

NOAA Data Report ERL PMEL-58

**VENTS 1994 CLEFT AND COAXIAL SEGMENT PLUME MONITORING:
PHYSICAL AND CHEMICAL DATA, NOAA SHIPS *DISCOVERER* AND *SURVEYOR*
AND R/V *ATLANTIS II*, APRIL TO SEPTEMBER 1994**

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February 1996



UNITED STATES
DEPARTMENT OF COMMERCE

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Contribution No. 1659 from NOAA/Pacific Marine Environmental Laboratory

For sale by the National Technical Information Service, 5285 Port Royal Road
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CONTENTS

	PAGE
ABSTRACT	1
1. INTRODUCTION	1
2. SAMPLING METHODS	3
2.1 Sample and Data Collection	3
2.2 Sample Analysis	4
3. STATION DATA	5
3.1 Station Locations for VENTS 1994	5
3.2 Individual Station Data	5
4. ACKNOWLEDGMENTS	6
APPENDIX: Station Data Tables, VENTS 1994	17

FIGURE

1. Location map for the 1994 field season	2
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TABLES

VENTS 1994 (April–September 1994) station locations	7
VENTS 1994 (April–September 1994) tow-yo bottle trip locations	9

VENTS 1994 Cleft and Coaxial Segment Plume Monitoring: Physical and Chemical Data, NOAA Ships *Discoverer* and *Surveyor*, and R/V *Atlantis II*, April to September 1994

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Abstract. This report summarizes salinity, temperature, nutrient, optical, and total suspended matter data collected during the NOAA VENTS cruises in April to September of 1994. The data were collected over the Juan de Fuca Ridge covering an area from 44°00'N to 48°00'N and 126°30'W to 130°50'W. Additional data were collected on a transect from 45°00'N/129°45'W to 32°30'N/155°00'W and south to 20°24'N/155°00'W.

1. INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) VENTS Program was established in 1984 to study the oceanic effects of hydrothermal activity along seafloor spreading centers. VENTS Program scientists from the Pacific Marine Environmental Laboratory (PMEL) have conducted intensive oceanographic research on the Cleft and Coaxial Segment of the Juan de Fuca Ridge spreading center located in the northeast Pacific Ocean basin.

The Juan de Fuca Ridge is a medium rate spreading center, consisting of the Cleft, Vance, Axial, Coaxial, Cobb, Endeavour, and West Valley segments. The ridge is bounded on the south by the Blanco Fracture Zone and on the north by the Sovanco Fracture Zone.

As part of the continuing VENTS Program research effort, chemical and physical oceanography cruises were conducted in April, July, August, and September 1994 aboard the NOAA Ships *Discoverer* and *Surveyor* with scientists from NOAA and the University of Hawaii. An additional cruise was conducted in June 1994 aboard the Woods Hole Oceanographic Institution's R/V *Atlantis II* with scientists from NOAA and the University of Washington. These cruises concentrated on physical oceanography and geochemical studies of the neutrally buoyant hydrothermal plumes over the Cleft and Coaxial Segments (Fig. 1) in order to quantitatively assess the impact of hydrothermal emissions of seawater chemistry of the northeast Pacific Ocean. This report includes the complete set of hydrographic, nutrient, optical, and total suspended matter data collected on the cruise (Appendix A) and a description of the sampling and analytical methods employed.

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NE Pacific Spreading Centers

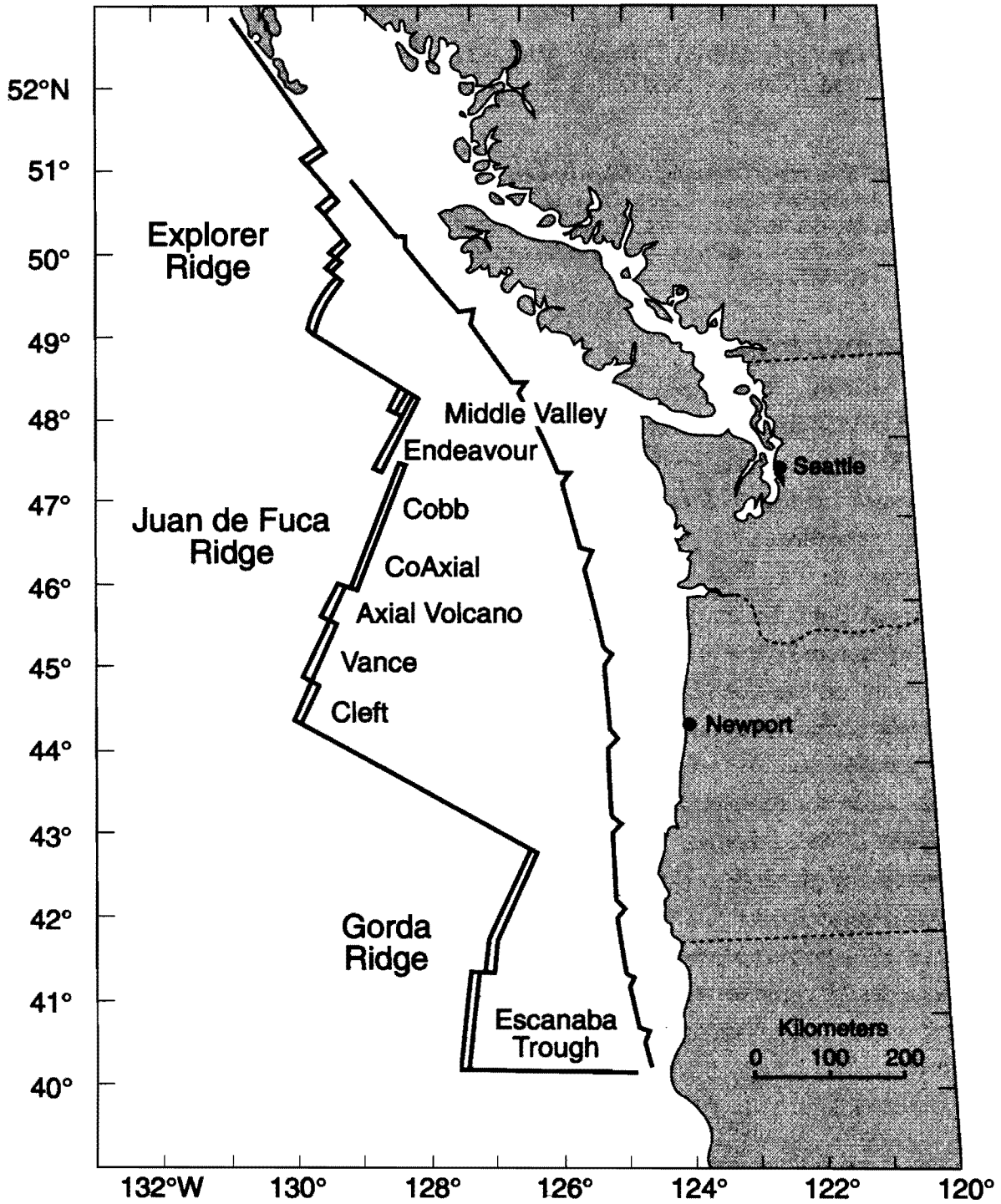


Fig. 1. Location map for the 1994 field season.

2. SAMPLING METHODS

2.1 Sample and Data Collection

2.1.1 Seawater Samples

Seawater samples were collected in standard 30-liter Niskin™ bottles fixed to a 24-position General Oceanics™ sampling rosette. The Niskin™ bottles were internally coated with Teflon and modified with Teflon stopcocks. The sampling rosette was equipped with a CTD-transmissometer, altimeter, and pinger locator; it was lowered into the water using standard hydrographic cable. The bottles were electronically tripped at pre-determined depths via a signal from the shipboard deck unit and closed by use of silastic tubing. Upon retrieval the Niskin™ bottles were removed from the rosette and placed in a non-contaminating pressure filtration rack for sub-sampling (Feely *et al.*, 1991).

Salinity samples were collected from the Niskin™ bottle in 250 ml citrate bottles.

Nutrient samples were collected from the Niskin™ bottle in HDPE 60 ml bottles prepared by washing with 10% HCL and rinsed with deionized water. Unfiltered nutrient samples were taken directly from the Niskin™ bottle. Filtered nutrient samples were taken downline of the 0.4 µm pore size Nuclepore polycarbonate filter during the total suspended matter pressure filtration of the seawater. All nutrients were analyzed at sea within 12 hours after collection.

Total suspended matter samples were collected in 30 L Niskin™ bottles and pressure filtered (12 psi) through 37 mm diameter, 0.4 µm pore size Nuclepore polycarbonate filters. As described in detail in Feely *et al.* (1991), an air filter was placed in the tygon line connecting the nitrogen gas and the Niskin™ bottle to prevent contamination of the seawater sample from particulates in the gas. To ensure that all particulates were filtered out of the seawater, the filtration racks were designed to tilt the Niskin™ bottle at a 45-degree angle and during filtration the bottle was gently agitated to keep particles in suspension. The seawater filtrate was directed into pre-calibrated 20-L plastic jerricans and volumes were measured to the nearest 100 mL. Depending upon the sample's proximity to the ridge crest, it took from 2 to 8 hours to filter 20 L of seawater, or to obtain a total of 400 µg of loading on the filter. All filters were loaded and unloaded from the teflon savillex holders inside a laminar flow hood. After filtration the particulate samples were rinsed with pH 8.0 deionized water and dried in a dessicator under vacuum.

2.1.2 Conductivity-Temperature-Depth-Transmissometer Data

CTD-transmissometer data was collected using a Sea-Bird conductivity-temperature-depth (CTD) sensor and a Sea Tech 0.25 m path length beam transmissometer secured to the frame of a General Oceanics™ sampling rosette. CTD information at the sampling depths were recorded shipboard on a MicroVax data acquisition system at trip time by taking a 10-second average of the continuously collected 1-second average data.

2.2 Sample Analysis

2.2.1 Bottle Salinity

Bottle salinity analysis was conducted by NOAA Ship *Discoverer* personnel on a shipboard Guildline Autosol™. Samples were stabilized to room temperature, 18°C, before analysis. Final salinity was determined by averaging three measurements from each citrate bottle. Bottle salinities from the R/V *Atlantis II* and NOAA Ship *Surveyor* were determined by the Northwest Calibration Center using a calibrated Guildline Autosal 8400 laboratory salinometer using the NRCC standard procedure.

2.2.2 Nutrients

Silicic acid and phosphate analysis were conducted by Kathy Kroglund of the University of Washington, employing a Technicon Autoanalyzer and the techniques described by Whitlege (1981). In the analysis of silicic acid, the average precision of the replicate analyses was ± 0.5 $\mu\text{mol/l}$. Alpha Inorganics™ reagent grade Na_2SiF_6 was the standard used for this analysis. The phosphate analysis had an average precision of replicate analyses of ± 20.0 nmol/l . Fisher™ certified primary standard KH_2PO_4 was used for standardization.

On leg 3B, silicic acid and phosphate analysis were conducted by Calvin Mordy using an Alpkem RFA-300 analyzer modified with Spectra-100 detectors from ThermoSeparations Products, and using protocols from Gordon *et al.* (1993). At each station five replicates were analyzed with an average precision of 2 nmol/l (0.07%) for phosphate and 0.1 $\mu\text{mol/l}$ (0.06%) silicic acid. Standard material for silicic acid analysis was the same lot of Alpha Inorganics reagent grade Na_2SiF_6 used on previous legs, and was found to be within 0.05% of standards cross-referenced against an ultra-pure SiO_2 standard. Standard material for phosphate was the same lot of Fisher™ certified primary standard KH_2PO_4 used on previous legs.

2.2.4 Total Suspended Matter

Total suspended matter filters were weighed after desiccation on a Cahn 26™ Automatic Electrobalance which has an accuracy of $\pm 0.005\%$ of the true sample mass. Corrections for changes in filter weight were determined by reweighing reference filters, resulting in a net weight of particulate suspended matter. Given the net weight and volume of water filtered, total suspended matter concentrations were determined.

2.2.5 Conductivity-Temperature-Depth-Transmissometer Data

Measured conductivity was converted to salinity using standard UNESCO algorithms (Fofonoff and Millard, 1983). The conductivity data was corrected by direct comparison of bottle salinity and CTD salinity values. An average offset was determined for each cast.

Potential temperature was calculated using standard UNESCO algorithms (Fofonoff and Millard, 1983) and the CTD measured values of in situ temperature and salinity.

In situ density was calculated using standard UNESCO algorithms (Fofonoff and Millard, 1983) and the CTD measured values of in situ temperature and salinity.

Potential density was determined using standard UNESCO algorithms (Fofonoff and Millard, 1983) and the CTD measured salinity values.

Attenuation was measured and final values calculated as described in detail in Bartz *et al.* (1978).

The attenuation anomaly was calculated by determining the background value associated with each cast and subtracting that value from each discrete value.

The temperature anomaly ($\Delta\theta$) of each cast was calculated relative to the ambient water of the same potential density using the method of Lupton *et al.* (1985) with the equation

$$\Delta\theta = \theta - m * \sigma_{\theta} - b$$

where θ and σ_{θ} are the potential temperature and potential density, respectively, of the linear equation of the θ versus σ_{θ} trend for water immediately above the hydrothermal plume where the hydrographic effect of the hydrothermal emissions is negligible. The equation used for calculating the temperature anomaly for each individual cast is listed in the bottom left-hand portion of each station table.

3. STATION DATA

3.1 Station Locations for VENTS 1994

The data represented in Appendix A were collected from April 19 to September 30, 1994 over the Juan de Fuca Ridge covering an area from 44°00'N to 48°00'N and 126°30'W to 130°50'W. Additional data were collected on a transect from 45°00'N/129°45' to 32°30'/155°00' and south to 20°24'/155°00'. GPS was used for shipboard navigation and a listing of each station's latitude, longitude, and date of occupation is given in Table 1.

Vertical CTD profiles were taken at the majority of stations. Additionally, given the dynamic nature of hydrothermal plumes, a limited number of lengthy, horizontal tows, called "to-yos," were also conducted. To-yos were conducted by regularly cycling the CTD rosette package between the top and bottom layers of the hydrothermal plume. The ship's towing speed varied from 2–3 km/hr. Niskin™ bottle trip positions for each tow are given in Table 3.

3.2 Individual Station Data

The header on the data tables in Appendix A contains the station identification and consecutive cast number, the date the station was occupied, and the latitude and longitude of the station. The data is listed in rows by Niskin™ bottle number and in 21 columns as follows:

Column 1: Niskin™ bottle number

Column 2: Depth in meters

Column 3: Depth in decibars
Column 4: In situ temperature (°C)
Column 5: Potential temperature (°C)
Column 6: Temperature anomaly (°C)
Column 7: Salinity-CTD (PSU)
Column 8: Salinity-Bottle (PSU)
Column 9: Attenuation (1/m)
Column 10: In situ density (CTD salinity)
Column 11: In situ density (Bottle salinity)
Column 12: Potential density (CTD salinity)
Column 13: Potential density (Bottle salinity)
Column 14: Unfiltered PO₄
Column 15: Filtered PO₄
Column 16: Unfiltered SiO₄
Column 17: Filtered SiO₄
Column 18: Total suspended matter

The lower left portion of each table displays the equation used to calculate the station's temperature anomaly.

4. ACKNOWLEDGMENTS

The research was supported by the National Oceanic and Atmospheric Administration's VENTS Program. We gratefully acknowledge the assistance and professionalism of the officers and crew of the NOAA Ships *Discoverer* and *Surveyor*, and *R/V Atlantis II* in the collection of this data.

VENTS 1994
(APRIL-SEPTEMBER 1994)
STATION LOCATIONS

STATION	DATE	LATITUDE	LONGITUDE
V94A01C01	19 Apr 1994	46°17.64'	129°41.67'
V94A02C02	19 Apr 1994	46°09.54'	129°48.07'
V94A04C08	22 Apr 1994	44°55.40'	130°07.20'
V94A05C09	22 Apr 1994	44°56.02'	130°09.93'
V94A06C10	22 Apr 1994	44°56.46'	130°10.72'
V94A11C17	23 Apr 1994	44°57.90'	130°18.10'
V94A13C19	23 Apr 1994	44°57.20'	130°15.00'
V94A14C20	23 Apr 1994	44°56.60'	130°12.90'
V94A15C21	24 Apr 1994	44°56.60'	130°11.30'
V94A16C22	24 Apr 1994	44°55.63'	130°09.43'
V94A17C23	24 Apr 1994	44°55.44'	130°08.00'
V94A18C24	24 Apr 1994	44°54.40'	130°05.20'
V94B01C01	20 Jun 1994	45°01.83'	130°13.31'
V94B02C02	21 Jun 1994	44°59.33'	130°12.23'
V94B02RC03	21 Jun 1994	44°59.27'	130°12.21'
V94B03C04	21 Jun 1994	44°54.00'	130°14.58'
V94B04C05	22 Jun 1994	44°57.83'	130°13.02'
V94B05C09	24 Jun 1994	44°38.58'	130°22.76'
V94B06C10	27 Jun 1994	44°40.65'	130°21.45'
V94B07C12	28 Jun 1994	44°37.21'	130°23.04'
V94B08C13	30 Jun 1994	46°31.31'	129°34.67'
V94B09C17	03 Jul 1994	46°08.82'	129°48.40'
V94B09RC18	05 Jul 1994	46°09.17'	129°48.61'
V94B10C20	07 Jul 1994	46°18.45'	129°42.50'
V94C01C01	29 Jul 1994	44°57.90'	130°12.70'
V94C02C13	06 Aug 1994	47°42.49'	127°47.20'
V94C03C15	06 Aug 1994	47°42.69'	127°46.90'
V94C04C14	06 Aug 1994	47°42.74'	127°47.18'
V94C08C16	07 Aug 1994	47°42.60'	127°47.00'
V94C05C21	07 Aug 1994	47°42.90'	127°47.58'
V94C06C20	07 Aug 1994	47°42.77'	127°47.41'
V94C10C25	08 Aug 1994	47°43.48'	127°48.46'
V94C12C28	09 Aug 1994	47°55.01'	127°00.00'
V94E01C01	14 Sep 1994	44°59.93'	129°30.00'
V94E02C05	16 Sep 1994	44°55.32'	130°07.82'
V94E03C06	16 Sep 1994	44°55.81'	130°09.71'
V94E04C07	16 Sep 1994	44°56.19'	130°11.31'
V94E05C08	16 Sep 1994	44°56.68'	130°13.23'
V94E06C09	17 Sep 1994	44°58.39'	130°12.70'
V94E07C10	17 Sep 1994	44°57.07'	130°14.87'
V94E08C11	17 Sep 1994	44°57.53'	130°16.76'
V94E09C12	17 Sep 1994	44°57.97'	130°18.29'
V94E10C13	17 Sep 1994	45°00.08'	130°44.92'
V94E11C14	17 Sep 1994	45°56.50'	129°58.70'
V94E12C15	18 Sep 1994	46°26.74'	128°30.07'
V94E13C16	19 Sep 1994	46°23.51'	127°29.99'
V94E14C17	19 Sep 1994	46°20.25'	126°29.68'

STATION	DATE	LATITUDE	LONGITUDE
V94F01C01	20 Sep 1994	45°00.22'	129°45.09'
V94F02C02	20 Sep 1994	44°58.20'	130°12.76'
V94F03C03	21 Sep 1994	44°56.13'	130°40.30'
V94F04C04	21 Sep 1994	44°53.03'	131°07.97'
V94F05C05	21 Sep 1994	44°50.02'	131°34.96'
V94F06C06	21 Sep 1994	44°42.89'	132°43.17'
V94F07C07	21 Sep 1994	44°37.05'	133°50.94'
V94F08C08	22 Sep 1994	44°29.99'	135°00.19'
V94F09C09	22 Sep 1994	44°07.00'	136°13.22'
V94F10C10	22 Sep 1994	43°44.06'	137°26.00'
V94F11C11	23 Sep 1994	43°19.89'	138°39.98'
V94F12C12	23 Sep 1994	42°35.16'	140°05.08'
V94F13C13	23 Sep 1994	41°29.99'	141°29.98'
V94F14C14	24 Sep 1994	40°30.01'	142°59.79'
V94F15C15	24 Sep 1994	39°29.98'	144°29.98'
V94F16C16	24 Sep 1994	38°30.01'	145°59.97'
V94F17C17	25 Sep 1994	37°30.05'	147°30.03'
V94F18C18	25 Sep 1994	36°30.01'	149°00.03'
V94F19C19	26 Sep 1994	35°30.06'	150°29.82'
V94F20C20	26 Sep 1994	34°29.96'	152°00.02'
V94F21C21	26 Sep 1994	33°29.94'	153°30.10'
V94F22C22	27 Sep 1994	32°30.03'	155°00.07'
V94F23C23	27 Sep 1994	30°50.10'	155°00.03'
V94F24C24	28 Sep 1994	29°09.88'	155°00.03'
V94F25C25	28 Sep 1994	27°29.91'	155°00.14'
V94F26C26	28 Sep 1994	25°50.03'	155°00.02'
V94F27C27	29 Sep 1994	24°10.00'	154°59.98'
V94F28C28	29 Sep 1994	22°29.93'	154°59.95'
V94F29C29	30 Sep 1994	20°59.95'	155°00.08'
V94F30C30	30 Sep 1994	20°24.10'	155°00.10'

VENTS 1994
(APRIL-SEPTEMBER 1994)
TOW-YO BOTTLE TRIP LOCATIONS

Tow	Date occupied	Bottle	Latitude	Longitude
T94B01	22 Jun 1994	10	44°55.80'	130°8.94'
		9	44°55.83'	130°8.97'
		8	44°56.65'	130°10.36'
		7	44°57.21'	130°11.70'
		6	44°57.44'	130°12.33'
		5	44°57.52'	130°12.53'
		4	44°57.53'	130°12.57'
		3	44°57.55'	130°12.64'
		2	44°57.80'	130°13.36'
		1	44°58.19'	130°14.55'
T94B03	23 Jun 1994	10	44°58.91'	130°11.79'
		9	44°57.90'	130°10.93'
		8	44°57.56'	130°10.17'
		7	44°57.51'	130°10.18'
		6	44°56.41'	130°12.27'
		5	44°55.08'	130°13.73'
T94B04	27 Jun 1994	10	44°45.26'	130°17.95'
		9	44°44.68'	130°18.94'
		8	44°43.76'	130°19.68'
		7	44°41.46'	130°20.81'
		6	44°40.99'	130°21.03'
		5	44°40.02'	130°21.48'
		4	44°39.48'	130°21.72'
		3	44°38.50'	130°22.22'
		2	44°38.19'	130°22.39'
		1	44°38.14'	130°22.41'
		11	44°37.75'	130°22.62'
		12	44°37.73'	130°22.63'
T94B05	01 Jul 1994	10	46°20.11'	129°41.57'
		9	46°19.87'	129°41.68'
		8	46°19.70'	129°41.77'
		7	46°19.46'	129°41.88'
		6	46°19.09'	129°42.05'
		5	46°18.75'	129°42.23'
		4	46°18.71'	129°42.26'
		3	46°18.59'	129°42.32'
		2	46°18.57'	129°42.33'
		1	46°18.34'	129°42.47'
		11	46°17.61'	129°42.88'
		12	46°16.28'	129°43.61'
T94B06	02 Jul 1994	10	45°59.96'	129°59.32'
		9	45°59.57'	129°59.27'
		8	45°56.29'	129°59.11'
		7	45°55.96'	129°59.12'

Tow	Date occupied	Bottle	Latitude	Longitude
T94B07	03 Jul 1994	10	46°9.06'	129°48.04'
		9	46°9.13'	129°48.22'
		8	46°9.17'	129°48.32'
		7	46°9.22'	129°48.45'
		6	46°9.27'	129°48.63'
		5	46°9.31'	129°48.77'
		4	46°9.57'	129°49.56'
		3	46°9.78'	129°50.24'
T94B08	05 Jul 1994	10	46°6.60'	129°49.83'
		9	46°7.34'	129°49.51'
		8	46°7.92'	129°49.25'
		7	46°8.22'	129°49.10'
		6	46°8.42'	129°48.99'
		5	46°9.09'	129°48.58'
		4	46°9.03'	129°48.62'
		3	46°9.42'	129°48.37'
		2	46°9.82'	129°48.09'
		1	46°10.15'	129°47.85'
T94C01	30 July 1994	1	45°9.17'	130°6.78'
		2	45°8.17'	130°7.45'
		3	45°7.48'	130°7.83'
		4	45°6.74'	130°8.26'
		5	45°5.68'	130°8.84'
		6	45°4.78'	130°9.28'
		7	45°3.75'	130°9.82'
		8	45°2.79'	130°10.33'
		9	45°1.73'	130°10.90'
		10	45°1.30'	130°11.13'
		11	45°0.71'	130°11.33'
		13	44°59.97'	130°11.49'
		14	44°59.22'	130°11.60'
		15	44°57.74'	130°11.82'
16	44°57.06'	130°12.12'		
17	44°56.75'	130°12.32'		
T94C02	31 July 1994	1	44°57.33'	130°12.82'
		2	44°55.47'	130°13.87'
		3	44°54.97'	130°14.15'
		4	44°53.69'	130°14.88'
		5	44°53.18'	130°15.15'
		6	44°50.89'	130°16.33'
		7	44°49.22'	130°17.15'
		8	44°46.39'	130°18.54'
		9	44°44.12'	130°19.68'
		10	44°41.66'	130°20.84'
		11	44°41.59'	130°20.88'
		12	44°41.51'	130°20.92'
		13	44°41.34'	130°21.01'
		14	44°41.26'	130°21.06'

Tow	Date occupied	Bottle	Latitude	Longitude
		15	44°40.57'	130°21.42'
		16	44°40.52'	130°21.44'
		17	44°40.42'	130°21.48'
		18	44°40.34'	130°21.52'
		19	44°40.31'	130°21.54'
		20	44°40.27'	130°21.57'
T94C03	01 Aug 1994	1	45°7.01'	130°7.69'
		3	45°7.43'	130°8.85'
		4	45°7.48'	130°9.01'
		5	45°7.72'	130°9.91'
		6	45°8.38'	130°12.22'
		7	45°8.74'	130°13.42'
		8	45°9.04'	130°14.34'
T94C04	01 Aug 1994	1	45°0.85'	130°17.02'
		2	45°0.53'	130°15.81'
		3	45°0.31'	130°15.09'
		4	44°59.95'	130°13.93'
		5	44°59.41'	130°12.22'
		6	44°59.22'	130°11.41'
		7	44°59.20'	130°11.32'
		8	44°59.18'	130°11.25'
		9	44°59.16'	130°11.14'
T94C05	02 Aug 1994	1	44°50.21'	130°8.08'
		2	44°50.21'	130°8.08'
		3	44°50.21'	130°8.08'
		4	44°50.21'	130°8.08'
		5	44°50.13'	130°8.11'
		6	44°50.18'	130°8.13'
		7	44°50.20'	130°8.14'
		8	44°50.13'	130°8.10'
		9	44°50.20'	130°8.15'
		10	44°50.21'	130°8.16'
		11	44°50.21'	130°8.16'
		12	44°50.23'	130°8.18'
		13	44°50.20'	130°8.14'
		14	44°51.39'	130°13.32'
		15	44°51.59'	130°14.13'
		16	44°51.97'	130°15.84'
		17	44°52.26'	130°17.28'
T94C06	03 Aug 1994	3	44°59.95'	130°12.01'
		4	44°59.85'	130°12.07'
		5	44°59.76'	130°12.13'
		6	44°59.70'	130°12.16'
		7	44°59.65'	130°12.19'
		8	44°59.58'	130°12.23'
		9	44°59.52'	130°12.27'
		10	44°59.39'	130°12.33'
		11	44°59.34'	130°12.36'

Tow	Date occupied	Bottle	Latitude	Longitude
		12	44°59.20'	130°12.44'
T94C07	04 Aug 1994	1	46°8.93'	129°48.52'
		2	46°9.05'	129°48.45'
		3	46°9.46'	129°48.17'
		4	46°9.85'	129°47.89'
		5	46°11.03'	129°47.07'
		6	46°19.15'	129°42.73'
		7	46°19.20'	129°42.67'
		8	46°19.26'	129°42.61'
		9	46°19.35'	129°42.52'
		10	46°19.84'	129°42.07'
		11	46°24.70'	129°38.48'
		12	46°30.64'	129°35.06'
T94C08	05 Aug 1994	1	46°30.31'	129°34.30'
		2	46°30.39'	129°34.78'
		3	46°30.49'	129°35.39'
		4	46°30.51'	129°35.45'
		5	46°30.60'	129°36.16'
		6	46°30.73'	129°37.14'
T94C09	05 Aug 1994	1	46°17.85'	129°40.99'
		2	46°18.24'	129°42.39'
		3	46°18.39'	129°42.99'
		4	46°18.78'	129°44.53'
T94C10	05 Aug 1994	1	46°9.03'	129°47.92'
		2	46°9.33'	129°48.89'
T94C11	06 Aug 1994	1	47°42.02'	127°47.74'
		2	47°42.02'	127°47.74'
		3	47°42.02'	127°47.74'
		4	47°42.03'	127°47.73'
		5	47°42.03'	127°47.73'
		6	47°42.03'	127°47.73'
		7	47°41.95'	127°47.79'
		8	47°42.31'	127°47.48'
		9	47°42.31'	127°47.48'
		10	47°42.30'	127°47.48'
		11	47°42.40'	127°47.41'
		12	47°42.50'	127°47.31'
		13	47°42.57'	127°47.27'
		14	47°42.89'	127°47.04'
		15	47°42.89'	127°47.04'
		16	47°42.91'	127°47.02'
		17	47°43.13'	127°46.87'
		18	47°43.15'	127°46.86'
		19	47°43.18'	127°46.84'
		20	47°43.18'	127°46.84'

