28.10
40 06		2.9	10.72	31.71	3.92	7.22	25.7	13.40	1.27	29.40
41 01		253.7	6.16	34.00		1.86		35.90	2.78	60.10
41 02		201.3	6.37	33.95		2.03		34.70	2.73	56.00
41 03		152.0	6.79	33.90		2.41		33.00	2.58	50.30
41 04		124.1	6.91	33.87		2.45		32.60	2.54	48.80
41 05		100.7	7.60	33.67		2.76		29.80	2.37	41.60
41 06		74.1	8.21	33.35		4.01		23.60	1.94	29.20
41 07		50.7	8.45	32.94		4.61		20.20	1.75	27.10
41 08		31.1	9.11	32.32		5.62		20.40	1.82	32.50
41 09		20.5	9.99	32.00		6.26		15.00	1.48	27.70
41 10		7.3	11.66	31.16	9.29	9.00		3.10	.57	9.50
42 01		216.6	5.98	34.00		2.09		36.40	2.78	61.90
42 02		200.6	6.03	33.98		2.01		36.00	2.77	55.30
42 03		149.8	6.80	33.89		2.24		33.70	2.63	50.20
42 04		122.1	6.97	33.84		2.98		33.10	2.58	49.00
42 05		100.3	7.33	33.77		3.98		31.40	2.47	41.80
42 06		73.1	8.05	33.36		3.39		26.70	2.16	34.60
42 07		50.9	8.39	32.65		3.87		28.30	2.28	40.90
42 08		29.3	9.24	32.11		5.43		19.50	1.78	30.60
42 09		21.3	10.07	31.67	8.47	6.83	32.6	10.90	1.13	19.60
42 10		4.1	11.29	31.62	17.77	9.01	88.6	.70	.29	1.90
43 01		253.2	5.65	34.05		1.59		38.30	2.93	67.00
43 02		197.9	6.15	33.99		1.86		35.90	2.76	58.60
43 03		150.4	6.66	33.91		2.28		34.30	2.65	52.10
43 04		122.2	6.99	33.85		2.30		33.20	3.34	46.60
43 05		100.6	7.16	33.81		2.68		32.20	2.53	46.10
43 06		74.6	7.99	33.40		3.33		27.20	2.20	35.80
43 07		49.2	8.37	32.61		3.54		28.40	2.30	41.90

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 6
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL*TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	N03 (uM/l)	P04 (uM/l)	Si04 (uM/l)
43 08		29.8	8.73	32.24		4.25		24.90	2.15	37.30
43 09		21.1	9.89	31.77		5.64		15.50	1.43	25.10
43 10		8.2	11.57	31.56	18.18	8.98		2.20	.46	5.30
44 01		251.9	5.72	34.05		1.68		37.80	3.17	58.60
44 02		200.1	6.10	33.98		1.80		36.60	3.01	57.10
44 03		149.6	6.89	33.89		2.21		32.40	2.87	48.90
44 04		124.6	6.99	33.86		2.28		35.30	2.83	53.70
44 05		99.8	7.26	33.78		2.45		32.20	2.70	46.30
44 06		74.4	7.79	33.33		2.98		31.00	2.61	44.40
44 07		51.4	8.44	32.49		3.67		29.50	2.39	43.50
44 08		25.0	9.22	32.05		4.93		22.20	1.93	34.70
44 09		8.7	10.71	31.69	13.55	7.25	55.8	8.40	.94	17.80
44 10		2.8	11.71	31.63	15.98	10.08	96.0	.60	.35	4.70
45 01		110.4	7.28	33.79		2.80		31.70	2.66	45.90
45 02		99.5	7.29	33.77		2.51		33.90	2.62	49.30
45 03		72.7	8.02	33.38		3.77		26.60	2.21	36.00
45 04		50.8	8.41	32.66		3.71		26.50	2.28	38.10
45 05		31.2	8.82	32.16		4.28		25.00	2.20	38.10
45 06		21.7	9.22	32.04		5.24		21.30	1.85	34.90
45 07		8.4	10.79	31.74	19.30	8.85		1.30	.51	8.10
46 01		111.1	7.10	33.85		2.41		32.40	2.21	47.50
46 02		71.4	8.40	33.09		3.90		20.10	1.75	26.50
46 03		48.7	8.65	32.82		5.03		16.20	1.47	22.90
46 04		31.6	8.81	32.53		6.98		10.50	1.12	16.70
46 05		21.5	8.93	32.24		5.03		22.80	1.93	37.20
46 06		9.3	10.14	31.84		7.04	73.9	8.80	1.06	24.40
46 07		2.7	10.98	31.69		8.87	53.0	.90	.43	14.30
47 01		140.9	6.75	33.95		2.17		31.40	2.65	47.40
47 02		99.4	7.62	33.75		3.25		28.10	2.24	36.70
47 03		72.4	8.15	33.44		4.32		25.90	1.95	32.20
47 04		49.3	8.43	32.74		6.42		13.30	1.28	20.70
47 05		31.4	9.11	32.23		6.68		8.70	1.14	17.50
47 06		22.1	9.90	31.80		7.13		10.00	1.17	22.40
47 07		6.4	10.85	31.76	18.76	10.16		.30	.41	5.30
48 01		144.3	7.00	33.91		2.45		29.20	2.54	43.30
48 02		123.8	7.26	33.90		2.93		30.50	2.35	42.20
48 03		99.0	7.71	33.73		3.25		27.80	2.18	35.40
48 04		72.5	8.15	33.37		3.37		23.00	1.80	27.70
48 05		48.4	8.42	32.83		5.43		14.40	1.39	19.40
48 06		39.3	8.89	32.40		5.05		6.50	.92	12.30
48 07		13.9	10.41	31.98	1.45	6.65	7.2	6.60	.90	10.60
48 08		5.0	11.31	31.93	1.38	6.90	14.2	4.30	.70	11.90
49 01		178.4	6.56	33.95		2.11		34.30	2.71	54.40
49 02		149.5	7.16	33.88		2.67		31.50	2.41	44.70
49 03		125.2	7.36	33.85		3.41		30.50	2.35	42.10
49 04		98.7	7.72	33.71		3.73		27.80	2.16	35.90
49 05		73.5	7.95	33.52		4.40		24.10	2.02	29.80
49 06		49.8	8.23	33.08		5.27		17.40	1.53	22.90
49 07		29.4	9.24	32.12		6.35		7.10	1.01	15.10
49 08		16.8	10.59	32.12	1.49	6.37		1.50	.57	12.30
49 09		5.4	10.87	32.03		6.84		.70	.53	9.60
50 01		251.2	5.90	34.03		1.83		36.80	2.84	62.20
50 02		198.8	6.48	33.98		2.29		34.10	2.62	52.70
50 03		148.2	7.42	33.88		3.59		29.80	2.30	40.30
50 04		123.7	7.58	33.80		3.36		29.00	2.24	38.80
50 05		97.0	7.77	33.70		3.66		27.60	2.16	35.20

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 7
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL * TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD (mg/m3/h)	N03 (uM/l)	P04 (uM/l)	SiO4 (uM/l)
50 06		74.1	8.12	33.36		4.76		22.60	1.87	28.60
50 07		48.4	8.16	32.79		6.04		13.70	1.35	18.50
50 08		30.8	9.16	32.25		6.45		6.50	.95	13.60
50 09		21.8	10.38	32.13	1.39	6.69	4.4	2.20	.62	9.50
50 10		4.1	11.71	31.98	1.25	7.03	5.1	.30	.49	10.60
51 01		250.9	6.08	34.02		2.10		35.40	2.71	56.80
51 02		199.1	6.44	33.99		3.41		33.50	2.57	49.60
51 03		149.9	7.05	33.92		2.89		30.90	2.35	43.70
51 04		126.3	7.30	33.86		2.68		29.40	2.34	38.40
51 05		99.6	7.77	33.65		3.33		27.20	2.19	33.90
51 06		75.2	8.12	33.22		4.55		20.70	1.75	25.40
51 07		50.1	8.15	32.71		5.92		12.50	1.28	17.20
51 08		29.7	9.19	32.30		6.84		5.00	.87	11.60
51 09		13.6	10.25	32.18	1.40	6.86		2.90	.72	12.50
52 01		252.8	5.92	34.03		1.94		36.10	2.74	54.40
52 02		199.0	6.56	33.99		2.28		31.10	2.52	54.40
52 03		148.8	7.18	33.90		2.76		28.50	2.39	47.50
52 04		123.1	7.39	33.83		2.90		29.10	2.32	41.40
52 05		97.9	7.75	33.65		3.79		27.10	2.16	33.80
52 06		73.1	8.11	33.19		4.63		19.80	1.70	22.50
52 07		48.0	8.23	32.61		6.31		10.80	1.20	15.30
52 08		23.6	9.92	32.10		6.60		3.70	.78	12.80
52 09		8.7	10.30	32.07	2.66	6.84	10.0	1.70	.65	11.10
52 10		5.2	11.01	32.07	1.61	7.23	7.8	.30	.50	10.90
53 01		186.0	6.34	33.96		1.82		35.10	2.82	59.00
53 02		150.5	6.44	33.92		1.91		35.10	2.75	57.10
53 03		124.3	6.80	33.83		2.03		33.90	2.67	52.70
53 04		99.9	6.84	33.81		2.14		33.70	2.66	52.50
53 05		74.2	7.06	33.73		2.26		32.70	2.59	49.60
53 06		49.7	8.31	32.99		3.68		27.20	2.22	38.90
53 07		29.3	9.11	32.48		5.00		21.30	1.80	34.20
53 08		14.2	9.97	32.33	5.07	6.26	19.5	16.50	1.47	31.30
53 09		4.6	10.92	32.19	3.67	7.17	34.6	11.30	1.11	27.30
54 01		197.4	6.23	33.96		1.76		36.60	2.80	59.40
54 02		151.6	6.52	33.90		1.92		35.00	2.75	56.30
54 03		125.8	6.77	33.87		2.02		34.20	2.70	52.90
54 04		101.7	6.97	33.81		2.18		33.20	2.63	49.60
54 05		74.4	7.59	33.48		2.70		31.00	2.33	44.50
54 06		50.5	8.58	32.73		4.25		20.50	1.94	29.20
54 07		31.2	9.03	32.25		4.76		21.60	1.91	33.40
54 08		15.3	10.43	31.64	2.41	6.27	12.1	10.70	1.21	21.80
54 09		5.1	11.66	31.74	12.24	7.88	70.1	.70	.40	4.20
55 01		184.3	6.53	33.93		2.15		34.50	2.74	52.80
55 02		151.1	6.71	33.91		2.26		33.80	2.68	51.30
55 03		126.1	6.96	33.84		2.30		33.10	2.66	49.60
55 04		101.2	7.02	33.81		2.40		30.90	2.65	42.20
55 05		75.5	7.56	33.61		2.64		30.90	2.53	42.90
55 06		51.5	8.07	33.05		3.18		29.20	2.40	41.80
55 07		29.4	8.83	32.34		4.36		24.30	1.87	36.80
55 08		13.9	9.46	32.01	1.57	5.76	6.7	16.60	1.47	30.40
55 09		5.8	11.27	31.41	4.13	7.19	23.9	8.60	.90	19.00
56 01		206.6	6.43	33.96		1.99		34.70	2.79	54.70
56 02		148.6	6.66	33.90		2.17		34.40	2.67	51.70
56 03		124.1	6.71	33.88		2.17		34.60	2.65	53.00
56 04		100.0	7.05	33.84		2.55		32.50	2.52	47.00
56 05		74.7	7.36	33.72		2.66		31.30	2.44	43.90

DATA BASE LISTING: CRUISE 80-05, STATION 1 TO STATION 60. PAGE 8
*** - Indicates that data is from an electronic sensor.**

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SALTY * (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
56 06		48.5	8.03	33.28		3.28		27.20	2.23	37.10
56 07		29.1	8.61	32.75		4.10		24.40	2.02	35.80
56 08		13.5	9.34	32.20	1.44	5.68	6.0	19.60	1.70	32.60
56 09		4.9	11.10	31.69	4.10	7.59	22.6	15.00	1.42	31.70
57 01		228.2	6.09	34.01		1.84		36.40	2.78	56.60
57 02		203.0	6.13	34.00		1.90		35.90	2.75	58.00
57 03		150.8	6.58	33.91		2.10		34.60	2.67	53.30
57 04		124.8	6.81	33.85		2.19		34.00	2.00	52.00
57 05		101.1	6.94	33.79		2.24		33.30	2.62	50.70
57 06		75.7	7.40	33.68		2.94		29.40	2.34	41.60
57 07		50.9	8.28	33.22		3.92		23.40	1.93	30.30
57 08		30.3	9.40	32.35		5.43	4.4	18.60	1.67	29.70
57 09		18.0	9.48	32.27		5.65	7.0			
57 10		7.3	10.83	31.78	2.15	5.88		14.00	1.36	27.30
58 01		79.8	7.58	33.62		2.93		28.30	2.32	38.50
58 02		51.2	8.63	32.76		5.50		17.30	1.60	23.70
58 03		30.8	8.80	32.42		4.65		25.40	2.08	39.80
58 04		20.9	8.74	32.28		4.35		27.10	2.20	42.30
58 05		11.7	8.96	32.03	1.21	4.61	5.2	26.30	2.16	41.60
59 01		59.4	8.18	32.99		3.85		28.50	2.18	41.20
59 02		48.8	8.33	32.81		4.01		25.30	2.10	37.10
59 03		30.4	8.52	32.25		4.34		28.10	2.30	43.20
59 04		16.6	9.18	31.78	1.28	5.04	5.5	25.20	2.08	40.10
59 05		5.4	9.90	31.74	4.57	6.41	26.7	19.00	1.66	35.40
60 01		34.7	8.55	32.34		4.24		28.10	2.31	43.80
60 02		24.3	8.69	32.21		4.47		27.10	2.24	42.50
60 03		14.0	8.87	32.03	1.83	4.89	3.7	26.80	2.16	42.30
60 04		2.2	9.97	31.71	5.97	6.42	32.5	21.10	1.74	38.70

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 1
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP *	SAL' TY*	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
1 01		151.8	7.01	33.73		2.14		31.10	2.74	55.00
1 02		124.6	7.11	33.66		2.26		32.00	2.64	56.40
1 03		101.7	7.30	33.56		2.41		32.20	2.59	55.20
1 04		75.8	7.68	33.29		2.72		30.20	2.51	47.00
1 05		50.1	8.25	32.81		3.15		27.50	2.39	44.70
1 06		30.0	8.50	32.58		3.44		27.10	2.30	45.90
1 07		20.2	9.13	32.06		4.09		24.60	2.24	41.20
1 08		6.7	10.39	31.50	7.16	5.61	32.7	17.80	1.80	33.70
2 01		185.0	6.85	33.89		2.14		32.90	2.65	54.00
2 02		148.6	6.84	33.88		2.19		33.70	2.66	57.50
2 03		123.3	6.86	33.86		2.14		33.00	2.66	50.30
2 04		98.5	6.98	33.77		2.18		32.30	2.66	55.20
2 05		75.0	7.31	33.70		2.84		30.90	2.51	45.10
2 06		48.5	7.86	33.16		2.96		30.70	2.51	51.40
2 07		28.5	9.06	32.25		4.14		24.90	2.15	41.40
2 08		14.9	9.80	31.75		5.07		20.80	1.86	34.40
2 09		4.6	10.95	31.59	5.05	6.24	25.2	17.30	1.64	29.40
3 01		201.1	6.67	33.93		2.15		33.00	2.66	52.60
3 02		138.6	6.69	33.89		2.11		33.00	2.70	51.90
3 03		122.7	6.72	33.88		1.99		33.10	2.71	49.50
3 04		99.8	7.00	33.77		2.62		33.10	1.97	49.90
3 05		75.5	7.34	33.66		2.56		30.10	2.54	44.40
3 06		51.8	8.14	33.05		3.15		29.70	2.43	45.80
3 07		31.0	9.03	32.17		3.72		25.40	2.25	40.20
3 08		13.1	10.53	31.38	16.06	6.54	43.0	14.20	1.45	27.30
3 09		2.7	11.40	31.28	26.80	8.30	74.1	4.90	.93	13.50
4 01		200.6	6.96	33.88		2.28		32.50	2.53	49.20
4 02		153.2	7.00	33.83		2.18		32.60	2.49	49.90
4 03		128.0	7.12	33.75		2.40		32.50	2.54	48.10
4 04		101.5	7.32	33.68		2.58		30.90	2.41	45.30
4 05		72.0	7.61	33.50		2.93		29.70	2.25	45.00
4 06		49.0	7.69	33.45		2.91		29.20	2.29	43.10
4 07		29.5	7.94	33.28		3.09		28.80	2.34	42.70
4 08		13.5	9.59	32.02	6.28	4.79	21.4	21.30	1.86	32.60
4 09		6.4	10.81	31.32	14.60	6.97	34.7	12.40	1.32	22.60
5 01		20.5	10.24	32.35	.58	5.84	1.2	39.50	1.17	13.50
6 01		12.7	11.16	32.21	3.55	6.65	18.6	2.40	.62	8.20
7 01		11.0	12.48	31.81	6.29	6.79	48.2	2.40	.65	11.20
8 01		15.0	13.06	31.87	8.61	6.86	49.0	.20	.46	4.70
9 01		10.7	13.27	31.76	3.72	6.94	23.3	1.50	.57	11.20
10 01		15.1	12.00	31.77	3.05	6.54	15.2	11.00	1.22	19.10
11 01		125.8	6.62	33.88		1.63		34.70	2.95	55.40
11 02		92.9	6.63	33.84		1.39		35.70	2.93	52.00
11 03		70.1	6.97	33.70		1.65		34.40	2.85	53.00
11 04		46.1	7.96	33.23		3.15		29.80	2.45	43.40
11 05		28.7	9.12	32.68		4.17		23.60	2.09	36.70
11 06		9.0	11.22	31.60		7.46	78.8	9.90	1.15	20.50
11 07		2.2	12.50	31.28	23.77	9.34	92.8	1.00	.60	10.70
12 01		151.5	6.58	33.90						
12 02		123.0	6.59	33.88		1.58		35.00	2.72	51.20
12 03		96.9	6.69	33.84		1.36		36.40	2.99	60.00
12 04		72.3	6.95	33.71		1.62		35.00	2.85	54.80
12 05		47.9	7.26	33.57		2.26		32.00	2.63	48.80
12 06		28.4	8.33	33.03		3.22		28.40	2.33	54.30
12 07		11.7	10.13	32.25	12.25	5.39	38.3	17.00	1.55	27.40
12 08		3.4	11.55	31.85	28.32	8.75	104.9	1.90	.75	12.10

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 2
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL*TY* (ppt)	CHL A (mg/m ³)	OXY (ml/l)	14C PRD (mg/m ³ /h)	N03 (uM/l)	P04 (uM/l)	S104 (uM/l)
13 01	98.5	6.63	33.84		1.65			35.00	2.63	43.10
13 02	77.6	6.72	33.79		1.71			35.80	2.85	59.40
13 03	50.1	7.31	33.54		2.26			33.00	2.57	49.90
13 04	32.1	8.06	33.17		3.06			28.90	2.39	44.00
13 05	24.2	8.70	32.84		3.85			25.00	2.14	38.20
13 06	12.7	10.08	32.40	4.66	4.25	17.8	16.80	1.70	30.20	
13 07	2.6	11.92	31.88	15.33	8.68	72.3	2.50	.81	14.50	
14 01	87.3	6.87	33.74		1.93			34.30	2.82	52.20
14 02	74.7	6.99	33.68		1.99			33.20	2.76	50.50
14 03	49.5	7.77	33.31		2.88			29.90	2.53	45.50
14 04	31.9	8.25	33.00		3.36			28.40	2.35	44.10
14 05	22.7	8.51	32.82		3.63			26.80	2.25	41.30
14 06	10.6	10.66	31.58	23.27	6.66	86.4	13.40	1.37	23.00	
14 07	5.1	10.95	31.45	25.22	7.58	78.3	9.50	1.16	20.10	
15 01	49.5	8.46	32.89							
15 02	31.3	9.23	32.32		4.05			26.50	2.26	42.20
15 03	21.0	9.43	32.04		4.14			25.70	2.25	41.70
15 04	10.3	10.24	31.65	3.98	5.14	14.7	21.60	1.99	35.00	
15 05	4.1	11.45	31.29	14.84	7.49	76.7	10.50	1.23	20.40	
16 01	225.6	6.82	33.94		2.19			30.50	2.64	47.10
16 02	200.5	6.84	33.94		2.18			32.80	2.62	50.60
16 03	151.0	6.95	33.91		2.39			32.50	2.57	48.90
16 04	125.8	7.24	33.85		2.67			31.10	2.42	43.20
16 05	99.7	7.39	33.75		2.92			29.80	2.36	42.80
16 06	75.6	7.52	33.55		3.29			26.80	2.22	39.00
16 07	50.4	8.11	32.96		4.46			20.80	1.94	29.70
16 08	27.0	9.22	32.46		4.72			18.30	1.79	25.70
16 09	13.9	13.22	31.83	5.39	6.98	26.9	.70	.45	7.60	
16 10	5.0	13.44	31.89	3.99	7.01	23.0	.20	.38	4.50	
17 01	132.3	6.59	33.91		2.07			34.50	2.73	53.10
17 02	101.1	6.97	33.83		2.40			32.70	2.59	44.80
17 03	76.3	7.42	33.65		2.58			30.80	2.43	46.00
17 04	50.8	8.14	33.14		3.14			30.70	2.36	43.60
17 05	29.5	9.03	32.54		3.72			27.00	2.27	44.50
17 06	20.0	9.91	32.21		3.92			24.40	2.18	39.80
17 07	10.6	12.28	31.71	1.39	6.10	6.0	9.40	1.13	17.70	
17 08	6.6	12.97	31.72	1.63	8.76	9.5	4.30	.80	12.20	
18 01	91.9	6.54	33.88		1.96			33.60	2.81	55.60
18 02	78.3	6.62	33.84		1.97			32.40	2.73	52.30
18 03	51.6	7.87	33.23		2.69			28.90	2.49	43.10
18 04	29.2	8.69	32.60		3.32			28.30	2.42	43.10
18 05	20.9	9.23	32.18		3.85			27.60	2.33	43.30
18 06	7.4	11.87	31.53	14.23	7.69	78.9	7.30	1.01	19.80	
18 07	4.9	11.88	31.56	15.04	7.84	75.8	4.60	.92	13.20	
19 01	216.5	6.16	33.99		1.70			37.20	2.88	63.70
19 02	200.1	6.19	33.98		1.71			36.20	2.90	60.90
19 03	150.3	6.54	33.91		1.91			34.10	2.78	55.00
19 04	126.1	6.88	33.84		2.18			32.00	2.76	53.60
19 05	101.2	6.94	33.81		2.00			32.70	2.64	55.00
19 06	76.3	7.05	33.75		2.21			31.30	2.63	48.30
19 07	50.3	7.44	33.50		2.28			31.00	2.64	45.90
19 08	31.1	7.91	33.18		2.88			29.80	2.51	44.10
19 09	10.8	10.68	32.32	3.75	6.09	18.9	13.20	1.36	24.40	
19 10	5.6	11.60	32.20	4.17	6.71	25.7	9.80	1.08	23.00	
20 01	110.1	6.72	33.84		1.65			33.00	2.84	53.60
20 02	69.9	7.05	33.68		1.96			32.60	2.75	51.50

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 3
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL*TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	P04 (uM/l)	SiO4 (uM/l)
20 03		47.7	7.46	33.46		2.30		29.70	2.53	44.70
20 04		29.3	8.07	33.12		3.26		27.70	2.21	40.60
20 05		20.5	8.17	33.03		3.66		26.30	2.15	37.10
20 06		11.2	9.39	32.95	1.37	5.50	10.0	17.40	1.65	36.40
20 07		5.4	11.90	32.41	1.65	6.58	14.5	11.30	1.15	31.20
21 01	221.4	6.33	33.98							55.30
21 02	199.6	6.41	33.96			1.91		34.60	2.73	48.70
21 03	139.6	6.75	33.87			2.15		29.70	2.72	
21 04	121.7	6.86	33.83			2.13		32.10	2.71	47.30
21 05	97.8	7.10	33.72			2.13		32.20	2.69	47.50
21 06	71.4	7.18	33.65			2.14		32.50	2.69	49.10
21 07	49.4	7.34	33.53			2.19		31.30	2.60	46.80
21 08	28.6	7.78	33.28			3.17		28.10	2.30	39.30
21 09	10.2	9.05	32.57	1.22	5.05	7.5		22.00	1.89	37.40
21 10	3.8	11.83	32.35	2.03	6.81	16.6		11.80	1.28	31.30
22 01	76.0	7.34	33.75			2.81		28.80	2.31	41.30
22 02	50.7	7.49	33.58			3.09		7.60	2.25	11.00
22 03	29.0	7.84	33.26			3.48		24.80	2.10	34.70
22 04	18.7	8.33	32.86	.33		3.92		22.30	1.95	31.70
22 06	10.9	10.23	32.39	2.30	5.50	13.4		16.00	1.58	29.40
22 08	6.3	11.46	32.38	1.85	6.29	14.0		11.60	1.29	28.90
23 01	206.5	6.52	33.94			1.80		35.10	2.77	56.50
23 02	148.2	6.69	33.87			1.87		33.60	2.68	53.70
23 03	125.1	6.74	33.86			1.92		31.40	2.78	49.80
23 04	99.0	6.86	33.80			2.03		30.30	2.65	45.50
23 05	72.8	7.06	33.69			1.99		31.90	2.65	48.70
23 06	48.5	7.84	33.28			3.02		29.10	2.51	42.30
23 07	29.1	9.22	32.78			3.91		23.80	2.07	37.70
23 08	8.7	11.74	32.47	1.21	6.92	15.2		9.10	1.03	26.20
23 09	3.7	12.70	32.39	1.58	6.97	11.4		8.50	.98	26.20
24 01	144.3	6.78	33.84			1.69		34.20	2.85	53.30
24 02	123.5	6.79	33.81			1.73		33.60	2.80	54.20
24 03	100.6	6.80	33.80			1.78		34.20	2.83	54.70
24 04	77.7	6.93	33.73			1.97		34.20	2.80	54.70
24 05	52.8	7.10	33.64			1.99		34.20	2.76	52.60
24 06	32.0	9.02	32.85			3.99		22.30	2.10	34.50
24 07	21.4	10.52	32.41			5.61		16.20	1.61	28.70
24 08	6.1	12.78	32.08	16.46	8.50	72.0		2.90	.71	10.10
24 09	3.0	12.89	32.08	16.38	8.47	69.0		2.50	.70	10.60
25 01	161.8	6.62	33.91			1.71		34.50	2.81	58.60
25 02	148.5	6.62	33.91			1.65		34.70	2.77	56.70
25 03	125.2	6.67	33.88			1.71		35.20	2.75	58.10
25 04	97.5	6.84	33.81			1.85		35.00	2.78	54.00
25 05	71.3	6.98	33.73			1.92		33.80	2.73	53.40
25 06	48.2	7.55	33.42			2.58		29.80	2.54	44.30
25 07	27.3	8.51	32.98			3.36		27.20	2.20	40.60
25 08	7.5	11.25	32.26	23.24	7.56	82.9		7.50	.95	15.30
25 09	2.4	12.14	32.17	12.69	8.57	52.4		2.20	.64	12.30
26 01	171.0	6.49	33.93			1.80		34.80	2.81	57.90
26 02	148.8	6.61	33.89			1.77		34.70	2.71	57.40
26 03	124.9	6.63	33.87			1.71		35.10	2.78	57.40
26 04	100.2	6.72	33.83			1.59		34.90	2.83	58.30
26 05	74.0	6.97	33.71			1.87		32.20	2.76	51.10
26 06	50.2	7.06	33.66			2.21		33.70	2.68	53.20
26 07	32.0	7.60	33.42			2.77		29.90	2.51	44.40
26 08	11.3	10.09	32.52	16.51	6.40	60.6		14.20	1.37	25.40

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 4
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT DEPTH (dbar)	TEMP * (deg C)	SAL' TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
26 09	2.7	11.19	32.30	15.61	7.49	6.6	9.50	1.16	21.50
27 01	232.1	6.55	33.95		1.78		34.70	2.83	57.00
27 02	198.0	6.60	33.92		1.82		33.10	2.78	55.60
27 03	148.4	6.69	33.87		1.77		34.30	2.80	57.20
27 04	126.5	6.73	33.84		1.77		19.70	2.80	29.00
27 05	101.2	6.74	33.82		1.78		35.20	2.79	58.30
27 06	75.9	6.77	33.79		2.06		34.80	2.77	57.40
27 07	50.4	6.98	33.70		1.99		30.10	2.76	43.50
27 08	30.8	7.57	33.40		2.55		31.80	2.57	48.30
27 09	11.2	9.89	32.71	.92	5.47	5.5	19.40	1.70	35.90
27 10	5.2	11.50	32.42	1.04	6.44	6.8	13.70	1.30	28.70
28 01	251.0	6.35	34.00		1.88		34.70	2.73	55.60
28 02	201.2	6.62	33.94		1.92		34.70	2.78	56.30
28 03	149.7	6.72	33.87		1.80		34.20	2.73	56.50
28 04	123.3	6.75	33.85		1.85		34.80	2.79	54.40
28 05	99.5	6.92	33.78		2.19		34.40	2.73	47.30
28 06	74.7	7.51	33.48		2.40		32.00	2.57	42.90
28 07	49.3	7.75	33.32		2.89		29.50	2.44	42.20
28 08	29.1	8.04	33.16		3.15		29.10	2.29	42.20
28 09	8.6	9.67	32.68	1.03	4.68	5.3	21.00	1.81	35.30
28 10	5.0	11.52	32.40	1.20	6.10	7.7	13.80	1.34	27.30
29 01	38.8	8.85	32.56		3.04		27.50	2.42	40.70
29 02	32.0	8.96	32.49		3.21		27.50	2.34	42.60
29 03	21.4	9.90	32.17		4.81		20.30	1.98	31.10
29 04	10.8	11.38	32.06	29.06	7.75	83.7	5.60	1.00	11.20
29 05	2.6	12.14	31.84	24.87	8.62	95.5	1.30	.65	8.90
31 01	52.0	8.75	32.63		3.02		28.60	2.48	45.00
31 02	29.0	9.18	32.32		3.70		25.10	2.29	38.60
31 03	19.5	10.76	32.14		7.12		8.40	1.25	17.10
31 04	13.6	11.18	31.93	20.84	7.20	67.4	9.80	1.20	19.90
31 05	2.4	12.16	31.78	27.27	8.91	90.0	.80	.66	8.20
33 01	66.1	8.41	32.88		2.81		29.30	2.46	45.90
33 02	51.0	8.46	32.80		3.07		30.30	2.47	45.40
33 03	33.9	8.97	32.31		3.74		27.80	2.33	42.20
33 04	21.5	9.67	32.07		4.54		23.00	1.98	35.30
33 05	8.3	12.07	31.95	22.52	8.61	80.3	.60	.66	3.60
33 06	2.7	12.85	31.86	18.25	8.69	68.5	.30	.54	5.50
35 01	58.4	8.14	33.04		3.73		23.80	2.08	33.70
35 02	44.5	8.52	32.76		4.29		24.60	2.10	33.50
35 03	31.8	9.11	32.43		4.28		21.90	2.00	30.50
35 04	20.7	11.52	31.82		5.90		8.70	1.27	17.70
35 05	10.6	12.74	31.77	8.26	7.05	28.7	1.30	.73	9.30
35 06	5.3	13.35	31.72	5.74	8.02	30.1	.10	.55	7.00
37 01	102.3	6.90	33.83		1.89		32.90	2.76	57.30
37 02	75.3	7.50	33.60		2.61		28.40	2.42	42.20
37 03	49.5	8.15	33.01		3.22		24.30	2.13	35.70
37 04	31.2	8.70	32.55		3.35		27.20	2.43	43.10
37 05	18.5	9.20	32.19		3.78		25.50	2.30	40.80
37 06	10.9	11.38	31.82	11.76	5.96	43.7	10.70	1.48	19.50
37 07	5.0	12.80	31.80	11.36	7.97	48.7	.40	.65	7.40
39 01	145.8	6.28	33.95		2.00		32.70	2.61	59.30
39 02	127.7	6.33	33.94		2.06		33.60	2.71	55.10
39 03	98.1	7.18	33.80		1.70		32.90	2.78	55.60
39 04	73.9	7.89	33.26		3.24		27.80	2.30	40.50
39 05	48.0	8.19	32.96		3.95		22.00	1.98	33.30
39 06	29.7	8.66	32.66		4.32		14.60	1.86	22.00

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 5
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL*TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	N03 (uM/l)	P04 (uM/l)	SiO4 (uM/l)
39 07		14.7	9.47	32.47	.81	5.54	2.4	14.00	1.50	21.30
39 08		5.3	13.31	31.55		7.01	2.4	2.10	.74	8.80
41 01		253.0	5.96	34.07		1.62		38.90	2.90	48.80
41 02		199.1	6.26	33.99		2.52		35.20	2.72	
41 03		150.6	6.66	33.95		2.80		31.30	2.44	43.00
41 04		128.4	6.89	33.92		3.06		30.10	2.34	42.90
41 05		99.9	7.39	33.67		3.30		27.90	2.22	38.30
41 06		76.0	7.68	33.41		4.02		23.40	1.98	30.70
41 07		49.4	8.23	32.97		4.02		22.80	2.04	33.20
41 08		30.7	8.80	32.52		5.31		14.20	1.53	21.00
41 09		6.6	12.02	32.04	8.84	7.61	32.3	.20	.53	1.60
41 10		4.1	13.25	32.06	5.83	8.84	26.3	0.00	.36	1.60
43 01		251.7	6.07	34.05		1.71		35.30	2.83	38.70
43 02		194.7	6.61	33.94		3.37		29.70	2.32	34.50
43 03		148.0	7.02	33.88		3.50		28.80	2.17	39.80
43 04		124.0	7.18	33.78		3.78		26.60	2.08	36.80
43 05		97.5	7.55	33.54		4.43		24.10	1.95	31.30
43 06		71.5	8.00	33.04		5.02		17.60	1.64	23.70
43 07		46.8	8.41	32.62		6.23		10.40	1.18	15.60
43 08		28.8	9.76	32.46		5.94		9.30	1.18	16.50
43 09		12.9	11.73	32.11	20.67	6.53	58.8	.50	.78	6.00
43 10		4.4	13.04	32.08	3.99	8.16	16.7	0.00	.36	1.10
45 01		250.8	6.30	33.99		3.09		30.90	2.40	51.00
45 02		200.2	6.78	33.95		3.29		28.80	2.24	44.50
45 03		149.6	7.17	33.83		4.03		27.50	2.09	40.20
45 04		125.6	7.39	33.71		4.54		23.50	2.10	31.40
45 05		98.8	7.70	33.37		4.58		21.20	1.81	26.80
45 06		75.6	8.25	32.89		5.54		14.60	1.44	20.20
45 07		49.6	8.50	32.56		6.64		8.50	1.08	14.20
45 08		31.3	9.70	32.45		6.62		5.90	.91	13.80
45 09		20.6	11.92	32.19	20.18	6.71	67.7	.60	.77	4.60
45 10		5.3	14.47	32.04	3.89	8.53	13.7	0.00	.32	3.00
46 01		248.4	6.65	34.00		2.30		32.80	2.56	50.40
46 02		199.3	7.07	33.92		2.44		30.50	2.35	45.60
46 03		149.4	7.64	33.74		3.57		27.40	2.22	37.60
46 04		125.4	7.69	33.52		4.07		24.20	1.99	36.70
46 05		99.9	8.59	33.26		4.15		20.90	1.80	27.00
46 06		74.5	8.57	32.68		5.83		11.70	1.26	17.20
46 07		50.3	9.05	32.53		6.49		7.60	1.04	13.50
46 08		26.0	12.34	32.01	2.34	6.88	7.6	.90	.66	2.30
46 09		12.1	13.76	31.87		7.58		.10	.46	6.00
46 10		7.6	14.29	31.96	.40	6.72	3.2	0.00	.43	54.70
48 01		252.2	6.61	34.00		2.40		32.80	2.59	51.10
48 02		200.4	7.13	33.94		2.69		30.10	2.41	44.20
48 03		149.6	7.76	33.76		3.13		28.60	2.29	38.20
48 04		124.6	7.95	33.64		3.51		25.90	2.11	32.70
48 05		99.3	7.97	33.28		4.62		20.50	1.77	26.80
48 06		75.4	8.25	32.74		5.98		12.10	1.31	28.80
48 07		50.1	8.90	32.50		6.55		7.90	1.04	22.70
48 08		24.0	11.91	32.17	14.91	7.27	45.7	3.50	.95	5.30
48 09		13.2	12.51	32.07		6.83		1.50	.67	5.00
48 10		9.0	13.81	31.82	1.39	6.51	6.6	.10	.42	5.30
50 01		251.4	5.93	33.98		2.50		33.40	2.53	56.20
50 02		199.1	6.76	33.93		3.28		28.50	2.24	43.70
50 03		148.7	7.18	33.84		3.52		27.70	2.17	39.60
50 04		123.5	7.34	33.74		3.85		26.00	2.06	34.90

DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 6
 * - Indicates that data is from an electronic sensor.

STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SALTY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SiO4 (uM/l)
50 05		99.0	7.73	33.41		4.20		22.80	1.74	31.80
50 06		73.2	8.09	33.02		4.95		20.70	1.82	29.20
50 07		49.0	8.47	32.55		6.65		9.70	1.20	15.10
50 08		28.6	9.33	32.36		6.35		10.20	1.20	18.80
50 09		9.8	12.17	32.09	13.52	8.53	46.0	2.30	.68	6.10
50 10		6.8	13.60	31.97	3.31	7.31	13.9	.20	.39	8.90
52 01		150.2	6.72	33.92		2.74		31.30	2.37	47.70
52 02		123.0	7.21	33.83		3.41		27.50	2.16	38.90
52 03		97.5	7.65	33.49		3.37		26.70	2.18	37.30
52 04		72.8	8.05	33.09		3.89		24.10	2.05	35.40
52 05		49.6	8.85	32.62		4.03		20.30	1.98	29.50
52 06		30.3	9.45	32.42		4.87		16.70	1.53	27.60
52 07		16.2	10.73	32.61	1.74	5.65	7.0	8.90	1.28	12.60
52 08		5.7	13.15	32.04	.75	7.48	6.5	1.50	.65	5.10
54 01		142.1	6.32	33.94		2.03		29.20	2.75	43.70
54 02		125.2	6.73	33.89		2.28		32.60	2.57	45.30
54 03		95.7	7.25	33.76		2.96		29.60	2.39	41.10
54 04		71.8	7.57	33.59		3.51		27.10	2.15	35.70
54 05		50.8	7.95	33.21		3.58		25.80	2.15	35.90
54 06		31.2	8.73	32.74		4.36		21.10	1.99	30.30
54 09		8.7	11.36	32.15	33.55	9.65	125.3	.40	.81	6.30
54 10		2.8	12.59	32.15	5.37	9.78	23.7	0.00	.36	4.70
56 01		109.3	6.85	33.87		1.80		32.40	2.86	52.80
56 02		102.0	6.85	33.86		1.74		34.10	2.84	39.00
56 03		76.8	7.47	33.60		3.36		27.70	2.25	35.50
56 04		49.4	8.09	33.07		3.96		23.60	2.07	33.40
56 05		31.3	8.63	32.68		4.32		22.70	2.01	32.50
56 06		21.0	9.32	32.51		4.53		17.00	1.82	25.70
56 07		10.2	11.34	32.05	14.57	6.87	50.0	6.40	1.07	9.00
56 08		5.4	12.63	32.11	1.89	8.01	5.9	.90	.68	3.20
58 01		70.2	8.13	33.09		2.50		28.60	2.66	47.40
58 02		52.1	8.14	33.07		2.88		30.00	2.62	49.70
58 03		32.6	8.57	32.73		3.70		27.20	2.36	41.10
58 04		8.4	12.34	31.92	19.28	9.16	54.5	.20	.66	3.70
58 05		2.5	13.56	31.89	4.66	9.68	27.9	1.10	.44	2.50
60 01		42.1	8.99	32.56		2.95		27.70	2.55	50.50
60 02		27.1	8.98	32.56		3.15		28.00	2.59	49.30
60 03		21.4	8.99	32.55		3.04		27.30	2.53	47.90
60 04		12.2	11.31	31.87	21.11	7.13	66.8	6.10	1.12	14.70
60 05		3.1	13.33	31.88	5.47	8.84	21.8	.40	.49	3.70
61 01		35.2	8.98	32.57		3.09		25.80	2.46	41.20
61 02		22.0	9.09	32.52		3.28		27.00	2.36	43.20
61 03		8.9	11.36	32.16	11.41	7.77	31.9	9.90	1.24	20.70
61 04		3.8	11.44	32.16	12.48	7.20	39.7	5.30	.94	16.10
62 01		93.6	7.39	33.64		1.84				
62 02		75.5	7.69	33.38		1.87				
62 03		53.3	8.41	32.89		3.40				
62 04		33.9	8.85	32.59		3.59				
62 05		21.8	9.45	32.31		4.05				
62 06		12.5	10.87	32.15	14.72	6.44				
63 01		112.6	6.82	33.85		1.93		34.30	2.78	54.70
63 02		96.6	6.86	33.85		2.13		34.70	2.66	55.10
63 03		74.9	7.28	33.71		2.67		30.50	2.49	44.50
63 04		52.3	7.94	33.23		3.50		23.70	2.10	33.50
63 05		32.7	8.37	32.86		3.84		21.80	1.91	30.70
63 06		21.8	9.21	32.55		4.50		18.40	1.94	26.10

DATA BASE LISTING: CRUISE 80-OB, STATION 1 TO STATION 81. PAGE 7
 * - Indicates that data is from an electronic sensor.

