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NOAA Data Report ERL AOML-27

**CHEMICAL AND HYDROGRAPHIC MEASUREMENTS  
FROM THE EQUATORIAL PACIFIC DURING BOREAL SPRING 1992**

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## Abbreviations:

AOML: Atlantic Oceanographic and Meteorological Laboratory  
 LDEO: Lamont Doherty Earth Observatory  
 PMEL: Pacific Marine and Environmental Laboratory  
 RSMAS: Rosenstiel School for Marine and Atmospheric Science  
 USF: University of South Florida  
 WHOI: Woods Hole Oceanographic Institute

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## **ABSTRACT**

From February 24 to May 19, 1992, the National Oceanic and Atmospheric Administration's (NOAA) Climate and Global Change Program sponsored a major cooperative effort with the U.S. Joint Global Ocean Flux Study (U.S.JGOFS) to study the role of equatorial processes on CO<sub>2</sub> cycling in the central and eastern equatorial Pacific during the 1991-92 El Nino Southern Oscillation (ENSO) event. The NOAA ship MALCOLM BALDRIGE performed four transequatorial sections in the region and this report presents hydrographic and chemical data from that cruise including tables of the following data from each station: hydrography from each CTD cast at the bottle trip depths, dissolved oxygen, fCO<sub>2</sub>, DIC, pH, TAlk, nutrients, and TOC. Descriptions of the sampling techniques and analytical methods used in the collection and processing of these data are also presented.

**KEY WORDS:** alkalinity, CO<sub>2</sub>, carbon dioxide, CTD, dissolved inorganic carbon, fugacity, hydrography, nutrients, pH, salinity, sigma-theta, equatorial Pacific, temperature, total organic carbon.

## 1. INTRODUCTION

Human activity is producing gases, most notably carbon dioxide (CO<sub>2</sub>), and other trace gases including chlorofluorocarbons, nitrous oxide and methane, which are being released into the atmosphere causing more of the radiation being emitted by the earth to be absorbed. This increased absorption is resulting in a net warming of the earth's atmosphere and creating a phenomenon commonly known as the "Greenhouse Effect." Only about half of all of the anthropogenic CO<sub>2</sub> released into the atmosphere each year remains there. The global ocean is thought by many to be the ultimate destination, or sink, for the missing CO<sub>2</sub>. The understanding of the absorption and storage properties of the oceans is therefore essential to assessing the potential for climatic change due to man's effect on the radiation balance of the atmosphere.

The National Oceanic and Atmospheric Administration's (NOAA) Ocean-Atmosphere Carbon Exchange Study (OACES) program in cooperation with the U.S. Joint Global Ocean Flux Study (U.S.JGOFS) program participated in a multifaceted oceanographic research cruise conducted aboard the NOAA ship MALCOLM BALDRIGE from February 24 to May 19, 1992. The primary objective of the OACES effort was to determine the relative effects of biological fixation of carbon within the equatorial upwelling zone followed by vertical flux of that fixed carbon to abyssal depths, and of CO<sub>2</sub> outgassing. The boreal spring cruise focused on determining the concentrations of carbon species and describing ocean circulation in the upper ocean over the equatorial Pacific from 110° W to 170° W and modeling the carbon flux through that system.

### 1.1 Cruise Track

This study was conducted on three consecutive cruise legs. (Fig. 1) Leg 1 sailed from Rodman, Panama on February 24, 1992, proceeded NE to 12° N and 110° W and then turned south and steamed along the 110° W line to 8° S. The 125° W trackline was met at 8° S and followed northward to 12° N, after which BALDRIGE transited to Hilo, Hawaii, March 27. Leg 2 departed Hilo on March 31, and proceeded SW to the 170° W section at 10° N, steamed southward to 10° S, and transited SE to Papeete, Tahiti on April 17. Leg 3 departed NE from Papeete April 22 to follow the 140° W line from 10° S to 10° N, then made for Rodman, Panama to end the cruise there on May 19.

### 1.2 Cruise and Sampling Summary

Forty-seven CTD casts on Leg 1, 26 on Leg 2, and 37 casts on Leg 3 were performed to collect discrete water sample data at a total of 95 stations. (Table 1.) A CTD/rosette unit with a Neil Brown™ CTD instrument equipped with 24, 10-L Niskin™ bottles was used. Once on deck, aliquots for analyses were taken in the following order: dissolved oxygen (DO), discrete fugacity of CO<sub>2</sub> (fCO<sub>2</sub>), dissolved inorganic carbon (DIC), pH, total alkalinity (TAlk), C13, nutrients, total organic carbon (TOC), particulate organic carbon (POC), particulate organic nitrate (PON), and salinity. Continuous underway air and seawater surface samples for DIC and fCO<sub>2</sub> analysis were collected during all legs of the cruise. Go-Flo™ hydrographic casts were also conducted for productivity measurements using 10-L Go-Flo™ bottles mounted on Kevlar™ hydrowire. Salinities and sea surface temperatures were also measured continuously using bow-mounted thermosalinograph. This report will not address productivity, C13, POC, PON, nor the underway measurements collected during the cruise.



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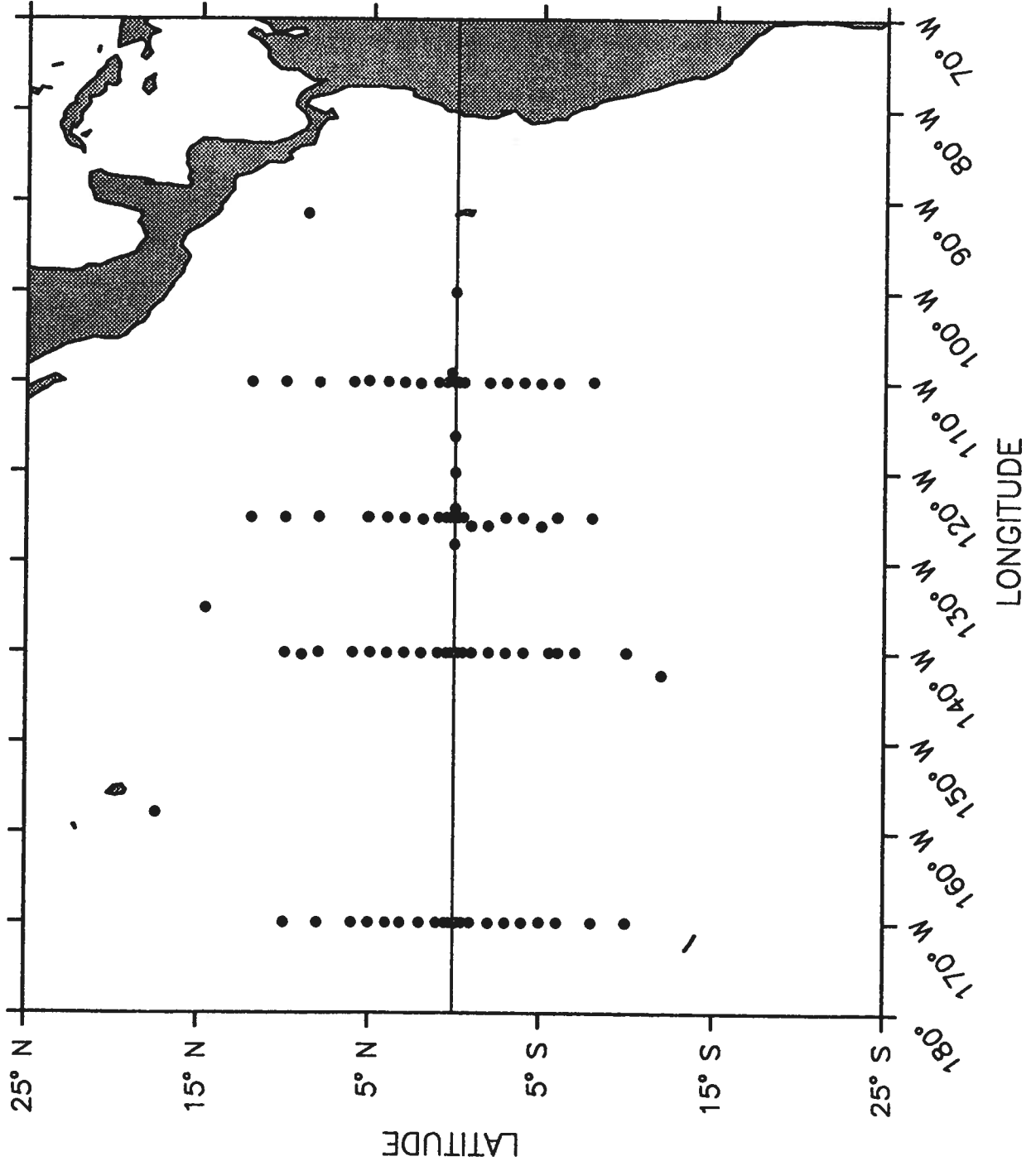


Table 1. Station Positions for the Equatorial Pacific 1992 cruise.

STATION	LATITUDE	LONGITUDE	DATE
LEG 1			
1	8° 44.9' N	91° 20.9 W	2/27/92
2	1° 59.7' N	110° 1.6' W	3/2/92
3	1° 0.1' N	110° 2.8' W	3/2/92
4	8° 0.2' N	110° 5.9' W	3/3/92
5	6° 0.0' N	109° 59.6 W	3/3/92
6	5° 7.1' N	109° 56.0 W	3/4/92
7	4° 0.7' N	109° 59.3 W	3/5/92
8	3° 0.5' N	110° 0.2' W	3/5/92
9	2° 4.6' N	110° 7.6' W	3/5/92
10	0° 59.8' N	110° 2.7' W	3/6/92
11	0° 29.7' N	110° 0.5' W	3/6/92
12	0° 14.0' N	109° 0.3' W	3/6/92
13	0° 3.1' N	110° 0.3' W	3/6/92
14	0° 15.3' S	110° 0.1' W	3/7/92
15	0° 30.0' S	110° 0.0' W	3/7/92
16	1° 10.0' S	109° 59.0 W	3/7/92
17	2° 0.4' S	110° 0.6' W	3/8/92
18	2° 59.8' S	110° 0.6' W	3/8/92
19	4° 0.1' S	110° 1.0' W	3/8/92
20	4° 59.3' S	110° 8.3' W	3/9/92
21	5° 59.9' S	110° 0.6' W	3/10/92
22	8° 1.0' S	109° 59.0 W	3/11/92
23	7° 58.6' S	125° 2.1' W	3/14/92
24	5° 59.4' S	125° 0.9' W	3/14/92
25	5° 2.2' S	125° 57.7 W	3/15/92
26	4° 0.0' S	125° 1.7' W	3/15/92
27	3° 0.2' S	125° 0.7' W	3/15/92
28	1° 58.8' S	125° 57.4 W	3/16/92
29	0° 59.4' S	125° 56.2 W	3/16/92
30	0° 29.7' S	124° 58.7 W	3/16/92
31	0° 15.1' S	125° 0.8' W	3/17/92
32	0° 0.0' N	125° 0.1' W	3/17/92
33	0° 15.0' N	125° 0.8' W	3/17/92
34	0° 29.6' N	125° 0.4' W	3/17/92
35	0° 58.4' N	125° 0.6' W	3/18/92
36	1° 54.6' N	125° 9.6' W	3/18/92
37	2° 59.6' N	125° 1.8' W	3/18/92
38	3° 59.8' N	125° 1.0' W	3/19/92
39	5° 7.2' N	125° 0.8' W	3/19/92
40	5° 59.9' N	125° 0.0' W	3/20/92
41	8° 0.1' N	125° 0.3' W	3/20/92
42	9° 59.9' N	125° 2.5' W	3/21/92
43	11° 59.4' N	125° 2.3' W	3/21/92
44	14° 35.4' N	135° 6.5' W	3/23/92
LEG 2			
45	17° 26.1' N	157° 49.9 W	4/2/92
46	9° 59.3' N	170° 1.1' W	4/4/92
47	7° 59.6' N	170° 1.3' W	4/5/92
48	6° 0.0' N	170° 1.0' W	4/5/92
49	5° 0.0' N	170° 0.0' W	4/6/92
50	3° 59.9' N	170° 0.3' W	4/6/92
51	3° 0.5' N	170° 0.8' W	4/7/92
52	1° 59.7' N	170° 2.3' W	4/7/92
53	1° 0.2' N	170° 1.9' W	4/7/92

54	0° 29.5' N	170° 0.6' W	4/8/92
55	0° 14.8' N	170° 1.0' W	4/8/92
56	0° 2.0' S	170° 5.2' W	4/8/92
57	0° 14.8' S	169° 59.6' W	4/9/92
58	0° 30.5' S	170° 0.1' W	4/9/92
59	0° 59.3' S	170° 1.1' W	4/10/92
60	2° 2.9' S	170° 5.4' W	4/10/92
61	3° 0.6' S	170° 0.2' W	4/10/92
62	4° 0.3' S	170° 0.4' W	4/11/92
63	5° 0.5' S	169° 59.0' W	4/11/92
64	5° 59.7' S	170° 1.3' W	4/12/92
65	8° 0.5' S	170° 0.4' W	4/12/92
66	10° 0.5' S	169° 59.5' W	4/13/92
LEG 3			
67	11° 59.9' S	142° 30.1' W	4/24/92
68	10° 0.3' S	140° 0.5' W	4/25/92
69	6° 59.5' S	140° 1.3' W	4/26/92
70	6° 0.0' S	140° 0.4' W	4/26/92
71	5° 0.3' S	140° 0.5' W	4/26/92
72	4° 0.5' S	140° 0.8' W	4/28/92
73	2° 59.2' S	140° 0.1' W	4/28/92
74	1° 59.9' S	140° 0.9' W	4/28/92
75	1° 0.4' S	140° 1.7' W	4/29/92
76	0° 29.8' S	140° 0.0' W	4/29/92
77	0° 15.2' S	140° 0.4' W	4/29/92
78	0° 0.6' S	140° 3.1' W	4/29/92
79	0° 14.8' N	140° 0.6' W	5/1/92
80	0° 29.9' N	139° 59.9' W	5/1/92
81	1° 0.0' N	140° 1.7' W	5/1/92
82	1° 59.7' N	140° 5.3' W	5/2/92
83	2° 59.4' N	140° 1.3' W	5/2/92
84	3° 59.7' N	140° 1.0' W	5/3/92
85	4° 57.8' N	139° 59.8' W	5/3/92
86	5° 59.5' N	140° 0.6' W	5/4/92
87	8° 0.0' N	140° 0.6' W	5/4/92
88	8° 59.5' N	140° 17.8' W	5/5/92
89	9° 59.1' N	140° 5.5' W	5/5/92
90	0° 0.3' S	128° 0.2' W	5/8/92
91	0° 0.6' S	124° 0.0' W	5/9/92
92	0° 0.6' S	120° 0.6' W	5/10/92
93	0° 0.0' S	116° 0.0' W	5/11/92
94	0° 0.8' N	110° 0.3' W	5/12/92
95	0° 0.3' N	99° 59.9' W	5/15/92

## 2. SAMPLING AND ANALYTICAL METHODS

### 2.1 CTD and Hydrographic Operations

CTD values listed are based on two-second averages of data collected at the time of the trip during the CTD upcast. A General Oceanics™ sequential rosette controller was used to trigger 24 Niskin™ 10-liter bottles. Although two different controllers were used and continuously cleaned and rebuilt, Legs 1 and 2 were plagued by misfires. A third controller used on Leg 3 performed much better. Firing malfunctions were frequent. Generally, a bottle would fail to close when tripped, and be offset one trip position until two bottles fired together at a later depth. Every effort was made to place the bottle sample data with appropriate CTD trip pressures and sensor data values using all available CTD and sample data. When it was indicated that two bottles had fired at one trip location, the CTD data values were duplicated. Misfires commonly occurred in the bottom seven trips. Some of the trip

depths could not be resolved conclusively. In these instances all parameters are labelled with WOCE quality flag of 3 (questionable)

Data were collected with a Neil Brown Instruments™ Mark III CTD sampler at a frequency of 31.25 Hz and logged and processed using AOML software on a Digital Equipment Systems™ microVAX computer system. Processing included raw data correction based on pre-cruise calibration, editing outliers, matching sensor data response times by lagging and pressure-averaging up and downcasts, and eliminating direction reversals due to ship roll. Raw digital data were logged to computer disk, and analog frequency data recorded on the audio track of video tape. Bottle firings were logged into disk files. The bottle data from stations 56-63 (Leg 2) could not be re-processed with post cruise CTD calibrations due to the loss of original data.