Tow	Date occupied	Bottle	Latitude	Longitude
T94C12	07 Aug 1994	1	47°42.61'	127°46.81'
		2	47°42.70'	127°46.91'
		3	47°42.81'	127°47.23'
		4	47°42.82'	127°47.25'
		5	47°42.82'	127°47.25'
		6	47°42.82'	127°47.26'
		7	47°42.90'	127°47.55'
		8	47°42.91'	127°47.60'
		9	47°42.97'	127°47.76'
T94C13	07 Aug 1994	1	47°42.73'	127°47.54'
		2	47°43.12'	127°47.54'
		3	47°43.33'	127°47.56'
T94C14	07 Aug 1994	1	47°42.88'	127°46.99'
		2	47°42.36'	127°47.29'
		3	47°42.21'	127°47.39'
		4	47°42.08'	127°47.49'
		5	47°41.82'	127°47.68'
		6	47°41.75'	127°47.74'
T94C15	07 Aug 1994	1	47°42.37'	127°48.44'
		2	47°42.46'	127°48.21'
		3	47°42.49'	127°48.14'
		4	47°42.50'	127°48.11'
		5	47°42.52'	127°48.06'
		6	47°42.67'	127°47.70'
		7	47°42.68'	127°47.66'
		8	47°42.70'	127°47.62'
		9	47°42.73'	127°47.56'
		10	47°42.90'	127°47.15'
		11	47°42.92'	127°47.08'
		12	47°42.94'	127°47.04'
		13	47°42.96'	127°47.00'
		14	47°43.12'	127°46.61'
		15	47°43.13'	127°46.58'
		16	47°43.15'	127°46.52'
		17	47°43.17'	127°46.48'
T94C16	08 Aug 1994	1	47°50.24'	127°43.64'
		2	47°50.34'	127°43.61'
		3	47°50.38'	127°43.60'
		4	47°50.33'	127°43.61'
		5	47°51.37'	127°43.25'
		6	47°51.42'	127°43.25'
		7	47°51.47'	127°43.24'
		8	47°51.60'	127°43.22'
T94C17	08 Aug 1994	1	47°50.40'	127°44.16'
		2	47°50.76'	127°43.77'
		3	47°50.79'	127°43.73'

Tow	Date occupied	Bottle	Latitude	Longitude
		4	47°50.90'	127°43.62'
		5	47°50.98'	127°43.52'
		6	47°51.15'	127°43.34'
		7	47°51.33'	127°43.14'
T94C18	09 Aug 1994	1	47°41.97'	127°47.09'
		2	47°42.01'	127°47.02'
		3	47°42.07'	127°46.91'
		4	47°42.12'	127°46.82'
		5	47°42.47'	127°46.28'
		6	47°42.51'	127°46.21'
		7	47°42.57'	127°46.13'
		8	47°42.66'	127°45.99'
		9	47°43.19'	127°45.20'
		10	47°43.26'	127°45.10'
		11	47°43.30'	127°45.04'
		12	47°43.34'	127°44.98'
T94C19	09 Aug 1994	1	47°51.61'	127°36.93'
		2	47°52.29'	127°36.76'
		3	47°53.08'	127°36.64'
		4	47°53.11'	127°36.63'
		5	47°53.16'	127°36.63'
		6	47°53.38'	127°36.60'
		7	47°54.72'	127°36.30'
		8	47°53.95'	127°36.86'
		9	47°53.86'	127°36.91'
		10	47°53.59'	127°37.09'
		11	47°53.52'	127°37.15'
		12	47°53.49'	127°37.18'
		13	47°53.05'	127°37.53'
		14	47°51.84'	127°38.22'
		15	47°51.78'	127°38.24'
		16	47°51.74'	127°38.25'
		17	47°51.71'	127°38.25'
		18	47°50.70'	127°38.44'
		19	47°50.68'	127°38.44'
		20	47°50.66'	127°38.44'
T94E01	15 Sep 1994	4	44°55.59'	130°14.07'
		6	44°55.50'	130°14.12'
		8	44°55.39'	130°14.18'
		10	44°55.11'	130°14.36'
		14	44°54.61'	130°14.67'
		16	44°53.54'	130°15.42'
		18	44°52.27'	130°16.42'
T94E02	15 Sep 1994	4	44°57.39'	130°16.58'
		6	44°57.34'	130°16.75'
		8	44°57.28'	130°16.91'
		10	44°57.16'	130°17.26'

Tow	Date occupied	Bottle	Latitude	Longitude
		14	44°56.94'	130°17.82'
		16	44°56.32'	130°19.07'
		18	44°56.01'	130°19.26'
T94E03	15 Sep 1994	4	44°56.16'	130°9.87'
		6	44°56.05'	130°9.68'
		8	44°55.94'	130°9.49'
		10	44°55.74'	130°9.15'
		14	44°55.46'	130°8.65'
		16	44°54.90'	130°7.69'
		18	44°54.05'	130°6.94'

APPENDIX:

**Station Data Tables
VENTS 1994**

VENTS 1994 - SURVEYOR
 Station V94A01 Cast 01 19 APR 1994
 LAT: 46 17.64N LONG: 129 41.67W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2206.2	2236.5	1.935	1.779		34.605	34.606	0.313	27.660	27.660	27.660	27.672	27.672	27.672	27.673
2	1984.4	2010.5	1.955	1.818		34.597	34.607	0.308	27.652	27.652	27.652	27.663	27.663	27.663	27.671
3	1498.5	1516.5	2.393	2.291		34.520	34.604	0.308	27.555	27.555	27.555	27.564	27.564	27.564	27.631
4	1001.9	1012.7	3.242	3.171		34.373	34.566	0.311	27.362	27.362	27.362	27.369	27.369	27.369	27.523
5	509.1	514.0	4.381	4.343		34.078	34.612	0.311	27.013	27.013	27.013	27.017	27.017	27.017	27.441

VENTS 1994 - SURVEYOR
 Station V94A02 Cast 02 19 APR 1994
 LAT: 46 09.54N LONG: 129 48.07W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2025.5	2052.3	1.952	1.812		34.601	34.599	0.311	27.656	27.654	27.667	27.665	
2	1982.6	2008.6	1.966	1.829		34.596	34.594	0.309	27.651	27.649	27.661	27.660	
3	1498.5	1516.5	2.334	2.233		34.528	34.588	0.310	27.567	27.615	27.575	27.623	
4	1005.8	1016.6	3.224	3.153		34.371	34.555	0.312	27.362	27.509	27.369	27.516	
5	509.3	514.1	4.477	4.438		34.074	34.529	0.314	26.999	27.361	27.004	27.365	

VENTS 1994 - SURVEYOR
 Station T94A02 Cast 05 20 APR 1994
 LAT: 44 53.42N LONG: 130 14.8W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	1186.3	1199.5	2.912	2.830		34.450		0.31	27.454		27.461		
4	1156.4	1169.1	2.942	2.862		34.439		0.31	27.443		27.450		

VENTS 1994 - SURVEYOR
 Station V94A04 Cast 08 22 APR 1994
 LAT: 44 55.4N LONG: 130 07.2W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2362.3	2395.2	1.790	1.623		34.631	34.519	0.315	27.692	27.603	27.705	27.615	
2	2001.2	2027.3	1.904	1.767		34.603	34.095	0.309	27.661	27.254	27.672	27.264	
3	1501.7	1519.5	2.412	2.310		34.530	32.531	0.310	27.562	25.963	27.570	25.971	
4	1001.6	1012.2	3.262	3.191		34.387	32.532	0.311	27.372	25.892	27.378	25.899	
5	500.8	505.5	4.804	4.765		34.097		0.312	26.982		26.986		

VENTS 1994 - SURVEYOR
 Station V94A05 Cast 09 22 APR 1994
 LAT: 44 56.02N LONG: 130 09.93W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2340.3	2372.8	1.823	1.657		34.625	34.131	0.315	27.685	27.289	27.698	27.301	
2	1998.0	2024.1	1.908	1.771		34.604	32.486	0.311	27.662	25.965	27.672	25.974	
3	1497.4	1515.2	2.410	2.308		34.531	32.489	0.309	27.563	25.929	27.571	25.937	
4	999.6	1010.3	3.265	3.194		34.385	32.486	0.311	27.370	25.856	27.376	25.862	
5	496.9	501.6	5.018	4.978		34.143	32.487	0.313	26.994	25.681	26.998	25.686	

VENTS 1994 - SURVEYOR
 Station V94A06 Cast 10 22 APR 1994
 LAT: 44 56.46N LONG: 130 10.72W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2204.0	2233.8	1.862	1.708		34.620		0.315	27.678		27.690		
2	1993.8	2019.8	1.909	1.772		34.606		0.314	27.663		27.674		
3	1499.3	1517.1	2.399	2.297		34.535		0.309	27.567		27.575		
4	996.4	1007.0	3.245	3.175		34.389		0.311	27.375		27.381		
5	493.8	498.5	5.078	5.038		34.142		0.312	26.986		26.991		

VENTS 1994 - LEG I
 Station T94A05 Cast 15 23 APR 1994
 LAT: 44 57.9N LONG: 130 14.6W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (1/m)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/L)
1	2198.8	2228.6	1.855	1.701		34.621	34.607	0.314	0.314	27.679	27.668	27.679	27.691	27.691	27.680	
4	1502.0	1519.8	2.350	2.248		34.534	34.525	0.308	0.308	27.570	27.563	27.570	27.578	27.578	27.571	
7	1001.3	1012.0	3.275	3.204		34.387	34.580	0.309	0.309	27.370	27.524	27.370	27.377	27.377	27.531	
10	515.1	519.9	4.588	4.549		34.091	34.385	0.309	0.309	27.001	27.234	27.001	27.005	27.005	27.239	

VENTS 1994 - SURVEYOR
 Station T94A06 Cast 16 23 APR 1994
 LAT: 44 59.7N LONG: 130 13.0W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2338.3	2370.8	1.827	1.662		34.626	34.480	0.311	27.686	27.569	27.698	27.581		27.698	27.581
4	2001.2	2027.3	1.911	1.774		34.605	34.461	0.309	27.662	27.547	27.673	27.557		27.673	27.557
7	1505.6	1523.5	2.419	2.316		34.531	34.434	0.309	27.562	27.484	27.570	27.493		27.570	27.493
10	1022.2	1033.2	3.229	3.157		34.393	34.384	0.311	27.379	27.372	27.386	27.379		27.386	27.379
13	502.0	506.8	4.613	4.574		34.082	34.115	0.312	26.991	27.017	26.995	27.021		26.995	27.021

VENTS 1994 - SURVEYOR
 Station V94A11 Cast 17 23 APR 1994
 LAT: 44 57.9N LONG: 130 18.1W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2410.4	2444.3	1.819	1.647		34.628	34.618	0.319	27.688	27.680	27.701	27.693	
2	2000.4	2026.5	1.902	1.765		34.608	34.564	0.316	27.665	27.630	27.676	27.641	
3	1495.3	1513.0	2.355	2.254		34.531	34.463	0.308	27.567	27.513	27.576	27.521	
4	1000.6	1011.3	3.284	3.213		34.384	34.334	0.311	27.367	27.327	27.374	27.334	
5	493.8	498.5	4.587	4.549		34.083	34.078	0.312	26.995	26.991	26.999	26.995	

VENTS 1994 - SURVEYOR
 Station V94A13 Cast 19 23 APR 1994
 LAT: 44 57.2N LONG: 130 15.0W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2167.9	2197.1	1.847	1.696		34.621	34.612	0.317	27.680	27.673	27.692	27.684	
2	1989.7	2015.6	1.920	1.784		34.605	34.583	0.309	27.662	27.644	27.672	27.654	
3	1504.4	1522.3	2.309	2.207		34.537	34.497	0.310	27.576	27.544	27.584	27.552	
4	1001.3	1012.0	3.283	3.212		34.381	34.352	0.312	27.365	27.342	27.371	27.348	
5	499.8	504.5	5.179	5.138		34.120	34.121	0.315	26.957	26.958	26.962	26.963	

VENTS 1994 - SURVEYOR
 Station V94A14 Cast 20 23 APR 1994
 LAT: 44 56.6N LONG: 130 12.9W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (1/m)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2233.4	2263.9	1.891	1.734		34.617	34.587	0.323	0.323	27.673	27.649	27.649	27.685	27.685	27.661	
2	1988.0	2013.9	1.904	1.768		34.607	34.581	0.316	0.316	27.664	27.644	27.644	27.675	27.675	27.654	
3	1500.6	1518.4	2.404	2.302		34.534	34.511	0.311	0.311	27.565	27.547	27.547	27.574	27.574	27.556	
4	989.8	1000.3	3.311	3.241		34.377	34.341	0.312	0.312	27.359	27.330	27.330	27.366	27.366	27.337	
5	498.9	503.6	5.014	4.974		34.141	34.139	0.314	0.314	26.993	26.991	26.991	26.997	26.997	26.996	

VENTS 1994 - SURVEYOR
 Station V94A15 Cast 21 24 APR 1994
 LAT: 44 56.6N LONG: 130 11.3W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	TSM (ug/l)
1	2267.5	2298.5	1.871	1.711		34.620	34.586	0.315	27.677	27.650	27.677	27.650	27.690	27.677	27.662
2	2001.1	2027.3	1.900	1.763		34.609	34.556	0.316	27.666	27.624	27.666	27.624	27.677	27.677	27.634
3	1502.8	1520.6	2.418	2.315		34.533	34.519	0.310	27.563	27.552	27.563	27.552	27.572	27.572	27.561
4	1005.4	1016.1	3.226	3.155		34.388	34.340	0.312	27.376	27.337	27.376	27.337	27.382	27.382	27.344
5	502.6	507.3	4.998	4.958		34.149	34.146	0.313	27.001	26.999	27.001	26.999	27.006	27.006	27.003

VENTS 1994 - SURVEYOR
 Station V94A16 Cast 22 24 APR 1994
 LAT: 44 55.63N LONG: 130 09.43W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2350.8	2383.5	1.825	1.658		34.627	34.623	0.317	27.687	27.683	27.699	27.696	
2	1996.2	2022.2	1.913	1.776		34.602	34.592	0.308	27.660	27.652	27.670	27.662	
3	1496.3	1514.0	2.468	2.365		34.523	34.500	0.309	27.551	27.533	27.560	27.541	
4	998.0	1008.6	3.242	3.172		34.387	34.364	0.312	27.373	27.355	27.380	27.362	
5	500.0	504.7	4.872	4.833		34.126	34.123	0.312	26.997	26.995	27.001	26.999	

VENTS 1994 - SURVEYOR
 Station V94A17 Cast 23 24 APR 1994
 LAT: 44 55.44N LONG: 130 08.00W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2336.2	2368.6	1.824	1.659		34.625	34.621	0.316	27.685	27.682	27.698	27.694	
2	1996.0	2022.1	1.898	1.761		34.603	34.591	0.310	27.662	27.652	27.672	27.663	
3	1499.1	1516.9	2.436	2.333		34.527	34.499	0.309	27.557	27.535	27.566	27.543	
4	1002.0	1012.6	3.292	3.221		34.381	34.373	0.311	27.364	27.358	27.371	27.364	
5	503.7	508.4	4.720	4.681		34.079	34.074	0.312	26.977	26.973	26.981	26.977	

VENTS 1994 - SURVEYOR
 Station V94A18 Cast 24 24 APR 1994
 LAT: 44 54.4N LONG: 130 05.2W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
1	2451.8	2486.4	1.782	1.607		34.633	34.630	0.313	27.695	27.692	27.708	27.705	27.708	27.708	27.705
2	1998.1	2024.2	1.902	1.765		34.603	34.571	0.307	27.661	27.636	27.672	27.646	27.672	27.672	27.646
3	1495.7	1513.4	2.413	2.311		34.529	34.490	0.309	27.561	27.529	27.569	27.538	27.569	27.569	27.538
4	984.9	995.3	3.264	3.195		34.385	34.370	0.311	27.370	27.358	27.376	27.364	27.376	27.376	27.364
5	498.7	503.4	4.760	4.721		34.097	34.095	0.312	26.987	26.985	26.991	26.989	26.991	26.991	26.989

VENTS 1994 - AII
 Station V94B01 Cast 01 20 JUN 1994
 LAT: 45 01.83N LONG: 130 13.31W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)
10	2313.2	2345.1	1.840	1.677		34.625		0.342	27.684	27.680	27.696	27.692
9	2248.3	2279.1	1.850	1.692		34.623	34.621	0.342	27.681	27.680	27.693	27.692
8	2222.6	2252.8	1.857	1.701		34.622		0.343	27.680		27.692	
7	2196.1	2225.9	1.863	1.710		34.622		0.344	27.680		27.691	
6	2174.2	2203.5	1.862	1.711		34.621		0.342	27.679		27.690	
5	2149.6	2178.5	1.860	1.711		34.618	34.617	0.339	27.677	27.676	27.688	27.687
4	2104.7	2132.8	1.861	1.716		34.615		0.337	27.674		27.685	
3	2051.4	2078.5	1.884	1.743		34.608		0.340	27.667		27.678	
2	1940.5	1965.6	1.939	1.806		34.597	34.598	0.336	27.654	27.654	27.664	27.665
1	1849.0	1872.5	1.999	1.873		34.586		0.337	27.640		27.650	

PO4-DNF (umol/L)	SI04-DNF (umol/L)	NO3-DNF (umol/L)	TSM (ug/l)
2.897659	189.0846	0	0
3.038118	188.9202	0	0
3.037057	189.1538	0	0
3.001837	186.9994	0	0
2.293176	175.4920	0	0
2.941155	187.6657	0	0
3.062094	184.5163	0	0
3.148873	181.3669	0	0
3.152692	181.6005	0	0
3.024751	180.4411	0	0

VENTS 1994 - AII
 Station V94B02 Cast 02 21 JUN 1994
 LAT: 44 59.33N LONG: 130 12.23W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2232.4	2262.8	1.866	1.709		34.622		0.346	27.679		27.691	
9	2226.9	2257.3	1.865	1.709		34.622		0.345	27.679		27.691	
8	2203.4	2233.3	1.869	1.715		34.623		0.343	27.680		27.692	
7	2179.8	2209.2	1.868	1.716		34.623		0.343	27.680		27.692	
6	2156.3	2185.3	1.866	1.716		34.623		0.343	27.680		27.692	
5	2124.5	2152.9	1.867	1.720		34.623		0.343	27.680		27.691	
4	2100.3	2128.2	1.866	1.721		34.623		0.343	27.680		27.691	
3	2048.7	2075.7	1.865	1.724		34.611		0.336	27.671		27.681	
2	1943.7	1968.8	1.926	1.793		34.599		0.336	27.656		27.667	
1	1844.0	1867.4	2.003	1.878		34.585		0.336	27.639		27.649	

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.114928	187.3474	0	23.48
3.095180	187.6144	0	21.76
3.120343	185.4660	0	22.52
2.771255	183.8337	0	25.24
2.786437	187.3801	0	23.87
2.876470	186.0926	0	21.19
2.682072	182.9033	0	19.36
3.056534	182.4773	0	10.13
3.166527	183.7803	0	9.45
3.256559	182.4892	0	8.71

VENTS 1994 - AII
 Station V94B02R Cast 03 21 JUN 1994
 LAT: 44 59.27N LONG: 130 12.21W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2227.3	2257.6	1.865	1.709		34.621	34.620	0.346	27.679	27.678	27.691	27.690
9	2224.7	2255.0	1.865	1.709		34.622		0.345	27.679		27.691	
8	2198.0	2227.7	1.863	1.709		34.622		0.345	27.680		27.691	
7	2179.1	2208.5	1.862	1.710		34.622		0.345	27.680		27.691	
6	2151.1	2180.0	1.860	1.711		34.621		0.345	27.679		27.690	
5	2126.2	2154.7	1.859	1.712		34.620	34.618	0.344	27.678	27.677	27.690	27.688
4	2101.4	2129.4	1.857	1.712		34.619		0.342	27.678		27.689	
3	2047.2	2074.2	1.867	1.726		34.610		0.337	27.670		27.680	
2	1946.7	1971.9	1.939	1.806		34.597		0.336	27.654		27.664	
1	1844.3	1867.7	2.008	1.883		34.583	34.587	0.336	27.637	27.640	27.647	27.650

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.114928	187.3474		0
3.095180	187.6144		0
3.120343	185.4660		0
2.771255	183.8337		0
2.786437	187.3801		0
2.876470	186.0926		0
2.682072	182.9033		0
3.056534	182.4773		0
3.166527	183.7803		0
3.256559	182.4892		0

VENTS 1994 - AII
 Station V94B03 Cast 04 21 JUN 1994
 LAT: 44 54.0N LONG: 130 14.58W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2253.4	2284.2	1.852	1.694		34.622	34.622	0.342	27.680	27.680	27.693	27.693
9	2200.0	2229.8	1.853	1.699		34.622	34.622	0.341	27.680	27.680	27.692	27.692
8	2227.1	2257.4	1.849	1.693		34.622	34.622	0.341	27.681	27.681	27.693	27.693
7	2174.0	2203.3	1.853	1.702		34.622	34.622	0.341	27.680	27.680	27.692	27.692
6	2150.3	2179.2	1.851	1.702		34.622	34.622	0.341	27.681	27.681	27.692	27.692
5	2129.6	2158.1	1.849	1.702		34.622	34.622	0.341	27.681	27.681	27.692	27.692
4	2103.6	2131.6	1.845	1.700		34.616	34.616	0.388	27.676	27.676	27.687	27.687
3	2051.5	2078.5	1.867	1.726		34.611	34.611	0.336	27.670	27.670	27.681	27.681
2	1943.6	1968.8	1.951	1.818		34.595	34.595	0.336	27.651	27.651	27.661	27.661
1	1848.1	1871.5	2.030	1.904		34.581	34.581	0.336	27.634	27.634	27.644	27.644

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/L)
2.873072	188.8845	0	15.48
2.973084	183.8277	0	16.23
2.973297	186.4980	0	18.43
2.704049	181.7801	0	18.75
2.669331	182.9041	0	16.32
2.769344	183.3410	0	18.50
2.729636	181.3692	0	18.45
2.984339	181.1172	0	8.44
2.969581	181.3816	0	8.38
3.054623	179.9234	0	7.83

VENTS 1994 - AII
 Station V94B04 Cast 05 22 JUN 1994
 LAT: 44 57.83N LONG: 130 13.02W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2252.3	2283.1	1.870	1.711		34.622	34.621	0.345	27.679	27.678	27.691	27.690
9	2224.7	2255.0	1.867	1.711		34.622		0.343	27.679		27.691	
8	2201.2	2231.0	1.865	1.711		34.621		0.343	27.679		27.690	
7	2175.6	2204.9	1.877	1.725		34.622		0.344	27.679		27.690	
6	2149.0	2177.8	1.874	1.725		34.621		0.346	27.678		27.689	
5	2124.0	2152.4	1.878	1.731		34.621	34.619	0.346	27.678	27.676	27.689	27.687
4	2098.5	2126.4	1.876	1.731		34.621		0.344	27.678		27.689	
3	1997.9	2023.9	1.910	1.773		34.603		0.336	27.661		27.671	
2	1948.2	1973.5	1.941	1.808		34.597		0.337	27.653		27.664	
1	1844.8	1868.2	2.019	1.893		34.582	34.581	0.337	27.635	27.635	27.645	27.644

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.115246	186.4701	0	17.32
3.115459	187.0776	0	19.48
2.856191	190.7648	0	18.19
3.016083	184.0157	0	25.73
2.981366	184.9652	0	20.67
3.016508	188.4844	0	22.07
2.966820	187.0377	0	22.40
3.166633	183.7043	0	8.59
3.002175	182.5974	0	7.55
3.206977	179.0881	0	9.29

VENTS 1994 - AII
 Station T94B01 Cast 06 22 JUN 1994
 LAT: 44 54.82N LONG: 130 06.51W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2156.0	2185.0	1.822	1.673		34.621	34.62	0.335	27.682	27.681	27.693	27.692
9	2157.4	2186.4	1.822	1.673		34.621		0.336	27.682		27.693	
8	2100.2	2128.1	1.862	1.717		34.613		0.335	27.672		27.684	
7	2165.3	2194.5	1.835	1.685		34.622		0.338	27.682		27.693	
6	2151.6	2180.5	1.838	1.689		34.618		0.335	27.678		27.690	
5	2162.0	2191.0	1.856	1.706		34.623	34.63	0.338	27.681	27.687	27.692	27.698
4	2164.0	2193.2	1.851	1.701		34.621		0.337	27.680		27.691	
3	2165.1	2194.3	1.846	1.696		34.620		0.338	27.679		27.691	
2	2089.8	2117.6	1.873	1.729		34.621		0.345	27.678		27.689	
1	2158.9	2187.9	1.862	1.712		34.620	34.62	0.342	27.678	27.678	27.690	27.690

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/L)
2.927179	186.0153	0	0
0.000000	186.7000	0	0
2.941923	182.2818	0	0
2.976795	186.8788	0	0
2.976667	185.1822	0	0
2.981538	186.7175	0	0
3.141410	186.0414	0	0
2.986282	184.6850	0	0
2.991154	180.2667	0	0

VENTS 1994 - AII
 Station T94B03 Cast 08 23 JUN 1994
 LAT: 45 00.01N LONG: 130 11.92W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2206.2	2236.1	1.865	1.711		34.620	34.617	0.343	27.678	27.675	27.690	27.687
9	2215.2	2245.3	1.858	1.703		34.622		0.342	27.680		27.692	
8	2114.7	2142.9	1.859	1.713		34.619		0.343	27.677		27.689	
7	2079.6	2107.2	1.855	1.712		34.613	34.616	0.335	27.673	27.675	27.684	27.686
6	2192.9	2222.6	1.839	1.686		34.621		0.339	27.681		27.692	
5	2147.7	2176.5	1.849	1.700		34.621		0.341	27.680		27.691	

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
0.00000	0.0000	0	19.09
2.777564	183.7909	0	15.42
2.972692	187.1885	0	17.77
2.922821	185.4831	0	9.35
2.842949	187.1798	0	12.50
3.068077	184.1136	0	16.82

VENTS 1994 - All
 Station V94B05 Cast 09 24 JUN 1994
 LAT: 44 38.58N LONG: 130 22.76W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)
10	2191.5	2221.0	1.884	1.731		34.618	34.615	0.347	27.675	27.672	27.687	27.684
9	2126.3	2154.6	1.892	1.744		34.616		0.354	27.673		27.684	
8	2101.0	2128.9	1.887	1.741		34.616		0.351	27.673		27.684	
7	2101.5	2129.4	1.887	1.741		34.615		0.354	27.672		27.683	
6	2074.8	2102.3	1.885	1.742		34.615		0.352	27.672		27.683	
5	2050.9	2077.8	1.888	1.747		34.615	34.623	0.362	27.672	27.678	27.683	27.689
4	2050.9	2077.9	1.887	1.746		34.615		0.352	27.672		27.683	
3	2050.8	2077.8	1.886	1.745		34.615		0.356	27.672		27.681	
2	2027.9	2054.4	1.892	1.753		34.613		0.348	27.669		27.680	
1	2001.0	2027.0	1.891	1.754		34.612		0.338	27.659		27.670	
12	1950.6	1975.8	1.917	1.784		34.602		0.336	27.643		27.653	
11	1871.8	1895.6	1.982	1.855		34.588	34.616	0.336	27.643	27.665	27.675	

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
2.504359	180.1577	0	21.71
2.934231	183.5641	0	33.93
2.874103	182.5478	0	28.77
		0	
5.148974	178.4698	0	24.02
3.078846	188.3400	0	36.51
3.053718	184.9423	0	
2.613590	178.9932	0	29.82
		0	21.54
2.963462	185.4613	0	12.98
3.223333	183.0843	0	12.11

VENTS 1994 - AII
 Station V94B06 Cast 10 27 JUN 1994
 LAT: 44 40.65N LONG: 130 21.45W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2157.4	2186.4	1.890	1.740	34.615	34.616	0.346	27.672	27.673	27.683	27.684
9	2124.4	2152.8	1.889	1.741	34.615		0.345	27.672		27.683	
8	2099.7	2127.5	1.886	1.741	34.615		0.346	27.672		27.683	
7	2074.0	2101.4	1.885	1.742	34.615		0.346	27.672		27.683	
6	2049.3	2076.3	1.884	1.743	34.614		0.346	27.672		27.682	
5	2023.3	2049.8	1.884	1.745	34.612		0.343	27.670		27.681	
4	2000.5	2026.6	1.888	1.751	34.610		0.341	27.668		27.679	
3	1951.0	1976.2	1.908	1.775	34.605		0.338	27.662		27.673	
2	1900.7	1925.1	1.937	1.808	34.598		0.337	27.655		27.665	
1	1802.7	1825.3	2.047	1.924	34.577		0.336	27.629		27.639	