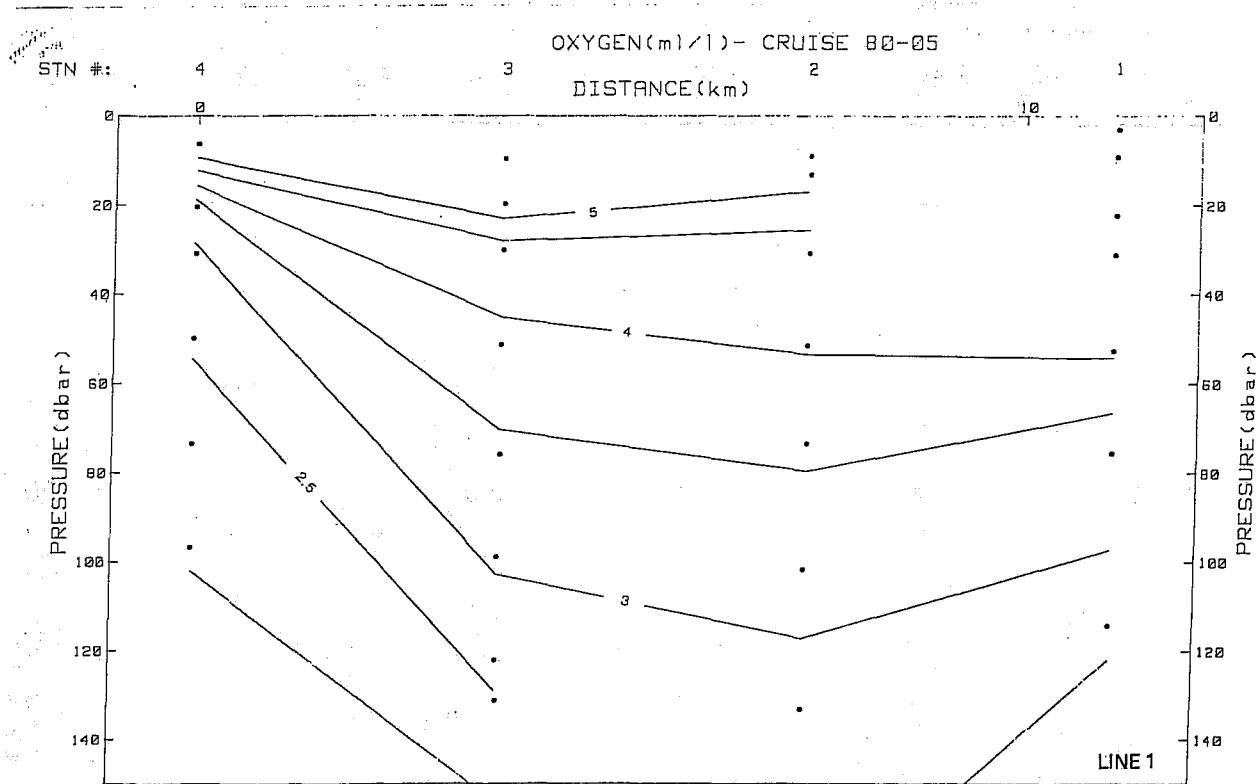
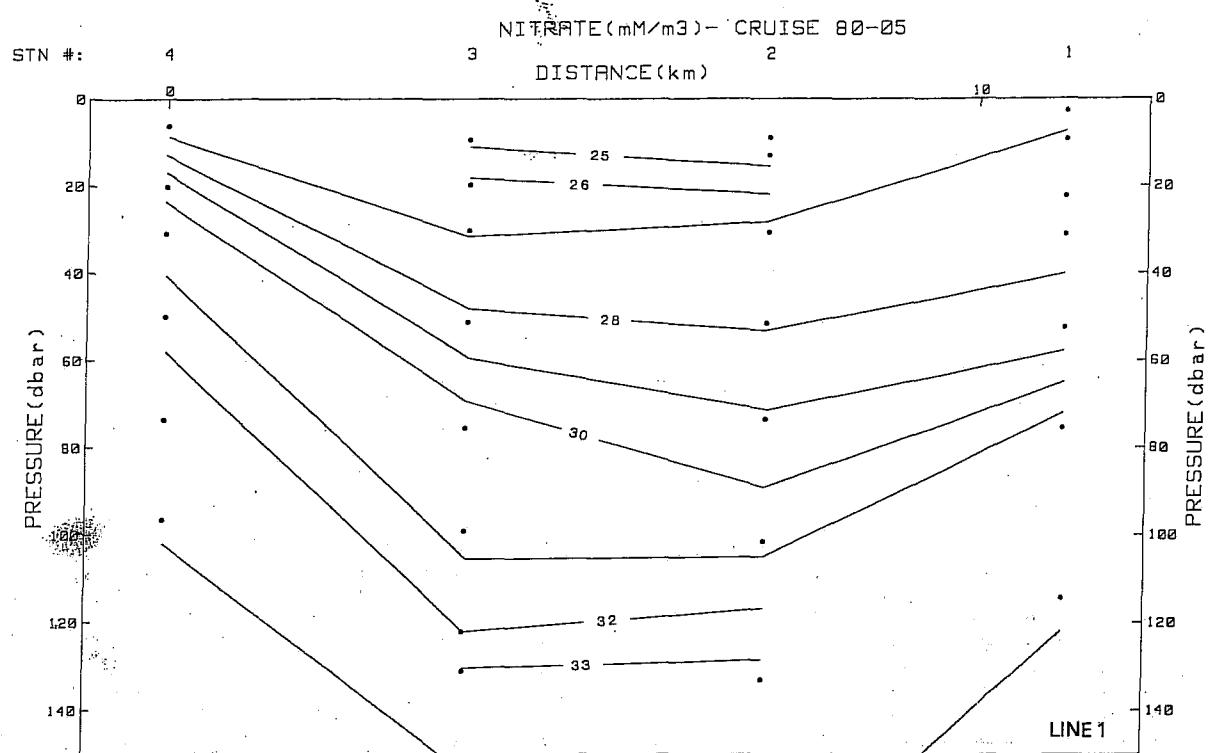
STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SALTY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD (mg/m3/h)	N03 (uM/l)	P04 (uM/l)	Si04 (uM/l)
63 07		12.3	11.82	32.03	21.40	7.73	82.3	1.40	.79	8.30
64 01		142.2	6.49	33.92		2.13				
64 02		125.5	6.59	33.90		2.39				
64 03		98.8	6.87	33.84		2.85				
64 04		75.3	7.29	33.76		3.21				
64 05		51.7	7.70	33.42		3.36				
64 06		31.2	8.26	32.98		3.99				
64 07		19.7	9.29	32.61		3.84				
64 08		8.3	11.78	32.08	15.90	7.39				
65 01		181.7	6.35	33.95		2.25		31.00	2.72	51.60
65 02		151.2	6.44	33.96		2.44		32.40	2.53	52.30
65 03		126.8	6.79	33.87		3.35		29.70	2.31	
65 04		100.1	7.09	33.80		3.30		28.80	2.26	42.20
65 05		76.2	7.41	33.66		3.14		28.30	2.27	39.60
65 06		50.8	7.88	33.23		3.57		25.10	2.06	34.80
65 07		31.3	9.00	32.64		4.06		22.00	1.98	32.00
65 08		11.1	12.08	32.16	15.03	7.68		1.20	.66	5.50
65 09		4.0	12.16	32.02	14.62	7.76	57.9	1.20	.64	6.40
66 01		246.1	5.92	33.96		2.62		33.80	2.66	45.30
66 02		202.6	6.37	33.93		3.07		31.70	2.40	48.00
66 03		149.4	6.93	33.90		3.24		28.90	2.35	43.70
66 04		111.1	7.38	33.72		3.36		27.90	2.25	39.10
66 05		98.9	7.55	33.58		3.48		27.50	2.21	37.50
66 06		77.7	7.80	33.33		3.85		25.00	2.13	33.80
66 07		51.9	8.56	32.83		4.06		21.40	1.90	30.40
66 08		29.5	10.12	32.37		5.48		13.80	1.52	23.80
66 09		20.1	11.02	32.27	3.95	6.53	14.1	8.30	1.14	20.50
66 10		8.5	11.26	32.29	3.93	6.49		8.30	1.08	18.70
67 01		86.8	6.99	33.69		1.79		34.30	2.93	57.10
67 02		73.0	8.13	33.03		2.67		30.80	2.66	48.80
67 03		52.2	8.49	32.79		3.01		29.40	2.55	44.70
67 04		30.0	8.91	32.55		3.73		27.00	2.26	41.00
67 05		18.4	9.43	32.11		4.50		23.00	2.11	34.90
67 06		10.1	10.11	31.75	30.29	7.91	86.7	7.60	1.10	13.00
68 01		144.4	7.80	33.30		2.46		31.20	2.68	53.10
68 02		126.0	7.84	33.28		2.46		30.20	2.63	51.50
68 03		103.0	8.03	33.16		2.53		30.90	2.55	50.30
68 04		76.5	8.27	32.97		2.65		41.70	2.43	66.20
68 05		51.9	8.60	32.75		3.08		28.30	2.51	45.80
68 06		32.6	9.23	32.32		3.83		24.70	2.27	41.00
68 07		21.5	10.10	31.92		4.39		23.50	2.02	39.20
68 08		10.4	11.12	31.58	12.01	6.14	18.7	15.00	1.50	28.80
68 09		3.0	13.28	31.47	6.09	9.70	50.2	.80	.48	7.70
69 01		91.5	7.30	33.56		1.93		32.40	2.92	54.40
69 02		76.0	7.66	33.37		2.39		31.20	2.65	48.70
69 03		50.6	8.50	32.67		3.39		27.30	2.43	42.60
69 04		31.6	8.94	32.36		3.94		26.10	2.33	41.50
69 05		20.3	9.25	32.13		4.24		24.40	2.18	37.40
69 06		9.1	10.04	31.87	13.74	6.14	34.8	17.40	1.70	27.90
69 07		5.0	10.98	31.81	8.30	6.77	22.5	11.80	1.57	19.00
70 01		105.0	6.81	33.81		1.96		33.60	2.79	52.50
70 02		76.4	7.23	33.62		2.12		33.60	2.39	50.10
70 03		51.2	7.91	33.26		3.08		29.30	2.46	42.80
70 04		30.4	8.64	32.93		4.02		24.60	2.11	35.80
70 05		20.6	9.45	32.69		4.76		22.00	1.91	32.80
70 06		10.1	10.01	32.59	2.77	5.36	8.0	19.30	1.76	31.70

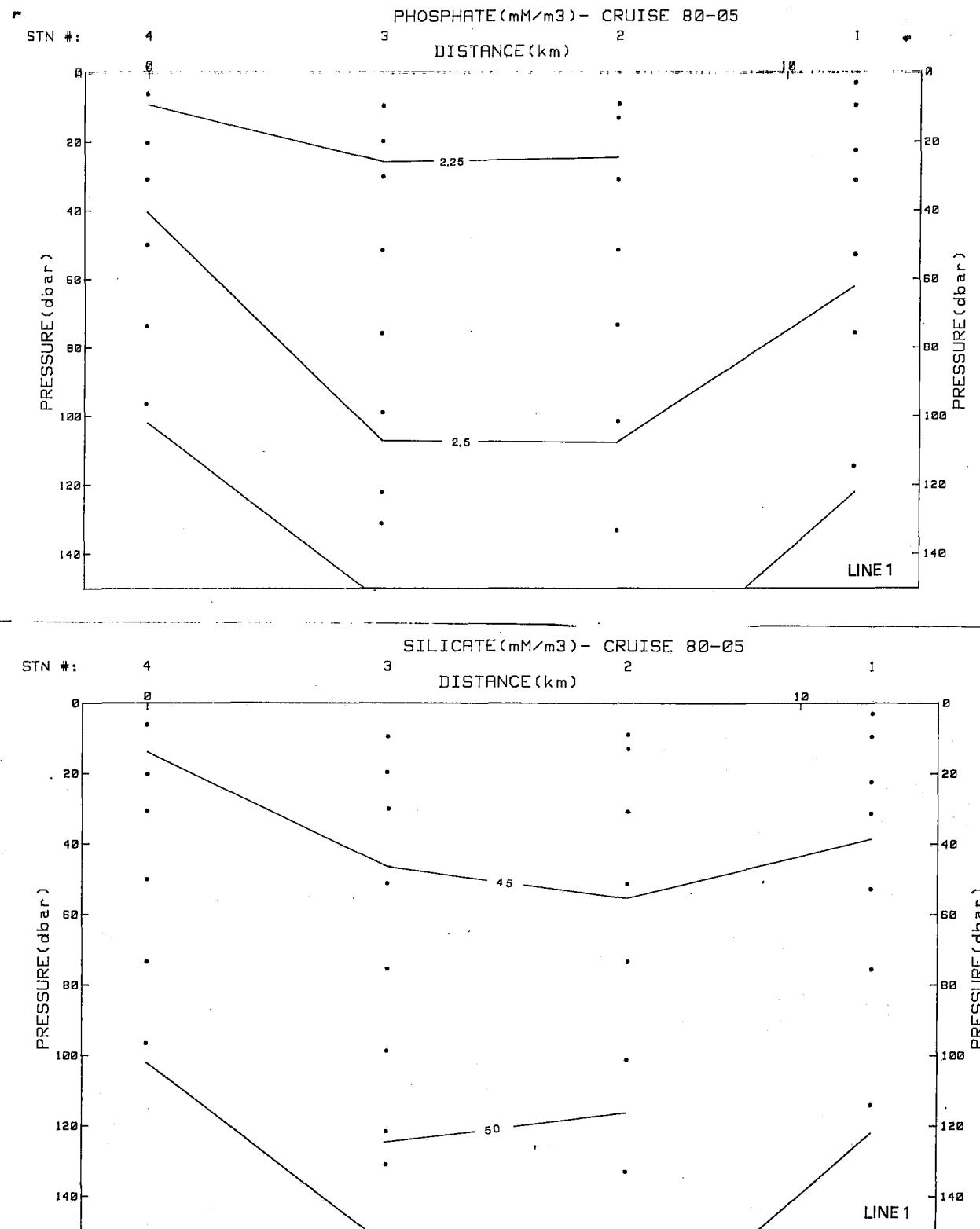
DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 8
 * - Indicates that data is from an electronic sensor.

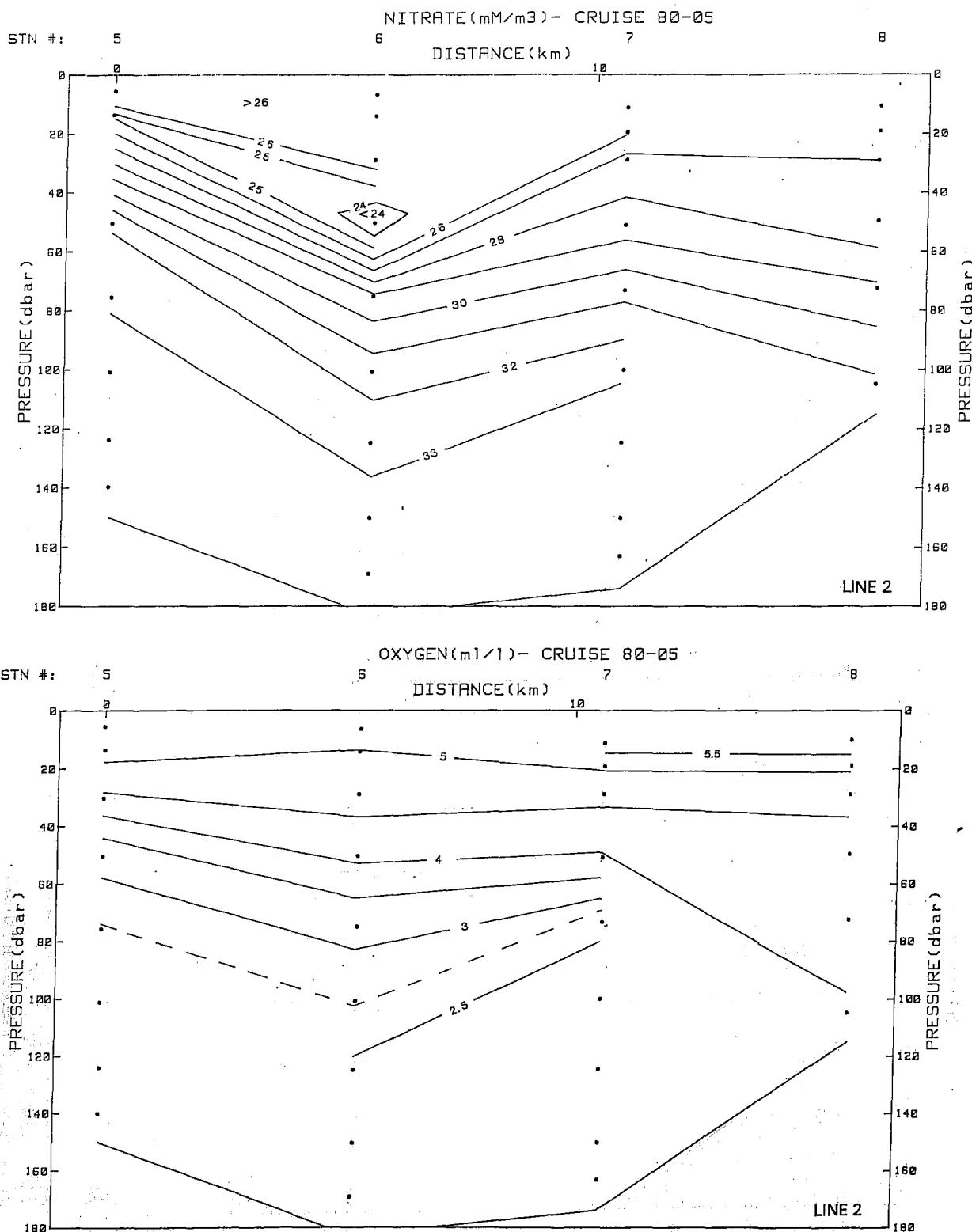
STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL' TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	14C PRD mg/m3/h	NO3 (uM/l)	PO4 (uM/l)	SIO4 (uM/l)
71 01	254.0	6.23	34.04		2.12		34.80	2.71	36.70	
71 02	200.9	6.64	33.97		2.53		33.10	2.61	51.60	
71 03	149.4	7.20	33.85		2.79		30.90	2.40	40.50	
71 04	126.4	7.41	33.70		3.64		26.70	2.15	36.90	
71 05	100.2	7.67	33.39		4.38		23.60	1.86	29.90	
71 06	76.4	8.23	32.80		5.76		14.10	1.38	18.80	
71 07	50.0	8.56	32.53		6.48		9.30	1.09	17.90	
71 08	28.8	9.68	32.48		6.55		6.50	1.02	13.60	
71 09	20.1	10.95	32.68		6.48		3.20	.83	10.40	
71 10	9.6	13.75	32.00	.91	6.59	3.7	.20	.47	11.10	
72 01	244.5	6.54	34.01		2.53		33.30	2.54	49.80	
72 02	203.1	6.89	33.96		2.83		31.10	2.36	47.10	
72 03	150.0	7.38	33.85		3.05		29.80	2.33	42.10	
72 04	128.0	7.29	33.72		3.86		26.70	2.05	36.70	
72 05	99.7	7.78	33.42		4.24		23.90	1.94	30.30	
72 06	74.5	8.25	32.88		4.77		19.50	1.73	27.10	
72 07	49.3	8.56	32.54		6.35		9.50	1.12	15.80	
72 08	32.4	9.36	32.50		6.31		8.40	1.08	14.20	
72 09	21.2	10.68	32.35		6.74		3.10	.76	10.60	
72 10	9.5	13.57	32.06	1.30	6.74	4.9	1.30	.50	4.30	
73 01	248.8	6.37	34.04		1.98		35.20	3.17	56.90	
73 02	199.7	6.78	33.98		2.54		33.10	2.87	50.10	
73 03	150.1	7.44	33.86		2.94		29.70	2.55	42.70	
73 04	125.8	7.60	32.97		3.17		28.80	2.65	41.60	
73 05	98.8	7.87	33.50		3.98		25.00	2.40	35.50	
73 06	76.5	7.96	33.18		4.86		19.50	1.99	24.20	
73 07	51.0	8.33	32.60		5.80		12.90	1.40	19.80	
73 08	32.9	9.78	32.43		6.39		7.50	1.17	17.30	
73 09	23.6	12.32	32.21	1.59	6.95	5.2	1.50	.69	6.50	
73 10	4.8	13.65	31.91	1.26	6.99	5.2	.20	.54	3.50	
74 01	201.2	6.56	34.01		2.30		33.50	2.73	48.10	
74 02	150.0	7.19	33.88		2.93		30.70	2.56	44.60	
74 03	119.1	7.57	33.80		3.06		29.00	2.27	40.20	
74 04	99.7	7.48	33.62		4.10		25.90	2.04	34.70	
74 05	75.1	7.83	33.27		4.30		22.70	1.87	29.40	
74 06	50.8	8.30	32.70		5.80		13.30	1.31	19.10	
74 07	32.2	9.24	32.47		6.10		9.20	1.14	15.40	
74 08	17.8	12.24	32.00	4.85	6.70	14.8	2.90	.75	4.80	
74 09	4.0	12.80	31.61	10.20	8.55	27.2	.10	.42	3.00	
75 01	145.8	6.69	33.96		2.18		32.70	2.70	49.80	
75 02	120.2	7.01	33.92		2.42		32.00	2.56	47.70	
75 03	99.3	7.27	33.83		3.04		30.60	2.35	43.10	
75 04	75.0	7.41	33.64		3.56		27.20	2.15	37.10	
75 05	50.9	7.94	33.21		3.69		25.40	2.09	34.80	
75 06	31.4	8.34	32.91		4.51		21.20	1.87	29.30	
75 07	13.8	11.20	32.06	36.92	7.59	129.3	2.80	.87	6.40	
75 08	4.1	12.76	31.55	11.34	9.90	43.1	.20	.37	2.50	
76 01	145.9	6.57	33.96		2.04		33.70	2.70	53.90	
76 02	126.3	6.58	33.95		2.05		34.00	2.71	50.90	
76 03	100.6	7.16	33.72		1.79		33.70	2.74	51.80	
76 04	74.6	7.54	33.47		2.61		26.20	2.55	35.80	
76 05	50.3	8.12	33.14		3.00		31.80	2.43	44.50	
76 06	29.8	8.51	32.94		3.72		29.90	2.21	43.30	
76 07	15.0	9.81	32.20	3.34	5.20	14.1	21.90	1.87	32.60	
76 08	4.6	11.42	31.79	3.28	5.95	20.0	19.90	1.82	33.50	
77 01	123.2	6.47	33.92		1.66		35.60	2.92	60.40	

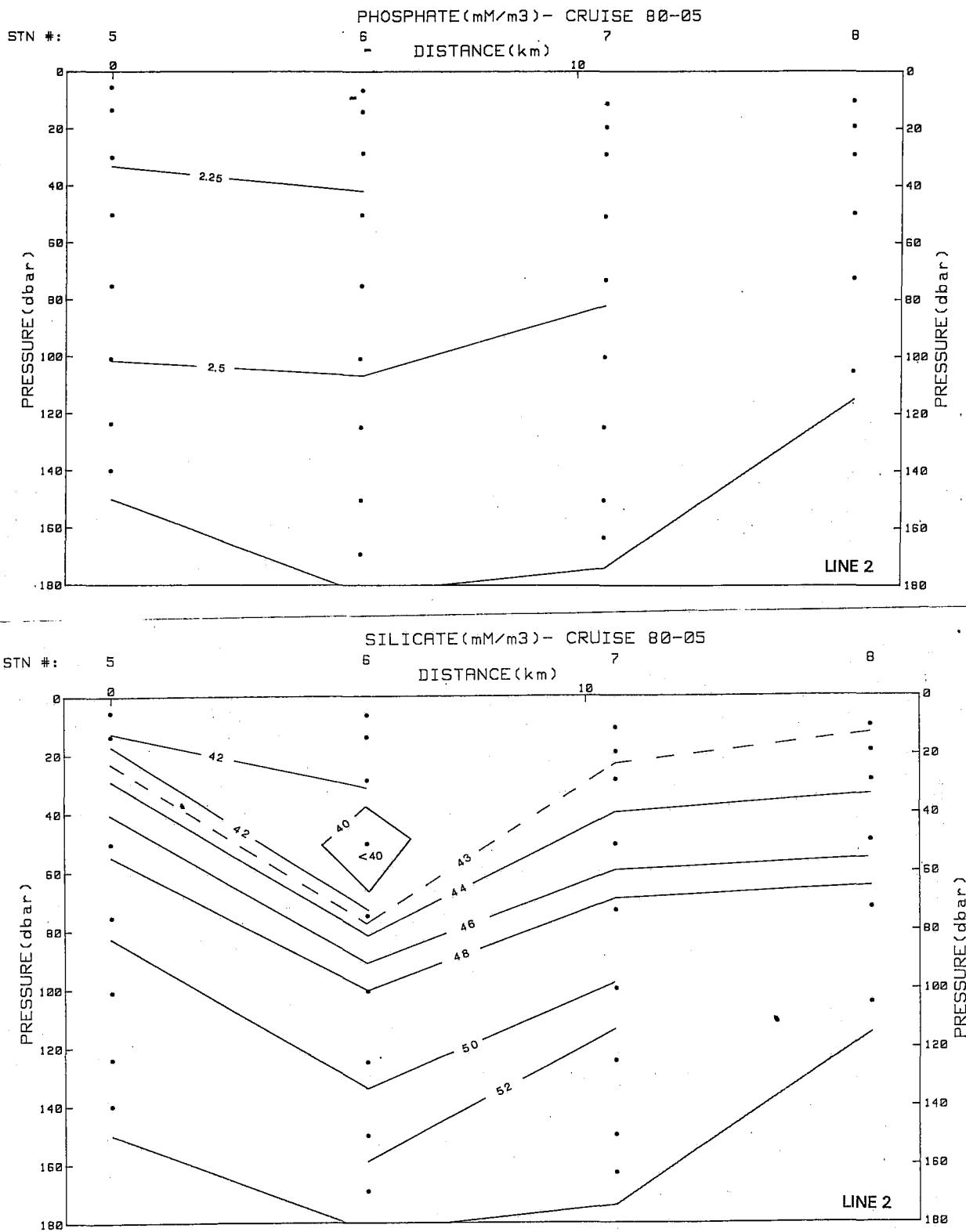
DATA BASE LISTING: CRUISE 80-08, STATION 1 TO STATION 81. PAGE 9
 * - Indicates that data is from an electronic sensor.

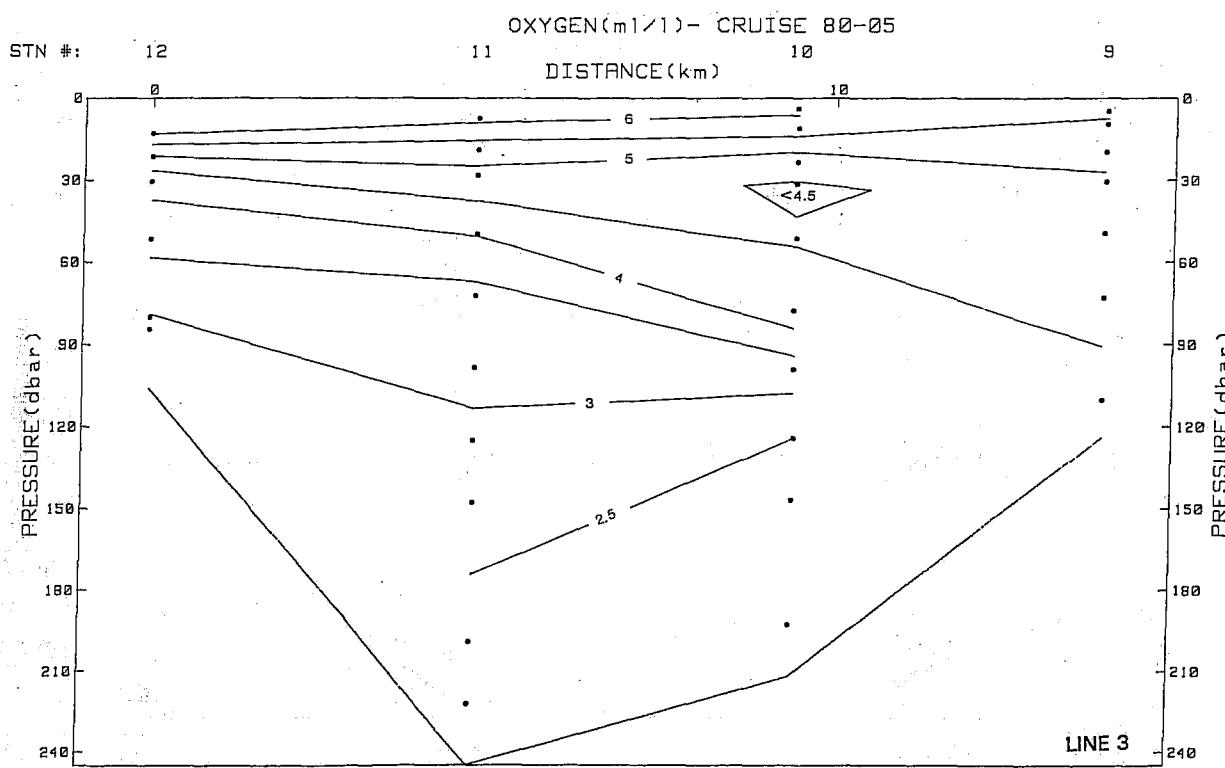
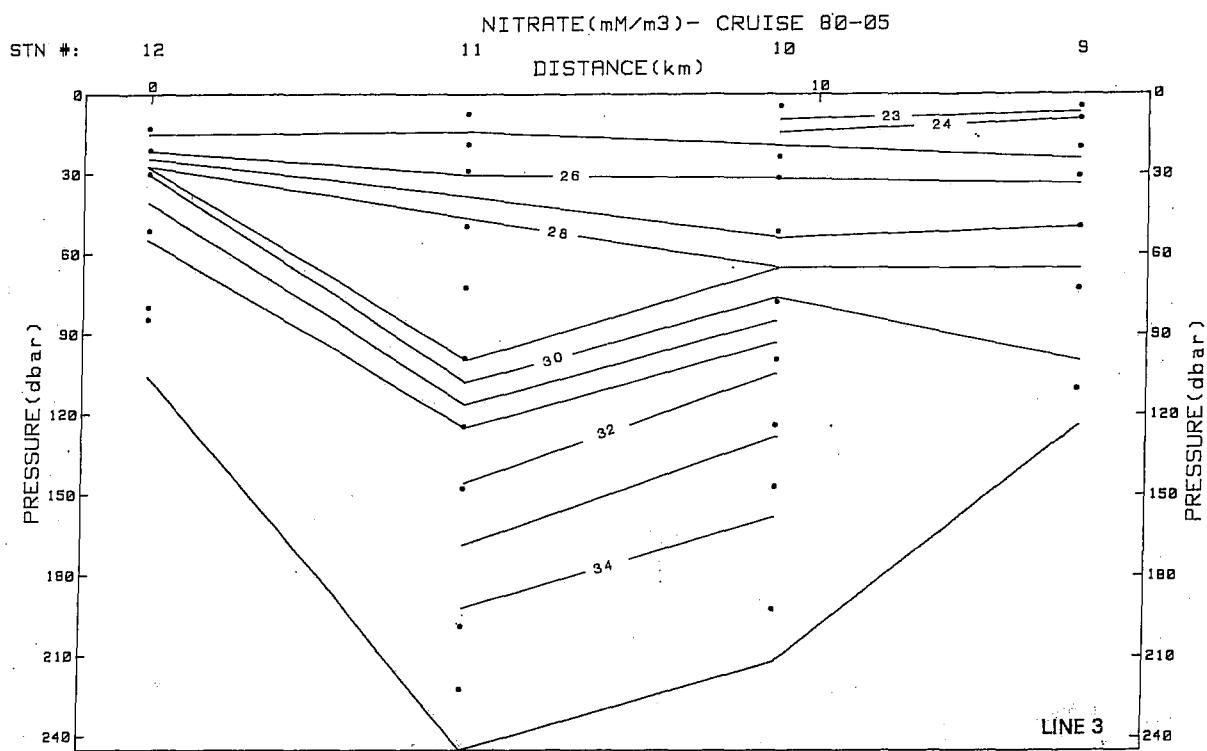
STN NO.	BOT NO.	DEPTH (dbar)	TEMP * (deg C)	SAL' TY* (ppt)	CHL A (mg/m3)	OXY (ml/l)	¹⁴ C PRD mg/m3/h	N03 (uM/l)	P04 (uM/l)	Si04 (uM/l)
77 02		100.6	6.80	33.81		1.57		35.20	2.86	56.50
77 03		75.1	6.99	33.73		1.79		34.40	2.80	55.10
77 04		48.2	7.21	33.62		2.07		29.40	2.70	44.40
77 05		28.9	8.28	33.08		3.01		29.20	2.39	42.10
77 06		7.3	10.27	32.15	8.97	5.88	32.7	14.10	1.50	17.70
77 07		5.2	11.04	32.02	8.18	8.48	34.9	1.90	.52	3.40
78 01		150.8	6.51	33.94		1.68		28.80	2.92	48.40
78 02		127.1	6.62	33.90		1.46		33.40	2.83	54.00
78 03		100.8	6.71	33.87		1.64		35.40	2.73	55.40
78 04		75.0	6.91	33.78		1.66		34.80	2.76	52.60
78 05		49.9	7.23	33.60		1.98		32.20	2.60	48.50
78 06		30.3	8.06	33.20		2.85		30.20	2.49	44.20
78 07		8.3	10.90	32.43	4.18	5.90	17.1	14.10	1.44	20.60
78 08		3.9	12.45	32.21	2.84	7.95	17.6	2.90	.58	6.30
79 01		108.3	6.67	33.88		1.38		34.20	2.95	56.00
79 02		100.0	6.67	33.87		1.44		34.80	2.85	58.70
79 03		75.4	6.94	33.74		1.98		34.10	2.74	53.00
79 04		50.9	7.49	33.51		2.54		31.40	2.55	47.10
79 05		29.6	8.20	33.19		3.21		28.20	2.30	41.70
79 06		18.3	9.74	32.76		5.07		19.30	1.74	31.50
79 07		8.6	11.21	32.37	2.45	6.36	15.6	14.50	1.43	28.10
79 08		3.8	11.51	32.43	2.39	7.36	15.1	14.50	1.35	24.70
80 01		105.1	6.74	33.82		1.71		32.70	2.72	50.90
80 02		101.1	6.76	33.82		1.72		35.00	2.76	52.50
80 03		74.8	7.17	33.65		2.16		33.00	2.67	50.40
80 04		49.1	7.84	33.34		2.82		21.70	2.44	31.70
80 05		33.2	8.10	33.21		3.08		29.20	2.38	43.90
80 06		17.3	9.16	32.82		4.36		23.50	1.93	35.70
80 07		9.4	10.24	32.28	2.05	5.21	13.1	23.10	2.03	36.40
80 08		5.0	10.89	31.92	1.73	5.23	12.1	21.80	2.00	35.90
81 01		47.0	8.59	32.65		3.43		27.50	2.35	42.90
81 02		32.8	9.10	32.29		4.54		28.50	2.21	44.70
81 03		21.4	9.23	32.20		4.17		24.40	2.15	38.20
81 04		9.0	9.89	31.97	3.37	5.36	19.9	20.20	1.80	31.80
81 05		5.8	10.32	31.82	2.20	5.13	13.8	21.40	1.96	34.10

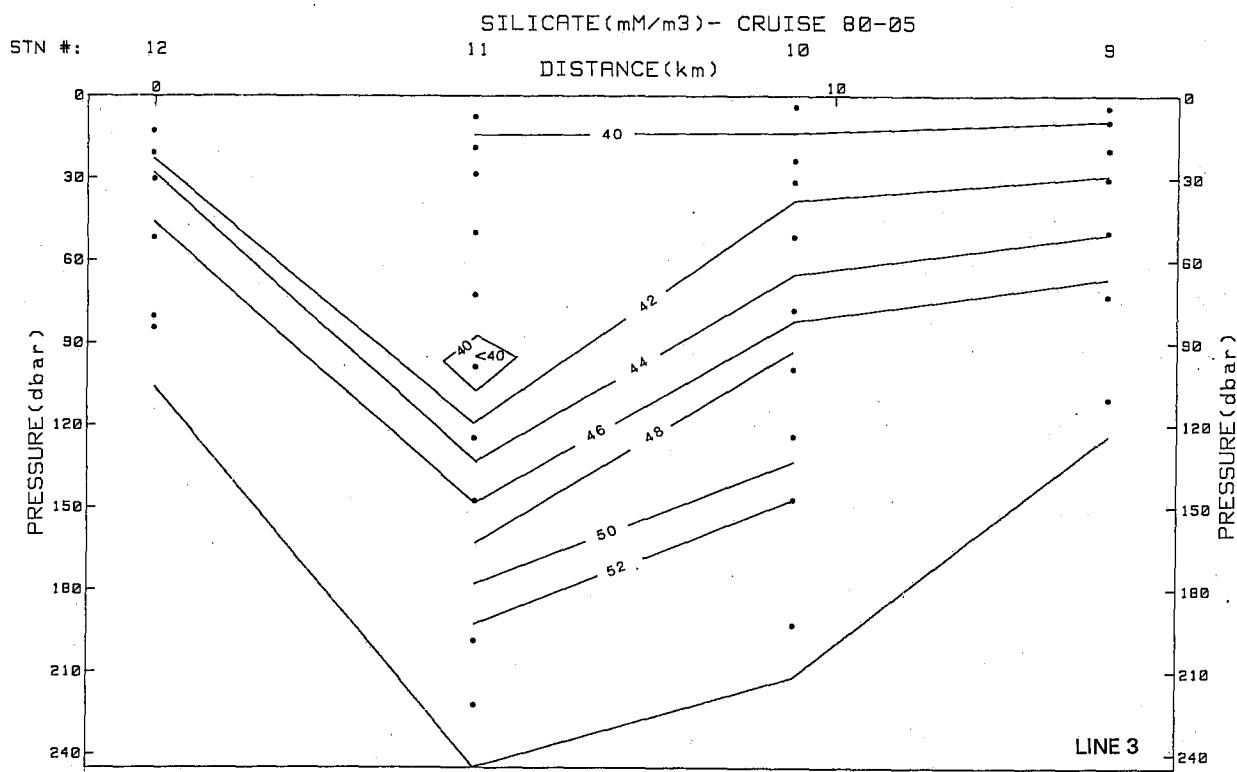
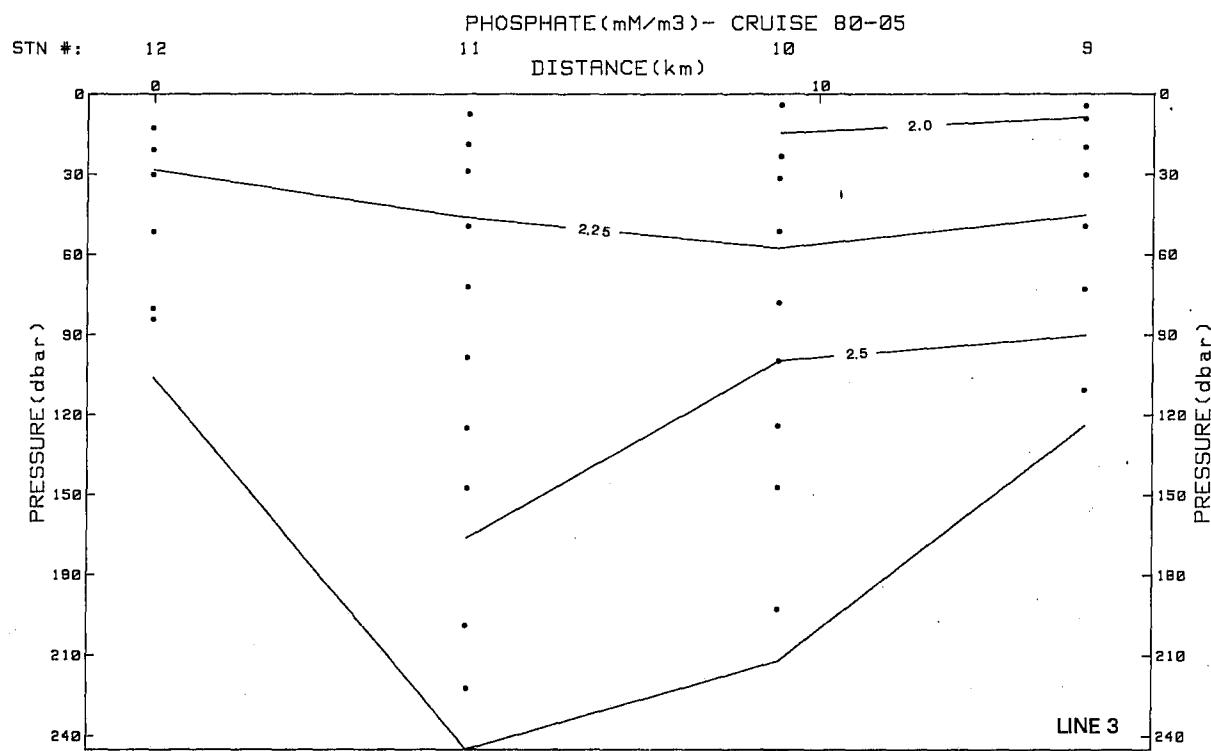


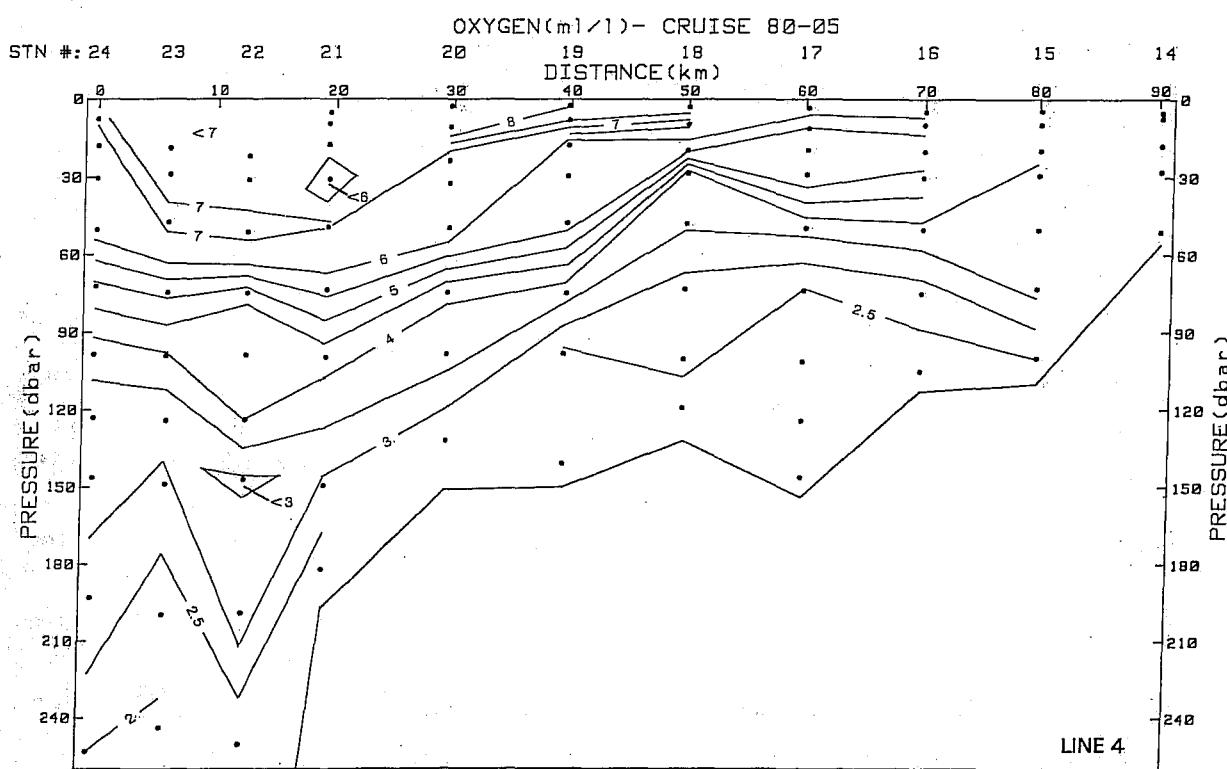
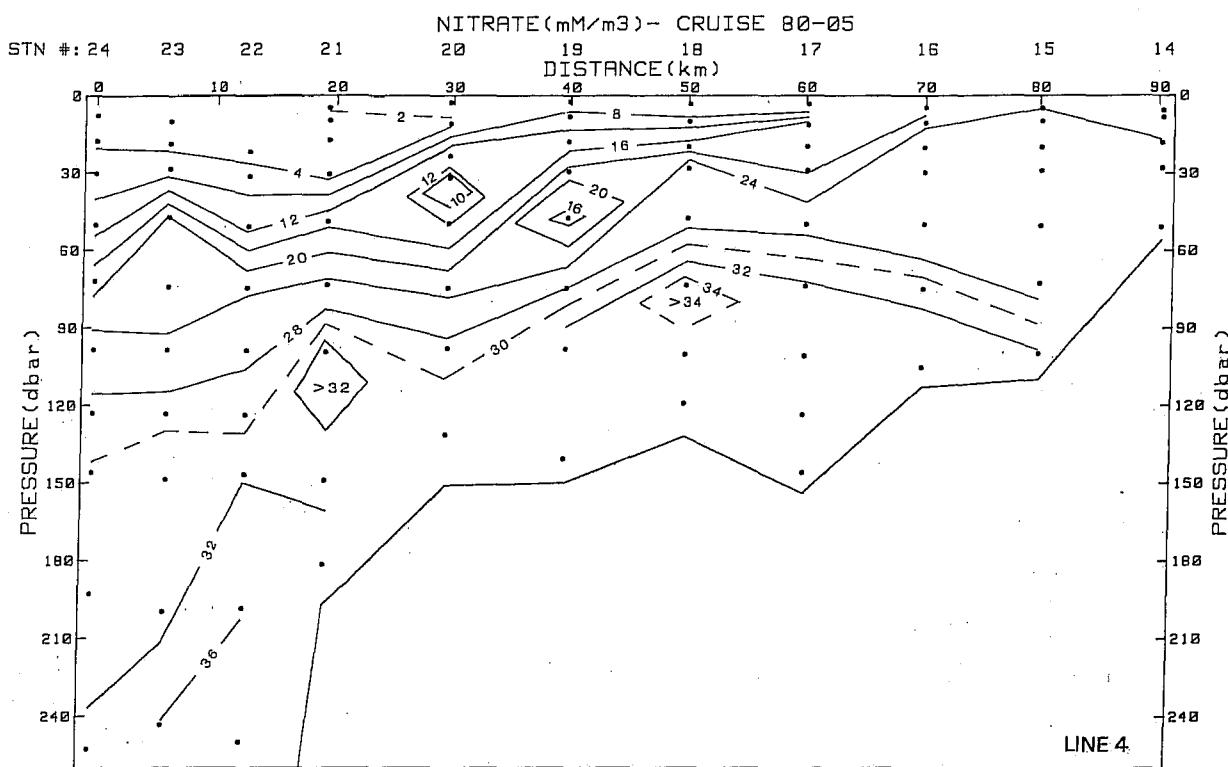


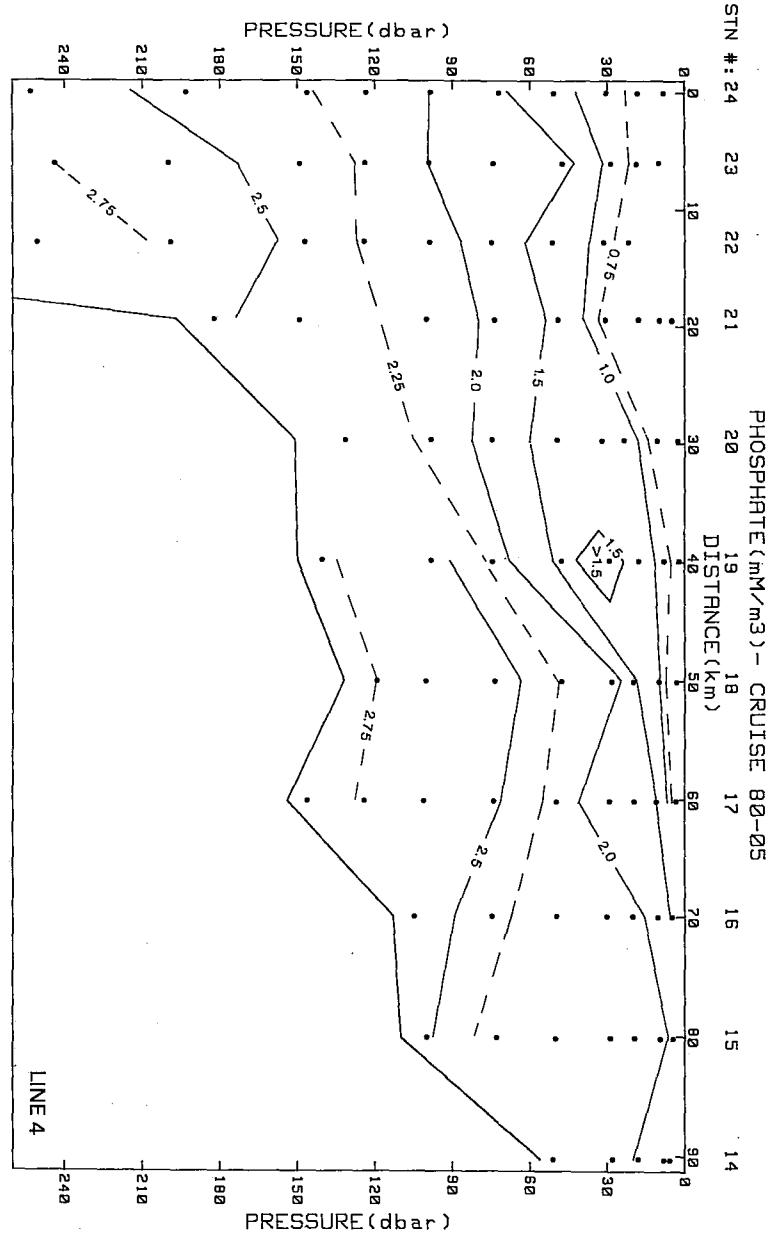
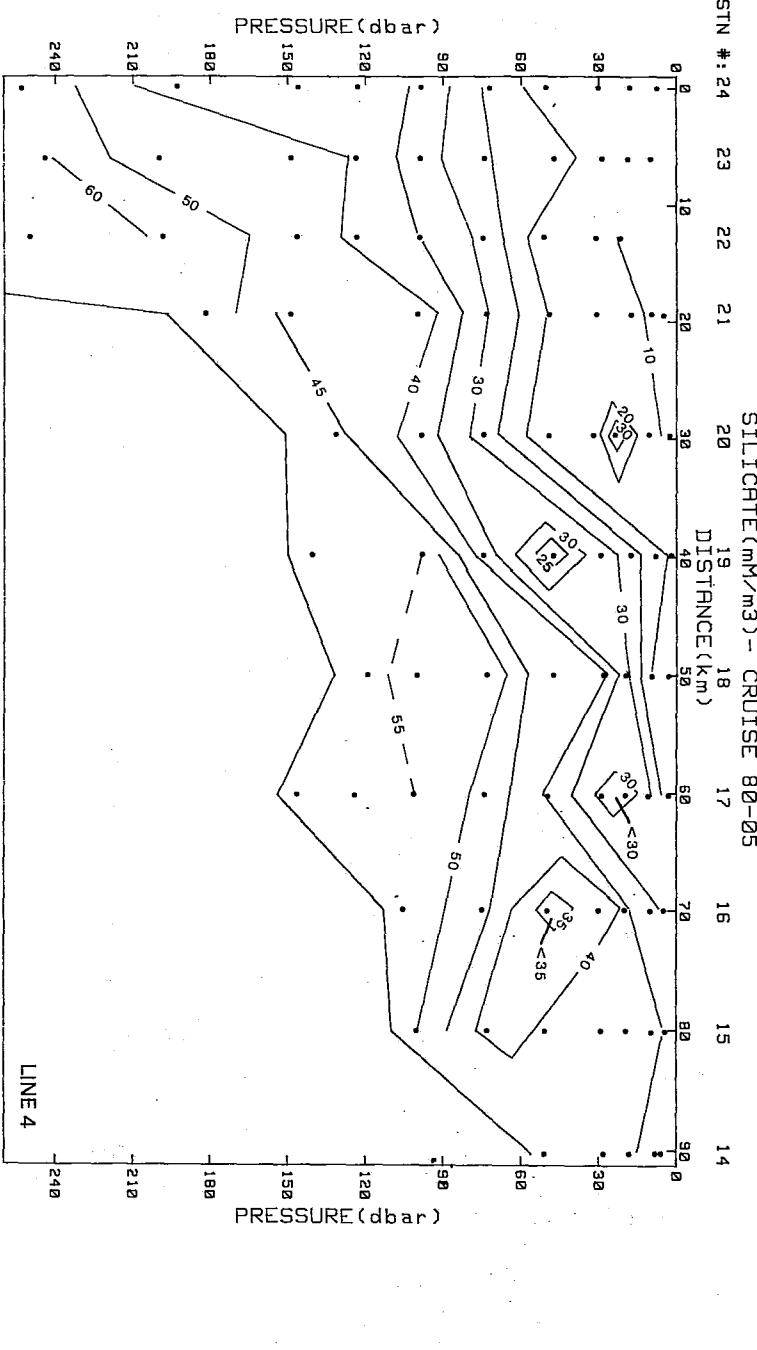