Pressure and temperature sensors were calibrated both pre- and post cruise at Neil Brown Instruments™ in Mass. Additionally, a calibration of pressure at several temperatures was performed at AOML to remove temperature effects. The post-cruise pressure and temperature calibrations were applied for all legs and surface pressure offsets were compensated. Bottle trip values could not be re-processed for stations 56-63 and trip pressures calculated during the cruise from pre-cruise calibration (without temperature compensation) were corrected empirically. Pressure accuracy was within +/- 3 db, and temperature within 0.005 °C.

Autosal salinities from bottle samples were converted to in-situ conductivities using calibrated CTD pressure and temperature values for calibration of the CTD conductivity sensor. These were compared to bottle trip upcast CTD values, and conductivity sensor slope and bias values were adjusted for groups of stations as necessary to achieve best fit to all data. The scatter of CTD - bottle conductivities was particularly wide due to the high percentage of upper ocean (1000 m) stations with large vertical salinity gradients. Post-cruise calibration produced good agreements between CTD salinity and bottle salinity with standard deviations of 0.003, 0.004, and 0.005 for Legs 1, 2, and 3, respectively.

## 2.2 Dissolved Oxygen

Dissolved oxygen samples were collected with Tygon™ tubing (connected to the stopcock with a latex attachment to avoid contamination of subsequent TOC samples) into 150-mL, clear, ground-glass stoppered, volume-calibrated, flasks. The bottle was rinsed twice and filled from the bottom to minimize bubble entrainment, and overflowed half a volume. Samples were pickled with 1 mL manganous chloride (600 g MnCl<sub>2</sub>-4H<sub>2</sub>O in 1 L H<sub>2</sub>O), and 1 mL alkaline sodium iodide (320 g NaOH & 600 g NaI in 1 L H<sub>2</sub>O). The top depressions of the bottles were filled with fresh water to prevent intrusion of air, and samples were kept in darkness until analysis.

Oxygen samples were titrated following the technique of Carpenter (1965). A computer-controlled automatic pipette was used for titration with photometric endpoint determination. Precision of this system has been shown to be better than +/- 1.0 %.

## 2.3 Discrete Fugacity of CO<sub>2</sub> (fCO<sub>2</sub>)

Samples were drawn into 500-mL Pyrex™ volumetric flasks using Tygon™ tubing (connected to the stopcock with a latex attachment). Bottles were rinsed once and while taking care not to entrain air bubbles, filled from the bottom until half the bottles' volume overflowed. Five mL of water were then withdrawn with a pipette to create an expansion volume. Saturated HgCl<sub>2</sub> solution, (0.2 mL), was added as a preservative. The sample bottles were then sealed with a screw cap containing a polyethylene liner and stored in darkness at room temperature for a maximum of two days prior to analysis.

The AOML discrete fCO<sub>2</sub> system is patterned after the design described in Chipman et al. (1993) and is discussed in detail in Wanninkhof and Thoning (1993). The major difference between the systems is that the AOML system uses a Licor™ (model 6262) non-dispersive infrared analyzer, while the Chipman et al. system utilizes a gas chromatograph with a flame ionization detector and a methanizer, which quantitatively converts CO<sub>2</sub> into CH<sub>4</sub> for analysis.

Samples were brought to a temperature of 20.00 ± 0.02 °C, using a pre-bath at 19-21 °C and a Neslab™ model RTE-220 controlled temperature bath. A 60-mL headspace was created in the flask

by replacing the water using a compressed standard gas with a CO<sub>2</sub> mixing ratio close to the fCO<sub>2</sub> of the water. The headspace was circulated in a closed loop through the infrared analyzer (IR), which measures CO<sub>2</sub> and water vapor levels in the sample cell. The headspaces of the two flasks were equilibrated simultaneously in channels A and B. The sample in the A channel was equilibrated for 17 minutes while the air from the headspace of the flask flowed through the IR analyzer. The sample in the B channel was circulated in a closed loop for 10 minutes and subsequently through the IR for 8 minutes. An expandable volume, consisting of a balloon, kept the contents of the flasks at room pressure.

In order to maintain measurement accuracy and precision, a set of six gas standards was run through the system after every four to ten seawater samples. The standards have mixing ratios of 201.4, 354.8, 516.2, 804.5, 1012.2, and 2019.8 ppm, which bracket the fCO<sub>2</sub> at 20 °C (fCO<sub>2,20</sub>) values observed in the water column of the Equatorial Pacific.

The determination of fCO<sub>2</sub> in water from the discrete analyses involved several steps. The mixing ratio and detector response for the standards were normalized for temperature and pressure. The IR voltage output for samples was normalized with regard to pressure and corrected for the presence of water vapor and converted to a mixing ratio. The mixing ratio in the headspace was converted to fugacity and corrected to fugacity of CO<sub>2</sub> in the water sample prior to equilibration by accounting for the change in total CO<sub>2</sub> in the water during the equilibration process (Wanninkhof and Thoning, 1993). The change in the fCO<sub>2</sub> of water, (fCO<sub>2w</sub>), caused by the change in DIC, was calculated using the constraint that total alkalinity (TAlk), remains constant during exchange of CO<sub>2</sub> gas between the headspace and the water. The calculation is outlined in the appendix of Peng et al. (1987).

Precision of the fCO<sub>2</sub> analyses were determined in four different ways: from re-analysis of the same water sample; from agreement between surface mixed layer values (where mixed layer is defined as the depth of water with temperatures within 0.5 °C); from duplicates of samples taken from the same Niskin™ bottle; and duplicates taken from the same depth but from different Niskin™ bottles. The precision is defined as the average of the relative error between the samples and it is expressed in percent. The relative error is expressed as the absolute difference divided by the mean for two samples, or standard deviation divided by the mean for more than two samples.

Type	Precision (%)	Number of occurrences
Re-analysis	0.62	12
Same depth	0.63	53
Same Niskin™	0.84	5
Mixed layer	0.99	81

## 2.4 Dissolved Inorganic Carbon (DIC)

Samples were drawn into 500-mL Pyrex™ bottles using Tygon™ tubing (connected to the stopcock with a latex attachment). Bottles were rinsed once and filled from the bottom, overflowing half a volume while taking care not to entrain bubbles. The tube was pinched off and withdrawn, creating a 5-mL headspace volume. As a preservative, 0.2 mL of saturated HgCl<sub>2</sub> solution was added. The sample bottles were sealed with glass stoppers lightly covered with Apiezon-L™ grease. The samples were stored at room temperature in the dark for a maximum of two days before analysis.

Analysis was performed by extracting the inorganic carbon in a seawater sample by acidification and subsequent displacement of the gaseous CO<sub>2</sub> into a coulometer cell for titration. Two coulometers were used on the cruise; both equipped with the SOMMA (Single Operator Multiparameter Metabolic Analyzer) inlet system developed by Ken Johnson of Brookhaven National Laboratory (BNL). The first system, "AOML-1" was previously used on the NOAA S-Atl-91 cruise. The second system, "PMEL-1", was brought into service several weeks prior to the start of the cruise.

For analysis on the SOMMA system a 500-mL sample bottle was inserted in a water bath at 20 °C. Water from the bottle was displaced by pressurization into a thermostated pipette using a "headspace" gas (511 ppm CO<sub>2</sub> in air). The sample was injected into an extraction chamber which

contained 1 mL 10 % H<sub>3</sub>PO<sub>4</sub> solution previously stripped of CO<sub>2</sub>. The evolved CO<sub>2</sub> gas from the sample was run through a condenser and a magnesium perchlorate, MgClO<sub>4</sub> drying column to dry the gas stream, and through an ORBO-53<sup>TM</sup> tube to remove volatile acids. Details of the system can be found in Johnson (1992) and Johnson (1993). Both coulometers were calibrated by injecting aliquots of pure CO<sub>2</sub> using an 8-port valve with two sample loops. The CO<sub>2</sub> gas volumes bracketed the amount of CO<sub>2</sub> extracted from the water samples for the AOML-1 system, and the small and large loop of the PMEL-1 system introduced the same and 40 % more CO<sub>2</sub>, respectively than a sample containing 2000 μmol/kg DIC. The gas loops for both systems were calibrated at BNL as in Wilke (1993). Liquid Reference Materials (RM's) consisting of poisoned, filtered seawater supplied by Andrew Dickson of Scripps Institute of Oceanography (SIO) were run on each cell. The results were compared to the values determined manometrically by Charles Keeling, also of SIO.

Avg. value of RM's run on AOML-1 in μmols/kg.	Leg 1	1962.9 ± 1.1	n=31
	Leg 2	1961.8 ± 0.9	n=15
	Leg 3	1962.8 ± 1.1	n=11

Avg. value of RM's run on PMEL-1 in μmols/kg.	Leg 1	1959.9 ± 1.3	n=30
	Leg 2	1960.4 ± 1.5	n=15
	Leg 3	1961.3 ± 1.0	n=23

Manometric value [SIO reference material batch #10] 1960.67 ± 0.38 μmols/kg, n = 5

Note: Only the first of replicate analyses was used for the averages.

The data of the two instruments were normalized using the averages of the reference material for each leg. The following μmols/kg corrections were applied to the data:

	PMEL-1	AOML-1
Leg 1	+0.6	-2.4
Leg 2	+0.1	-1.4
Leg 3	+0.9	-2.4

The instruments were calibrated three times during each cell with a set of gas loop injections. Calculation of the amount of CO<sub>2</sub> injected was performed according to the DOE CO<sub>2</sub> handbook of methods for the analysis of the various parameters of the carbon dioxide system in seawater (1994). The gas loops yielded a calibration factor for the instrument defined as:

$$\text{Cal. factor} = \frac{\text{calculated moles of CO}_2 \text{ injected from gas loop}}{\text{actual moles of CO}_2 \text{ injected}}$$

The concentration of DIC in the samples was determined according to:

$$\text{DIC} = \text{Cal. factor} * \frac{(\text{Counts} - \text{Blank} * \text{Run Time}) * 2.0728 * 10^{-4} \mu\text{mol} / \text{count}}{\text{pipette volume} * \text{density of sample}}$$

where: "Counts" is the instrument reading at the end of the analysis; "Blank" is the counts/minute determined from blank runs performed at least once for each cell solution; "Run Time" is the length of coulometric titration (in minutes); "2.0728 \* 10<sup>-4</sup>", is the conversion factor from counts to μmol. The pipette volume was determined by taking aliquots of distilled water from the pipettes at known temperature prior, during, and after the cruise. No significant volume change was observed. Standard deviation in the series of measurements over three months was 0.04% of the total weight. The weights with the appropriate densities were used to determine the volume of the pipettes. Calculation

of pipette volumes, density, and final CO<sub>2</sub> concentration were performed according to procedures outlined in the DOE CO<sub>2</sub> handbook (1994). All DIC values were corrected for dilution by 0.2 mL of mercuric chloride solution assuming the solution was saturated with atmospheric CO<sub>2</sub> levels and total water volume was 540 mL. The correction factor applied was 1.00037. No correction was made for headspace gas exchange with the sample due to the probable variability of fCO<sub>2</sub> at the locations of sampling, and the small magnitude (<1.0 μmol/kg) of the correction.

## 2.5 pH

Sample cells (10cm pathlength spectrophotometric cells, 30 mL) were filled directly from the rosette using a 20cm length of Tygon™ tubing (connected to the stopcock with a latex attachment) with a flushing volume of approximately 300 mL. Care was taken to eliminate bubbles from the sampling system, and the sample cell was sealed with PTFE™ caps while ensuring that there was no head space.

All spectrophotometric pH measurements were made using the indicator m-Cresol Purple. Spectrophotometric cells were warmed to 25.0 °C in a twelve chambered thermostated aluminum block and subsequently cleaned and placed in the thermostated sample compartment of the spectrophotometer. Absorbance measurements were made at three wavelengths: a non absorbing wavelength (730nm) and wavelengths corresponding to the absorbance maxima of the alkaline (I<sup>-2</sup>, 578nm) and acidic (HI<sup>-</sup>, 434nm) forms of the indicator. Subsequently, one of the cell caps was removed and 0.08 mL of concentrated indicator (~2 mmol/kg) was injected into the cell. The cell was capped, rapidly mixed and returned to the thermostated cell. Absorbance measurements were again made at 730nm, 578nm and 434nm. Sample pH was then calculated using the equations and procedures of Clayton and Byrne (1993). The "total" pH scale is used and pH<sub>T</sub> and [H<sup>+</sup>]<sub>T</sub> are reported in mol/kg of seawater.

## 2.6 TAlk

Samples were drawn into 500-mL Pyrex™ bottles using Tygon™ tubing (connected to the stopcock with a latex attachment). Bottles were rinsed once and filled from the bottom, overflowing half a volume while taking care not to entrain bubbles.

The TAlk titration system was similar to the one used in previous studies (Thurmond and Millero, 1982) and that developed by Bradshaw (1988), and consisted of a Metrohm™ 665 Dosimat titrator and an Orion™ 720A pH meter operated by a personal computer. Both the acid titrant and seawater sample were maintained at 25 °C with a Neslab™ temperature bath. The glass water jacketed cells (volume about 230 mL) were patterned after an earlier design of Thurmond and Millero (1982). The cell top was made of Plexiglas with inlets for electrodes, syringe and titrant injection tip and could be removed between runs to clean and fill the cell with a fixed volume sample. The cell design was similar to Bradshaw et al. (1988) except a larger volume (about 230 mL) was used to increase precision. A GW-BASIC program was used to control the titration and record the emf of the electrodes. The titration was made by adding HCl to the seawater past the carbonic acid end point. A typical titration records the emf reading after it becomes stable (0.05 mV) and adds enough acid to change the voltage to a pre-assigned increment (10 mV). The electrodes used to measure emf consisted of a ROSS glass pH electrode and an Orion double junction Ag/AgCl reference electrode. The FORTRAN program fits the entire titration data giving pH (SWS), μmol/kg of seawater, TAlk (μmol/kg), and DIC (μmol/kg).

The HCl acid solutions (20 L) were made, standardized, and stored in 500-mL glass bottles prior to the cruise. The 0.25 M HCl solutions were made with 1 M Mallinckrodt standard solutions in 0.45 M NaCl to yield an ionic strength equivalent to that of average seawater (0.7 M). The acid was standardized by titrating weighed amounts of Na<sub>2</sub>CO<sub>3</sub> and TRIS dissolved in 0.7 M NaCl solutions. The blanks in the 0.7 M NaCl solutions were determined by coulometry and by titrations of the NaCl solutions with and without added Na<sub>2</sub>CO<sub>3</sub> and TRIS. The blanks of the titrations of TRIS were determined by extrapolation to zero added salt (Goyet and Hacker, 1992). The alkalinity blanks in the NaCl were approximately 14±1 μM.

Cell volumes were determined in the laboratory by weighing the cells filled with degassed Millipore™ water. The density of water at the temperature of the measurements (25 °C) was calculated from the international equation of state of seawater (Millero and Poisson, 1981). The nominal volumes of all the cells were about 230 mL and the values were determined to 0.03 mL.

The NaCl, Na<sub>2</sub>CO<sub>3</sub> and NaHCO<sub>3</sub> salts used to make up the solutions were Baker reagent grade. Details on preparation and calibration of the seawater buffers are given in Dickson (1993), and Millero (1993). Approximately 20 L of standard carbonate solutions in 0.7 M NaCl were prepared for the calibrations of the acids. The solutions were equilibrated with air to provide an alkalinity and nearly constant DIC standard. The DIC in the blanks and carbonate solutions was measured daily by coulometry. The coulometer was calibrated using CO<sub>2</sub> gas loops and monitored with Batch #10 RM.

The volume of HCl delivered to the cell is traditionally assumed to have small uncertainties (Dickson, 1981) due to the digital output of the titrator. Calibrations of the burettes of the Dosimats with water at 25 °C indicate that the systems deliver 3.000 mL (the value for a titration of seawater) to a precision of 0.0004 mL. This uncertainty results in an error of 0.4 μmol/kg in TAlk and DIC. The accuracy of the volume of acid delivered by the Dosimats, however, was ten times poorer (0.004 mL) than precision. Since the titration systems were calibrated using standard solutions, this error in accuracy of volume delivery will be partially cancelled and included in the value assigned to the concentration of HCl and the volume of the cell.