PO4-UNE (umol/L)	SI04-UNE (umol/L)	NO3-UNE (umol/L)	TSM (ug/l)
3.138219	190.2955	0	17.97
3.139025	186.2203	0	20.79
3.070251	176.5727	0	20.08
3.145607	188.0140	0	20.68
3.106653	189.4718	0	19.21
3.132309	186.4613	0	15.65
3.123175	186.4228	0	12.65
3.178651	189.1917	0	12.09
3.184427	185.0236	0	8.34
3.274693	182.3383	0	7.75

VENTIS 1994 - AII
 Station T94B04 Cast 11 27 JUN 1994
 LAT: 44 45.9N LONG: 130 18.22W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-T (CTD)	Sigma-T (Bottle)
10	2064.3	2091.6	1.874	1.732		34.614	34.614	0.343	27.672	27.672	27.683	27.683
9	2223.9	2254.1	1.877	1.721		34.617	34.617	0.340	27.674	27.674	27.686	27.686
8	2169.4	2198.6	1.885	1.734		34.615	34.618	0.342	27.672	27.675	27.684	27.686
7	2149.0	2177.8	1.885	1.735		34.615	34.615	0.341	27.672	27.672	27.684	27.684
6	2147.8	2176.6	1.888	1.738		34.616	34.616	0.344	27.673	27.673	27.684	27.684
5	2153.4	2182.3	1.889	1.739		34.616	34.620	0.346	27.673	27.676	27.684	27.687
4	2188.3	2217.9	1.891	1.738		34.616	34.616	0.345	27.673	27.673	27.684	27.684
3	2151.4	2180.3	1.887	1.737		34.617	34.617	0.347	27.674	27.674	27.685	27.685
2	2166.5	2195.6	1.891	1.740		34.617	34.617	0.348	27.673	27.673	27.685	27.685
1	2169.2	2198.4	1.890	1.738		34.617	34.604	0.347	27.673	27.663	27.685	27.675
11	2170.8	2200.0	1.890	1.738		34.617	34.617	0.347	27.673	27.673	27.685	27.685
12	2137.1	2165.7	1.904	1.755		34.616	34.616	0.352	27.672	27.672	27.683	27.683

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.063132	183.8669	0	15.63
3.108668	183.3321	0	13.59
2.875884	123.9526	0	16.64
2.911480	182.0670	0	18.42
2.842706	181.3358	0	23.33
3.022432	187.9887	0	25.40
3.092818	187.6256	0	24.38
3.058834	188.8888	0	27.21
3.208739	188.3393	0	
3.075355	185.2344	0	
3.071191	185.2153	0	38.00
3.255887	186.8414	0	9.36

VENTS 1994 - AII
 Station V94B07 Cast 12 28 JUN 1994
 LAT: 44 37.21N LONG: 130 23.04W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2188.7	2218.2	1.907	1.754		34.616	34.619	0.352	27.671	27.674	27.683	27.686
9	2176.0	2205.3	1.903	1.751		34.616	34.614	0.350	27.672	27.670	27.683	27.682
8	2150.1	2178.9	1.902	1.752		34.616	34.620	0.350	27.672	27.675	27.683	27.687
7	2124.9	2153.2	1.897	1.749		34.615	34.608	0.351	27.671	27.666	27.683	27.677
6	2100.0	2127.9	1.896	1.750		34.615	34.615	0.351	27.671	27.683	27.683	27.679
5	2075.5	2103.0	1.895	1.752		34.615	34.611	0.352	27.671	27.668	27.683	27.693
4	2049.9	2076.9	1.893	1.752		34.615	34.628	0.352	27.672	27.682	27.683	27.693
3	2025.4	2051.9	1.888	1.749		34.612	34.613	0.345	27.670	27.670	27.680	27.681
2	1974.7	2000.4	1.898	1.763		34.607	34.605	0.339	27.665	27.663	27.675	27.674
1	1869.9	1893.7	1.969	1.842		34.590	34.600	0.335	27.646	27.654	27.656	27.664

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.06528	187.9065	0	30.88
3.10992	188.1441	0	30.59
3.10992	189.6015	0	31.41
3.06528	190.5384	0	32.70
		0	
3.09504	191.8262	0	35.08
3.05040	190.8433	0	34.73
3.07520	185.8311	0	22.77
3.09504	185.8896	0	15.91
3.11488	184.5439		9.21

VENTS 1994 - AII
 Station V94B08 Cast 13 30 JUN 1994
 LAT: 46 31.31N LONG: 129 34.67W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2426.5	2461.1	1.809	1.636		34.626	34.625	0.341	27.687	27.686	27.700	27.699
9	2357.5	2390.7	1.832	1.665		34.623		0.339	27.683		27.695	
8	2304.1	2336.2	1.835	1.672		34.620		0.340	27.680		27.693	
7	2247.6	2278.7	1.842	1.684		34.619		0.339	27.679		27.691	
6	2203.7	2233.9	1.856	1.702		34.616		0.338	27.675		27.687	
5	2152.0	2181.2	1.881	1.731		34.612	34.612	0.338	27.670	27.670	27.682	27.682
4	2103.8	2132.1	1.901	1.755		34.607		0.339	27.665		27.676	
3	1999.9	2026.3	1.931	1.793		34.601		0.338	27.657		27.668	
2	1900.9	1925.5	1.978	1.848		34.591		0.337	27.646		27.656	
1	1799.6	1822.5	2.046	1.924		34.579		0.338	27.631		27.640	

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.21408	187.0128	0	11.43
2.96112	190.0012	0	9.09
3.09504	189.2113	0	8.96
3.01568	189.2803	0	9.41
3.18928	188.3142	0	11.67
3.14960	196.8407	0	7.70
3.02064	186.8923	0	8.54
3.12480	185.5724	0	7.70
3.15456	184.0757	0	7.23
3.26368	183.2688	0	8.75

VENTS 1994 - All
 Station T94B05 Cast 14 01 JUL 1994
 LAT: 46 21.54N LONG: 129 40.89W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2137.7	2166.6	1.911	1.762		34.610	34.613	0.338	27.666	27.669	27.678	27.680
9	2121.6	2150.3	1.915	1.767		34.609		0.341	27.665		27.677	
8	2119.4	2148.0	1.919	1.771		34.610		0.342	27.666		27.677	
7	2184.3	2214.1	1.915	1.762		34.611		0.341	27.667		27.679	
6	2095.3	2123.4	1.919	1.773		34.609	34.610	0.342	27.665	27.666	27.676	27.677
5	2119.1	2147.7	1.918	1.770		34.610		0.349	27.666		27.677	
4	2216.4	2246.8	1.910	1.754		34.612		0.349	27.668		27.680	
3	2087.9	2115.9	1.917	1.772		34.609		0.375	27.665		27.676	
2	2088.1	2116.1	1.919	1.774		34.609		0.385	27.665		27.676	
1	2093.0	2121.1	1.927	1.782		34.609	34.606	0.412	27.664	27.662	27.675	27.673
11	2126.6	2155.3	1.924	1.776		34.610		0.370	27.665		27.677	
12	2136.3	2165.2	1.946	1.796		34.608		0.337	27.662		27.673	

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.12976	186.6853	0	10.69
3.20416	187.2657	0	11.84
3.15952	189.5430	0	13.40
3.12480	189.9573	0	12.63
3.16448	191.5622	0	12.68
3.14960	187.8937	0	
3.14960	187.1130	0	13.21
3.19320	184.9649	0	19.06
3.06032	186.0569	0	
3.15952	187.6640	0	24.34
3.15952	186.1923	0	15.30
3.11488	185.0595	0	10.30

VENTS 1994 - AII
 Station T94B06 Cast 15 02 JUL 1994
 LAT: 46 02.50N LONG: 130 00.80W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	1491.6	1509.4	2.387	2.286		34.523	34.528	0.341	27.558	27.562	27.567	27.571
9	1480.6	1498.3	2.408	2.307		34.520	34.520	0.343	27.554	27.554	27.562	27.562
8	1443.4	1460.5	2.417	2.319		34.521	34.521	0.381	27.554	27.554	27.562	27.562
7	1120.3	1132.6	3.096	3.017		34.415	34.415	0.337	27.409	27.409	27.417	27.417

PO4-UNE (umol/L)	SI04-UNE (umol/L)	NO3-UNE (umol/L)	TSM (ug/l)
3.217224	177.2653	0	14.44
3.232494	175.6640	0	13.08
3.207523	177.1348	0	23.50

VENTS 1994 - AII
 Station T94B07 Cast 16 03 JUL 1994
 LAT: 46 08.18N LONG: 129 46.27W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2062.7	2090.2	1.948	1.805		34.604	34.606	0.336	27.659	27.660	27.670	27.671
9	2055.1	2082.4	1.945	1.803		34.603		0.336	27.658		27.669	
8	2058.0	2085.4	1.945	1.802		34.603		0.336	27.658		27.669	
7	1989.2	2015.4	1.998	1.860		34.602		0.340	27.653		27.664	
6	1969.3	1995.1	1.981	1.845		34.597		0.338	27.650		27.661	
5	1961.9	1987.5	1.982	1.847		34.598		0.339	27.651		27.662	
4	2006.4	2032.8	1.964	1.825		34.598		0.340	27.652		27.663	
3	2190.5	2220.3	1.949	1.795		34.604		0.337	27.658		27.670	

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.100276	187.4138	0	10.69
3.125606	190.2465	0	9.68
2.974886	188.3147	0	10.26
3.100815	188.4250	0	10.94
3.095965	188.7057	0	13.93
3.111235	186.9410	0	8.94
3.091294	189.0971	0	7.45

VENTS 1994 - AII
 Station V94B09 Cast 17 03 JUL 1994
 LAT: 46 08.82N LONG: 129 48.40W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2096.1	2124.2	1.954	1.808		34.603	34.57	0.341	27.657	27.631	27.657	27.669
9	2077.2	2104.9	1.951	1.807		34.602		0.339	27.657		27.657	27.668
8	2054.9	2082.2	1.950	1.807		34.602		0.338	27.657		27.657	27.668
7	2027.2	2054.1	1.946	1.806		34.601		0.338	27.656		27.656	27.667
6	2000.4	2026.7	1.948	1.810		34.600		0.337	27.655		27.655	27.666
5	1973.5	1999.4	1.954	1.818		34.597		0.337	27.652		27.652	27.663
4	1947.8	1973.2	1.956	1.823		34.596		0.337	27.652		27.652	27.662
3	1901.2	1925.8	1.971	1.841		34.593		0.336	27.648		27.648	27.658
2	1852.5	1876.2	1.993	1.867		34.589		0.338	27.643		27.643	27.653
1	1757.5	1779.6	2.078	1.959		34.573		0.337	27.623		27.623	27.633
11	1748.8	1770.8	2.079	1.960		34.573		0.333	27.623		27.623	27.633
12	2014.8	2041.4	1.948	1.809		34.599		0.337	27.655		27.655	27.665

PO4-UNF (umol/L) SIO4-UNF (umol/L) NO3-UNF (umol/L) TSM (ug/l)

3.165307 181.9253 181.9253 14.23
 3.256027 124.0535 124.0535 10.47

VENTS 1994 - AII
 Station V94B09R Cast 18 05 JUL 1994
 LAT: 46 09.17N LONG: 129 48.61W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2067.1	2094.6	1.950	1.806		34.603	34.600	0.337	27.658	27.655	27.669	27.666
9	2056.4	2083.8	1.949	1.806		34.603		0.338	27.658		27.669	
8	2028.7	2055.6	1.945	1.805		34.602		0.337	27.657		27.668	
7	2001.8	2028.2	1.945	1.807		34.600		0.336	27.656		27.666	
6	1974.5	2000.4	1.952	1.816		34.598	34.594	0.336	27.653	27.650	27.664	27.661
5	1951.4	1976.9	1.964	1.830		34.595		0.336	27.650		27.660	
4	1924.9	1949.9	1.969	1.837		34.594		0.336	27.649		27.659	
3	1899.7	1924.3	2.005	1.875		34.595		0.340	27.647		27.657	
2	1874.2	1898.3	2.006	1.878		34.591		0.338	27.644		27.654	
1	1851.4	1875.1	2.017	1.891		34.585		0.336	27.638		27.648	
11	1797.2	1820.0	2.058	1.936		34.577	34.575	0.337	27.628	27.627	27.638	27.636

PO4-UNF (umol/L)	SI04-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
3.119678	183.7478	0	37.33
3.134588	180.7537	0	13.09
3.038839	187.4332	0	16.43
3.003449	187.3231	0	12.09
3.189379	185.5179	0	12.64
3.199260	185.2391	0	12.20
3.043150	185.8074	0	12.04
3.093270	184.8514	0	12.76
3.133331	185.5885	0	18.75
3.092911	187.0016	0	10.87

VENTS 1994 - AII
 Station T94B08 Cast 19 05 JUL 1994
 LAT: 46 06.53N LONG: 129 50.03W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	1937.6	1962.8	2.005	1.872		34.591	34.59	0.339	27.644	27.643	27.654	27.653
9	1891.4	1915.8	1.997	1.868		34.588		0.335	27.642		27.652	
8	1914.9	1939.7	1.989	1.858		34.590		0.335	27.644		27.654	
7	2027.9	2054.7	1.973	1.832		34.596		0.337	27.650		27.661	
6	1990.3	2016.5	1.978	1.841		34.596		0.341	27.650		27.660	
5	1992.7	2018.9	1.967	1.830		34.597		0.342	27.651		27.662	
4	1913.6	1938.4	1.997	1.866		34.596		0.338	27.648		27.659	
3	2070.7	2098.3	1.948	1.804		34.602		0.335	27.657		27.668	
2	1999.8	2026.2	1.939	1.801		34.600		0.335	27.656		27.667	
1	2087.5	2115.5	1.938	1.793		34.604		0.335	27.659		27.671	

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
1.752955	180.4049	0	8.31
2.205835	183.0389	0	10.00
1.436424	181.2939	0	7.62
1.491934	183.7619	0	10.45
2.045414	184.3767	0	10.88
2.442963	186.1730	0	10.96
2.699673	184.5949	0	11.17
1.336723	184.8729	0	11.60
1.839902	184.9821	0	10.00
2.856142	188.8097	0	9.93

VENTS 1994 - AII
 Station V94B10 Cast 20 07 JUL 1994
 LAT: 46 18.45N LONG: 129 42.50W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
10	2200.7	2230.7	1.926	1.771		34.610	34.608	0.373	27.665	27.663	27.677	27.675
9	2171.8	2201.3	1.926	1.774		34.610		0.367	27.665		27.677	
8	2152.6	2181.8	1.927	1.776		34.609		0.372	27.664		27.676	
7	2124.1	2152.7	1.928	1.780		34.608		0.347	27.663		27.675	
6	2101.3	2129.5	1.926	1.780		34.608		0.346	27.663		27.675	
5	2082.0	2109.9	1.924	1.780		34.607		0.347	27.663		27.674	
4	2053.9	2081.3	1.923	1.781		34.606		0.352	27.662		27.673	
3	2037.8	2064.9	1.926	1.785		34.606		0.380	27.662		27.673	
2	1974.8	2000.7	1.943	1.807		34.599		0.337	27.655		27.665	
1	1848.9	1872.7	2.001	1.875		34.587		0.336	27.641		27.651	

PO4-UNF (umol/L)	SiO4-UNF (umol/L)	NO3-UNF (umol/L)	TSM (ug/l)
1.811339	187.4355	0	0
1.283369	184.5286	0	0
2.762368	188.4956	0	0
2.797758	187.0966	0	0
2.385478	185.1928	0	0
2.440987	185.4704	0	0
1.837567	183.3961	0	0
2.154636	183.5049	0	0
2.034096	181.7641	0	0
2.481946	181.8723	0	0

VENTS 1994 - LEG I
 Station V94C01 Cast 01 29 JUL 1994
 LAT: 44 57.9N LONG: 130 12.7W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2233.0	2263.4	1.879	1.722	0.042574	34.619	34.6175	0.367	27.676	27.675	27.688	27.687
2	2201.2	2231.0	1.880	1.726	0.048826	34.620	34.6166	0.368	27.677	27.674	27.688	27.686
3	2175.9	2205.2	1.886	1.734	0.050182	34.619	34.6164	0.368	27.675	27.673	27.687	27.685
4	2150.7	2179.6	1.884	1.734	0.050330	34.619	34.6149	0.367	27.676	27.672	27.687	27.684
5	2123.8	2152.1	1.880	1.733	0.045489	34.618	34.6135	0.368	27.675	27.671	27.686	27.683
6	2099.6	2127.5	1.878	1.733	0.034078	34.615	34.6107	0.367	27.673	27.669	27.684	27.681
7	2075.9	2103.4	1.875	1.732	0.018174	34.611	34.6074	0.359	27.670	27.667	27.681	27.678
8	2049.9	2076.9	1.885	1.744	0.014388	34.608	34.6047	0.358	27.667	27.664	27.677	27.675
9	2001.6	2027.7	1.893	1.756	0.014374	34.606	34.6029	0.358	27.664	27.662	27.675	27.672
10	1900.4	1924.8	1.943	1.814	0.008949	34.595	34.5909	0.358	27.652	27.648	27.662	27.658
11	1695.6	1716.5	2.114	1.999	0.010645	34.565	34.5615	0.358	27.614	27.611	27.623	27.620

TSM
 (ug/l)

D-Theta (rows 1 to 11) = (ptemp + (4.77851 * pden)) - 133.9867

VENTS 1994 - LEG I
 Station T94C01 Cast 02 30 JUL 1994
 LAT: 45 10.20N LONG: 130 06.24W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Potential Anom	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2144.5	2173.1	1.852	1.703	0.007870	34.614	34.6107	0.357	27.674	27.671	27.685	27.683	
2	2212.1	2242.0	1.843	1.689	0.025405	34.621	34.6165	0.361	27.680	27.677	27.692	27.688	
3	2176.8	2206.0	1.844	1.693	0.024161	34.620	34.6157	0.361	27.679	27.676	27.691	27.688	
4	2155.5	2184.3	1.841	1.692	0.015759	34.618	34.6161	0.357	27.678	27.677	27.689	27.688	
5	2192.6	2222.1	1.839	1.686	0.020136	34.620	34.6172	0.358	27.680	27.678	27.691	27.689	
6	2226.5	2256.6	1.845	1.689	0.025855	34.621	34.6179	0.359	27.680	27.678	27.692	27.690	
7	2261.4	2292.2	1.853	1.694	0.028902	34.621	34.6161	0.357	27.680	27.676	27.692	27.688	
8	2252.9	2283.6	1.852	1.694	0.028753	34.621	34.6162	0.358	27.680	27.676	27.692	27.688	
9	2168.4	2197.4	1.861	1.710	0.031448	34.619	34.6144	0.358	27.677	27.674	27.689	27.685	
10	2229.7	2259.9	1.867	1.711	0.039475	34.621		0.359	27.678		27.690		
11	2210.5	2240.4	1.867	1.712	0.036700	34.620		0.359	27.678		27.690		
12	2175.3	2204.5	1.867	1.715	0.038673	34.620		0.360	27.678		27.689		
13	2207.9	2237.6	1.875	1.720	0.045718	34.621		0.360	27.678		27.690		
14	2140.3	2168.8	1.883	1.734	0.046789	34.619		0.364	27.676	27.674	27.687	27.686	
15	2194.2	2223.8	1.841	1.688	0.021299	34.620	34.6148	0.357	27.680	27.672	27.691	27.684	
16	2173.8	2203.0	1.839	1.688	0.017332	34.619		0.356	27.679		27.691		
17	1877.6	1901.4	1.967	1.839	0.009365	34.592		0.353	27.647		27.657		

TSM
 (ug/l)

13.33
 16.24
 27.07
 15.31
 13.22
 22.00
 14.26
 40.00
 17.37

19.58
 20.07

D-Theta (rows 1 to 17) = (ptemp + (4.804634 * pden)) - 134.7135

VENTS 1994 - LEG I
 Station T94C02 Cast 03 31 JUL 1994
 LAT: 44 57.74N LONG: 130 12.46W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2178.2	2207.6	1.865	1.713	0.018589	34.618	34.5994	0.366	27.676	27.661	27.688	27.673
2	1939.7	1964.8	1.949	1.816	0.002800	34.596	34.5937	0.359	27.652	27.650	27.662	27.660
3	2055.0	2082.1	1.892	1.750	0.001513	34.607	34.6035	0.359	27.665	27.663	27.676	27.673
4	2128.6	2157.1	1.879	1.731	0.034042	34.619	34.6150	0.376	27.676	27.673	27.687	27.684
5	2118.5	2146.8	1.879	1.732	0.030867	34.618	34.6132	0.373	27.675	27.671	27.686	27.683
6	2075.8	2103.3	1.875	1.732	0.019483	34.615	34.6112	0.368	27.673	27.670	27.684	27.681
7	2133.1	2161.7	1.885	1.737	0.033861	34.618		0.372	27.675		27.686	
8	2098.6	2126.5	1.877	1.732	0.023227	34.616	34.5877	0.374	27.674	27.651	27.685	27.662
9	2209.9	2239.9	1.872	1.717	0.017500	34.617	34.6134	0.361	27.675	27.672	27.687	27.684
10	2182.9	2212.4	1.875	1.723	0.020946	34.617		0.363	27.675		27.686	

TSM
 (ug/l)

 9.50
 9.81
 9.80
 37.79
 32.89
 26.51

 36.77
 15.69

D-Theta (rows 1 to 10) = (ptemp + (4.668323 * pden)) - 130.9503

VENTS 1994 - LEG I
 Station T94C03 Cast 04 01 AUG 1994
 LAT: 45 06.48N LONG: 130 05.82W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)
1	1946.0	1971.2	1.937	1.804	0.012856	34.597	34.5939	0.358	27.654	27.651	27.654	27.664	27.662
2	1963.8	1989.3	1.927	1.793	0.013325	34.599		0.358	27.656		27.656	27.667	
3	2092.4	2120.3	1.873	1.728	0.011176	34.610	34.5949	0.357	27.669	27.657	27.669	27.680	27.668
4	2312.9	2344.9	1.848	1.684	0.025241	34.621	34.6062	0.360	27.680	27.668	27.680	27.692	27.681
5	2103.2	2131.2	1.870	1.725	0.010536	34.611	34.6188	0.356	27.670	27.676	27.670	27.681	27.688
6	2187.6	2217.2	1.846	1.694	0.017588	34.618		0.359	27.678		27.678	27.689	
7	1796.5	1819.1	2.050	1.928	0.010252	34.577		0.358	27.629		27.629	27.638	

TSM
 (ug/l)

D-Theta (rows 1 to 2) = (ptemp + (4.783333 * pden)) - 134.1177
 D-Theta (rows 3 to 4) = (ptemp + (4.783333 * pden)) - 134.1212
 D-Theta (rows 5 to 6) = (ptemp + (4.783333 * pden)) - 134.1232

VENTS 1994 - LEG I
 Station T94C04 Cast 05 01 AUG 1994
 LAT: 45 01.20N LONG: 130 17.93W

Miskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2128.4	2156.9	1.880	1.732	0.028223	34.614	34.6106	0.369	27.672	27.669	27.683	27.680
2	2125.4	2153.8	1.882	1.734	0.033315	34.615	34.6122	0.371	27.673	27.670	27.684	27.682
3	2109.0	2137.1	1.880	1.734	0.032957	34.615	34.6121	0.372	27.673	27.670	27.684	27.682
4	2126.3	2154.7	1.884	1.736	0.030934	34.614	34.6125	0.370	27.672	27.670	27.683	27.682
5	2132.6	2161.1	1.884	1.736	0.026951	34.613	34.6131	0.366	27.671	27.671	27.682	27.682
6	2111.9	2140.0	1.880	1.734	0.011050	34.609	34.6078	0.356	27.668	27.667	27.679	27.678
7	2122.5	2150.9	1.876	1.729	0.015099	34.611	34.6093	0.358	27.670	27.668	27.681	27.680
8	2146.9	2175.7	1.876	1.727	0.020953	34.613	34.6140	0.360	27.671	27.672	27.683	27.684
9	2237.6	2268.1	1.845	1.688	0.013736	34.618	34.6132	0.357	27.678	27.674	27.690	27.686

TSM (ug/l)

 22.75
 28.65
 31.71
 26.75
 14.56
 17.57
 12.93
 31.36

D-Theta (rows 1 to 9) = (ptemp + (4.521421 * pden)) - 126.87134

VENTS 1994 - LEG I
 Station T94C05 Cast 06 02 AUG 1994
 LAT: 44 50.36N LONG: 130 08.08W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2452.1	2486.8	1.787	1.612	0.012257	34.630	34.6290	0.362	27.692	27.691	27.705	27.704
2	2300.7	2332.4	1.803	1.641	0.005793	34.623	34.6216	0.355	27.685	27.684	27.697	27.696
3	2251.1	2281.9	1.809	1.652	0.005185	34.621	34.6164	0.355	27.683	27.679	27.695	27.691
4	2200.4	2230.3	1.824	1.671	0.006731	34.618	34.6131	0.355	27.679	27.675	27.691	27.687
5	2150.7	2179.6	1.843	1.694	0.007077	34.614	34.6077	0.355	27.675	27.670	27.686	27.681
6	2101.1	2129.0	1.860	1.715	0.006086	34.610	34.6078	0.355	27.670	27.668	27.681	27.680
7	2049.1	2076.1	1.884	1.743	0.005988	34.605	34.6036	0.355	27.664	27.663	27.675	27.674
8	2001.5	2027.6	1.908	1.771	0.005591	34.600	34.5986	0.355	27.658	27.657	27.669	27.668
9	1902.6	1927.0	1.966	1.836	0.011198	34.590	34.5879	0.355	27.646	27.644	27.656	27.654
10	1698.5	1719.5	2.122	2.007	0.010252	34.560	34.5579	0.356	27.609	27.608	27.619	27.617
11	2085.0	2112.6	1.865	1.721	0.028627	34.615	34.6109	0.359	27.674	27.671	27.685	27.682
12	2126.3	2154.7	1.872	1.725	0.034474	34.616	34.6137	0.363	27.674	27.672	27.685	27.684
13	2120.3	2148.6	1.876	1.729	0.041064	34.617	34.6136	0.366	27.675	27.672	27.686	27.683
14	2079.5	2107.0	1.879	1.735	0.030555	34.613	34.6101	0.368	27.671	27.669	27.682	27.680

TSM
(ug/l)

17.63
 12.00
 15.32
 9.24
 9.53
 8.38
 9.54
 10.17
 8.38
 12.16

D-Theta (rows 1 to 14) = (ptemp + (4.596212 * pden)) - 128.9379

VENTS 1994 - LEG I
 Station T94C06 Cast 07 03 AUG 1994
 LAT: 45 02.53N LONG: 130 10.42W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
3	2208.8	2238.8	1.879	1.724	0.033347	34.617	34.6138	0.369	27.674	27.672	27.686	27.684
4	2195.9	2225.6	1.879	1.725	0.034091	34.617	34.6140	0.370	27.674	27.672	27.686	27.684
5	2148.4	2177.2	1.894	1.744	0.046408	34.617	34.6140	0.379	27.673	27.671	27.685	27.682
8	2044.5	2071.4	1.892	1.751	0.014055	34.607	34.6040	0.364	27.665	27.663	27.676	27.674
9	2000.2	2026.3	1.913	1.776	0.015176	34.603	34.5986	0.362	27.660	27.657	27.671	27.668
8	1949.7	1975.0	1.932	1.799	0.015310	34.599		0.361	27.656		27.666	
11	1903.5	1928.0	1.948	1.818	0.013259	34.595	34.5926	0.362	27.651	27.649	27.661	27.659
12	1817.0	1839.9	2.017	1.894	0.013758	34.582	34.5768	0.362	27.635	27.631	27.645	27.641

TSM
 (ug/l)

 17.45
 23.50
 24.23
 10.46
 8.79
 8.99
 8.90

D-Theta (rows 1 to 8) = (ptemp + (4.605867 * pden)) - 129.2098

VENTS 1994 - LEG I
 Station T94C07 Cast 08 04 AUG 1994
 LAT: 46 06.99N LONG: 129 49.62W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)
1	2051.0	2078.2	1.943	1.801	0.027905	34.603	34.5996	0.358	27.658	27.655	27.669	27.666
2	1953.0	1978.5	1.987	1.853	0.037647	34.597	34.5938	0.362	27.650	27.647	27.660	27.658
3	1962.2	1987.9	1.978	1.843	0.031538	34.597	34.5945	0.361	27.651	27.649	27.661	27.659
4	2089.0	2117.0	1.913	1.768	0.026451	34.608	34.6060	0.358	27.664	27.663	27.676	27.674
5	2058.9	2086.3	1.930	1.787	0.027081	34.605	34.6027	0.356	27.661	27.659	27.672	27.670
6	2103.3	2131.5	1.939	1.792	0.037970	34.607	34.6030	0.357	27.662	27.658	27.673	27.670
7	2080.0	2107.8	1.935	1.791	0.029040	34.605	34.6027	0.356	27.660	27.659	27.672	27.670
8	2055.2	2082.5	1.931	1.789	0.020200	34.603	34.6007	0.356	27.659	27.657	27.670	27.668
9	2003.4	2029.8	1.935	1.797	0.017811	34.601	34.5975	0.355	27.657	27.654	27.668	27.665
10	2085.1	2113.0	1.929	1.784	0.032749	34.607	34.6075	0.358	27.662	27.662	27.674	27.674
11	2232.0	2262.7	1.877	1.720	0.023411	34.615	34.6113	0.354	27.673	27.670	27.685	27.682
12	2300.0	2331.9	1.833	1.671	0.015859	34.621	34.6165	0.353	27.681	27.677	27.693	27.690