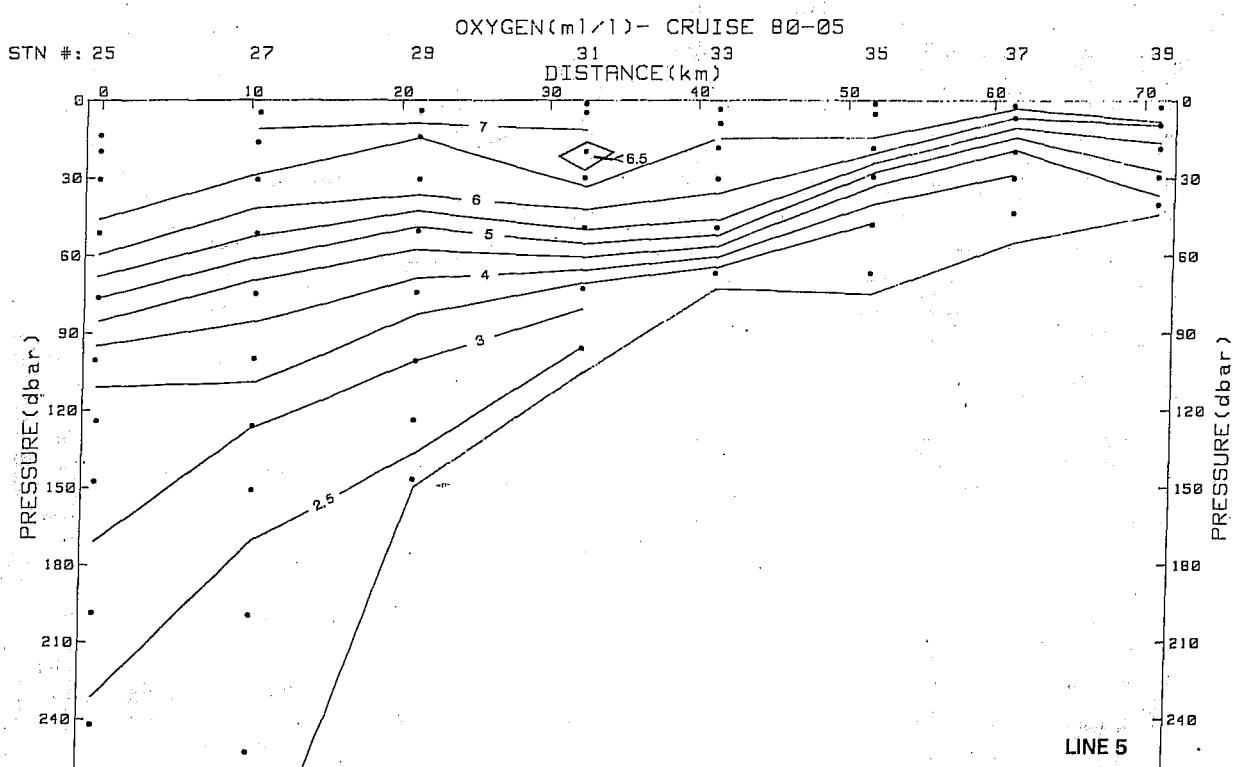
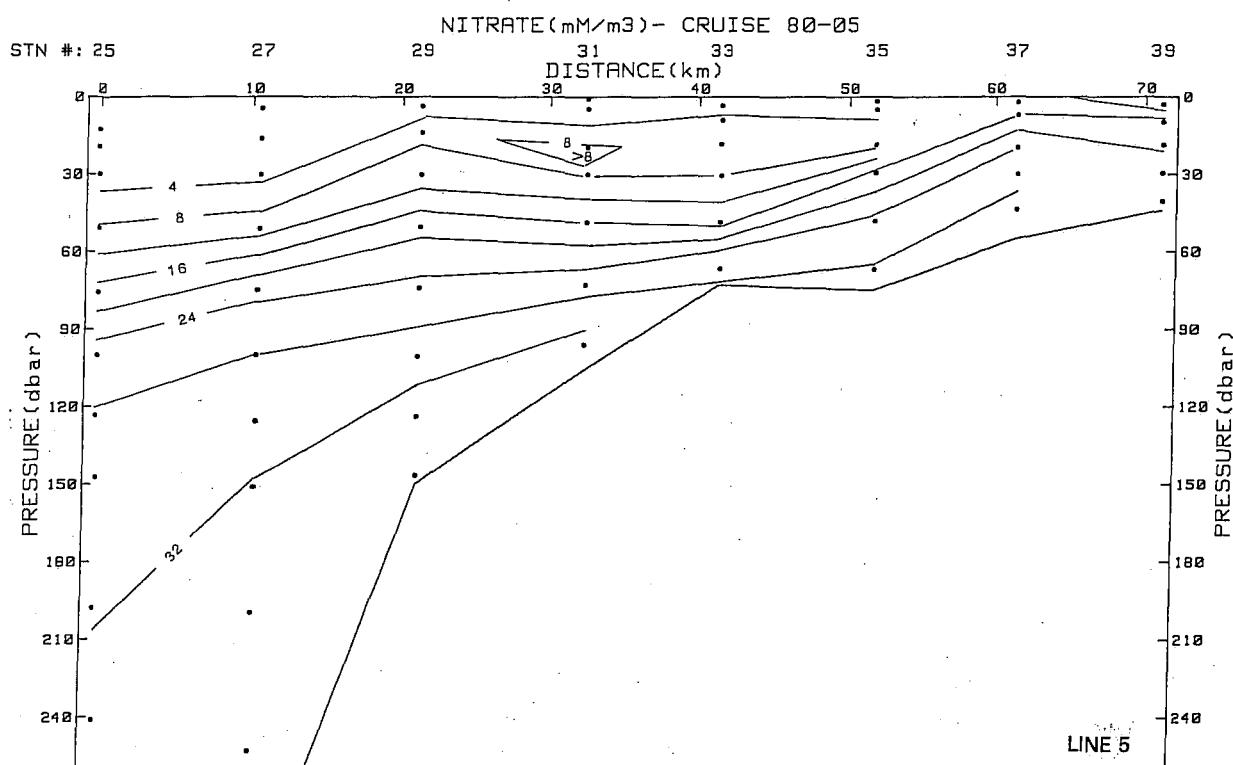


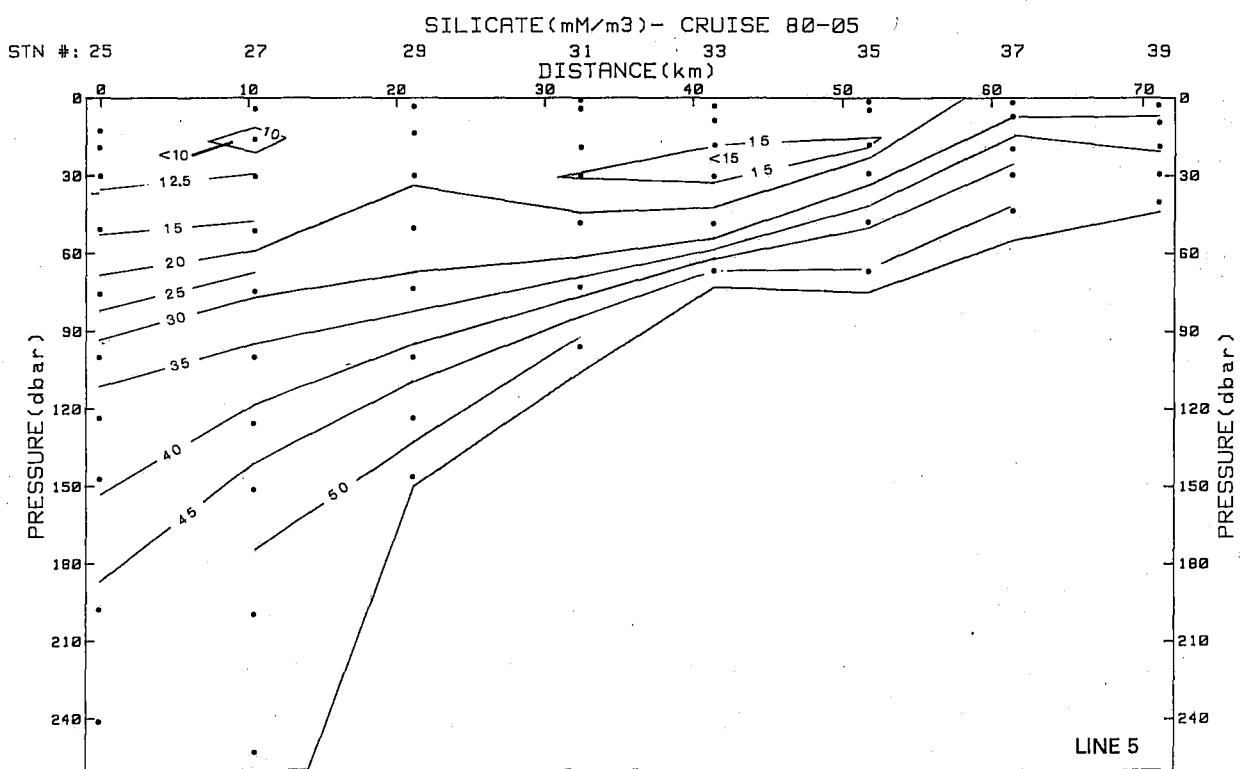
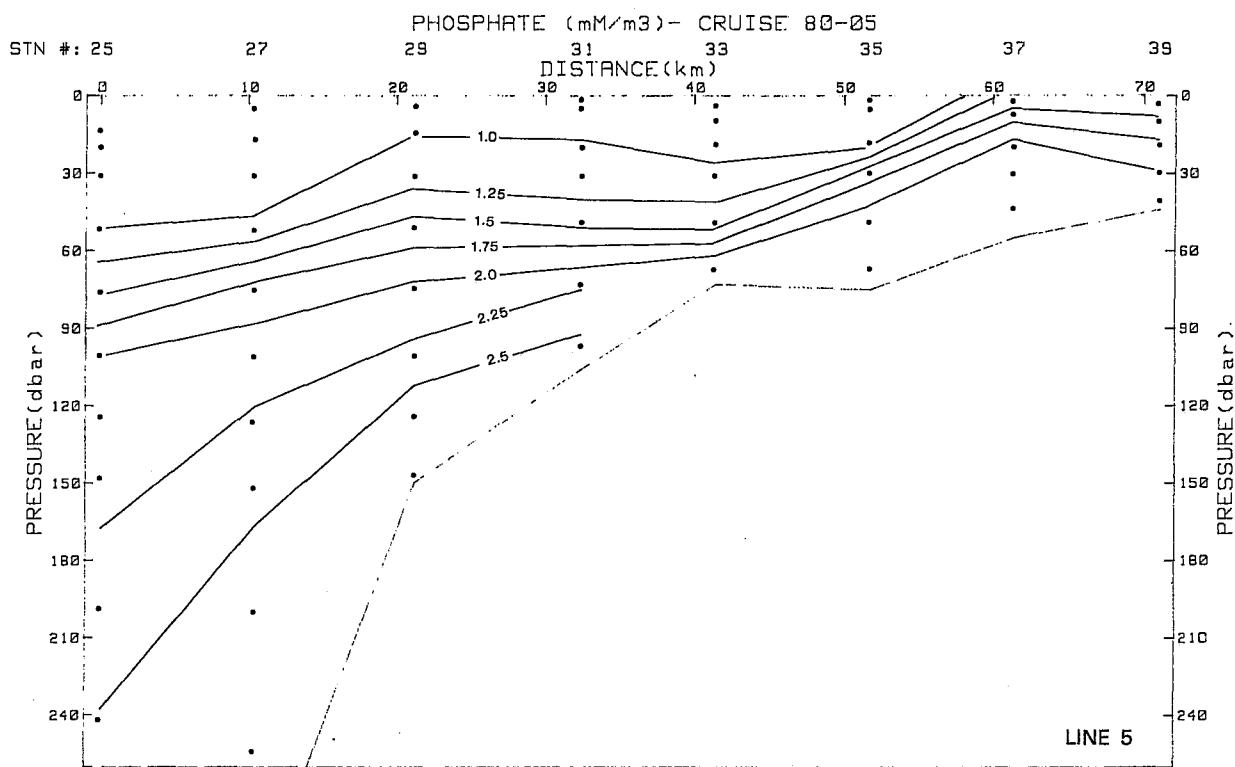


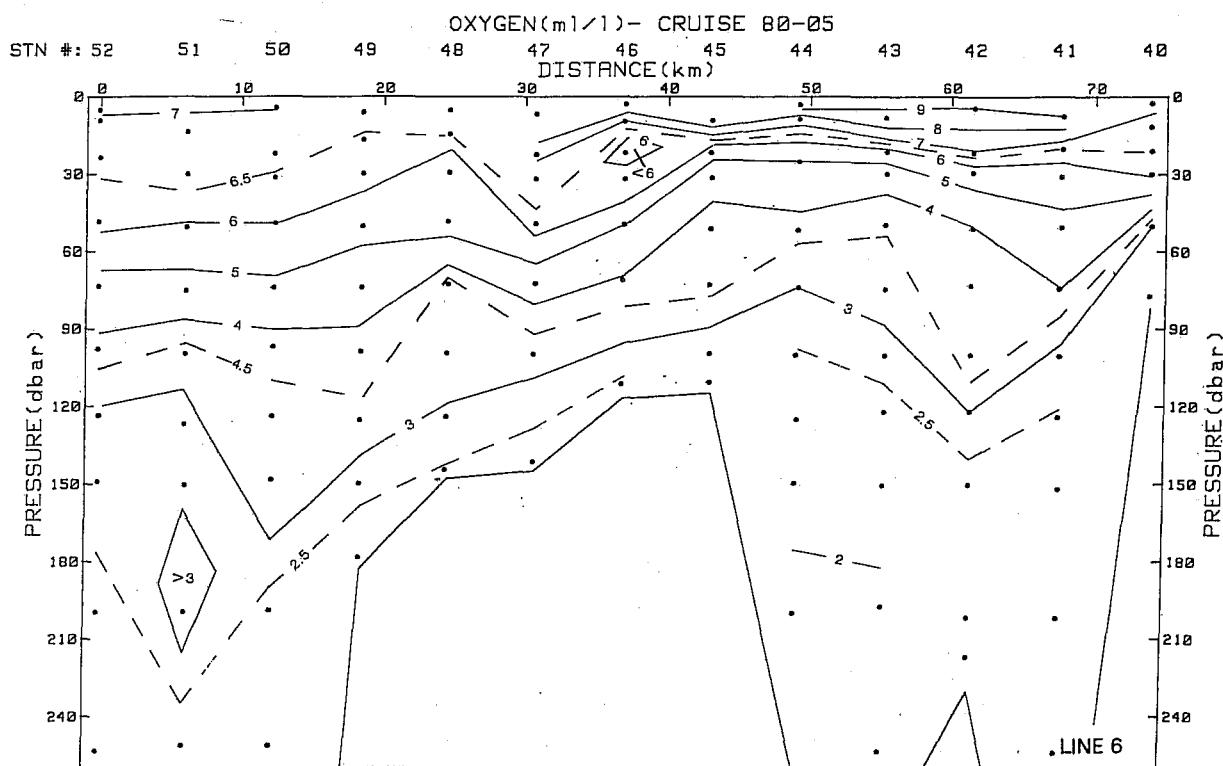
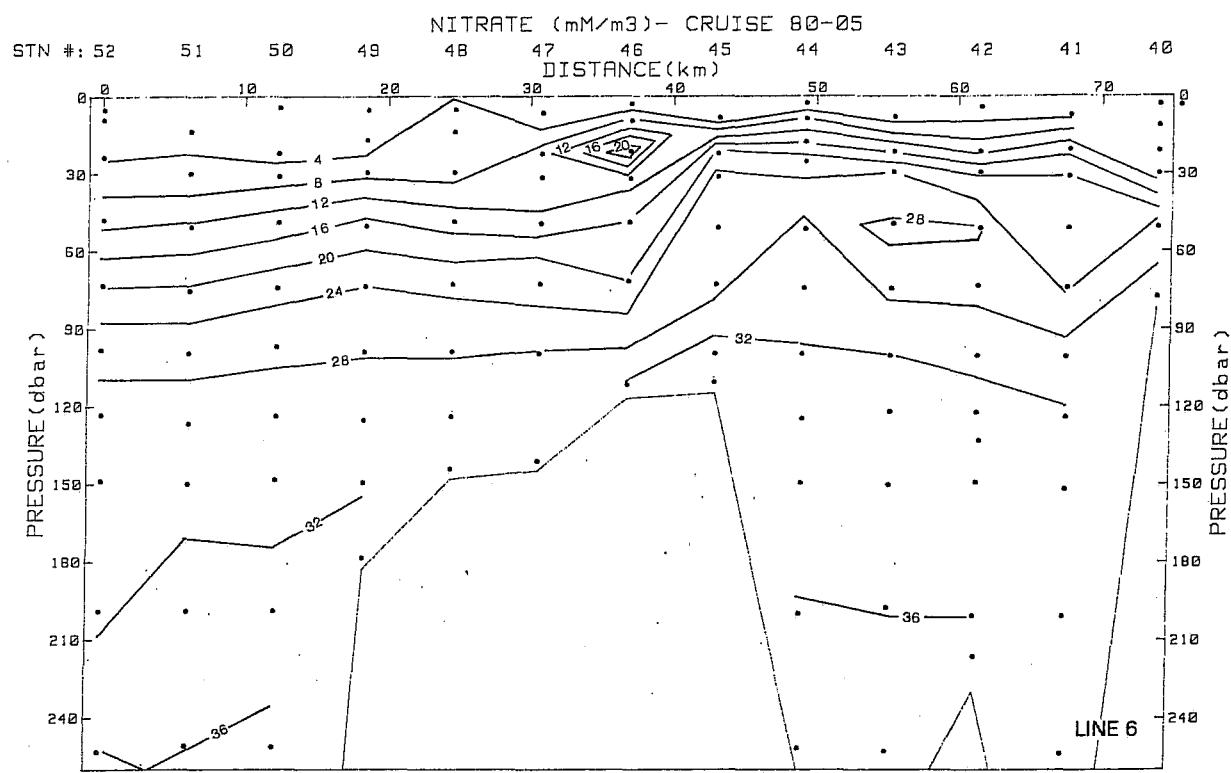


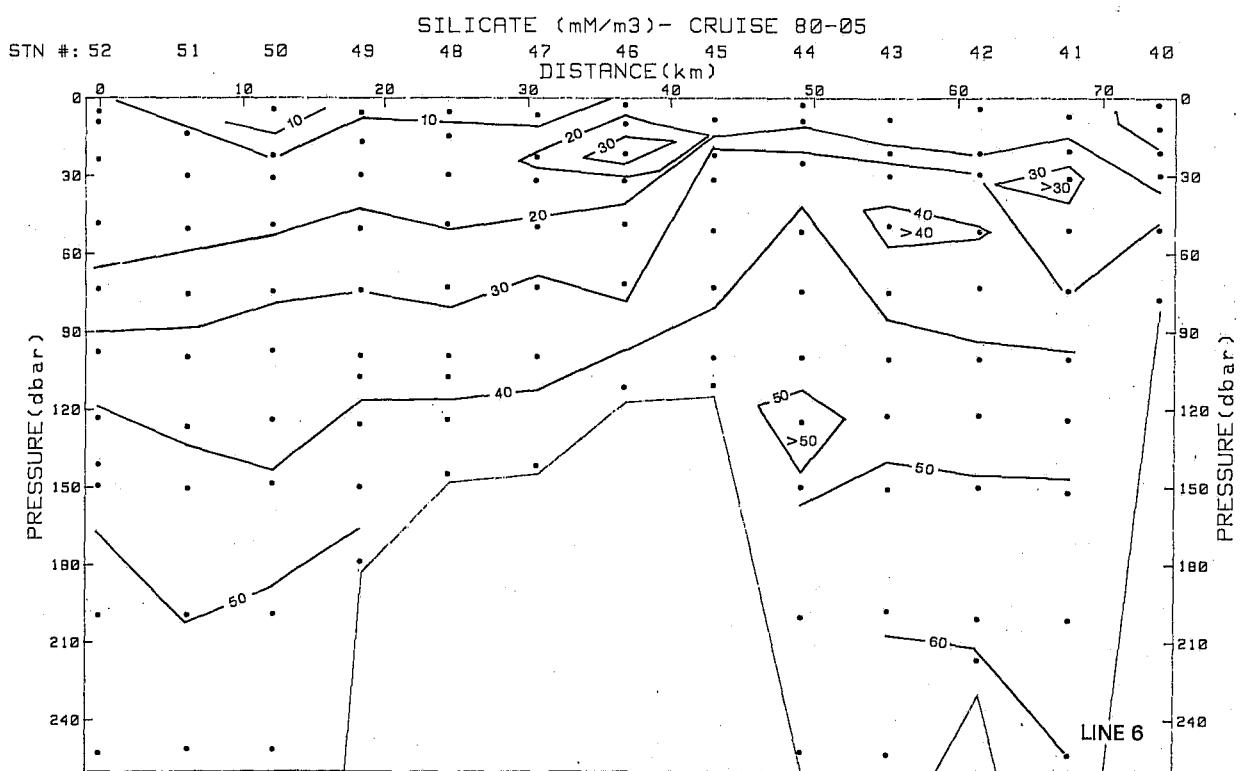
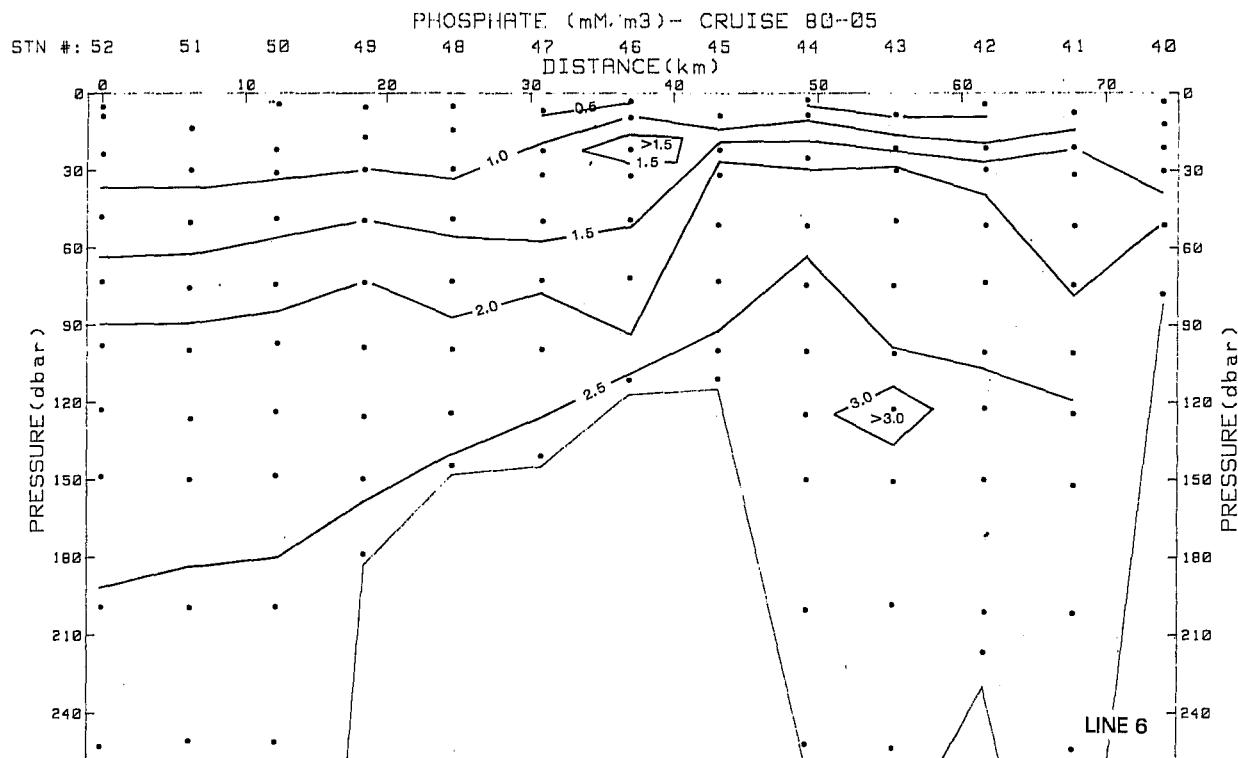


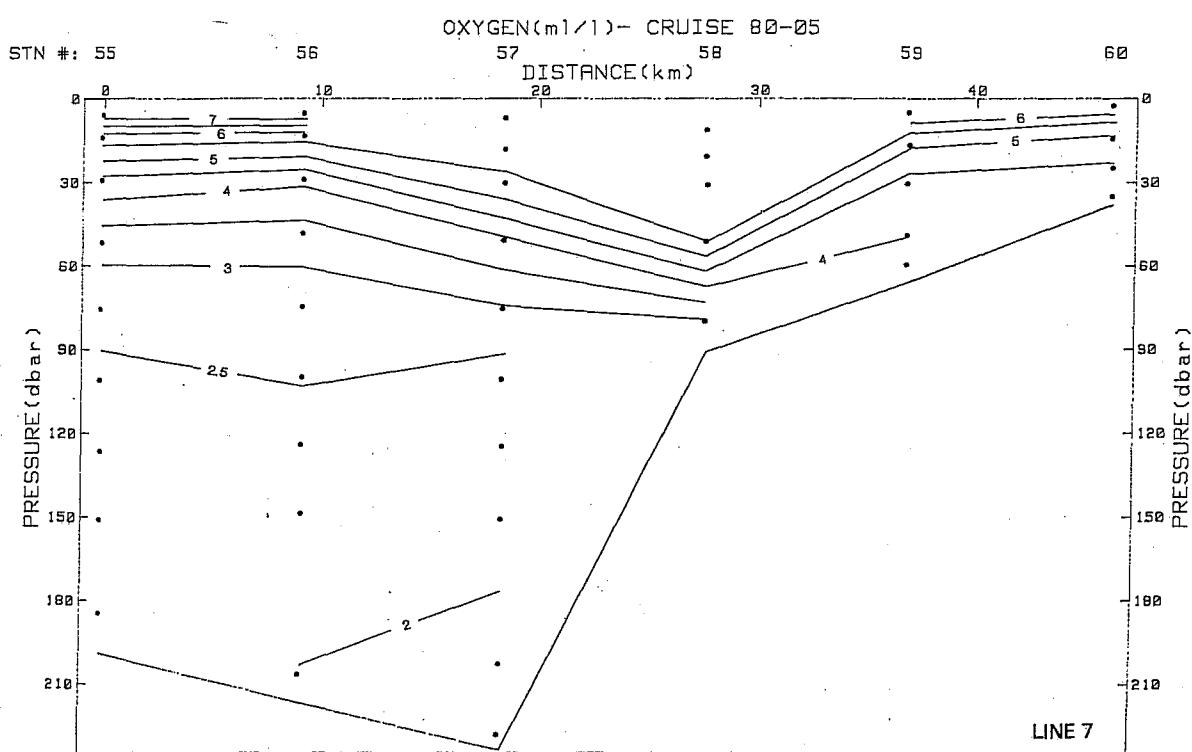
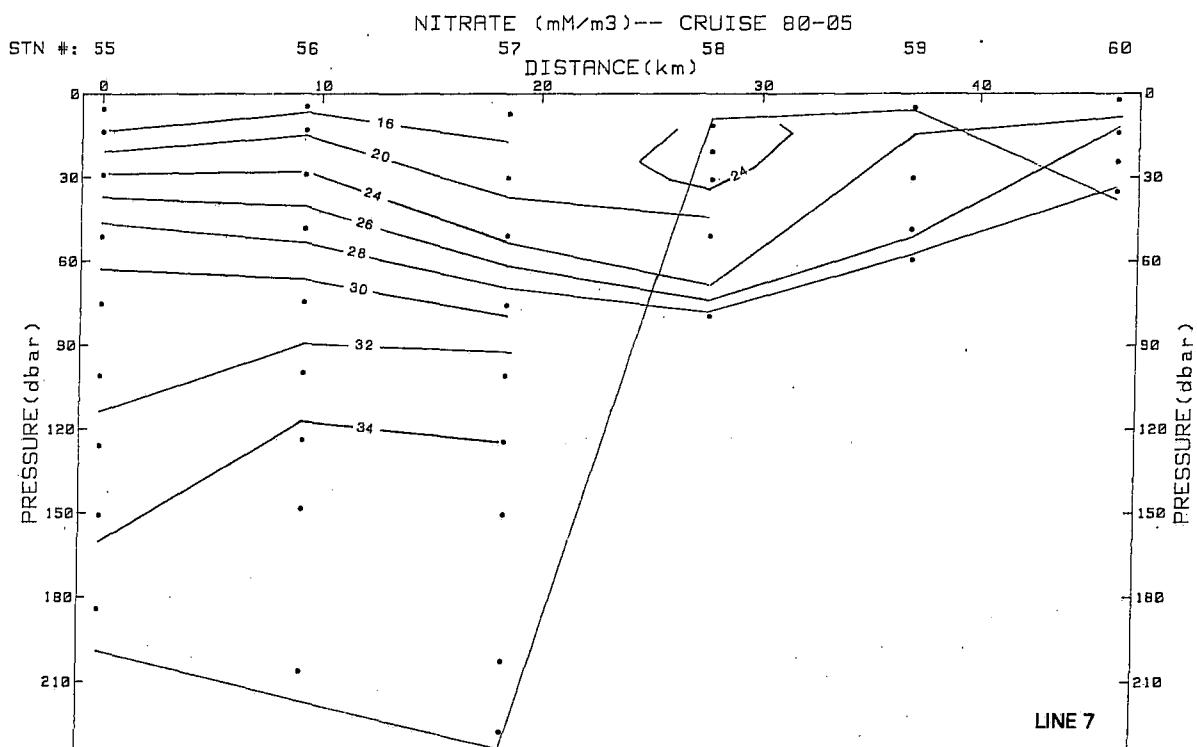


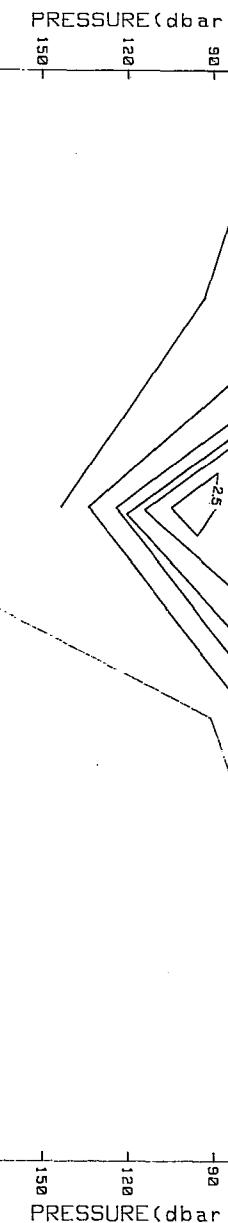
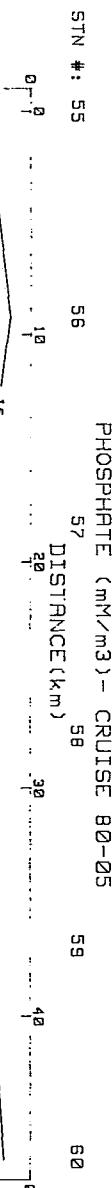




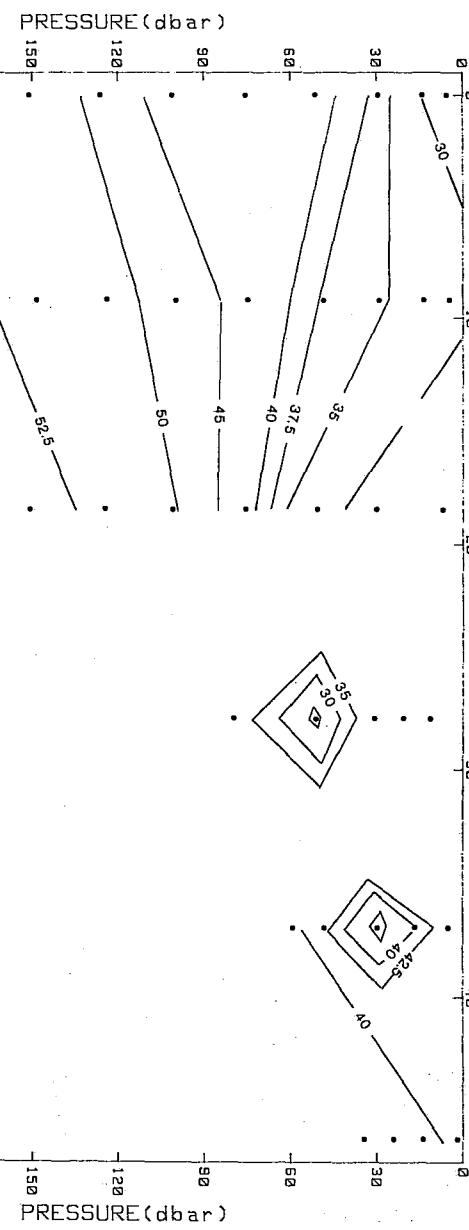
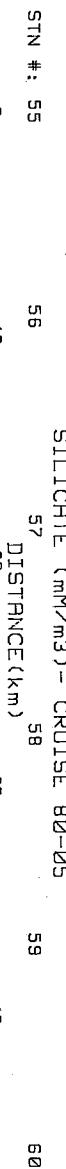




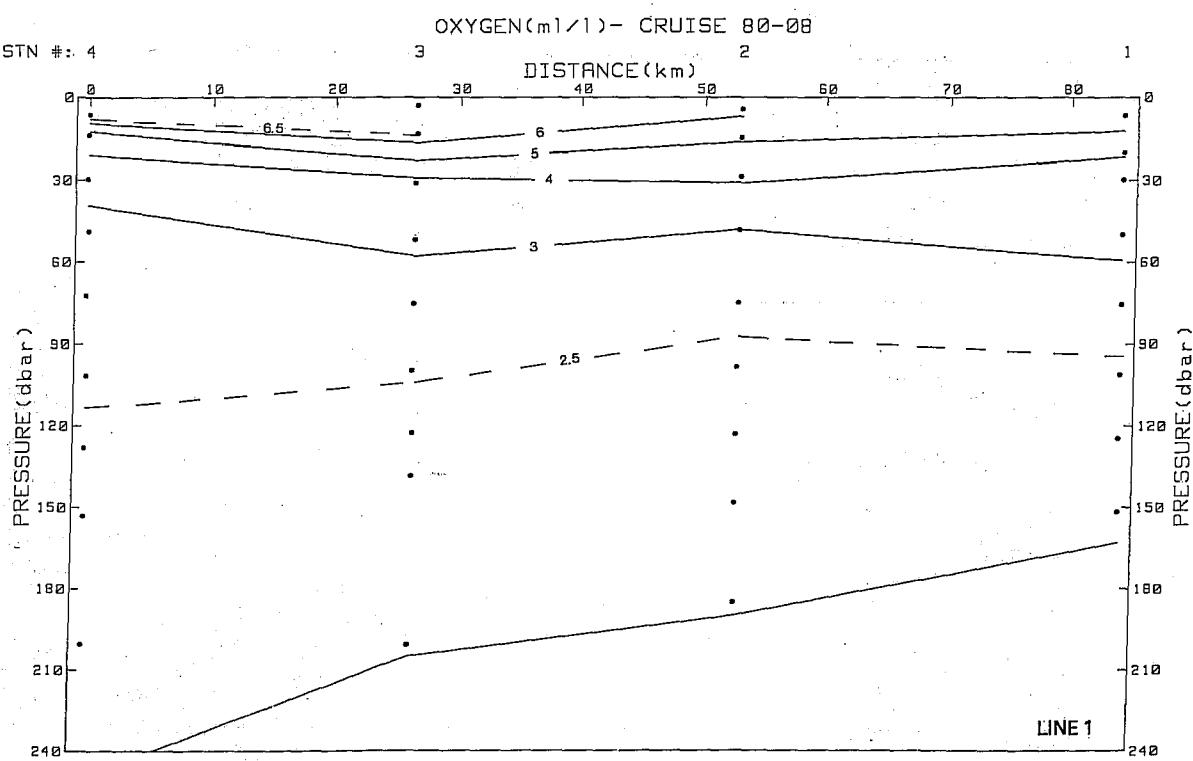
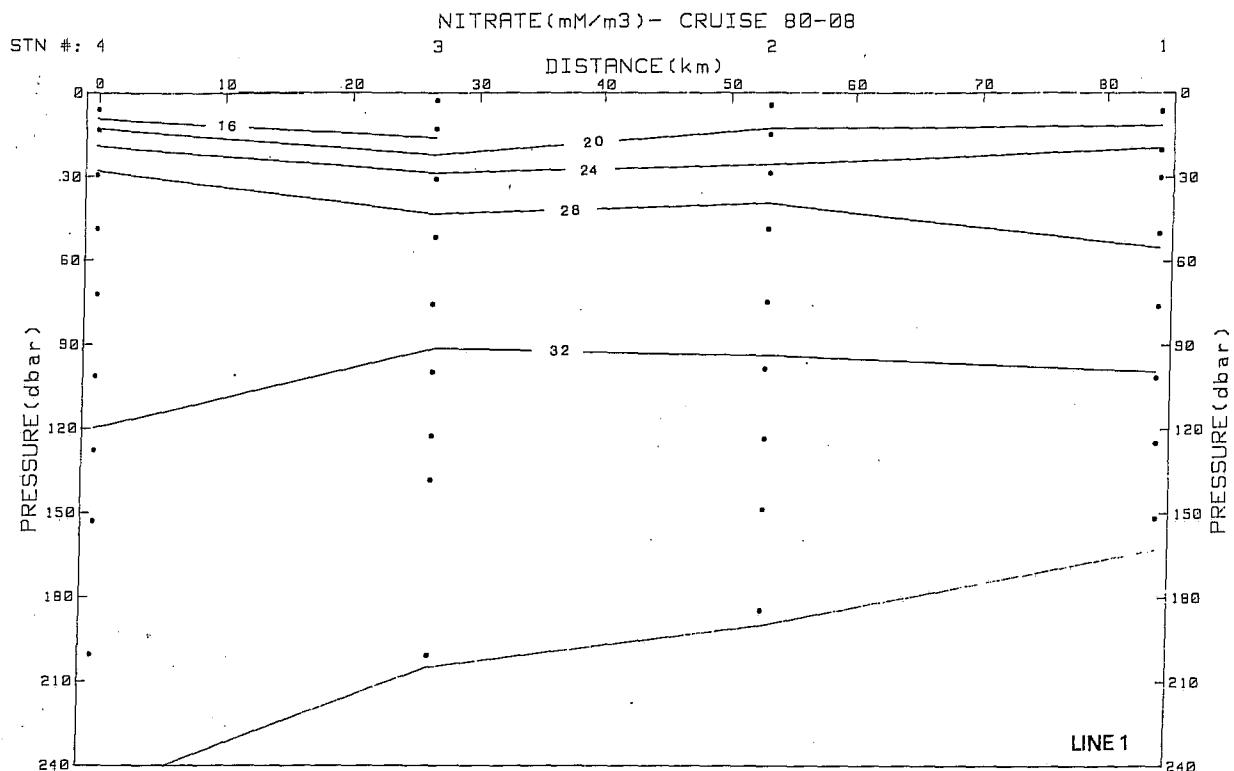


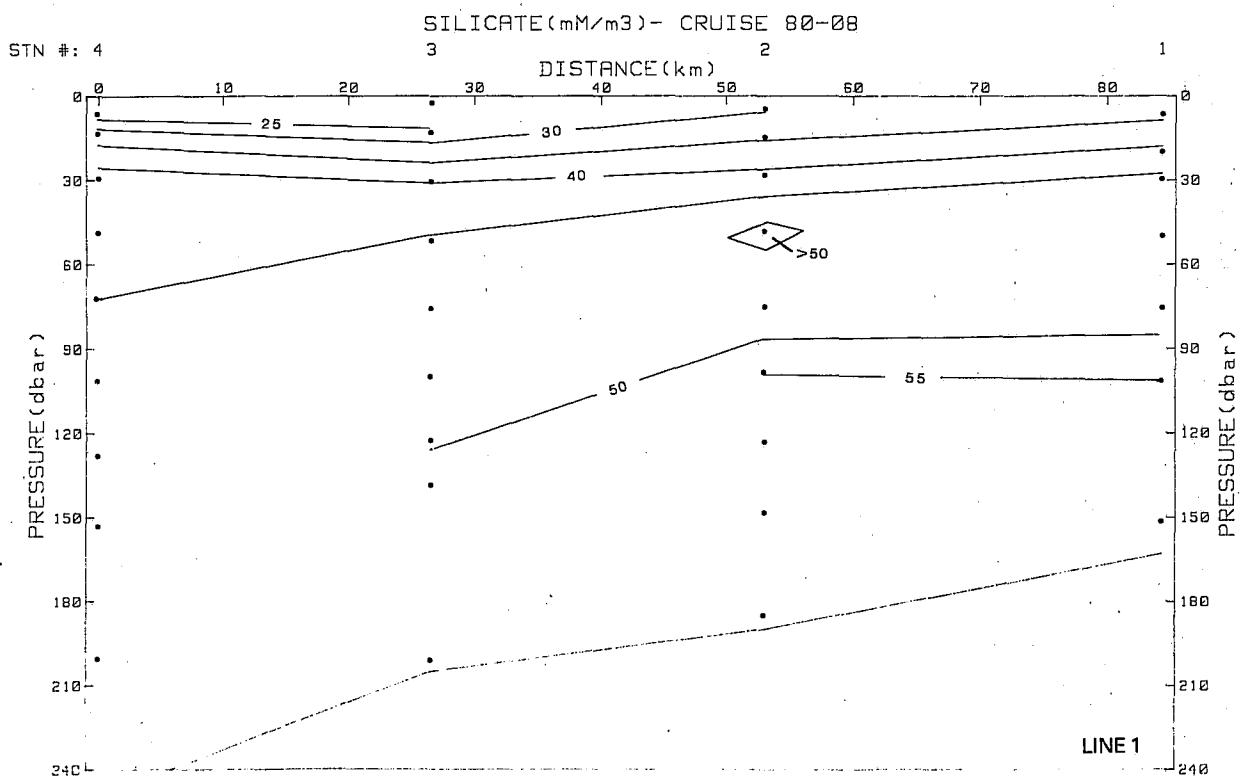
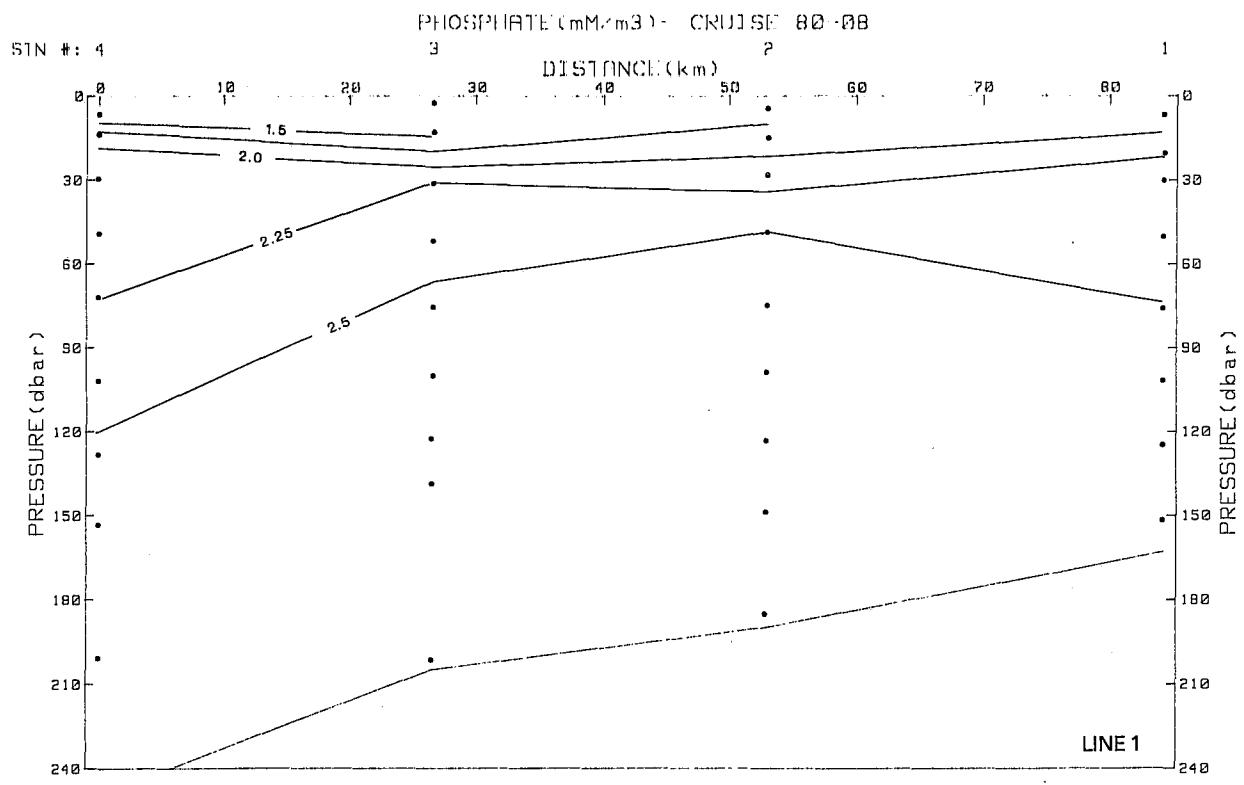