## 2.7 Nutrients

Nutrient samples were collected in aged 60-mL linear polyethylene bottles after three complete seawater rinses and stored in the dark at 4 °C until analysis was completed (within 24 hours of sample collection). Concentrations of dissolved inorganic nitrite (NO<sub>2</sub>), dissolved inorganic nitrate (NO<sub>3</sub>), and silicate (H<sub>4</sub>SiO<sub>4</sub>), reported in μmol/L, were determined using an AlpKem™ RFA/2 Auto-Analyzer in a temperature controlled van. The water used for the preparation of standards, determination of blank, and wash between samples was filtered Gulf Stream seawater obtained from the surface in the Straits of Florida.

### 2.7.1 Nitrite and Nitrate

The automated colorimetric procedures and methodologies used in the analysis of nitrite and nitrate are essentially those described by Armstrong et al. (1967), with modifications described in Atlas et al. (1971). Standardizations were performed prior to each sample run with working solutions prepared aboard ship from pre-weighed "Baker Analyzed" reagent grade standards. Nitrite (NO<sub>2</sub>) was determined by diazotizing with sulfanilamide and coupling with N-1 naphthylethelendiamine dihydrochloride to form an azo dye. The color produced was proportional to the nitrite concentration. Samples for nitrate (NO<sub>3</sub>) analysis were passed through a copperized cadmium column, which reduces nitrate to nitrite, and the resulting nitrite concentration was then determined as described above. The detection limits for nitrite and nitrate were 0.1 μmol/L and 0.4 μmol/L, respectively. The standard deviation of the analyses of samples from two Niskin™ bottles at 1000 m depth was used to estimate the overall precision obtained by the sampling and analytical procedures. The average relative standard deviation of nitrate analysis for these samples was 0.8 ± 0.9% (n=53).

### 2.7.2 Silicate

The analytical procedures and methodologies used in the analysis of silicate are essentially those described by Armstrong et al. (1967), with modifications described in Atlas et al. (1971). Silicate was determined from the reduction of silicomolybdate in acidic solution to molybdenum blue by stannous chloride. The color produced was proportional to the concentration of silicate in the sample, with a detection limit of 0.4 μmol/L. The average relative standard deviation of silicate analysis for samples from two Niskin™ bottles at 1000 m depth was 2.9 ± 2.4% (n=42).

## 2.8 Total Organic Carbon (TOC)

Thirty-mL samples were drawn from the Niskin™ bottles directly into 40 mL Pyrex™ glass vials. At no time was Tygon™ tubing used in direct contact with the stopcock nipple prior to drawing the TOC samples. The vials were rinsed three times with sample prior to filling and at no time was the



vial allowed to come into contact with the stopcock nipple. Samples were tightly capped with teflon lined screw-caps and kept under cover to prevent excessive warming while on-deck.

Immediately following collection, the samples were returned to the lab and acidified with 160  $\mu\text{L}$  of 50% (w/w)  $\text{H}_3\text{PO}_4$ . Samples were not filtered. The samples were stored at 20 °C until ready to be shipped. At that time they were wrapped as flats of 100 vials in bubble-wrap, transferred to a cooler filled with pre-frozen blue-ice then hand carried to the airport and shipped home as excess baggage. All samples were in the lab freezer within 24 hours of departure from the ship.

Samples were analyzed by the high-temperature combustion/discrete injection (HTC/DI) technique (Peltzer and Brewer, 1993). Immediately prior to analysis the samples were sparged with  $\text{CO}_2$ -free oxygen at 500 mL/min for 6-7 minutes. Each sample was injected in triplicate into a third-generation HTC/DI analyzer consisting of a two-stage combustion system. The combustion tube contained 5% Pt on alumina catalyst at 800 °C in the upper catalyst zone, and copper oxide and Sulfix (Wako Chemical Corp., Waco, TX) at 600 °C in the lower zone. Oxygen was used as a carrier gas. The gas stream passes through a  $\text{AgNO}_3/\text{H}_3\text{PO}_4$  bubbler, a U-tube cold-trap at 1-2 °C, a  $\text{Mg}(\text{ClO}_4)_2$  drying tube and two particle filters (0.1  $\mu\text{m}$  and 0.01  $\mu\text{m}$ , Balston Inc., Lexington, MA) before entering a LiCor™ Model 6252 NDIR  $\text{CO}_2$  analyzer. The output from the  $\text{CO}_2$  detector is continuously monitored and recorded using TurboChrom 3™ software operating on a 386-PC in a Windows™ environment. All peaks were visually checked for proper baseline integration and appropriate peak shape. Those not passing were either manually re-integrated or rejected. If only one peak was acceptable, the run was rejected and a new run with three more injections from the same sample was made.

Stringent quality control/quality assurance protocols were followed. Peak areas were converted to organic carbon concentrations by first correcting for the instrument blank (measured with carbon-free distilled water (CFDW)) then dividing the result by the instrument response factor determined with organic compound standards (glucose, KHP or glucoseamine) in seawater. The instrument response factor was measured twice daily and the instrument blank was repeatedly measured throughout the day -- typically after every four to six samples. This result is then back-corrected for any residual TOC in the CFDW. While the instrument blank exhibited a generally decreasing value throughout the lifetime of each furnace tube, the instrument response factor varied less than +/- 5% of the mean value over the course of the analysis period and several furnace tube lifetimes.

All TOC concentrations are corrected for the instrument blank measured using CFDW prepared by the repetitive UV- $\text{H}_2\text{O}_2$  oxidation of distilled water. This water has been independently measured to contain less than 3  $\mu\text{mol}/\text{kg}$  (Brian Fry, pers. comm.). For consistency with blank water used on other cruises, it has been assigned a residual concentration of 2.4  $\mu\text{mol}/\text{kg}$ . This value was determined by direct comparison of the various blank waters used.

TOC values are reported as micromoles carbon per kilogram seawater ( $\mu\text{mol TOC}/\text{kg}$ ). The measured concentration ( $\mu\text{mol TOC}/\text{L}$ ) is converted to  $\mu\text{mol TOC}/\text{kg}$  by dividing by the density of the sample at the time of the analysis. Sample density is calculated from the measured salinity and temperature using the international equation of state of seawater (Millero and Poisson, 1981). The bottle salinity was used whenever available, otherwise the corresponding CTD salinity measured on the upcast was used. For sample temperature, the measured lab temperature at the time of analysis was used.

## 2.9 Salinity

Salinity samples were collected in 125-mL, amber glass bottles directly from the rosette, with care being taken not to touch the petcock. Bottles were rinsed twice and overflowed one half volume. New caps were used for each sample.

Bottle salinities were measured using a Guildline™ 8400 Autosol and P114 standard seawater in a temperature controlled van. Conductivity ratios were converted to salinities conforming to the PSS78 standard. If there was no bottle salinity value available for a given sample position, the CTD value was used in calculations requiring a salinity measurement.

### 3. DATA TABLES

Discrete data are reported at all observed depths (Appendix A). Where no data are available, -9.\*\*\* is indicated. Potential temperature and potential density were calculated using standard UNESCO algorithms (Fofonoff and Millard, 1983), and the CTD in-situ temperatures and bottle salinities or, when bottle salinity data were unavailable, CTD salinities. Header information includes an Operation Number consisting of year, Julian date, and at-depth GMT time of cast, e.g., #921012335 indicates the cast was at depth in (19) 92, on Julian date 101, at 2335 GMT. Sample Number consists of the cast number followed by the 2 digit Niskin™ bottle position, e.g., 2002 indicates cast 20, bottle 02. Parameter units are written according to convention of the American Chemical Society Style Guide.

Certain parameters are followed by a quality control column defined below.  
The following WOCE (1991) data quality flags are used in QC columns:

- 2 Acceptable measurement
- 3 Questionable measurement
- 4 Bad measurement
- 5 Not reported
- 9 Sample not drawn for measurement

In addition, the following parameter-specific data quality flags were used for these unique parameters:

Fugacity of CO<sub>2</sub>:

- A No DIC available for calculation
- B No Potential Temperature available
- D Estimated DIC
- E Estimated Potential Temperature

Nutrients:

- D Results obtained from high silicate channel. Data is questionable.

As mentioned in Sec. 2.1, there were several apparent bottle "misfires" during Legs 1 and 2 (Stations 1-66). The following Stations and Sample numbers contain data that could not be resolved to depth.

Sta	Sample number
20	7301-7324
43	16305-16309
49	18501-18524
50	19002-19024
74	27618

The data presented in this report is available on a computerized Remote Bulletin Board System, which you may access via a modem at 305 361-4524 or via the World-Wide Web at Uniform Resource Locator (URL) <http://diatom.aoml.erl.gov/oaces/oaces.html>

For more information regarding electronic access to the individual data sets, including File Transfer Protocol (FTP) contact:

Mr. James C. Hendee  
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# NOAA Equatorial Pacific Spring 1992

STATION	OFS NO.	920581606	LATITUDE	8° 44.9 N	LONGITUDE	91° 20.9 W												
CASST	DATE	27-Feb-92																
CTD																		
1	3	1																
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	QC	O2 µmol/L	QC	DIC µmol/kg	QC	FCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
324	1.5	34.176	34.181	27.425	21.963	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2279	-9.9999	-9.9
323	1.0	34.176	34.182	27.418	21.966	-9.9	-9.9	-9.9	9	201.0	9	-9.9	9	-9.9	9	2260	-9.9999	-9.9
322	0.4	34.176	34.182	27.426	21.963	-9.9	-9.9	-9.9	9	200.5	9	-9.9	9	-9.9	9	2265	-9.9999	-9.9
321	0.7	34.177	34.187	27.424	21.965	-9.9	-9.9	-9.9	9	200.5	9	1945.0	2	-9.9	9	2255	-9.9999	-9.9
320	2.0	34.176	-9.999	27.440	21.959	-9.9	-9.9	-9.9	9	200.5	9	-9.9	9	-9.9	9	2260	-9.9999	-9.9
319	601.9	34.608	34.600	7.397	27.063	-9.9	-9.9	-9.9	9	1.8	9	-9.9	9	-9.9	9	2347	-9.9999	-9.9
318	602.3	34.607	34.604	7.401	27.061	-9.9	-9.9	-9.9	9	5.8	9	-9.9	9	-9.9	9	2349	-9.9999	-9.9
317	601.3	34.608	34.603	7.409	27.061	-9.9	-9.9	-9.9	9	2.7	9	-9.9	9	-9.9	9	2334	-9.9999	-9.9
316	602.3	34.607	34.604	7.408	27.058	-9.9	-9.9	-9.9	9	5.4	9	-9.9	9	-9.9	9	2336	-9.9999	-9.9
315	603.4	34.605	34.605	7.418	27.058	-9.9	-9.9	-9.9	9	3.1	9	2310.3	2	-9.9	9	2333	-9.9999	-9.9
314	602.1	34.607	34.605	7.437	27.056	-9.9	-9.9	-9.9	9	4.0	9	-9.9	9	-9.9	9	2333	-9.9999	-9.9
313	1001.3	34.574	34.571	5.018	27.345	-9.9	-9.9	-9.9	9	18.3	9	-9.9	9	-9.9	9	2366	-9.9999	-9.9
312	1000.8	34.574	34.571	5.020	27.345	-9.9	-9.9	-9.9	9	18.8	9	-9.9	9	-9.9	9	2366	-9.9999	-9.9
311	999.5	34.575	34.571	5.023	27.345	-9.9	-9.9	-9.9	9	18.8	9	-9.9	9	-9.9	9	2369	-9.9999	-9.9
310	1000.7	34.575	34.571	5.019	27.346	-9.9	-9.9	-9.9	9	21.4	9	-9.9	9	-9.9	9	2368	-9.9999	-9.9
309	1000.3	34.571	34.571	5.015	27.343	-9.9	-9.9	-9.9	9	21.4	9	-9.9	9	-9.9	9	2365	-9.9999	-9.9
308	1000.4	34.574	34.571	5.013	27.346	-9.9	-9.9	-9.9	9	19.2	9	-9.9	9	-9.9	9	2368	-9.9999	-9.9
307	1000.4	34.645	34.572	2.296	27.668	-9.9	-9.9	-9.9	9	19.2	9	-9.9	9	-9.9	9	2370	-9.9999	-9.9
306	2000.2	34.645	34.644	2.296	27.675	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2429	-9.9999	-9.9
305	1999.4	34.645	34.642	2.296	27.675	-9.9	-9.9	-9.9	9	89.3	9	2360.7	2	-9.9	9	2430	-9.9999	-9.9
304	1999.0	34.645	34.643	2.296	27.675	-9.9	-9.9	-9.9	9	90.2	9	2363.5	2	-9.9	9	2427	-9.9999	-9.9
303	1999.8	34.645	34.641	2.295	27.675	-9.9	-9.9	-9.9	9	89.8	9	-9.9	9	-9.9	9	2432	-9.9999	-9.9
302	2001.2	34.645	34.641	2.295	27.675	-9.9	-9.9	-9.9	9	-9.9	9	2362.2	2	-9.9	9	2436	-9.9999	-9.9
301	2000.5	34.645	34.642	2.288	27.676	-9.9	-9.9	-9.9	9	90.2	9	2362.8	2	-9.9	9	2437	-9.9999	-9.9