TSM
 (ug/l)

D-Theta(rows 1 to 12)=ptemp-((132.7015*pden)+(-2.484732*pden**2))+(-1767.699)

VENTS 1994 - LEG I
 Station T94C08 Cast 09 05 AUG 1994
 LAT: 46 30.06N LONG: 129 33.20W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2368.2	2401.6	1.833	1.665	0.015018	34.622	34.6189	0.356	27.682	27.679	27.682	27.695
2	2343.3	2376.2	1.835	1.669	0.017602	34.622	34.6185	0.356	27.682	27.679	27.682	27.694
3	2295.9	2327.9	1.841	1.679	0.023829	34.622	34.6174	0.357	27.681	27.678	27.681	27.690
4	2303.1	2335.2	1.843	1.680	0.028770	34.623	34.6187	0.356	27.682	27.678	27.682	27.691
5	2311.4	2343.7	1.839	1.676	0.009438	34.619	34.6175	0.356	27.679	27.678	27.679	27.690
6	2327.4	2360.0	1.834	1.669	0.013748	34.621	34.6163	0.357	27.681	27.677	27.681	27.690

TSM
 (ug/l)

VENTS 1994 - LEG I
 Station T94C09 Cast 10 05 AUG 1994
 LAT: 46 17.51N LONG: 129 40.33W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2091.1	2119.1	1.935	1.790	0.023326	34.605	34.6016	0.375	27.660	27.658	27.672	27.669
2	2139.7	2168.6	1.942	1.792	0.028704	34.606	34.6026	0.370	27.661	27.658	27.672	27.669
3	2146.2	2175.3	1.927	1.777	0.018700	34.606	34.6016	0.375	27.662	27.658	27.673	27.670
4	2103.8	2132.1	1.933	1.787	0.024967	34.606	34.6014	0.367	27.661	27.658	27.673	27.669

TSM
 (ug/l)

D-Theta (rows 1 to 4) = (ptemp + (4.551138 * pden)) - 127.70356

VENTS 1994 - LEG I
 Station T94C10 Cast 11 05 AUG 1994
 LAT: 46 08.61N LONG: 129 46.15W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2031.3	2058.3	1.949	1.809	0.022093	34.601	34.5986	34.6014	0.359	0.359	27.656	27.654	27.665	27.667	27.665
2	2078.7	2106.5	1.943	1.799	0.026875	34.604	34.6014	34.6014	0.359	0.359	27.659	27.657	27.668	27.670	27.668

TSM
 (ug/l)

D-Theta (rows 1 to 2) = (ptemp + (4.660502 * pden)) - 130.72831

VENTS 1994 - LEG I
 Station T94C11 Cast 12 06 AUG 1994
 LAT: 47 41.98N LONG: 127 47.92W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2650.4	2689.5	1.770	1.577	0.032749	34.646	34.6425	0.372	27.706	27.703	27.720	27.718
2	2628.1	2666.6	1.769	1.578	0.033558	34.646	34.6429	0.367	27.706	27.704	27.720	27.718
3	2620.4	2658.9	1.769	1.579	0.030955	34.645	34.6417	0.365	27.705	27.703	27.720	27.717
4	2601.3	2639.4	1.773	1.584	0.031903	34.644	34.6424	0.364	27.704	27.703	27.718	27.717
5	2590.6	2628.4	1.769	1.581	0.026698	34.643	34.6410	0.359	27.704	27.702	27.718	27.716
6	2551.1	2588.1	1.767	1.583	0.015295	34.639	34.6372	0.356	27.701	27.699	27.714	27.713
7	2500.6	2536.5	1.770	1.591	0.014300	34.637	34.6329	0.356	27.699	27.695	27.712	27.709
8	2631.4	2670.1	1.773	1.581	0.036128	34.646	34.6418	0.371	27.706	27.702	27.720	27.717
9	2609.9	2648.2	1.776	1.586	0.036547	34.645	34.6415	0.377	27.705	27.702	27.719	27.716
10	2592.6	2630.5	1.776	1.588	0.037703	34.645	34.6430	0.373	27.705	27.703	27.719	27.717
11	2613.8	2652.1	1.768	1.578	0.033810	34.646	34.6445	0.369	27.706	27.705	27.720	27.719
12	2609.8	2648.0	1.767	1.578	0.033379	34.646	34.6423	0.370	27.706	27.703	27.720	27.717
13	2618.1	2656.5	1.769	1.579	0.034222	34.646	34.6415	0.370	27.706	27.702	27.720	27.717
14	2626.0	2664.6	1.768	1.577	0.032989	34.646	34.6423	0.368	27.706	27.703	27.720	27.717
15	2600.6	2638.7	1.772	1.583	0.034374	34.645	34.6414	0.365	27.705	27.702	27.719	27.716
16	2582.9	2620.6	1.773	1.586	0.033128	34.644	34.6407	0.363	27.704	27.702	27.718	27.716
17	2622.7	2661.2	1.771	1.580	0.035313	34.646	34.6424	0.369	27.706	27.703	27.720	27.717
18	2605.7	2643.9	1.773	1.584	0.034733	34.645	34.6411	0.364	27.705	27.702	27.719	27.716
19	2585.5	2623.2	1.774	1.587	0.033657	34.644	34.6418	0.361	27.704	27.702	27.718	27.716
20	2577.7	2615.2	1.772	1.586	0.029647	34.643	34.6390	0.358	27.703	27.700	27.717	27.714

D-Theta(rows 1 to 20)=ptemp-((-405.90627*pden)+(7.251596*pden**2))+5681.1529)

VENTS 1994 - LEG I
Station T94C11 Cast 12 06 AUG 1994
LAT: 47 41.98N LONG: 127 47.92W

TSM
(ug/l)

25.25
24.46
26.87

D-Theta (rows 1 to 20) = ptemp - ((-405.90627 * pden) + (7.251596 * pden ** 2) + 5681.1529)

VENTS 1994 - LEG I
 Station V94C02 Cast 13 06 AUG 1994
 LAT: 47 42.49N LONG: 127 47.20W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2638.6	2677.8	1.771	1.579	0.032615	34.645	34.6425	0.371	27.705	27.703	27.720	27.718
2	2635.0	2674.2	1.771	1.579	0.032852	34.645	34.6424	0.372	27.705	27.703	27.720	27.717
3	2620.0	2658.8	1.769	1.579	0.032464	34.645	34.6459	0.371	27.705	27.706	27.720	27.720
4	2610.6	2649.2	1.768	1.579	0.032394	34.645	34.6417	0.370	27.705	27.703	27.720	27.717
5	2598.2	2636.5	1.768	1.580	0.033226	34.645	34.6404	0.368	27.705	27.702	27.719	27.716
6	2581.0	2619.0	1.770	1.583	0.029530	34.643	34.6382	0.363	27.704	27.700	27.718	27.714
7	2561.2	2598.8	1.767	1.582	0.022476	34.641	34.6363	0.359	27.702	27.698	27.716	27.712
8	2530.6	2567.6	1.771	1.589	0.024120	34.640	34.6331	0.358	27.701	27.696	27.715	27.709
9	2478.4	2514.3	1.770	1.593	0.017310	34.637	34.6294	0.356	27.699	27.693	27.712	27.706
10	2401.0	2435.3	1.773	1.603	0.011511	34.633	34.6249	0.355	27.695	27.689	27.708	27.702
11	2301.2	2333.6	1.783	1.622	0.008325	34.628	34.6248	0.356	27.691	27.688	27.703	27.700

TSM
 (ug/l)

26.08
 25.30

D-Theta (rows 1 to 11) = ptemp - ((-376.6797 * pden) + (6.724579 * pden**2) + 5275.9499)

VENTS 1994 - LEG I
 Station V94C04 Cast 14 06 AUG 1994
 LAT: 47 42.74N LONG: 127 47.18W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2651.4	2690.9	1.773	1.580	0.033766	34.645	34.6425	0.370	27.705	27.703	27.719	27.717
2	2633.9	2673.0	1.772	1.580	0.034245	34.645	34.6426	0.369	27.705	27.703	27.719	27.717
3	2620.2	2659.0	1.775	1.584	0.034122	34.644	34.6430	0.366	27.704	27.703	27.718	27.718
4	2607.9	2646.5	1.776	1.587	0.035636	34.644	34.6409	0.366	27.704	27.701	27.718	27.716
5	2599.9	2638.2	1.778	1.589	0.034424	34.643	34.6401	0.364	27.703	27.701	27.717	27.715
6	2578.9	2616.8	1.773	1.586	0.022855	34.640	34.6382	0.356	27.701	27.699	27.715	27.714
7	2558.8	2596.3	1.771	1.586	0.016428	34.638	34.6350	0.355	27.699	27.697	27.713	27.711
8	2529.2	2566.1	1.773	1.591	0.016553	34.637	34.6334	0.355	27.699	27.696	27.712	27.709
9	2479.0	2514.9	1.774	1.597	0.014072	34.635	34.6318	0.354	27.697	27.694	27.710	27.708
10	2396.6	2430.8	1.776	1.606	0.010997	34.632	34.6292	0.354	27.694	27.692	27.707	27.705
11	2296.8	2329.1	1.786	1.625	0.010957	34.628	34.6260	0.354	27.690	27.689	27.702	27.701

TSM
(ug/l)

 22.63
 29.42
 21.34
 20.95
 18.35
 12.83
 10.96
 9.92
 8.15
 9.22

D-Theta (rows 1 to 11) = ptemp - ((-361.10415 * pden) + (6.443219 * pden ** 2) + 5060.3916)

VENTS 1994 - LEG I
 Station V94C03 Cast 15 06 AUG 1994
 LAT: 47 42.69N LONG: 127 46.9W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2651.2	2690.7	1.777	1.584	0.036830	34.645	34.6415	0.373	27.705	27.702	27.719	27.716
2	2634.8	2673.9	1.777	1.585	0.037926	34.645	34.6412	0.372	27.705	27.702	27.719	27.716
3	2618.6	2657.4	1.778	1.588	0.036497	34.644	34.6407	0.371	27.704	27.701	27.718	27.715
4	2608.5	2647.0	1.778	1.589	0.037171	34.644	34.6403	0.369	27.704	27.701	27.718	27.715
5	2598.4	2636.8	1.777	1.588	0.037139	34.644	34.6396	0.366	27.704	27.700	27.718	27.714
6	2579.0	2616.9	1.773	1.586	0.026035	34.641	34.6382	0.358	27.702	27.699	27.716	27.714
7	2558.6	2596.1	1.773	1.588	0.024146	34.640	34.6360	0.357	27.701	27.698	27.715	27.712
8	2530.2	2567.2	1.771	1.589	0.018144	34.638	34.6351	0.355	27.699	27.697	27.713	27.711
9	2480.0	2515.9	1.770	1.593	0.014200	34.636	34.6324	0.354	27.698	27.695	27.711	27.708
10	2399.2	2433.5	1.773	1.603	0.011574	34.633	34.6296	0.354	27.695	27.693	27.708	27.705
11	2299.0	2331.3	1.790	1.629	0.009482	34.627	34.6236	0.355	27.689	27.686	27.701	27.699

TSM
 (ug/l)

22.95
 20.28

D-Theta(rows 1 to 11)=ptemp-((-309.64678*pden)+(5.513697*pden**2)+4348.2362)

VENTS 1994 - LEG I
 Station V94C08 Cast 16 07 AUG 1994
 LAT: 47 42.6N LONG: 127 47.0W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2639.9	2679.2	1.773	1.581	0.033829	34.645	34.6468	0.371	27.705	27.706	27.719	27.721
2	2629.5	2668.5	1.771	1.580	0.033130	34.645	34.6433	0.370	27.705	27.704	27.719	27.718
3	2620.9	2659.7	1.771	1.580	0.033711	34.645	34.6415	0.371	27.705	27.702	27.719	27.717
4	2608.7	2647.3	1.768	1.579	0.032419	34.645	34.6417	0.370	27.705	27.703	27.720	27.717
5	2600.8	2639.2	1.766	1.577	0.031546	34.645	34.6417	0.369	27.705	27.703	27.720	27.717
6	2580.1	2618.0	1.771	1.584	0.030277	34.643	34.6398	0.363	27.703	27.701	27.718	27.715
7	2559.5	2597.0	1.772	1.587	0.029243	34.642	34.6386	0.359	27.703	27.700	27.716	27.714
8	2529.4	2566.3	1.773	1.591	0.022551	34.639	34.6359	0.357	27.700	27.698	27.714	27.711
9	2480.1	2516.0	1.773	1.596	0.016296	34.636	34.6321	0.355	27.698	27.695	27.711	27.708
10	2398.9	2433.1	1.773	1.603	0.011939	34.633	34.6297	0.354	27.695	27.693	27.708	27.705
11	2299.2	2331.5	1.784	1.623	0.009540	34.628	34.6250	0.354	27.690	27.688	27.703	27.700

TSM
(ug/l)

25.23
 27.35
 28.29
 27.90
 24.15
 14.34
 13.62
 10.89
 9.77
 9.68

D-Theta (rows 1 to 11)=ptemp-((-420.9605I*pden)+(7.52409*pden**2)+5889.0711)

VENTS 1994 - LEG I
 Station T94C12 Cast 17 07 AUG 1994
 LAT: 47 42.65N LONG: 127 46.59W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2599.4	2637.8	1.774	1.585	0.033723	34.644	34.6380	0.364	27.704	27.699	27.718	27.713
2	2586.3	2624.4	1.775	1.588	0.032181	34.643	34.6378	0.363	27.703	27.699	27.717	27.713
3	2559.9	2597.5	1.773	1.588	0.026273	34.641	34.6358	0.357	27.702	27.698	27.716	27.711
4	2589.5	2627.7	1.771	1.583	0.029172	34.643	34.6373	0.359	27.703	27.699	27.718	27.713
5	2605.9	2644.4	1.771	1.582	0.028081	34.643	34.6391	0.359	27.703	27.700	27.718	27.715
6	2646.5	2685.9	1.772	1.579	0.032265	34.645	34.6408	0.369	27.705	27.702	27.720	27.716
7	2585.3	2623.4	1.778	1.591	0.037460	34.644	34.6395	0.365	27.704	27.700	27.718	27.714
8	2556.2	2593.7	1.772	1.588	0.025822	34.641	34.6352	0.356	27.702	27.697	27.716	27.711
9	2594.9	2633.2	1.780	1.592	0.038218	34.644	34.6397	0.367	27.704	27.700	27.718	27.714

TSM
 (ug/l)

D-Theta (rows 1 to 9)=ptemp-((-390.12039*pden)+(6.967274*pden**2)+5462.0399)

VENTS 1994 - LEG I
 Station T94C13 Cast 18 07 AUG 1994
 LAT: 47 42.10N LONG: 127 47.47W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2583.3	2621.3	1.775	1.588	0.031667	34.643	33.1172	0.363	27.703	26.480	27.717	26.493
2	2587.3	2625.4	1.774	1.587	0.030678	34.643	34.6407	0.362	27.703	27.701	27.717	27.716
3	2585.0	2623.0	1.778	1.591	0.033698	34.643	34.6415	0.368	27.703	27.702	27.717	27.716

TSM
 (ug/l)

D-Theta(rows 1 to 3)=ptemp-((-605.8638*pden)+(10.863276*pden**2)+8448.7669)

VENTS 1994 - LEG I
 Station T94C14 Cast 19 07 AUG 1994
 LAT: 47 43.25N LONG: 127 47.44W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2569.4	2607.1	1.773	1.587	0.034529	34.644	34.6400	0.363	27.704	27.701	27.718	27.715
2	2587.7	2625.9	1.777	1.589	0.033040	34.643	34.6405	0.365	27.703	27.701	27.717	27.715
3	2589.8	2628.0	1.776	1.588	0.032200	34.643	34.6402	0.363	27.703	27.701	27.717	27.715
4	2599.9	2638.3	1.774	1.585	0.030118	34.643	34.6402	0.363	27.703	27.701	27.717	27.715
5	2595.7	2634.0	1.776	1.588	0.034875	34.644	34.6407	0.366	27.704	27.701	27.718	27.715
6	2593.0	2631.2	1.776	1.588	0.035059	34.644	34.6439	0.367	27.704	27.704	27.718	27.718

TSM
 (ug/l)

22.05
 22.16

D-Theta(rows 1 to 6)=ptemp-((-479.75205*pden)+(8.58521*pden**2)+6703.4107)

VENTS 1994 - LEG I
 Station V94C06 Cast 20 07 AUG 1994
 LAT: 47 42.77N LONG: 127 47.41W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2648.5	2688.0	1.772	1.579	0.031728	34.645	34.6427	0.369	27.705	27.703	27.720	27.718
2	2627.9	2666.9	1.777	1.586	0.033567	34.644	34.6410	0.368	27.704	27.701	27.718	27.716
3	2621.6	2660.5	1.778	1.587	0.034691	34.644	34.6411	0.368	27.704	27.701	27.718	27.716
4	2612.8	2651.5	1.781	1.591	0.037389	34.644	34.6406	0.369	27.704	27.701	27.718	27.715
5	2599.8	2638.2	1.781	1.592	0.038263	34.644	34.6405	0.369	27.704	27.701	27.718	27.715
6	2579.5	2617.5	1.778	1.591	0.037515	34.644	34.6405	0.366	27.704	27.701	27.718	27.715
7	2558.2	2595.7	1.773	1.588	0.026142	34.641	34.6379	0.358	27.702	27.699	27.716	27.713
8	2521.8	2558.5	1.769	1.588	0.016379	34.638	34.6354	0.355	27.700	27.698	27.713	27.711
9	2487.0	2523.0	1.771	1.593	0.020048	34.638	34.6346	0.356	27.699	27.697	27.713	27.710
10	2398.9	2433.1	1.774	1.604	0.011946	34.633	34.6295	0.355	27.695	27.692	27.708	27.705
11	2302.0	2334.3	1.786	1.624	0.010117	34.628	34.6246	0.355	27.690	27.688	27.703	27.700

TSM
(ug/l)

 25.56
 21.05
 60.00
 24.13
 24.10
 23.86
 11.43
 10.83
 12.13
 9.77

D-Theta (rows 1 to 11) = ptemp - ((-420.85713 * pden) + (7.522431 * pden ** 2) + 5887.481)

VENTS 1994 - LEG I
 Station V94C05 Cast 21 07 AUG 1994
 LAT: 47 42.9N LONG: 127 47.58W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2649.4	2688.8	1.773	1.580	0.031049	34.645	34.6417	0.371	27.705	27.702	27.719	27.717
2	2629.4	2668.4	1.771	1.580	0.030992	34.645	34.6422	0.368	27.705	27.703	27.719	27.717
3	2604.4	2642.9	1.776	1.587	0.033310	34.644	34.6407	0.368	27.704	27.701	27.718	27.715
4	2593.6	2631.9	1.779	1.591	0.036179	34.644	34.6406	0.369	27.704	27.701	27.718	27.715
5	2583.8	2621.8	1.779	1.592	0.036850	34.644	34.6404	0.369	27.704	27.701	27.718	27.715
6	2577.7	2615.6	1.779	1.592	0.037262	34.643	34.6415	0.369	27.704	27.702	27.718	27.716
7	2560.1	2597.7	1.775	1.590	0.032625	34.643	34.6395	0.361	27.703	27.700	27.717	27.714
8	2524.5	2561.3	1.769	1.588	0.021763	34.640	34.6371	0.357	27.701	27.699	27.715	27.713
9	2471.2	2506.9	1.769	1.592	0.016182	34.637	34.6357	0.357	27.699	27.698	27.712	27.711
10	2396.4	2430.6	1.770	1.600	0.009396	34.633	34.6303	0.354	27.696	27.693	27.708	27.706
11	2309.4	2341.9	1.785	1.623	0.009535	34.628	34.6260	0.355	27.690	27.689	27.703	27.701

TSM
 (ug/l)

24.73
 36.04
 24.46

D-Theta(rows 1 to 11)=ptemp-((-538.848*pden)+(9.653414*pden**2)+7520.7454)

VENTS 1994 - LEG I
 Station T94C15 Cast 22 07 AUG 1994
 LAT: 47 41.90N LONG: 127 48.67W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2583.9	2621.9	1.777	1.590	0.031836	34.643	34.6409	0.365	27.703	27.701	27.717	27.715
2	2645.7	2685.0	1.770	1.577	0.031496	34.646	34.6424	0.371	27.706	27.703	27.720	27.718
3	2570.1	2607.9	1.776	1.590	0.032053	34.643	34.6399	0.365	27.703	27.701	27.717	27.715
4	2549.1	2586.5	1.769	1.585	0.025504	34.642	34.6392	0.358	27.703	27.701	27.717	27.714
5	2496.1	2532.3	1.768	1.589	0.016271	34.638	34.6345	0.355	27.700	27.697	27.713	27.710
6	2645.6	2684.9	1.776	1.583	0.032850	34.645	34.6425	0.372	27.705	27.703	27.719	27.717
7	2615.0	2653.7	1.777	1.587	0.035656	34.645	34.6413	0.372	27.705	27.702	27.719	27.716
8	2590.9	2629.1	1.776	1.588	0.033623	34.644	34.6406	0.369	27.704	27.701	27.718	27.715
9	2536.7	2573.8	1.769	1.586	0.020333	34.640	34.6369	0.356	27.701	27.699	27.715	27.712
10	2631.0	2670.1	1.772	1.581	0.030989	34.645	34.6421	0.370	27.705	27.703	27.719	27.717
11	2588.3	2626.5	1.777	1.589	0.034507	34.644	34.6404	0.367	27.704	27.701	27.718	27.715
12	2574.8	2612.6	1.778	1.592	0.036142	34.644	34.6402	0.368	27.704	27.701	27.718	27.715
13	2546.9	2584.1	1.770	1.586	0.023375	34.641	34.6368	0.357	27.702	27.699	27.716	27.712
14	2644.0	2683.3	1.773	1.580	0.030816	34.645	34.6419	0.369	27.705	27.702	27.719	27.717
15	2591.0	2629.2	1.771	1.583	0.027084	34.643	34.6398	0.359	27.703	27.701	27.718	27.715
16	2554.1	2591.5	1.772	1.588	0.021296	34.640	34.6373	0.357	27.701	27.699	27.715	27.713
17	2518.2	2554.9	1.769	1.588	0.015509	34.638	34.6368	0.354	27.700	27.699	27.713	27.712

TSM
 (ug/l)

21.06
 16.00
 12.52
 9.22

23.18
 47.01
 20.00
 10.24

D-Theta (rows 1 to 17) = ptemp - ((-532.00776 * pden) + (9.529982 * pden ** 2) + 7425.9795)

VENTS 1994 - LEG I
 Station T94C16 Cast 23 08 AUG 1994
 LAT: 47 49.37N LONG: 127 43.97W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2638.7	2677.9	1.778	1.586	0.034112	34.645	34.6419	0.367	27.705	27.702	27.719	27.717
2	2592.0	2630.3	1.775	1.587	0.026468	34.642	34.6401	0.362	27.702	27.701	27.717	27.715
3	2544.7	2582.0	1.771	1.588	0.023893	34.641	34.6405	0.360	27.702	27.701	27.716	27.715
4	2427.5	2462.4	1.766	1.593	0.013273	34.636	34.6323	0.354	27.698	27.695	27.711	27.708
5	2632.9	2672.0	1.782	1.590	0.034502	34.644	34.6412	0.368	27.703	27.701	27.718	27.716
6	2582.5	2620.6	1.777	1.590	0.031466	34.643	34.6398	0.363	27.703	27.700	27.717	27.715
7	2541.7	2578.9	1.773	1.590	0.019625	34.639	34.6371	0.356	27.700	27.699	27.714	27.712
8	2445.6	2480.8	1.772	1.598	0.013313	34.635	34.6330	0.355	27.697	27.695	27.710	27.708

TSM
 (ug/l)

D-Theta(rows 1 to 8)=ptemp-((-605.87306*pden)+(10.864106*pden**2)+8448.3876)

VENTS 1994 - LEG I
 Station T94C17 Cast 24 08 AUG 1994
 LAT: 47 49.32N LONG: 127 45.49W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp.	Temp.	Anom	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta
1	2541	2578.2	1.773	1.590	0.036580	1.590	0.036580	34.644	34.644	34.6411	0.369	27.704	27.704	27.702	27.718	27.716
2	2621	2659.8	1.779	1.588	0.029489	1.588	0.029489	34.642	34.642	34.6400	0.364	27.702	27.702	27.700	27.716	27.715

TSM
 (ug/l)

 23.76
 17.84

D-Theta (rows 1 to 2) = ptemp - ((-540.05434 * pden) + (9.675326 * pden ** 2) + 7537.3469)

VENTS 1994 - LEG I
 Station V94C10 Cast 25 08 AUG 1994
 LAT: 47 43.38N LONG: 127 48.46W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2647.0	2686.4	1.772	1.579	0.029439	34.645	34.645	0.373	27.705	27.705	27.720	27.720
2	2629.0	2668.0	1.770	1.579	0.029245	34.645	34.645	0.371	27.705	27.705	27.720	27.720
3	2607.8	2646.4	1.772	1.583	0.029252	34.644	34.644	0.368	27.704	27.704	27.718	27.718
4	2600.1	2638.5	1.775	1.586	0.031938	34.644	34.644	0.369	27.704	27.704	27.718	27.718
5	2589.9	2628.1	1.776	1.588	0.033354	34.644	34.644	0.371	27.704	27.704	27.718	27.718
6	2579.4	2617.4	1.775	1.588	0.030439	34.643	34.643	0.368	27.703	27.703	27.717	27.717
7	2559.2	2596.8	1.772	1.587	0.026738	34.642	34.642	0.362	27.703	27.703	27.716	27.716
8	2529.6	2566.5	1.768	1.586	0.019994	34.640	34.640	0.359	27.701	27.701	27.715	27.715
9	2478.7	2514.6	1.768	1.591	0.014444	34.637	34.637	0.357	27.699	27.699	27.712	27.712
10	2401.3	2435.7	1.770	1.595	-5.237228	35.758	35.758	0.356	28.598	28.598	28.612	28.612
11	2300.1	2332.4	1.782	1.621	0.008025	34.628	34.628	0.357	27.691	27.691	27.703	27.703

TSM (ug/l)
25.99
22.41
19.49
21.75
23.12
21.31
15.41
10.72
9.76
8.65

D-Theta(rows 1 to 11)=ptemp-((-594.86273*pden)+(10.66522*pden**2)+8296.0047)

VENTS 1994 - LEG I
 Station T94C18 Cast 26 09 AUG 1994
 LAT: 47 41.53N LONG: 127 48.26W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity		Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
						(CTD)	(Bottle)					
1	2642.3	2681.6	1.769	1.577	0.029947	34.645	34.6414	0.371	27.705	27.702	27.717	27.717
2	2555.5	2593.0	1.764	1.580	0.017433	34.640	34.6383	0.356	27.702	27.700	27.714	27.714
3	2426.2	2461.0	1.771	1.599	0.012553	34.634	34.6315	0.354	27.696	27.694	27.707	27.707
4	2324.3	2357.0	1.781	1.618	0.010243	34.629	34.6268	0.354	27.692	27.690	27.702	27.702
5	2651.5	2691.0	1.773	1.580	0.032174	34.645	34.6424	0.373	27.705	27.703	27.717	27.717
6	2589.2	2627.4	1.776	1.588	0.035626	34.644	34.6403	0.369	27.704	27.701	27.715	27.715
7	2532.7	2569.6	1.766	1.584	0.017370	34.639	34.6361	0.356	27.701	27.698	27.714	27.712
8	2427.7	2462.6	1.770	1.597	0.011752	34.634	34.6308	0.355	27.697	27.694	27.707	27.707
9	2447.6	2482.9	1.770	1.596	0.013559	34.635	34.6325	0.355	27.695	27.692	27.708	27.708
10	2524.7	2561.6	1.770	1.588	0.020722	34.639	34.6367	0.358	27.700	27.699	27.712	27.712
11	2625.7	2664.6	1.771	1.580	0.032521	34.645	34.6429	0.369	27.705	27.703	27.718	27.718
12	2648.2	2687.6	1.774	1.581	0.033118	34.645	34.6414	0.370	27.705	27.702	27.719	27.716

TSM
(ug/l)

23.06
 21.07
 6.28
 7.19
 8.15
 9.14
 22.94
 23.73

D-Theta(rows 1 to 12)=ptemp-((-581.10067*pden)+(10.4157*pden**2))+8106.2488)