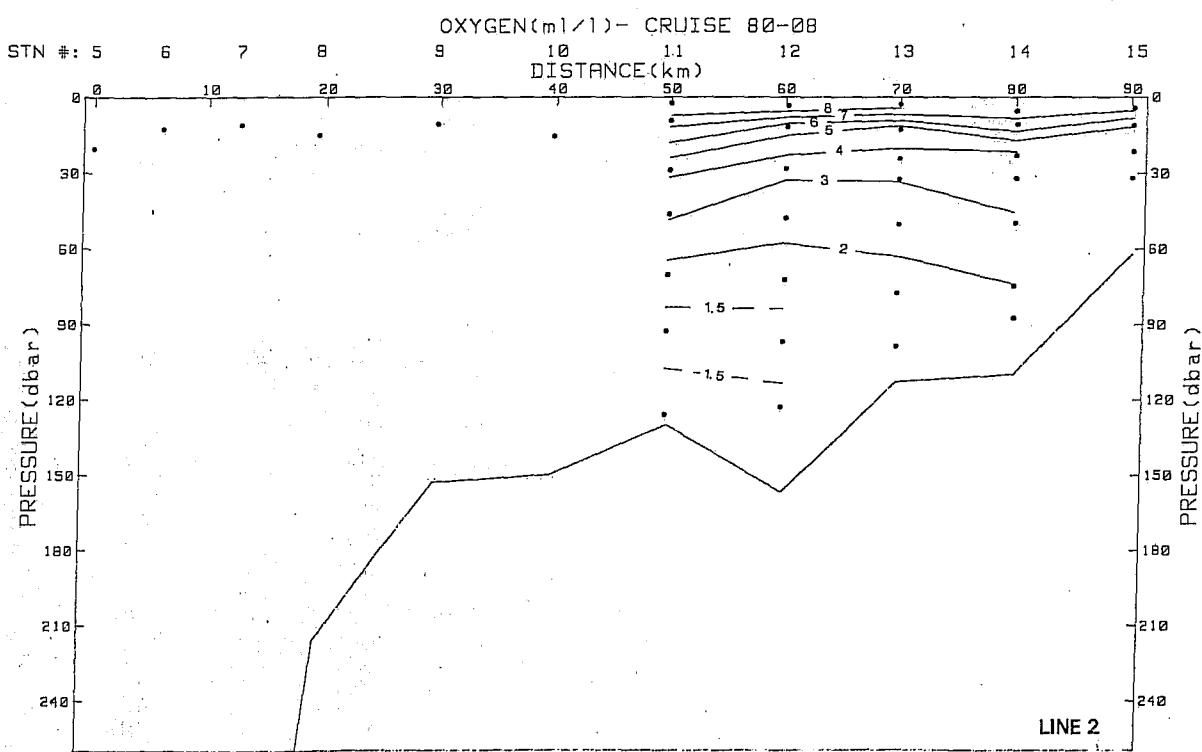
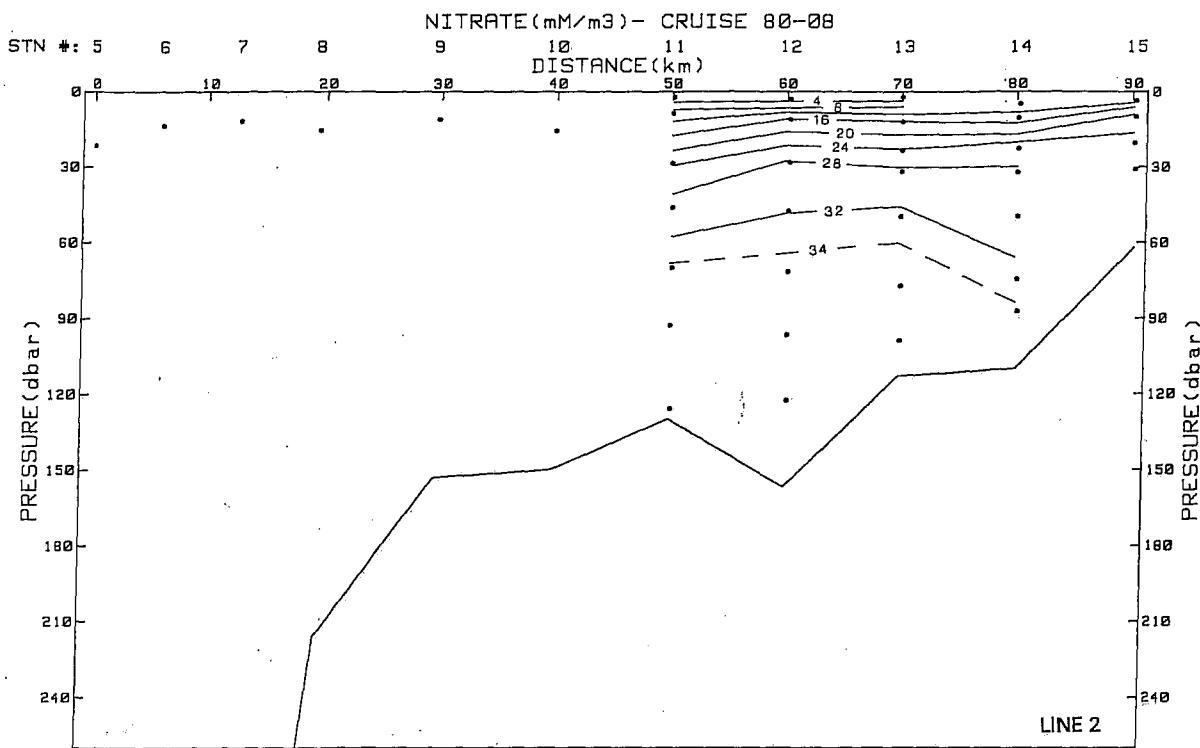
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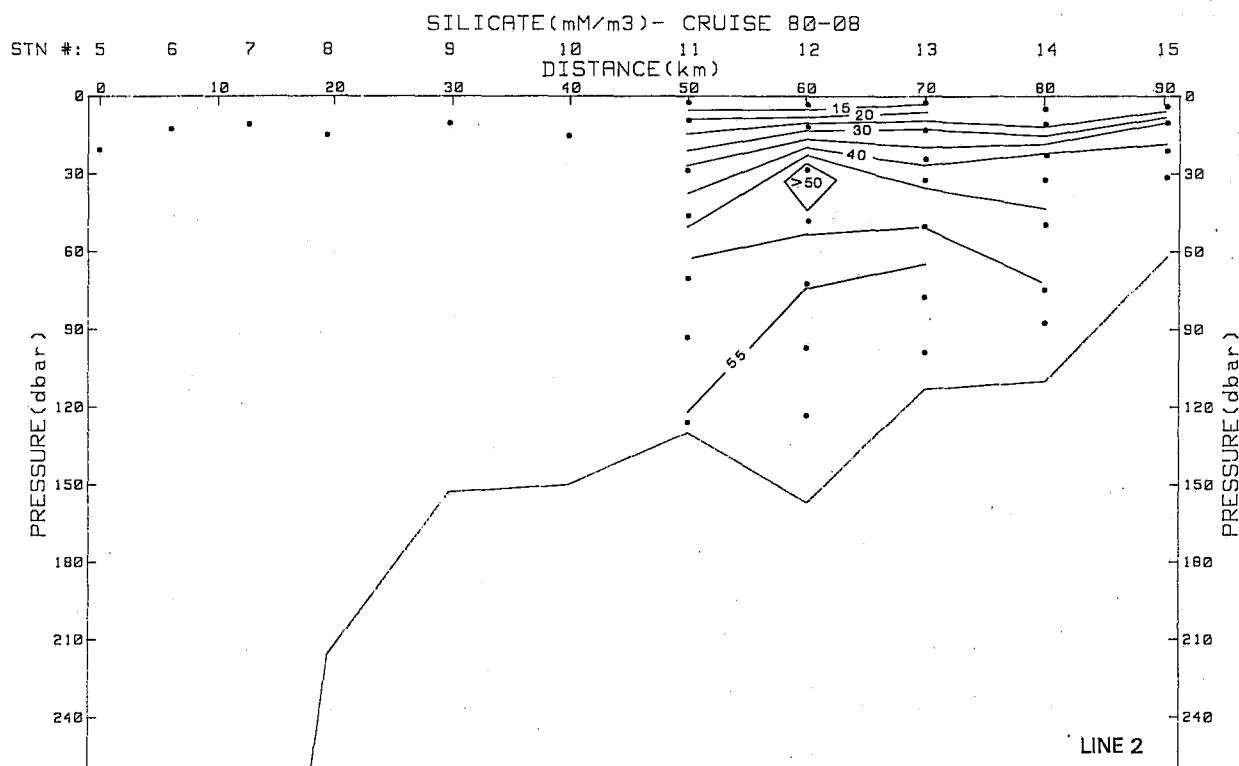
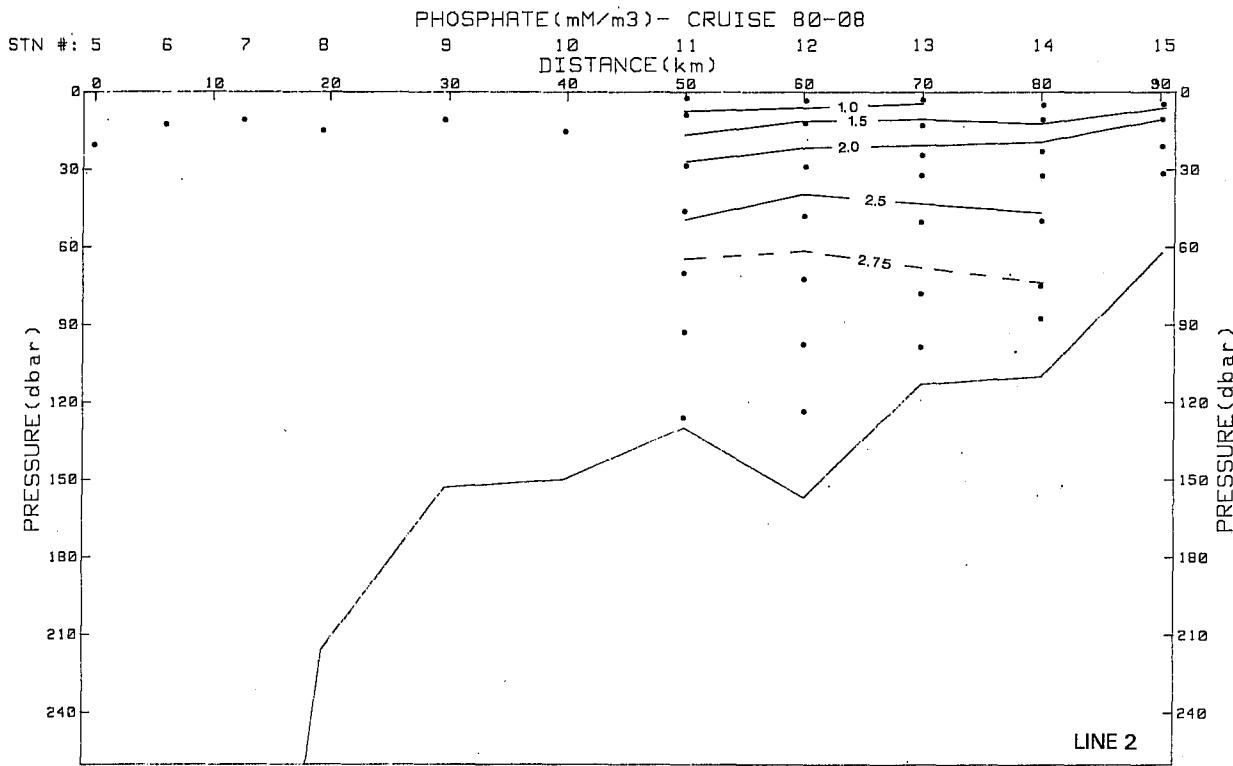


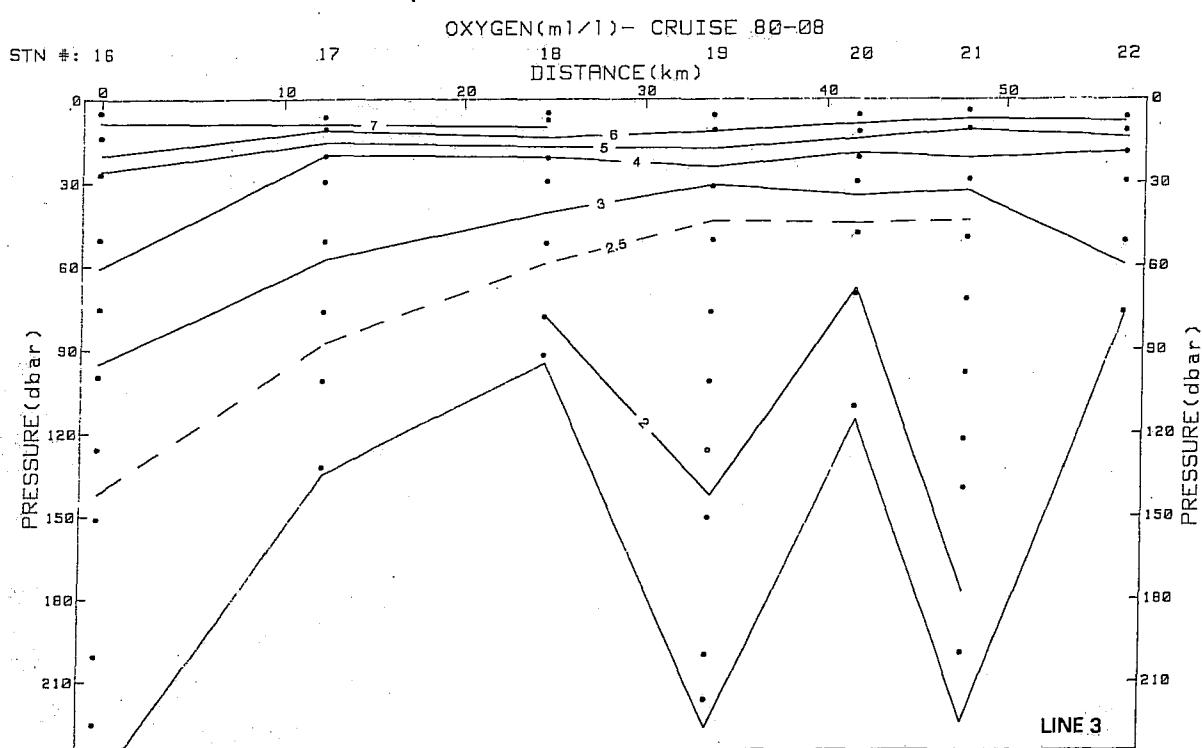
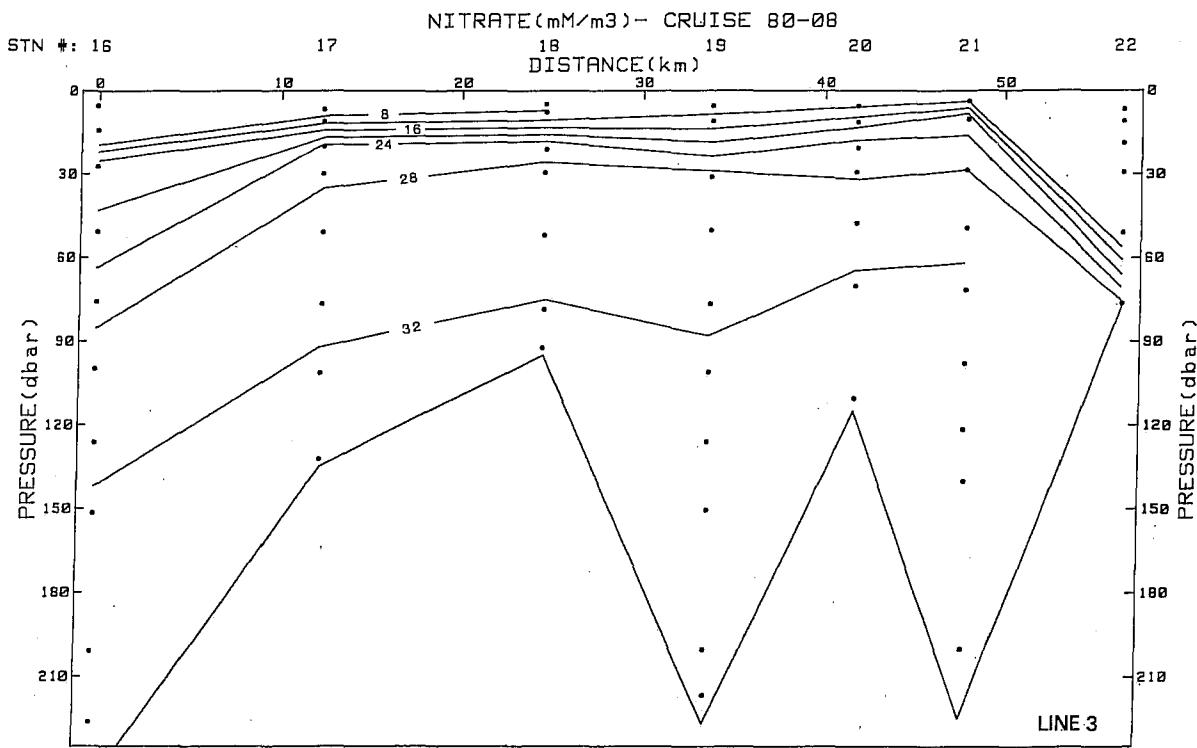
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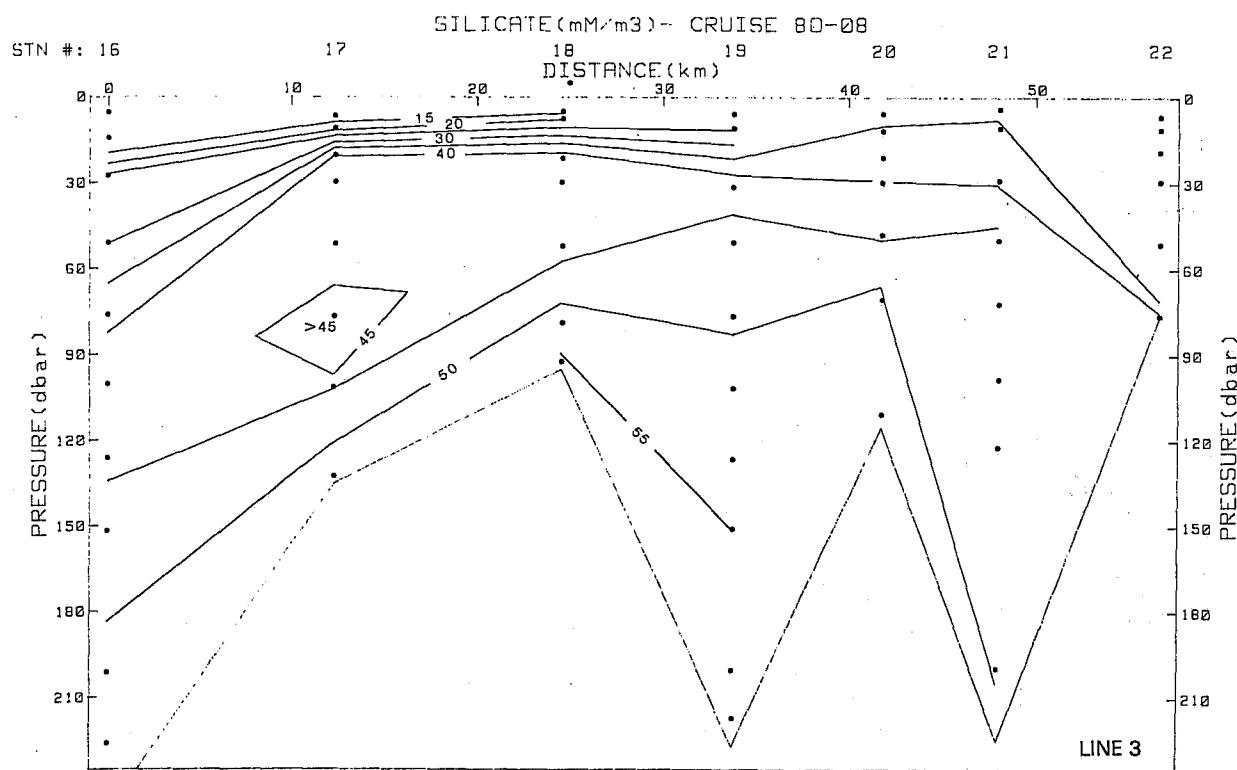
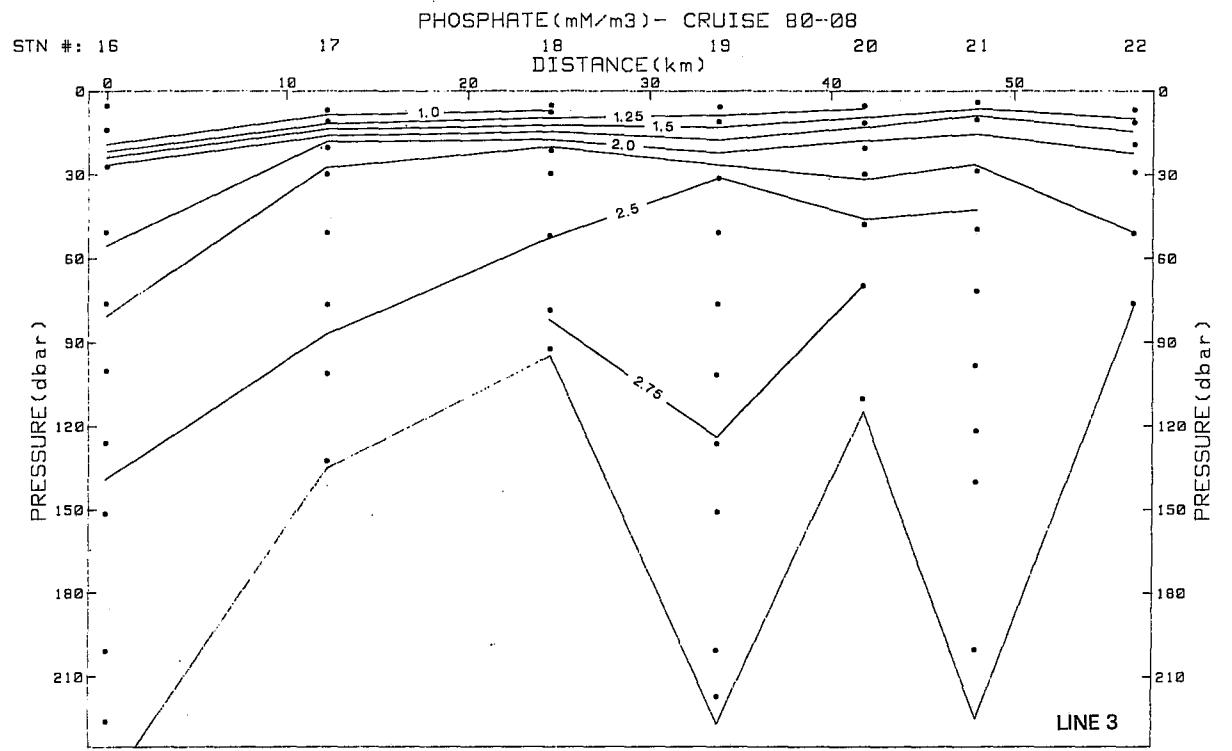


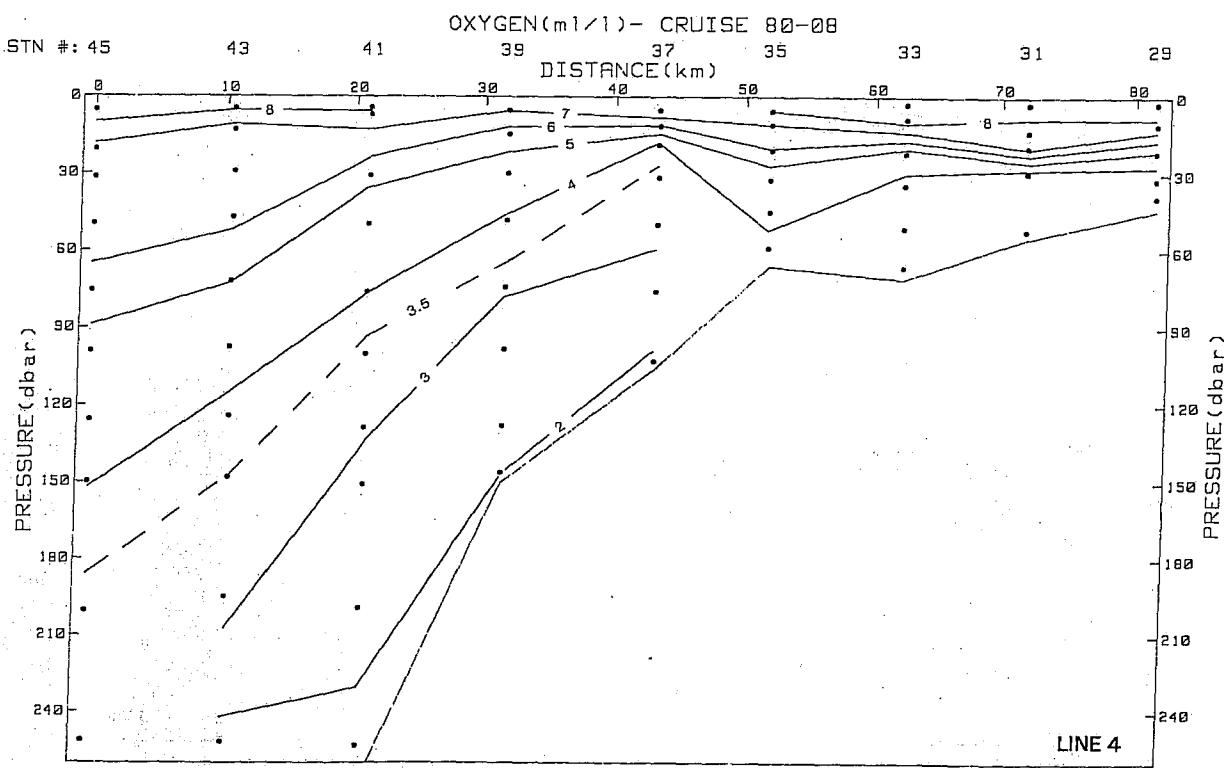
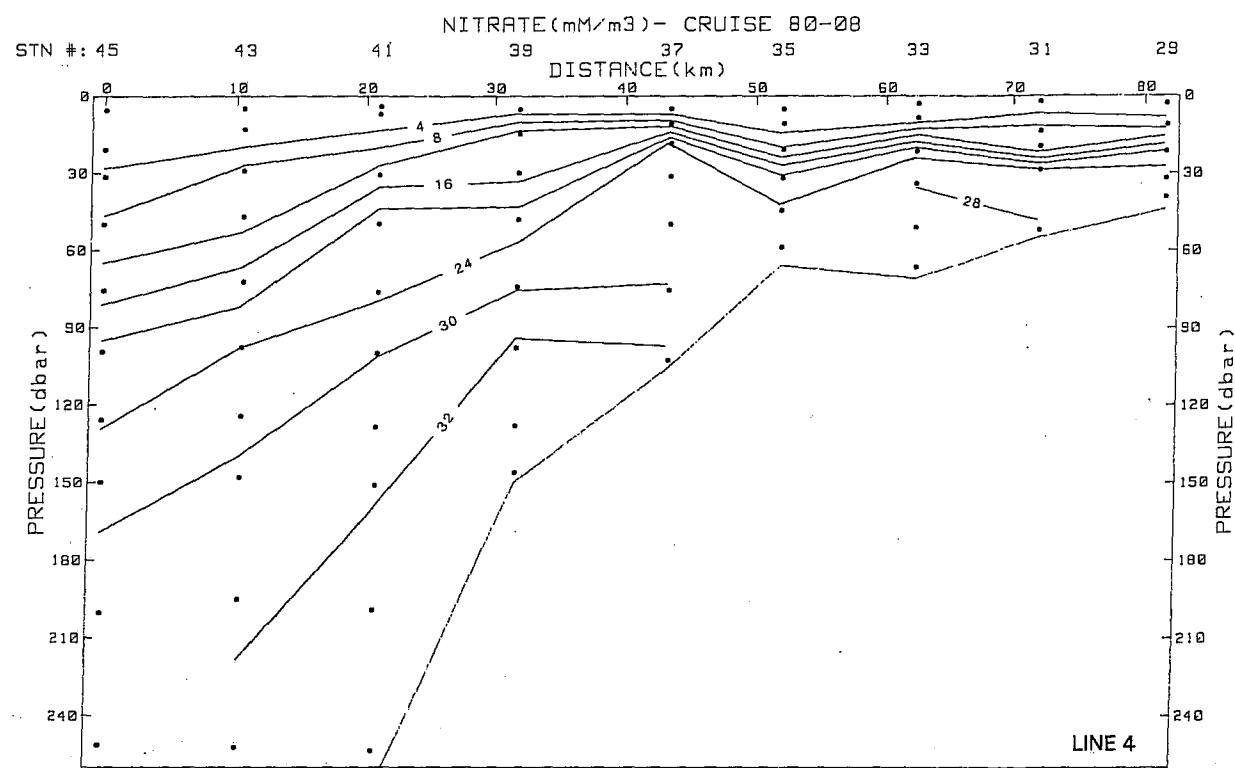


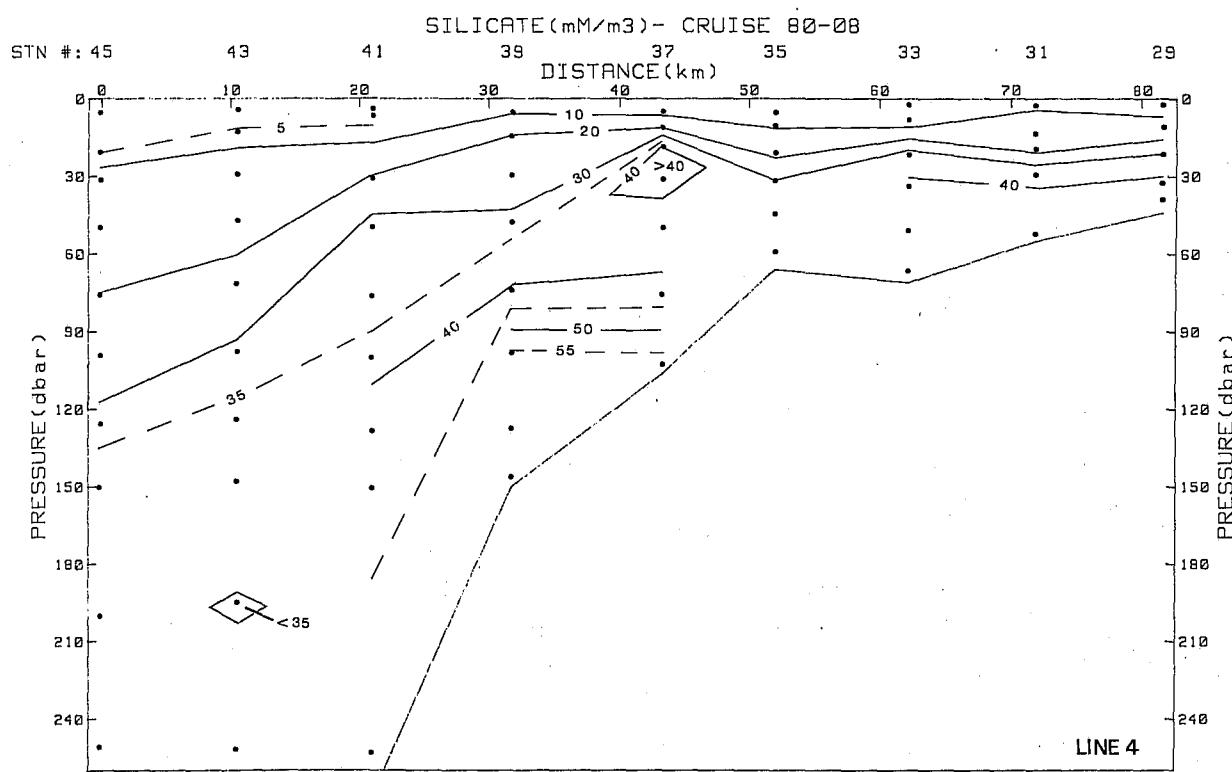
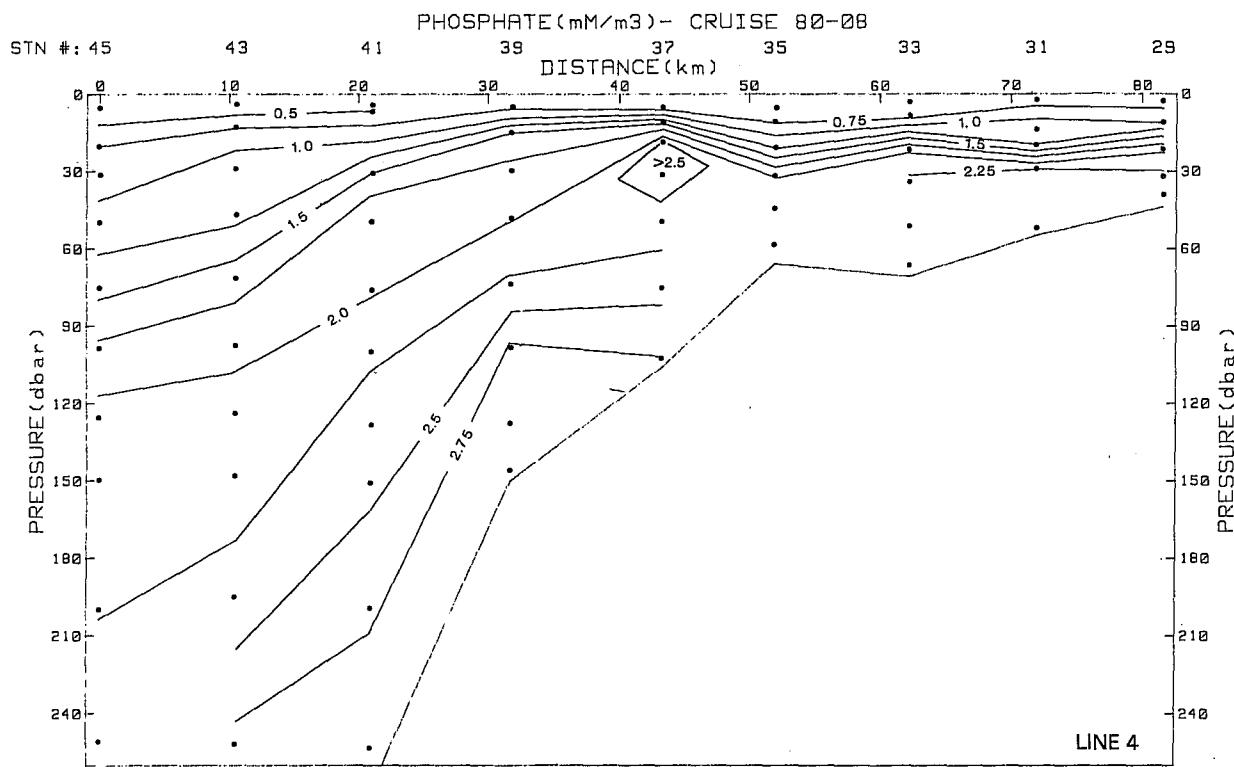


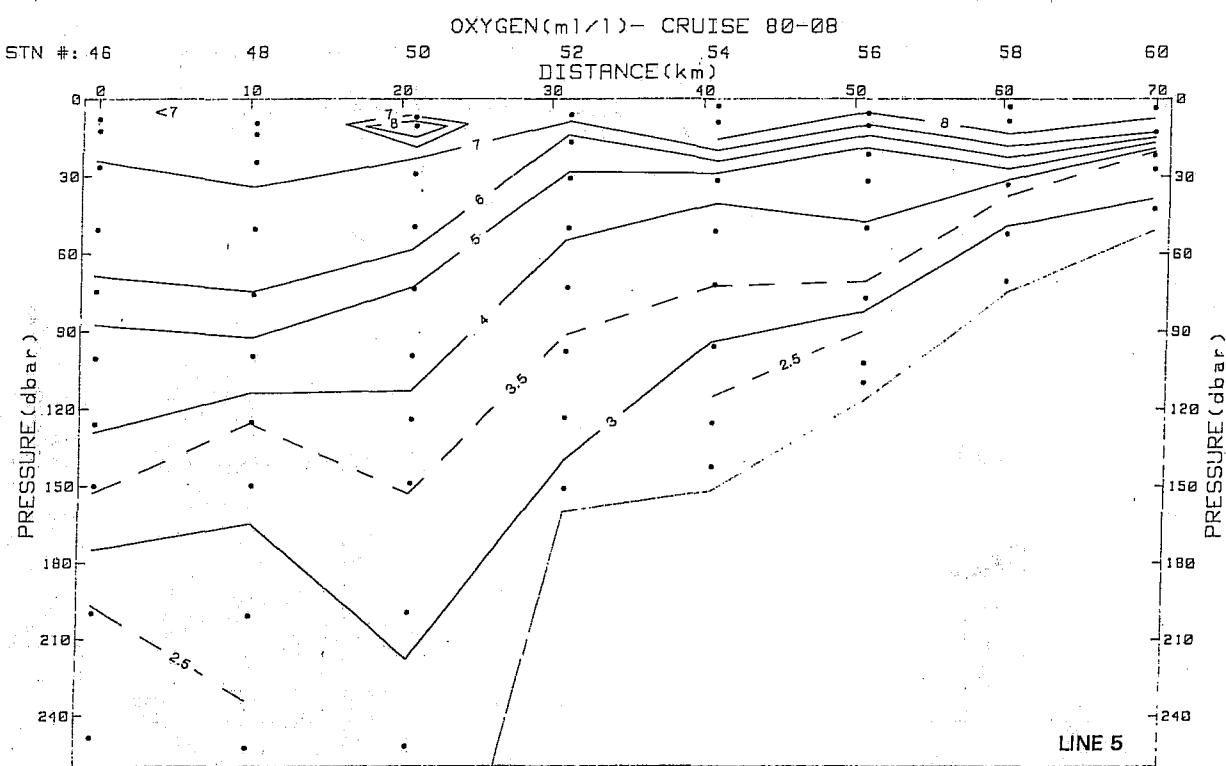
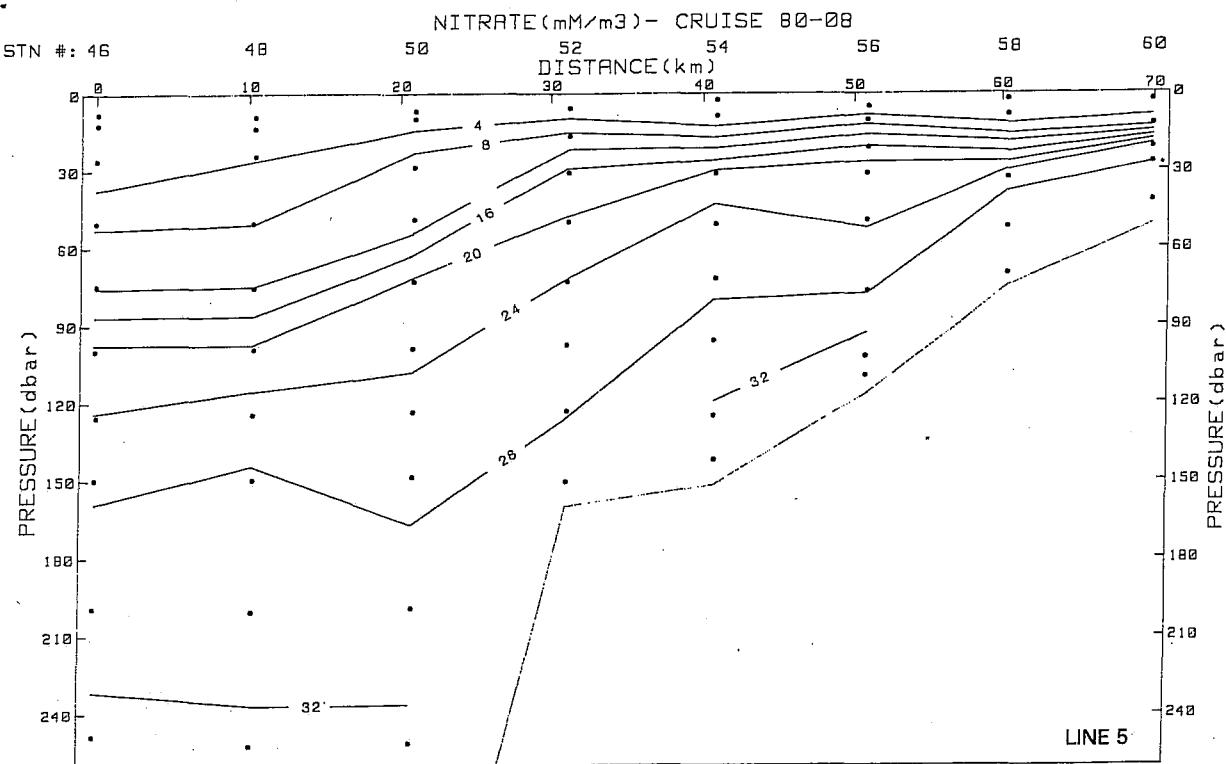


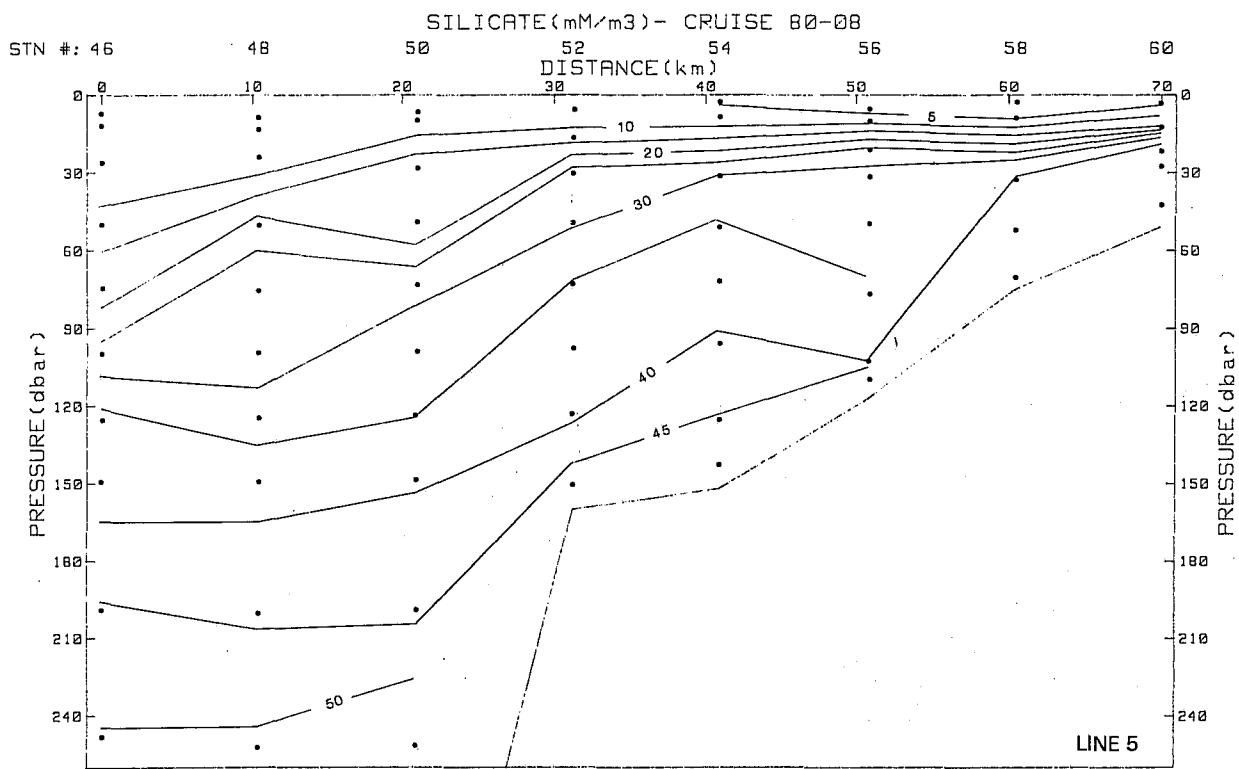
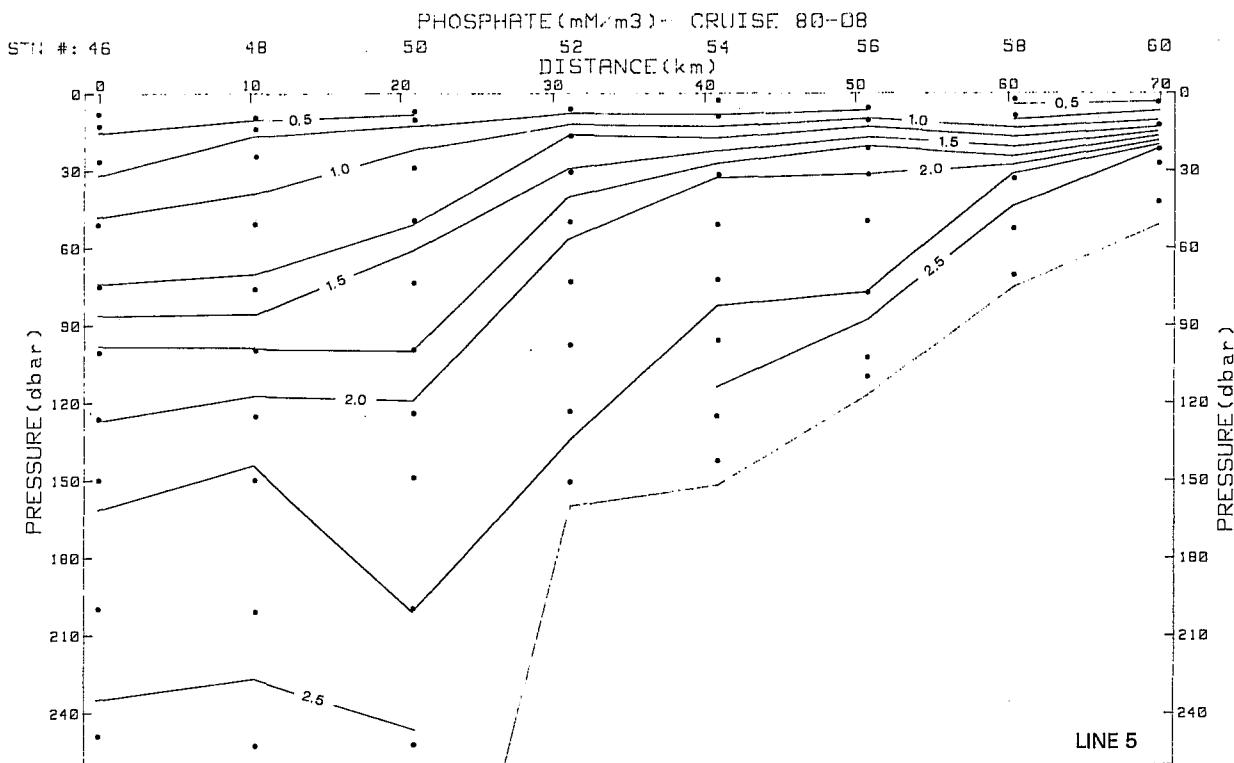


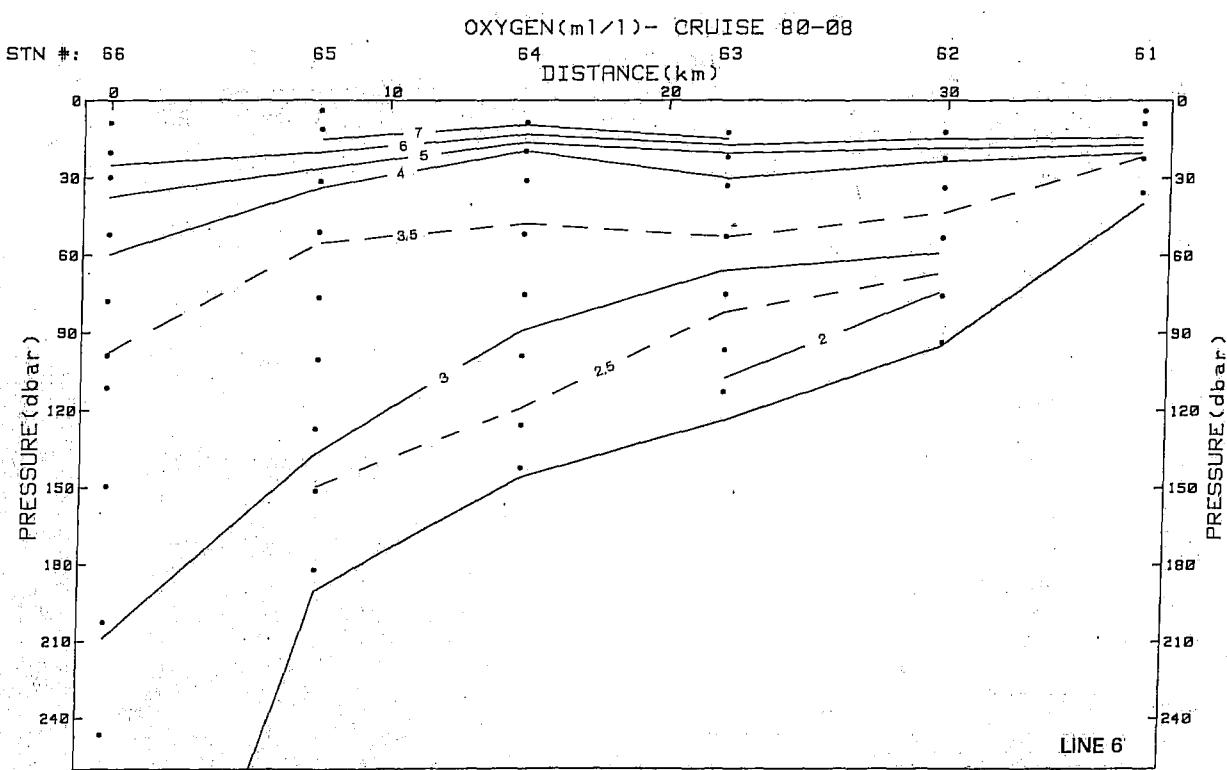
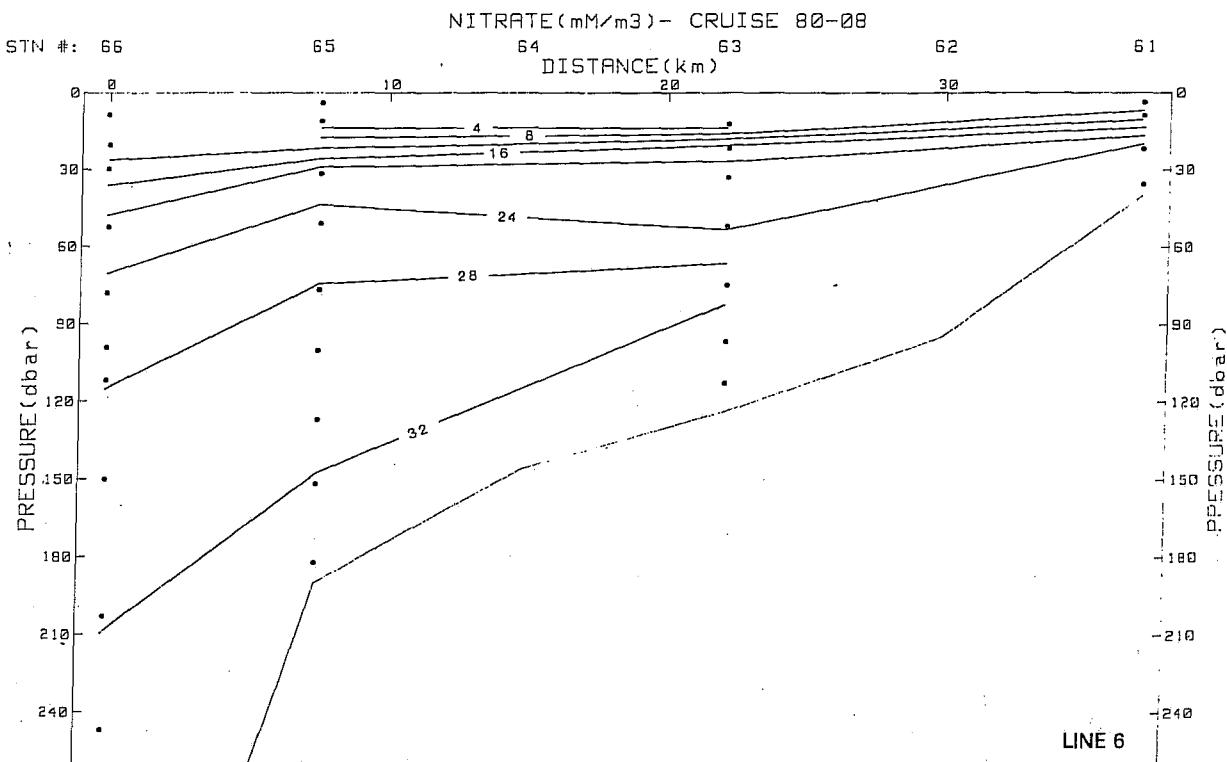