Appendix A. Station Data

# NOAA Equatorial Pacific Spring 1992

STATION 2 OPS NO. 920620049 LATITUDE 11° 59.7 N  
 CAST 9 DATE 2-Mar-92 LONGITUDE 110° 1.6 W  
 CTD 2

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TAlk μmol/kg	pH	TOC μmol/kg
							μmol/L	QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μatm	QC			
924	2.9	33.450	33.455	27.060	27.059	21.534	-9.9	9	-9.9	9	-9.9	9	203.7	2	1880.4	2	255.3	2	2209	-9.9999	-9.9
923	15.1	33.458	33.459	26.975	26.972	21.568	-9.9	9	-9.9	9	-9.9	9	204.6	2	1881.8	2	252.4	2	2217	-9.9999	-9.9
922	25.3	33.813	33.800	26.089	26.083	22.114	-9.9	9	-9.9	9	-9.9	9	207.2	2	1909.0	2	263.3	2	2237	-9.9999	-9.9
921	45.0	34.111	34.090	24.545	24.535	22.811	-9.9	9	-9.9	9	-9.9	9	193.4	2	1960.6	2	314.6	2	2267	-9.9999	-9.9
920	55.7	34.315	34.315	21.990	21.979	23.705	-9.9	9	-9.9	9	-9.9	9	86.2	2	2096.7	2	648.9	3	2266	-9.9999	-9.9
919	64.3	34.458	34.458	20.182	20.170	24.305	-9.9	9	-9.9	9	-9.9	9	47.3	2	2148.8	2	892.0	2	2273	-9.9999	-9.9
918	85.0	34.687	34.687	15.972	15.959	25.517	-9.9	9	-9.9	9	-9.9	9	7.6	2	2217.6	2	1334.0	2	2287	-9.9999	-9.9
917	95.1	34.708	34.713	14.368	14.354	25.887	-9.9	9	-9.9	9	-9.9	9	3.6	2	2230.1	2	1440.1	2	2297	-9.9999	-9.9
916	103.8	34.697	34.695	13.706	13.691	26.018	-9.9	9	-9.9	9	-9.9	9	4.5	2	2236.4	2	1478.1	2	2292	-9.9999	-9.9
915	114.7	34.729	34.726	13.011	12.995	26.184	-9.9	9	-9.9	9	-9.9	9	9.4	2	2242.3	2	1504.4	2	2297	-9.9999	-9.9
914	124.0	34.750	34.747	12.627	12.610	26.277	-9.9	9	-9.9	9	-9.9	9	4.0	2	2246.3	2	1517.2	2	2299	-9.9999	-9.9
913	134.4	34.764	34.757	12.399	12.381	26.333	-9.9	9	-9.9	9	-9.9	9	4.5	2	2245.0	2	1512.3	2	2301	-9.9999	-9.9
912	144.7	34.763	34.762	12.215	12.196	26.368	-9.9	9	-9.9	9	-9.9	9	3.1	2	2245.6	2	1510.0	2	2308	-9.9999	-9.9
911	155.2	34.757	34.756	12.042	12.022	26.397	-9.9	9	-9.9	9	-9.9	9	4.5	2	2246.3	2	1517.6	2	2299	-9.9999	-9.9
910	169.9	34.760	34.760	11.760	11.738	26.453	-9.9	9	-9.9	9	-9.9	9	6.3	2	2246.9	2	1512.4	2	2304	-9.9999	-9.9
909	182.5	34.754	34.752	11.571	11.548	26.484	-9.9	9	-9.9	9	-9.9	9	7.1	2	2248.9	2	1530.4	2	2312	-9.9999	-9.9
908	202.7	34.745	34.743	11.268	11.243	26.533	-9.9	9	-9.9	9	-9.9	9	6.7	2	2250.3	3	1564.4	2	2304	-9.9999	-9.9
907	253.1	34.724	34.721	10.773	10.742	26.607	-9.9	9	-9.9	9	-9.9	9	8.0	2	2255.6	2	1600.8	2	2306	-9.9999	-9.9
906	303.0	34.708	34.704	10.353	10.317	26.670	-9.9	9	-9.9	9	-9.9	9	4.5	2	2268.6	2	1710.1	3	2307	-9.9999	-9.9
905	303.0	34.708	34.706	10.353	10.317	26.670	-9.9	9	-9.9	9	-9.9	9	4.5	2	2267.5	2	1650.2	2	2316	-9.9999	-9.9
904	601.7	34.554	34.552	7.148	7.090	27.055	-9.9	9	-9.9	9	-9.9	9	4.0	2	2314.2	2	1890.0	2	2336	-9.9999	-9.9
903	803.2	34.553	34.550	5.575	5.506	27.261	-9.9	9	-9.9	9	-9.9	9	7.1	2	2339.0	2	2073.6	2	2362	-9.9999	-9.9
902	1000.8	34.560	34.560	4.687	4.606	27.371	-9.9	9	-9.9	9	-9.9	9	-9.9	2	2352.6	2	2027.1	2	-9	-9.9999	-9.9
901	1001.7	34.559	34.559	4.686	4.605	27.371	-9.9	9	-9.9	9	-9.9	9	-9.9	2	-9.9	2	-9.9	2	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	3	OPS NO.	920621649	LATITUDE	10° 0.1 N	LONGITUDE	110° 2.8 W												
CAST	13	DATE	2-Mar-92																
CTD	3																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	QC	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C patm	QC	TAlk µmol/kg	pH	TOC µmol/kg
1324	7.7	33.641	33.647	27.720	27.718	21.467	0.0	0.0	0.0	2	201.0	2	1882.1	2	247.6	2	2216	-9.9999	-9.9
1323	14.8	33.642	33.646	27.723	27.720	21.467	0.0	0.0	0.0	2	201.0	2	1881.5	2	244.9	2	2221	-9.9999	-9.9
1322	23.4	33.641	33.646	27.712	27.707	21.470	0.0	0.0	0.0	2	201.0	2	1881.7	2	246.4	2	2213	-9.9999	-9.9
1321	42.4	33.642	33.646	27.680	27.670	21.483	0.0	0.0	0.0	2	201.0	2	1881.4	2	244.2	2	2214	-9.9999	-9.9
1320	53.7	33.876	33.876	26.121	26.109	22.154	0.0	0.0	0.0	2	177.3	3	1839.6	2	305.7	2	2233	-9.9999	-9.9
1319	64.1	34.363	34.362	21.134	21.122	23.977	0.0	3.3	0.0	3	76.4	3	2109.8	3	681.0	3	2274	-9.9999	-9.9
1318	83.7	34.734	34.736	15.431	15.418	25.675	1.0	18.6	2.3	3	5.4	3	2206.6	3	1334.0	3	2290	-9.9999	-9.9
1317	94.4	34.782	34.778	14.185	14.171	25.983	0.0	31.6	11.8	2	1.3	2	2233.6	2	1399.5	2	2295	-9.9999	-9.9
1316	104.3	34.809	34.809	13.294	13.280	26.189	0.0	32.2	29.3	2	1.8	2	2238.4	2	1423.1	2	2309	-9.9999	-9.9
1315	113.7	34.808	-9.999	12.928	12.912	26.262	0.0	32.4	25.5	2	4.9	2	2237.2	2	1420.9	2	2298	-9.9999	-9.9
1314	123.2	34.811	34.805	12.641	12.624	26.322	0.0	33.9	24.9	2	5.4	2	2220.9	3	1428.2	2	2299	-9.9999	-9.9
1313	132.5	34.805	34.805	12.477	12.459	26.349	0.0	34.4	25.3	2	6.3	2	2240.8	2	1432.9	2	2304	-9.9999	-9.9
1312	143.4	34.796	34.795	12.299	12.280	26.377	0.0	34.4	30.4	2	8.9	2	2240.4	2	1421.9	2	2302	-9.9999	-9.9
1311	153.0	34.786	34.784	12.091	12.071	26.410	0.0	34.3	38.2	2	11.2	2	2239.9	2	1422.7	2	2301	-9.9999	-9.9
1310	168.1	34.769	34.766	11.781	11.759	26.456	0.0	33.9	35.3	2	17.0	2	2228.6	2	1397.7	2	2307	-9.9999	-9.9
1309	182.0	34.768	34.765	11.665	11.642	26.477	0.0	34.0	29.2	2	14.7	2	-9.9	9	1431.1	D	2304	-9.9999	-9.9
1308	201.6	34.763	34.761	11.448	11.423	26.514	0.0	34.7	30.8	2	11.6	2	2249.1	2	1478.3	2	2305	-9.9999	-9.9
1307	251.1	34.745	34.742	11.051	11.020	26.574	0.0	34.9	32.9	2	10.3	2	2247.0	2	1539.9	2	2309	-9.9999	-9.9
1306	302.5	34.722	34.721	10.583	10.547	26.640	0.0	35.3	43.8	2	6.7	2	2256.5	2	1627.2	2	2308	-9.9999	-9.9
1305	400.2	34.668	34.723	9.623	9.577	26.764	0.0	35.5	41.8	2	7.1	2	2263.0	2	1632.5	2	2305	-9.9999	-9.9
1304	600.7	34.570	34.553	7.114	7.056	27.073	0.0	39.6	36.1	2	4	2	2317.3	2	1995.9	2	2341	-9.9999	-9.9
1303	800.4	34.555	34.545	5.588	5.519	27.261	0.0	39.6	68.1	2	7.6	2	2337.7	2	2070.7	2	2352	-9.9999	-9.9
1302	1005.0	34.553	34.548	4.679	4.598	27.367	0.0	44.8	86.0	2	-9.9	3	2348.2	2	2017.5	2	2364	-9.9999	-9.9
1301	1004.9	34.553	-9.999	4.719	4.637	27.362	0.0	45.3	91.0	2	-9.9	3	2347.2	2	2017.5	2	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	4	OPS NO.	920630603	LATITUDE	8° 0.2 N														
CAST	19	DATE	3-Mar-92	LONGITUDE	110° 5.9 W														
CTD	4																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	@20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
1924	0.4	33.728	33.735	27.772	27.772	21.515	0.0	0.0	0.0	2	200.1	2	1888.2	2	253.7	2	2221	-9.9999	-9.9
1923	22.0	33.729	33.735	27.787	27.782	21.512	0.0	0.0	0.0	3	199.6	2	1889.5	2	254.5	3	2226	-9.9999	-9.9
1922	31.6	33.730	33.735	27.782	27.775	21.515	0.0	0.0	0.0	2	200.1	2	1887.9	2	258.5	2	2227	-9.9999	-9.9
1921	51.0	34.596	34.573	18.515	18.506	24.838	0.0	0.0	0.0	3	35.7	2	2162.3	2	985.0	2	2278	-9.9999	-9.9
1920	61.9	34.773	34.782	15.598	15.588	25.667	0.3	26.0	8.5	2	5.8	2	2220.5	2	1342.2	2	2299	-9.9999	-9.9
1919	72.4	34.840	34.838	14.248	14.237	26.014	0.0	31.0	9.6	2	2.7	2	2229.9	2	1377.7	2	2302	-9.9999	-9.9
1918	92.8	34.840	34.840	13.376	13.363	26.196	0.0	31.6	10.3	2	2.7	2	2232.0	2	1424.6	2	2301	-9.9999	-9.9
1917	101.6	34.834	34.834	13.132	13.118	26.241	0.0	32.2	10.7	2	0.9	2	2237.4	2	1435.3	2	2302	-9.9999	-9.9
1916	111.8	34.824	34.826	12.830	12.815	26.294	0.0	32.7	13.8	2	3.6	2	2240.9	2	1445.8	2	2305	-9.9999	-9.9
1915	121.1	34.818	34.818	12.644	12.628	26.327	0.0	32.8	16.6	2	2.2	2	2240.9	3	1453.7	2	2300	-9.9999	-9.9
1914	130.2	34.808	34.808	12.430	12.413	26.361	0.0	33.4	13.7	2	7.1	2	2241.1	2	1449.6	2	2310	-9.9999	-9.9
1913	141.4	34.798	34.796	12.191	12.172	26.400	-9.9	-9.9	-9.9	9	5.8	2	2239.4	2	1446.0	2	2307	-9.9999	-9.9
1912	151.0	34.793	34.792	12.093	12.073	26.415	0.0	34.1	13.7	2	8.5	2	2241.8	2	1463.7	2	2301	-9.9999	-9.9
1911	160.4	34.787	-9.999	11.957	11.936	26.436	0.0	34.4	17.2	3	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
1910	170.2	34.776	34.776	11.750	11.728	26.467	0.0	34.5	16.8	3	7.1	2	2246.3	3	1451.1	2	2304	-9.9999	-9.9
1909	185.4	34.765	34.765	11.532	11.509	26.500	0.0	34.5	14.3	3	9.8	2	2248.7	2	1451.3	2	2307	-9.9999	-9.9
1908	203.9	34.754	34.754	11.249	11.224	26.544	0.0	34.6	13.6	2	8.5	2	2250.7	2	1535.6	2	2305	-9.9999	-9.9
1907	254.4	34.719	34.719	10.543	10.512	26.644	0.0	34.1	15.8	3	7.6	2	2264.0	2	1647.5	2	2310	-9.9999	-9.9
1906	254.4	34.719	34.718	10.543	10.512	26.644	0.0	33.9	23.6	3	5.4	3	2265.6	2	1648.6	2	2312	-9.9999	-9.9
1905	301.9	34.706	34.702	10.211	10.175	26.693	0.0	34.8	23.6	2	5.4	2	2271.7	2	1718.4	2	2309	-9.9999	-9.9
1904	602.7	34.568	34.567	6.682	6.626	27.130	0.0	43.1	59.1	2	3.6	2	2316.4	2	2014.2	2	2337	-9.9999	-9.9
1903	802.9	34.555	34.556	5.396	5.328	27.284	0.0	45.9	80.9	3	17.4	2	2331.5	2	2012.9	2	2354	-9.9999	-9.9
1902	1005.0	34.564	-9.999	4.411	4.332	27.404	0.0	-9.9	-9.9	9	-9.9	9	2342.8	2	1906.9	2	2375	-9.9999	-9.9
1901	1004.8	34.564	-9.999	4.410	4.331	27.404	0.0	-9.9	-9.9	9	33.5	2	2342.7	2	1910.1	2	2370	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION	5	OPS NO.	920631651	LATITUDE	6° 0 N	LONGITUDE	109° 59.6 W											
CAST	23	DATE	3-Mar-92															
CTD	5																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC μmol/L	DIC μmol/kg	QC μmol/kg	fCO2 @20° C μatm	QC μmol/kg	TAlk μmol/kg	pH	TOC μmol/kg
2324	0.1	34.344	34.349	27.884	27.884	21.941	0.0	0.0	2 0.5	2 200.5	2 1921.0	2 1921.0	2 254.9	2 2269	2 2265	-9.9999	-9.9	
2323	7.9	34.344	34.349	27.886	27.884	21.941	0.0	0.0	2 0.0	2 200.1	2 1921.5	2 1921.5	2 257.3	2 2265	2 2265	-9.9999	-9.9	
2322	19.4	34.344	34.348	27.880	27.875	21.944	0.0	0.0	2 0.0	2 200.1	2 1921.6	2 1921.6	2 254.3	2 2262	2 2262	-9.9999	-9.9	
2321	36.1	34.369	34.369	27.802	27.794	21.990	0.0	0.0	2 0.0	2 200.1	2 1923.0	2 1923.0	2 257.1	2 2262	2 2262	-9.9999	-9.9	
2320	45.0	34.525	34.525	26.462	26.452	22.536	0.0	0.0	2 0.0	2 196.5	2 1948.3	2 1948.3	2 276.3	2 2274	2 2274	-9.9999	-9.9	
2319	58.5	34.687	34.695	20.257	20.246	24.459	-9.9	-9.9	9 153.2	9 153.2	2 2058.8	3 454.4	3 454.4	2 2293	2 2293	-9.9999	-9.9	
2318	76.7	34.673	34.682	16.346	16.334	25.420	0.4	6.3	3 5.0	3 53.6	2 2175.5	2 2175.5	2 944.1	2 2305	2 2305	-9.9999	-9.9	
2317	87.6	34.700	34.710	14.561	14.548	25.840	0.8	23.1	2 18.0	2 31.7	2 2202.5	2 2202.5	2 1128.7	2 2302	2 2302	-9.9999	-9.9	
2316	98.0	34.720	34.718	13.453	13.439	26.088	0.3	27.1	2 18.1	2 32.6	2 2213.8	2 2213.8	2 1204.4	2 2308	2 2308	-9.9999	-9.9	
2315	106.4	34.751	34.747	12.666	12.652	26.270	0.0	28.6	2 19.4	2 26.4	2 2222.4	2 2222.4	2 1268.6	2 2303	2 2303	-9.9999	-9.9	
2314	117.0	34.786	34.786	12.165	12.150	26.395	0.0	29.4	2 20.8	2 21.4	2 2231.8	2 2231.8	2 1343.2	2 2304	2 2304	-9.9999	-9.9	
2313	126.9	34.780	34.780	11.942	11.926	26.395	0.0	30.7	2 21.2	2 22.8	2 2232.9	2 2232.9	2 1332.3	2 2319	2 2319	-9.9999	-9.9	
2312	135.9	34.776	34.776	11.829	11.812	26.433	0.0	31.0	2 23.8	2 29.0	2 2232.0	2 2232.0	2 1320.9	2 2304	2 2304	-9.9999	-9.9	
2311	146.0	34.772	34.772	11.671	11.652	26.451	0.0	30.9	2 30.1	2 28.6	2 2232.5	2 2232.5	2 1309.6	2 2318	2 2318	-9.9999	-9.9	
2310	159.2	34.763	34.761	11.345	11.325	26.478	0.0	32.1	2 33.6	2 36.2	2 2233.3	2 2233.3	2 1306.8	2 2286	2 2286	-9.9999	-9.9	
2309	174.6	34.753	34.750	11.014	10.993	26.532	0.0	32.7	2 37.9	3 33.5	2 2236.6	2 2236.6	2 1334.9	2 2326	2 2326	-9.9999	-9.9	
2308	195.3	34.740	34.737	10.731	10.707	26.585	0.0	33.2	2 42.6	3 38.0	2 2239.2	2 2239.2	2 1359.8	2 2309	2 2309	-9.9999	-9.9	
2307	250.8	34.719	34.716	10.314	10.284	26.626	0.0	33.2	2 44.2	3 37.1	2 2242.1	2 2242.1	2 1378.4	2 2314	2 2314	-9.9999	-9.9	
2306	250.8	34.719	34.716	10.314	10.284	26.684	0.0	33.8	2 36.3	3 39.3	2 2242.8	2 2242.8	2 1379.1	2 2321	2 2321	-9.9999	-9.9	
2305	399.3	34.672	34.576	9.196	9.152	26.837	0.0	34.5	2 61.5	3 30.8	2 2250.9	2 2250.9	2 1454.5	2 2310	2 2310	-9.9999	-9.9	
2304	600.7	34.578	34.577	6.705	6.649	27.134	0.0	41.4	2 73.6	3 11.6	2 2314.1	2 2314.1	2 1978.8	2 2339	2 2339	-9.9999	-9.9	
2303	798.9	34.559	34.558	5.515	5.446	27.273	0.0	40.8	2 -9.9	9 34.4	2 2315.7	2 2315.7	3 1822.5	2 2354	2 2354	-9.9999	-9.9	
2302	1000.5	34.568	34.568	4.515	4.435	27.396	0.0	41.8	2 97.0	3 -9.9	9 2330.9	9 2330.9	2 1760.0	2 2376	2 2376	-9.9999	-9.9	
2301	999.6	34.569	34.569	4.510	4.430	27.398	0.0	41.4	2 -9.9	9 48.2	2 2331.2	2 2331.2	2 1763.8	2 2368	2 2368	-9.9999	-9.9	