VENTS 1994 - LEG I
 Station T94C19 Cast 27 09 AUG 1994
 LAT: 47 49.95N LONG: 127 38.08W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2483.5	2519.5	1.773	1.595	0.015283	34.636	34.6338	0.354	27.698	27.696	27.711	27.709
2	2563.2	2600.8	1.774	1.589	0.022401	34.640	34.6374	0.358	27.701	27.699	27.715	27.713
3	2562.4	2600.1	1.773	1.588	0.027505	34.642	34.6390	0.359	27.703	27.700	27.716	27.714
4	2531.3	2568.3	1.769	1.587	0.020973	34.640	34.6375	0.354	27.701	27.699	27.715	27.713
5	2486.7	2522.8	1.767	1.589	0.013757	34.637	34.6348	0.353	27.699	27.697	27.712	27.711
6	2592.8	2631.1	1.772	1.584	0.027559	34.643	34.6400	0.358	27.703	27.701	27.718	27.715
7	2559.3	2596.8	1.773	1.588	0.027726	34.642	34.6403	0.362	27.703	27.701	27.716	27.715
8	2604.3	2642.9	1.781	1.592	0.033262	34.643	34.6403	0.367	27.703	27.701	27.717	27.715
9	2578.6	2616.5	1.780	1.593	0.034320	34.643	34.6405	0.368	27.703	27.701	27.717	27.715
10	2575.0	2612.9	1.778	1.592	0.033119	34.643	34.6402	0.363	27.703	27.701	27.717	27.715
12	2572.1	2609.9	1.776	1.590	0.029010	34.642	34.6408	0.362	27.702	27.701	27.716	27.715
13	2585.3	2623.5	1.778	1.591	0.032406	34.643	34.6409	0.363	27.703	27.701	27.717	27.715
14	2578.0	2616.0	1.777	1.590	0.032189	34.643		0.363	27.703	27.701	27.717	27.715

TSM
(ug/l)

9.22
 13.41
 14.29
 16.59

23.53
 28.89
 22.00
 18.68
 20.14

D-Theta(rows 1 to 13)=ptemp-((-690.42942*pden)+(12.390602*pden**2)+9619.3326)

VENTS 1994 - LEG I
 Station V94C12 Cast 28 09 AUG 1994
 LAT: 47 55.01N LONG: 127 00.0W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2495.4	2531.7	1.765	1.586	0.024302	34.644	34.6150	0.385	27.705	27.682	27.718	27.695
2	2495.1	2531.4	1.765	1.586	0.024323	34.644	34.6423	0.385	27.705	27.703	27.718	27.717
3	2480.0	2516.0	1.764	1.587	0.024631	34.644	34.6413	0.383	27.705	27.703	27.718	27.716
4	2459.3	2494.8	1.763	1.588	0.025333	34.644	34.6429	0.377	27.705	27.704	27.718	27.717
5	2439.3	2474.4	1.762	1.588	0.023384	34.643	34.6404	0.372	27.704	27.702	27.717	27.715
6	2420.1	2454.8	1.761	1.589	0.018702	34.641	34.6386	0.364	27.703	27.701	27.716	27.714
7	2399.5	2433.8	1.760	1.590	0.013996	34.639	34.6361	0.360	27.701	27.699	27.714	27.712
8	2369.8	2403.5	1.761	1.594	0.008460	34.636	34.6336	0.358	27.699	27.697	27.711	27.709
9	2329.2	2362.1	1.767	1.603	0.009823	34.634	34.6306	0.359	27.697	27.694	27.709	27.706
10	2299.1	2331.5	1.771	1.610	0.008836	34.632	34.6291	0.358	27.695	27.692	27.707	27.704
11	2199.2	2229.6	1.793	1.640	0.009125	34.625	34.6239	0.359	27.687	27.687	27.699	27.698
12	2098.0	2126.5	1.837	1.692	0.014380	34.616	34.6130	0.359	27.677	27.674	27.688	27.685
13	1894.7	1919.5	1.987	1.858	0.026922	34.594	34.5903	0.364	27.647	27.644	27.658	27.655
14	1777.2	1799.9	2.118	1.997	0.004643	34.575	34.5724	0.365	27.622	27.620	27.631	27.629
15	1776.8	1799.5	2.118	1.997	0.004659	34.575	34.5724	0.365	27.622	27.620	27.631	27.629

TSM
(ug/l)

35.72
 37.48
 33.38
 34.07
 23.05
 19.64
 13.94
 10.74
 14.62

18.71

D-Theta (rows 1 to 15) = ptemp - ((-1122.3686 * pden) + (20.188182 * pden ** 2) + 15601.047)

VENTS 1994 - LEG III
 Station V94E01 Cast 01 14 SEP 1994
 LAT: 44 59.93N LONG: 129 30.00W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2711.8	2751.9	1.747	1.548		34.640	34.6445	0.305	27.703	27.707	27.718	27.718	27.718	27.721	
6	2400.0	2433.6	1.772	1.602		34.629	34.6336	0.300	27.692	27.696	27.705	27.705	27.705	27.709	
8	2094.0	2121.9	1.835	1.691		34.611	34.6160	0.299	27.673	27.677	27.684	27.684	27.684	27.688	
10	1796.5	1819.1	2.030	1.908		34.575	34.5819	0.299	27.629	27.634	27.638	27.638	27.638	27.644	
14	1507.5	1525.4	2.421	2.318		34.521	34.5256	0.301	27.554	27.557	27.562	27.562	27.562	27.566	
16	997.1	1007.7	3.311	3.240		34.383	34.3902	0.303	27.364	27.369	27.370	27.370	27.370	27.376	
18	498.2	502.9	4.762	4.723		34.061	34.0654	0.302	26.958	26.961	26.962	26.962	26.962	26.966	

VENTS 1994 - LEG III
 Station T94E01 Cast 02 15 SEP 1994
 LAT: 45 00.54N LONG: 130 11.49W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
4	2194.1	2223.8	1.893	1.739	0.023070	34.611	34.6155	0.303	27.668	27.672	27.680	27.684
6	2098.8	2126.7	1.888	1.743	0.017839	34.609	34.6144	0.302	27.667	27.672	27.678	27.683
8	2002.0	2028.2	1.902	1.765	0.002401	34.601	34.6048	0.291	27.660	27.663	27.670	27.673
10	1808.1	1830.9	2.009	1.887	-0.001030	34.579	34.5813	0.289	27.634	27.636	27.643	27.645
14	1509.1	1527.0	2.364	2.262	0.008419	34.518	34.5217	0.292	27.556	27.559	27.564	27.567
16	1018.6	1029.5	3.250	3.178	0.048032	34.382	34.3850	0.293	27.369	27.371	27.375	27.378
18	496.7	501.4	4.494	4.456	-0.550775	34.035	34.0284	0.293	26.967	26.961	26.971	26.965

TSM
(ug/l)

D-Theta (rows 1 to 7) = (ptemp + (4.637878 * pden)) - 130.09381

VENTS 1994 - LEG III
 Station T94E02 Cast 03 15 SEP 1994
 LAT: 44 58.86N LONG: 130 09.4W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
4	2215.8	2245.9	1.884	1.729	0.014063	34.610	34.6128	0.296	27.668	27.671	27.680	27.683
6	2102.4	2130.4	1.887	1.741	0.018682	34.609	34.6042	0.298	27.667	27.663	27.678	27.675
8	2003.2	2029.4	1.901	1.764	-0.000378	34.600	34.5795	0.289	27.659	27.643	27.670	27.653
10	1808.6	1831.4	2.013	1.890	-0.004461	34.577	34.5227	0.288	27.632	27.588	27.641	27.598
14	1522.6	1540.8	2.318	2.215	0.006697	34.525	34.3872	0.289	27.565	27.455	27.574	27.464
16	1001.2	1011.9	3.275	3.204	0.092674	34.390	34.0505	0.294	27.373	27.102	27.379	27.109
18	494.3	498.9	4.505	4.468	-0.506445	34.046	32.5946	0.291	26.974	25.822	26.978	25.826

TSM
 (ug/l)

D-Theta (rows 1 to 7) = (ptemp + (4.642791 * pden)) - 130.22811

VENTS 1994 - LEG III
 Station T94E03 Cast 04 15 SEP 1994
 LAT: 45 00.28N LONG: 130 15.31W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
4	2304.7	2336.6	1.829	1.667	0.001965	34.618	34.6221	0.293	27.679	27.682	27.691	27.695
6	2098.2	2126.1	1.859	1.714	-0.007510	34.607	34.6117	0.287	27.668	27.672	27.679	27.683
8	2010.8	2037.1	1.900	1.762	-0.005895	34.599	34.6032	0.289	27.658	27.662	27.669	27.672
10	1803.8	1826.5	2.020	1.898	-0.003203	34.576	34.5802	0.288	27.630	27.634	27.640	27.643
14	1518.4	1536.4	2.409	2.305	0.076574	34.528	34.5316	0.291	27.560	27.563	27.569	27.572
16	1003.6	1014.3	3.257	3.186	0.062807	34.382	34.3831	0.291	27.368	27.369	27.375	27.376
18	532.4	537.4	4.438	4.398	-0.359919	34.089	34.0838	0.293	27.016	27.011	27.020	27.016

TSM
 (ug/l)

D-Theta (rows 1 to 7) = (ptemp + (4.606376 * pden)) - 129.22129

VENTS 1994 - LEG III
 Station V94E02 Cast 05 16 SEP 1994
 LAT: 44 55.32N LONG: 130 07.82W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Temp. (CTD)	Salinity (Bottle)	Salinity (CTD)	Atten. (l/m)	Sigma-t (CTD)	Sigma-t (Bottle)	sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2334.0	2366.4	1.822	1.657		34.620	34.6257	0.300	27.681	27.686	27.694	27.694	27.698	
6	2102.1	2130.0	1.860	1.715		34.607	34.6103	0.292	27.668	27.670	27.679	27.679	27.682	
8	1997.1	2023.1	1.901	1.764		34.597	34.6029	0.289	27.657	27.661	27.667	27.667	27.672	
10	1801.7	1824.3	2.021	1.899		34.574	34.5794	0.289	27.629	27.633	27.638	27.638	27.643	
14	1497.3	1515.0	2.402	2.300		34.527	34.5323	0.291	27.560	27.564	27.569	27.569	27.573	
16	1000.0	1010.6	3.302	3.231		34.374	34.3800	0.294	27.357	27.362	27.364	27.364	27.369	
18	497.5	502.2	4.442	4.405		34.042	34.0484	0.291	26.978	26.983	26.982	26.982	26.987	

VENTS 1994 - LEG III
 Station V94E03 Cast 06 16 SEP 1994
 LAT: 44 55.81N LONG: 130 09.71W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2319.9	2352.0	1.817	1.653		34.619	34.6217	0.296	27.681	27.683	27.693	27.695	
6	2098.6	2126.5	1.847	1.702		34.609	34.6130	0.289	27.670	27.674	27.681	27.685	
8	1987.7	2013.6	1.895	1.759		34.600	34.6041	0.290	27.659	27.663	27.670	27.673	
10	1800.5	1823.2	2.010	1.888		34.576	34.5804	0.289	27.631	27.635	27.641	27.644	
14	1498.5	1516.2	2.360	2.258		34.532	34.5362	0.291	27.568	27.571	27.576	27.579	
16	997.2	1007.8	3.276	3.206		34.377	34.3837	0.293	27.362	27.368	27.369	27.374	
18	499.4	504.1	4.565	4.527		34.055	34.0592	0.292	26.975	26.978	26.979	26.982	

VENTS 1994 - LEG III
 Station V94E04 Cast 07 16 SEP 1994
 LAT: 44 56.19N LONG: 130 11.31W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (Bottle)	Sigma-Theta (ug/l)
4	2151.7	2180.6	1.857	1.708		34.614	34.6121	0.294	27.674	27.672	27.685	27.672	27.684	
6	2099.9	2127.8	1.860	1.715		34.607	34.6026	0.289	27.668	27.664	27.679	27.664	27.675	
8	1991.3	2017.3	1.910	1.774		34.598	34.5814	0.289	27.657	27.643	27.667	27.643	27.654	
10	1800.7	1823.3	2.011	1.889		34.576	34.5346	0.290	27.631	27.598	27.641	27.598	27.608	
14	1503.0	1520.9	2.372	2.270		34.530	34.3894	0.291	27.565	27.452	27.573	27.452	27.461	
16	997.4	1008.0	3.197	3.127		34.383	34.0611	0.293	27.374	27.118	27.381	27.118	27.124	
18	500.5	505.2	4.562	4.524		34.055	32.6230	0.291	26.975	25.838	26.979	25.838	25.842	

VENTS 1994 - LEG III
 Station V94E05 Cast 08 16 SEP 1994
 LAT: 44 56.68N LONG: 130 13.23W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2218.7	2248.8	1.895	1.739		34.611	34.6153	0.307	27.668	27.672	27.680	27.684	
6	2095.9	2123.8	1.896	1.751		34.610	34.6147	0.317	27.667	27.671	27.679	27.682	
8	2000.0	2026.1	1.896	1.759		34.601	34.6057	0.293	27.660	27.664	27.671	27.674	
10	1794.6	1817.1	2.033	1.911		34.573	34.5777	0.290	27.627	27.631	27.637	27.640	
14	1486.5	1504.0	2.383	2.282		34.515	34.5202	0.290	27.552	27.556	27.560	27.565	
16	1002.6	1013.3	3.215	3.145		34.379	34.3848	0.293	27.370	27.374	27.376	27.381	
18	499.2	503.8	4.589	4.551		34.065	34.0693	0.292	26.980	26.983	26.984	26.988	

VENTS 1994 - LEG III
 Station V94E06 Cast 09 17 SEP 1994
 LAT: 44 58.39N LONG: 130 12.70W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2208.0	2238.0	1.896	1.741		34.609	34.6159	0.310	27.667	27.672	27.679	27.684	
6	2101.3	2129.3	1.892	1.746		34.608	34.6145	0.315	27.666	27.671	27.677	27.683	
8	2000.0	2026.1	1.898	1.761		34.599	34.6064	0.298	27.658	27.664	27.669	27.675	
10	1803.0	1825.7	2.017	1.895		34.575	34.5817	0.294	27.630	27.635	27.639	27.645	
14	1498.5	1516.2	2.373	2.271		34.527	34.5336	0.297	27.562	27.568	27.571	27.576	
16	1002.6	1013.3	3.254	3.183		34.378	34.3855	0.298	27.365	27.371	27.372	27.378	
18	499.5	504.2	4.494	4.456		34.050	32.5918	0.296	26.979	25.821	26.983	25.825	

VENTS 1994 - LEG III
 Station V94E07 Cast 10 17 SEP 1994
 LAT: 44 57.07N LONG: 130 14.87W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2154.6	2183.5	1.888	1.738		34.610	34.6158	0.310	27.668	27.673	27.680	27.684	
6	2097.8	2125.7	1.889	1.744		34.609	34.6149	0.314	27.667	27.672	27.678	27.683	
8	1997.5	2023.5	1.897	1.760		34.601	34.6070	0.301	27.660	27.665	27.671	27.675	
10	1801.8	1824.5	2.019	1.897		34.575	34.5806	0.294	27.630	27.634	27.639	27.644	
14	1499.9	1517.6	2.393	2.291		34.512	34.5181	0.295	27.549	27.554	27.557	27.562	
16	1001.7	1012.4	3.259	3.188		34.375	34.3818	0.298	27.362	27.368	27.369	27.374	
18	502.1	506.9	4.491	4.453		34.056	34.0623	0.293	26.984	26.989	26.988	26.993	

VENTS 1994 - LEG III
 Station V94E08 Cast 11 17 SEP 1994
 LAT: 44 57.53N LONG: 130 16.76W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (ug/l)
4	2232.3	2262.8	1.858	1.701		34.612	34.6178	0.300	27.672	27.677	27.684	27.689	
6	2099.7	2127.6	1.882	1.737		34.607	34.6135	0.305	27.666	27.671	27.677	27.682	
8	1998.4	2024.5	1.911	1.774		34.596	34.6021	0.293	27.655	27.660	27.666	27.670	
10	1798.5	1821.1	2.048	1.926		34.570	34.5754	0.293	27.623	27.628	27.633	27.637	
14	1500.0	1517.8	2.400	2.298		34.511	34.5159	0.295	27.547	27.551	27.556	27.560	
16	998.2	1008.8	3.239	3.169		34.375	34.3816	0.299	27.364	27.369	27.371	27.376	
18	499.1	503.8	4.474	4.436		34.045	34.0515	0.295	26.977	26.982	26.981	26.986	

VENTS 1994 - LEG III
 Station V94E09 Cast 12 17 SEP 1994
 LAT: 44 57.97N LONG: 130 18.29W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2379.3	2412.5	1.826	1.657		34.620	34.6242	0.298	27.681	27.684	27.694	27.697	
6	2098.1	2126.0	1.870	1.725		34.606	34.6111	0.295	27.666	27.670	27.677	27.681	
8	1998.7	2024.8	1.910	1.773		34.600	34.6052	0.293	27.658	27.662	27.669	27.673	
10	1800.1	1822.7	2.009	1.887		34.577	34.5819	0.294	27.632	27.636	27.642	27.646	
14	1499.4	1517.1	2.336	2.235		34.522	34.5259	0.294	27.562	27.565	27.570	27.573	
16	1001.7	1012.3	3.225	3.155		34.388	34.3943	0.296	27.376	27.381	27.382	27.387	
18	500.0	504.7	4.453	4.415		34.049	34.0554	0.295	26.982	26.987	26.986	26.991	

VENTS 1994 - LEG III
 Station V94E10 Cast 13 17 SEP 1994
 LAT: 45 00.08N LONG: 130 44.92W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2816.2	2858.5	1.696	1.489		34.643	34.6464	0.297	27.709	27.712	27.725	27.727	
6	2699.8	2739.7	1.722	1.525		34.638	34.6417	0.295	27.703	27.706	27.718	27.721	
8	2501.7	2537.4	1.787	1.607		34.627	34.6311	0.295	27.689	27.693	27.703	27.706	
10	2000.9	2027.1	1.899	1.762		34.601	34.6048	0.297	27.660	27.663	27.671	27.674	
14	1494.9	1512.6	2.406	2.304		34.521	34.5251	0.295	27.555	27.558	27.563	27.567	
16	998.7	1009.3	3.280	3.209		34.385	34.3895	0.298	27.368	27.372	27.375	27.378	
18	499.0	503.7	4.595	4.557		34.028	34.0322	0.296	26.950	26.953	26.954	26.958	

VENTS 1994 - LEG III
 Station V94E11 Cast 14 17 SEP 1994
 LAT: 45 56.5N LONG: 129 58.7W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	1442.6	1459.7	2.399	2.301		34.515	34.5204	0.302	27.551	27.555	27.559	27.563	
6	1199.3	1212.8	2.817	2.734		34.449	34.4547	0.296	27.462	27.466	27.469	27.474	
8	1098.1	1110.2	3.029	2.953		34.419	34.4248	0.296	27.419	27.423	27.426	27.430	
10	998.4	1009.1	3.208	3.138		34.388	34.3940	0.297	27.377	27.382	27.384	27.389	
14	746.6	754.1	3.750	3.696		34.241	34.2464	0.296	27.208	27.212	27.213	27.217	
16	498.7	503.4	4.444	4.406		34.033	34.0362	0.297	26.970	26.973	26.974	26.977	

VENTS 1994 - LEG III
 Station V94E12 Cast 15 18 SEP 1994
 LAT: 46 26.74N LONG: 128 30.07W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2693.8	2733.8	1.760	1.563		34.644	34.6437	0.301	27.705	27.705	27.720	27.720	
6	2400.2	2434.3	1.779	1.609		34.628	34.6282	0.293	27.691	27.691	27.704	27.704	
8	2199.1	2229.2	1.823	1.670		34.616	34.6161	0.293	27.678	27.678	27.689	27.690	
10	2001.7	2028.1	1.903	1.766		34.598	34.5979	0.293	27.657	27.657	27.668	27.668	
14	1499.6	1517.6	2.514	2.410		34.526	34.5249	0.298	27.550	27.549	27.559	27.558	
16	1000.2	1011.0	3.531	3.458		34.401	34.4009	0.299	27.357	27.357	27.364	27.364	
18	499.1	503.8	4.633	4.595		34.058	34.0539	0.295	26.970	26.966	26.974	26.971	

VENTS 1994 - LEG III
 Station V94E13 Cast 16 19 SEP 1994
 LAT: 46 23.51N LONG: 127 29.99W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
4	2675.4	2715.1	1.764	1.569		34.643	34.6435	0.305	27.704	27.704	27.719	27.719
6	2400.6	2434.6	1.785	1.615		34.626	34.6221	0.293	27.689	27.686	27.702	27.702
8	2197.4	2227.5	1.837	1.684		34.612	34.6127	0.293	27.674	27.674	27.685	27.685
10	1999.0	2025.4	1.926	1.789		34.593	34.5934	0.293	27.651	27.652	27.662	27.662
14	1498.1	1516.0	2.440	2.337		34.511	34.5111	0.297	27.544	27.544	27.553	27.553
16	998.6	1009.4	3.466	3.394		34.377	34.3763	0.300	27.344	27.344	27.351	27.351
18	498.8	503.6	5.012	4.972		34.075	34.0763	0.297	26.941	26.942	26.945	26.945

VENTS 1994 - LEG III
 Station V94E14 Cast 17 19 SEP 1994
 LAT: 46 20.25N LONG: 126 29.68W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)	TSM (ug/l)
4	2639.5	2678.4	1.734	1.542		34.646	34.6454	0.310	27.709	27.708	27.723	27.723	27.723
6	2401.4	2435.4	1.761	1.591		34.632	34.6313	0.292	27.695	27.695	27.708	27.708	27.708
8	2196.6	2226.6	1.805	1.652		34.620	34.6208	0.295	27.682	27.683	27.694	27.694	27.695
10	2002.5	2028.9	1.909	1.772		34.600	34.6000	0.295	27.658	27.658	27.669	27.669	27.669
14	1501.4	1519.4	2.434	2.331		34.521	34.5206	0.296	27.553	27.552	27.561	27.561	27.561
16	1003.4	1014.2	3.323	3.252		34.379	34.3817	0.298	27.359	27.362	27.366	27.366	27.368
18	503.1	507.9	4.559	4.521		34.055	34.0520	0.295	26.975	26.973	26.980	26.980	26.977

VENTS 1994 - LEG III
 Station V94F01 Cast 01 20 SEP 1994
 LAT: 45 00.22N LONG: 129 45.09W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2598.9	2636.6	1.774	1.586		34.633	34.6330	0.303	27.695	27.695	27.709	27.709
2	2499.1	2534.8	1.770	1.591		34.632	34.6322	0.302	27.695	27.695	27.708	27.708
3	2399.6	2433.3	1.777	1.607		34.628		0.300	27.691		27.704	
4	2399.1	2432.8	1.777	1.607		34.628	34.6273	0.299	27.691	27.690	27.704	27.703
5	2298.6	2330.3	1.786	1.625		34.623	34.6231	0.296	27.686	27.686	27.698	27.699
6	2200.2	2230.0	1.805	1.652		34.618	34.6173	0.295	27.681	27.680	27.692	27.692
7	2201.5	2231.3	1.805	1.652		34.618		0.296	27.681		27.692	
8	2150.6	2179.5	1.822	1.673		34.614		0.296	27.676		27.688	
9	2151.5	2180.4	1.823	1.674		34.614		0.296	27.676		27.688	
10	2099.3	2127.3	1.837	1.692		34.610	34.6099	0.295	27.672	27.672	27.683	27.683
11	2099.2	2127.1	1.838	1.693		34.610	34.6103	0.295	27.672	27.672	27.683	27.683
12	2048.7	2075.8	1.856	1.715		34.606	34.6064	0.295	27.667	27.668	27.678	27.678
13	2049.3	2076.3	1.857	1.716		34.606	34.6054	0.295	27.667	27.667	27.678	27.677
14	1997.9	2024.0	1.880	1.743		34.601	34.6037	0.295	27.661	27.664	27.672	27.674
15	1899.1	1923.5	1.942	1.813		34.589	34.5889	0.295	27.647	27.647	27.657	27.657
16	1898.7	1923.1	1.943	1.814		34.589	34.5883	0.295	27.647	27.646	27.657	27.656
17	1796.2	1818.8	2.019	1.897		34.578	34.5779	0.296	27.632	27.632	27.642	27.642
18	1599.9	1619.3	2.240	2.132		34.545	34.5461	0.298	27.588	27.589	27.597	27.598
19	1398.3	1414.5	2.555	2.459		34.502		0.299	27.527		27.535	
20	1199.2	1212.6	2.817	2.734		34.446		0.299	27.459		27.467	
21	994.9	1005.5	3.320	3.249		34.370		0.299	27.352		27.359	

VENTS 1994 - LEG III
 Station V94F01 Cast 01 20 SEP 1994
 LAT: 45 00.22N LONG: 129 45.09W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.836		189.3		
2.839		189.1		
2.843		187.6		
2.843		185.8		
2.851		184.2		60.32
2.866	182.700	182.7	2.866	16.23 10.92
2.893	182.000	182.5	2.881	12.00
2.890		181.8		
2.920	2.912	179.8	179.800	16.03
2.951		178.3		
3.014		172.5		
3.093		163.9		
3.118		156.0		
3.149		140.0		

VENTS 1994 - LEG III
 Station V94F02 Cast 02 20 SEP 1994
 LAT: 44 58.20N LONG: 130 12.76W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	salinity (CTD)	salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
2	2237.6	2268.1	1.897	1.739		34.610	34.6117	0.307	27.667	27.669	27.679	27.681
3	2238.0	2268.5	1.897	1.739		34.610	34.6123	0.307	27.667	27.669	27.679	27.681
4	2237.7	2268.2	1.897	1.739		34.610	34.6122	0.308	27.667	27.669	27.679	27.681
5	2223.2	2253.4	1.900	1.744		34.610	34.6119	0.308	27.667	27.669	27.679	27.681
6	2199.4	2229.2	1.896	1.742		34.610	34.6115	0.311	27.667	27.669	27.679	27.680
7	2198.7	2228.5	1.897	1.743		34.610	34.6116	0.311	27.667	27.669	27.679	27.680
9	2152.1	2181.0	1.894	1.744		34.610	34.6117	0.312	27.668	27.669	27.679	27.680
10	2103.4	2131.4	1.900	1.754		34.610	34.6117	0.312	27.667	27.668	27.678	27.680
11	2104.7	2132.8	1.898	1.752		34.610	34.6126	0.311	27.667	27.669	27.678	27.681
12	2052.2	2079.3	1.892	1.751		34.606	34.6084	0.305	27.665	27.666	27.675	27.677
13	2052.8	2079.9	1.893	1.752		34.607	34.6080	0.305	27.665	27.666	27.676	27.677
14	2001.7	2027.9	1.892	1.755		34.602	34.6044	0.300	27.661	27.663	27.672	27.674
15	1898.1	1922.4	1.944	1.815		34.590	34.5922	0.294	27.648	27.649	27.658	27.659
16	1899.3	1923.7	1.944	1.815		34.590	34.5909	0.294	27.648	27.648	27.658	27.658
17	1803.6	1826.3	2.021	1.899		34.575	34.5767	0.294	27.630	27.631	27.639	27.641
18	1602.5	1621.9	2.213	2.105		34.542	34.5419	0.295	27.588	27.588	27.596	27.596
19	1400.7	1417.0	2.546	2.450		34.509	34.5102	0.296	27.533	27.534	27.542	27.543
20	1202.0	1215.3	2.892	2.809		34.461	34.4634	0.297	27.465	27.467	27.472	27.474
21	1001.5	1012.1	3.251	3.180		34.382	34.3812	0.298	27.369	27.368	27.375	27.375

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SI04-UNFIL (umol/L)	SI04-FIL (umol/L)	TSM (ug/l)
2.877	2.862	183.3	183.0	34.54
2.879		182.9		
2.879	2.855	182.8	182.8	43.23
2.878	2.854	183.0	182.8	36.82
2.866	2.826	183.4	183.2	225.93
2.883	2.867	182.2	182.0	31.60
2.894		181.2		
2.923	2.921	179.0	178.9	14.35
2.954		177.0		
3.018		172.0		
3.091		163.6		
3.144		153.3		
3.161		141.4		

VENTS 1994 - LEG III
 Station V94F03 Cast 03 21 SEP 1994
 LAT: 44 56.13N LONG: 130 40.30W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2602.5	2640.3	1.754	1.566		34.633	34.6346	0.294	27.697	27.698	27.711	27.712
2	2500.1	2535.8	1.796	1.616		34.626	34.6274	0.294	27.688	27.689	27.701	27.703
3	2400.0	2433.7	1.815	1.644		34.622	34.6222	0.295	27.683	27.683	27.696	27.696
4	2399.0	2432.7	1.816	1.645		34.622	34.6227	0.295	27.683	27.684	27.696	27.697
5	2296.8	2328.5	1.831	1.669		34.618	34.6189	0.295	27.679	27.680	27.691	27.692
6	2202.0	2231.9	1.845	1.691		34.614	34.6148	0.296	27.675	27.675	27.686	27.687
7	2201.8	2231.6	1.846	1.692		34.614	34.6151	0.297	27.674	27.675	27.686	27.687
8	2148.7	2177.5	1.860	1.711		34.611	34.6117	0.297	27.671	27.672	27.682	27.683
9	2148.0	2176.8	1.861	1.712		34.611	34.6145	0.298	27.671	27.674	27.682	27.683
10	2099.6	2127.5	1.884	1.739		34.607	34.6085	0.302	27.666	27.667	27.677	27.678
11	2099.2	2127.1	1.885	1.740		34.607	34.6088	0.302	27.666	27.667	27.677	27.678
12	2049.2	2076.2	1.895	1.754		34.604	34.6038	0.300	27.663	27.663	27.674	27.673
13	2049.0	2076.0	1.896	1.755		34.603	34.6047	0.300	27.662	27.663	27.673	27.674
14	1997.5	2023.6	1.908	1.771		34.599	34.6001	0.296	27.658	27.659	27.668	27.669
15	1904.7	1929.1	1.982	1.852		34.586	34.5856	0.294	27.641	27.641	27.652	27.651
16	1908.4	1932.9	1.979	1.849		34.587	34.5850	0.294	27.642	27.641	27.653	27.651
17	1803.5	1826.2	2.031	1.909		34.573	34.5725	0.294	27.627	27.627	27.637	27.636
18	1601.7	1621.0	2.253	2.144		34.538	34.5374	0.295	27.581	27.581	27.590	27.590
19	1396.4	1412.6	2.554	2.458		34.489	34.4871	0.296	27.517	27.515	27.525	27.523
20	1205.3	1218.7	2.855	2.772		34.441	34.4408	0.297	27.452	27.452	27.459	27.459
21	1001.0	1011.6	3.236	3.166		34.374	34.3741	0.298	27.364	27.364	27.370	27.370