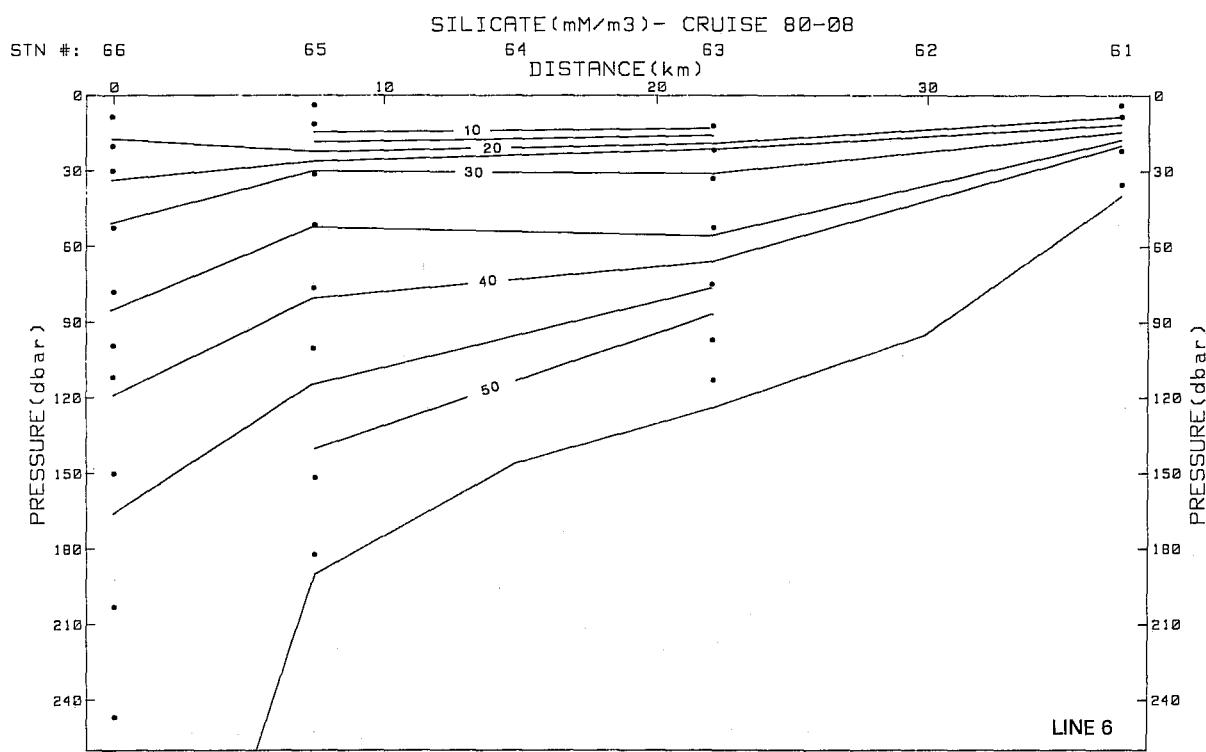
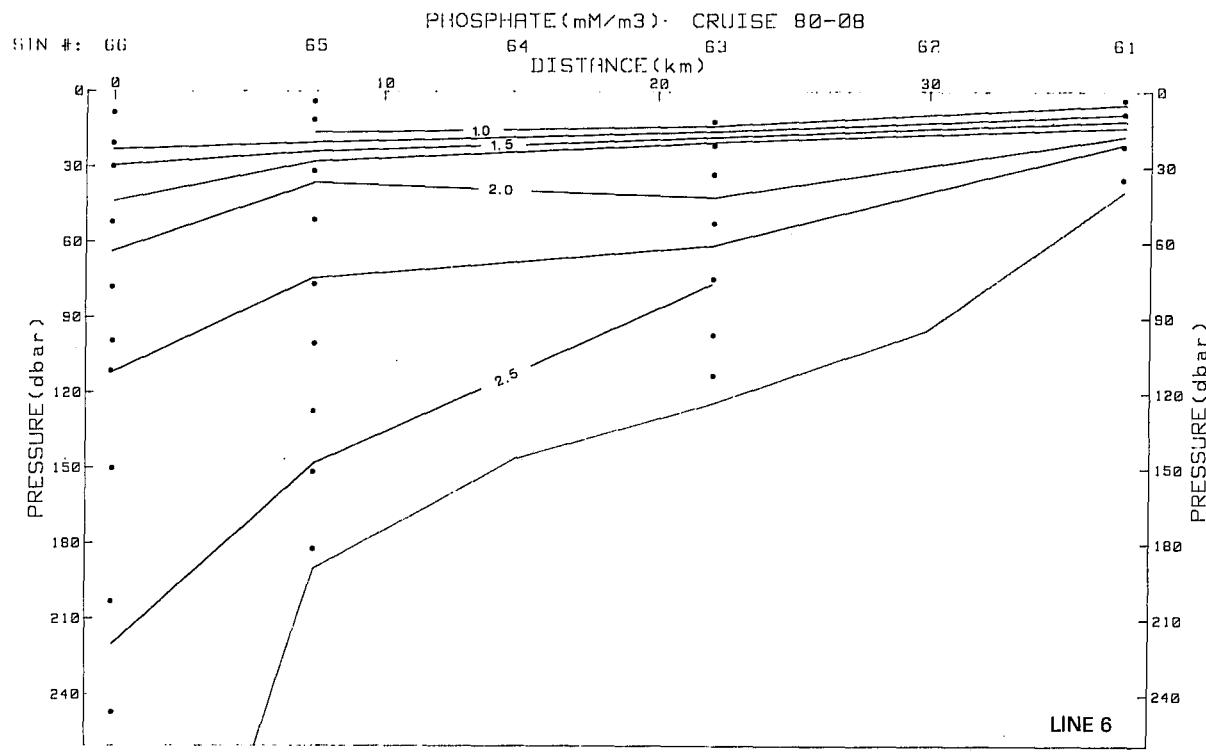


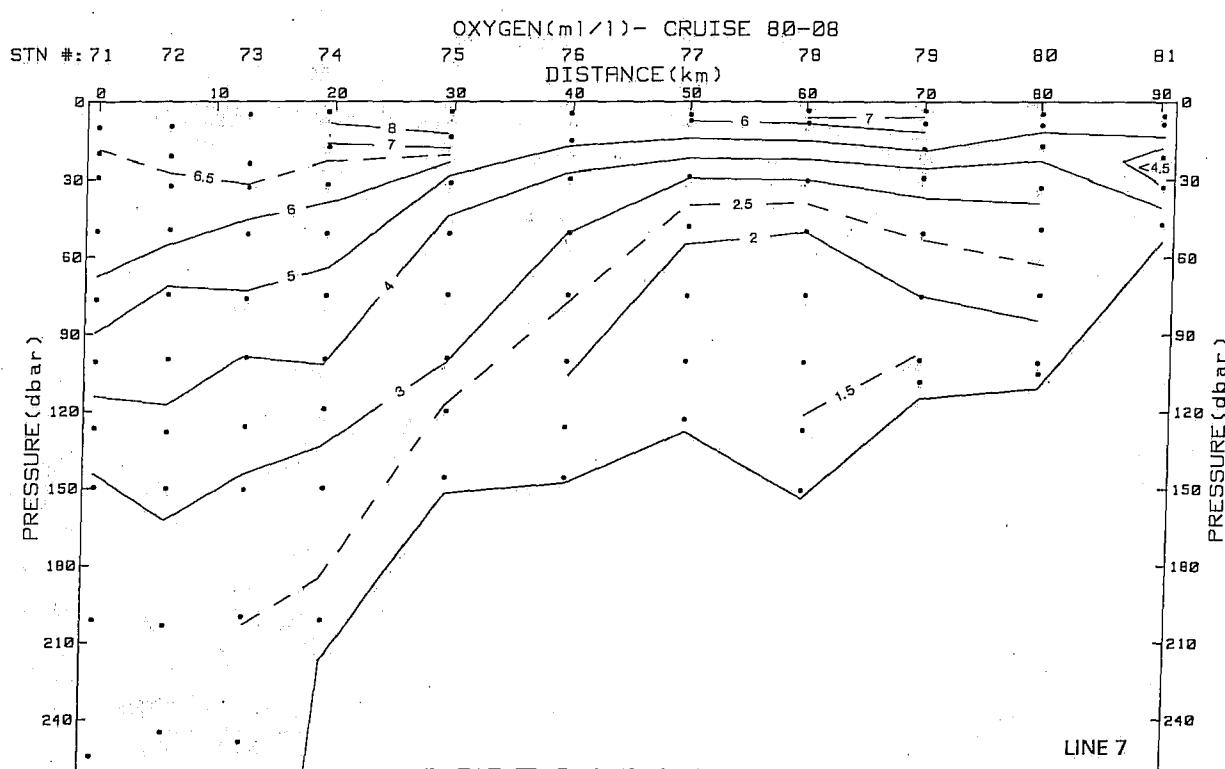
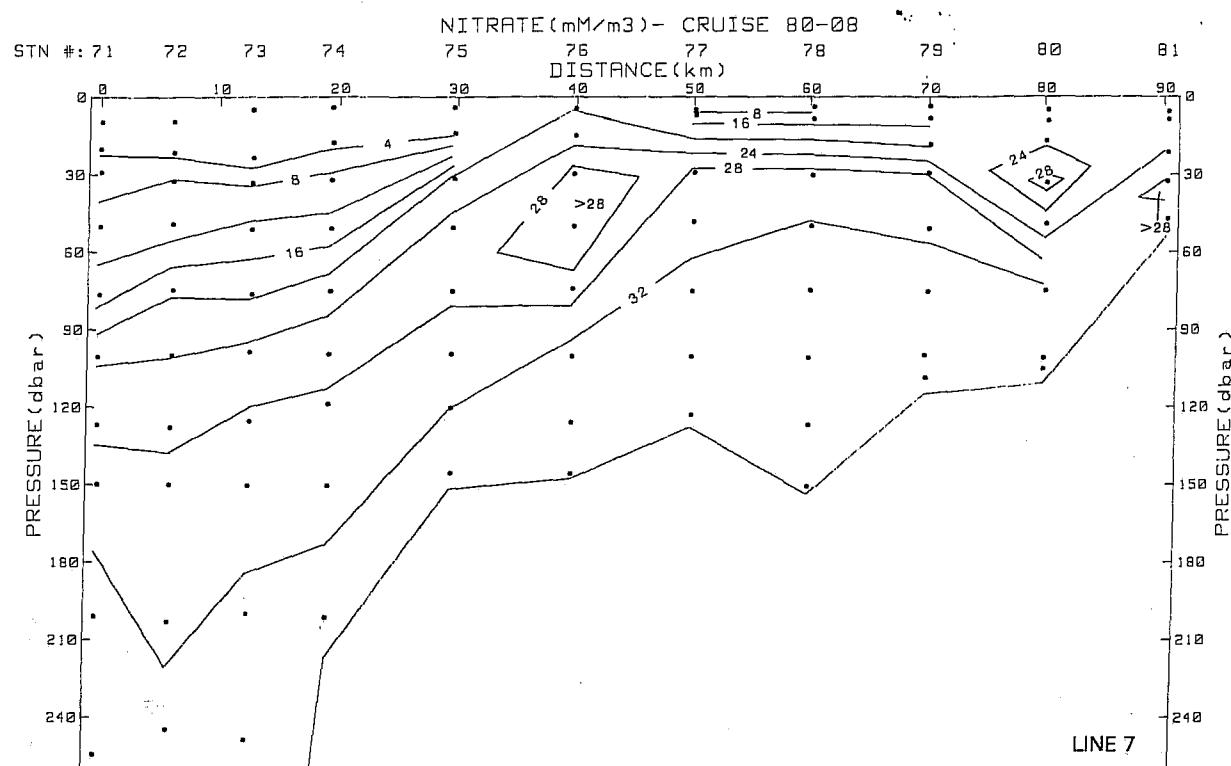


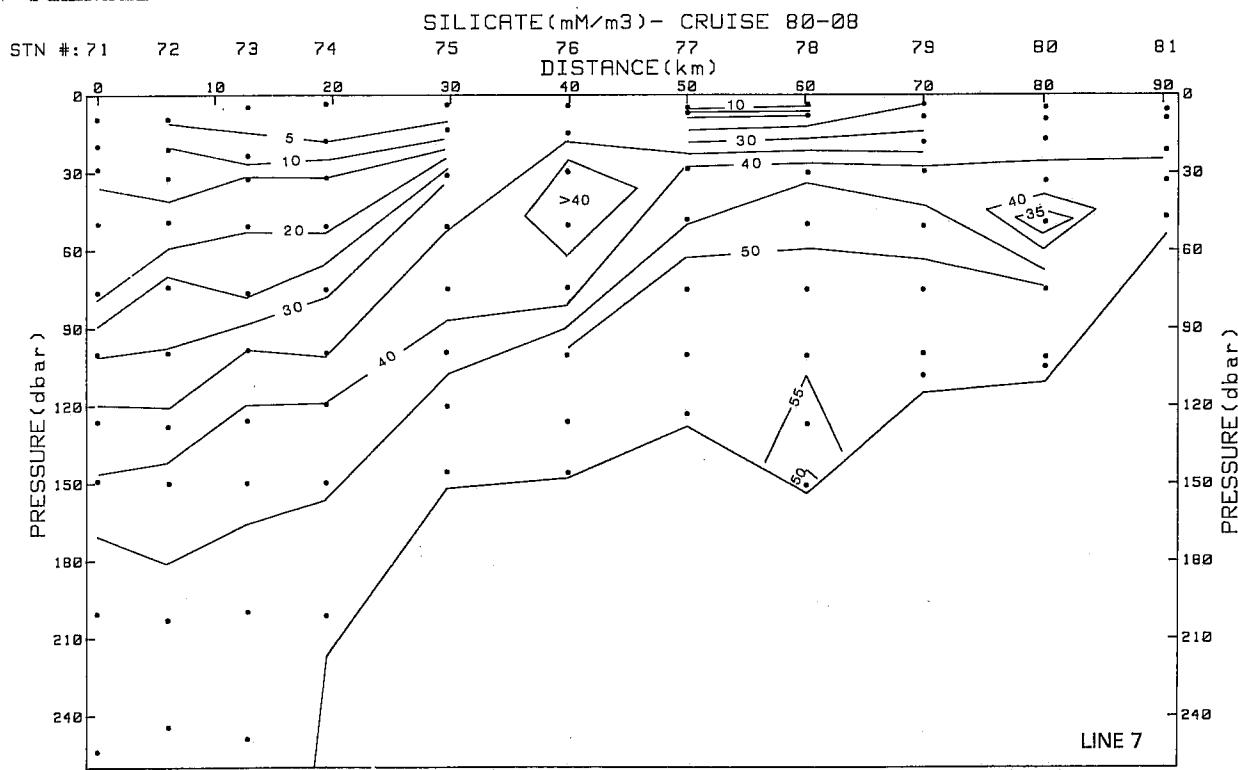
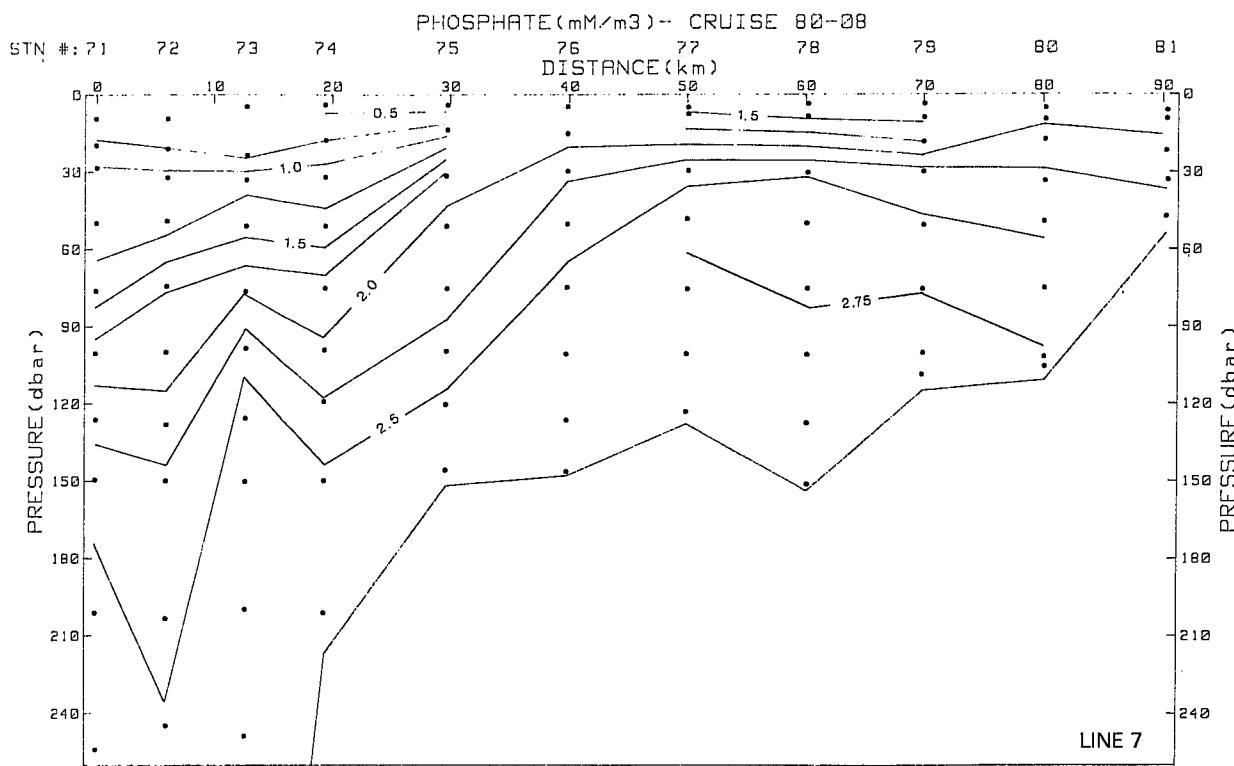












ZOOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 2 TO 14
(VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.

	2	4	5	7	9	11	13	14
AMPHIPODS*								
PARATHEMISTO SP.	5.7	20.2	350.7	.0	11.7	22.0	.0	.0
EUPHIMNO SP.	5.7	.0	.0	.0	.0	.0	.0	.0
CHAETOGNATHS*								
UNIDENTIFIED JUVENILES	.0	.0	.0	301.8	1897.7	1481.9	1107.6	579.5
SAGITTA ELEGANS	1268.2	620.2	1755.9	755.7	2931.2	1776.7	1395.9	553.8
EUKROHNIA HAMATA	616.9	30.4	57.4	347.6	192.6	463.7	23.1	.0
CTENOPHORES*								
PLEUROBEPACHIA SP.	5.7	.0	.0	.0	.0	11.0	.0	5.5
EGGS LARVA*								
UNIDENTIFIED EGGS.	405.2	176.1	2073.7	905.4	1098.8	1296.5	1015.3	758.1
COPEPOD NAUPLII	.0	.0	.0	.0	99.8	.0	.0	.0
BARNACLE NAUPLII	.0	.0	.0	.0	399.7	.0	.0	.0
EUPHAUSIC LARVA	.0	589.9	691.4	.0	898.7	.0	276.8	89.3
DECAPOD LARVA	565.4	772.0	502.0	694.3	1400.0	82.5	438.2	27.4
CUPHAUSIDS*								
JUVENILES	2752.0	.0	387.2	357.7	1402.3	485.7	420.9	11.0
EUPHAUSIA PACIFICA	5.7	10.1	.0	10.1	46.7	176.0	.0	.0
THYSANOFSSA SPINIFERA	5.7	.0	.0	.0	5.8	.0	5.8	.0
LARVACEANS*								
LARVACEANS	405.2	352.1	.0	.0	.0	.0	.0	5.5
MEDUSAE*								
PHIALIDIUM SP.	549.4	298.5	104.4	161.2	17.5	49.5	.0	.0
AGLANTHA SP.	194.6	15.2	.0	50.4	23.3	.0	.0	.0
PROBOSCIDACTYLA SP.	.0	.0	.0	.0	5.8	.0	.0	.0
OSTRACODS*								
CONCHOECIA SP.	.0	176.1	.0	301.8	.0	.0	.0	.0
SIPHONOPHORES*								
NECTOPHORES BRACTS	.0	.0	.0	.0	5.8	.0	.0	.0
COPEPODS*								
ACARTIA CLAUSII S6F	.0	.0	.0	.0	.0	.0	.0	44.4
ACARTIA LONGIREMIS <=S3/4	.0	.0	.0	151.2	199.6	.0	184.5	.0
ACARTIA LONGIREMIS <=S4/5	2431.6	1056.3	1042.0	2152.8	4095.4	3333.9	2030.7	2050.7
ACARTIA LONGIREMIS S6M	1215.5	176.1	.0	1091.8	2497.0	1111.1	1015.3	980.4
CALANUS MARSHALLAE S3	405.2	176.1	.0	151.2	499.5	.0	.0	53.7
CALANUS MARSHALLAE S4	1238.4	186.2	345.4	.0	499.5	364.1	646.3	43.3
CALANUS MARSHALLAE S5	128.2	428.0	2073.7	230.2	234.6	3278.9	1661.7	75.6
CALANUS MARSHALLAE S6M	3259.1	493.8	11405.6	1457.5	3416.1	5840.5	3415.6	258.5
CALANUS MARSHALLAE S6F	8344.8	1249.1	63595.4	843.9	3323.3	42633.1	5815.3	474.3
CALANUS PACIFICUS <=S5	2106.5	10.1	.0	76.6	117.3	185.4	92.3	.0
CALANUS PACIFICUS S6M	5.7	.0	.0	.0	11.7	.0	.0	.0
CALANUS SP. S1/2	405.2	176.1	.0	302.4	699.1	185.4	369.1	133.7
CALANUS TENUICORNIS S6F	.0	.0	.0	.0	.0	.0	92.3	.0

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ZOOPLANKTON HAUL RESULTS - CRUISE RG-05 STANDARD LIST - STATIONS 2 TO 14
 (VALUES ARE NUMBER OF ORGANISMS/SC. METER)

PAGE 2

STATION I.D.		2	4	5	7	9	11	13	14
CENTROPAGES ABDOMINALIS	S5	.0	.0	.0	151.2	199.6	.0	276.8	.0
CENTROPAGES ABDOMINALIS	S6M	405.2	.0	345.4	151.2	111.5	.0	92.3	150.1
CENTROPAGES ABDOMINALIS	S6F	.0	.0	.0	156.2	398.6	11.0	144.1	172.0
EUCALANUS BUNGI S3		410.9	15.2	.0	15.1	117.3	.0	109.6	.0
EUCALANUS BUNGI S4		108.7	25.3	47.0	65.5	35.0	11.0	11.5	5.5
EUCALANUS BUNGI S5M		74.4	40.5	10.4	20.2	11.7	33.0	11.5	5.5
EUCALANUS BUNGI S5F		57.2	40.5	20.9	15.1	11.7	38.5	.0	16.4
EUCALANUS BUNGI S6M		5.7	.0	15.7	.0	.0	5.5	.0	.0
EUCALANUS BUNGI S6F		60.1	20.2	41.7	120.9	17.5	55.0	17.3	.0
EUCHAETA JAPONICA S1/2		.0	.0	.0	.0	99.8	.0	.0	.0
EUCHAETA JAPONICA S3		5.7	5.1	.0	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S5M		5.7	5.1	.0	5.0	.0	.0	.0	.0
EUCHAETA JAPONICA S5F		.0	15.2	.0	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S6F		.0	.0	5.2	5.0	.0	11.0	.0	.0
METRIDIA SP. <=S3		.0	.0	.0	176.3	.0	.0	.0	.0
METRIDIA SP. S4		405.2	.0	.0	.0	.0	740.9	738.6	44.4
METRIDIA PACIFICA S5M		1221.2	176.1	1403.1	15.1	.0	403.2	276.8	44.4
METRIDIA PACIFICA S5F		1227.0	20.2	355.9	623.7	123.1	566.6	207.6	.0
METRIDIA PACIFICA S6M		8955.4	2768.3	41.7	2137.7	217.1	430.7	317.1	.0
METRIDIA PACIFICA S6F		7928.3	2574.0	748.3	2882.8	211.3	1298.1	317.1	44.4
NEOCALANUS CRISTATUS S5		34.3	35.4	.0	10.1	.0	16.5	28.8	.0
NEOCALANUS PLUMCHRUS S4		.0	5.2	.0	.0	.0	.0	.0	.0
NEOCALANUS PLUMCHRUS S5		719.9	25.3	83.5	295.2	157.6	187.0	75.0	.0
OITHONA HELGOLANOICA		13372.8	352.1	3801.9	2414.3	599.3	555.6	92.3	89.3
OITHONA SPINIROSTRIS		.0	176.1	10.4	156.2	299.4	185.4	184.5	44.4
PARACALANUS SP. S6M		.0	.0	.0	151.2	.0	.0	.0	.0
PARACALANUS SP. S6F		.0	.0	.0	.0	.0	.0	.0	89.3
PSEUDOCALANUS SP. <=S3		12562.5	8315.5	6912.3	1810.7	1498.0	1666.7	369.0	44.4
PSEUDOCALANUS SP. S4		56759.5	28411.0	6221.5	3470.8	2896.8	2037.4	92.3	133.7
PSEUDOCALANUS SP. S5M		26340.4	18363.2	5875.5	3017.9	1598.4	3148.5	646.3	133.7
PSEUDOCALANUS SP. S5F		21072.1	18709.8	7949.2	3169.0	2097.3	4074.8	923.1	222.9
PSEUDOCALANUS SP. S6M		14588.3	13512.7	6221.5	2414.3	1198.6	2778.3	554.1	356.6
PSEUDOCALANUS SP. S6F		29987.5	41226.0	17627.1	5281.5	3395.7	8149.1	4799.9	2496.6
SCOЛЕCITHRICELLA MINOP <=S4		.0	.0	.0	151.2	.0	.0	.0	.0
SCOЛЕCITHRICELLA MINOR S5		.0	.0	.0	151.2	399.7	.0	184.5	.0
SCOЛЕCITHRICELLA MINOR S6M		.0	.0	.0	306.8	211.3	.0	.0	.0
SCOЛЕCITHRICELLA MINOP S6F		816.1	.0	1047.3	357.2	322.7	751.9	282.5	.0

ZOOPLANKTON HAUL RESULTS - CRUISE PG-CF VARIANTS LIST - STATIONS 2 TO 14
 (VALUES ARE NUMBER OF ORGANISMS/SC. METER)

PAGE 1

STATION I.O.

	2	4	5	7	9	11	13	14
AETIDEUS ARMATUS S6F	5.7	5.1	.0	5.0	.0	.0	.0	.0
AETIDEUS ARMATUS S5	.0	.0	.0	5.0	.0	.0	.0	.0
AETIDEUS ARMATUS <S4	.0	.0	.0	.0	.0	5.5	.0	.0
EPADYIDIUS SP. S6F	.0	.0	5.2	.0	.0	.0	.0	.0
EPADYIDIUS SP. S5	.0	.0	5.2	.0	.0	.0	.0	.0
EPADYIDIUS SP. <S4	.0	186.2	.0	.0	.0	.0	.0	.0
CALANUS MARSHALLAE/PACIFICUS S6M	1232.7	5.1	.0	1122.5	.0	185.4	.0	.0
CALANUS MARSHALLAE/PACIFICUS S6F	17.2	181.1	.0	.0	.0	.0	.0	.0
CALANUS MARSHALLAE/PACIFICUS <S5	410.9	70.8	.0	151.2	5.8	.0	.0	.0
CLAUSOCALANUS SP. S5	.0	.0	345.4	.0	.0	.0	.0	.0
CORYCAEUS SP.	1215.5	176.1	.0	156.2	99.8	.0	.0	.0
CRYPTONISCIN	405.2	.0	.0	.0	99.8	.0	.0	.0
CYPHANAUTES LARVA	.0	.0	345.4	.0	.0	.0	.0	.0
ECHINOPLUTEUS LARVAE	34.3	.0	.0	.0	.0	.0	.0	.0
EPILABIDOCERA AMPHITRITE <S4	5.7	362.2	.0	.0	.0	.0	.0	.0
EPILARIDOCERA SP. <S4	.0	.0	.0	.0	.0	.0	.0	.0
EPILARIDOCERA AMPHITRITE S6M	.0	15.2	.0	.0	.0	.0	.0	.0
EPILARIDOCERA AMPHITRITE S5	.0	10.1	.0	.0	.0	.0	.0	.0
FISH LARVAE	.0	5.1	.0	5.0	11.7	.0	.0	5.5
GAETANUS SP. S6F	.0	.0	.0	5.0	.0	.0	.0	.0
GAETANUS SP. S6M	.0	5.1	.0	.0	.0	.0	.0	.0
GAETANUS SP. S5	.0	10.1	.0	.0	.0	.0	.0	.0
GAETANUS SP. <S4	.0	5.1	.0	.0	.0	.0	.0	.0
GAIIDIUS VARIABLIS S6F	.0	5.1	.0	.0	.0	.0	.0	.0
HETERORHARDUS TANNERI S6M	.0	5.1	.0	.0	.0	5.5	.0	.0
HETERORHARDUS TANNERI S5	5.7	5.1	.0	.0	.0	.0	.0	.0
MELPHIGIPPA SP.	.0	5.1	.0	.0	.0	.0	.0	.0
MICROCALANUS SP. S5	.0	.0	.0	.0	5.8	.0	.0	.0
MICROCALANUS SP. S6F	.0	.0	.0	301.8	.0	.0	.0	.0
ONCAEA SP.	.0	.0	.0	151.2	.0	185.4	.0	.0
PLEUROMAMMA SP.	1215.5	528.2	691.4	458.5	.0	185.4	.0	.0
PLEUROMAMMA SCUTULLATA S6F	.0	15.2	.0	.0	.0	.0	.0	.0
PODON SP.	.0	.0	.0	.0	.0	5.5	.0	.0
POLYCHAETE LARVAE	.0	.0	.0	.0	499.5	.0	.0	.0
RACOVITZANUS ANTARCTICUS S6F	5.7	.0	.0	156.2	.0	.0	.0	.0
SAGITTA SCRIPPSAE	.0	5.1	.0	.0	5.8	.0	.0	.0
SCAPHOCALANUS SP. SF	.0	.0	.0	156.2	.0	.0	.0	.0
SCINA SP.	.0	5.1	.0	.0	.0	.0	.0	.0
TOMOPTERIS SEPTENTRIONALIS	45.8	.0	5.2	5.0	.0	.0	.0	.0
TORTANUS DISCAUDATUS S6F	827.5	5.1	.0	.0	.0	11.0	.0	.0
TORTANUS DISCAUDATUS S6M	816.1	.0	.0	5.0	.0	.0	.0	.0
TORTANUS DISCAUDATUS S5	405.2	.0	.0	.0	.0	185.4	.0	.0
UNIDENTIFIED AMPHIPOD	.0	.0	.0	.0	.0	.0	.0	.0
UNIDENTIFIED COPEPODITES	405.2	362.3	.0	156.2	.0	392.2	184.5	44.4
UNIDENTIFIED MEDUSAE	.0	35.4	.0	5.0	11.7	195.8	.0	.0
LTMACINA SP.	405.2	5.1	.0	10.1	.0	5.5	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE RD-CF STANDARD LIST - STATIONS 17 TO 39
 (VALUES ARE NUMBER OF ORGANISMS/SC. METER)

PAGE 1

STATION I.D.	17	20	23	27	31	35	39
AMPHIPODS*							
PARATHEMISTO SP.	.0	.0	113.6	67.0	5.6	.0	.0
LUPRIMNO SP.	.0	.0	11.4	.0	.0	.0	.0
CYPHOCARIS SP.	.0	.0	17.0	.0	.0	.0	.0
CHAETOGNATHS*							
UNIDENTIFIED JUVENILES	375.2	727.9	.0	.0	182.1	311.9	374.8
SAGITTA ELEGANS	708.1	189.9	170.4	547.6	636.7	.0	298.2
EUKROHNIA HAMATA	223.0	5.6	562.8	357.5	5.6	.0	.0
CTENOPHORES*							
PLEUROBRACHIA SP.	.0	.0	5.7	.0	.0	.0	.0
EGGS LARVA*							
UNIDENTIFIED EGGS.	44619.6	.0	.0	.0	.0	.0	27263.8
COPPOPOD NAUPLII	749.8	5823.5	.0	.0	.0	.0	9842.4
BARNACLE NAUPLII	375.2	16014.5	.0	.0	.0	1335.4	2947.5
EUPHAUSTID LARVA	749.8	.0	.0	.0	182.1	10848.6	13263.5
DECAPOD LARVA	375.2	755.9	17.0	16.8	187.7	33.4	567.8
EUPHAUSIDS*							
JUVENILES	36.3	16.8	5.7	5.6	39.1	1106.5	374.8
EUPHAUSTIA PACIFICA	36.3	.0	499.8	.0	.0	.0	.0
THYSANOESSA SPINIFERA	24.2	5.6	.0	.0	33.5	.0	.0
LARVACEANS*							
LARVACEANS	.0	9469.3	.0	.0	198.8	83.5	2259.3
MEDUSAE*							
PHIALIDIUM SP.	24.2	16.8	284.0	212.3	100.5	233.9	105.3
AGLANTHA SP.	.0	.0	.0	5.6	.0	5.6	.0
PROBOSCIDACTyla SP.	.0	.0	.0	.0	.0	5.6	.0
OSTRACODS*							
CONCHOECIA SP.	.0	.0	.0	5.6	.0	.0	.0
SIPHONOPHORES*							
NECTOPHORES BRACKTS	.0	.0	.0	16.8	182.1	.0	380.6
COPEPODS*							
ACARTIA LONGIREMIS <=S3/4	381.3	2183.8	.0	.0	.0	.0	374.8
ACARTIA LONGIPERMIS <=S4/5	2858.9	2183.8	1091.6	.0	182.1	.0	2627.7
ACARTIA LONGIPERMIS S6M	1525.0	4367.6	364.1	2769.8	.0	5.6	1158.9
ACARTIA LONGIREMIS S							
CALANUS MARSHALLAE S3	381.3	8470.8	381.1	5629.1	182.1	336.8	1333.1
CALANUS MARSHALLAE S4	971.3	21938.6	887.7	4149.7	413.8	1000.7	808.7
CALANUS MARSHALLAE S5	2045.1	11444.1	1991.2	2342.5	3992.7	1059.8	480.0
CALANUS MARSHALLAE S6M	2451.0	968.2	3992.1	2135.2	1527.5	762.9	307.6
CALANUS MARSHALLAE S6F	2513.9	2323.5	2836.9	1374.9	4574.1	466.1	719.8
CALANUS PACIFICUS <=S5	.0	.0	185.2	.0	.0	83.5	.0
CALANUS PACIFICUS S6M	.0	.0	.0	5.6	.0	.0	5.9
CALANUS SP. S1/2	375.2	19654.2	.0	2769.8	.0	6842.9	2996.0
CALANUS TENUICORNIS S5	375.2	.0	.0	.0	.0	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE RO-05 STANDARD LIST - STATIONS 17 TO 39
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 2

STATION I.D.	17	20	23	27	31	35	39
CALANUS TENUICORNIS S6M	.0	5.6	5.7	.0	.0	.0	.0
CALANUS TENUICORNIS S6F	6.1	.0	11.4	16.8	182.1	.0	.0
CENTROPAGES ABDOMINALIS <=S4	.0	.0	.0	.0	.0	.0	.0
CENTROPAGES ABDOMINALIS S5	.0	727.9	.0	.0	.0	.0	1123.8
CENTROPAGES ABDOMINALIS S6M	761.9	5.6	.0	.0	.0	.0	749.0
CENTROPAGES ABDOMINALIS S6F	54.5	806.2	.0	.0	.0	.0	1498.0
EUCALANUS BUNGI S1/2	.0	.0	.0	.0	.0	.0	99.4
EUCALANUS BUNGI S3	.0	11.2	.0	.0	5.6	5.6	.0
EUCALANUS BUNGI S4	48.4	44.7	107.9	307.3	.0	27.8	5.9
EUCALANUS BUNGI S5M	42.4	22.4	68.2	251.4	5.6	22.3	5.9
EUCALANUS BUNGI S5F	72.6	16.8	125.0	268.2	11.2	44.6	5.9
EUCALANUS BUNGI S6F	6.1	27.9	221.5	173.2	.0	11.1	17.5
EUCHAETA JAPONICA S1/2	.0	.0	5.7	.0	.0	.0	.0
EUCHAETA JAPONICA S3	6.1	.0	375.4	89.4	.0	.0	.0
EUCHAETA JAPONICA S4	.0	.0	34.1	106.2	.0	.0	.0
EUCHAETA JAPONICA S5M	.0	.0	45.4	5.6	.0	.0	.0
EUCHAETA JAPONICA S5F	.0	.0	68.2	5.6	.0	.0	.0
EUCHAETA JAPONICA S6M	.0	.0	28.4	22.4	.0	.0	.0
EUCHAETA JAPONICA S6F	.0	.0	17.0	.0	.0	.0	.0
METRIDIA SP. <=S3	.0	2016.2	3274.8	1474.3	.0	.0	.0
METRIDIA SP. S4	.0	2911.7	3638.2	89.4	182.1	.0	.0
METRIDIA PACIFICA S5M	1529.9	1455.9	14189.5	27.9	557.4	5.6	.0
METRIDIA PACIFICA S5F	804.3	2195.0	9095.6	2463.1	198.8	83.5	.0
METRIDIA PACIFICA S6M	2038.2	1478.2	5457.4	1569.3	926.5	83.5	.0
METRIDIA PACIFICA S6F	290.5	11.2	4002.3	2938.0	215.6	89.1	.0
NEOCALANUS CRISTATUS S2	.0	.0	364.1	11.2	182.1	.0	.0
NEOCALANUS CRISTATUS S3	.0	744.7	5.7	.0	.0	.0	.0
NEOCALANUS CRISTATUS S4	.0	27.9	198.8	55.9	22.3	.0	.0
NEOCALANUS CRISTATUS S5	6.1	.0	221.5	435.8	.0	.0	.0
NEOCALANUS PLUMCHRUS S4	190.6	5.7	.0	5.6	11.2	5.6	5.9
NEOCALANUS PLUMCHRUS S5	251.2	39.1	5.7	379.9	16.8	.0	5.9
OITHONA HELGOLANOICA	6748.9	13102.8	29106.5	19389.4	12722.5	17524.0	4882.9
OITHONA SPINIPOSTRIS	375.2	727.9	3638.2	6925.1	363.6	.0	.0
PARACALANUS SP. S5	.0	5.6	.0	.0	.0	.0	.0
PARACALANUS SP. S6F	375.2	5.6	.0	.0	.0	.0	.0
PSEUDOCALANUS SP. <=S3	6374.3	10919.0	1819.1	29969.8	7768.7	70767.4	14000.2
PSEUDOCALANUS SP. S4	15373.3	14558.7	8732.1	114429.6	21086.0	72102.2	25790.3
PSEUDOCALANUS SP. S5M	14998.1	15286.6	6913.0	130777.1	11467.6	46732.9	23579.5
PSEUDOCALANUS SP. S5F	15747.9	8735.2	9095.6	89908.9	9618.4	33380.6	16947.8
PSEUDOCALANUS SP. S6M	11998.2	14558.7	33108.8	100807.3	28854.6	17358.0	33895.5
PSEUDOCALANUS SP. S6F	27371.5	21110.1	41840.9	457719.6	1849.7	53409.4	56738.3
SCOLECITHRICELLA MINOR S6F	393.4	11.2	1511.9	5.6	.0	.0	.0

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ZOOPLANKTON HAUL RESULTS - CRUISE PG-US VARIANTS LIST - STATIONS 17 TO 39
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.	17	20	23	27	31	35	39
AETIOFUS ARMATUS S5	6.1	.0	.0	.0	.0	.0	.0
BARNACLE CYPRIDS	6.1	5.6	17.0	5.6	.0	.0	.0
BIVALVE LARVA	749.8	.0	.0	.0	.0	.0	.0
CALANUS MARSHALLAE/PACIFICUS S6F	.0	.0	.0	89.4	.0	.0	.0
CANDACIA COLUMBIAE S6M	.0	.0	.0	5.6	.0	.0	.0
CANDACIA COLUMBIAE S5	.0	.0	.0	5.6	.0	.0	.0
CLAUSOCALANUS SP. S6F	.0	.0	1819.1	.0	369.7	.0	.0
CLAUSOCALANUS SP. S5	.0	.0	364.1	.0	.0	.0	.0
CLIONE SP.	.0	.0	5.7	.0	5.6	.0	.0
CRYPTONISCID	.0	.0	.0	.0	5.6	.0	.0
ECHINOPLOUTEUS LARVAE	.0	.0	.0	.0	.0	.0	374.8
EPILABIDOCERA SP. <=S4	6.1	5.6	.0	.0	.0	.0	.0
FISH EGGS	.0	.0	.0	5.6	.0	.0	.0
FISH LARVAE	.0	33.5	.0	.0	.0	.0	5.9
GAETANUS SP. S6M	6.1	.0	.0	.0	.0	.0	.0
GAETANUS SP. S5	12.1	.0	5.7	5.6	.0	.0	.0
GAIDIUS VAPIABELIS S6F	.0	.0	.0	11.2	.0	.0	.0
HETERORHARDUS TANNERI S6F	6.1	.0	.0	.0	.0	.0	.0
HETERORHARDUS TANNERI S6M	.0	.0	5.7	.0	.0	.0	.0
HETERORHARDUS TANNERI S5	.0	.0	5.7	.0	.0	.0	.0
NEMATOSCELIS SP.	6.1	.0	.0	.0	.0	.0	.0
PLEUROMAMMA SP.	.0	.0	.0	5.6	.0	.0	.0
POLYCHAETE LARVAE	.0	.0	.0	.0	.0	.0	5.9
RACOVITZANUS ANTARCTICUS S6F	24.2	.0	39.8	11.2	.0	.0	.0
SAGITTA SCRIPPSAE	.0	.0	.0	11.2	.0	.0	.0
SALP	.0	.0	755.4	.0	.0	.0	.0
SCAPHOCALANUS SP. S6F	.0	.0	5.7	.0	.0	.0	.0
SCAPHOCALANUS SP. S5	.0	.0	17.0	.0	.0	.0	.0
TOMOPTERIS SEPTENTRIONALIS	.0	.0	11.4	5.6	.0	.0	.0
UNIDENTIFIED AMPHIPOD	.0	11.2	.0	.0	.0	.0	.0
UNIDENTIFIED COPEPODITES	.0	.0	11.4	67.0	.0	.0	.0
UNIDENTIFIED MEDUSAE	18.2	.0	5.7	11.2	.0	5.6	17.5
LIMACINA SP.	8623.8	11736.3	761.6	1384.9	97308.3	33380.6	2621.8

ZOOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 40 TO 60
(VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.	40	46	52	53	57	60
AMPHIPODS*						
PARATHEMISTO SP.	5.6	.0	29.4	8.9	5.8	.0
EUPRIMNO SP.	.0	.0	5.9	.0	17.4	.0
CYPHOCARIS SP.	.0	.0	.0	8.9	.0	.0
CHAETOGNATHS*						
UNIDENTIFIED JUVENILES	.0	358.0	376.8	.0	11.6	424.2
SAGITTA ELEGANS	106.2	933.3	194.0	969.9	1751.7	279.1
EUKROHNIA HAMATA	33.5	5.6	276.3	379.9	482.6	.0
CTENOPHORES*						
PLEUROBRACHIA SP.	16.8	.0	.0	.0	.0	.0
EGGS LARVA*						
UNIDENTIFIED EGGS	3638.6	249865.9	1531.9	24911.3	5872.7	201.0
COPEPOD NAUPLII	182.1	27450.2	.0	.0	587.2	22.3
BARNACLE NAUPLII	180.5	30969.4	.0	.0	195.9	.0
EUPHAUSID LARVA	1637.4	22523.1	.0	286.5	783.1	106.1
DECAPOD LARVA	.0	5.6	11.8	13.4	34.9	27.9
EUPHAUSIDS*						
JUVENILES	.0	11.2	5.9	71.5	46.5	.0
EUPHAUSTIA PACIFICA	.0	.0	.0	17.9	74.6	.0
THYSANOESSA SPINIFERA	.0	39.1	.0	.0	23.3	.0
LARVACEANS*						
LARVACEANS	.0	9150.1	.0	.0	5.8	.0
MEDUSAE*						
PHIALIDIUM SP.	16.8	55.9	270.4	8.9	34.9	.0
AGLANTHA SP.	.0	.0	11.8	.0	.0	5.6
OSTRACODS*						
CONCHOECIA SP.	.0	.0	382.7	.0	219.2	.0
SIPHONOPHORES*						
NECTOPHORES BRACTS	.0	.0	5.9	4.5	.0	.0
COPEPODS*						
ACARTIA LONGIREMIS <=S3/4	277.7	715.5	.0	.0	.0	22.3
ACARTIA LONGIREMIS <=S4/5	2589.4	1073.5	753.0	985.6	195.9	5.6
ACARTIA LONGIREMIS S6M	832.4	358.0	1882.8	563.2	587.2	139.6
ACARTIA LONGIREMIS S						
CALANUS MARSHALLAE S3	1572.1	5838.1	2635.8	1145.1	391.3	78.2
CALANUS MARSHALLAE S4	3858.1	3311.4	4954.2	4.5	195.9	100.5
CALANUS MARSHALLAE S5	2450.8	1091.9	7066.2	3149.8	4043.0	11.2
CALANUS MARSHALLAE S6M	279.9	354.7	2406.5	6013.1	1095.4	100.5
CALANUS MARSHALLAE S6F	1545.3	1239.9	2135.6	10880.5	11352.3	94.9
CALANUS PACIFICUS <=S5	.0	.0	.0	286.5	.0	5.6
CALANUS PACIFICUS S6M	.0	.0	.0	.0	.0	5.6
CALANUS SP. S1/2	727.4	13373.0	1531.9	1431.7	1370.3	145.1
CALANUS TENUICORNIS <=S4	.0	.0	765.9	.0	.0	.0
CALANUS TENUICORNIS S6M	184.9	.0	376.8	.0	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 40 TO 60
 (VALUES ARE NUMBER OF ORGANISMS/SC. METERS)