# NOAA Equatorial Pacific Spring 1992

STATION 6  
 CAST 27  
 CTD 6

OPS NO. 920640930  
 DATE 4-Mar-92

LATITUDE 5° 7.1 N  
 LONGITUDE 109° 56 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2		DIC		fCO2 @20° C		TALK μmol/kg	pH	TOC μmol/kg	
										QC μmol/L	μmol/L	QC μmol/kg	μatm	QC μatm	QC μmol/kg				
2724	8.4	34.447	34.453	27.836	27.834	22.035	0.0	0.6	0.0	2	201.9	2	1937.3	2	268.2	2	2272	-9.9999	-9.9
2723	19.5	34.448	34.451	27.838	27.833	22.036	0.0	0.5	0.0	2	201.9	2	1929.9	2	266.4	2	2271	-9.9999	-9.9
2722	40.6	34.470	34.473	27.817	27.807	22.061	0.0	0.7	0.0	2	202.3	2	1940.2	2	272.4	2	2275	-9.9999	-9.9
2721	49.7	34.538	34.524	27.709	27.697	22.148	0.0	1.1	0.0	2	202.8	2	1947.2	2	275.6	2	2275	-9.9999	-9.9
2720	57.7	34.614	34.606	27.408	27.395	22.303	0.0	1.4	0.0	2	201.9	2	1954.3	2	284.7	2	2286	-9.9999	-9.9
2719	77.7	34.769	34.769	21.661	21.646	24.142	1.3	6.6	2.8	2	146.0	2	2050.8	2	441.7	2	2293	-9.9999	-9.9
2718	88.6	34.725	34.742	18.610	18.594	24.915	0.0	13.9	6.1	2	114.8	2	2099.3	2	588.7	2	2292	-9.9999	-9.9
2717	110.8	34.643	34.642	14.494	14.478	25.811	0.0	23.4	15.4	2	74.6	2	2165.6	2	900.5	2	2293	-9.9999	-9.9
2716	124.1	34.654	34.654	13.240	13.223	26.081	0.0	24.0	20.1	2	88.0	2	2170.6	2	879.8	2	2307	-9.9999	-9.9
2715	148.2	34.756	34.764	12.816	12.796	26.245	0.0	25.9	16.8	2	77.7	2	2185.8	2	945.8	2	2303	-9.9999	-9.9
2714	178.1	34.876	34.876	12.785	12.761	26.345	0.0	29.6	15.8	2	44.7	2	2213.2	2	1122.9	2	2303	-9.9999	-9.9
2713	199.6	34.844	34.841	12.361	12.334	26.404	0.0	30.2	20.0	2	49.1	2	2215.5	2	1144.6	2	2311	-9.9999	-9.9
2712	300.9	34.740	34.736	10.732	10.695	26.628	0.0	30.0	28.1	2	75.0	2	2211.6	2	1097.5	2	2308	-9.9999	-9.9
2711	398.9	34.697	34.692	9.825	9.779	26.753	0.0	35.0	28.2	2	34.4	2	2252.1	2	1468.7	2	2310	-9.9999	-9.9
2710	398.9	34.697	34.692	9.825	9.779	26.753	0.0	35.3	28.2	2	33.9	2	2252.0	2	1470.6	2	2311	-9.9999	-9.9
2709	603.0	34.591	34.584	7.062	7.004	27.096	0.0	42.0	64.5	2	11.6	2	2310.9	2	1924.3	2	2333	-9.9999	-9.9
2708	797.9	34.562	34.556	5.648	5.579	27.259	0.0	42.4	78.2	2	89.3	2	2303.3	2	1717.1	2	2346	-9.9999	-9.9
2707	1002.8	34.566	34.563	4.717	4.635	27.373	0.0	42.4	98.9	2	50.5	2	2324.8	2	1744.3	2	2369	-9.9999	-9.9
2706	1504.1	34.612	34.607	3.087	2.978	27.577	0.0	41.6	129.3	2	79.9	2	-9.9	9	-9.9	9	2403	-9.9999	-9.9
2705	1501.9	34.612	34.607	3.103	2.994	27.576	0.0	42.0	127.3	2	79.1	2	-9.9	9	-9.9	9	2408	-9.9999	-9.9
2704	1995.3	34.644	34.639	2.364	2.222	27.669	0.0	40.8	143.0	2	97.4	2	2355.3	2	1456.9	2	2424	-9.9999	-9.9
2703	2996.1	34.679	34.675	1.746	1.524	27.751	0.0	38.9	152.8	2	123.3	2	2356.4	2	1282.3	2	2442	-9.9999	-9.9
2702	3502.0	34.690	34.687	1.517	1.250	27.779	0.0	37.7	150.8	2	145.2	2	2344.0	2	1179.8	2	2440	-9.9999	-9.9
2701	3500.9	34.690	34.687	1.518	1.251	27.779	0.0	38.5	143.0	2	143.8	3	2343.9	2	1167.8	2	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	6	OPS NO.	920642230	LATITUDE	5° 1 N															
CAST	29	DATE	4-Mar-92	LONGITUDE	110° 56 W															
CTD	7																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C patm	QC	TAlk μmol/kg	pH	TOC μmol/kg
2924	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2923	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2922	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2921	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2920	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2919	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2918	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2917	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2916	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2915	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2914	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2913	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2912	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2911	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2910	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2909	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2908	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2907	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2906	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2905	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2904	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2903	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2902	7.1	34.469	-9.999	27.835	27.833	22.052	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
2901	9.5	34.474	34.474	27.831	27.829	22.057	-9.9	9	-9.9	9	-9.9	205.4	9	-9.9	2	-9.9	9	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION ID	7 32 8	OPS NO. DATE	920650445 5-Mar-92	LATITUDE LONGITUDE	4° 0.7 N 109° 59.3 W	Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	Talk µmol/kg	pH	TOC µmol/kg
3224	3224	3.9	34.444	34.449	27.704	27.703	22.075	-9.9	9	-9.9	9	204.1	2	1940.3	2	270.2	2	2278	-9.9999	-9.9				
3223	3223	7.9	34.444	34.448	27.701	27.699	22.077	-9.9	9	-9.9	9	204.1	2	1939.1	2	267.5	2	2270	-9.9999	-9.9				
3222	3222	18.2	34.445	34.451	27.700	27.696	22.078	-9.9	9	-9.9	9	204.1	2	1943.1	2	269.3	2	2275	-9.9999	-9.9				
3221	3221	38.7	34.478	34.480	27.625	27.616	22.129	-9.9	9	-9.9	9	204.6	2	1941.8	2	269.3	2	2276	-9.9999	-9.9				
3220	3220	49.4	34.498	34.498	27.619	27.607	22.147	-9.9	9	-9.9	9	205.0	2	1943.5	2	273.8	2	2273	-9.9999	-9.9				
3219	3219	57.2	34.551	34.545	27.606	27.593	22.191	-9.9	9	-9.9	9	203.7	2	1953.9	2	273.7	2	2281	-9.9999	-9.9				
3218	3218	78.4	34.803	34.807	25.067	25.050	23.179	-9.9	9	-9.9	9	161.7	2	2011.9	2	364.9	2	2295	-9.9999	-9.9				
3217	3217	88.6	34.793	34.793	23.148	23.130	23.741	-9.9	9	-9.9	9	145.6	2	2041.0	2	420.7	2	2289	-9.9999	-9.9				
3216	3216	97.6	34.815	-9.999	18.327	18.310	25.055	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9				
3215	3215	107.6	34.870	34.870	16.671	16.654	25.497	-9.9	9	-9.9	9	80.8	2	2151.6	2	766.4	2	2302	-9.9999	-9.9				
3214	3214	117.7	34.928	-9.999	15.546	15.528	25.800	-9.9	9	-9.9	9	87.1	2	-9.9	9	-9.9	9	2303	-9.9999	-9.9				
3213	3213	127.2	34.926	34.924	14.104	14.086	26.113	-9.9	9	-9.9	9	78.6	2	2171.7	2	851.0	2	2311	-9.9999	-9.9				
3212	3212	139.0	34.961	34.958	14.056	14.036	26.150	-9.9	9	-9.9	9	90.7	2	2166.6	3	803.2	2	2313	-9.9999	-9.9				
3211	3211	148.5	34.952	34.950	13.796	13.775	26.198	-9.9	9	-9.9	9	81.3	2	2176.2	2	843.0	2	2300	-9.9999	-9.9				
3210	3210	163.7	34.937	34.936	13.544	13.521	26.239	-9.9	9	-9.9	9	70.6	2	2185.7	2	915.6	2	2309	-9.9999	-9.9				
3209	3209	177.8	34.923	34.921	13.366	13.341	26.265	-9.9	9	-9.9	9	63.0	2	2192.4	2	956.9	2	2312	-9.9999	-9.9				
3208	3208	202.8	34.906	34.904	13.028	13.000	26.321	-9.9	9	-9.9	9	55.8	2	2202.0	2	1033.3	2	2307	-9.9999	-9.9				
3207	3207	254.2	34.879	34.879	12.619	12.585	26.382	-9.9	9	-9.9	9	49.6	2	2209.3	2	1082.1	2	2308	-9.9999	-9.9				
3206	3206	304.7	34.828	34.827	11.863	11.823	26.490	-9.9	9	-9.9	9	27.2	2	2235.7	2	1319.4	2	2311	-9.9999	-9.9				
3205	3205	304.7	34.828	34.826	11.863	11.823	26.490	-9.9	9	-9.9	9	24.6	2	2235.8	2	1322.2	2	2306	-9.9999	-9.9				
3204	3204	603.9	34.597	34.596	7.325	7.266	27.064	-9.9	9	-9.9	9	24.1	2	2280.0	3	1793.0	3	2324	-9.9999	-9.9				
3203	3203	804.0	34.556	34.555	5.630	5.560	27.257	-9.9	9	-9.9	9	45.1	2	2304.5	2	1712.1	2	2345	-9.9999	-9.9				
3202	3202	1002.5	34.567	34.568	4.592	4.511	27.387	-9.9	9	-9.9	9	-9.9	9	2327.0	3	1750.2	3	2381	-9.9999	-9.9				
3201	3201	1001.0	34.567	34.568	4.593	4.513	27.387	-9.9	9	-9.9	9	47.3	2	2328.2	2	1706.7	2	2365	-9.9999	-9.9				



# NOAA Equatorial Pacific Spring 1992

STATION OPS NO. 920652029  
 CAST DATE 5-Mar-92  
 CTID 9 39 10

LATITUDE 2° 4.6 N  
 LONGITUDE 110° 7.6 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TA/kg	pH	TOC μmol/kg
3924	0.8	34.369	-9.999	27.514	27.514	22.080	0.0	1.3	1.3	206.8	2	1947.7	2	282.4	2	2296	-9.999	-9.9
3923	5.8	34.478	34.476	27.352	27.351	22.215	0.0	1.3	1.1	208.1	2	1953.2	2	282.1	2	2272	-9.999	-9.9
3922	15.8	34.482	34.487	27.233	27.229	22.256	0.0	1.3	1.3	208.1	2	1954.5	2	284.4	2	2269	-9.999	-9.9
3921	34.9	34.716	34.701	26.709	26.701	22.601	0.2	2.7	1.1	205.4	2	1977.3	2	303.8	2	2291	-9.999	-9.9
3920	43.1	34.873	34.880	26.762	26.752	22.703	0.3	3.7	1.5	200.1	2	1993.0	2	315.9	2	2297	-9.999	-9.9
3919	55.1	34.694	34.694	25.636	25.624	22.921	0.2	3.8	1.5	200.5	2	1989.6	2	326.9	2	2293	-9.999	-9.9
3918	74.8	34.680	34.683	24.835	24.819	23.156	0.3	4.9	2.3	192.1	2	2010.4	2	358.9	2	2291	-9.999	-9.9
3917	87.3	34.765	34.763	24.100	24.082	23.441	0.9	6.0	2.2	180.0	2	2025.6	2	380.3	2	2296	-9.999	-9.9
3916	94.7	34.770	34.770	23.018	22.999	23.761	2.5	8.4	4.7	162.1	2	2048.9	2	434.2	2	2296	-9.999	-9.9
3915	106.3	34.821	34.825	18.458	18.439	25.027	0.0	19.1	10.2	105.4	2	2121.2	2	-9.9	9	2296	-9.999	-9.9
3914	115.9	34.863	34.863	16.663	16.644	25.494	0.0	22.7	11.8	83.1	2	2152.0	2	759.5	2	2304	-9.999	-9.9
3913	127.1	34.905	34.905	15.438	15.418	25.807	0.0	23.9	14.2	77.7	2	2165.3	2	-9.9	9	2308	-9.999	-9.9
3912	139.8	34.930	34.930	14.393	14.372	26.055	0.0	25.2	18.7	73.7	2	2175.5	2	862.6	2	2306	-9.999	-9.9
3911	145.8	34.929	34.929	14.179	14.158	26.100	0.0	26.2	15.8	66.1	2	2184.0	2	-9.9	9	2303	-9.999	-9.9
3910	159.2	34.935	34.935	13.793	13.770	26.186	0.0	25.9	15.4	71.0	2	2183.9	2	906.5	2	2325	-9.999	-9.9
3909	175.6	34.925	34.922	13.484	13.459	26.242	0.0	27.4	15.9	59.4	2	2193.6	2	-9.9	9	2312	-9.999	-9.9
3908	196.2	34.919	34.918	13.325	13.298	26.271	0.0	27.9	23.4	59.4	2	2195.4	2	978.1	2	2305	-9.999	-9.9
3907	254.4	34.891	34.890	12.829	12.794	26.350	0.0	30.3	21.4	43.3	2	2211.7	2	-9.9	9	2308	-9.999	-9.9
3906	305.4	34.829	34.828	11.948	11.908	26.474	0.0	32.4	22.2	36.2	2	2223.5	2	1231.1	2	2310	-9.999	-9.9
3905	305.4	34.829	34.827	11.948	11.908	26.474	0.0	32.3	28.7	36.2	3	2228.3	2	1228.1	2	2306	-9.999	-9.9
3904	604.5	34.581	34.579	6.844	6.787	27.118	0.0	41.6	52.2	43.8	2	2282.9	2	1636.7	2	2325	-9.999	-9.9
3903	803.1	34.558	34.556	5.658	5.588	27.255	0.0	42.4	61.1	56.3	2	2292.5	3	1627.5	2	-9	-9.999	-9.9
3902	1008.5	34.562	34.561	4.632	4.551	27.379	0.0	42.5	90.9	-9.9	3	2310.7	2	1600.0	2	2359	-9.999	-9.9
3901	1006.2	34.561	34.561	4.645	4.564	27.377	0.0	42.6	-9.9	66.5	2	2312.5	2	-9.9	9	2363	-9.999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
4224	0.9	34.606	34.606	34.606	27.171	27.171	22.369	0.1	2.4	2.3	204.1	2	1967.6	2	347.2	2	2277	-9.9999	-9.9
4223	7.4	34.610	34.610	34.610	27.172	27.170	22.372	0.1	2.4	2.1	204.1	2	1967.4	2	345.7	2	2291	-9.9999	-9.9
4222	17.7	34.764	34.760	34.760	27.156	27.156	22.492	0.0	3.0	2.1	202.8	2	1978.8	2	315.5	2	2291	-9.9999	-9.9
4221	37.7	34.829	34.833	34.833	26.770	26.761	22.667	0.2	3.6	2.1	200.5	2	1987.8	2	314.4	2	2292	-9.9999	-9.9
4220	47.6	34.751	34.752	34.752	26.195	26.184	22.790	0.2	3.3	2.4	208.6	2	1990.7	2	321.4	2	2304	-9.9999	-9.9
4219	57.0	34.804	34.797	34.797	26.027	26.014	22.883	0.3	3.6	2.1	194.3	2	1998.5	2	331.7	2	2294	-9.9999	-9.9
4218	75.6	34.917	34.917	34.917	25.019	25.003	23.280	1.2	5.9	3.2	176.0	2	2028.2	2	377.8	2	2302	-9.9999	-9.9
4217	86.8	34.831	34.836	34.836	24.342	24.324	23.419	1.5	6.5	3.4	167.5	2	2029.8	2	395.7	2	2309	-9.9999	-9.9
4216	99.3	34.806	34.781	34.781	19.325	19.307	24.795	1.8	14.5	8.0	119.2	2	2096.0	2	574.2	2	2292	-9.9999	-9.9
4215	107.1	34.848	34.848	34.848	18.003	17.985	25.160	0.0	20.1	10.7	92.9	2	2130.9	2	-9.9	9	2294	-9.9999	-9.9
4214	116.6	34.870	34.883	34.883	15.981	15.963	25.657	0.0	22.5	13.9	83.1	2	2153.3	2	772.9	2	2314	-9.9999	-9.9
4213	128.0	34.882	34.880	34.880	15.129	15.110	25.858	0.0	21.8	14.3	91.1	2	2153.8	2	-9.9	9	2304	-9.9999	-9.9
4212	137.0	34.906	34.899	34.899	14.878	14.857	25.931	0.0	23.5	16.7	84.0	2	2163.8	2	814.5	2	2304	-9.9999	-9.9
4211	146.8	34.909	34.906	34.906	14.654	14.632	25.983	0.0	24.8	20.6	75.0	3	2172.4	2	-9.9	9	2317	-9.9999	-9.9
4210	155.7	34.926	34.923	34.923	14.353	14.330	26.061	0.0	24.2	17.9	81.7	2	2170.7	2	845.4	2	2307	-9.9999	-9.9
4209	176.2	34.933	34.933	34.933	13.818	13.793	26.179	0.0	26.0	16.8	67.9	2	2184.8	2	-9.9	9	2305	-9.9999	-9.9
4208	197.6	34.912	34.910	34.910	13.178	13.151	26.295	0.0	26.3	17.8	74.1	2	2188.1	2	939.1	2	2321	-9.9999	-9.9
4207	252.5	34.891	34.890	34.890	12.657	12.623	26.384	0.0	27.6	21.2	67.0	2	2196.6	2	-9.9	9	2309	-9.9999	-9.9
4206	301.5	34.844	34.841	34.841	12.112	12.072	26.455	0.0	32.2	23.0	34.8	2	2226.4	2	1256.4	2	2305	-9.9999	-9.9
4205	301.5	34.844	34.841	34.841	12.112	12.072	26.455	0.0	32.4	26.6	30.8	3	2227.1	2	1258.4	2	2320	-9.9999	-9.9
4204	603.4	34.583	34.583	34.583	6.816	6.759	27.124	0.0	42.1	65.8	45.1	2	2282.4	2	1658.7	2	2333	-9.9999	-9.9
4203	800.9	34.553	34.555	34.555	5.192	5.192	27.299	0.0	40.9	76.6	105.9	2	2289.4	2	1530.3	2	2350	-9.9999	-9.9
4202	1000.9	34.561	34.559	34.559	4.504	4.424	27.392	0.0	41.3	-9.9	-9.9	9	2306.1	2	1515.6	2	2368	-9.9999	-9.9
4201	1001.5	34.561	34.559	34.559	4.500	4.420	27.392	0.0	41.5	93.6	79.1	2	2303.5	2	-9.9	9	2379	-9.9999	-9.9