VENTS 1994 - LEG III
 Station V94F03 Cast 03 21 SEP 1994
 LAT: 44 56.13N LONG: 130 40.30W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.810		184.4		
2.837		184.3		
2.853	2.853	184.3	184.4	12.42
2.863		184.0		
2.869	2.863	183.4	183.4	16.57
2.876	2.869	182.9	182.9	3.52
2.880	2.870	182.5	182.2	20.90
2.890		181.6		4.75
2.898		180.9		
2.932	2.934	179.0	178.5	8.09
2.957		177.7		
3.021		171.9		
3.092		163.3		
3.128		154.1		
3.152		142.2		

VENTS 1994 - LEG III
 Station V94F04 Cast 04 21 SEP 1994
 LAT: 44 53.03N LONG: 131 07.97W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2599.0	2636.7	1.737	1.549		34.635	34.6363	0.295	27.700	27.701	27.714	27.715
2	2599.7	2637.3	1.739	1.551		34.635	34.6361	0.293	27.700	27.700	27.714	27.714
3	2599.2	2636.9	1.740	1.552		34.635	34.6358	0.295	27.699	27.700	27.713	27.714
4	2598.8	2636.5	1.741	1.553		34.635	34.6360	0.294	27.699	27.700	27.713	27.714
5	2598.4	2636.1	1.741	1.553		34.635	34.6357	0.294	27.699	27.700	27.713	27.714
6	2401.2	2434.8	1.807	1.636		34.623	34.6243	0.293	27.685	27.686	27.698	27.699
7	2402.2	2435.9	1.808	1.637		34.623	34.6242	0.294	27.685	27.686	27.698	27.699
8	2199.2	2229.0	1.860	1.706		34.612	34.6135	0.294	27.672	27.673	27.684	27.685
9	2149.4	2178.2	1.874	1.725		34.609	34.6113	0.293	27.668	27.670	27.680	27.682
10	2149.1	2178.0	1.875	1.726		34.609	34.6099	0.293	27.668	27.669	27.680	27.680
11	2097.7	2125.6	1.891	1.746		34.606	34.6075	0.294	27.665	27.666	27.676	27.677
12	2094.6	2122.4	1.892	1.747		34.605	34.6061	0.294	27.664	27.665	27.675	27.676
13	2000.6	2026.8	1.929	1.792		34.595	34.5967	0.294	27.653	27.654	27.663	27.665
14	2001.9	2028.0	1.928	1.790		34.595	34.5950	0.294	27.653	27.653	27.664	27.664
15	1898.9	1923.3	2.005	1.875		34.585	34.5865	0.295	27.639	27.640	27.649	27.650
16	1900.1	1924.4	2.004	1.874		34.585	34.5857	0.294	27.639	27.639	27.649	27.650
17	1799.7	1822.3	2.069	1.946		34.573	34.5740	0.294	27.624	27.625	27.634	27.635
18	1600.3	1619.6	2.280	2.171		34.539	34.5406	0.296	27.580	27.581	27.589	27.590
19	1400.2	1416.4	2.559	2.463		34.500	34.5001	0.296	27.525	27.525	27.533	27.533
20	1202.1	1215.5	2.886	2.803		34.447	34.4491	0.297	27.454	27.456	27.461	27.463
21	1000.5	1011.2	3.281	3.210		34.386	34.3878	0.298	27.369	27.370	27.376	27.377

VENTS 1994 - LEG III
 Station V94F04 Cast 04 21 SEP 1994
 LAT: 44 53.03N LONG: 131 07.97W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.844		184.0		
2.890	2.886	184.0	184.0	6.37
2.918		182.7		
2.927	2.927	182.4	182.5	10.06
2.934	2.931	181.8	181.8	8.58
2.960	2.962	180.3	180.5	11.92
2.987	2.982	178.3	178.4	8.20
3.016		176.7		
3.080		171.4		
3.138		163.7		
3.184		153.7		
3.209		140.9		

VENTS 1994 - LEG III
 Station V94F05 Cast 05 21 SEP 1994
 LAT: 44 50.02N LONG: 131 34.96W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	sigma-t (CTD)	sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3400.6	3456.4	1.545	1.282		34.670	34.6701	0.300	27.742	27.742	27.761	27.761
2	3400.9	3456.7	1.544	1.281		34.670	34.6724	0.299	27.742	27.744	27.761	27.763
3	3200.5	3251.5	1.554	1.312		34.665	34.6657	0.293	27.737	27.738	27.755	27.755
4	3003.0	3049.4	1.609	1.385		34.655	34.6557	0.293	27.725	27.726	27.742	27.742
5	2802.3	2844.3	1.652	1.447		34.647	34.6453	0.293	27.716	27.714	27.731	27.729
6	2596.7	2634.3	1.717	1.530		34.637	34.6380	0.293	27.703	27.704	27.717	27.717
7	2596.0	2633.6	1.718	1.531		34.638	34.6385	0.294	27.704	27.704	27.717	27.718
8	2400.7	2434.3	1.793	1.623		34.626	34.6272	0.294	27.688	27.689	27.701	27.702
9	2201.1	2230.9	1.845	1.691		34.615	34.6156	0.294	27.675	27.676	27.687	27.688
10	2199.9	2229.7	1.844	1.691		34.615	34.6148	0.294	27.675	27.675	27.687	27.687
11	2102.1	2130.1	1.868	1.723		34.610	34.6099	0.295	27.670	27.670	27.681	27.681
12	2102.8	2130.8	1.868	1.723		34.610	34.6116	0.295	27.670	27.671	27.681	27.682
13	2002.8	2028.9	1.909	1.772		34.601	34.6025	0.295	27.659	27.660	27.670	27.671
14	2003.0	2029.2	1.910	1.773		34.601	34.6000	0.294	27.659	27.658	27.670	27.669
15	1901.4	1925.8	1.970	1.840		34.590	34.5907	0.294	27.646	27.646	27.656	27.656
16	1901.1	1925.5	1.972	1.842		34.590	34.5896	0.294	27.645	27.645	27.656	27.655
17	1800.1	1822.8	2.046	1.924		34.577	34.5772	0.294	27.629	27.629	27.639	27.639
18	1599.4	1618.7	2.289	2.180		34.540	34.5411	0.296	27.580	27.581	27.589	27.590
19	1399.4	1415.7	2.600	2.504		34.495	34.4965	0.297	27.518	27.519	27.526	27.527
20	1199.6	1213.0	2.944	2.860		34.454	34.4554	0.297	27.454	27.455	27.462	27.463
21	1000.0	1010.6	3.388	3.316		34.402	34.4070	0.300	27.372	27.375	27.378	27.382

VENTS 1994 - LEG III
 Station V94F05 Cast 05 21 SEP 1994
 LAT: 44 50.02N LONG: 131 34.96W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.660		182.9		
2.683		181.1		
2.726		182.1		
2.765		182.8		
2.813	2.820	183.9	183.8	9.82
2.869		183.9		
2.902	2.895	183.4	183.3	9.35
2.913	2.910	182.4	182.5	10.84
2.932	2.936	181.3	181.4	9.59
2.956	2.959	179.2	179.2	9.03
2.987		177.1		
3.061		171.3		
3.133		162.6		
3.173		152.5		
3.028		139.1		

VENTS 1994 - LEG III
 Station V94F06 Cast 06 21 SEP 1994
 LAT: 44 42.89N LONG: 132 43.17W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3601.7	3662.5	1.546	1.262		34.673	34.6732	0.298	27.744	27.745	27.765	27.765
2	3399.8	3455.5	1.543	1.280		34.669	34.6690	0.292	27.741	27.741	27.760	27.760
3	3199.5	3250.4	1.554	1.312		34.664	34.6635	0.292	27.737	27.736	27.754	27.754
4	2999.3	3045.7	1.595	1.372		34.656	34.6549	0.292	27.727	27.726	27.743	27.742
5	2798.1	2840.0	1.647	1.442		34.647	34.6457	0.292	27.716	27.715	27.731	27.730
6	2597.4	2635.0	1.715	1.528		34.637	34.6358	0.293	27.703	27.702	27.717	27.716
7	2399.1	2432.7	1.791	1.621		34.625	34.6248	0.294	27.688	27.687	27.700	27.700
8	2399.9	2433.5	1.791	1.621		34.625	34.6245	0.294	27.688	27.687	27.700	27.700
9	2199.8	2229.5	1.835	1.682		34.616		0.294	27.677		27.689	
10	2198.7	2228.4	1.835	1.682		34.616		0.294	27.677		27.689	
11	2100.1	2128.0	1.869	1.724		34.609	34.6092	0.294	27.669	27.669	27.680	27.680
12	2099.8	2127.7	1.870	1.725		34.609	34.6073	0.295	27.669	27.667	27.680	27.678
13	2000.7	2026.8	1.914	1.777		34.600	34.5995	0.294	27.658	27.658	27.669	27.668
14	2000.0	2026.1	1.915	1.778		34.600	34.5979	0.294	27.658	27.656	27.668	27.667
15	1900.0	1924.3	1.979	1.849		34.588	34.5866	0.295	27.643	27.642	27.653	27.652
16	1900.4	1924.8	1.981	1.851		34.587	34.5872	0.296	27.642	27.642	27.652	27.653
17	1799.6	1822.2	2.062	1.940		34.573	34.5721	0.295	27.625	27.624	27.634	27.634
18	1600.7	1620.1	2.257	2.148		34.540	34.5397	0.296	27.582	27.582	27.591	27.591
19	1398.3	1414.5	2.538	2.442		34.498	34.5155	0.298	27.525	27.539	27.533	27.547
20	1199.5	1212.8	2.894	2.811		34.451	34.4510	0.298	27.456	27.456	27.464	27.464
21	1000.6	1011.2	3.278	3.207		34.384	34.3818	0.301	27.368	27.366	27.374	27.373

VENTS 1994 - LEG III
 Station V94F06 Cast 06 21 SEP 1994
 LAT: 44 42.89N LONG: 132 43.17W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.658		183.5		
2.668		180.8		
2.695		180.0		
2.741		180.6		
2.780		182.2		
2.836		183.1		
2.875	2.883	184.1	183.8	13.89
2.916		183.1		
2.926	2.924	182.3	182.5	11.19
2.942	2.946	181.0	180.9	15.85
2.985	2.969	178.8	179.1	15.19
3.013		177.0		
3.072		171.8		
3.139		164.1		
3.193		153.9		
3.217		141.4		

VENTS 1994 - LEG III
 Station V94F07 Cast 07 21 SEP 1994
 LAT: 44 37.05N LONG: 133 50.94W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3600.6	3661.3	1.541	1.257		34.673	34.6860	0.291	27.745	27.745	27.765	27.774
2	3398.3	3453.9	1.548	1.285		34.668	34.6495	0.292	27.740	27.755	27.759	27.774
3	3199.9	3250.8	1.564	1.321		34.663	34.6495	0.292	27.735	27.724	27.753	27.742
4	3001.4	3047.7	1.602	1.378		34.656	34.6553	0.292	27.727	27.726	27.743	27.742
5	2799.9	2841.8	1.641	1.436		34.649	34.6485	0.292	27.718	27.718	27.733	27.733
6	2601.0	2638.7	1.687	1.500		34.641	34.6399	0.293	27.708	27.707	27.722	27.721
7	2399.9	2433.4	1.762	1.592		34.630	34.6302	0.293	27.694	27.694	27.707	27.707
8	2399.6	2433.2	1.762	1.592		34.630	34.6301	0.293	27.694	27.694	27.707	27.707
9	2200.4	2230.1	1.844	1.691		34.616	34.6164	0.294	27.676	27.677	27.688	27.688
10	2200.5	2230.2	1.845	1.692		34.616	34.6158	0.294	27.676	27.676	27.688	27.688
11	2099.9	2127.7	1.884	1.739		34.608	34.6089	0.295	27.667	27.667	27.678	27.679
12	2100.8	2128.7	1.884	1.739		34.609	34.6083	0.295	27.668	27.667	27.679	27.678
13	1999.3	2025.4	1.930	1.793		34.599		0.294	27.656	27.667	27.667	27.667
14	1998.9	2024.9	1.931	1.794		34.599	34.5986	0.295	27.656	27.656	27.666	27.666
15	1900.1	1924.4	1.988	1.858		34.588	34.5883	0.295	27.643	27.643	27.653	27.653
16	1900.0	1924.3	1.989	1.859		34.588	34.5873	0.295	27.642	27.642	27.653	27.652
17	1799.6	1822.2	2.076	1.953		34.574	34.5735	0.295	27.624	27.624	27.634	27.634
18	1599.2	1618.5	2.307	2.198		34.537	34.5331	0.296	27.576	27.573	27.585	27.582
19	1399.6	1415.8	2.619	2.522		34.495	34.4944	0.297	27.516	27.515	27.524	27.524
20	1199.5	1212.8	2.960	2.876		34.443	34.4330	0.299	27.444	27.436	27.452	27.444
21	1002.3	1013.0	3.361	3.289		34.377		0.299	27.354	27.361	27.361	27.361

VENTS 1994 - LEG III
 Station V94F07 Cast 07 21 SEP 1994
 LAT: 44 37.05N LONG: 133 50.94W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.624		181.1		
2.646		179.8		
2.676		179.6		
2.714		179.8		
2.749		181.8		
2.790		181.4		
2.841	2.838	182.5	182.4	17.08
2.893	2.889	182.5	182.5	16.43
2.911	2.908	181.6	181.7	16.74
				19.78
2.950	2.960	178.8	179.0	20.88
2.984		176.7		
3.060		168.2		
3.124		162.1		
3.171		151.4		
3.194		139.2		

VENTS 1994 - LEG III
 Station V94F08 Cast 08 22 SEP 1994
 LAT: 44 29.99N LONG: 135 00.19W

Miskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3798.5	3864.3	1.546	1.240		34.675	34.675	0.294	27.746	27.748	27.768	27.768
2	3499.8	3558.0	1.547	1.274		34.669	34.669	0.292	27.741	27.748	27.761	27.761
3	3199.5	3250.4	1.560	1.318		34.662	34.662	0.292	27.735	27.738	27.752	27.752
4	2999.2	3045.4	1.592	1.369		34.656	34.656	0.293	27.727	27.732	27.744	27.744
5	2800.6	2842.5	1.630	1.425		34.649	34.649	0.293	27.719	27.725	27.734	27.734
6	2598.6	2636.2	1.713	1.526		34.638	34.638	0.293	27.704	27.711	27.718	27.718
7	2400.2	2433.7	1.784	1.614		34.626	34.626	0.294	27.689	27.698	27.702	27.702
8	2399.2	2432.7	1.784	1.614		34.626	34.626	0.294	27.689	27.698	27.702	27.702
9	2200.2	2230.0	1.851	1.697		34.614	34.614	0.296	27.674	27.685	27.686	27.686
10	2202.3	2232.1	1.851	1.697		34.614	34.614	0.295	27.674	27.687	27.686	27.686
11	2101.4	2129.3	1.890	1.744		34.607	34.607	0.295	27.665	27.677	27.677	27.677
12	2103.1	2131.1	1.890	1.744		34.607	34.607	0.295	27.665	27.673	27.677	27.677
13	1999.6	2025.6	1.938	1.800		34.598	34.598	0.296	27.655	27.653	27.665	27.665
14	1999.9	2025.9	1.938	1.800		34.598	34.598	0.296	27.655	27.655	27.665	27.665
15	1899.3	1923.6	2.007	1.877		34.585	34.585	0.296	27.639	27.640	27.649	27.649
16	1898.4	1922.6	2.009	1.879		34.585	34.585	0.296	27.639	27.640	27.649	27.649
17	1799.2	1821.7	2.084	1.961		34.572	34.572	0.296	27.622	27.624	27.632	27.632
18	1598.5	1617.7	2.290	2.181		34.501	34.501	0.297	27.582	27.585	27.591	27.591
19	1399.0	1415.2	2.597	2.501		34.501	34.501	0.298	27.523	27.526	27.531	27.531
20	1199.6	1212.9	2.952	2.868		34.443	34.443	0.300	27.445	27.490	27.452	27.452
21	1001.8	1012.4	3.425	3.353		34.378	34.378	0.301	27.349	27.352	27.356	27.356

VENTS 1994 - LEG III
 Station V94F08 Cast 08 22 SEP 1994
 LAT: 44 29.99N LONG: 135 00.19W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.608		182.4		
2.632		180.1		
2.665		179.4		
2.697		179.8		
2.731		180.4		
2.793		181.2		
2.840	2.840	183.0	182.8	7.01
2.880	2.880	182.7	182.7	7.84
2.904	2.905	181.8	181.7	8.66
2.933	2.926	180.6	180.6	9.54
2.956	2.957	178.9	178.9	8.76
2.988		176.9		
3.045		171.2		
3.118		163.0		
3.165		152.5		
3.187		137.8		

VENTS 1994 - LEG III
 Station V94F09 Cast 09 22 SEP 1994
 LAT: 44 07.00N LONG: 136 13.22W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (1/m)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3802.1	3867.9	1.538	1.232		34.675	34.6763	0.294	0.294	27.747	27.748	27.768	27.769
2	3500.4	3558.4	1.536	1.263		34.670	34.6683	0.293	0.293	27.743	27.741	27.762	27.761
3	3198.4	3249.1	1.554	1.312		34.663	34.6621	0.293	0.293	27.736	27.735	27.753	27.753
4	3000.0	3046.1	1.578	1.355		34.658	34.6575	0.294	0.294	27.730	27.730	27.746	27.746
5	2799.0	2840.7	1.626	1.422		34.650	34.6508	0.294	0.294	27.720	27.721	27.735	27.736
6	2600.8	2638.4	1.696	1.509		34.640	34.6420	0.294	0.294	27.707	27.708	27.721	27.722
7	2399.5	2433.0	1.776	1.606		34.629	34.6330	0.295	0.295	27.692	27.695	27.705	27.708
8	2399.5	2433.0	1.775	1.605		34.629	34.6330	0.295	0.295	27.692	27.695	27.705	27.707
9	2199.6	2229.2	1.848	1.695		34.617	34.6235	0.296	0.296	27.677	27.682	27.688	27.694
10	2200.1	2229.7	1.849	1.695		34.617	34.6232	0.295	0.295	27.677	27.682	27.688	27.693
11	2102.4	2130.2	1.892	1.746		34.610	34.6159	0.296	0.296	27.668	27.672	27.679	27.684
12	2102.7	2130.5	1.892	1.746		34.610	34.6158	0.296	0.296	27.668	27.672	27.679	27.684
13	2000.8	2026.7	1.936	1.798		34.600	34.6060	0.296	0.296	27.656	27.661	27.667	27.672
14	2001.4	2027.4	1.937	1.799		34.600	34.6046	0.296	0.296	27.656	27.660	27.667	27.671
15	1902.8	1927.0	2.000	1.870		34.590	34.5943	0.298	0.298	27.643	27.647	27.653	27.657
16	1901.8	1926.0	2.003	1.873		34.589	34.5932	0.297	0.297	27.642	27.646	27.652	27.656
17	1800.0	1822.5	2.092	1.969		34.573	34.5755	0.297	0.297	27.622	27.624	27.632	27.634
18	1601.9	1621.2	2.344	2.234		34.537	34.5411	0.298	0.298	27.573	27.576	27.582	27.585
19	1400.1	1416.2	2.624	2.527		34.494	34.4952	0.300	0.300	27.515	27.516	27.523	27.524
20	1201.0	1214.3	2.867	2.784		34.436	34.4364	0.301	0.301	27.447	27.447	27.454	27.455
21	1000.8	1011.4	3.210	3.140		34.355	34.3550	0.301	0.301	27.351	27.351	27.357	27.357

VENTS 1994 - LEG III
 Station V94F09 Cast 09 22 SEP 1994
 LAT: 44 07.00N LONG: 136 13.22W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.596		181.3		
2.618		179.5		
2.655		178.8		
2.679		178.6		
2.726		179.3		
2.772		180.2		
2.829	2.892	180.5	180.6	8.31
2.870	2.870	180.8	180.9	9.89
2.891	2.892	180.2	180.1	10.60
2.913	2.914	179.9	180.1	9.25
2.945	2.945	178.4	178.4	10.57
2.976		176.4		
3.048		169.8		
3.111		161.8		
3.143		154.1		
3.150		142.0		

VENTS 1994 - LEG III
 Station V94F10 Cast 10 22 SEP 1994
 LAT: 43 44.06N LONG: 137 26.00W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom.	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4001.5	4072.5	1.532	1.204		34.680	34.6809	0.295	27.751	27.752	27.774	27.775
2	3698.8	3761.7	1.522	1.228		34.676	34.6760	0.292	27.749	27.749	27.770	27.770
3	3299.6	3352.7	1.534	1.282		34.668	34.6679	0.293	27.741	27.741	27.759	27.759
4	2999.6	3045.6	1.578	1.355		34.658	34.6589	0.294	27.730	27.731	27.746	27.747
5	2800.2	2841.8	1.624	1.420		34.651	34.6511	0.294	27.721	27.721	27.736	27.736
6	2599.5	2636.9	1.698	1.511		34.640	34.6408	0.294	27.707	27.707	27.720	27.721
7	2400.0	2433.4	1.770	1.600		34.630	34.6307	0.295	27.693	27.694	27.706	27.706
8	2399.9	2433.3	1.772	1.602		34.629	34.6299	0.295	27.692	27.693	27.705	27.705
9	2201.7	2231.3	1.847	1.693		34.616	34.6170	0.296	27.676	27.677	27.688	27.688
10	2201.4	2230.9	1.848	1.694		34.616	34.6175	0.297	27.676	27.677	27.688	27.688
11	2100.3	2128.0	1.896	1.750		34.608	34.6086	0.296	27.666	27.666	27.677	27.677
12	2100.4	2128.1	1.897	1.751		34.608	34.6080	0.297	27.666	27.666	27.677	27.677
13	1999.1	2025.0	1.941	1.803		34.598	34.5983	0.298	27.654	27.655	27.665	27.665
14	1999.0	2024.8	1.941	1.803		34.598	34.5982	0.297	27.654	27.654	27.665	27.665
15	1900.2	1924.3	2.005	1.875		34.588	34.5884	0.298	27.641	27.641	27.652	27.652
16	1900.5	1924.7	2.005	1.875		34.588	34.5874	0.298	27.641	27.641	27.651	27.651
17	1801.6	1824.1	2.095	1.972		34.573	34.5732	0.298	27.622	27.622	27.632	27.632
18	1604.4	1623.6	2.331	2.221		34.538	34.5380	0.300	27.575	27.575	27.584	27.584
19	1399.9	1416.0	2.659	2.562		34.497	34.4977	0.300	27.514	27.515	27.522	27.523
20	1201.4	1214.6	2.997	2.913		34.442	34.4424	0.301	27.440	27.440	27.448	27.448
21	999.8	1010.3	3.342	3.271		34.362	34.3626	0.302	27.344	27.344	27.351	27.351

VENTS 1994 - LEG III
 Station V94F10 Cast 10 22 SEP 1994
 LAT: 43 44.06N LONG: 137 26.00W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.575		179.9		
2.591		177.9		
2.638		176.9		
2.688		177.7		
2.731		178.2		
2.784		179.5		
2.833	2.831	180.6	180.5	11.17
2.877	2.877	181.1	180.9	10.00
2.900	2.900	180.2	180.0	11.72
2.924	2.925	179.4	179.4	12.59
2.950	2.949	177.8	177.8	13.15
2.981		175.7		
3.049		169.7		
3.113		160.4		
3.156		150.4		
3.168		138.6		

VENTS 1994 - LEG III
 Station V94F11 Cast 11 23 SEP 1994
 LAT: 43 19.89N LONG: 138 39.98W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4000.3	4071.1	1.535	1.207		34.679	34.6785	0.296	27.750	27.750	27.773	27.773
2	3700.0	3762.8	1.517	1.223		34.676	34.6760	0.293	27.749	27.749	27.770	27.770
3	3294.3	3347.1	1.535	1.283		34.667	34.6678	0.293	27.740	27.741	27.758	27.759
4	3000.9	3046.8	1.574	1.351		34.659	34.6588	0.294	27.731	27.731	27.747	27.747
5	2802.3	2843.8	1.626	1.421		34.651	34.6505	0.294	27.721	27.720	27.736	27.735
6	2600.8	2638.1	1.696	1.509		34.641	34.6408	0.295	27.708	27.707	27.721	27.721
7	2399.7	2433.0	1.761	1.591		34.631	34.6321	0.296	27.695	27.696	27.707	27.708
8	2401.0	2434.3	1.761	1.591		34.631	34.6314	0.297	27.695	27.695	27.707	27.708
9	2198.9	2228.4	1.844	1.691		34.617	34.6180	0.297	27.677	27.678	27.689	27.690
10	2199.9	2229.4	1.844	1.691		34.617	34.6166	0.297	27.677	27.677	27.689	27.688
11	2098.5	2126.1	1.888	1.743		34.609	34.6095	0.297	27.667	27.668	27.678	27.679
12	2098.5	2126.1	1.889	1.744		34.608	34.6077	0.297	27.666	27.666	27.678	27.677
13	1999.2	2025.0	1.934	1.797		34.599	34.5980	0.298	27.656	27.655	27.666	27.665
14	1999.3	2025.1	1.934	1.797		34.599	34.5982	0.298	27.656	27.655	27.666	27.666
15	1899.1	1923.2	1.985	1.855		34.588	34.5898	0.298	27.643	27.644	27.653	27.654
16	1899.1	1923.2	1.985	1.855		34.588	34.5884	0.298	27.643	27.643	27.653	27.653
17	1799.0	1821.4	2.060	1.938		34.574	34.5742	0.299	27.626	27.626	27.635	27.635
18	1599.5	1618.6	2.261	2.152		34.541	34.5425	0.300	27.583	27.584	27.593	27.593
19	1399.0	1415.0	2.579	2.483		34.489	34.4900	0.301	27.515	27.515	27.523	27.524
20	1198.0	1211.2	2.909	2.826		34.434	34.4362	0.303	27.442	27.443	27.449	27.451
21	999.7	1010.1	3.284	3.213		34.355	34.3565	0.304	27.344	27.345	27.351	27.352

VENTS 1994 - LEG III
 Station V94Fil Cast 11 23 SEP 1994
 LAT: 43 19.89N LONG: 138 39.98W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.577		179.8		
2.587		177.6		
2.634		177.6		
2.681		178.0		
2.728		178.3		
2.782		179.8		
2.824	2.823	181.0	181.1	7.10
2.877	2.876	181.1	181.1	8.00
2.899	2.897	180.7	180.4	8.16
2.921	2.917	179.7	179.6	9.95
2.943	2.944	178.5	178.8	11.59
2.975		176.6		
3.033		171.6		
3.108		162.9		
3.147		152.9		
3.157		140.0		

VENTS 1994 - LEG III
 Station V94F12 Cast 12 23 SEP 1994
 LAT: 42 35.16N LONG: 140 05.08W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4199.8	4275.8	1.546	1.195		34.682	34.6809	0.297	27.752	27.751	27.777	27.776
2	3802.3	3867.5	1.515	1.210		34.679	34.6781	0.294	27.752	27.751	27.773	27.772
3	3400.7	3455.8	1.520	1.258		34.671	34.6702	0.293	27.745	27.744	27.763	27.763
4	2994.1	3039.7	1.574	1.352		34.659	34.6583	0.294	27.731	27.731	27.747	27.747
5	2806.6	2848.1	1.609	1.404		34.653	34.6524	0.295	27.724	27.723	27.739	27.738
6	2603.9	2641.1	1.676	1.489		34.644	34.6426	0.296	27.711	27.710	27.725	27.724
7	2401.5	2434.7	1.752	1.582		34.633	34.6330	0.296	27.697	27.697	27.710	27.710
8	2400.9	2434.0	1.752	1.582		34.633	34.6322	0.297	27.697	27.696	27.710	27.709
9	2202.0	2231.4	1.831	1.678		34.621	34.6204	0.297	27.681	27.681	27.693	27.692
10	2204.8	2234.2	1.829	1.675		34.621	34.6196	0.297	27.681	27.680	27.693	27.692
11	2103.5	2131.0	1.873	1.728		34.614	34.6131	0.298	27.672	27.672	27.684	27.683
12	2105.2	2132.7	1.872	1.726		34.613	34.6121	0.298	27.672	27.671	27.683	27.682
13	2003.7	2029.5	1.925	1.787		34.604	34.6034	0.298	27.660	27.660	27.671	27.670
14	2005.2	2030.9	1.924	1.786		34.604	34.6022	0.298	27.660	27.659	27.671	27.670
15	1900.8	1924.7	1.993	1.863		34.591	34.5907	0.298	27.645	27.644	27.655	27.654
16	1901.5	1925.4	1.993	1.863		34.591	34.5896	0.298	27.645	27.643	27.655	27.654
17	1799.6	1821.8	2.073	1.950		34.576	34.5749	0.299	27.626	27.625	27.636	27.635
18	1601.2	1620.2	2.316	2.207		34.534	34.5327	0.300	27.573	27.572	27.582	27.581
19	1400.7	1416.7	2.624	2.527		34.486	34.4853	0.301	27.508	27.508	27.517	27.516
20	1199.1	1212.2	3.010	2.926		34.433	34.4326	0.303	27.432	27.431	27.439	27.439
21	1003.5	1014.0	3.311	3.240		34.348	34.3485	0.304	27.336	27.336	27.343	27.343