PAGE 2

STATION I.D.	40	46	52	53	57	60
CALANUS TENUICORNIS S6F	.0	.0	5.9	.0	.0	.0
CENTROPAGES ABDOMINALIS <=S4	184.9	.0	.0	.0	195.9	.0
CENTROPAGES ABDOMINALIS S5	184.9	358.0	.0	.0	195.9	67.0
CENTROPAGES ABDOMINALIS S6M	201.7	380.4	.0	.0	.0	27.9
CENTROPAGES ABDOMINALIS S6F	201.7	1151.7	.0	.0	5.8	27.9
EUCALANUS BUNGI S1/2	.0	358.0	.0	.0	.0	.0
EUCALANUS BUNGI S3	5.6	.0	.0	.0	.0	.0
EUCALANUS BUNGI S4	67.0	16.8	88.2	17.9	52.3	33.5
EUCALANUS BUNGI S5M	22.4	33.5	117.6	31.3	69.8	.0
EUCALANUS BUNGI S5F	39.1	27.9	229.3	53.6	11.6	.0
EUCALANUS BUNGI S6M	.0	.0	5.9	.0	11.6	.0
EUCALANUS BUNGI S6F	27.9	44.7	194.0	35.8	354.7	.0
EUCHAETA JAPONICA S1/2	.0	.0	376.8	140.8	.0	.0
EUCHAETA JAPONICA S3	.0	.0	23.5	.0	23.3	.0
EUCHAETA JAPONICA S4	.0	.0	41.2	4.5	11.6	.0
EUCHAETA JAPONICA S5M	.0	.0	29.4	.0	.0	.0
EUCHAETA JAPONICA S5F	.0	.0	5.9	4.5	.0	.0
EUCHAETA JAPONICA S6M	.0	.0	5.9	17.9	.0	.0
EUCHAETA JAPONICA S6F	.0	.0	23.5	4.5	5.8	.0
METRIDIA SP. <=S3	909.5	.0	6127.4	.0	783.1	.0
METRIDIA SP. S4	1654.2	358.0	2297.8	286.5	3523.8	.0
METRIDIA PACIFICA S5M	33.5	358.0	3771.5	994.5	2977.3	.0
METRIDIA PACIFICA S5F	11.2	5.6	2659.3	1289.5	2787.2	.0
METRIDIA PACIFICA S6M	11.2	358.0	276.8	2279.1	1986.6	.0
METRIDIA PACIFICA S6F	22.4	50.3	4477.4	4444.7	883.7	.0
NEOCALANUS CRISTATUS S3	11.2	27.9	17.6	.0	5.8	.0
NEOCALANUS CRISTATUS S4	33.5	5.6	229.3	.0	23.3	.0
NEOCALANUS CRISTATUS S5	.0	.0	164.6	35.8	319.8	5.6
NEOCALANUS PLUMCHRUS S4	55.9	5.6	11.8	.0	.0	.0
NEOCALANUS PLUMCHRUS S5	44.7	5.6	70.5	160.9	395.4	16.8
OITHONA HELGOLANOICA	3976.5	4293.3	42892.7	7447.7	2740.7	156.3
OITHONA SPINIROSTPI	739.7	358.0	2297.8	859.1	979.1	55.8
PARACALANUS SP. S5	.0	703.7	.0	.0	195.9	.0
PARACALANUS SP. S6F	182.1	1407.5	765.9	.0	.0	.0
PSEUDOCALANUS SP. <=S3	1091.6	22523.1	6893.4	3435.8	2153.5	245.6
PSEUDOCALANUS SP. S4	3820.7	24634.8	9191.2	7158.2	2936.6	156.3
PSEUDOCALANUS SP. S5M	5821.8	13373.0	7659.3	8590.3	5481.4	223.3
PSEUDOCALANUS SP. S5F	4730.2	19003.9	13786.7	13171.3	5481.4	312.6
PSEUDOCALANUS SP. S6M	3274.9	9150.1	41360.8	11739.6	7439.0	848.5
PSEUDOCALANUS SP. S6F	14008.4	61938.3	76593.6	30637.9	12332.6	2434.4
SCOЛЕCITHRICELLA MINOR <=S4	182.1	.0	765.9	.0	195.9	.0
SCOЛЕCITHRICELLA MINOR S5	.0	.0	1531.9	.0	.0	5.6
SCOЛЕCITHRICELLA MINOR S6M	11.2	.0	.0	.0	195.9	.0
SCOЛЕCITHRICELLA MINOR S6F	767.0	5.6	783.6	281.6	616.3	5.6

ZOOPLANKTON HAUL RESULTS - CRUISE RD-05 VARIANTS LIST - STATIONS 40 TO 60
 (VALUES ARE NUMBER OF ORGANISMS/SC. METER)

PAGE 1

STATION I.D.		40	46	52	53	57	60
AETIODEUS ARMATUS S6F		.0	.0	.0	.0	5.8	.0
AETIODEUS ARMATUS S6M		.0	.0	.0	4.5	.0	.0
BARNACLE CYPRIDS		.0	.0	23.5	.0	5.8	.0
CALLIOPHIUS SP.		.0	.0	.0	.0	.0	.0
CALANUS MARSHALLAE/PACIFICUS S6M		.0	.0	.0	.0	.0	5.6
CALANUS MARSHALLAE/PACIFICUS <=55		.0	.0	.0	8.9	.0	.0
CLAUSOCALANUS SP. S6F	363.7	.0	2297.8	286.5	587.2	44.7	
CLAUSOCALANUS SP. S5		.0	.0	.0	.0	.0	
CORYCAEUS SP.		.0	703.7	.0	.0	.0	22.3
CRYPTONISCID		.0	.0	5.9	.0	5.8	22.3
CYMBULIDAE		.0	.0	.0	.0	5.8	.0
FISH LARVAE		.0	5.6	.0	4.5	5.8	.0
CAETANUS SP. S5		.0	.0	11.8	286.5	.0	.0
HETERORHABDUS SP. S6M	5.6	.0	.0	.0	.0	.0	
HETERORHABDUS TANNERI S6F		.0	.0	5.9	.0	.0	.0
HETERORHABDUS TANNERI S6M		.0	.0	5.9	.0	.0	.0
HETERORHAEDUS TANNERI S5		.0	.0	5.9	.0	.0	.0
MICROCALANUS SP. S5		.0	.0	5.9	4.5	5.8	.0
PLEUROMAMMA SCUTULLATA S6F		.0	.0	.0	286.5	.0	.0
POLYCHAETE LARVAE		.0	.0	5.9	.0	.0	.0
RACOVITZANUS ANTARCTICUS S6F		.0	.0	5.9	.0	.0	.0
RACOVITZANUS ANTARCTICUS S5		.0	.0	29.4	.0	23.3	.0
SAGITTA SCRIPPSAE		.0	.0	.0	.0	5.8	.0
SCAPHOCALANUS SP. S6F		.0	.0	.0	4.5	.0	.0
SCAPHOCALANUS SP. S5		.0	.0	11.8	.0	.0	.0
THYSANOESSA LONGIPES		.0	.0	11.8	4.5	5.8	.0
TOMOPTERIS SEPTENTRIONALIS		.0	.0	.0	76.0	.0	.0
UNIDENTIFIED COPEPODITES		.0	.0	5.9	.0	5.8	.0
UNIDENTIFIED MEDUSAE		.0	.0	23.5	859.1	5.8	134.0
LIMACINA SP.	783.8	2520.6	23.5	572.6	996.5	83.7	

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 STANDARD LIST - STATIONS 1 TO 19 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

STATION I.D.	1	4	5	9	12	15	16	19
AMPHIPODS*								
UNIDENTIFIED JUVENILES	.0	.0	1729.3	.0	.0	.0	.0	.0
PARATHEMISTO SP.	178.7	38.2	435.4	27.9	5.8	16.1	801.1	32.3
EUPRIMNO SP.	5.6	.0	5.6	.0	.0	.0	5.9	5.4
CYPHOCARIS SP.	.0	.0	11.2	.0	.0	.0	.0	.0
CHAETOGNATHS*								
UNIDENTIFIED JUVENILES	374.8	10.9	909.3	.0	11.6	123.1	.0	322.4
SAGITTA ELEGANS	1089.2	4414.7	3042.2	407.7	1711.8	137.2	813.5	1313.4
EUKROHNIA HAMATA	117.3	231.6	178.6	39.1	348.2	.0	264.2	290.7
CTENOPHORES*								
PLEUROBRACHIA SP.	.0	.0	33.5	83.8	.0	.0	35.6	.0
EGGS LARVA*								
UNIDENTIFIED EGGS.	.0	12072.7	5879.5	79543.3	80665.8	18313.5	22075.4	41287.5
COPEPOD NAUPLII	.0	2889.1	346.1	369.8	11147.0	20034.4	730.4	2580.6
BARNACLE NAUPLII	5728.6	.0	691.6	369.8	10036.9	.0	732.8	.0
EUPHAUSID LARVA	3421.2	3232.5	.0	2219.7	5575.8	5412.1	1839.7	1612.7
DECAPOD LARVA	726.7	21.8	5.6	11.2	.0	4.8	11.9	.0
EUPHAUSIDS*								
JUVENILES	425.1	.0	11.2	22.3	5.8	4.0	391.9	26.9
EUPHAUSTA PACIFICA	.0	54.5	27.9	.0	81.2	.0	118.8	53.8
THYSANOESSA SPINIFERA	.0	.0	.0	5.6	29.0	.0	.0	5.4
LARVACEANS*								
LARVACEANS	54064.0	10212.0	.0	.0	2257.2	12203.0	.0	322.4
MEDUSAE*								
PHIALIDIUM SP.	78.2	.0	240.0	16.8	.0	1815.7	213.8	.0
AGLANTHA SP.	106.1	.0	11.2	.0	.0	.0	.0	.0
PROBOSCIDACTYLA SP.	.0	.0	.0	5.6	.0	.0	.0	.0
OSTRACODS*								
CONCHOECIA SP.	.0	365.2	1740.5	.0	.0	.0	.0	.0
SIPHONOPHORES*								
NECTOPHORES BRACKTS	27.9	.0	11.2	.0	.0	.0	.0	.0
COPEPODS*								
ACARTIA LONGIREMIS <= S3/4	358.0	1225.2	1729.3	2219.7	1486.6	1352.1	2575.4	1290.3
ACARTIA LONGIREMIS <= S4/5	1429.9	8404.2	11412.9	24417.6	10408.3	7620.4	27593.8	14515.1
ACARTIA LONGIREMIS S6M	3220.6	2278.7	1037.7	10729.2	8549.7	737.6	6622.3	14838.0
ACARTIA LONGIPERMIS S								
CALANUS MARSHALLAE S3	.0	343.4	.0	740.1	195.5	507.6	95.0	2760.4
CALANUS MARSHALLAE S4	1084.7	343.4	1383.2	357.5	103.3	274.0	878.9	492.0
CALANUS MARSHALLAE S5	2644.2	9613.0	12294.8	1173.5	2080.3	129.1	1188.2	3022.0
CALANUS MARSHALLAE S6M	1481.3	204.4	5.6	78.2	279.1	12.1	594.4	492.0
CALANUS MARSHALLAE S6F	3270.4	13277.7	2147.4	693.2	446.2	310.7	653.8	567.9
CALANUS SP. S1/2	.0	710.2	5.6	740.1	2230.6	3933.3	736.3	1290.3
CENTROPAGES ABDOMINALIS <= S4	.0	.0	.0	.0	.0	.0	368.2	.0
CENTROPAGES ABDOMINALIS S5	.0	.0	.0	369.8	.0	.0	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE 80-OF STANDARD LIST - STATIONS 1 TO 19
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METCP)

PAGE 2

STATION I.O.		1	4	5	9	12	15	16	19
CENTROPAGES ABDOMINALIS	S6M	.0	171.7	.0	.0	.0	4.0	187.0	322.4
CENTROPAGES ABDOMINALIS	S6F	.0	.0	.0	5.6	.0	159.4	5.9	10.8
EUCALANUS BUNGI S4		.0	32.7	16.7	33.5	.0	4.0	.0	5.4
EUCALANUS BUNGI SEM		.0	5.4	22.3	22.3	11.6	4.0	11.9	16.2
EUCALANUS BUNGI S5F		.0	16.3	39.1	16.8	23.2	8.1	41.6	37.7
EUCALANUS BUNGI S6M		5.6	.0	.0	11.2	.0	.0	.0	5.4
EUCALANUS BUNGI S6F		11.2	174.4	78.1	83.8	40.6	8.1	106.9	59.2
EUCHAETA JAPONICA S1/2		.0	697.6	346.1	5.6	.0	.0	.0	.0
EUCHAETA JAPONICA S3		11.2	21.8	11.2	.0	.0	.0	273.2	21.5
EUCHAETA JAPONICA S4		5.6	715.6	.0	.0	.0	.0	71.3	5.4
EUCHAETA JAPONICA SEM		.0	5.4	5.6	5.6	11.6	.0	29.7	5.4
EUCHAETA JAPONICA S5F		.0	16.3	5.6	.0	23.2	.0	53.4	5.4
EUCHAETA JAPONICA S6M		.0	.0	5.6	.0	5.8	.0	.0	.0
EUCHAETA JAPONICA S6F		.0	.0	.0	.0	29.0	.0	5.9	5.4
METRIDIA SP. <=S3		.0	710.2	1383.2	.0	.0	245.7	.0	.0
METRIDIA SP. S4		.0	12072.7	1729.3	740.1	372.0	.0	.0	322.4
METRIDIA PACIFICA S5M		.0	177.1	346.1	11.2	.0	4.0	95.0	492.0
METRIDIA PACIFICA S5F		5.6	171.7	351.7	11.2	11.6	.0	190.0	508.2
METRIDIA PACIFICA S6M		715.5	525.9	.0	.0	482.2	.0	386.0	1513.7
NEOCALANUS CRISTATUS S3		128.5	823.0	1455.8	167.6	702.7	16.1	1247.6	831.1
NEOCALANUS CRISTATUS S4		5.6	.0	.0	.0	.0	.0	5.9	.0
NEOCALANUS CRISTATUS S5		11.2	218.0	240.0	39.1	11.6	.0	5.9	16.2
NEOCALANUS PLUMCHRUS S5		27.9	5.4	.0	.0	46.4	.0	302.8	75.4
OITHONA HELGOLANOICA		24704.5	24691.0	17292.4	40326.3	25277.8	3072.6	1103.9	29675.5
OITHONA SPINIROSTRIS		.0	2793.8	8992.0	740.1	743.3	.0	26122.3	1290.3
PARACALANUS SP. S5		.0	.0	.0	.0	.0	123.1	735.7	.0
PSEUDOCALANUS SP. <=S3		148949.7	122780.7	3804.1	1109.8	31968.9	11430.7	5150.8	41933.0
PSEUDOCALANUS SP. S4		39487.9	24556.4	11066.8	7029.4	17471.4	3072.6	5519.0	26772.5
PSEUDOCALANUS SP. S5M		108848.0	18778.1	5187.9	7029.4	5575.8	123.1	4783.2	14838.0
PSEUDOCALANUS SP. S5F		206237.7	11556.0	5879.5	7769.5	7434.4	245.7	2943.6	14515.1
PSEUDOCALANUS SP. S6M		103118.8	5777.7	2767.0	3329.5	4089.2	368.8	368.2	5483.6
PSEUDOCALANUS SP. S6F		229153.1	13000.3	22134.2	13689.0	9665.0	368.8	5519.0	12902.3
SCOLOCITHRICELLA MINOP S5		.0	.0	346.1	.0	5.8	.0	187.0	322.4
SCOLOCITHPICELLA MINOP S6F		.0	171.7	691.6	27.9	23.2	8.1	766.0	989.4

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ZOOPLANKTON HAUL RESULTS - CRUISE 60-68 VARIANTS LIST - STATIONS 1 TO 19
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.		1	4	5	9	12	15	16	19
AEGINA SP.		.0	.0	.0	5.6	.0	.0	.0	.0
AETIDEUS ARMATUS S6F		.0	.0	.0	.0	5.8	.0	.0	5.4
AETIDEUS ARMATUS S5		.0	.0	.0	5.6	11.6	.0	5.9	26.9
BARNACLE CYPRIDS		.0	5.4	.0	.0	.0	.0	.0	.0
BIVALVE LARVA		.0	.0	.0	.0	.0	.0	1103.9	.0
BRADYIDIUS SP. S6F		.0	.0	.0	.0	.0	.0	.0	5.4
BRADYIDIUS SP. S5		.0	.0	.0	.0	.0	.0	.0	10.8
BRADYIDIUS SP. <=S4		.0	.0	.0	.0	.0	.0	.0	10.8
CANDACIA COLUMBIAE S6F	5.6	.0	.0	.0	.0	.0	.0	.0	.0
CANDACIA COLUMBIAE S5	.0	.0	5.6	.0	.0	.0	.0	.0	.0
CLAUSOCALANUS SP. <=S4	.0	.0	.0	369.8	.0	.0	.0	.0	.0
CLIONE SP.	.0	.0	.0	.0	.0	.0	.0	5.9	.0
CORYCAEUS SP.	.0	.0	.0	369.8	.0	.0	735.7	.0	.0
CRYPTONISCID	.0	.0	.0	.0	372.0	.0	.0	.0	.0
ECHINOPLOUTEUS LARVAE	.0	.0	.0	.0	.0	.0	368.2	.0	.0
EPILABIDOCERA AMPHITRITE <=S4	1777.3	.0	.0	.0	.0	.0	.0	.0	.0
EPILABIDOCERA SP. <=S4	.0	710.2	.0	5.6	.0	372.8	.0	.0	.0
EPILABIDOCERA AMPHITRITE S6F	22.3	.0	.0	.0	.0	.0	.0	.0	.0
EPILABIDOCERA AMPHITRITE S6M	33.5	.0	.0	.0	.0	.0	.0	.0	.0
EPILABIDOCERA AMPHITRITE S5	659.7	.0	.0	.0	.0	.0	.0	.0	.0
FISH LARVAE	.0	.0	5.6	39.1	5.8	8.1	11.9	.0	.0
GAETANUS SP. S5	.0	.0	.0	.0	5.8	.0	.0	21.5	.0
GAETANUS SP. <=S4	.0	.0	346.1	.0	5.8	.0	.0	5.4	.0
GAIDIUS VARIABLIS S6F	.0	5.4	.0	.0	.0	.0	.0	.0	.0
GAIDIUS VARIABLIS S5	.0	.0	.0	.0	11.6	.0	.0	5.4	.0
HETERORHABDUS TANNERI S6F	.0	.0	.0	.0	.0	.0	.0	.0	5.4
HETERORHABDUS TANNERI S6M	.0	.0	5.6	.0	.0	.0	.0	.0	.0
MICROCALANUS SP. S5	5728.6	.0	.0	.0	.0	.0	.0	322.4	.0
MICROCALANUS SP. <=S4	.0	.0	691.6	.0	.0	.0	.0	.0	.0
MICROCALANUS SP. S6F	5728.6	.0	.0	369.8	1486.6	.0	.0	967.8	.0
MICROCALANUS SP. S6M	.0	.0	.0	.0	372.0	.0	.0	.0	.0
NEMATOSCELIS SP.	.0	.0	.0	.0	11.6	.0	.0	.0	.0
ONCAEA SP.	.0	.0	346.1	.0	743.3	245.7	.0	644.9	.0
PERACLIS SP.	.0	.0	346.1	.0	.0	.0	.0	.0	.0
POLYCHAETE LARVAE	.0	.0	.0	.0	743.3	.0	368.2	.0	.0
RACOVITZANUS ANTARCTICUS S6F	5.6	5.4	.0	16.8	11.6	.0	.0	32.3	.0
RACOVITZANUS ANTARCTICUS S5	5.6	177.1	.0	5.6	23.2	4.0	561.2	26.9	.0
RACOVITZANUS ANTARCTICUS <=S4	.0	.0	346.1	.0	.0	.0	374.1	.0	5.4
SCAPHOCALANUS SP. S6F	.0	.0	.0	.0	5.8	.0	.0	.0	.0
SCAPHOCALANUS SP. S6M	.0	.0	.0	.0	5.8	.0	.0	.0	.0
SCAPHOCALANUS SP. S5	.0	.0	.0	.0	11.6	.0	.0	.0	.0
TOMOPTERIS SEPTENTRIONALIS	33.5	10.9	1048.9	.0	.0	.0	.0	.0	5.4
TORTANUS DISCAUDATUS S6F	547.9	.0	.0	.0	.0	.0	.0	.0	.0
TORTANUS DISCAUDATUS S6M	816.1	.0	.0	.0	.0	.0	.0	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE 80-UE VARIANTS LIST - STATIONS 1 TO 19
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 2

STATION I.D.	1	4	5	9	12	15	16	19
TORTANUS DISCAUDATUS >=55	2549.3	.0	.0	.0	.0	.0	.0	.0
TORTANUS DISCAUDATUS <=54	358.0	.0	.0	.0	.0	.0	.0	.0
UNDINELLA SP.	.0	.0	702.0	.0	.0	.0	.0	.0
UNIDENTIFIED AMPHIPOD	.0	.0	16.7	.0	.0	.0	.0	.0
UNIDENTIFIED COPEPODITES	5728.6	2889.1	346.1	.0	1115.3	4.0	380.0	.0
UNIDENTIFIED EUPHASID	.0	.0	5.6	.0	.0	.0	.0	.0
UNIDENTIFIED MEDUSAE	.0	.0	.0	.0	.0	.0	.0	10.8
LIMACINA SP.	.0	.0	686.6	2225.3	188025.1	.0	1115.8	644.9

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 STANDARD LIST - STATIONS 22 TO 41
(VALUES ARE NUMBER OF ORGANISMS/SC. METERS)

PAGE 1

STATION I.D.	22	25	28	29	33	37	41
AMPHIPODS*							
PARATHEMISTO SP.	33.7	.0	10.5	.0	.0	.0	116.0
EUPRIMNO SP.	5.6	.0	15.7	.0	.0	.0	.0
CYPHOCARIS SP.	.0	.0	10.5	.0	.0	.0	46.4
CHAETOGNATHS*							
UNIDENTIFIED JUVENILES	.0	.0	.0	.0	.0	.0	397.4
SAGITTA ELEGANS	573.5	1158.4	1243.2	74.1	271.0	698.3	1096.5
EUKROHNIA HAMATA	61.8	178.7	619.0	5.7	5.6	5.6	1206.8
CTENOPHORES*							
PLEUROBACHIA SP.	.0	5.8	5.2	148.1	402.2	128.5	110.2
EGGS LARVA*							
UNIDENTIFIED EGGS.	10450.0	55128.3	16677.3	3773.8	108463.1	30420.1	4370.5
COPEPOD NAUPLII	5573.3	15528.9	1042.3	754.9	7279.3	4652.5	.0
BARNACLE NAUPLII	.0	1553.2	.0	5283.0	3639.7	358.1	794.8
EUPHAUSID LARVA	3134.9	5435.3	1389.5	3601.2	13303.9	18984.9	794.8
DECAPOD LARVA	.0	11.5	.0	5.7	5.6	.0	5.8
EUPHAUSIOS*							
JUVENILES	5.6	17.3	10.5	5.7	.0	50.3	40.6
EUPHAUSIA PACIFICA	.0	98.0	31.5	.0	.0	.0	17.4
THYSANODESSA SPINIFERA	.0	.0	5.2	.0	.0	.0	.0
LARVACEANS*							
LARVACEANS	.0	776.3	.0	16226.6	26206.1	18968.2	.0
MEDUSAE*							
PHIALIDIUM SP.	16.9	144.1	21.0	7547.0	.0	.0	156.6
AGLANTHA SP.	.0	.0	.0	5.7	.0	.0	.0
PROBOSCIDACTyla SP.	5.6	.0	.0	34.2	.0	.0	.0
OSTRACODS*							
CONCHOECIA SP.	.0	.0	5.2	.0	.0	.0	.0
SIPHONOPHORES*							
NECTOPHORES BRACTS	.0	.0	10.5	39.9	.0	.0	63.8
COPEPODS*							
ACARTIA LONGIREMIS <=S3/4	2089.8	9317.3	5906.3	2264.0	4367.6	5726.3	1172.0
ACARTIA LONGIREMIS <=S4/5	8011.6	37269.9	7991.4	4905.8	20382.1	13599.4	1563.0
ACARTIA LONGIREMIS S6M	1393.2	16305.2	3474.6	2641.8	10919.0	8231.3	3125.4
ACARTIA LONGIREMIS S							
CALANUS MARSHALLAE S3	86.6	187.9	588.0	2080.6	1759.8	894.4	.0
CALANUS MARSHALLAE S4	584.2	563.1	507.2	1165.1	2792.7	592.2	2781.4
CALANUS MARSHALLAE S5	1031.1	3446.4	2692.5	521.9	885.5	525.1	46091.9
CALANUS MARSHALLAE S6M	109.6	222.5	2150.6	106.0	11.2	89.4	794.8
CALANUS MARSHALLAE S6F	359.8	1388.9	1296.1	39.9	106.1	1330.2	794.8
CALANUS SP. S1/2	1045.2	2329.5	694.5	2264.0	5820.1	2505.0	7948.5
CALANUS TENUICORNIS <=S4	.0	.0	.0	.0	.0	.0	23.2
CENTROPAGES ABDOMINALIS <=S4	.0	.0	.0	.0	727.9	715.6	5.8
CENTROPAGES ABDOMINALIS S5	.0	.0	.0	.0	727.9	363.7	396.8

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08. STANDARD LIST - STATIONS 22 TO 41
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 2

STATION I.D.		22	25	28	29	33	37	41
CENTROPAGES ABDOMINALIS	S6M	.0	5.8	.0	.0	.0	380.5	.0
CENTROPAGES ABDOMINALIS	S6F	5.6	23.0	.0	5.7	5.6	111.7	5.8
EUCALANUS BUNGI S4		28.1	.0	21.0	.0	.0	.0	23.2
EUCALANUS BUNGI S5M		22.5	11.5	47.2	.0	.0	5.6	29.0
EUCALANUS BUNGI S5F		16.9	17.3	68.2	.0	.0	5.6	104.4
EUCALANUS BUNGI S6F		61.8	40.3	157.4	.0	5.6	.0	261.1
EUCHAETA JAPONICA S1/2		5.6	.0	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S3		.0	.0	204.6	.0	.0	.0	.0
EUCHAETA JAPONICA S4		.0	5.8	125.9	.0	.0	.0	17.4
EUCHAETA JAPONICA S5M		.0	17.3	5.2	.0	.0	.0	23.2
EUCHAETA JAPONICA S5F		.0	17.3	.0	.0	.0	.0	40.6
EUCHAETA JAPONICA S6F		.0	11.5	21.0	.0	.0	.0	5.8
METRIDIA SP. <=S3		1045.2	.0	.0	.0	.0	358.1	397.4
METRIDIA SP. S4		5.6	776.3	.0	.0	.0	358.1	794.8
METRIDIA PACIFICA S5M		16.9	386.7	346.2	5.7	5.6	39.1	409.0
METRIDIA PACIFICA S5F		.0	205.2	225.5	.0	.0	50.3	46.4
METRIDIA PACIFICA S6M		.0	1463.9	1075.8	.0	5.6	27.9	.0
METRIDIA PACIFICA S6F		33.7	1937.0	278.0	11.4	11.2	39.1	887.7
NEOCALANUS CRISTATUS S4		.0	.0	5.2	.0	.0	11.2	127.6
NEOCALANUS CRISTATUS S5		5.6	46.1	131.1	.0	.0	.0	81.2
NEOCALANUS PLUMCHRUS S5		.0	5.8	47.2	.0	.0	.0	.0
OITHONA HELGOLANOICA		50857.2	34940.5	33354.5	8301.9	11646.9	25052.0	27813.9
OITHONA SPINIROSTRIS		1741.7	1553.2	1042.3	.0	.0	.0	2781.4
PARACALANUS SP. S5		.0	.0	.0	.0	727.9	.0	.0
PSEUDOCALANUS SP. <=S3		36227.1	49693.1	38218.6	40378.0	125934.1	53683.2	4767.9
PSEUDOCALANUS SP. S4		23686.8	24846.2	23625.9	23019.3	58235.2	17536.3	7946.7
PSEUDOCALANUS SP. S5M		11146.6	10093.6	7643.6	10565.9	21106.7	8589.4	6357.6
PSEUDOCALANUS SP. S5F		10101.9	9317.3	9380.9	9811.6	27662.0	11452.5	4767.9
PSEUDOCALANUS SP. S6M		5573.3	8541.0	7643.6	3018.9	13830.7	5726.3	2781.4
PSEUDOCALANUS SP. S6F		36227.1	18634.7	17024.5	12452.8	36397.2	6800.0	12744.3
SCOLECITHRICELLA MINOR <=S4		.0	.0	347.2	.0	.0	.0	794.8
SCOLECITHRICELLA MINOR S5		.0	5.8	695.0	.0	.0	.0	11.6
SCOLECITHRICELLA MINOR S6M		5.6	34.6	.0	.0	.0	5.6	.0
SCOLECITHRICELLA MINOR S6F		11.2	69.2	1473.4	.0	.0	33.5	420.6

ZOOPLANKTON HAUL RESULTS - CRUISE 80-06 VARIANTS LIST - STATIONS 22 TO 41
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METRE)

PAGE 1

STATION I.D.		22	25	28	29	33	37	41
AETIDEUS ARMATUS	S6F	.0	.0	10.5	.0	.0	.0	11.6
AETIDEUS ARMATUS	S5	.0	.0	5.2	.0	.0	.0	11.6
BARNACLE CYPRIDS		5.6	.0	.0	377.2	.0	.0	.0
BIVALVE LARVA		348.6	.0	695.0	7547.0	727.9	715.6	794.8
CALANUS MARSHALLAE/PACIFICUS	S6F	.0	.0	10.5	.0	.0	.0	.0
CANCACIA COLUMBIAE	S6M	.0	.0	5.2	.0	.0	.0	.0
CEPHALOPOD		.0	.0	5.2	.0	.0	.0	.0
CLIONE SP.		.0	.0	5.2	.0	.0	.0	.0
CORYCAEUS SP.		.0	.0	.0	.0	.0	358.1	.0
CRYPTONISCID		5.6	.0	347.2	.0	727.9	.0	.0
ECHINOPLOUTEUS LARVAE		.0	776.3	.0	.0	.0	.0	.0
EPILARVOCERA AMPHITRITE	S6M	.0	.0	.0	.0	5.6	.0	.0
FISH LARVAE		.0	5.8	15.7	.0	5.6	.0	.0
GAETANUS SP. <=S4		.0	.0	.0	.0	.0	.0	5.8
HETERORHAPDUS TANNERI	S6F	.0	.0	5.2	.0	.0	.0	.0
HETERORHAPDUS TANNERI	S5	.0	.0	5.2	.0	.0	.0	.0
HETERORHAPDUS TANNERI <=S4		.0	.0	5.2	.0	.0	.0	.0
MICROCALANUS SP.	S5	.0	1553.2	1042.3	.0	.0	.0	397.4
MICROCALANUS SP.	S6M	.0	.0	347.2	.0	.0	.0	.0
NATANTIA		.0	5.8	10.5	.0	.0	.0	.0
ONCAEA SP.		.0	.0	347.2	.0	.0	.0	.0
PLEUROMAMMA SP.		.0	5.8	.0	.0	.0	.0	.0
PLEUROMAMMA SCUTULLATA	S6F	.0	.0	5.2	.0	.0	.0	.0
PODON SP.		.0	.0	.0	377.2	.0	.0	.0
POLYCHAETE LARVAE		359.8	11.5	.0	1509.2	.0	.0	.0
RACOVITZANUS ANTAPCTICUS	S6F	.0	799.3	68.2	.0	.0	.0	17.4
RACOVITZANUS ANTARCTICUS	S5	5.6	34.6	52.4	.0	.0	.0	17.4
RACOVITZANUS ANTARCTICUS <=S4		.0	.0	5.2	.0	.0	.0	.0
SAGITTA SCRIPPSAE		.0	.0	10.5	.0	.0	.0	11.6
SCAPHOCALANUS BREVICORNIS	<=S4	.0	5.8	347.2	.0	.0	.0	.0
SCAPHOCALANUS SP.	S6F	.0	5.8	.0	.0	.0	.0	.0
SCAPHOCALANUS SP.	S5	.0	17.3	5.2	.0	.0	.0	.0
SIPHONOPHORE PNEUMATOPHORE		.0	.0	.0	.0	.0	.0	5.8
UNIDENTIFIED AMPHIPOD		.0	.0	.0	.0	.0	.0	52.2
UNIDENTIFIED COPEPODITES		.0	1553.2	695.0	.0	.0	358.1	17.4
UNIDENTIFIED MEDUSAE		5.6	.0	.0	.0	.0	.0	.0
LIMACINA SP.		696.6	2335.2	5.2	2264.0	3639.7	1073.7	1192.3

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 STANDARD LIST - STATIONS 45 TO 70
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.	45	46	50	54	58	68	70
AMPHIPODS*							
PAPATHEMISTO SP.	220.7	234.8	68.5	413.8	.0	36.2	18.1
EUPRIMNO SP.	63.4	11.3	12.5	.0	.0	.0	.0
CYPHOCARIS SP.	220.7	33.9	.0	.0	.0	.0	.0
CHAETOGNATHS*							
UNIDENTIFIED JUVENILES	12.1	534.8	.0	377.3	.0	.0	209.4
SAGITTA ELEGANS	36.3	90.5	217.8	292.1	150.8	1303.2	301.7
EUKPOHNIA HAMATA	1780.4	687.6	1311.3	60.9	.0	24.1	36.2
CTENOPHORES*							
PLEUROBRACHIA SP.	193.5	22.6	136.9	712.0	435.6	24.1	6.0
EGGS LARVA*							
UNIDENTIFIED EGGS.	34804.5	32259.4	3562.4	4901.9	8227.7	18317.0	26820.3
COPEPOD NAUPLII	1657.1	1604.3	.0	754.0	3577.2	14579.3	3657.5
BARNACLE NAUPLII	736.3	534.8	418.8	1885.3	1430.7	1121.6	2641.3
EUPHAUSID LARVA	736.3	891.3	418.8	1131.3	6439.1	7476.7	221.5
DECAPOD LARVA	48.4	.0	12.5	36.5	.0	.0	.0
EUPHAUSIOS*							
JUVENILES	36.3	28.3	31.1	194.7	195.5	30.2	.0
EUPHAUSTA PACIFICA	6.1	17.0	99.6	.0	.0	18.1	12.1
THYSANOESSA SPINIFERA	.0	.0	.0	.0	.0	.0	18.1
LARVACEANS*							
LARVACEANS	6261.3	4990.5	628.6	.0	4650.5	5233.4	209.4
MEDUSAE*							
PHIALIDIUM SP.	999.3	45.3	105.8	243.4	22.3	132.7	.0
AGLANTHA SP.	66.5	130.1	12.5	.0	.0	.0	.0
OSTRACODS*							
CONCHOECIA SP.	985.4	1247.8	425.1	377.3	.0	.0	.0
SIPHONOPHORES*							
NECTOPHORES / BRACKTS	139.0	1069.5	62.2	.0	.0	12.1	.0
COPEPODS*							
ACARTIA CLAUSII S6F	.0	.0	.0	377.3	.0	.0	.0
ACARTIA LONGIREMIS <=S3/4	920.7	713.0	418.8	191.7	.0	374.1	406.1
ACARTIA LONGIREMIS <=S4/5	2209.6	2138.5	2514.3	1533.6	8227.7	2245.6	3048.0
ACARTIA LONGIPERMIS S6M	1473.3	1069.5	1676.6	5750.2	10016.4	8597.7	3250.8
CALANUS MARSHALLAE S3	.0	.0	206.0	575.1	1055.4	2028.4	491.2
CALANUS MARSHALLAE S4	184.4	181.1	430.7	1162.3	1298.3	984.1	441.7
CALANUS MARSHALLAE S5	677.1	90.5	1109.7	5929.7	240.1	2952.2	299.3
CALANUS MARSHALLAE S6M	48.4	5.7	12.5	24.3	22.3	102.6	.0
CALANUS MARSHALLAE S6F	247.9	22.6	62.2	1177.6	39.1	754.8	1135.7
CALANUS PACIFICUS <=S5	.0	11.3	.0	.0	.0	.0	.0
CALANUS PACIFICUS S6F	.0	5.7	.0	.0	.0	.0	.0
CALANUS SP. S1/2	1841.5	534.8	418.8	.0	2861.9	1495.1	1219.0
CALANUS TENUICORNIS S5	.0	183.9	.0	.0	.0	.0	.0

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ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 STANDARD LIST - STATIONS 45 TO 70
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 2

STATION I.C.	45	46	50	54	58	68	70
CALANUS TENUICORNIS S6F	.0	33.9	.0	.0	.0	.0	.0
CENTROPAGES ABDOMINALIS <=S4	368.2	.0	.0	.0	.0	.0	.0
CENTROPAGES ABDOMINALIS S5	368.2	178.2	628.6	.0	16.7	380.1	406.1
CENTROPAGES ABDOMINALIS SEM	184.4	5.7	6.2	.0	.0	.0	233.5
CENTROPAGES ABDOMINALIS S6F	184.4	28.3	18.7	.0	16.7	48.3	12.1
EUCALANUS BUNGI S3	6.1	5.7	209.7	.0	.0	.0	.0
EUCALANUS BUNGI S4	816.1	17.0	49.8	6.1	.0	.0	.0
EUCALANUS BUNGI S5M	465.5	67.9	93.4	18.3	5.6	6.0	12.1
EUCALANUS BUNGI S5F	761.7	45.3	93.4	24.3	5.6	6.0	6.0
EUCALANUS BUNGI S6M	.0	.0	12.5	.0	.0	6.0	.0
EUCALANUS BUNGI S6F	380.9	141.5	205.4	73.0	.0	18.1	6.0
EUCHAETA JAPONICA S1/?	184.4	28.3	216.0	.0	.0	.0	.0
EUCHAETA JAPONICA S7	250.9	28.3	234.6	.0	.0	.0	.0
EUCHAETA JAPONICA S4	84.6	28.3	.0	377.3	.0	.0	.0
EUCHAETA JAPONICA S5M	30.2	22.6	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S5F	42.3	11.3	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S6M	24.2	.0	.0	.0	.0	.0	.0
EUCHAETA JAPONICA S6F	48.4	5.7	6.2	.0	.0	.0	.0
METRIDIA SP. <=S3	368.2	3208.0	3352.6	.0	.0	374.1	203.4
METRIDIA SP. S4	552.6	1604.3	418.8	.0	.0	374.1	406.1
METRIDIA PACIFICA SEM	1473.3	906.0	590.0	.0	5.6	114.6	.0
METRIDIA PACIFICA S5F	748.4	181.1	115.8	419.9	.0	229.3	203.4
METRIDIA PACIFICA S6M	920.7	181.1	134.4	54.8	11.2	893.6	6.0
METRIDIA PACIFICA S6F	848.8	1449.8	37.3	432.1	5.6	138.8	12.1
NEOCALANUS CRISTATUS S3	.0	.0	56.0	.0	.0	.0	.0
NEOCALANUS CRISTATUS S4	48.4	45.3	105.8	6.1	.0	.0	.0
NEOCALANUS CRISTATUS S5	405.0	130.1	261.4	24.3	.0	6.0	6.0
NEOCALANUS CRISTATUS S6M	12.1	.0	.0	.0	.0	.0	.0
NEOCALANUS PLUMCHRUS S5	1178.9	28.3	.0	6.1	.0	12.1	.0
NEOCALANUS PLUMCHRUS S6M	84.6	.0	.0	.0	.0	.0	.0
NEOCALANUS PLUMCHRUS S6F	18.1	5.7	.0	.0	.0	.0	.0
OITHONA HELGOLANICA	15653.0	52577.0	24726.8	30917.5	3577.2	2990.8	4876.5
OITHONA SPINIPOSTRIS	4788.0	7663.8	4190.9	1131.3	.0	374.1	609.5
PARACALANUS SP. <=S4	.0	534.8	.0	.0	.0	.0	.0
PARACALANUS SP. S5	.0	1069.5	418.8	.0	.0	747.6	203.4
PARACALANUS SP. S6F	.0	.0	.0	.0	.0	.0	203.4
PSEUDOCALANIUS SP. <=S3	3499.1	5168.8	5867.6	22999.6	32196.2	16821.9	25397.9
PSEUDOCALANIUS SP. S4	5340.6	12832.6	7753.3	12442.5	22179.3	9345.2	5079.8
PSEUDOCALANIUS SP. S5M	1288.9	5168.8	3981.2	8295.2	8227.7	1869.2	3250.8
PSEUDOCALANIUS SP. S5F	2025.8	3921.0	4819.5	10557.2	10374.3	4860.0	812.8
PSEUDOCALANIUS SP. S6M	2946.6	534.8	1885.7	1508.0	3935.2	6355.1	1219.0
PSEUDOCALANIUS SP. S6F	8102.8	10158.8	13411.1	7541.2	19675.3	18317.0	2844.7
SCOЛЕCITHRICELLA MINOR <=S4	1659.5	.0	628.6	377.3	.0	.0	.0
SCOЛЕCITHRICELLA MINOR S5	368.8	902.6	253.3	12.2	.0	.0	215.4
SCOЛЕCITHRICELLA MINOR S6M	184.4	217.9	.0	.0	.0	.0	.0
SCOЛЕCITHRICELLA MINOR S6F	190.4	608.3	418.8	383.4	.0	18.1	.0

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 VARIANTS LIST - STATIONS 45 TO 70
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 1

STATION I.D.	45	46	50	54	58	68	70
AEGISTHUS SP.	.0	178.2	.0	.0	.0	.0	.0
AETIDEUS ARMATUS S6F	48.4	.0	.0	.0	.0	.0	.0
AETIDEUS ARMATUS S5	582.9	33.9	6.2	.0	.0	.0	.0
AETIDEUS ARMATUS <=54	.0	356.5	.0	.0	.0	6.0	.0
BARNACLE CYPRIDS	.0	.0	6.2	.0	.0	.0	.0
BIVALVE LARVA	184.4	.0	1676.6	4524.6	.0	374.1	.0
CALANUS MARSHALLAE/PACIFICUS S6M	.0	.0	6.2	.0	.0	.0	.0
CALANUS MARSHALLAE/PACIFICUS S6F	.0	.0	6.2	.0	.0	.0	.0
CANDACIA COLUMBIAE S6F	6.1	5.7	.0	.0	.0	.0	.0
CANDACIA COLUMBIAE S6M	12.1	5.7	.0	.0	.0	.0	.0
CANDACIA COLUMBIAE <=54	184.4	.0	.0	.0	.0	.0	.0
CEPHALOPOD	.0	.0	6.2	.0	.0	.0	.0
CHIRIDIUS GRACILIS S6F	12.1	.0	.0	.0	.0	.0	.0
CLAUSOCALANUS SP. S6F	.0	896.9	.0	.0	.0	.0	.0
CLIONE SP.	24.2	.0	.0	.0	.0	.0	.0
CORYCAEUS SP.	.0	178.2	.0	.0	.0	.0	.0
CYPHANAUTES LARVA	.0	.0	.0	.0	.0	.0	.0
ECHINOPLUTEUS LARVAE	.0	.0	.0	.0	.0	374.1	209.4
EPILARIDOCERA SP. <=54	.0	.0	.0	.0	.0	374.1	.0
FISH LARVAE	.0	.0	6.2	.0	.0	.0	.0
GAETANUS SP. S6F	.0	.0	12.5	.0	.0	.0	18.1
GAETANUS SP. S5	12.1	.0	.0	.0	.0	.0	.0
GAETANUS SP. <=54	96.7	67.9	.0	.0	.0	6.0	.0
GAIDIUS VARIABLIS S6F	464.9	401.8	6.2	.0	.0	.0	.0
GAIDIUS VARIABLIS S6M	48.4	.0	.0	.0	.0	.0	.0
GAIDIUS VARIABLIS S5	30.2	.0	.0	.0	.0	.0	.0
GAIDIUS VARIABLIS <=54	66.5	.0	.0	.0	.0	.0	.0
HETERORHABDUS SP. S6F	24.2	178.2	.0	.0	.0	.0	.0
HETERORHABDUS SP. S6M	72.6	.0	6.2	.0	.0	.0	.0
HETERORHABDUS SP. <=54	66.5	.0	.0	.0	.0	.0	.0
HETERORHABDUS TANNERI S6F	72.6	.0	.0	.0	.0	.0	.0
HETERORHABDUS TANNERI S6M	.0	5.7	18.7	.0	.0	.0	.0
HETERORHABDUS TANNERI S5	.0	22.6	6.2	.0	.0	.0	6.0
HETERORHABDUS TANNERI <=54	.0	5.7	.0	.0	.0	6.0	6.0
HYPERIA SP.	.0	178.2	.0	.0	.0	.0	6.0
MICROCALANUS SP. S5	.0	.0	.0	12.2	.0	.0	.0
MICPOCALANUS SP. S6F	368.2	891.3	.0	1131.3	.0	374.1	.0
MYSID	736.3	356.5	418.8	377.3	358.0	374.1	203.4
NATANTIA	.0	.0	.0	.0	.0	84.5	.0
NEMATOSCELIS SP.	.0	.0	.0	6.1	.0	.0	.0
ONCAEA SP.	12.1	.0	.0	.0	.0	.0	.0
PLEUROMAMMA SP.	4235.5	713.0	37.3	377.3	.0	.0	.0
PLEUROMAMMA SCUTULLATA S6F	.0	33.9	6.2	.0	.0	.0	.0
PLEUROMAMMA SCUTULLATA S6M	24.2	.0	.0	.0	.0	.0	.0
	48.4	.0	.0	.0	.0	.0	.0

ZOOPLANKTON HAUL RESULTS - CRUISE 80-08 VARIANTS LIST - STATIONS 45 TO 70
 (VALUES ARE NUMBER OF ORGANISMS/SQ. METER)

PAGE 2

STATION I.D.	45	46	50	54	58	68	70
PLEUROMAMMA SCUTULLATA <=S4	30.2	.0	.0	.0	.0	.0	.0
POLYCHAETE LARVAE	232.7	891.3	838.3	377.3	358.0	374.1	.0
RACOVITZANUS ANTARCTICUS S6F	102.8	251.8	259.5	.0	.0	.0	.0
RACOVITZANUS ANTARCTICUS S5	244.8	464.0	6.2	24.3	.0	12.1	.0
RACOVITZANUS ANTARCTICUS <=S4	368.2	223.5	6.2	.0	.0	.0	.0
RADIULARIA	404.8	.0	.0	.0	.0	.0	.0
SAGITTA SCRIPPSAE	24.2	22.6	6.2	.0	.0	.0	.0
SALP	.0	186.7	12.4	.0	.0	.0	.0
SCAPHOCALANUS BREVICORNIS <=S4	24.2	.0	.0	.0	.0	.0	.0
SCAPHOCALANUS BREVICORNIS S6F	48.4	84.9	.0	.0	.0	.0	.0
SCAPHOCALANUS BREVICORNIS S6M	6.1	.0	.0	.0	.0	.0	.0
SCAPHOCALANUS BREVICORNIS S5	404.4	45.3	.0	.0	.0	.0	.0
SCINA SP.	12.1	5.7	.0	.0	.0	.0	.0
SPINOCALANUS BREVICAUDATUS S6F	564.7	212.2	418.8	.0	.0	.0	.0
SPINOCALANUS BREVICAUDATUS S5	.0	178.2	.0	.0	.0	.0	.0
TOMOPTERIS SEPTENTRIONALIS	66.5	1366.6	12.5	.0	.0	.0	.0
UNIDENTIFIED AMPHIPOD	24.2	.0	6.2	.0	.0	.0	.0
UNIDENTIFIED COPEPODITES	4353.4	4538.4	209.7	383.4	.0	374.1	.0
UNIDENTIFIED EUPHASID	6.1	.0	.0	.0	.0	.0	.0
UNIDENTIFIED MEDUSAE	24.2	17.0	12.5	.0	.0	.0	.0
LIMACINA SP.	1288.9	2138.5	1466.9	5278.6	358.0	747.6	.0

PHYTOPLANKTON HAUL RESULTS - CEFUSIE PL-65 STANDARD LIST - STATIONS 1 TO 9 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10⁴)

1

STATION 1.L.