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STATION	11	OPS NO.	920661007	LATITUDE	0° 29.7 N	LONGITUDE	110° 0.5 W									
CAST	43	DATE	6-Mar-92													
CTD	12															
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	fCO2 @20°C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
4324	2.0	34.731	34.734	27.259	27.259	22.435	0.2	3.4	1.8	202.8	1976.2	304.3	2	2285	-9.9999	-9.9
4323	10.3	34.818	34.825	27.265	27.263	22.499	0.2	3.6	1.5	202.3	1983.7	-9.9	2	2297	-9.9999	-9.9
4322	19.0	34.922	34.923	27.236	27.232	22.587	0.3	4.1	1.3	201.0	1991.3	311.2	2	2300	-9.9999	-9.9
4321	39.4	34.993	34.993	27.115	27.106	22.681	0.4	4.2	1.4	200.1	1996.1	316.8	2	2300	-9.9999	-9.9
4320	49.7	35.098	35.104	27.170	27.159	22.743	0.7	4.6	1.4	197.4	2003.7	-9.9	9	2314	-9.9999	-9.9
4319	59.4	35.070	35.241	26.912	26.898	22.805	0.7	4.7	1.4	195.6	2008.6	322.7	2	2310	-9.9999	-9.9
4318	79.0	35.225	35.241	23.335	23.319	24.014	0.5	11.3	3.1	145.2	2070.2	431.0	2	2317	-9.9999	-9.9
4317	88.3	34.981	34.987	22.055	22.038	24.194	0.2	13.0	5.9	128.2	2074.6	-9.9	9	2307	-9.9999	-9.9
4316	99.8	34.844	34.844	17.877	17.860	25.188	0.0	19.9	9.7	95.1	2125.8	650.7	2	2297	-9.9999	-9.9
4315	109.7	34.975	34.972	16.087	16.070	25.713	0.0	18.2	11.6	119.7	2126.0	-9.9	9	2305	-9.9999	-9.9
4314	119.3	35.159	35.156	16.221	16.202	25.824	0.0	18.0	9.4	113.0	2137.8	630.5	2	2324	-9.9999	-9.9
4313	128.6	35.105	35.125	15.530	15.510	25.940	0.0	18.6	9.6	114.8	2141.1	-9.9	9	2321	-9.9999	-9.9
4312	138.7	35.009	35.009	15.074	15.053	25.968	0.0	19.0	14.7	118.4	2137.7	652.5	2	2311	-9.9999	-9.9
4311	150.8	34.937	34.942	14.520	14.498	26.033	0.0	20.8	16.8	106.7	2148.0	-9.9	9	2314	-9.9999	-9.9
4310	161.0	34.925	34.925	14.263	14.239	26.079	0.0	22.1	14.6	99.2	2158.0	752.9	2	2310	-9.9999	-9.9
4309	176.8	34.941	34.940	13.560	13.535	26.239	0.0	24.2	18.8	91.1	2170.9	-9.9	9	2311	-9.9999	-9.9
4308	196.8	34.919	34.919	13.247	13.220	26.286	0.0	25.9	24.4	83.1	2180.3	869.1	2	2312	-9.9999	-9.9
4307	196.8	34.919	34.918	13.247	13.220	26.286	0.0	25.5	22.2	82.6	2180.2	-9.9	9	2311	-9.9999	-9.9
4306	301.8	34.831	34.829	11.887	11.848	26.487	0.0	32.7	24.2	30.4	2236.1	1276.9	3	2305	-9.9999	-9.9
4305	301.8	34.831	34.831	11.887	11.848	26.487	0.0	33.6	28.1	29.9	2233.7	-9.9	9	2312	-9.9999	-9.9
4304	607.7	34.570	34.569	6.454	6.398	27.162	0.0	42.0	72.1	56.3	2235.4	1555.0	3	2336	-9.9999	-9.9
4303	800.4	34.551	34.550	5.147	5.081	27.310	0.0	41.8	81.8	74.6	2282.4	-9.9	9	2346	-9.9999	-9.9
4302	1005.9	34.564	34.564	4.350	4.271	27.411	0.0	41.9	82.5	-9.9	2294.4	1495.6	3	2370	-9.9999	-9.9
4301	1007.7	34.563	34.563	4.349	4.270	27.410	0.0	42.0	85.0	79.5	2307.0	-9.9	9	2366	-9.9999	-9.9



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STATION CAST CTD	STATION ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	QC µmol/L	O2 QC µmol/L	DIC µmol/kg	QC µmol/L	fCO2 @20°C µatm	QC µmol/kg	TALK µmol/kg	pH	TOC µmol/kg
	4424	0.4	34.916	34.926	27.347	27.347	22.545	0.4	4.3	1.1	3	200.1	2	3	1993.6	2	311.5	2	2294	-9.9999	-9.9
	4423	7.5	34.924	34.925	27.349	27.347	22.551	0.4	4.3	0.7	2	200.1	2	2	1992.4	2	-9.9	9	2305	-9.9999	-9.9
	4422	17.3	34.962	34.962	27.300	27.296	22.596	0.4	4.4	1.1	2	200.1	2	2	1995.1	2	315.5	2	2303	-9.9999	-9.9
	4421	34.9	35.031	35.032	27.144	27.136	22.700	0.4	4.3	1.1	2	199.2	2	2	2001.0	2	317.4	2	2303	-9.9999	-9.9
	4420	47.2	35.105	35.111	27.198	27.187	22.739	0.6	4.6	0.7	3	197.9	2	3	2003.7	2	-9.9	9	2316	-9.9999	-9.9
	4419	55.4	35.097	35.103	27.097	27.084	22.766	0.6	4.7	1.0	2	196.1	2	2	2002.5	2	320.9	2	2314	-9.9999	-9.9
	4418	78.9	34.927	34.919	24.282	24.265	23.509	0.8	8.8	4.1	3	159.0	2	3	2036.1	2	398.0	2	2300	-9.9999	-9.9
	4417	86.0	35.305	35.305	23.922	23.904	23.902	1.4	11.3	3.0	2	156.8	2	2	2065.3	2	-9.9	9	2328	-9.9999	-9.9
	4416	97.6	35.059	35.096	20.498	20.480	24.681	0.0	15.3	6.0	2	120.6	2	2	2097.9	2	527.4	2	2313	-9.9999	-9.9
	4415	109.2	34.985	34.964	16.722	16.704	25.574	0.0	18.2	10.6	2	114.8	2	2	2126.2	2	-9.9	9	2307	-9.9999	-9.9
	4414	115.4	35.145	35.135	16.753	16.734	25.689	0.0	17.5	8.5	2	115.7	2	2	2130.4	2	612.6	2	2322	-9.9999	-9.9
	4413	125.5	35.098	35.098	15.508	15.489	25.940	0.0	19.2	11.5	2	114.3	2	2	2141.2	2	-9.9	9	2322	-9.9999	-9.9
	4412	137.8	34.986	34.990	14.809	14.788	26.008	0.0	19.4	16.2	2	119.2	2	2	2138.6	2	666.6	2	2313	-9.9999	-9.9
	4411	148.5	34.946	34.946	14.350	14.328	26.077	0.0	21.1	16.2	2	110.3	2	2	2148.9	2	-9.9	9	2311	-9.9999	-9.9
	4410	156.0	34.938	34.938	13.939	13.917	26.157	0.0	23.1	14.4	2	98.7	2	2	2161.9	2	783.8	2	2323	-9.9999	-9.9
	4409	175.0	34.918	34.915	13.088	13.064	26.317	0.0	25.7	14.8	2	85.8	2	2	2180.2	2	-9.9	9	2310	-9.9999	-9.9
	4408	196.5	34.909	34.906	12.870	12.843	26.354	0.0	26.3	20.2	2	84.4	2	2	2185.1	2	906.6	2	2315	-9.9999	-9.9
	4407	252.8	34.886	34.885	12.599	12.565	26.392	0.0	29.2	25.4	3	59.8	2	3	2205.0	2	-9.9	9	2316	-9.9999	-9.9
	4406	252.8	34.886	34.884	12.599	12.565	26.392	0.0	29.3	20.6	2	60.3	2	2	2204.8	2	1047.4	2	2313	-9.9999	-9.9
	4405	302.2	34.824	34.822	11.752	11.713	26.507	0.0	33.7	23.3	2	27.7	2	2	2236.5	2	-9.9	9	2309	-9.9999	-9.9
	4404	602.0	34.591	34.589	6.979	6.921	27.108	0.0	41.9	52.5	2	46.4	2	2	2278.2	2	1507.8	2	2323	-9.9999	-9.9
	4403	803.4	34.551	34.551	5.144	5.077	27.310	0.0	41.7	72.4	2	76.8	2	2	2290.7	2	-9.9	9	2349	-9.9999	-9.9
	4402	1005.7	34.563	34.563	4.341	4.262	27.411	0.0	42.6	-9.9	9	-9.9	2	2	2307.5	2	1515.3	2	2370	-9.9999	-9.9
	4401	1006.5	34.563	34.563	4.340	4.261	27.411	0.0	41.9	86.3	3	81.7	2	3	2308.1	2	-9.9	9	2365	-9.9999	-9.9

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STATION	13	OPS NO.	920662238	LATITUDE	0° 3.1 S												
CAST	51	DATE	6-Mar-92	LONGITUDE	110° 0.3 W												
CTD	14																
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	QC μmol/kg	fCO2 @20° C μatm	QC μmol/kg	TAlk μmol/kg	pH	TOC μmol/kg
5124	3.1	34.984	34.981	27.716	27.715	22.478	0.6	4.4	3	199.2	1995.0	3	311.9	2300	-9.9999	-9.9	
5123	12.2	35.084	35.090	27.448	27.445	22.640	0.5	4.2	2	199.2	2001.8	2	315.3	2311	-9.9999	-9.9	
5122	21.4	35.082	35.089	27.389	27.384	22.658	0.5	4.1	2	198.7	2000.0	2	313.0	2314	-9.9999	-9.9	
5121	42.5	35.064	35.070	27.117	27.107	22.734	0.5	4.1	2	197.9	2000.1	2	315.5	2305	-9.9999	-9.9	
5120	52.1	35.059	35.079	26.801	26.789	22.831	0.6	4.4	2	194.3	2005.3	2	320.9	2310	-9.9999	-9.9	
5119	59.8	34.929	34.935	25.860	25.847	23.029	0.8	5.5	2	181.8	2014.9	2	349.1	2303	-9.9999	-9.9	
5118	78.7	35.320	35.331	25.101	25.084	23.559	1.3	6.8	2	180.9	2051.8	2	378.3	2327	-9.9999	-9.9	
5117	89.2	35.347	35.355	23.022	23.004	24.197	1.5	10.3	2	151.4	2080.1	2	440.5	2321	-9.9999	-9.9	
5116	100.5	35.143	35.187	19.683	19.665	24.960	0.0	14.7	2	119.2	2110.8	2	545.0	2327	-9.9999	-9.9	
5115	110.9	35.033	35.033	17.282	17.264	25.478	0.0	16.7	2	113.0	2124.6	2	612.6	2310	-9.9999	-9.9	
5114	120.1	35.188	35.193	16.394	16.375	25.807	0.0	17.5	2	109.9	2143.2	2	640.4	2324	-9.9999	-9.9	
5113	131.5	35.053	35.066	14.990	14.970	26.020	0.0	17.8	2	113.9	2143.4	2	667.4	2321	-9.9999	-9.9	
5112	150.2	34.952	34.952	14.191	14.169	26.115	0.0	20.4	2	102.7	2157.4	2	753.0	2309	-9.9999	-9.9	
5111	165.4	34.946	34.942	13.622	13.599	26.230	0.0	22.6	2	91.1	2171.2	2	828.1	2313	-9.9999	-9.9	
5110	200.8	34.914	34.909	12.942	12.914	26.344	0.0	25.0	2	80.4	2187.2	2	918.8	2314	-9.9999	-9.9	
5109	256.1	34.890	34.888	12.641	12.606	26.387	0.0	26.8	2	62.5	2200.7	2	1028.0	2308	-9.9999	-9.9	
5108	305.4	34.838	34.835	11.805	11.765	26.508	0.0	31.6	2	21.4	2242.1	2	1395.6	2312	-9.9999	-9.9	
5107	406.2	34.631	34.631	8.117	8.075	26.973	0.0	36.9	2	40.2	2263.2	2	1555.9	2318	-9.9999	-9.9	
5106	605.8	34.577	34.574	6.602	6.546	27.148	0.0	39.3	2	55.8	2276.9	2	1594.7	2325	-9.9999	-9.9	
5105	605.8	34.577	34.575	6.602	6.546	27.148	0.0	39.8	2	53.6	2276.3	2	1601.7	2328	-9.9999	-9.9	
5104	808.9	34.555	34.550	5.089	5.022	27.320	0.0	39.0	4	76.4	2291.2	2	1514.8	2357	-9.9999	-9.9	
5103	1502.3	34.613	34.609	2.936	2.829	27.592	0.0	38.7	2	93.8	2336.3	2	1477.0	2401	-9.9999	-9.9	
5102	2499.0	34.670	34.667	1.841	1.664	27.733	0.0	37.2	2	123.7	2346.2	2	1282.1	2438	-9.9999	-9.9	
5101	3506.4	34.692	34.687	1.489	1.222	27.783	0.0	36.4	2	151.4	2335.5	2	1127.3	2436	-9.9999	-9.9	