VENTS 1994 - LEG III
 Station V94F12 Cast 12 23 SEP 1994
 LAT: 42 35.16N LONG: 140 05.08W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.574		181.3		
2.582		179.3		
2.621		177.2		
2.690		177.2		
2.720		177.9		
2.775		179.1		
2.826	2.827	180.1	180.1	5.94
2.874	2.874	180.1	180.5	7.69
2.895	2.896	180.1	180.1	8.02
2.920	2.920	179.3	179.4	7.07
2.952	2.951	177.9	177.9	8.01
2.984		176.1		
3.061		170.0		
3.126		161.2		
3.165		149.7		
3.165		139.0		

VENIS 1994 - LEG III
 Station V94F13 Cast 13 23 SEP 1994
 LAT: 41 29.99N LONG: 141 29.98W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)
1	4003.2	4073.3	1.520	1.192		34.682	34.6793	0.294	27.754	27.751	27.777	27.775	27.775
2	3696.6	3758.7	1.499	1.206		34.680	34.6771	0.294	27.753	27.751	27.774	27.772	27.772
3	3300.7	3353.1	1.507	1.256		34.672	34.6696	0.295	27.746	27.745	27.764	27.762	27.762
4	2999.8	3045.3	1.548	1.326		34.663	34.6598	0.295	27.736	27.734	27.752	27.750	27.750
5	2800.1	2841.2	1.598	1.394		34.655	34.6601	0.295	27.726	27.730	27.741	27.745	27.745
6	2599.8	2636.7	1.657	1.471		34.646	34.6453	0.296	27.715	27.714	27.728	27.728	27.728
7	2400.0	2432.9	1.752	1.582		34.632	34.6323	0.297	27.696	27.696	27.709	27.709	27.709
8	2400.6	2433.5	1.751	1.581		34.632	34.6312	0.298	27.696	27.696	27.709	27.708	27.708
9	2200.6	2229.7	1.842	1.689		34.618	34.6190	0.298	27.678	27.679	27.690	27.690	27.690
10	2201.0	2230.1	1.841	1.688		34.618	34.6192	0.299	27.678	27.679	27.690	27.691	27.691
11	2096.9	2124.1	1.897	1.752		34.609	34.6067	0.299	27.667	27.665	27.678	27.676	27.676
12	2096.6	2123.8	1.897	1.752		34.609	34.6074	0.298	27.667	27.665	27.678	27.676	27.676
13	2001.4	2026.9	1.950	1.812		34.598	34.5972	0.299	27.654	27.653	27.664	27.664	27.664
14	2001.4	2026.9	1.950	1.812		34.598	34.5980	0.299	27.654	27.654	27.664	27.664	27.664
15	1900.1	1923.9	2.024	1.894		34.583	34.5828	0.299	27.636	27.636	27.646	27.646	27.646
16	1900.0	1923.8	2.025	1.895		34.583	34.5832	0.299	27.636	27.636	27.646	27.646	27.646
17	1802.2	1824.3	2.091	1.968		34.570	34.5694	0.300	27.620	27.619	27.630	27.629	27.629
18	1601.1	1619.9	2.314	2.205		34.528	34.5299	0.302	27.568	27.570	27.577	27.579	27.579
19	1400.1	1415.9	2.612	2.516		34.475	34.4741	0.302	27.501	27.500	27.509	27.508	27.508
20	1200.4	1213.4	2.957	2.873		34.415	34.4166	0.303	27.422	27.423	27.430	27.431	27.431
21	1000.6	1010.9	3.258	3.188		34.323	34.3239	0.304	27.321	27.322	27.327	27.328	27.328

VENTS 1994 - LEG III
 Station V94F13 Cast 13 23 SEP 1994
 LAT: 41 29.99N LONG: 141 29.98W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.570		180.8		
2.579		178.7		
2.614		176.0		
2.666		175.3		
2.713		176.1		
2.762		177.5		
2.831	2.828	179.5	179.7	9.39
2.880	2.881	180.3	180.2	8.95
2.912	2.910	179.7	179.7	9.68
2.936	2.941	179.0	179.0	9.94
2.975	2.973	177.6	177.6	10.12
3.003		176.1		
3.069		170.7		
3.128		162.3		
3.157		151.0		
3.141		138.7		

VENTS 1994 - LEG III
 Station V94F14 Cast 14 24 SEP 1994
 LAT: 40 30.01N LONG: 142 59.79W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4583.9	4670.1	1.558	1.161		34.686	34.6868	0.295	27.754	27.755	27.782	27.783
2	4199.3	4274.5	1.525	1.175		34.684	34.6826	0.293	27.755	27.754	27.780	27.778
3	3798.9	3863.3	1.503	1.199		34.681	34.6785	0.294	27.754	27.752	27.776	27.774
4	3400.2	3454.6	1.507	1.245		34.674	34.6728	0.294	27.748	27.747	27.767	27.766
5	2997.8	3042.9	1.558	1.336		34.662	34.6609	0.295	27.735	27.734	27.751	27.750
6	2603.2	2639.9	1.672	1.485		34.644	34.6427	0.296	27.712	27.711	27.726	27.725
7	2399.8	2432.4	1.756	1.586		34.632	34.6328	0.298	27.696	27.696	27.709	27.709
8	2400.9	2433.6	1.756	1.586		34.632	34.6311	0.298	27.696	27.695	27.709	27.708
9	2198.3	2227.1	1.857	1.704		34.618	34.6183	0.298	27.677	27.677	27.689	27.689
10	2197.4	2226.3	1.858	1.705		34.618	34.6171	0.298	27.677	27.676	27.688	27.688
11	2098.9	2126.0	1.905	1.759		34.610	34.6096	0.299	27.667	27.666	27.678	27.678
12	2098.9	2125.9	1.906	1.760		34.610	34.6110	0.299	27.667	27.667	27.678	27.679
13	2000.3	2025.6	1.958	1.820		34.600	34.5995	0.299	27.655	27.654	27.665	27.665
14	1999.7	2025.0	1.960	1.822		34.600	34.6016	0.299	27.654	27.656	27.665	27.666
15	1899.3	1922.8	2.029	1.899		34.586	34.5881	0.301	27.638	27.639	27.648	27.650
16	1897.7	1921.2	2.030	1.900		34.586	34.5856	0.300	27.638	27.637	27.648	27.648
17	1797.6	1819.5	2.119	1.996		34.569	34.5693	0.300	27.617	27.617	27.627	27.627
18	1599.8	1618.5	2.341	2.231		34.527	34.5287	0.301	27.565	27.566	27.574	27.576
19	1400.1	1415.8	2.617	2.521		34.479	34.4814	0.302	27.503	27.503	27.512	27.514
20	1199.1	1212.0	2.923	2.840		34.416	34.4166	0.304	27.426	27.426	27.433	27.434
21	1000.0	1010.3	3.223	3.153		34.322	34.3241	0.304	27.323	27.325	27.330	27.332

VENTS 1994 - LEG III
 Station V94F14 Cast 14 24 SEP 1994
 LAT: 40 30.01N LONG: 142 59.79W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.540		178.5		
2.551		179.3		
2.569		177.8		
2.606		175.5		
2.669		174.7		
2.770		177.3		
2.832	2.828	179.3	179.3	5.65
2.881	2.879	178.8	178.7	6.37
2.908	2.904	178.6	178.6	6.57
2.934	2.932	178.0	178.0	7.66
2.973	2.965	176.6	176.7	7.13
3.004		175.0		
3.075		169.8		
3.130		161.9		
3.154		152.0		
3.134		139.2		

VENTS 1994 - LEG III
 Station V94F15 Cast 15 24 SEP 1994
 LAT: 39 29.98N LONG: 144 29.98W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4004.4	4073.9	1.502	1.175		34.682	34.6832	0.295	27.755	27.756	27.778	27.779
2	3699.8	3761.3	1.497	1.204		34.678	34.6785	0.295	27.752	27.752	27.773	27.773
3	3301.6	3353.3	1.523	1.271		34.669	34.6695	0.294	27.743	27.743	27.761	27.761
4	2999.2	3044.0	1.572	1.349		34.660	34.6599	0.295	27.732	27.732	27.748	27.748
5	2799.1	2839.6	1.615	1.411		34.653	34.6531	0.296	27.723	27.723	27.738	27.738
6	2598.9	2635.3	1.682	1.495		34.644	34.6441	0.296	27.711	27.711	27.725	27.725
7	2399.0	2431.4	1.761	1.591		34.633	34.6341	0.297	27.696	27.697	27.709	27.710
8	2399.7	2432.2	1.761	1.591		34.633	34.6346	0.297	27.696	27.698	27.709	27.710
9	2201.4	2230.1	1.851	1.697		34.622	34.6231	0.298	27.681	27.681	27.692	27.693
10	2201.0	2229.7	1.851	1.697		34.622	34.6222	0.298	27.681	27.681	27.692	27.692
11	2096.8	2123.6	1.907	1.762		34.614	34.6157	0.298	27.670	27.671	27.681	27.682
12	2096.6	2123.4	1.907	1.762		34.614	34.6144	0.298	27.670	27.670	27.681	27.681
13	2002.0	2027.1	1.978	1.840		34.605	34.6059	0.299	27.657	27.658	27.668	27.668
14	2004.0	2029.1	1.977	1.839		34.605	34.6053	0.299	27.657	27.657	27.668	27.668
15	1900.1	1923.5	2.073	1.942		34.591	34.5925	0.299	27.638	27.639	27.650	27.650
16	1900.4	1923.8	2.072	1.941		34.591	34.5910	0.300	27.638	27.638	27.649	27.649
17	1798.9	1820.6	2.147	2.023		34.579	34.5799	0.300	27.623	27.623	27.633	27.633
18	1599.6	1618.2	2.374	2.264		34.541	34.5413	0.301	27.574	27.574	27.583	27.583
19	1399.4	1414.9	2.706	2.609		34.491	34.4907	0.302	27.505	27.505	27.514	27.513
20	1198.1	1210.8	2.956	2.872		34.409	34.4103	0.303	27.417	27.418	27.425	27.426
21	1001.2	1011.4	3.327	3.256		34.313	34.3130	0.303	27.306	27.306	27.313	27.313

VENTS 1994 - LEG III
 Station V94F15 Cast 15 24 SEP 1994
 LAT: 39 29.98N LONG: 144 29.98W

PO4-UNFIL ($\mu\text{mol/L}$)	PO4-FIL ($\mu\text{mol/L}$)	SiO4-UNFIL ($\mu\text{mol/L}$)	SiO4-FIL ($\mu\text{mol/L}$)	TSM ($\mu\text{g/l}$)
2.560		175.5		
2.584		174.6		
2.632		171.8		
2.687		172.6		
2.727		174.0		
2.783		176.2		
2.835	2.837	177.6	177.5	5.80
2.880	2.880	177.5	177.5	5.76
2.909	2.903	176.8	176.8	6.36
2.938	2.938	175.9	175.9	5.96
2.973	2.974	174.0	174.0	6.31
3.005		172.4		
3.083		167.3		
3.149		158.0		
3.164		136.4		

VENTS 1994 ~ LEG III
 Station V94F16 Cast 16 24 SEP 1994
 LAT: 38 30.01N LONG: 145 59.97W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (l/m)	Atten. (l/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)
1	4595.5	4681.2	1.539	1.142		34.685	34.6838	0.294	27.755	27.755	27.754	27.783	27.782
2	4501.0	4583.9	1.532	1.146		34.685	34.6836	0.294	27.755	27.755	27.754	27.782	27.781
3	3999.9	4068.9	1.506	1.179		34.681	34.6791	0.294	27.754	27.754	27.752	27.777	27.775
4	3502.0	3558.3	1.513	1.241		34.673	34.6708	0.295	27.747	27.747	27.745	27.766	27.764
5	3000.6	3045.3	1.567	1.344		34.661	34.6587	0.296	27.733	27.733	27.731	27.749	27.747
6	2602.0	2638.2	1.673	1.486		34.645	34.6431	0.296	27.713	27.713	27.711	27.726	27.725
7	2401.8	2434.1	1.760	1.590		34.634	34.6319	0.297	27.697	27.697	27.695	27.710	27.708
8	2401.7	2433.9	1.760	1.590		34.634	34.6313	0.298	27.697	27.697	27.695	27.710	27.708
9	2201.7	2230.2	1.874	1.720		34.620	34.6175	0.298	27.677	27.677	27.675	27.689	27.687
10	2201.7	2230.2	1.875	1.721		34.620	34.6170	0.298	27.677	27.677	27.675	27.689	27.686
11	2101.0	2127.7	1.945	1.799		34.610	34.6081	0.299	27.664	27.664	27.662	27.675	27.673
12	2101.3	2128.0	1.945	1.799		34.610	34.6065	0.299	27.664	27.664	27.661	27.675	27.672
13	2001.9	2026.9	2.017	1.878		34.602	34.5992	0.299	27.651	27.651	27.649	27.662	27.660
14	2001.7	2026.7	2.017	1.878		34.602	34.5984	0.299	27.651	27.651	27.649	27.662	27.660
15	1901.5	1924.7	2.088	1.957		34.592	34.5882	0.299	27.638	27.638	27.635	27.648	27.645
16	1901.9	1925.2	2.088	1.957		34.592	34.5908	0.299	27.638	27.638	27.637	27.648	27.647
17	1796.6	1818.1	2.168	2.044		34.579	34.5749	0.300	27.621	27.621	27.618	27.631	27.628
18	1600.6	1619.0	2.370	2.260		34.542	34.5365	0.301	27.575	27.575	27.570	27.584	27.579
19	1401.4	1416.9	2.633	2.536		34.487	34.4822	0.303	27.508	27.508	27.504	27.517	27.513
20	1201.1	1213.7	2.929	2.845		34.418	34.4124	0.303	27.427	27.427	27.423	27.434	27.430
21	1000.9	1010.9	3.292	3.221		34.323	34.3174	0.304	27.318	27.318	27.313	27.324	27.320

VENTS 1994 - LEG III
 Station V94F16 Cast 16 24 SEP 1994
 LAT: 38 30.01N LONG: 145 59.97W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.517		170.0		
2.519		170.7		
2.551		172.1		
2.590		170.7		
2.668		172.4		
2.765		176.4		
2.819	2.821	177.9	177.8	8.18
2.880	2.877	177.8	177.8	7.77
2.906	2.909	176.7	177.0	7.26
2.932	2.931	175.2	175.2	13.09
2.960	2.961	173.5	173.8	9.06
2.992		172.0		10.53
3.069		167.6		
3.135		161.2		
3.169		151.8		
3.158		138.2		

VENTS 1994 - LEG III
 Station V94F17 Cast 17 25 SEP 1994
 LAT: 37 30.05N LONG: 147 30.03W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)
1	4005.7	4074.4	1.491	1.164		34.683	34.6829	0.295	27.756	27.756	27.756	27.780
2	3699.8	3760.6	1.488	1.195		34.679	34.6788	0.296	27.753	27.753	27.753	27.774
3	3299.5	3350.5	1.517	1.266		34.670		0.297	27.744		27.744	27.762
4	3000.8	3045.1	1.560	1.338		34.662	34.6612	0.297	27.735	27.734	27.734	27.751
5	2798.4	2838.4	1.605	1.401		34.655	34.6540	0.298	27.726	27.725	27.725	27.740
6	2600.8	2636.7	1.667	1.481		34.646	34.6461	0.297	27.714	27.714	27.714	27.728
7	2399.5	2431.5	1.762	1.592		34.634	34.6348	0.298	27.697	27.698	27.698	27.710
8	2399.0	2431.0	1.762	1.592		34.635	34.6344	0.299	27.698	27.697	27.697	27.710
9	2201.6	2229.9	1.857	1.703		34.623		0.299	27.681		27.681	27.693
10	2201.4	2229.7	1.859	1.705		34.623	34.6228	0.299	27.681	27.681	27.681	27.692
11	2101.3	2127.8	1.926	1.780		34.615	34.6151	0.299	27.669	27.669	27.669	27.680
12	2101.1	2127.6	1.927	1.781		34.614	34.6163	0.299	27.668	27.670	27.670	27.681
13	2001.6	2026.4	2.001	1.862		34.605	34.6050	0.300	27.655	27.655	27.655	27.666
14	2001.8	2026.5	2.003	1.864		34.605	34.6047	0.299	27.655	27.655	27.655	27.666
15	1901.6	1924.7	2.095	1.964		34.593	34.5929	0.300	27.638	27.638	27.638	27.648
16	1901.1	1924.2	2.096	1.965		34.593	34.5925	0.301	27.638	27.638	27.638	27.648
17	1801.1	1822.5	2.187	2.063		34.578	34.5769	0.301	27.619	27.619	27.619	27.628
18	1600.2	1618.5	2.404	2.294		34.538	34.5380	0.303	27.569	27.569	27.569	27.578
19	1401.3	1416.6	2.672	2.575		34.481	34.4805	0.304	27.500	27.500	27.500	27.508
20	1199.3	1211.8	2.940	2.856		34.408	34.4077	0.305	27.418	27.418	27.418	27.425
21	1001.1	1011.1	3.340	3.269		34.308	34.3097	0.305	27.301	27.302	27.302	27.309

VENTS 1994 ~ LEG III
 Station V94F17 Cast 17 25 SEP 1994
 LAT: 37 30.05N LONG: 147 30.03W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.566		169.6		
2.672		171.5		
2.716		173.9		
2.770		176.3		
2.830	2.833	178.3	178.1	4.69
2.878	2.873	178.1	178.1	12.35
2.906	2.905	177.2	177.2	7.10
2.934	2.930	175.9	175.2	9.34
2.971	2.969	173.5	173.6	15.15
3.003		171.7		
3.083		167.0		
3.154		160.4		
3.179		151.4		
3.158		136.5		

VENTS 1994 - LEG III
 Station V94F18 Cast 18 25 SEP 1994
 LAT: 36 30.01N LONG: 149 00.03W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	5001.4	5098.4	1.551	1.103		34.689	34.6884	0.294	27.757	27.756	27.789	27.788
2	4499.4	4581.4	1.507	1.122		34.687	34.6857	0.295	27.759	27.757	27.786	27.785
3	4000.4	4068.7	1.479	1.153		34.684	34.6824	0.295	27.758	27.757	27.781	27.780
4	3500.2	3555.8	1.483	1.212		34.676	34.6753	0.296	27.751	27.751	27.771	27.770
5	2997.5	3041.4	1.545	1.323		34.663	34.6617	0.298	27.736	27.735	27.752	27.751
6	2601.5	2637.2	1.671	1.485		34.644	34.6437	0.299	27.712	27.712	27.726	27.725
7	2399.5	2431.2	1.763	1.593		34.633	34.6317	0.299	27.696	27.695	27.709	27.708
8	2398.3	2430.1	1.764	1.594		34.633	34.6319	0.300	27.696	27.695	27.709	27.708
9	2198.2	2226.2	1.855	1.702		34.620	34.6200	0.300	27.679	27.679	27.690	27.690
10	2198.7	2226.8	1.855	1.702		34.620	34.6200	0.301	27.679	27.679	27.690	27.690
11	2101.3	2127.6	1.923	1.777		34.612	34.6115	0.302	27.667	27.667	27.678	27.678
12	2101.7	2128.1	1.924	1.778		34.612	34.6113	0.301	27.667	27.666	27.678	27.678
13	2000.5	2025.0	1.998	1.860		34.602	34.6022	0.302	27.653	27.653	27.664	27.664
14	2000.5	2025.1	1.999	1.861		34.603	34.6013	0.303	27.654	27.652	27.665	27.663
15	1899.3	1922.1	2.096	1.965		34.590	34.5890	0.303	27.636	27.635	27.646	27.645
16	1899.1	1922.0	2.097	1.966		34.590	34.5886	0.302	27.636	27.634	27.646	27.645
17	1800.9	1822.2	2.211	2.086		34.575	34.5744	0.303	27.614	27.614	27.624	27.624
18	1600.5	1618.6	2.477	2.366		34.547	34.5470	0.302	27.570	27.570	27.579	27.579
19	1400.8	1416.0	2.798	2.699		34.497	34.4966	0.304	27.502	27.501	27.511	27.510
20	1199.5	1211.9	3.114	3.029		34.427	34.4277	0.305	27.417	27.418	27.425	27.426
21	1001.8	1011.7	3.458	3.386		34.323	34.3226	0.305	27.302	27.301	27.309	27.308

VENTS 1994 - LEG III
 Station V94F18 Cast 18 25 SEP 1994
 LAT: 36 30.01N LONG: 149 00.03W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.464		156.6		
2.496		163.0		
2.526		165.8		
2.575		167.0		
2.661		170.7		
2.775		175.9		
2.837	2.836	177.7	177.8	7.75
2.885	2.885	177.9	177.9	7.19
2.915	2.915	177.1	177.1	9.59
2.940	2.940	175.7	175.7	8.80
2.978	2.976	173.6	173.5	11.39
3.011		170.7		
3.065		163.3		
3.138		154.8		
3.185		146.1		
3.177		133.6		

VENTS 1994 - LEG III
 Station V94F19 Cast 19 26 SEP 1994
 LAT: 35 30.06N LONG: 150 29.82W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (1/m)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (CTD)
1	4003.7	4071.6	1.481	1.155		34.684	34.6832	0.296		27.758	27.757	27.781	27.780	27.780
2	3702.7	3763.0	1.478	1.185		34.681	34.6798	0.296		27.756	27.755	27.777	27.776	27.776
3	3300.8	3351.3	1.505	1.254		34.672	34.6720	0.297		27.747	27.747	27.765	27.765	27.765
4	2999.8	3043.6	1.548	1.326		34.664	34.6633	0.298		27.737	27.736	27.753	27.752	27.752
5	2801.4	2841.0	1.600	1.396		34.656		0.298		27.727		27.742		
6	2600.0	2635.4	1.660	1.474		34.648	34.6475	0.298		27.716	27.715	27.730	27.729	27.729
7	2400.2	2431.8	1.732	1.563		34.638	34.6385	0.298		27.702	27.703	27.715	27.715	27.715
8	2399.9	2431.5	1.733	1.564		34.638	34.6387	0.299		27.702	27.703	27.715	27.716	27.716
9	2198.0	2225.9	1.833	1.680		34.626	34.6267	0.300		27.685	27.686	27.697	27.697	27.697
10	2198.3	2226.1	1.833	1.680		34.626	34.6260	0.300		27.685	27.685	27.697	27.697	27.697
12	2099.5	2125.6	1.893	1.748		34.618	34.6175	0.300		27.674	27.674	27.685	27.685	27.685
13	1999.0	2023.3	1.973	1.835		34.609	34.6078	0.300		27.661	27.660	27.671	27.670	27.670
14	1999.2	2023.5	1.974	1.836		34.609	34.6086	0.300		27.661	27.660	27.671	27.671	27.671
15	1897.7	1920.4	2.066	1.935		34.598	34.5973	0.301		27.644	27.644	27.655	27.654	27.654
16	1897.3	1920.0	2.067	1.936		34.598	34.5981	0.301		27.644	27.644	27.655	27.655	27.655
17	1897.2	1919.9	2.067	1.936		34.598	34.5976	0.301		27.644	27.644	27.655	27.654	27.654
18	1800.5	1821.5	2.167	2.043		34.585	34.6039	0.301		27.626	27.641	27.636	27.651	27.651
19	1600.3	1618.2	2.424	2.313		34.552	34.5528	0.302		27.578	27.579	27.587	27.588	27.588
20	1401.1	1416.2	2.736	2.638		34.506	34.5054	0.303		27.514	27.514	27.523	27.523	27.523
21	1202.5	1214.9	2.984	2.900		34.433	34.4330	0.305		27.434	27.434	27.442	27.442	27.442
22	995.3	1005.0	3.410	3.339		34.315	34.3148	0.305		27.300	27.300	27.307	27.307	27.307

VENTS 1994 - LEG III
 Station V94F19 Cast 19 26 SEP 1994
 LAT: 35 30.06N LONG: 150 29.82W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.519		164.8		
2.546		166.7		
2.601		169.9		
2.658		172.0		
2.707		174.6		
2.759		177.0		
2.815	2.811	177.9	177.8	4.92
2.865	2.865	178.3	178.3	5.35
				4.89
2.921	2.921	176.1	176.0	4.89
2.952		173.9		
2.984	2.947	171.6	174.0	5.15
3.056		164.9		
3.128		156.9		
3.183		150.3		
3.168		134.8		

VENTS 1994 - LEG III
 Station V94F20 Cast 20 26 SEP 1994
 LAT: 34 29.96N LONG: 152 00.02W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4999.2	5095.4	1.545	1.097		34.691	34.6888	0.294	27.759	27.757	27.791	27.789
2	4499.0	4580.2	1.503	1.119		34.688	34.6865	0.295	27.760	27.758	27.787	27.785
3	4000.6	4068.1	1.475	1.149		34.685	34.6830	0.295	27.759	27.758	27.782	27.781
4	3500.6	3555.6	1.477	1.206		34.679	34.6768	0.297	27.754	27.753	27.773	27.772
5	3001.1	3044.6	1.547	1.325		34.665	34.6625	0.298	27.738	27.736	27.754	27.752
6	2602.6	2637.9	1.649	1.463		34.650	34.6483	0.298	27.718	27.717	27.732	27.731
7	2399.2	2430.5	1.738	1.569		34.639	34.6378	0.299	27.703	27.702	27.715	27.714
8	2398.3	2429.6	1.740	1.571		34.639	34.6373	0.300	27.703	27.701	27.715	27.714
9	2199.2	2226.8	1.841	1.688		34.626	34.6246	0.300	27.684	27.683	27.696	27.695
10	2199.0	2226.6	1.841	1.688		34.626	34.6239	0.299	27.684	27.683	27.696	27.694
11	2099.6	2125.5	1.901	1.756		34.619	34.6166	0.301	27.674	27.672	27.685	27.684
12	2099.1	2125.0	1.902	1.757		34.618	34.6164	0.301	27.673	27.672	27.685	27.683
13	2000.6	2024.8	1.972	1.834		34.610	34.6091	0.301	27.661	27.661	27.672	27.671
14	2000.8	2025.0	1.973	1.835		34.610	34.6080	0.301	27.661	27.660	27.672	27.671
15	1898.5	1921.0	2.054	1.923		34.600	34.5982	0.302	27.647	27.646	27.657	27.656
16	1898.6	1921.2	2.055	1.924		34.600	34.5975	0.302	27.647	27.645	27.657	27.655
17	1800.2	1821.1	2.166	2.042		34.586	34.5844	0.302	27.627	27.625	27.637	27.635
18	1600.7	1618.5	2.431	2.320		34.553	34.5508	0.303	27.578	27.577	27.588	27.586
19	1400.6	1415.5	2.718	2.620		34.503	34.5019	0.305	27.514	27.513	27.522	27.521
20	1199.9	1212.1	3.004	2.920		34.427	34.4259	0.306	27.427	27.426	27.435	27.434
21	998.6	1008.2	3.374	3.303		34.318	34.3162	0.307	27.306	27.304	27.313	27.311

VENTS 1994 - LEG III
 Station V94F20 Cast 20 26 SEP 1994
 LAT: 34 29.96N LONG: 152 00.02W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.463		155.3		
2.494		160.4		
2.520		163.2		
2.568		166.1		
2.665		171.8		
2.759		176.2		
2.823	2.822	178.2	178.0	5.51
2.875	2.873	178.1	178.1	6.76
2.901	2.902	177.3	177.3	6.06
2.926	2.926	176.0	176.0	5.37
2.958	2.950	173.8	174.4	6.33
2.991		171.5		
3.062		164.4		
3.140		157.3		
3.187		149.4		
3.172		135.8		