	1	2	4	5	6	7	8	9
CENTRIC DIATOMS:								
CEPATULINA PERONII		.04	.0040					
CHAETOCEROS COMPRESSUS		.01						
CHAETOCEROS DEMILIS	.09	.01	.01	.14	.02		.09	.73
CHAETOCEROS DEFICIENS	.03							12.76
CHAETOCEROS ? GFACILE		.02	.01	.10	.29		.32	
CHAETOCEROS ? RADICANS								
CHAETOCEROS SPP. (SINGLE CELL)	.02							1.91
CHAETOCEROS SPP. (CHAINS)						.26	.26	
CORYTHOCN HYSTRIX		.01	.0060					
LAUDERIA ANULATA	.34							.09
LIFTUCYLINUPUS DANICUS	.03							
MELCSIRA SULCATA	.35				.0080		.02	
RHIZOSOLENIA DELICATULA					.01		.20	.27
RHIZOSOLENIA FRAGILISSIMA	.01	.02						
RHIZOSOLENIA STOLTERFOTHII	.01							
RHIZOSOLENIA SPP.								
SKELETUNEMA COSTATUM	1.16	.14	1.02	.75	.52	3.03	.10	.50
THALASSIOSIRA AESTIVALIS		.0080	.01	.04	.0060		.02	1.27
THALASSIOSIRA GRAVIDA/ROTULA	.68	.05	.0020		.02		.03	.09
THALASSIOSIRA NORDENSKIOLDII		.02	.02	.05	.01		.04	.54
THALASSIOSIRA POLYCHORDA								
THALASSIOSIRA SPP.	.07	.01				.01	.13	
UNID. CENTRICS	.02							.36
TOTAL CENTRIC DIATOMS	2.15	20.67	21.41	131.50	22.98	3.74	100.39	192.31
PENNATE DIATOMS:								
ASTERIONELLA JAPONICA		.02						
CYLINDROTHECA CLUSTERIUM	.10	.19	.04	.46	.07	.39	.08	.23
NITZSCHIA? DELICATISSIMA	.05	.15	.02	.53	.20	.32	.17	.54
NITZSCHIA? LONGISSIMA		.38	.01	.51	.23		.11	.27
THALASSIONEMA NITZSCHOIDES	.38	.78	.02	.28	1.04	1.55	.68	.27
UNID. PENNATES (5-20U)	.04							
UNID. PENNATES (21-40U)	.01							
TOTAL PENNATE DIATOMS	.57	1.53	.10	1.89	1.62	2.32	1.40	1.41
DINOFLAGELLATES:								
GONYAULAX								
GYMNOINUM		.12	.02	.17	.42		.01	
GYRODINIUM		.51	.01	.11	.10		.53	.32
UNID. DINOFLAGELLATES (5-15U)	.15						.11	.14
FLAGELLATES AND OTHERS:						2.64		
DISTEPHANUS SPECULUM		.0060	.0080					
CRYPTOMONADS (5-10U)		11.20	2.18	15.10	8.01	2.51	8.40	.09
CRYPTOMONADS (11-20U)	5.13	5.64	.13	.70	8.12	2.77	4.74	7.31
EUTREPTIELLA SPP.		.02	.0060	.11				6.08
UNID. EUGLENIOIDS							.01	.14
UNID. FLAGELLATES (1-2U)	.45							
UNID. FLAGELLATES (2-5U)	11.02							
UNID. FLAGELLATES (6-15U)	.91							
TOTAL FLAGELLATE CELLS	17.46	17.70	2.54	17.36	17.73	14.87	19.33	18.84
ZOOFLAGELLATES		.41						
ZILTATES		.03						
TOTAL PHYTOPLANKTON CELLS	41.32	45.14	28.34	186.90	140.42	26.93	208.27	250.74

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PHYTOPLANKTON HULL RESULTS - CRUISE 82-83 VARIANTS LIST - STATIONS 1 TO 9 PAGE

(VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10^{4*4})

STATION 1-9	1	2	4	5	6	7	8	9
CHAETOCEROS CIRCULUS	.02	.02		.10	.02		.06	10.03
CHAETOCEROS SIMILIS	.01	.02						.54
CHAETOCEROS SCUTELLUM	.01			.08	.10			
CHILOPSOCERIA ALATA F. SPACILLIMA	.01	.0080		.03	.02		.07	
THALASSIOSIRA CONFERTA	.07	.15		.18	.20		.15	.32
THALASSIOSIRA LEPTOPUS					.02			
THALASSIOSIRA PACIFICA	.03	.02		.07	.05		.11	12.26
THALASSIOSIRA PROFUNDA								13.53
THALASSIOSIRA PSEUDOCANA	20.19	20.06	129.96	21.66		99.18	137.11	
THALASSIONEMA BACILLARIS	.01	.0040		.04	.03		.05	.05
Fragillaria oceanica					.02		.21	
Nitzschia (bacillaria) sp.	.02				.02		.08	
Nitzschia granit	.04	.0040		.07	.01		.02	
Nitzschia lineola	.01				.0060			.05
Maiobinum rotundatum	.17	.17	1.12	1.06		5.45	4.45	
Procentrum Balticum	.01	.01	.05	.01		.02	.32	
Heterocapsa triquetra						.01		
Scrippsiella & Glenquinium spp.	.02				.01		.05	
Photosynthetic ciliates	.0060							.59
Apedinella spinifera	.21	.12	.73	.02		.16	2.36	
Ulisthodiscus sp.	.69	.10	.22	3.12		.78	.32	
Chrysochromulina spp. & imantonia	21.66	3.72	34.44	93.25		84.93	34.96	
Corymellopsis aurifus				.13				
Pyramimonas spp.	.72	.36	.72	1.69		1.28	.54	

PLANKTON FAUNA RESULTS - CLOUSE PL-65 STANDARD LIST - STATIONS 10 TO 17 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10⁴*4)

1

STATION 1-11.

: 10 11 12 13 14 15 16 17

CENTRIC DIATOMS:

HEDDERIA LONGICEURIS								.18
CHATHALINA PERGONII								.18
CHAETOCEROS COMPRESSUS	.45	.18	.15			.03		
CHAETOCEROS UBBELIS	.33	.36	3.84			.72		
CHAETOCEROS ? OPACILE	.06	.08	.62			.86		
CHAETOCEROS ? RADICANS	.08	.07	.09			.08		
CHAETOCEROS SOCIALIS						.06		
CHAETOCEROS SPP. (SINGLE CELL)	.92					3.28	25.77	45.85
CHAETOCEROS SPP. (CHAINS)	4.03							
CORETHRON HYSTRIX							24.96	
LEPTUCYLINUS DANICUS	.46		.02	.01		.14		
RHIZOSOLEMIA DELICATULA							7.25	
SCHRODERELLA DELICATULA								.09
SKELETONEMA COSTATUM	.23	.12	.10	.19		1.35	4.83	17.52
THALASSIOSIRA AFSTIVALIS		.01	.01	.05		.04		
THALASSIOSIRA DECIPiens				.48				4.22
THALASSIOSIRA GRAVIDA/ROTULA			.05	.03			4.03	
THALLASTOSIRA NORDENSKIOLDII	.12	.08	.08	.14		.06	2.42	.91
THALASSIOSIRA POLYCHORDA				.04		.14		18.93
THALASSIOSIRA SPP.	3.91	.06	.02	.12		.03		
TOTAL CENTRIC DIATOMS	9.66	279.67	156.13	504.62	549.85	340.65	3.22	2.18

PENNATE DIATOMS:

ASTERIUNELLA JAPONICA								
CYLINDROTHECA CLUSTERIUM	1.38	.32	.06	.02		.05	1.61	1.27
GRAMMATOPHORA SPP.								.64
NITZSCHIA? DELICATISSIMA	.12	.35	.76	.06		.81		
NITZSCHIA? LONGISSIMA		.28	.81	.16		.72		
NITZSCHIA? SERIATA		.04	.02	.05		.04	2.42	2.63
THALASSIONEMA NITZSCHOIDES	1.84	.82	2.06	1.57		1.71	6.44	1.32
UNID. PENNATES (5-20U)	.23							
UNID. PENNATES (21-40U)	.12							
TOTAL PENNATE DIATOMS	3.69	1.95	3.84	2.08	.12	3.51	14.49	16.53

DINOFLAGELLATES:

GONYAULAX								
GYMNODINIUM								
GYRCOINTUM		.51	2.62	1.30		1.21		
PLECTODINIUM		.12	.58	.36		.15		
UNID. DINOFLAGELLATES (5-15U)	3.86							
UNID. DINOFLAGELLATES (16-50U)							4.03	
FLAELLATES AND OTHERS:							4.83	

LISTERIA SPECULUM

LISTERIA SPP.	.23	.62	.09	.05		.09	.81	.09
CRYPTOMONADS (5-15U)	10.91	45.36	16.38	38.36		16.80		92.60
CRYPTOMONADS (11-20U)	23.14	.52	37.20	48.44		42.64		12.53
PROTISTIELLA SPP.			.45	.44		.18		41.77

UNID. FLAGELLATES (1-2U)

UNID. FLAGELLATES (1-2U)	2.77						17.71	
UNID. FLAGELLATES (5-15U)	6.67						23.51	

TOTAL FLAGELLATE CELLS

11.11							7.25	
140.72	52.28	107.30	137.12	53.66	103.25	360.74	121.90	

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PHYTOPLANKTON HAUL RESULTS - CPUESF RE-05 STANDARD LIST - STATIONS 10 TO 17 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION 1.O.	: 10	11	12	13	14	15	16	17
FLAGELLATES	12.50						24.16	
CILIATES	.36						.81	
TOTAL PHYTOPLANKTON CELLS	153.67	344.16	357.45	786.75	812.79	595.11	447.70	1475.09

PHYTOPLANKTON HAUL RESULTS - CPUESF RE-05 VARIANTS LIST - STATIONS 10 TO 17 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION 1.O.	: 10	11	12	13	14	15	16	17
CHAETOCEROS CINCTUM		.09	.07	2.02	.32	.46		255.15
CHAETOCEROS CONSTRICTUM								7.08
CHAETOCEROS SIMILE		.12	.20	.06	.04	.07		7.94
THALASSIOSIRA CONFERTA		.07	.12	.87	.27	.15		13.89
THALASSIOSIRA LEPTOPUS			.07					
THALASSIOSIRA PACIFICA		.04	.80	1.52	2.02	.30		22.88
THALASSIOSIRA PROFUNDA				88.35				
THALASSIOSIRA PSEUDONANA	278.16	153.90	405.84	547.20	332.86			455.45
THALESSIONEMA BACILLARIS		.03	.06	.02	.04			
NITZSCHIA (BACILLARIA) SP.					.03	.10		.82
NITZSCHIA GRAMII		.06	.04	.02	.05	.05		.73
NITZSCHIA CF. SUBPACIFICA								.41
NITZSCHIA BICAPITATA				.18				
NITZSCHIA LINEOLA		.05	.03			.03		.54
KATOUINUM POTUNIUM	5.81	54.88	47.17	53.48	41.44			7.26
PROPOCENTRUM BALTIUM		.04	.10	.22		.13		.45
HETEROCAPSA TRIOQUETRA				.02				.09
SCRIPPSIELLA & GLENCOINUM SPP.				.76	.12	.41		.27
PHOTOSYNTHETIC CILIATES		.03		1.10				.45
APEDINELLA SPINIFERA		.07	3.46	1.06	1.15	7.75		2.68
OCHPOMONAS SPP.				24.64	59.85	13.44		
ULISTHOCISCUS SP.		.24	4.44	1.84	7.20	5.75		
CHRYSOCHROMULINA SPP. & IMANTONIA	8.80	61.56	106.59	128.82	107.16			176.70
PYRAMIMONAS SPP.	1.05	20.72	8.80	12.20	13.60			30.42

PHOTOPLANKTON HAUL RESULTS - CRUISE #0-05 STANDARD LIST - STATIONS 18 TO 27 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10⁴*#4)
 STATION 1-6.

1

	18	19	20	21	23	24	25	27
CENTRIC DIATOMS:								
BACTEPIASTRUM DELICATULA	9.77	.09	.01					.13
CFRAILLINA BERGONII		.09						1.04
CHAETOCEROS AFFINIS	32.58							
CHAETOCEROS COMPRESSUS	.01	6.86						
CHAETOCEROS DEBILIS	197.13	85.44	569.39					9.51
CHAETOCEROS DECIPiens	.01		1.63					
CHAETOCEROS DIDYMUS	.01		.98					1.30
CHAETOCEROS ? GRACILE			3.02					.26
CHAETOCEROS ? HALICANS		4.81						
CHAETOCEROS SOCIALIS	1000.33	655.58	144.18					8.34
CHAETOCEROS SPP. (SINGLE CELL)			12.22					
CHAETOCEROS SPP. (CHAINS)	266.91		970.17					
CORETHRION HYSTRIX	1.63		.33					1.69
DITYLUM BRIGHTWELLII		.09						
EUCAMPIA ZODIACUS	.01	.64						
LAUDERIA ANNULATA	.01							1.43
LEPTOCYLINDRUS DANICUS		.18	.01					
MFLOSIRA SULCATA		.18						
RHIZOSOLENIA DELICATULA	1.63	.27	.01					
RHIZOSOLENIA FRAGILISSIMA	.01	.27	.65					.78
RHIZOSOLENIA STOLTERFOTHII	22.81	3.09						17.20
SCHPUDELLA DELICATULA	.01							
SKELETONEMA COSTATUM	29.33	31.05	35.19					
THALASSIOSIRA AESTIVALIS	6.52	2.86	3.58					1.17
THALASSIOSIRA GRAVIDA/ROTULA	.01	1.23	17.27					
THALASSIOSIRA NORDENSKIOLDII	6.52	10.71	16.29	.03	.24			
THALASSIOSIRA POLYCHORDA		.09						
THALASSIOSIRA SPP.	19.56	.82						
TOTAL CENTRIC DIATOMS	1534.71	851.30	1771.88	704.34	.24	515.15	40.01	42.85
PENNATE DIATOMS:								
ASTERIONELLA JAPONICA	.01	.18	2.28	.02				
CYLINDROTHECA CLOSTERIUM	.01		1.63					
NITZSCHIA? DELICATISSIMA		.68						.39
NITZSCHIA? LUNGISSIMA		.64						.13
NITZSCHIA? SERIATA								
THALASSIONEMA NITZSCHOIDES	22.61	2.36	6.84					
UNID. PENNATES (5-20U)	8.15	.91	.65					
TOTAL PENNATE DIATOMS	30.96	12.35	11.40	1.03	1.20	4.98	2.34	2.60
INFUSORIA:								
CEPATIUM	.01		.01					
GYMNAULAX			.01					
GYMNOPINUM								
HYALINUM		.18						
UNID. INFUSORIA (16-50U)		.23						
FLAGELLATES AND OTHERS:								
DISTEPHANUS SPECULUM	1.63	.14						
EPRIA SPP.	1.63							
CRYPTOMONADS (5-10U)	7.25		34.42	76.56	13.05	304.38	87.21	10.10
CRYPTOMONADS (11-20U)		9.63		3.36	10.15	3.24	7.20	

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PHOTOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 18 TO 27 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

2

STATION I.U.

	18	19	20	21	23	24	25	27
EUTREPTIELLA SPP.	.18							
UNID. FLAGELLATES (1-2U)			22.76		33.34			136.88
UNID. FLAGELLATES (2-5U)	100.24		222.83		58.47			202.91
UNID. FLAGELLATES (6-15U)	7.25		12.08		5.07			26.57
TOTAL FLAGELLATE CELLS	118.00	4.45	294.09	32.34	120.80	308.32	104.79	382.72
ZOOFLAGELLATES	9.75				7.49			
CILIATES					.01			
TOTAL PHYTOPLANKTON CELLS	1683.67	879.99	2077.31	840.06	122.24	1521.43	332.78	428.17

PHOTOPLANKTON HAUL RESULTS - CRUISE 80-05 VARIANTS LIST - STATIONS 18 TO 27 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION I.U.

	18	19	20	21	23	24	25	27
THALASSIOSIRA CONSTRICTA	.01							
CHAETOCEROS CINCTUM		3.95						
CHAETOCEROS CONSTRUCTUM		19.70						
CHAETOCEROS SEPTENTRIONALE		2.54						
CHAETOCEROS SIMILE		2.81						
CHAETOCEROS SIMPLEX C. CALCITRANS		9.99						
LAUDERIA BOREALIS		.27						
RHIZOSOLENIA ALATA F. GRACILLIMA		.09						
THALASSIOSIRA CONFERTA		.68		.09			2.64	
THALASSIOSIRA PACIFICA		6.90		.05			.06	
THALASSIOSIRA PROFUNDA			4.21		514.14	11.80		
THALASSIOSIRA PSEUDONANA			699.96		1.01	25.48		
FRAGILLARIA OCEANICA				.30		1.76	2.16	
NITZSCHIA (BACILLARIA) SP.		7.26		.14		.10		
NITZSCHIA CF. SUBPACIFICA			.14					
PLEUROSIGMA ACUTUM			.09					
NITZSCHIA BICAPITATA				.51		3.04		
NITZSCHIA LINEOLA			.09					
KATODINIUM ROTUNDATUM				.27		.44	8.60	
PROPOCENTRUM BALTIKUM				.02			.05	
HETEROCAPSA TRIOQUETRA			.09					
OCHROMONAS SPP.				8.60		38.36	13.50	
OLISTHODISCUS SP.						.26	.10	
CHRYSOCHROMULINA SPP. & IMANTONIA	11.62		91.77		585.96	171.00		
PYRAMIMONAS SPP.			.27	1.98		68.40	1.04	

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PHYTOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 29 TO 42 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)
 STATION I.D. : 29 31 33 35 37 39 40 42

1

CENTRIC DIATOMS:

BACTERIASTRUM DELICATULA		.03	.03		1.40		
CFRATULINA BERGONII			.04				
CHAETOCEROS COMPRESSUS		.24	.62	.12			.27
CHAETOCEROS DEBILIS							7.72
CHAETOCEROS DECIPiens					118.69	.49	34.41
CHAETOCEROS DIDYMUS					2.09		
CHAETOCEROS ? RADICANS					5.59		2.04
CHAETOCEROS SOCIALIS							1105.04
CHAETOCEROS SPP. (SINGLE CELL)					307.21		
CHAETOCEROS SPP. (CHAINS)					20.94	1.32	
COSCINODISCUS SPP.					53.76	7.75	
CORETHRION HYSTRIX						.82	
DITYLUM BRIGHTWELLII					.01		.09
EUCAMPIA ZODIACUS					.70		
LAUDERIA ANNULATA							1.63
LEPTOCYLINDRUS DANICUS					.01		
RHIZOSOLENIA DELICATULA					2.79	.01	2.63
RHIZOSOLENIA FRAGILISSIMA		.40	.27	.11	.01		
RHIZOSOLENIA STOLTERFOTHII				.07	4.89		.36
RHIZOSOLENIA SPP.					.70		20.25
SCHRODERELLA DELICATULA					.01		
SKELETONEMA COSTATUM							
THALASSIOSIRA AESTIVALIS					155.70	2.64	
THALASSIOSIRA DECIPiens					9.08		1.77
THALASSIOSIRA GRAVIDA/ROTULA					.01		
THALLASSIOSIRA NORDENSKIOLDII			.01		6.98		.36
THALASSIOSIRA POLYCHORDA					9.77		4.68
THALASSIOSIRA SPP.					2.79		.27
UNID. CENTRICS				.02		5.77	.64
TOTAL CENTRIC DIATOMS	1816.68	.40	774.09	.20	888.70	703.08	18.79
PENNATE DIATOMS:							1200.47
ASTERIONELLA JAPONICA							
CYLINDROTHECA CLOSTERIUM					1.40		
NITZSCHIA? DELICATISSIMA	.05				2.79	.49	
NITZSCHIA? PUNGENS							1.15
NITZSCHIA? SERIATA					.70		
THALASSIONEMA NITZSCHOIDES	.23		.10	.12	4.89		10.99
UNID. PENNATES (5-200)		8.86			.28	2.79	5.27
UNID. PENNATES (21-400)							1.48
TOTAL PENNATE DIATOMS	24.79	8.86	1.58	.12	4.70	12.57	.16
DINOFLAGELLATES:							
CERATIUM				.02	.01		.05
GONYAULAX							.09
GYMNODINIUM	1.45		.15		.20		
GYRODINIUM	.27		.07		.09		2.18
PERIDINIUM							
UNID. DINOFLAGELLATES (5-150)				.01			
FLAGELLATES AND OTHERS:				4.03		2.42	.66
LISTEPHANUS SPECULUM	.56	.40	.16	.43	.06	.70	.01
							.54

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PHOTOPLANKTON HAUL RESULTS - CRUISE RU-US STANDARD LIST - STATIONS 29 TO 42 PAGE 2
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION I.D.	:	29	31	33	35	37	39	40	42
CRYPTOMONADS (5-10U)		481.33	82.53	41.16	58.37	70.68	19.32	7.91	
CRYPTOMONADS (11-20U)		.91	88.57	.47	20.13	.58		2.80	
UNID. FLAGELLATES (1-2U)			209.34		20.13		26.18	8.08	
UNID. FLAGELLATES (2-5U)			597.83		122.79		102.26	29.50	
UNID. FLAGELLATES (6-15U)			36.23		666.27		12.88	3.46	
TOTAL FLAGELLATE CELLS		512.84	1014.90	42.54	892.17	72.00	165.76	52.41	3.31
ZOOFLAGELLATES			24.15		24.15		32.21	1.81	
CILIATES			34.22		6.04		2.42		
TOTAL PHYTOPLANKTON CELLS		4733.72	1024.16	979.42	892.49	1058.82	881.41	79.75	1369.99

PHOTOPLANKTON HAUL RESULTS - CRUISE RU-US VARIANTS LIST - STATIONS 29 TO 42 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION I.D.	:	29	31	33	35	37	39	40	42
CHAETOCEROS CINCTUM								10.81	
CHAETOCEROS CONSTRICTUM								3.27	
CHAETOCEROS DIADEMA								1.36	
CHAETOCEROS SIMILE								.32	
CHAETOCEROS SIMPLEX C. CALCITRANS		38.62							
LAUDERIA BOREALIS					.02				
RHIZOSOLENIA ALATA F. GRACILLIMA									1.73
THALASSIOSIRA CONFERTA					.04		.12		
THALASSIOSIRA PACIFICA		.05			.05		.06		.82
THALASSIOSIRA PROFUNDA		1366.36		768.36		836.76			
THALASSIOSIRA PSEUDONANA		411.46		5.07		51.52			
CYLINDRCTHECA FUSIFORMIS								.14	
FRAGILLARIA OCEANICA		24.52		1.48		2.08			
NITZSCHIA (BACILLARIA) SP.							.08		.54
NITZSCHIA GRANII									.27
NITZSCHIA CF. SUBPACIFICA									2.54
NITZSCHIA BICAPITATA							2.26		
NITZSCHIA LINEOLA									1.27
KATODINIUM ROTUNDATUM		26.79		.51		.37			.45
PROROCENTRUM BALTIUM		1.23				.02			
PHOTOSYNTHETIC CILIATES									.23
OCHPOMONAS SPP.		106.78		5.60		3.25			39.95
OLISTHODISCUS SP.		.54							
CHRYSOCHROMULINA SPP. & IMANTONIA		2008.13		83.22		88.35			98.97
PYRAMIMONAS SPP.		263.96		72.39		1.82			2.50

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PHOTOPLANKTON HAUL RESULTS - CRUISE PU-US STANDARD LIST - STATIONS 44 TO 55 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10⁻⁴)

1

STATION I.D.	: 44	46	48	50	52	53	54	55
CENTRIC DIATOMS:								
BACTERIASTRUM DELICATULA	.64	.45				.10	1.27	1.00
CERATULINA BERGONII	.45	.01					.64	
CHAETOCEROS COMPRESSUS	.54						9.08	4.68
CHAETOCEROS DEBILIS	92.16	33.67	.07			2.74	23.88	
CHAETOCEROS DIDYMUS							1.09	.36
CHAETOCEROS ? RADICANS	11.21							1.45
CHAETOCEROS SOCIALIS	458.99	288.39				3.03	931.61	34.14
CHAETOCEROS SPP. (SINGLE CELL)		9.78						
CHAFTOCEROS SPP. (CHAINS)		18.47				39.02		
CORETHRION HYSTRIX		.15					.49	.14
EUCAMPIA ZODIACUS	.54	2.70				.10	3.36	
LAUDERIA ANNULATA		.45						
LEPTOCYLINDRUS DANICUS	.18						.01	.18
RHIZOSOLENIA DELICATULA		.15						.18
RHIZOSOLENIA FRAGILISSIMA	.27	.01						
RHIZOSOLENIA STOLTERFOTHII	3.18	4.51				.01	1.45	.18
SCHRODERELLA DELICATULA		.01					32.78	2.41
SKELETONEMA COSTATUM	19.70	10.98						
THALASSIOSIRA AESTIVALIS	.41	1.05				1.37	.73	6.58
THALASSIOSIPA DECIPiens		.01				.29		
THALASSIOSIRA GRAVIDA/ROTULA	.54	1.35						
THALLASIOSIRA NORDENSKIOLDII	13.62	2.86				2.15	.09	
THALASSIOSIRA POLYCHORDA		.43				.78	.18	.59
THALASSIOSIRA SPP.	.91	6.47						
TOTAL CENTRIC DIATOMS	627.75	381.86	1.08		522.12	51.54	1017.87	53.84
PENNATE DIATOMS:								
ASTERIONELLA JAPONICA	.18	.30						
CYLINDROTHECA CLOSTERIUM		1.65						
NITZSCHIA? DELICATISSIMA	.64	.45	.07				.29	
NITZSCHIA? LONGISSIMA	.91						1.86	1.27
NITZSCHIA? SERIATA	3.31	2.26						.36
THALASSIONEMA NITZSCHOIDES	1.09		.04				.39	14.89
UNID. PENNATES (5-20U)		1.50					.20	1.50
UNID. PENNATES (21-40U)		.15					.45	.41
TOTAL PENNATE DIATOMS	9.90	6.31	1.87					
DINOFLAGELLATES:								
CERATIUM		.30						
DINOPHYYSIS		.45					.05	
GYMNO DINIUM	1.91		.20					
GYRODINIUM	.36		.09				.54	.41
PLECTODINIUM								.59
PROGROCENTRUM		.30					.10	
PROTOPERIDINIUM BIPES								
UNID. DINOFLAGELLATES (5-15U)							.81	
UNID. DINOFLAGELLATES (16-50U)		2.07						
FLAGELLATES AND OTHERS:							1.61	
LISTEPHANUS SPECULUM	.09							
CRYPTOMONADS (5-10U)	1.45	2.07	44.52	22.71	153.90	119.97	.01	.54
CRYPTOMONADS (11-20U)	3.90	19.32	1.48		2.24		1.27	103.51
							4.09	1.59

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PHOTOPLANKTON HAUL RESULTS - CRUISE 80-05 STANDARD LIST - STATIONS 44 TO 55 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION I.O.	: 44	46	48	50	52	53	54	55	
ENTERPIELLA spp.									.59
UNID. EUGLENOIDES									2.42
UNID. FLAGELLATES (1-20)		8.97		38.16					29.79
UNID. FLAGELLATES (2-50)		24.29		203.39					162.65
UNID. FLAGELLATES (6-150)		7.59		14.49					12.88
TOTAL FLAGELLATE CELLS	7.81	69.36	47.09	278.75	157.66	330.23	6.49	106.69	
ZOOFLAGELLATES									12.08
CILIATES									8.05
TOTAL PHYTOPLANKTON CELLS	686.18	457.53	469.75	278.75	1088.94	384.51	1818.81	704.06	

PHOTOPLANKTON HAUL RESULTS - CRUISE 80-05 VARIANTS LIST - STATIONS 44 TO 55 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION I.O.	: 44	46	48	50	52	53	54	55	
CHAETOCEROS CINCTUM		7.26							5.90 .91
CHAETOCEROS CONSTRICTUM		5.63							1.14 .73
CHAETOCEROS LACINIOSUM		1.73							
CHAETOCEROS LORENZIANUM		.64							
CHAETOCEROS SEPTENTRIONALE									1.18
CHAETOCEROS SIMPLEX C. CALCITRANS		6.36							.54
LAUDERIA POPEALIS									.14
RHIZOSOLENIA ALATA F. GRACILLIMA									1.09
RHIZOSOLENIA FRAGILISSIMA V. ?		.45							
THALASSIOSIRA CONFERTA		.82		.18					.27 .41
THALASSIOSIRA PACIFICA		1.50		.03					.68 .41
THALASSIOSIRA PROFUNDA						332.88			
THALASSIOSIRA PSEUDOKANA						.80	189.24		
CYLINDROTHECA FUSIFORMIS		.09							
FRAGILLARIA OCEANICA									4.00 1.59
NITZSCHIA (BACILLARIA) SP.	2.91		1.46						18.25 1.41
NITZSCHIA GRANII		.18							
NITZSCHIA SUBFRAUDULENTA									.50
NITZSCHIA CF. SUBPACIFICA		.36							1.36
NITZSCHIA BICAPITATA				.30					
NITZSCHIA LINEOLA		.23							.23 .09
KATODINUM ROTUNDATUM				.80		1.52			
SCIRPSSIELLA & GLENODINIUM spp.		.09							
APECINELLA SPINIFERA		.54							
OCHROMONAS spp.	2.63		83.79		38.76		238.08	64.01	
OLISTHODISCUS spp.				.14					.18
CHRYSOCHROMULINA spp. & IMANTONIA	36.32		334.02		368.22		452.87	452.87	
PYRAMIMONAS spp.	1.23		1.76		2.18		62.20	20.70	

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PHYTOPLANKTON HAUL RESULTS - CRUISE AL-UE STANDARD LIST - STATIONS 56 TO 60 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10***4)

1

STATION 1.E.	56	57	58	59	60
CENTRIC DIATOMS:					
BACTEPIASTRUM DELICATULA			.08		
CHAETOCEROS COMPRESSUS	.18				
CHAETOCEROS UFRILIS	.37	4.14		8.81	20.45
CHAETOCEROS P. GRACILE			.20	.59	5.50
CHAETOCEROS SOCIALIS			8.60		4.01
CHAETOCEROS spp. (CHAINS)			7.90		
CORETHRON HYSTRIX	.05		.23		.09
EUCAMPIA ZODIACUS	.05				.12
LEPTOCYLINUS RANICUS			.70		
RHIZOSOLENIA DELICATULA			.01		
RHIZOSOLENIA FRAGILISSIMA	.19		.31		
RHIZOSOLENIA STOLTERFOTHII	.14		.16		.02
SKELETONEMA COSTATUM	3.46			.28	1.45
THALASSIOSIRA AESTIVALIS				.54	.20
THALASSIOSIRA DECIPiens			.08		.85
THALASSIOSIRA GRAVIDA/ROTULA			.08		
THALASSIOSIPA NORDENSKIOLDII	.28		.23	.06	.27
THALASSIOSIPA POLYCHORDA				1.73	2.04
THALASSIOSIRA spp.			1.64	.02	.09
RHIZOSOLENIA SETIGERA	.02			4.99	.76
TOTAL CENTRIC DIATOMS	621.78	24.15	501.31	618.44	1100.46
PENNATE DIATOMS:					
ASTERIONELLA JAPONICA					.04
CYLINDROTHECA CLUSTERIUM	.10	.23	.32	.05	.13
GYRO/PLEUROSIGMA spp.		.08			
NITZSCHIA? DELICATISSIMA	.84	.23	.35	1.54	2.44
NITZSCHIA? LONGISSIMA	.24		.49	.50	.46
NITZSCHIA? SERIATA	.27	.55	.10	.14	.21
THALASSIONEMA NITZSCHOIDES	.73	.55	1.29	1.45	2.06
UNID. PENNATES (5-20U)		.63			
TOTAL PENNATE DIATOMS	4.74	2.27	2.86	3.95	6.32
ZOOFLAGELLATES:					
GYMNOdinium	1.98			2.58	1.36
GYRODINIUM	.66			.22	.68
FLAGELLATES AND OTHERS:					.14
DISTEPHANUS SPECULUM	.03	.68			
CRYPTOMONAUS (5-10U)	67.76	20.29	7.90	4.40	74.67
CRYPTOMONAUS (11-20U)	13.30	1.93	.55	4.00	57.00
EUTREPTIELLA spp.	.19		.06		.40
UNID. FLAGELLATES (1-2U)		12.56			
UNID. FLAGELLATES (2-5U)		47.67			
UNID. FLAGELLATES (6-15U)		11.60			
TOTAL FLAGELLATE CELLS	102.42	94.13	11.52	23.70	151.11
ZOOFLAGELLATES		12.04			
CTLIATES		2.25			
TOTAL PHYTOPLANKTON CELLS	887.54	120.55	639.17	812.57	1560.23

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PHYTOPLANKTON HAUL RESULTS - CRUISE 81-04 VARIANTS LIST - STATIONS 56 TO 60 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)
 STATION 1.0.

	56	57	58	59	60
CHAFTOCELOS CINCTUM				3.90	
CHAFTOCELOS SIMPLIF. L. CALCITRANS	4.55				
LAUDERIA PIREALIS	.05				
RHIZOSOLENIA ALATA F. GRACILLIMA	.03				
THALASSIOSIRIA CONFERTA	.07	.03	2.04	1.41	
THALASSIOSIRIA PACIFICA	.06	.16	3.90	14.00	
THALASSIOSIRIA PROFUNDA	12.04	26.32	393.35	487.92	
THALASSIOSIRIA PSEUDONANA	599.64	474.24	196.67	560.88	
NITZSCHIA (PACILLARIA) SP.	.16	.24		.21	
NITZSCHIA GRANII		.07	.18	.77	
NITZSCHIA BICAPITATA	2.40				
NITZSCHIA LINIFOLA			.09		
KATCUINIUM POTUNDATUM	18.50	.21	13.67	17.90	
PROPROCENTRUM HALTICUM			.27	.12	
SCRIPPSIELLA & GLENUNIUM SPP.				.10	
APEDINELLA SPINIFERA	4.95	.52	.54	4.52	
OCHROMONAS SPP.	25.76	11.80		63.84	
OLISTHODISCUS SP.	5.60		.95	2.12	
CHRYSOCHEMULINA SPP. & IMANTONIA	119.70	109.44	163.98	221.16	
PYRAMIMONAS SPF.	2.64	1.72	1.00	10.70	

PHOTOPLANKTON HAUL RESULTS - CRUISE PU-68 STANDARD LIST - STATIONS 1 TO 8 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)
 STATION I.D. : 1 2 3 4 5 6 7 8

CENTRIC DIATOMS:

<i>EDUCERIA LONGICILARIS</i>	.02							
<i>CERATULINA BERGONII</i>		.18	.32					
<i>CHAETOCEROS COMPRESSUS</i>	20.10	4.62	35.23	50.21		1.91	12.53	257.80
<i>CHAETOCEROS UFEILIS</i>	1.16	42.20	161.17	40.95		9.53	16.25	242.40
<i>CHAETOCEROS DIDYMUS</i>				.73				1.46
<i>CHAETOCEROS ? RADICANS</i>	8.06	4.75	13.67	11.12		2.04	.73	1.62
<i>CHAETOCEROS SOCIALIS</i>	2.04	.35	1.68	2.36		40.95	.32	
<i>COSCINODISCUS SPP.</i>								
<i>CORYTHRON HYSTRIX</i>		.07	.27	.23		.09	.14	.03
<i>UITYLUM BRIGHTWELLII</i>	.04	.28	.36			.09	.14	.17
<i>EUCAMPIA ZODIACUS</i>		.15	.73	.23		.09	.14	.05
<i>LEPTOCYCLIMUS DANIELS</i>	.42	.08	.18	.91		.82	.73	
<i>MELOSIRA SULCATA</i>				.73		5.77	6.95	1.34
<i>RHIZOSOLENIA DELICATULA</i>								
<i>RHIZOSOLENIA FRAGILISSIMA</i>			.09	.69				.14
<i>RHIZOSOLENIA STOLTERFOTHII</i>	.08	.15	.18					.14
<i>SCHRODERELLA DELICATULA</i>	.10						.18	.11
<i>SKELETONEMA COSTATUM</i>	59.02	46.16	186.68	204.30	.08	1.86	19.61	5.54
<i>STEPHANOPYXIS PALMELIANA</i>		.04						
<i>THALASSIOSIRA AESTIVALIS</i>	.08	.02	.54				.05	.06
<i>THALASSIOSIPA DECIPiens</i>			.36				.50	.14
<i>THALASSIOSIRA GRAVIDA/ROTULA</i>	2.90	1.37	8.35	8.35		.36	6.36	2.32
<i>THALLASIOSIRA NORDENSKIOLDII</i>	1.66	.44	3.63	.45	.06	1.36	8.72	.86
<i>THALASSIOSIPA SPP.</i>		.11	.73			.09	.36	.27
<i>RHIZOSOLENIA SETIGERA</i>								.09
TOTAL CENTRIC DIATOMS	139.26	111.42	445.15	345.39	.32	88.58	113.23	751.12

PENNATE DIATOMS:

<i>ASTFRIONELLA JAPONICA</i>	1.86	2.28	10.90	5.22				
<i>CYLINDROTHECA CLOSTERIUM</i>		.68	1.27	.27	.01	.68		.16
<i>NITZSCHIA? DELICATISSIMA</i>	.08	1.75	5.27		.07	5.95	3.09	.52
<i>NITZSCHIA? LONGISSIMA</i>	.14	.45	.54	2.36	.02	.50	1.95	26.30
<i>NITZSCHIA? PUNGENS</i>	.16	.23	.54	1.36				3.04
<i>NITZSCHIA? SEPIATA</i>								.14
<i>THALASSIONEMA NITZSCHOIDES</i>	.06	1.06	1.86	.27	.02		11.35	.08
TOTAL PENNATE DIATOMS	9.20	9.79	41.86	20.48	4.18	30.83	23.02	38.59

DINOFLAGELLATES:

<i>CERATIUM</i>								
<i>DINOPHYYSIS</i>								.09
<i>GONYAULAX</i>								.01

<i>GYMNODINIUM</i>			.05					
<i>GYRODINIUM</i>	.58	.05	.18	.48	2.25	1.18	.32	1.20

FLAGELLATES AND OTHERS:

<i>CRYPTOMONADS (5-100)</i>	3.84	.36	3.90	2.95	4.00	3.09	23.88	35.56
<i>CRYPTOMONADS (11-700)</i>	.90	.61	1.63	1.86	1.30	10.03	13.08	9.25
<i>EURYPTIELLA SPP.</i>								
TOTAL FLAGELLATE CELLS	5.48	1.25	6.67	5.75	4.12	.32		
TOTAL PHYTOPLANKTON CELLS	182.06	125.69	569.72	382.00	27.29	65.07	231.59	900.35

PHYTOPLANKTON HAUL RESULTS - CRUISE RETURN VARIANTS LIST - STATIONS 1 TO 8 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION I.D.	1	2	3	4	5	6	7	8
ASTEROCHALLUS SARCOPHAGUS							.14	.02
CHAETOCEROS EGREALE		.84	.91			.23	.50	
CHAETOCEROS CINCTUM								202.60
CHAETOCEROS CONSTRICTUM		2.81	2.27			.82	.32	1.86
CHAETOCEROS CONVOLUTUM	.58	.36	.32	.18	.05	.14	.14	.28
CHAETOCEROS DIAPEMA	8.86	.45	1.95	6.45		.54	.68	6.13
CHAETOCEROS LACINIOSUM	.10	.75	.95	.54	.02	.59	9.90	1.40
CHAETOCEROS LORENZIANUM	.18	.18	.54	.23		.45	.77	8.42
CHAETOCEROS PSEUDOCRINITUM	30.02	.75	2.45	4.36				
CHAETOCEROS SEPTENTRIONALE	.14	.15	.91	.48		.50	.32	
CHAETOCEROS SIMILE	1.86	1.56	5.08	6.63		3.63	6.72	5.10
CHAETOCEROS SIMPLEX C. CALCITRANS	.52	.21	.82	.36		.54	.50	.22
CHAETOCEROS SUBTILIS		.12		.27				
LAUDEPIA POREALIS			.54	.27		.14	.27	.08
LEPTOCYLINDRICUS MINIMUS				.77				
RHIZOSOLENIA ALATA F. GRACILLIMA					.11		.09	.05
RHIZOSOLENIA FRAGILISSIMA V. ?					.32	1.63	8.17	.33
THALASSIOSIRA ANGULATA			.18					
THALASSIOSIRA BINATA			.18					
THALASSIOSIRA CONFERTA	.14	.23	1.45			5.86	3.09	1.60
THALASSIOSIRA LEPTOPUS						.18	.09	
THALASSIOSIRA PACIFICA	2.70	3.30	12.17	3.54		8.44	7.58	8.00
THALASSIONEMA BACILLARIS			.15	.54				.05
TROPIDONEIS LEPIDOPTERA							.05	
AMPHORA SPP.			.09					
CYLINDROTHeca FUSIFORMIS		.06						
CYLINDROTHeca SPP.					.02			
FRAGILLARIA OCEANICA					3.78			4.06
NITZSCHIA (FRAGILLARIA) SP.	4.04	3.00	18.16	7.26		2.09	1.73	2.30
NITZSCHIA GRANTI						.18		.48
NITZSCHIA PSEUDODELICATISSIMA			.18					
NITZSCHIA CF. SUBPACIFICA	.22					19.34	1.59	.62
PLEUROSIGMA ACUTUM			.14	.09		.09	.05	.02
NITZSCHIA LINEULA	1.84	.07	.73	3.09	.24	1.00	1.41	
KATQUINUM ROTUNDATUM		.06	.23			.59	.64	.65
PROPOCENTRUM BALTIcUM		.06	.32			.23	.77	.15
PROROCENTRUM GRACILE						.68	2.77	.56
SERIPPSIELLA & GLENODINIUM SPP.	.10	.07	.36	.23		1.14	.45	.20
PHOTOSYNTHETIC CILIATES							.14	
APEDINELLA SPINIFERA		.08	.14				.68	.20
OCHROMONAS SPP.			2.59					
GLISTHOCHDISUS SP.			.18			.54		
CHRYSOCHROMULINA SPP. & IMANTONIA	28.06	3.00	72.64	10.99	14.30	25.88	51.76	61.56
CORYMSELLUS AURIFUS			.18					
PYRAMIMONAS SPP.		.12	.15	.32		1.04	.91	.48
THALASSIOSIRA LINIFATA			.36					
CURRENTLY UNKNOWN							.86	

PHYTOPLANKTON HAUL RESULTS - CRUISE 80-64 STANDARD LIST - STATIONS 9 TO 17 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION 1.L.