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STATION	14	OFS NO.	920670236	LATITUDE	0° 15.3 S											
CAST	52	DATE	7-Mar-92	LONGITUDE	110° 0.1 W											
CTD	15															
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
5224	3.3	35.039	35.048	27.712	27.711	22.520	0.5	4.0	0.8	198.3	1996.0	313.6	2	2305	-9.9999	-9.9
5223	10.9	35.102	35.110	27.426	27.423	22.661	0.6	3.5	1.0	198.3	1999.6	-9.9	9	2312	-9.9999	-9.9
5222	21.2	35.100	35.106	27.377	27.372	22.676	0.7	3.2	0.4	198.3	2000.0	313.9	2	2317	-9.9999	-9.9
5221	28.5	35.096	35.102	27.194	27.187	22.732	0.8	3.6	0.4	198.3	2000.2	-9.9	9	2314	-9.9999	-9.9
5220	40.5	35.084	35.088	27.121	27.112	22.747	0.6	3.8	0.8	197.4	2000.7	316.3	2	2312	-9.9999	-9.9
5219	60.8	34.950	34.958	25.995	25.981	23.003	0.9	4.8	1.9	183.6	2012.0	343.0	2	2303	-9.9999	-9.9
5218	78.3	35.313	35.316	25.426	25.409	23.455	1.0	6.1	1.8	183.1	2045.0	369.2	2	2330	-9.9999	-9.9
5217	98.3	35.382	35.400	21.060	21.041	24.775	0.9	12.6	4.4	130.4	2108.1	508.4	2	2331	-9.9999	-9.9
5216	120.0	35.139	35.139	15.759	15.740	25.915	0.0	18.1	8.1	106.7	2146.3	672.4	2	2322	-9.9999	-9.9
5215	128.9	35.028	35.030	14.812	14.793	26.040	0.0	18.8	11.6	113.9	2144.1	-9.9	9	2316	-9.9999	-9.9
5214	137.9	34.983	34.983	14.509	14.489	26.071	0.0	19.6	13.7	109.0	2148.9	705.6	2	2316	-9.9999	-9.9
5213	148.9	34.964	34.964	14.332	14.310	26.094	0.0	20.1	8.5	107.6	2155.1	729.5	2	2312	-9.9999	-9.9
5212	173.3	34.944	34.947	13.833	13.808	26.185	0.0	22.1	9.0	92.9	2169.6	-9.9	9	2313	-9.9999	-9.9
5211	201.1	34.920	34.918	13.131	13.103	26.311	0.0	24.4	13.2	86.2	2181.6	878.1	2	2319	-9.9999	-9.9
5210	234.2	34.900	34.898	12.762	12.730	26.370	0.0	25.5	17.5	73.7	2193.1	-9.9	9	2309	-9.9999	-9.9
5209	261.3	34.872	34.870	12.427	12.392	26.415	0.0	32.4	16.8	46.9	2217.5	-9.9	9	2314	-9.9999	-9.9
5208	292.3	34.848	34.846	11.918	11.880	26.494	0.0	32.2	17.6	19.7	2243.9	1392.7	2	2307	-9.9999	-9.9
5207	292.3	34.848	34.847	11.918	11.880	26.494	0.0	32.2	21.5	19.7	2243.9	-9.9	9	2307	-9.9999	-9.9
5206	384.4	34.669	34.667	8.785	8.744	26.900	0.0	38.6	35.2	24.6	2269.7	-9.9	9	2314	-9.9999	-9.9
5205	384.4	34.669	34.668	8.785	8.744	26.900	0.0	38.0	29.5	26.8	2269.5	-9.9	9	2315	-9.9999	-9.9
5204	606.0	34.580	34.580	6.705	6.648	27.136	0.0	39.3	37.2	53.1	2280.1	1586.6	2	2325	-9.9999	-9.9
5203	797.5	34.550	34.550	5.124	5.058	27.312	0.0	40.0	59.6	78.6	2290.9	-9.9	9	2349	-9.9999	-9.9
5202	993.2	34.566	34.566	4.253	4.176	27.423	0.0	40.2	80.8	83.1	2310.0	-9.9	9	2373	-9.9999	-9.9
5201	995.8	34.566	34.566	4.252	4.175	27.423	0.0	39.6	-9.9	79.9	2309.7	1479.9	2	2367	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION 15 53 16	OPS NO. DATE	920670554 7-Mar-92	LATTITUDE LONGITUDE	0° 30 S 110° 0 W	Potential		NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC µmol/kg	fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg
						Temp °C	Temp °C				QC µmol/L	QC µmol/L		QC µatm	QC µmol/kg			
5324	3.7	35.091	35.098	27.484	27.483	0.6	4.0	0.9	198.3	198.3	2	1989.2	2	310.5	2	2309	-9.9999	-9.9
5323	9.3	35.091	35.097	27.488	27.486	0.5	4.2	0.9	198.3	198.3	2	1999.1	2	-9.9	9	2317	-9.9999	-9.9
5322	20.1	35.054	35.064	27.254	27.249	0.5	4.2	0.8	198.3	198.3	2	1996.4	2	311.8	2	2315	-9.9999	-9.9
5321	28.2	35.055	35.056	27.120	27.114	0.6	4.1	1.2	198.3	198.3	2	1997.5	2	-9.9	9	2306	-9.9999	-9.9
5320	37.5	35.074	35.086	27.008	26.999	0.6	4.4	1.2	196.1	196.1	2	2001.8	2	319.9	2	2310	-9.9999	-9.9
5319	59.3	34.959	34.963	26.189	26.176	0.8	5.1	1.4	185.4	185.4	2	2008.3	2	340.6	2	2303	-9.9999	-9.9
5318	78.5	35.260	35.274	25.536	25.519	0.6	6.2	1.0	186.2	186.2	2	2040.6	2	366.8	2	2331	-9.9999	-9.9
5317	98.1	35.276	35.377	18.933	18.916	0.7	14.7	5.2	119.7	119.7	2	2121.0	2	552.3	2	2333	-9.9999	-9.9
5316	121.1	35.115	35.115	15.390	15.371	0.0	19.3	9.4	105.4	105.4	2	2150.3	2	-9.9	9	2324	-9.9999	-9.9
5315	124.9	35.044	35.046	14.780	14.761	0.0	19.8	10.1	107.6	107.6	2	2151.9	2	689.8	2	2318	-9.9999	-9.9
5314	135.3	35.002	35.002	14.496	14.476	0.0	19.8	10.0	107.2	107.2	2	2153.5	2	717.4	2	2315	-9.9999	-9.9
5313	148.4	34.986	34.986	14.416	14.394	0.0	19.7	10.6	107.6	107.6	2	2153.0	2	725.6	2	2316	-9.9999	-9.9
5312	172.3	34.951	34.951	13.804	13.779	0.0	20.0	10.8	93.8	93.8	2	2169.3	2	-9.9	9	2315	-9.9999	-9.9
5311	197.7	34.922	34.922	13.252	13.224	0.0	23.3	14.8	88.9	88.9	2	2176.4	2	860.6	2	2311	-9.9999	-9.9
5310	234.9	34.905	34.905	12.856	12.824	0.0	24.8	16.0	82.2	82.2	2	2185.3	2	-9.9	9	2313	-9.9999	-9.9
5309	264.4	34.882	34.882	12.555	12.519	0.0	28.6	22.2	56.3	56.3	2	2207.5	2	-9.9	9	2312	-9.9999	-9.9
5308	292.2	34.848	34.849	11.879	11.841	0.0	33.7	26.0	18.3	18.3	2	2245.2	2	1415.0	2	2308	-9.9999	-9.9
5307	333.1	34.787	34.787	10.768	10.727	0.0	34.4	25.2	9.4	9.4	2	2261.1	2	-9.9	9	2313	-9.9999	-9.9
5306	384.9	34.671	34.669	8.827	8.785	0.0	38.3	39.4	27.7	27.7	3	2266.9	2	-9.9	9	2314	-9.9999	-9.9
5305	384.9	34.671	34.672	8.827	8.785	0.0	38.2	35.2	28.6	28.6	2	2266.9	2	-9.9	9	2312	-9.9999	-9.9
5304	454.2	34.626	34.623	7.965	7.919	0.0	38.1	32.1	40.6	40.6	2	2268.3	2	1553.5	2	2319	-9.9999	-9.9
5303	803.5	34.547	34.547	5.076	5.010	0.0	39.7	66.5	84.0	84.0	2	2286.0	2	-9.9	9	2350	-9.9999	-9.9
5302	1003.0	34.565	34.565	4.244	4.166	0.0	40.6	74.5	-9.9	-9.9	2	2310.4	3	-9.9	9	2369	-9.9999	-9.9
5301	1002.0	34.566	34.566	4.249	4.171	0.0	39.9	-9.9	82.2	82.2	9	2310.6	2	1471.5	2	2375	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	16	OPS NO.	920671242	LATITUDE	1° 10 S												
CAST	56	DATE	7-Mar-92	LONGITUDE	109° 59 W												
CTD	17																
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	QC	QC	fcO2 @20° C μatm	TALK μmol/kg	pH	TOC μmol/kg
5624	2.3	35.000	-9.999	27.353	27.352	22.607	0.6	3.6	0.7	198.7	1991.3	2	2	307.7	2301	-9.9999	-9.9
5623	10.8	35.012	35.011	27.354	27.351	22.616	0.6	3.6	0.7	198.7	1992.1	2	2	-9.9	9	-9.9999	-9.9
5622	19.4	35.071	35.021	27.226	27.222	22.702	0.6	3.7	0.8	197.4	1997.0	2	2	313.4	2	-9.9999	-9.9
5621	30.6	35.086	35.091	27.139	27.132	22.742	0.6	4.0	0.9	196.5	1998.5	2	2	-9.9	9	-9.9999	-9.9
5620	39.4	35.089	35.091	26.998	26.989	22.790	0.5	4.2	0.9	194.3	2001.6	2	2	318.0	2	-9.9999	-9.9
5619	59.5	35.164	35.168	26.603	26.589	22.974	0.5	4.2	0.8	190.3	2017.2	2	2	336.2	2	-9.9999	-9.9
5618	78.1	35.201	35.203	26.261	26.243	23.111	0.6	4.1	1.2	192.5	2025.5	2	2	346.4	2	-9.9999	-9.9
5617	98.9	35.364	35.364	22.127	22.107	24.466	0.6	4.4	1.2	142.5	2105.2	2	2	505.2	2	-9.9999	-9.9
5616	119.0	35.227	35.227	16.597	16.578	25.789	0.8	5.1	1.4	86.6	2163.3	2	2	725.4	2	-9.9999	-9.9
5615	128.9	35.071	35.071	14.904	14.885	26.053	0.6	6.2	1.0	87.5	2170.0	2	2	778.1	2	-9.9999	-9.9
5614	139.7	35.013	35.016	14.272	14.252	26.145	0.7	14.7	5.2	92.5	2168.0	2	2	789.2	2	-9.9999	-9.9
5613	147.4	35.001	35.001	14.207	14.186	26.149	0.0	19.3	9.4	94.7	2167.1	2	2	786.5	2	-9.9999	-9.9
5612	173.6	34.947	34.958	13.487	13.463	26.259	0.0	19.8	10.1	84.9	2180.1	2	2	-9.9	9	-9.9999	-9.9
5611	201.0	34.916	34.916	13.018	12.990	26.330	0.0	19.8	10.0	83.1	2185.1	2	2	897.0	2	-9.9999	-9.9
5610	233.6	34.902	34.902	12.813	12.781	26.361	0.0	19.7	10.6	78.6	2190.2	2	2	931.0	2	-9.9999	-9.9
5609	262.7	34.893	34.892	12.655	12.619	26.386	0.0	20.0	10.8	63.0	2201.8	2	2	-9.9	9	-9.9999	-9.9
5608	294.1	34.881	34.881	12.474	12.435	26.413	0.0	23.3	14.8	46.0	2215.8	2	2	1144.8	2	-9.9999	-9.9
5607	294.1	34.881	34.880	12.474	12.435	26.413	0.0	24.8	16.0	45.1	2215.7	2	2	1144.7	2	-9.9999	-9.9
5606	334.5	34.837	34.837	11.666	11.623	26.534	0.0	28.6	22.2	11.6	2250.7	2	2	-9.9	9	-9.9999	-9.9
5605	383.1	34.738	34.738	9.937	9.892	26.766	0.0	33.7	26.0	17.4	2262.2	2	2	1598.6	2	-9.9999	-9.9
5604	604.6	34.587	34.587	7.111	7.053	27.086	0.0	34.4	25.2	58.5	2265.4	2	2	1522.2	2	-9.9999	-9.9
5603	604.6	34.587	34.587	7.111	7.053	27.086	0.0	36.3	39.4	58.1	2266.6	2	2	1514.5	2	-9.9999	-9.9
5602	1017.5	34.563	34.564	4.267	4.188	27.419	0.0	38.2	35.2	-9.9	2305.6	3	9	-9.9	9	-9.9999	-9.9
5601	1016.3	34.563	34.563	4.268	4.189	27.419	0.0	38.1	32.1	84.9	2305.2	2	2	1461.7	2	-9.9999	-9.9



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# NOAA Equatorial Pacific Spring 1992