VENTS 1994 - LEG III
 Station V94F21 Cast 21 26 SEP 1994
 LAT: 33 29.94N LONG: 153 30.10W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3998.8	4065.9	1.476	1.151		34.685	34.6903	0.295	27.759	27.763	27.782	27.786
2	3701.8	3761.3	1.471	1.178		34.682	34.6885	0.296	27.757	27.762	27.778	27.783
3	3301.4	3351.3	1.494	1.243		34.675	34.6737	0.297	27.750	27.749	27.768	27.767
4	3002.5	3045.8	1.539	1.317		34.667	34.6712	0.298	27.740	27.743	27.756	27.759
5	2801.3	2840.4	1.586	1.382		34.660	34.6598	0.298	27.731	27.731	27.746	27.746
6	2601.9	2636.9	1.652	1.466		34.652	34.6553	0.299	27.720	27.722	27.733	27.736
7	2400.7	2431.8	1.731	1.562		34.642	34.6421	0.299	27.706	27.706	27.718	27.718
8	2400.0	2431.2	1.731	1.562		34.641	34.6448	0.299	27.705	27.708	27.718	27.721
9	2200.8	2228.3	1.830	1.677		34.629	34.6393	0.300	27.688	27.696	27.699	27.708
10	2201.0	2228.5	1.830	1.677		34.629	34.6304	0.300	27.688	27.689	27.699	27.701
11	2099.9	2125.6	1.898	1.753		34.620	34.6205	0.300	27.675	27.676	27.686	27.687
12	2100.1	2125.9	1.898	1.753		34.621	34.6188	0.300	27.676	27.674	27.687	27.685
13	2002.5	2026.5	1.969	1.831		34.612	34.6120	0.300	27.663	27.663	27.674	27.674
14	2003.0	2027.0	1.969	1.831		34.612	34.6138	0.300	27.663	27.665	27.674	27.676
15	1901.2	1923.6	2.073	1.942		34.600	34.6025	0.301	27.645	27.647	27.656	27.658
16	1900.9	1923.3	2.074	1.943		34.600	34.5983	0.301	27.645	27.644	27.656	27.654
17	1795.6	1816.3	2.193	2.069		34.587	34.5867	0.302	27.625	27.625	27.635	27.635
18	1602.0	1619.7	2.448	2.337		34.558	34.5606	0.303	27.581	27.583	27.590	27.592
19	1400.7	1415.5	2.767	2.669		34.515	34.5142	0.303	27.519	27.518	27.528	27.527
20	1199.6	1211.7	3.104	3.019		34.444	34.4440	0.305	27.432	27.432	27.440	27.440
21	1002.1	1011.7	3.501	3.429		34.335	34.4445	0.305	27.307	27.394	27.314	27.401

VENTS 1994 - LEG III
 Station V94F21 Cast 21 26 SEP 1994
 LAT: 33 29.94N LONG: 153 30.10W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.516		163.6		
2.547		166.5		
2.603		170.0		
2.660		173.5		
2.704		175.5		
2.754		177.1		
2.810	2.806	177.7	177.7	8.52
2.865	2.863	177.3	177.4	6.41
2.894	2.888	176.6	176.6	8.83
2.921	2.921	175.3	175.2	6.52
2.959	2.954	173.2	173.0	7.03
2.993		170.1		
3.055		163.4		
3.128		154.9		
3.184		146.2		
3.184		146.3		

VENTS 1994 - LEG III
 Station V94F22 Cast 22 27 SEP 1994
 LAT: 32 30.03N LONG: 155 00.07W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	5001.1	5096.4	1.541	1.093		34.691	34.6911	34.6911	0.294	27.759	27.759	27.791	27.791
2	4500.7	4581.2	1.498	1.114		34.689	34.6877	34.6877	0.294	27.761	27.761	27.788	27.788
3	4001.4	4068.2	1.478	1.152		34.685			0.295	27.759	27.759	27.782	27.782
4	3497.0	3551.2	1.484	1.213		34.679	34.6839	34.6839	0.295	27.754	27.754	27.773	27.773
5	3001.9	3044.9	1.555	1.333		34.665	34.6672	34.6672	0.297	27.737	27.737	27.753	27.753
6	2601.9	2636.8	1.675	1.488		34.651	34.6503	34.6503	0.298	27.717	27.717	27.731	27.731
7	2398.5	2429.4	1.757	1.588		34.641	34.6425	34.6425	0.299	27.703	27.703	27.716	27.716
8	2397.3	2428.2	1.757	1.588		34.641	34.6412	34.6412	0.299	27.703	27.703	27.716	27.716
9	2201.4	2228.7	1.872	1.718		34.628	34.6293	34.6293	0.300	27.684	27.684	27.695	27.695
10	2202.7	2230.0	1.872	1.718		34.628	34.6278	34.6278	0.300	27.684	27.684	27.695	27.695
11	2098.1	2123.6	1.945	1.799		34.619	34.6197	34.6197	0.300	27.671	27.671	27.682	27.682
12	2098.3	2123.8	1.945	1.799		34.619	34.6192	34.6192	0.300	27.671	27.671	27.682	27.682
13	2000.1	2024.0	2.017	1.878		34.611			0.301	27.659	27.659	27.670	27.670
14	2000.3	2024.2	2.018	1.879		34.611	34.6106	34.6106	0.301	27.659	27.659	27.670	27.670
15	1900.8	1923.0	2.103	1.972		34.600	34.6008	34.6008	0.301	27.643	27.643	27.653	27.653
16	1900.7	1922.9	2.104	1.973		34.600	34.6100	34.6100	0.302	27.643	27.643	27.653	27.653
17	1801.1	1821.8	2.210	2.085		34.588	34.5883	34.5883	0.301	27.625	27.625	27.635	27.635
18	1601.0	1618.6	2.510	2.398		34.555	34.5552	34.5552	0.302	27.573	27.573	27.583	27.583
19	1401.2	1415.9	2.850	2.751		34.514	34.5159	34.5159	0.303	27.511	27.511	27.520	27.520
20	1200.8	1212.8	3.193	3.107		34.448	34.4509	34.4509	0.305	27.427	27.427	27.435	27.435
21	1002.9	1012.4	3.588	3.515		34.336	34.3374	34.3374	0.305	27.300	27.300	27.307	27.307

VENTS 1994 - LEG III
 Station V94F22 Cast 22 27 SEP 1994
 LAT: 32 30.03N LONG: 155 00.07W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.451		154.3		
2.475		158.2		
2.571		167.7		
2.667		174.2		
2.756		176.9		
2.796	2.796	176.0	176.1	
2.844	2.844	174.5	174.5	
2.877	2.877	173.9	173.9	
2.911	2.287	173.0		
2.940	2.941	171.0	171.0	
2.979		168.8		
3.053		160.9		
3.126		152.3		
3.182		143.6		
3.190		130.7		

VENTS 1994 - LEG III
 Station V94F23 Cast 23 27 SEP 1994
 LAT: 30 50.10N LONG: 155 00.03W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4010.3	4076.8	1.487	1.160		34.685	34.6836		27.758	27.757	27.781	27.780
2	3700.5	3759.2	1.490	1.197		34.681	34.6796		27.755	27.754	27.776	27.775
3	3299.0	3348.2	1.517	1.266		34.674	34.6726		27.747	27.746	27.765	27.764
4	2992.8	3035.2	1.563	1.341		34.666			27.738		27.754	
5	2800.9	2839.3	1.605	1.401		34.659	34.6580		27.729	27.728	27.744	27.743
6	2600.7	2635.2	1.677	1.491		34.651	34.6493		27.717	27.716	27.731	27.729
7	2400.2	2430.8	1.759	1.589		34.642	34.6406		27.704	27.702	27.716	27.715
8	2400.5	2431.1	1.759	1.589		34.642	34.6406		27.704	27.703	27.716	27.715
9	2199.9	2226.9	1.873	1.719		34.630	34.6293		27.685	27.685	27.697	27.696
10	2200.1	2227.1	1.874	1.720		34.630	34.6288		27.685	27.684	27.697	27.696
11	2099.4	2124.7	1.944	1.798		34.622	34.6218		27.673	27.673	27.685	27.684
12	2100.1	2125.4	1.945	1.799		34.622	34.6205		27.673	27.672	27.685	27.683
13	1999.6	2023.1	2.012	1.873		34.615	34.6140		27.662	27.662	27.673	27.672
14	1999.7	2023.3	2.012	1.873		34.615	34.6127		27.662	27.660	27.673	27.671
15	1899.2	1921.2	2.109	1.978		34.605	34.6039		27.647	27.646	27.657	27.656
16	1897.6	1919.5	2.111	1.980		34.605	34.6024		27.646	27.644	27.657	27.655
17	1796.4	1816.6	2.225	2.101		34.593	34.5912		27.628	27.626	27.638	27.636
18	1601.5	1618.8	2.502	2.390		34.565	34.5627		27.582	27.580	27.591	27.590
19	1400.3	1414.8	2.866	2.767		34.525	34.5232		27.518	27.517	27.527	27.526
20	1201.5	1213.3	3.232	3.145		34.463	34.4614		27.435	27.434	27.443	27.442
21	1000.6	1010.0	3.640	3.567		34.346	34.3450		27.302	27.302	27.310	27.309

VENTS 1994 - LEG III
 Station V94F23 Cast 23 27 SEP 1994
 LAT: 30 50.10N LONG: 155 00.03W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.524		162.3		
2.550		164.9		
2.607		168.5		
2.704		173.9		
2.746		174.6		
2.784	2.785	173.1	173.1	6.05
2.822	2.818	169.9	170.0	6.78
2.840	2.841	167.8	167.7	6.51
2.870	2.865	167.4	167.5	6.79
2.897	2.889	165.2	165.1	7.80
2.922		162.1		
3.011		157.4		
3.084		149.0		
3.173		141.3		
3.200		129.2		

VENTS 1994 - LEG III
 Station V94F24 Cast 24 28 SEP 1994
 LAT: 29 09.88N LONG: 155 00.03W

Miskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	5920.3	6044.1	1.630	1.057	34.693	34.3313	27.754	27.754	27.464	27.795	27.504	
2	5003.0	5096.9	1.520	1.073	34.692	34.699	27.762	27.762	27.793	27.793	27.769	
3	3961.1	4025.8	1.487	1.166	34.684	34.6699	27.758	27.758	27.746	27.780	27.765	
4	3578.4	3633.6	1.502	1.222	34.679	34.6695	27.752	27.752	27.745	27.772	27.765	
5	2999.4	3041.6	1.562	1.340	34.667	34.667	27.738	27.738	27.754	27.754	27.735	
6	2600.1	2634.2	1.672	1.486	34.653	34.6558	27.719	27.719	27.721	27.733	27.719	
7	2400.3	2430.6	1.753	1.584	34.643	34.6442	27.705	27.705	27.706	27.718	27.719	
8	2400.5	2430.8	1.753	1.583	34.643	34.6291	27.705	27.705	27.694	27.718	27.706	
9	2200.8	2227.5	1.867	1.713	34.630	34.6206	27.686	27.686	27.678	27.697	27.689	
10	2200.8	2227.5	1.867	1.713	34.630	34.6198	27.686	27.686	27.678	27.697	27.689	
11	2099.1	2124.1	1.934	1.788	34.622	34.6070	27.674	27.674	27.662	27.685	27.673	
12	2099.0	2124.0	1.934	1.788	34.622	34.6062	27.674	27.674	27.661	27.685	27.673	
13	2002.1	2025.4	2.008	1.869	34.615	34.5999	27.663	27.663	27.651	27.673	27.661	
14	2002.4	2025.7	2.008	1.869	34.615	34.5980	27.663	27.663	27.649	27.673	27.660	
15	1898.8	1920.5	2.121	1.989	34.604	34.5922	27.645	27.645	27.635	27.655	27.646	
16	1898.9	1920.5	2.124	1.992	34.604	34.5922	27.645	27.645	27.636	27.655	27.646	
17	1800.5	1820.6	2.236	2.111	34.592	34.5824	27.626	27.626	27.618	27.636	27.628	
18	1601.8	1619.0	2.471	2.360	34.569	34.5808	27.588	27.588	27.597	27.597	27.607	
19	1001.2	1010.4	3.648	3.574	34.354	34.5700	27.308	27.308	27.480	27.315	27.487	
20	1001.0	1010.2	3.649	3.575	34.354	34.5466	27.308	27.308	27.461	27.315	27.469	
21	1001.4	1010.7	3.648	3.574	34.354	34.3327	27.308	27.308	27.291	27.315	27.298	

VENTS 1994 - LEG III
 Station V94F24 Cast 24 28 SEP 1994
 LAT: 29 09.88N LONG: 155 00.03W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.414		149.5		
2.427		151.6		
2.552		166.3		
2.625		169.4		
2.705		171.7		7.60
2.741		170.8		
2.785		169.2		7.02
2.786		168.5		6.10
2.807		165.7		6.33
2.832		163.0		7.42
2.870		161.3		
2.912		155.4		
3.167		129.4		

VENTS 1994 - LEG III
 Station V94F25 Cast 25 28 SEP 1994
 LAT: 27 29.91N LONG: 155 00.14W

Niskin #	Depth (m)	Depth (db)	In situ Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Attenu. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	4005.8	4071.1	1.486	1.160		34.685	34.6613		27.758	27.739	27.781	27.762
2	3700.5	3758.2	1.493	1.200		34.682	34.6594		27.756	27.737	27.776	27.758
3	3301.6	3349.9	1.526	1.274		34.675	34.6531		27.747	27.730	27.765	27.748
4	3000.0	3041.8	1.571	1.349		34.667	34.6466		27.738	27.721	27.754	27.737
5	2801.7	2839.3	1.626	1.422		34.660	34.6405		27.728	27.712	27.743	27.727
6	2601.2	2634.9	1.693	1.506		34.652	34.6340		27.717	27.702	27.730	27.716
7	2400.1	2430.0	1.790	1.620		34.642			27.701		27.714	
8	2399.5	2429.5	1.791	1.621		34.642	34.6255		27.701	27.688	27.714	27.701
9	2199.8	2226.2	1.925	1.770		34.628	34.6138		27.680	27.668	27.692	27.680
10	2199.9	2226.3	1.926	1.771		34.628	34.6145		27.680	27.669	27.691	27.681
11	2102.2	2126.9	2.000	1.853		34.622	34.6098		27.669	27.659	27.680	27.671
12	2102.0	2126.8	2.001	1.854		34.622	34.6109		27.669	27.660	27.680	27.671
13	2001.5	2024.6	2.081	1.941		34.614	34.6045		27.656	27.648	27.667	27.659
14	2001.6	2024.6	2.082	1.942		34.614	34.6055		27.656	27.649	27.667	27.660
15	1898.9	1920.3	2.190	2.057		34.604	34.5972		27.639	27.634	27.650	27.644
16	1894.1	1915.4	2.200	2.068		34.604	34.5967		27.638	27.633	27.649	27.643
17	1801.0	1820.9	2.321	2.195		34.593	34.5872		27.620	27.615	27.630	27.625
18	1599.6	1616.5	2.585	2.472		34.571	34.5670		27.580	27.576	27.589	27.586
19	1402.4	1416.5	2.916	2.816		34.536	34.5335		27.522	27.520	27.531	27.529
20	1198.7	1210.2	3.281	3.194		34.481	34.4800		27.445	27.444	27.453	27.452
21	997.5	1006.5	3.762	3.688		34.391	34.3910		27.326	27.326	27.333	27.333

VENTS 1994 - LEG III
 Station V94F25 Cast 25 28 SEP 1994
 LAT: 27 29.91N LONG: 155 00.14W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.522		161.1		
2.547		163.6		
2.598		166.6		
2.645		168.8		
2.684		170.0		
2.731		170.3		
2.776	2.773	170.3	170.3	6.57
2.822	2.820	167.7	167.7	5.57
2.844	2.843	165.6	165.6	5.03
2.864	2.860	163.4	163.9	6.71
2.886	2.883	160.3	160.9	6.81
2.905		157.1		
2.943		150.2		
3.002		142.6		
3.074		135.0		
3.120		123.6		

VENTS 1994 - LEG III
 Station V94F26 Cast 26 28 SEP 1994
 LAT: 25 50.03N LONG: 155 00.02W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2998.7	3040.0	1.557	1.335		34.668	34.6483		27.740	27.724	27.756	27.740
2	2701.1	2736.4	1.637	1.442		34.658	34.6573		27.726	27.725	27.740	27.739
3	2401.3	2431.0	1.788	1.618		34.643	34.6409		27.702	27.701	27.715	27.713
4	2202.4	2228.6	1.935	1.780		34.630	34.6283		27.680	27.679	27.692	27.691
5	2102.6	2127.1	2.024	1.876		34.622	34.6208		27.667	27.666	27.679	27.678
6	2001.0	2023.8	2.134	1.994		34.613	34.6117		27.651	27.650	27.662	27.661
7	2001.3	2024.1	2.135	1.995		34.613	34.6110		27.651	27.649	27.662	27.660
8	1899.8	1921.0	2.260	2.126		34.603	34.6008		27.633	27.631	27.644	27.642
9	1800.2	1819.9	2.398	2.271		34.593	34.5902		27.613	27.611	27.624	27.622
10	1599.8	1616.5	2.730	2.616		34.568	34.5657		27.565	27.563	27.575	27.573
11	1400.2	1414.1	3.037	2.936		34.549	34.5463		27.522	27.520	27.531	27.529
12	1196.2	1207.5	3.413	3.325		34.513	34.5121		27.458	27.457	27.466	27.465
13	1191.8	1203.1	3.417	3.330		34.509	34.5075		27.454	27.453	27.462	27.461
14	1105.4	1115.6	3.623	3.541		34.481	34.4777		27.412	27.409	27.420	27.417
15	1106.5	1116.7	3.622	3.540		34.481	34.4777		27.412	27.409	27.420	27.417
16	1000.4	1009.4	3.868	3.793		34.444	34.4405		27.358	27.355	27.365	27.362
17	1001.1	1010.1	3.868	3.793		34.444	34.4404		27.358	27.355	27.365	27.362
18	897.5	905.4	4.158	4.089		34.379	34.5742		27.276	27.431	27.283	27.438
19	896.9	904.7	4.157	4.088		34.376	34.3729		27.274	27.271	27.281	27.278
20	805.0	811.9	4.321	4.259		34.267	34.2621		27.169	27.166	27.176	27.172
21	808.9	815.7	4.313	4.251		34.270	34.2661		27.173	27.170	27.179	27.176

VENTS 1994 - LEG III
 Station V94F26 Cast 26 28 SEP 1994
 LAT: 25 50.03N LONG: 155 00.02W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.646		167.7		
2.705		169.9		
2.782		169.9		
2.823		166.8		
2.846		164.3		
2.864	2.865	160.8	160.8	5.03
2.886		157.1		
2.905		153.1		
2.946		144.8		
2.978		137.1		
3.012	3.006	128.6	128.5	8.06
3.034	3.029	124.3	124.3	9.04
3.061	3.061	119.0	119.1	7.01
3.097	3.093	112.9	112.9	9.29
3.134		108.5		

VENTS 1994 - LEG III
 Station V94F27 Cast 27 29 SEP 1994
 LAT: 24 10.00N LONG: 154 59.98W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-t (CTD)	Sigma-Theta (Bottle)	Sigma-Theta (Bottle)
1	3004.2	3045.3	1.521	1.299		34.671	34.6680		27.745	27.742	27.761	27.758	
2	2700.1	2735.1	1.603	1.409		34.661	34.6591		27.731	27.729	27.745	27.743	
3	2399.5	2428.9	1.741	1.572		34.646	34.6444		27.708	27.707	27.721	27.720	
4	2200.4	2226.3	1.870	1.716		34.634	34.6327		27.689	27.688	27.700	27.699	
5	2101.3	2125.5	1.951	1.805		34.627	34.6267		27.677	27.676	27.688	27.688	
7	2000.4	2023.0	2.049	1.910		34.620	34.6207		27.663	27.664	27.674	27.675	
8	1900.1	1921.1	2.169	2.037		34.611	34.6096		27.647	27.645	27.657	27.656	
9	1797.5	1816.9	2.300	2.175		34.601	34.5999		27.628	27.627	27.638	27.637	
10	1596.0	1612.4	2.634	2.521		34.583	34.5804		27.585	27.583	27.595	27.593	
11	1401.2	1415.0	2.967	2.867		34.555	34.5539		27.533	27.532	27.542	27.541	
12	1203.2	1214.5	3.462	3.373		34.521	34.5208		27.459	27.459	27.468	27.468	
13	1203.7	1215.0	3.461	3.372		34.521	34.5217		27.459	27.460	27.468	27.468	
14	1102.2	1112.2	3.640	3.558		34.498	34.4964		27.423	27.422	27.432	27.430	
15	1102.6	1112.7	3.639	3.557		34.498	34.4960		27.424	27.422	27.432	27.430	
16	1002.6	1011.5	3.792	3.717		34.451	34.4463		27.371	27.367	27.378	27.375	
17	1002.2	1011.1	3.791	3.716		34.451	34.4480		27.371	27.369	27.378	27.376	
18	901.6	909.4	4.004	3.936		34.391	34.3849		27.301	27.297	27.308	27.304	
19	901.5	909.3	4.005	3.937		34.391	34.3096		27.301	27.237	27.308	27.244	
20	800.3	807.0	4.450	4.388		34.318	34.3084		27.196	27.189	27.203	27.195	
21	800.8	807.5	4.455	4.392		34.319			27.196		27.203		

VENTS 1994 - LEG III
 Station V94F27 Cast 27 29 SEP 1994
 LAT: 24 10.00N LONG: 154 59.98W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/L)
2.614		164.9		
2.678		167.8		
2.742		167.2		
2.792		165.6		
2.809		163.8		
2.832	2.826	161.0	161.0	4.74
2.849		157.9		
2.866		154.2		
2.927		146.3		
2.956		138.2		
3.005	3.004	126.9	127.0	5.71
3.027	3.019	123.2	123.1	6.15
3.052	3.059	120.9	120.9	6.05
3.084	3.084	116.3	116.3	6.09
3.082		105.8		

VENTS 1994 - LEG III
 Station V94F28 Cast 28 29 SEP 1994
 LAT: 22 29.93N LONG: 154 59.95W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3000.1	3040.8	1.537	1.315		34.670			27.743		27.759	
2	2701.2	2735.9	1.638	1.443		34.658			27.726		27.740	
3	2399.3	2428.4	1.813	1.643		34.642			27.699		27.712	
4	2201.0	2226.6	1.958	1.803		34.632			27.680		27.692	
5	2100.7	2124.7	2.051	1.903		34.625			27.667		27.679	
6	1999.9	2022.2	2.161	2.020		34.618			27.653		27.664	
7	1901.9	1922.7	2.264	2.161		34.611			27.639		27.650	
8	1800.4	1819.7	2.408	2.281		34.601			27.619		27.629	
9	1600.9	1617.2	2.757	2.642		34.580			27.572		27.582	
10	1401.3	1414.9	3.123	3.021		34.556			27.519		27.529	
11	1202.0	1213.1	3.637	3.547		34.529			27.448		27.457	
12	1201.8	1212.9	3.638	3.548		34.529			27.448		27.457	
13	1101.3	1111.2	3.917	3.833		34.510			27.405		27.414	
14	1101.1	1111.0	3.917	3.833		34.510			27.405		27.414	
15	1000.8	1009.6	4.153	4.075		34.489			27.364		27.372	
16	1000.5	1009.2	4.154	4.076		34.489			27.364		27.372	
17	902.0	909.7	4.487	4.415		34.457			27.303		27.310	
18	902.0	909.7	4.487	4.415		34.457			27.303		27.310	
19	799.3	805.9	4.898	4.833		34.406			27.216		27.224	
20	799.3	805.9	4.898	4.833		34.406			27.216		27.224	
21	602.5	607.2	5.847	5.794		34.197			26.937		26.944	

VENTS 1994 - LEG III
 Station V94F28 Cast 28 29 SEP 1994
 LAT: 22 29.93N LONG: 154 59.95W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.627		165.9		
2.700		168.3		
2.770		166.3		
2.797		161.7		
2.815		159.4		
2.836	2.836	156.4	156.3	
2.854		154.0		6.36
2.941		142.7		
2.985		134.3		
3.037	3.037	122.3	122.3	7.19
3.051	3.047	116.2	116.2	9.51
3.054	3.058	111.6	111.2	6.88
3.070	3.070	104.8	104.4	9.04
3.069		96.5		
2.873		76.1		

VENTS 1994 - LEG III
 Station V94F29 Cast 29 30 SEP 1994
 LAT: 20 59.95N LONG: 155 00.08W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	3003.5	3043.9	1.605	1.382		34.670			27.738		27.738	27.754
2	2701.1	2735.5	1.700	1.504		34.660			27.723		27.723	27.737
3	2398.9	2427.8	1.841	1.670		34.647			27.701		27.701	27.714
4	2199.0	2224.4	1.961	1.806		34.637			27.684		27.684	27.696
5	2101.4	2125.2	2.045	1.897		34.633			27.674		27.674	27.686
6	1998.8	2021.0	2.146	2.006		34.626			27.660		27.660	27.672
7	1999.1	2021.2	2.146	2.006		34.626			27.660		27.660	27.672
8	1900.1	1920.7	2.250	2.117		34.619			27.646		27.646	27.657
9	1799.1	1818.2	2.350	2.224		34.612			27.632		27.632	27.643
10	1596.1	1612.3	2.653	2.540		34.590			27.589		27.589	27.599
11	1399.2	1412.7	3.112	3.010		34.568			27.530		27.530	27.539
12	1202.1	1213.1	3.595	3.505		34.537			27.459		27.459	27.468
13	1203.9	1214.9	3.591	3.501		34.537			27.459		27.459	27.468
14	1099.5	1109.3	3.870	3.786		34.523			27.420		27.420	27.429
15	1100.0	1109.8	3.871	3.787		34.523			27.420		27.420	27.429
16	998.7	1007.4	4.256	4.178		34.500			27.362		27.362	27.370
17	998.9	1007.5	4.260	4.182		34.500			27.361		27.361	27.369
18	900.3	907.8	4.570	4.498		34.475			27.308		27.308	27.316
19	900.2	907.8	4.575	4.503		34.475			27.307		27.307	27.315
20	798.8	805.3	4.865	4.800		34.440			27.247		27.247	27.254
21	599.5	604.1	5.490	5.439		34.233			27.010		27.010	27.016

VENTS 1994 - LEG III
 Station V94F29 Cast 29 30 SEP 1994
 LAT: 20 59.95N LONG: 155 00.08W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.644		165.5		
2.687		164.7		
2.742		162.5		
2.774		159.6		
2.798		157.8		
2.829	2.824	155.7	155.9	7.38
2.854		154.3		
2.944		145.9		
3.041		136.0		
3.064	3.064	123.9	124.0	6.53
3.094		117.9		
3.111	3.112	109.7	109.8	8.31
3.087	3.086	102.7	102.7	7.73
3.024		90.4		

VENTS 1994 -- LEG III
 Station V94F30 Cast 30 30 SEP 1994
 LAT: 20 24.10N LONG: 155 00.10W

Niskin #	Depth (m)	Depth (db)	Insitu Temp.	Potential Temp.	Temp. Anom	Salinity (CTD)	Salinity (Bottle)	Atten. (1/m)	Sigma-t (CTD)	Sigma-t (Bottle)	Sigma-Theta (CTD)	Sigma-Theta (Bottle)
1	2501.0	2531.6	1.763	1.584		34.653			27.712		27.726	
2	2399.5	2428.3	1.803	1.633		34.649			27.706		27.719	
3	2302.9	2330.0	1.854	1.692		34.644			27.698		27.710	
4	2200.9	2226.2	1.948	1.793		34.637			27.685		27.697	
5	2100.0	2123.7	2.038	1.890		34.631			27.673		27.685	
6	1999.6	2021.6	2.136	1.996		34.624			27.660		27.671	
7	1999.1	2021.1	2.137	1.997		34.624			27.660		27.671	
8	1907.0	1927.6	2.226	2.092		34.618			27.647		27.658	
9	1801.8	1820.8	2.357	2.230		34.610			27.630		27.641	
10	1599.3	1615.3	2.672	2.558		34.589			27.586		27.596	
11	1401.0	1414.4	3.031	2.930		34.568			27.537		27.547	
12	1201.2	1212.1	3.590	3.500		34.537			27.459		27.468	
13	1201.7	1212.7	3.589	3.499		34.537			27.460		27.468	
14	1099.5	1109.2	3.822	3.739		34.520			27.423		27.431	
15	1100.0	1109.8	3.822	3.739		34.520			27.423		27.431	
16	1002.4	1011.0	4.063	3.986		34.505			27.386		27.394	
17	1002.7	1011.3	4.063	3.986		34.505			27.386		27.394	
18	901.0	908.6	4.299	4.229		34.477			27.339		27.346	
19	901.2	908.8	4.299	4.229		34.477			27.339		27.346	
20	801.6	808.1	4.600	4.536		34.439			27.276		27.283	
21	600.4	605.0	5.601	5.550		34.239			27.001		27.007	

VENTS 1994 - LEG III
 Station V94F30 Cast 30 30 SEP 1994
 LAT: 20 24.10N LONG: 155 00.10W

PO4-UNFIL (umol/L)	PO4-FIL (umol/L)	SiO4-UNFIL (umol/L)	SiO4-FIL (umol/L)	TSM (ug/l)
2.709		162.9		
2.724		162.7		
2.746		162.0		
2.772		160.5		
2.789		158.0		
2.821	2.824	155.9	156.0	5.97
2.842		154.3		
2.932		144.5		
2.979		136.0		
3.035	3.034	123.3	123.4	8.08
3.035	3.033	118.1	118.1	7.96
3.043	3.042	112.8	112.7	9.43
3.056	3.057	108.2	108.2	8.76
3.067		102.1		
2.905		81.0		