	9	11	12	13	14	15	16	17
CENTRIC DIATOMS:								
BACTERIASTRUM DELICATULA								.06
BIODULPHIA LONGICURVIS								
CERATULINA HERGONII								
CHAETOCEROS COMPRESSUS	9.91	68.19	188.05	50.21	40.91	55.21	32.60	.08
CHAETOCEROS DIFILIS	.42	79.00	136.47	577.03	81.36	63.83	60.70	.25
CHAETOCEROS DIDYMUS				1.00				.36
CHAETOCEROS ? GRACILE		1.36						
CHAETOCEROS ? RADICANS		9.53	36.23	4.45	75.27	47.76		
CHAETOCEROS SOCIALIS						19.61		
COSCINODISCUS SPP.								
CORETHRON HYSTRIX	.08	.82	.09	.09	.23	.14		.01
DACTYLIOLENS MEDITERRANEUS	.10		.18					
DITYLUM BRIGHTWELLII	.03	.64	.27	.36	1.18	.32		.06
EUCAMPIA ZODIACUS		.36		.45	.23			
LEPTOCYLINDRUS DANICUS	1.52	.18	.45	.36	.82	.27	.09	.29
RHIZOSOLENIA DELICATULA								.92
RHIZOSOLENIA FRAGILISSIMA		.27						.08
RHIZOSOLENIA STOLTERFOTHII			.23					.04
SCHRODERELLA DELICATULA			.36		.32			.04
SKELETONEMA COSTATUM	1.32	265.59	477.61	254.69	123.94	356.84		
STEPHANPYXIS PALMERIANA		.36		.18	.36			.32
THALASSIOSIRA AESTIVALIS	.64	.45	.45	.36				.04
THALASSIOSIRA GRAVIDA ROTULA	.32	17.07	18.80	11.89	12.35	8.63	.24	
THALLASSIOSIRA NORDENSKIOLDII	.05	11.26	6.17	3.63	3.86	5.36	.31	.07
THALASSIOSIRA SPP.		.54		.23				.10
TOTAL CENTRIC DIATOMS	19.27	521.51	985.63	946.68	432.89	605.27	149.16	20.82
PENNATE DIATOMS:								
ASTFRIONELLA JAPONICA		9.35	5.99	8.58	8.40	14.07	.12	.12
CYLINDROTHECA CLOSTRIDIUM	.08	.45	.36	.95	.59	.73		.20
NITZSCHIA? DELICATISSIMA	.28	13.80	.73	11.21	9.53	12.35	13.10	.38
NITZSCHIA? LONGISSIMA	.20	2.95	2.81	1.68	.95	.95	1.86	.67
NITZSCHIA? PUNGENS		.41	.45	.36	.54			
NITZSCHIA? SERIATA	.08	.54		1.54	1.36			.05
THALASSIONEMA NITZSCHOIDES	.28	1.82	.54	2.22	3.18	1.59	.22	.50
TOTAL PENNATE DIATOMS	1.90	46.22	55.52	64.56	39.82	57.16	18.30	9.39
DINOFLAGELLATES:								
CERATIUM								
GONYALAX								.01
GYMNODINIUM	.94	.23	.54	.95	.82	.45	.20	.04
GYRODINIUM	.35	.64		.27	.18	.18	.06	.60
FLAGELLATES AND OTHERS:								
DISTEPHANUS SPECULUM								
CRYPTOMONADS (5-15L)	34.74	39.50	11.62	13.26	20.97	10.22	2.47	16.80
CRYPTOMONADS (11-20L)	42.00	14.71	9.76	11.62	14.89	.54	.45	1.76
ENTEROMYCELLA SPP.			.32					
TOTAL FLAGELLATE CELLS	73.71	57.12	23.84	26.51	37.00	12.21	3.38	21.32
TOTAL PHYTOPLANKTON CELLS	253.29	717.77	1074.57	1193.79	599.23	739.11	348.51	69.89

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PHYTOPLANKTON SAMPLE RESULTS - CRUISE 40-LITER VARIANTS LIST - STATIONS 9 TO 17 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION NO.	9	11	12	13	14	15	16	17
CHAETOCEROS BORFALAE		.36		.64	.23			
CHAETOCEROS CINCINNATUM					12.89		46.80	
CHAETOCEROS CONSTRICTUM	.58	12.62	12.62	2.63	2.95	6.22		.12
CHAETOCEROS CONVOLUTUM		.18	.36	.36	.82	.45		.04
CHAETOCEROS DENSUM			.73			.27	.08	
CHAETOCEROS DIADEMA	.30	2.09	38.59	2.32	8.17	8.72	.12	
CHAETOCEROS LACINIUM	.12	2.27	1.73	1.59	7.26	.50	.24	
CHAETOCEROS LORENZIANUM	.05	.73	1.00	.54	2.54	.68	.32	.10
CHAETOCEROS PSEUDOCRINITUM		2.54	27.33	14.71	3.95	29.33		11.90
CHAETOCEROS SEPTENTRIONALE		2.18	3.18	.68	.45	.54		.56
CHAETOCEROS SIMILE	.32	.73	4.40	2.95	8.72	4.63	.34	
CHAETOCEROS SIMPLEX C. CALCTTPANS		2.81	1.27	.68	.54	.45		1.52
LAUDERIA BOREALIS		.32	.36	.36	.14			.05
LEPTOCYLINERICUS MINIMUS							.05	.02
RHIZOSOLENIA ALATA F. GRACILLIMA								.04
RHIZOSOLENIA FRAGILISSIMA V. ?	1.36	.45	.54	.77	1.27		.43	1.13
THALASSIOSIRA CONFERTA			15.25	4.99	2.86	4.09	5.22	.95
THALASSIOSIRA ECCENTRICA					.23			1.77
THALASSIOSIRA LEPTOPUS					.09			
THALASSIOSIRA PACIFICA	2.15	23.34	23.15	10.17	17.80	9.53	4.06	1.30
THALASSIONEMA BACILLARIS	.09	.18	.14	.14	.14	.32	.05	.04
AMPHOEA SPP.								.04
CYLINDROTHECA FUSIFORMIS								.03
FRAGILLARIA OCEANICA					1.36			2.30
NITZSCHIA (BACILLARIA) SP.		12.98	38.59	35.41	13.71	26.33		1.42
NITZSCHIA GRANII							.10	
NITZSCHIA CF. SUBPACIFICA	.71	3.45	1.86	.64	1.14	.36	1.45	3.56
PLEUROSIGMA ACUTUM			.09					
NITZSCHIA BICAPITATA					.27			
NITZSCHIA LINEOLA	.18	.27	3.95	.45		.45	1.35	.13
KATODINIUM ROTUNDATUM	2.71	1.23	1.04			.82		.47
PROPOCENTRUM BALTIKUM	.27	.36	.18	.14			.08	
PROPGCENTRUM GRACILE	.87	.09						
HETEROCAPS ATRIQUETRA	.03							
SCRIPPSIELLA & GLENODINIUM SPP.	1.56	.27	.36	.18				.05
PHOTOSYNTHETIC CILIATES				.68				
APEDINELLA SPINIFERA	.16		.50	.41	.23			.38
OCHPOMONAS SPP.							84.36	5.90
OLISTHODISCUS LUTEUS				.14			.05	
OLISTHODISCUS SP.	.12							
CHRYSOCHROMULINA SPP. & IMANTONIA	95.76	92.80	8.40	155.09	88.53	64.01	92.91	11.90
CYRYPSELLUS AUREUS							.35	
PYRAMIMONAS SPP.	2.10	.23	.68	.41	.77	.27		.18
PTEROSPERMA SPP.	.47					.18		
THALASSIOSIRA LINIFATA			.36					

PHOTOPLANKTON HAUL RESULTS - CRUISE RUEUR STANDARD LIST - STATIONS 18 TO 25 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)
 STATION I.D. : 18 19 20 21 22 23 24 25

CENTRIC DIATOMS:

<i>HEDGELPHIA LONGICUPIFIS</i>	.04							
<i>CHAETOCEROS COMPRESSUS</i>	13.85	5.52	.66	.51	1.20	.30	29.06	56.75
<i>CHAETOCEROS DEBILIS</i>	54.75	8.27	.24	1.68		.16	281.93	79.54
<i>CHAETOCEROS DENDYMUS</i>		.02					.54	3.09
<i>CHAETOCEROS ? RAVICANS</i>	1.91	.16			.09		27.42	9.76
<i>CHAETOCEROS SOCIALIS</i>	.54						1.73	
<i>CORETHRON HYSTRIX</i>	.32	.04	.24	.45	.16	.20	.36	.09
<i>CITYLUM EPIGLOTTELLII</i>	.36						1.82	
<i>LUCAMPIA ZODIACUS</i>	.64						1.63	.23
<i>LEPTOCYLINDRUS DANICUS</i>	.41	.05		.05			1.09	.23
<i>RHIZOSOLENIA STOLTZFOETHII</i>	.09						.54	
<i>SKELETONEMA COSTATUM</i>	205.12	60.30	.08	.15	.15	.22	230.81	363.65
<i>STEPHANOPYXIS PALMERIANA</i>	.09	.01						
<i>THALASSIOSIRA AESTIVALIS</i>	.23							
<i>THALASSIOSIRA GRAVIDA/ROTULA</i>	11.12	1.75	.04					.27
<i>THALASSIOSIRA NORDENSKIOLDII</i>	3.31	.08	.12	.28	.02		12.21	6.90
<i>THALASSIOSIRA SPP.</i>	.73			.05	.05		3.63	.68
TOTAL CENTRIC DIATOMS	431.84	85.83	30.63	48.87	12.98	12.30	680.73	635.47

PENNATE DIATOMS:

<i>ASTFRIONELLA JAPONICA</i>	4.09	1.71						
<i>CYLINDROTHeca CLGSTERIUM</i>	1.09	.31					13.80	12.26
<i>NITZSCHIA? DELICATISSIMA</i>	21.07	2.40	.82	2.60	1.42	.42	15.98	.91
<i>NITZSCHIA? LONGISSIMA</i>	.77	.12	.02	.05		.03	2.36	9.17
<i>NITZSCHIA? SEPIATA</i>	.54		.08	.06		.12	.50	2.54
<i>THALASSIONEMA NITZSCHOIDES</i>	2.91	.66	.12	.12	.06	.24	1.82	3.77
TOTAL PENNATE DIATOMS	48.85	30.76	34.58	37.92	6.33	20.85	90.30	57.84

DINOFLAGELLATES:

<i>GYMNODINIUM</i>	.27	.62	.28	.18	.76	.47	.23	.54
<i>GYRCODINIUM</i>	.18	.14	5.20	.14	.18	.55	.27	.18
FLAGELLATES AND OTHERS:								
<i>DISTEPHANUS SPECULUM</i>	.09							
<i>CRYPTOMONADS (5-100)</i>	20.43	28.56	169.86	28.00	10.40	57.57	41.54	34.96
<i>CRYPTOMONADS (11-200)</i>	11.53	11.50	29.68	11.90	12.00	19.88	5.22	1.45
<i>EUTEPTELLA SPP.</i>		.01	.08		.05		.18	
TOTAL FLAGELLATE CELLS	33.37	42.20	269.32	-58.4300	23.99	79.35	50.12	37.45
TOTAL PHYTOPLANKTON CELLS	639.73	191.27	294.95	50.07	54.15	172.14	976.42	767.31

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PHOTOPLANKTON HULL RESULTS - CRUISE NO. 6 VARIANTS LIST - STATIONS 18 TO 25 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION NO.	18	19	20	21	22	23	24	25
CHAETOCEROS HORFALLI	.36							
CHAETOCEROS CINCTUM	4.63	4.34			9.32	.92	6.31	82.17
CHAETOCEROS CONSTRICTUM	1.09	.24					4.18	.27
CHAETOCEROS CONVOLUTUM	.36	.10	.02			.02	.54	.23
CHAETOCEROS DIAPEMA	.27							4.59
CHAETOCEROS LALINIUSUM	1.36	.12		.06			1.86	
CHAETOCEROS LORENZIANUM	1.27	.02						1.18
CHAETOCEROS PSEUDOCRINITUM	9.17						14.44	
CHAETOCEROS SFPTENIRIONALF	.27						2.36	2.13
CHAETOCEROS SIMILE	1.63	.30			.08	.04	.64	3.86
CHAETOCEROS SIMPLEX C. CALCITRANS	5.63		.30	.28	.12	.08	1.09	
CHAETOCEROS SUETILE	.27							
LADEPPIA ECREALIS	.09						.54	
RHIZOSOLENIA FRAGILISSIMA V. ?	.50	.21	.12	.13	.10	.12	.41	
THALASSIOSIRA CONFERTA	12.35	.68	.84	.80	1.35	.76	2.91	1.86
THALASSIOSIRA PACIFICA	15.03	4.62	.53	1.31	.32	.18	14.57	18.25
THALASSIOSIRA PSEUDONANA	83.99		27.44	43.12		9.30	37.23	
THALASSIONEMA BACILLARIS	.27	.08	.02	.03	.04			.27
CYLINDROTHECA FUSIFORMIS				.02				
CYLINDROTHECA SPP.				32.76				
Fragillaria oceanica	2.54	22.12			33.88	2.35	18.80	13.89
Nitzschia (Bacillaria) spp.	13.89	2.38	.08	.55	.36	.22	37.00	23.61
Nitzschia subfusculenta			.62					.64
Nitzschia cf. subpacifica	.64	.08	.60	.63	2.10	.88	3.59	1.73
Pleurosigma acutum	.09							.05
Nitzschia bicapitata	.50							
Nitzschia lineola	.45	.28	.06			.14	.45	.54
Katodinium rotundatum	.23	1.30	4.22		.25	.53	.46	2.45
Procentrum palticum	.27				.07			.32
Scrippsiella & Glenouinium spp.	.36	.07			.03	.07	.42	.23
Photosynthetic ciliates	.41				.30			.36
Apedinella spinifera	1.23				.05	.09		
Ochromonas spp.	15.25	7.00				1.52		
Glisthodiscus sp.	.68							
Chrysocercumulina spp. & imantonia	107.60	25.48	18.00	18.50	8.40	59.28	150.00	36.55
Corymbellus aukeus						.34		
Phaeocystis pouchetii						.50		
Pyramimonas spp.	.91			2.42	3.16		.36	5.27
Thalassiosira lineata				.36				

PHYTOPLANKTON HAUL RESULTS - CRUISE FUR-UR STANDARD LIST - STATIONS 26 TO 37 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION 1.U.

	26	27	28	29	31	33	35	37
CENTRIC DIATOMS:								
BIOPHILIA LONGICRUFIS					.05	.14		.06
CERATULINA REBONII					.05			.10
CHAETOCEROS COMPRESSUS	38.50	.35	.01		26.79	9.08		
CHAETOCEROS DEFILIS	106.78	.26	.01	48.21	162.53	25.70	2.72	70.10
CHAETOCEROS DICYMUS					.36	6.90		.20
CHAETOCEROS ? RADICANS	20.52					12.80		
CHAETOCEROS SOCIALIS	.54				288.74	343.68	408.60	53.80
COSCINODISCUS spp.								.04
CORYTHRON HYSTRIX								
CITYLUM BRIGHTWELLIT		.05	.14	.04				
EUCAMPIA ZODIACUS					.09	.82	.05	.05
LEPTOCYLINDRUS DAMICUS					.54	4.63	1.04	11.17
RHIZOSOLENIA DELICATULA					2.27	5.18	3.27	5.18
RHIZOSOLENIA FRAGILISSIMA						.14		.05
RHIZOSOLENIA STOLTERFOETHII						.41	.05	.07
SCHRODERELLA DELICATULA					.09	.14	.09	.23
SKELETONEMA COSTATUM					.27		.68	
STEPHANOXYXIS PALMERIANA	181.60	.20	9.50	76.27	95.88		1.63	5.70
THALASSIOSIRA GRAVIDA/ROTULA	5.49				.18	1.63		.27
THALLASSIOSIRA NORDENSKIOLDII	.45				.41	2.54	.09	.14
THALLASSIOSIRA POLYCHORDA					.07	3.90	17.80	.54
THALASSIOSIRA spp.							.36	.14
RHIZOSOLENIA SETIGERA								.09
TOTAL CENTRIC DIATOMS:	443.06	10.66	10.69	481.06	919.49	554.74	100.79	194.83
PENNATE DIATOMS:								
ASTERIONELLA JAPONICA		2.72						.06
CYLINDROTHECA CLUSTERIUM					.12	.36	1.27	
NITZSCHIA? DELICATISSIMA	5.58	.34	.10	24.06	48.12	10.90	.68	1.22
NITZSCHIA? LONGISSIMA	1.91	.02		3.50	3.63	1.45	.27	.68
NITZSCHIA? PUNGENS	.45			2.50	3.72	.73	.82	.15
NITZSCHIA? SERIATA	1.91	.12	.25	10.53	21.07		16.43	6.19
THALASSIONEMA NITZSCHOIDES		.16	.03	8.35	3.63	8.85	10.90	1.20
TOTAL PENNATE DIATOMS	49.85	2.28	6.24	104.74	153.04	65.97	37.95	16.23
UNIOFLAGELLATES:								
CERATIUM					.05	.05	.09	.14
DINOPHYYSIS								
GYMNOGINIUM					.07	.08		.05
GYROQUINTUM						1.82	1.18	3.27
FLAGELLATES AND OTHERS:					.71		.68	.50
CRYPTOMONADS (5-10μ)	1.45	52.36	21.20	1.27	25.42	1.18	.73	
CRYPTOMONADS (11-20μ)	4.36	3.02	15.00		9.62	.54	.45	.82
TOTAL FLAGELLATE CELLS	5.71	56.89	36.51	1.59	43.63	3.04	5.27	.82
TOTAL PHYTOPLANKTON CELLS	510.98	71.93	60.44	593.11	1259.71	640.28	228.63	232.58

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PLANKTON HAUL RESULTS - CRUISE 80-81 VARIANTS LIST - STATIONS 26 TO 37 PAGE

(VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10***4)

1

STATION 1-5.	26	27	28	29	31	33	35	37
CHAETOCEROS COPEALE					.54	1.14	3.13	1.40
CHAETOCEROS CINCTUM	60.38	.38	.80					7.12
CHAETOCEROS CONSTRICTUM	11.17			33.60	71.28	75.82	3.86	8.86
CHAETOCEROS CONVOLUTUM	.36					.14	.27	
CHAETOCEROS LIANEMA	7.76				22.06	.91		
CHAETOCEROS LACINIUSUM				.23	7.63			
CHAETOCEROS LORENZIANUM	.36			5.22	116.22	.82	1.50	2.16
CHAETOCEROS PELAGICUM								1.91
CHAETOCEROS SEPTENTRIONALE	.45			5.36	2.45	23.15	3.45	5.30
CHAETOCEROS SIMILIS	.45	.05		.27	7.94	1.14		
CHAETOCEROS SIMPLEX C. CALCITRANS	.04	.02			7.26	.23	.73	
LAUREPIA POREALIS					.14		.54	.70
LEPTOCYLINURICUS MINIMUS				.27				
RHIZOSOLENIA ALATA F. ALATA						.05	.14	.04
RHIZOSOLENIA ALATA F. GRACILLIMA					.14	.09	.18	.06
RHIZOSOLENIA ALATA F. INDICA						.05		
RHIZOSOLENIA FRAGILISSIMA V. ?		.10	.01	.36	.32		1.63	
THALASSIOSIRA AMGULATA								.04
THALASSIOSIRA CONFERTA	.36	.75	.15	.23	.54	1.91	.95	2.16
THALASSIOSIRA PACIFICA	7.81	.19	.06	14.16	.64		3.18	.82
THALASSIOSIRA PSEUDONANA		8.20						
THALASSIONEMA BACILLARIS					.36		.14	.16
THALASSIOTHRIX LONGISSIMA							.05	
TROPIDONEIS LEPIDOPTERA						.05		.01
AMPHORA SPP.					.09		.23	
CYLINDROTHECA FUSIFORMIS						.05	.18	
FRAGILLARIA OCEANICA	13.89	1.56	5.65					
NITZSCHIA (PACILLARIA) SP.	21.97	.08	.04	32.46	48.12	32.01	5.81	3.50
NITZSCHIA GRANII			.03					
NITZSCHIA PROLONGATOIDES								.06
NITZSCHIA SUBFRADULENTA					14.16	4.31		.32
NITZSCHIA CF. SUBPACIFICA						16.53	11.40	1.27
PLEUROSIGMA ACUTUM						.09		.01
PLEUROSIGMA ANGULATUM								.02
NITZSCHIA LINEOLA	.41			.02	8.44	2.45	.54	1.18
KATODINUM ROTUNDATUM			.56	.22		4.13		.47
PROPOCENTRUM BALTIUM			.02					
PROPOCENTRUM GRACILE						.68		
"GONYAULAX" RUGOSUM (GYMNO.)								.18
SCIPPISSIELLA & GLENODINUM SPP.		.15	.01	.27	1.23			
PHOTOSYNTHETIC CILIATES						.27		
SPECIMENELLA SPINIFERA						.68		
CHLOROMONAS SPP.		2.81				16.12	2.36	16.80
OLISTHODISCUS SP.						.77		
CHRYSOCHROMULINA SPP. & IMANTONIA	10.44	2.10	7.00	5.72	114.41	14.16	67.19	6.20
PYRAMINCNAS SPP.						11.08		.64
STEPUSPERMA SPP.						.27		
LYMPHOMONAS SPP.						.23		
THALASSIOSIRAE LINIFATA				.36				

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PHYTOPLANKTON PAGE RESULTS - CPULSE PG-OP STANDARD LIST - STATIONS 39 TO 50 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10***4)

1

STATION I.O.

: 39 40 41 43 45 46 48 50

CENTRIC DIATOMS:

<i>BIODIULPHIA LONGICRUPIS</i>			.04	.27	.09	.02		
<i>CHAETOCEROS COMPRESSUS</i>				24.06	.36			
<i>CHAETOCEROS DEBILIS</i>	.13		.94	136.56	12.71	.10	118.49	1.91
<i>CHAETOCEROS EUDYMUS</i>							1.82	2.81
<i>CHAETOCEROS SOCIALIS</i>			2.96	116.22	27.74	.20	8.26	.27
<i>COSCILOCHECUS SPP.</i>	.02			.09				11.71
<i>CORETHRON HYSTRIX</i>								
<i>DIITYLUM HIGHLIGHTELLUM</i>	.06							
<i>EUCAMPIA ZUGIACUS</i>	.02	.32	2.72	6.45	.91	.60	3.81	.09
<i>LEPTOCYLINDRUS DANICUS</i>	.22	1.89	1.42	2.54	1.45	.08	.36	6.45
<i>RHIZOSOLENIA ALATA</i>					.18			1.27
<i>RHIZOSOLENIA DELICATULA</i>			.00	.14	.91	.02	.54	
<i>RHIZOSOLENIA FRAGILISSIMA</i>	.03				.18	.02	.09	.18
<i>RHIZOSOLENIA STOLTERFOTHII</i>			.45	.34	.45	.03	.18	.45
<i>SKELETONEMA COSTATUM</i>	.06	4.83	5.61	6.63	54.48	.08	1.45	2.18
<i>STEPHANOXYXIS PALMERIANA</i>			.84	8.30	17.52	8.08	1.08	12.53
<i>THALASSIOSIRA DECIPiens</i>								.36
<i>THALASSIOSIRA GRAVIDA/ROTULA</i>	.06			.01	.82	.09		
<i>THALASSIOSIRA NORDENSKIOLDII</i>	.02	.74	2.30	2.00	.82	.11	.23	.54
<i>THALASSIOSIRA SPP.</i>					.18			
<i>RHIZOSOLENIA SETIGERA</i>			.03	.20	.18			
TOTAL CENTRIC DIATOMS	2.01	43.50	84.27	363.11	227.77	7.46	212.02	212.43

PENNATE DIATOMS:

<i>ASTERIUNELLA JAPONICA</i>			.06	.11				
<i>CYLINDROTHECA CLOSTERIUM</i>					1.45			
<i>NITZSCHIA? DELICATISSIMA</i>	.20	.75	1.70	54.93	572.04	.14	4.13	.09
<i>NITZSCHIA? LONGISSIMA</i>	.22	.26	.66	8.72	3.27	.08	.82	3.81
<i>NITZSCHIA? PUNGENS</i>	.02	.17	.36	6.81	.91	.10	4.90	1.45
<i>NITZSCHIA? SEPIATA</i>			.09	5.08	1.73	.24		3.00
<i>THALASSIONEMA NITZSCHOIDES</i>	.18	1.32	2.95	5.81	2.59	.70	7.35	.27
TOTAL PENNATE DIATOMS	4.31	6.80	9.75	96.43	584.84	2.62	43.31	31.87

DINOFLAGELLATES:

<i>CERATIUM</i>			.05	.01	.09	.09		
<i>DINOPHYYSIS</i>			.02	.02				.23
<i>GONYAULAX</i>								

GYRARDINIUM

<i>GYRARDINIUM</i>	.76	1.95	1.86	.27	1.45	2.10	.95	1.09
	.38	1.26	.90	.36	.59	.36	.32	

FLAGELLATES AND OTHERS:

<i>DISTEPHANUS SPECULUM</i>			.06					
<i>CRYPTOMONADS (5-100)</i>	1.48	63.84	31.92	3.77				.45
<i>CRYPTOMONADS (11-200)</i>	1.14	18.20	10.70	2.04				34.96
<i>ENTEROMYXIS SPP.</i>			.03					3.54
TOTAL FLAGELLATE CELLS	3.86	85.41	47.46	7.67	4.04	9.74	14.94	41.99
TOTAL PHYTOPLANKTON CELLS	56.34	376.25	210.88	544.85	817.47	27.02	352.67	380.50

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PHYTOPLANKTON HAUL RESULTS - CRUISE NO-OF VARIANTS LIST - STATIONS 39 TO 50 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION 1-6.	: 39	40	41	43	45	46	48	50
CHAETOCEROS NORFALIS		.06	.16	.54	.54			.73
CHAETOCEROS CINCTUM			2.02	5.72	22.70	.14	.54	1.09
CHAETOCEROS CONSTRICTUM		4.02	43.20	15.98	40.22	1.90	50.67	155.72
CHAETOCEROS CONVOLUTUM		.03	.02	.36	.45	.10	.45	.32
CHAETOCEROS DIAPEMA						.04		4.72
CHAETOCEROS LACINIUSUM		.10	.22	.68				
CHAETOCEROS LORENZIANUM		.02	1.46	2.18	2.54	.40	2.27	3.81
CHAETOCEROS PELAGICUM		.08	28.30	1.70	1.19			
CHAETOCEROS SEPTENTRIONALE		.04	.18	9.10	13.67	49.94	1.65	1.82
CHAETOCEROS SIMPLEX C. CALLITRANS		.11	.36					2.95
LAUDERIA BOREALIS			.36		1.36	.36		.18
RHIZOSOLENIA ALATA F. GRACILLIMA		.09	.05	.18		.04	.18	
RHIZOSOLENIA FRAGILISSIMA V. ?		.03		.15				.23
THALASSIOSIRA CONFERTA		.98	.17	.91	3.18	2.95	.82	7.31
THALASSIOSIRA PACIFICA		.34	.37	.34	2.81	.27	.03	.54
THALASSIONEMA BACILLARIS		.02	.18	.55	.09		.04	.73
TROPHONEIS LEPIOPTERA			.01	.01	.09			1.91
AMPHORA SPP.		.01					.09	
CYLINDROTHECA FUSIFORMIS		.02	.04	.04	.27		.06	.09
CYLINDROTHECA SPP.		.01						1.09
FPAGILLARIA OCEANICA		2.72	.57					2.45
NITZSCHIA (RACILLARIA) SP.		.41	2.50	1.64	6.67	3.18	1.12	20.97
NITZSCHIA SPANII				.13				
NITZSCHIA SUBFRADULENTA		.10	.14	.88	1.00	.45	.08	
NITZSCHIA CF. SUBPACIFICA		.26	.47	.42	3.22		.06	1.00
PLEUROSIGMA ACUTUM			.02					.18
NITZSCHIA LINEOLA		.14	.22	.30	2.27	.68		.68
KATOLINIUM ROTUNDATUM		.04		.72				.45
PROROCENTRUM BALTIMICUM					.73			
PROROCENTRUM GRACILE								.23
SCRIPPSIELLA & GLENOINUM SPP.				1.32	.41		.23	1.50
APEDINELLA SPINIFERA				.08				
DINOBYXON SUECICUM				1.36				.32
MERINGOSPHAERA MEDITERRANEA				.12		.82		
OCHROMonas spp.			104.88				.50	4.90
OLISTHODISCUS LUTEUS				.06				
OLISTHODISCUS SP.		.03		.67				
CHRYSOCHROMULINA spp. & IMANTONIA	75.24	135.66	66.69	77.63			6.70	22.47
PHAECCYSTIS POUCHETII								59.93
PYRAMIMONAS spp.				.28				
PTEROSPERMA spp.				.14				
CYMRIMONAS sp.								
THALASSIOSIRA LINEATA				.36				

PHYTOPLANKTON HAUL RESULTS - CRUISE PG-UR STANDARD LIST - STATIONS 52 TO 63 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION 1-U.

: 52 54A 54B 56 58 60 61 63

CENTRIC DIATOMS:

<i>BACTEPIASTRUM DELICATULA</i>								1.00
<i>EPICULPHIA LONGICUPVIS</i>	.45	.36						
<i>CERATULINA PERGONII</i>			.09					
<i>CHAETOCEROS COMPRESSUS</i>	.29	3.63	8.63	34.96	5.63		17.34	25.42
<i>CHAETOCEROS UFBILIS</i>		23.15	16.80	18.25	8.26	78.82	.82	9.53
<i>CHAETOCEROS DIDYMUS</i>	.82						.32	
<i>CHAETOCEROS SOCIALIS</i>		354.12	187.05	2.54	96.75	215.65	22.97	120.76
<i>COSCINOEDISCUS SPP.</i>			.09				.23	
<i>DACTYLIOGLOSSUS MEDITERANEUS</i>	.01			.09	.05			
<i>DITYLUM BRIGHTWELLII</i>				.09	.05			
<i>EUCAMPIA ZODIACUS</i>	.18	10.44	9.08	3.90	3.09	5.27	1.27	.18
<i>LEPTOCYLINDRUS DANICUS</i>	.06	1.50	.50	2.72	2.72	1.09	1.63	12.08
<i>RHIZOSOLENIA DELICATULA</i>	.04	.18	.54	.54	.32	.54	.23	2.63
<i>RHIZOSOLENIA FRAGILISSIMA</i>	.02	.09			.09		.64	.73
<i>RHIZOSOLENIA STOLTEPOFTHII</i>	.05		.45	.73	.68	.09	.59	.45
<i>SCHPODELLA DELICATULA</i>		1.09					1.27	1.36
<i>SKELETONEMA COSTATUM</i>	.16	14.39	37.68	12.98	10.49	59.02	72.28	111.68
<i>STEPHANPYXIS PALMERIANA</i>	.26	5.27	17.25	1.63	2.27	3.00	4.72	1.45
<i>THALASSIOSIRA AESTIVALIS</i>		.36					.73	
<i>THALASSIOSIRA DECIPiens</i>	.02						.73	3.18
<i>THALASSIOSIRA GRAVIDA/ROTULA</i>			.18	.68	.45	.27		
<i>THALLASSIOSIRA NORDENSKIOLDII</i>		1.36	1.36	21.88	1.04	3.63	11.99	6.99
<i>RHIZOSOLENIA SETIGERA</i>		.32	.18	1.00		.27		
TOTAL CENTRIC DIATOMS	31.15	876.86	280.16	217.97	174.74	436.57	197.26	432.03

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PFNNATE DIATOMS:

<i>ASTERIONELLA JAPONICA</i>								
<i>NITZSCHIA? DELICATISSIMA</i>			.09	.09				
<i>NITZSCHIA? LONGISSIMA</i>	1.70	20.20	17.34	3.45	5.08	.95	8.49	1.82
<i>NITZSCHIA? PUNGENS</i>	.24	3.90	3.41	.41	.41	2.09	.91	7.63
<i>NITZSCHIA? SEPIATA</i>	.02	11.21	3.95	.45	.27	.45	.82	3.81
<i>THALASSIONEMA NITZSCHOIDES</i>	.11	8.17	3.27	7.22	1.82	6.40	4.00	2.54
TOTAL PFNNATE DIATOMS	1.11	11.89	6.72	2.27	4.86	5.81	1.36	3.63
LINOFAGELLATES:	.66	104.42	53.78	20.25	20.20	41.90	27.29	61.06

CERATIUM:

<i>UINGPHYYSIS</i>								
<i>GONYAULAX</i>			.23					
<i>LYMNOCLINUM</i>			.05					
<i>HYROQUINUM</i>	1.22	7.17	3.63	1.23		.14		
<i>HYRCYSTIS</i>	.40	.82	1.73	.54	.82	.23	.23	.68
					.77			.45

FLAGELLATES AND OTHERS:

<i>LISTERPHANIS SPECULUM</i>								
<i>CRYPTOMONADS (5-10U)</i>	42.72	39.95	7.99	.68	.18			.09
<i>CRYPTOMONADS (11-20U)</i>	.15	3.61	9.90	1.23	.68		2.54	37.23
TOTAL FLAGELLATE CELLS	50.86	55.25	24.02	4.60	2.86	.23	.77	1.91
TOTAL PHYTOPLANKTON CELLS	250.25	1124.56	357.96	252.92	254.56	520.61	258.28	538.94

PHYTOPLANKTON HABIT RESULTS - CRUISE 82-83 VARIANTS LIST - STATIONS 52 TO 63 PAGE 1
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

STATION NO.	52	54A	54B	56	58	60	61	63
CYCLOTELLA CASHIA							.09	
CHAETOCEROS AREALE		.54		.18	1.27	1.54		.91
CHAETOCEROS CINCTUM	.13	14.80		2.13		25.97	11.80	67.65
CHAETOCEROS CONSTRICTUM	2.90	201.47		27.47	32.87	32.91	17.80	15.57
CHAETOCEROS CONVOLUTUM	.62	.56		.09	.14	.36		
CHAETOCEROS DIACEMA		20.34		.91		.27	1.63	
CHAETOCEROS LORENZIANUM	.24	7.72		.54	.45	2.27	2.27	1.63
CHAETOCEROS PELAGICUM	12.20	18.43		53.21	.59		1.45	1.63
CHAETOCEROS PSEUDOCRINITUM							1.36	
CHAETOCEROS SEPTENTRIONALE	.16	61.29		3.54	2.22	3.81	6.90	6.36
CHAETOCEROS SIMILE				8.94	1.14	3.72	1.36	4.18
CHAETOCEROS SIMPLEX C. CALCIPANS		15.62		.27				
LAUDEPIA SUEALIS	.02	1.18		3.81	.91	2.63	1.91	3.27
LEPTOCYLINDRICUS MINIMUS		2.09						
RHIZOSOLENIA ALATA F. ALATA	.03	.05			.05			
RHIZOSOLENIA ALATA F. GPACILLIMA	.02	.27		.23	.36		.27	.36
RHIZOSOLENIA FRAGILISSIMA V. ?		5.36					2.27	.09
THALASSIOSIRA ANGULATA						.27		
THALASSIOSIRA CONFERTA	13.75	18.16		5.18	1.59		4.27	13.98
THALASSIOSIRA MINUSCULA		.91						
THALASSIOSIRA PACIFICA	.56	1.09		9.35	1.27	.82	3.54	6.36
THALASSIONEMA BACILLARIS	.02				.14			.36
TPOPIDONEIS LEPIDOPTERA		.09	19.00				.09	
CYLINDROCTHECA FUSIFORMIS								
Fragillaria oceanica	.85					.64		
NITZSCHIA (FACILLARIA) SP.	5.20	41.31		4.90	3.72	12.71	9.81	13.39
NITZSCHIA GPANII						.09		
NITZSCHIA PSEUDOCELLATISSIMA							.36	.82
NITZSCHIA CF. SUBPACIFICA					.77	2.91	5.49	
PLEUROSIGMA ACUTUM						.09		
NITZSCHIA LINEOLA	.35	7.63		.68	.91	7.08	1.54	6.17
KATADINUM ROTUNDATUM	.26							
PROPOCENTRUM BALTIKUM	.11							
PROPOCENTRUM GRACILE							.23	
GYMNODINIUM NELSONII						.05		.09
HETEROCAPSA TRICONDALA							.14	
SCRIPPSIELLA & GLENOLINIUM spp.	3.45			.32	.14		.32	
PHOTOSYNTHETIC CILIATES					.54			
APEDINELLA SPINIFERA		.68						
UNIDENTIFIED SUECICUM							.64	
OCHPGMONAS spp.	15.40	9.17						
CHRYSOCHROMULINA spp. & IMANTONIA	173.28	46.31		10.71	56.75		29.06	4.72
CORYMELLUS AUREUS						41.31		
PHAEOPHYTIS POUCHETTII		29.74						
PYRAMIMONAS spp.		2.13						
LYNOMONAS sp.							.36	
THALASSIOSIRA LINEATA						.23		
RHIZOSOLENIA PERGONII		.03						

PHYTOPLANKTON HAUL RESULTS - CRUISE #6-OP STANDARD LIST - STATIONS 65 TO 73 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION I.D.

: 65 66 67 68 69 70 71 73

CENTRIC DIATOMS:

BIDULPHIA LONGICRUPIS	.04			.02				.01
CFRATULINA REPONII			.09					.06
CHAETOCEROS COMPRESSUS			85.67	15.80	3.81	2.41		
CHAETOCEROS DEBILIS	51.02	.15	786.33	16.10	80.54	7.85		2.46
CHAETOCEROS DILYMUS	.74		2.18	1.10	.54			
CHAETOCEROS ? RADICANS			62.92		3.18	.45		
CHAETOCEROS SCOTTALIS	118.20		50.85	31.60	1.14	.18		1.25
COSCINCISCUS SPP.	.01				.09	.05		.01
CORYTHRON HYSTRIX			.32		.36	.36		
DACTYLICOLENS MEDITERRANEUS	.05			.10				.14
DITYLUM BRIGHTWELLII	.02			1.09	.07	.91	.05	.02
EUCAMPIA ZODIACUS	3.66	9.60	.73	1.32	.45		.50	.64
LEPTOCYCLINDRUS PANICUS	.11	1.42	.05	.20			.11	.62
RHIZOSOLENIA DELICATULA	.08	.17						
RHIZOSOLENIA FRAGILISSIMA			.09	.12	.14			.14
RHIZOSOLENIA STOLTERFOTHII	.10				.18	.14		.38
SCHRODERELLA DELICATULA	.86	.02	.73				.05	.22
SKELTONEMA COSTATUM	7.20	.45	148.46	10.50	79.09		1.21	.52
STEPHANOXYXIS PALMIFIANA	5.82	.20	.45	.57	.09		.80	.65
THALASSIOSIRA AESTIVALIS	1.02		.50	.20				
THALASSIOSIRA DECIPiens	.09						.18	
THALASSIOSIRA GRAVICIA/ROTULA	.36		11.53	.58	5.99	.18	.03	.09
THALLASSIOSIRA NORDENSKIOLDII	3.36		8.04	.76	.91	.23		.06
THALASSIOSIRA POLYCHORCA								
THALASSIOSIRA SPP.	.30		.77	.16	.41	.18	.09	
RHIZOSOLENIA SETIGERA								
TOTAL CENTRIC DIATOMS	212.75	23.96	1297.17	108.29	198.44	20.61	6.13	11.47

PENNATE DIATOMS:

ASTERIONELLA JAPONICA								
CYLINDROTHECA CLOSTERIUM			15.25	.15	2.91	.59		
NITZSCHIA? DELICATISSIMA			1.36	.62	.77			
NITZSCHIA? LONGISSIMA	6.40	.82	47.22	.90	2.86	.54	.22	.15
NITZSCHIA? PUNGENS	1.50	.38	1.27	1.08	.73	.14	.36	.30
NITZSCHIA? SEPIATA	3.20	.20	.73	.22	.18		.21	.70
THALASSTONEMA NITZSCHOIDES	2.56		15.98		.59	.86	.23	.88
TOTAL PENNATE DIATOMS	5.52	2.20	4.54	1.00	2.72	.45	1.56	4.68
DINOFLAGELLATES:	37.32	11.17	137.20	13.84	20.16	7.54	7.07	11.17

CRATIUM:

CRATIUM	.03							
DINOPHYYSIS	.03							

GYMNODINIUM:

GYMNODINIUM	1.28	1.20	.68	.78	.18	.91	1.40	3.54
FLAGELLATES AND OTHERS:	.59	.30	.36	.15	.18	.23	.45	1.62

DISTEPHANUS SPECULUM:

DISTEPHANUS SPECULUM								
CRYPTOMONADS (5-10μ)	1.72	10.60	27.10	6.05	3.00	12.08	6.55	20.50

CRYPTOMONADS (11-20μ)

CRYPTOMONADS (11-20μ)	.76	.80	1.78	2.48	15.07	8.72	2.50	5.00
TOTAL FLAGELLATE CELLS	4.57	12.91	30.01	9.46	19.02	22.16	12.21	31.49

TOTAL PHYTOPLANKTON CELLS

TOTAL PHYTOPLANKTON CELLS	317.46	99.54	148.67	139.70	408.33	140.97	109.14	208.15
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PHYTOPLANKTON HABIT RESULTS - CRUISE FL-URS VARIANTS LIST - STATIONS 65 TO 73 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION I.D.	: 65	66	67	68	69	70	71	73
ACTINOPTYCHUS ENDULATUS	.03							
CHAETOCEROS EPEVE								
CHAETOCEROS CINCTUM		.30	28.51	15.80	.68	2.91		
CHAETOCEROS CONSTRICTUM	11.62	4.02	34.55	7.70	.73	.45	.92	1.87
CHAETOCEROS CONVOLUTUM	.09	.03	1.09	.07	1.27	.05		.06
CHAETOCEROS DIADEMA		.22		2.56		.32		
CHAETOCEROS LACINIUM	1.20		35.37		2.63	.18		
CHAETOCEROS LORENZIANUM	1.04	.10			.68	.00		
CHAETOCEROS PFLAGICUM	.36	.22	9.53	.72				
CHAETOCEROS PSEUDOCRINITUM								
CHAETOCEROS SPENTRIONALE	11.20			2.81		.18		.03
CHAETOCEROS SIMILE				5.27		2.54	.05	
CHAETOCEROS SIMPLEX C. CALCITRANS	.84	.26		1.09		.54	.50	
CHAETOCEROS SUETILE								
LAUDEPIA FOREALIS	1.14	.02	.09			.18		.11
RHIZOSOLENIA ALATA F. SPACILLIMA	.12							.02
RHIZOSOLENIA FRAGILISSIMA V. ?	.85				.32		1.22	.84
THALASSIOSIRA ANGULATA								
THALASSIOSIRA CONFERTA	8.45	6.75	3.09	1.62	1.91	1.18	.71	.84
THALASSIOSIRA ECCENTRICA								
THALASSIOSIRA PACIFICA	.06			16.98	.24	8.67	1.77	
THALASSIONEMA BACTILLARIS	.13	.21					.05	.41
THALASSIOTHRIX FRAUENFELDII		.01					.45	.78
TOPIDONEIS LEPIDOPTERA								.03
AMPHORA SPP.	.06							.06
CYLINDROTHECA FUSIFORMIS	.05	.04			.02		.05	
FRAGILLARIA OCEANICA			3.60			1.63	3.50	3.74
NITZSCHIA (BACILLARIA) SPP.	16.30	3.45	44.95	7.65	7.63	1.36	.12	1.80
NITZSCHIA GRANII								
NITZSCHIA PSEUDODELICATISSIMA			.11			.32		
NITZSCHIA CF. SUBPACIFICA								
PLEUROSIGMA ACUTUM				.09				
NITZSCHIA LINEOLA	1.60	.15	5.81	1.78	.14		.05	.21
KATOINUM POTUNDATUM					.23	.23		.36
PPOPOCENTRUM BALICUM								.04
PPOPOCENTRUM GRACILE								.30
"EONYAULAX" RUGOSUM (GYMNO.)								.04
GYMNODIUM NELSONII								.01
SCRIPPSIELLA & GLENQUINUM SPP.	.14		.50		.36		.88	.32
PHOTOSYNTHETIC CILIATES	.08							.07
APEDINELLA SPINIFERA	.12	.40						
DINOERYON SUECICUM		.15						
OCHROMonas spp.			4.00		.76		4.63	6.20
CHRYSOCHROMULINA spp. & IMANTONIA	62.70	38.19	19.30	7.35	170.34	84.44	74.10	153.90
CORYMELLUS AUREUS			1.66					
PHAEOCYSTIS POUCHETII			7.10					
PYRANIMONAS spp.							.36	.13
CYPRIMONAS spp.							.23	.34
THALASSIOSIRA LTERATA					.36			
RHIZOSOLENIA REFGONII								
		.04						

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PHYTOPLANKTON PAUL RESULTS - CRUISE 80-81 STANDARD LIST - STATIONS 74 TO 81. PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)
 STATION I.D. : 74 75 76 77 78 79 80 81

1

CENTRIC DIATOMS:

CERATLLINA EEPGONII								
CHAETOCEROS COMPRESSUS	123.53	141.65	.77	58.79	9.40	1.72	.17	.40
CHAETOCEROS DEBILIS	183.87	202.48	11.55	94.70	11.80	5.66	10.70	1.90
CHAETOCEROS DEFICIENS								
CHAETOCEROS LIUYMUS	.82	9.94		1.32		.24		.06
CHAETOCEROS ? RADICANS	17.62	29.51	.52	27.88	3.76	.74	1.90	.07
CHAETOCEROS SOCIALIS	3.68	98.97		9.72				.36
COSCINODISCUS spp.								
CORETHRION HYSTRIX	.18	.82	.07	.64	.44	.18	.05	.03
DITYLUM BRIGHTWELLII	.68	2.09	.04	1.36	.10	.07	.14	
EUCAMPIA ZODIACUS	.45	2.27		2.27	.05	.03		
LEPTOCYLINDRUS DANICUS	.36	1.45		1.00		.04		.08
RHIZOSOLENIA DELICATULA				.09				.07
RHIZOSOLENIA FRAGILISSIMA	.14	.54	.06	.36	.03			
RHIZOSOLENIA STOLTERFOTHII	.09	.73	.04	1.63	.06	.08	.07	.02
SCHRODEPELLA DELICATULA								
SKELETONEMA COSTATUM	5.08	237.90	3.51	21.34	3.20	1.36	.22	1.86
STEPHANOXYXIS PALMERIANA	.36	.27						.05
THALASSIOSIRA AESTIVALIS								.33
THALASSIOSIRA DECIPIENS								
THALASSIOSIRA GRAVIDA/ROTULA	8.35	24.29		1.59		.05		
THALASSIOSIRA NORDENSKIOLDII	6.36	6.54	.17	2.63	.58	.35		.89
THALASSIOSIRA spp.								.38
RHIZOSOLENIA SETIGERA	.14			.09				.06
TOTAL CENTRIC DIATOMS	420.95	1264.19	461.11	274.26	52.09	40.80	322.83	9.66

PENNATE DIATOMS:

ASTERIONELLA JAPONICA	11.62	82.63	.22	6.54	1.58	.46	.08	.22
CYLINDROTHeca CLUSTERIUM		3.00	.92	.59		.20	.11	.57
NITZSCHIA? DELICATISSIMA	6.54	23.84	1.31	4.40	.82	.17	1.27	.42
NITZSCHIA? LONGISSIMA	2.54	2.09	.26	3.22	.40	.18	.18	.06
NITZSCHIA? PUNGENS	.36	1.73		.36	.07			
NITZSCHIA? SERIATA	5.45		.12	2.45	.61	.44		.04
THALASSIONEMA NITZSCHOIDES	2.95	18.84	1.27	3.81	.83	.68	.75	.02
TOTAL PENNATE DIATOMS	95.16	258.10	8.99	83.90	45.19	25.07	7.96	2.28

DINOFLAGELLATES:

GONYAULAX								
GYMNODINIUM	.91	5.08	1.72	1.73	.36	.60		
LYRINUIM								
FLAELLATES AND OTHERS:								
DISTEPHANUS SPECULUM	.14		.06		.01	.02	.11	
CRYPTOMONADS (5-150)	2.54		81.51	5.36	50.73	49.56	48.72	22.80
CRYPTOMONADS (11-200)	1.73		25.40	1.91	.20	23.30	9.20	2.96
EUTREPTIELLA spp.								
TOTAL FLAELLATE CELLS	5.54	6.27	111.27	10.17	61.86	75.40	58.30	26.20
TOTAL PHYTOPLANKTON CELLS	549.11	1528.56	1168.49	518.69	242.36	356.06	460.64	213.80

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PHYTOPLANKTON HAUL RESULTS - CRUISE FIFTH VARIANTS LIST - STATIONS 74 TO 81 PAGE
 (VALUES ARE NUMBER OF ORGANISMS/LITER - DIVIDED BY 10**4)

1

STATION 1 & L.

	74	75	76	77	78	79	80	81
CHAETOCEROS BOREALE				.64				
CHAETOCEROS BREVE		9.99						
CHAETOCEROS CINCTUM	38.50	121.22	.09	15.98	4.04	4.80		
CHAETOCEROS CONSTRICTUM	14.30	90.80		18.80	.67		.37	
CHAETOCEROS CONVOLUTUM	.36	2.54		.18	.44	.40	.10	.16
CHAETOCEROS DIADEMA	3.54	70.82		1.04	.35			
CHAETOCEROS LACINIOSUM		80.81		1.04	4.70			.27
CHAETOCEROS LORENZIANUM	1.63	20.43		1.59	.94	.06		.32
CHAETOCEROS PSEUDOCRINITUM		60.38						.15
CHAETOCEROS SEPTENTRIONALE	5.36	11.44		1.91	1.82			
CHAETOCEROS SIMILE	3.31	11.26	.25	2.09		.24	.40	
CHAETOCEROS SIMPLEX U. CALCITRANS					.62			
CHAETOCEROS SUBTILIS				.22		.27		.18
LAUDEFIA RUPEALIS	.27				.18	.06		
RHIZOSOLENIA FRAGILISSIMA V. ?	.18	2.36			.36	4.20	.02	
THALASSIOSIRA ANGULATA			.02					
THALASSIOSIRA CONFERTA	.68	10.90	2.08	1.14	3.28	.88	1.53	.09
THALASSIOSIRA ECCENTRICA		.45						.08
THALASSIOSIRA LEPTOPUS							.08	
THALASSIOSIRA PACIFICA	.82	1.16	1.66	3.72	.40	1.55	.15	1.90
THALASSIOSIRA PROFUNDA			143.64				305.52	
THALASSIOSIRA PSEUDONANA			296.40			22.12		
THALASSIONEMA BACILLAPIS		.41		.09	.04			.08
TROPIDONEIS LEPIOPTERA	.05							.01
CYLINDROTHECA FUSIFORMIS		.27	.02	.09	.03			.02
FRAGILLARIA OCEANICA					40.60	21.84	1.15	
NITZSCHIA (RACILLARIA) SP.	65.38	102.97	4.84	61.74		1.00	3.96	.84
NITZSCHIA SUBFRAGILENTA		14.89						
NITZSCHIA CF. SUBPACIFICA		5.99		.27	.10	.05	.07	
PLEUROSIGMA ACUTUM		.23			.02		.01	
NITZSCHIA BICAPITATA							.38	
NITZSCHIA LINEOLA	.27	1.23	.03	.32	.09	.05		
KATOINUM ROTUNDATUM			1.54		1.32	1.25	.10	.28
PROPOCENTRUM BALTIKUM			.10				.04	
PROPOCENTRUM GRACILE			.03			.02		
SCRIPPSIELLA & GLENODINIUM SPP.	.23		.15	.36	.06	.16	.13	.16
PHOTOSYNTHETIC CILIATES				.45	.16	.05	.07	
APEDINELLA SPINIFERA	.91		2.30			.16	.12	
OCHROMonas spp.			21.00	30.87		6.35		
GLISTHODISCUS SP.						.20		
CHRYSOCHROMULINA spp. & IMANTONIA	26.56		487.92	119.49	83.22	207.48	70.68	175.56
PYRAMIMONAS spp.			15.90			.60	.75	.10
CYMBROMONAS SP.						.23		.34
THALASSIOSIRA LINEATA		.18		.36				
THALASSIOSIRA ELSAYEELI ?							1.16	