STATION	17	OPS NO.	920680009	LATITUDE	2° 0.4 S															
CAST	62	DATE	8-Mar-92	LONGITUDE	110° 0.6 W															
CTD	18																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
6224	0.4	35.112	35.121	27.380	27.380	22.682	0.2	2	3.9	2	0.0	205.0	2	1998.7	2	308.0	2	2315	-9.9999	-9.9
6223	7.5	35.111	35.120	27.388	27.386	22.680	0.2	2	3.9	2	0.0	202.8	2	1998.4	2	310.0	2	2313	-9.9999	-9.9
6222	15.9	35.118	35.125	27.377	27.373	22.689	0.2	2	3.9	2	0.0	202.8	2	1998.3	2	308.3	2	2315	-9.9999	-9.9
6221	26.8	35.127	35.135	27.322	27.316	22.714	0.2	2	3.8	2	0.0	203.2	2	1999.7	2	311.0	2	2316	-9.9999	-9.9
6220	36.5	35.132	35.138	27.228	27.220	22.749	0.2	2	4.0	2	0.0	203.2	2	2000.7	2	309.4	2	2319	-9.9999	-9.9
6219	55.1	35.125	35.133	27.083	27.070	22.792	0.4	2	4.0	2	0.0	202.8	2	2002.8	2	315.1	2	-9	-9.9999	-9.9
6218	74.5	35.191	35.198	24.730	24.714	23.574	0.5	2	6.6	2	0.0	202.8	2	2042.8	2	374.2	2	2328	-9.9999	-9.9
6217	95.7	35.203	35.030	20.201	20.183	24.869	2.2	2	12.2	2	3.3	134.9	3	2116.9	3	554.4	2	2327	-9.9999	-9.9
6216	115.9	35.103	35.106	15.992	15.974	25.834	0.9	2	18.0	2	10.1	73.7	2	2174.7	2	824.6	2	2321	-9.9999	-9.9
6215	126.5	35.035	35.035	14.644	14.625	26.081	0.1	2	24.7	2	12.3	67.0	2	2183.7	2	892.2	2	2314	-9.9999	-9.9
6214	134.8	35.016	35.017	14.365	14.345	26.127	0.1	2	24.5	2	15.1	66.1	2	2185.5	2	906.9	2	2312	-9.9999	-9.9
6213	145.7	34.992	34.992	14.038	14.017	26.178	0.0	2	25.6	2	15.7	62.1	2	2189.5	2	941.3	2	2312	-9.9999	-9.9
6212	170.8	34.939	34.939	13.305	13.281	26.289	0.0	2	28.3	2	18.2	40.2	2	2209.8	2	1095.6	2	2310	-9.9999	-9.9
6211	196.3	34.915	34.917	12.970	12.943	26.339	0.0	2	28.2	2	23.8	44.2	2	2210.7	2	1091.4	2	2307	-9.9999	-9.9
6210	232.1	34.898	34.898	12.660	12.629	26.388	0.0	2	28.0	2	20.9	59.8	2	2203.0	2	1044.4	2	2311	-9.9999	-9.9
6209	261.0	34.879	34.879	12.433	12.398	26.419	0.0	2	28.7	2	-9.9	54.5	9	2209.5	2	1085.0	2	2310	-9.9999	-9.9
6208	290.8	34.872	34.872	12.234	12.195	26.453	0.0	2	33.3	2	-9.9	17.4	9	2238.5	2	1365.1	2	2311	-9.9999	-9.9
6207	331.8	34.806	34.806	11.010	10.969	26.631	0.0	2	33.0	2	35.9	4.0	3	2264.8	2	1623.0	2	2312	-9.9999	-9.9
6206	331.8	34.806	34.808	11.010	10.969	26.631	0.0	2	33.1	2	30.4	4.5	2	2264.9	2	1622.4	2	2309	-9.9999	-9.9
6205	379.7	34.736	34.738	9.878	9.834	26.774	0.0	2	35.0	2	30.1	19.7	2	2262.5	2	1572.3	2	2313	-9.9999	-9.9
6204	600.1	34.567	34.570	6.680	6.624	27.129	0.0	2	36.9	2	45.1	69.7	2	2264.9	2	1461.0	2	2325	-9.9999	-9.9
6203	802.7	34.550	34.551	5.575	5.506	27.259	0.0	2	38.5	2	66.5	73.7	2	2282.2	2	1502.4	2	2340	-9.9999	-9.9
6202	1001.1	34.561	34.561	4.503	4.423	27.392	0.0	2	38.9	2	82.9	-9.9	3	2304.6	2	1520.6	2	2363	-9.9999	-9.9
6201	1002.3	34.558	34.562	4.481	4.401	27.392	0.0	2	39.6	2	80.3	78.2	3	2305.8	2	1498.9	2	2363	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	19 66 20	OPS NO. DATE	920681259 8-Mar-92	Potential Temp °C	Temp °C	Salinity Bottle	Salinity CTD	Pressure db	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	fCO2 @20°C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
6624				27.142	27.142	35.180	35.173	0.2	0.0	5.0	1.3	202.8	2005.3	313.7	2	2317	-9.9999	-9.9
6623				27.131	27.133	35.181	35.174	6.6	0.0	5.2	1.3	203.2	2005.8	315.9	2	2318	-9.9999	-9.9
6622				27.128	27.132	35.181	35.174	16.8	0.0	5.1	2.1	202.8	2005.6	314.8	2	2318	-9.9999	-9.9
6621				27.132	27.138	35.180	35.174	27.2	0.0	4.9	1.9	203.7	2006.1	317.8	2	2316	-9.9999	-9.9
6620				27.129	27.137	35.180	35.174	35.8	0.0	4.0	1.0	202.8	2006.1	315.2	2	2319	-9.9999	-9.9
6619				27.108	27.121	35.179	35.172	55.8	0.0	4.7	1.7	202.8	2005.1	318.7	2	2320	-9.9999	-9.9
6618				24.745	24.761	35.304	35.304	73.6	0.0	6.8	1.5	200.5	2044.0	366.2	2	2330	-9.9999	-9.9
6617				21.117	21.135	35.361	35.361	96.1	1.4	10.7	3.1	149.6	2108.1	505.5	2	2338	-9.9999	-9.9
6616				17.954	17.974	35.315	35.315	115.4	1.7	16.2	7.8	100.9	2156.4	682.4	2	2333	-9.9999	-9.9
6615				14.977	14.996	35.061	35.054	126.0	0.0	25.8	13.5	64.3	2186.1	907.5	2	2313	-9.9999	-9.9
6614				14.169	14.189	35.018	35.018	135.9	0.0	25.7	18.1	65.7	2189.1	922.0	2	2310	-9.9999	-9.9
6613				13.831	13.852	34.994	34.994	146.9	0.0	25.3	19.4	70.6	2187.6	916.8	2	2315	-9.9999	-9.9
6612				13.346	13.370	34.943	34.943	172.9	0.0	28.8	18.0	46.0	2206.4	1086.9	2	2309	-9.9999	-9.9
6611				13.087	13.114	34.926	34.926	194.7	0.0	30.4	23.5	33.9	2217.1	1182.1	2	2310	-9.9999	-9.9
6610				12.703	12.735	34.904	34.904	232.4	0.0	31.5	29.9	28.6	2226.8	1258.2	2	2310	-9.9999	-9.9
6609				12.369	12.404	34.887	34.887	262.2	0.0	33.9	35.2	14.3	2241.6	1397.1	2	2307	-9.9999	-9.9
6608				12.369	12.404	34.887	34.887	262.2	0.0	33.3	37.8	13.4	2233.3	1398.7	2	2307	-9.9999	-9.9
6607				11.222	11.264	34.826	34.826	331.9	0.0	34.4	46.1	10.7	2258.6	1551.8	2	2311	-9.9999	-9.9
6606				11.222	11.264	34.827	34.827	331.9	0.0	34.8	47.5	11.2	2258.4	1548.2	2	2311	-9.9999	-9.9
6605				9.928	9.973	34.746	34.746	384.1	0.0	36.3	56.9	6.3	2275.7	1734.9	2	2314	-9.9999	-9.9
6604				6.918	6.976	34.587	34.587	603.8	0.0	42.0	-9.9	46.9	2279.4	1635.2	2	2332	-9.9999	-9.9
6603				5.326	5.394	34.545	34.545	801.2	0.0	39.9	-9.9	79.9	2281.9	1482.2	2	2341	-9.9999	-9.9
6602				4.247	4.326	34.554	34.554	1009.9	0.0	39.8	-9.9	-9.9	2293.6	1391.7	2	2366	-9.9999	-9.9
6601				4.242	4.321	34.554	34.554	1009.9	0.0	38.7	-9.9	96.9	2293.2	1381.6	2	2360	-9.9999	-9.9



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STATION CAST CTD	20 73 21	OPS NO. DATE	920690512 9-Mar-92	LATITUDE LONGITUDE	4° 59.3 S 110° 8.3 W	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Pressure db	Salinity CTD	Salinity Bottle	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
7324						26.986	26.986	35.189	35.494	1.4	35.189	35.494	0.0	4.5	2	0.8	203.2	2	2001.8	2	-9.9	9	2321	-9.9999	-9.9
7323						26.988	26.988	35.188	35.481	9.0	35.188	35.481	0.0	4.3	2	1.6	204.1	2	2001.3	2	-9.9	9	2319	-9.9999	-9.9
7322						26.991	26.991	35.188	35.469	18.2	35.188	35.469	0.0	4.5	2	2.0	204.1	3	2002.1	2	-9.9	9	2323	-9.9999	-9.9
7321						26.950	26.956	35.185	35.453	27.5	35.185	35.453	0.0	4.2	2	1.7	204.1	2	2001.9	2	-9.9	9	2323	-9.9999	-9.9
7320						26.891	26.900	35.195	35.447	37.4	35.195	35.447	0.0	4.3	2	1.3	204.6	2	2003.8	2	308.3	2	2321	-9.9999	-9.9
7319						26.877	26.890	35.276	35.518	58.0	35.276	35.518	0.0	4.9	2	1.8	203.2	2	2009.0	2	314.4	2	2327	-9.9999	-9.9
7318						26.068	26.085	35.377	35.607	76.8	35.377	35.607	0.0	5.2	2	1.3	200.1	2	2023.0	2	325.4	2	2334	-9.9999	-9.9
7317						23.500	23.520	35.689	35.885	97.4	35.689	35.885	1.0	4.3	3	1.7	182.7	2	2068.2	2	370.7	2	2358	-9.9999	-9.9
7316						20.352	20.374	35.675	35.873	116.6	35.675	35.873	2.2	7.4	2	2.0	155.0	2	2113.9	2	468.0	2	2359	-9.9999	-9.9
7315						19.776	19.799	35.629	35.822	126.8	35.629	35.822	1.0	7.2	2	2.3	157.7	2	2115.3	2	477.2	2	2354	-9.9999	-9.9
7314						18.188	18.212	35.434	35.457	137.6	35.434	35.457	0.3	12.5	2	3.9	129.1	2	2135.4	2	570.3	2	2343	-9.9999	-9.9
7313						16.647	16.671	35.257	35.436	148.2	35.257	35.436	0.0	16.2	2	5.4	105.0	2	2155.1	2	686.8	2	2331	-9.9999	-9.9
7312						13.813	13.838	35.000	35.154	172.4	35.000	35.154	0.0	26.2	2	13.4	29.0	2	2217.6	2	1147.9	23	2310	-9.9999	-9.9
7311						12.651	12.678	34.947	35.083	197.6	34.947	35.083	0.0	26.0	2	20.4	74.6	2	2194.8	2	969.6	2	2313	-9.9999	-9.9
7310						11.851	11.881	34.873	34.997	233.6	34.873	34.997	0.0	28.0	2	24.1	71.0	2	2201.6	2	1028.2	2	2311	-9.9999	-9.9
7309						11.400	11.433	34.838	34.950	263.5	34.838	34.950	0.0	30.5	2	23.1	53.6	2	2219.6	2	1173.0	2	2313	-9.9999	-9.9
7308						11.106	11.143	34.820	34.921	295.2	34.820	34.921	0.0	31.5	2	25.3	42.4	2	2229.0	2	1266.3	2	2308	-9.9999	-9.9
7307						10.632	10.672	34.788	34.908	331.8	34.788	34.908	0.0	30.7	2	33.0	45.1	2	2229.5	2	1264.3	2	2311	-9.9999	-9.9
7306						9.824	9.869	34.743	34.871	386.4	34.743	34.871	0.0	34.4	2	31.0	21.0	2	2248.1	2	1489.4	2	2308	-9.9999	-9.9
7305						8.927	8.977	34.689	34.807	452.4	34.689	34.807	0.0	36.8	2	30.6	13.4	2	2263.6	2	1657.6	2	2309	-9.9999	-9.9
7304						6.989	7.047	34.591	34.640	603.9	34.591	34.640	0.0	42.2	2	51.1	27.2	2	2282.7	2	1787.6	2	2323	-9.9999	-9.9
7303						5.340	5.408	34.546	34.583	801.7	34.546	34.583	0.0	41.2	2	61.5	71.0	2	2282.4	2	1558.4	2	2338	-9.9999	-9.9
7302						4.196	4.275	34.552	34.579	1008.2	34.552	34.579	0.0	40.1	2	-9.9	94.7	2	2293.1	2	1410.8	2	2359	-9.9999	-9.9
7301						4.203	4.282	34.551	-9.999	1007.6	34.551	-9.999	0.0	39.2	2	94.9	-9.9	3	2292.3	9	1390.0	2	2362	-9.9999	-9.9

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STATION CAST CTD	STATION CAST CTD	OPS NO. DATE	OPS NO. DATE	LATITUDE LONGITUDE	LATITUDE LONGITUDE	Potential Temp °C	Potential Temp °C	Salinity CTD	Salinity Bottle	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	fCO2 @20°C µatm	QC	QC	QC	QC	QC	QC	QC	Talk µmol/kg	pH	TOC µmol/kg
7424	20	920692023	920692023	4° 59.5 S	110° 8.1 W	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7423	74	9-MAR-92	9-MAR-92			-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7422	22					-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7421						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7420						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7419						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7418						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7417						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7416						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7415						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7414						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7413						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7412						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7411						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7410						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7409						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7408						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7407						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7406						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7405						-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7404						8.075	8.075	34.641	34.640	26.981	26.981	26.981	26.981	26.981	26.981	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7403						8.042	8.042	34.639	34.640	26.984	26.984	26.984	26.984	26.984	26.984	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7402						8.018	8.018	34.637	34.637	26.986	26.986	26.986	26.986	26.986	26.986	9	9	9	9	9	9	9	-9	-9.9999	-9.9
7401						7.970	7.970	34.633	34.633	26.998	26.998	26.998	26.998	26.998	26.998	9	9	9	9	9	9	9	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	OPS NO.	LATITUDE	LONGITUDE																
CAST	21	5° 59.9 S	110° 0.6 W																
CTD	76																		
	23																		
	920700309																		
	10-Mar-92																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
7624	1.5	35.287	-9.999	27.057	27.057	22.918	0.2	4.4	2	-9.9	201.2	2	2007.7	2	308.7	2	2328	-9.9999	-9.9
7623	7.9	35.287	35.294	27.058	27.056	22.918	0.0	4.5	2	1.3	203.6	2	2007.5	2	307.5	2	2326	-9.9999	-9.9
7622	18.3	35.288	35.294	27.058	27.054	22.920	0.0	4.5	2	1.9	203.3	2	2007.2	2	309.6	2	2327	-9.9999	-9.9
7621	27.9	35.288	35.295	27.056	27.050	22.921	0.0	4.1	2	1.8	203.5	2	2007.3	2	307.2	2	2333	-9.9999	-9.9
7620	36.7	35.287	35.291	27.047	27.039	22.924	0.0	3.9	2	1.4	203.5	2	2007.2	2	309.1	2	2325	-9.9999	-9.9
7619	58.1	35.302	35.301	26.956	26.943	22.966	0.0	4.5	2	1.3	202.1	2	2008.8	2	310.5	2	2328	-9.9999	-9.9
7618	77.4	35.578	35.578	25.663	25.646	23.582	0.0	4.3	2	0.9	197.1	2	2030.2	2	319.6	2	2350	-9.9999	-9.9
7617	96.9	35.819	35.819	22.943	22.923	24.579	1.1	3.0	2	0.9	181.6	2	2078.0	2	371.3	2	2373	-9.9999	-9.9
7616	117.3	35.564	35.568	19.659	19.638	25.289	1.6	8.7	2	1.8	149.5	2	2121.8	2	505.5	2	2351	-9.9999	-9.9
7615	129.1	35.420	35.433	18.357	18.334	25.512	0.4	12.4	2	3.3	126.3	2	2140.8	2	587.2	2	2342	-9.9999	-9.9
7614	137.1	35.349	35.351	17.632	17.609	25.636	0.2	14.3	2	4.4	112.4	2	2151.3	2	645.7	2	2336	-9.9999	-9.9
7613	146.8	35.235	35.244	16.590	16.566	25.798	0.0	16.8	2	5.7	94.7	2	2166.0	2	741.1	2	2327	-9.9999	-9.9
7612	171.5	34.965	34.967	13.610	13.586	26.247	0.0	27.2	2	15.9	8.7	2	2237.0	2	1352.6	2	2311	-9.9999	-9.9
7611	198.3	34.908	34.908	12.624	12.597	26.402	0.0	30.0	2	20.4	7.5	2	2244.2	2	1441.2	2	2305	-9.9999	-9.9
7610	234.0	34.863	34.863	11.805	11.775	26.526	0.0	31.9	2	23.7	16.6	2	2243.9	2	1421.0	2	2309	-9.9999	-9.9
7609	264.0	34.834	34.833	11.316	11.283	26.595	0.0	32.8	2	25.3	19.3	2	2246.5	2	1442.1	2	2311	-9.9999	-9.9
7608	294.4	34.810	34.810	10.932	10.896	26.647	0.0	33.6	2	27.6	13.7	2	2254.6	2	1523.2	2	2305	-9.9999	-9.9
7607	382.5	34.743	34.743	9.889	9.845	26.647	0.0	34.2	2	25.7	13.8	2	2255.0	2	1536.2	2	2310	-9.9999	-9.9
7606	382.5	34.743	34.745	9.889	9.845	26.778	0.0	36.4	2	35.5	7.6	2	2270.3	2	1708.3	2	2312	-9.9999	-9.9
7605	382.5	34.743	34.745	9.889	9.845	26.778	0.0	36.4	2	30.6	8.1	2	2272.2	2	1710.0	2	2353	-9.9999	-9.9
7604	601.0	34.588	34.588	7.011	6.953	27.101	0.0	41.3	2	48.6	31.3	2	2284.5	2	1770.1	2	2320	-9.9999	-9.9
7603	802.9	34.553	34.553	5.615	5.545	27.256	0.0	41.8	2	58.8	48.6	2	2297.6	2	1727.1	2	2340	-9.9999	-9.9
7602	1001.0	34.546	34.550	4.566	4.486	27.373	0.0	39.6	2	78.8	80.8	2	2295.8	3	1519.3	2	2363	-9.9999	-9.9
7601	1000.6	34.547	34.548	4.568	4.488	27.374	0.0	39.9	2	78.5	81.1	2	2298.0	2	1513.5	2	2355	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 22 OPS NO. 920710338 LATITUDE 8° 1 S  
 CAST 82 DATE 11-Mar-92 LONGITUDE 109° 59 W  
 CTD 24

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TAlk $\mu\text{mol/kg}$	pH	TOC $\mu\text{mol/kg}$
							$\mu\text{mol/L}$	QC	$\mu\text{mol/L}$	QC	$\mu\text{mol/L}$	QC	$\mu\text{mol/L}$	QC	patm	QC					
8224	499.8	34.648	-9.999	8.334	8.281	26.955	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.6	2	-9.9	9	-9.9999	-9.9	
8223	501.0	34.647	-9.999	8.336	8.283	26.954	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.8	2	-9.9	9	-9.9999	-9.9	
8222	501.4	34.647	-9.999	8.331	8.278	26.955	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.4	2	-9.9	9	-9.9999	-9.9	
8221	500.2	34.648	-9.999	8.333	8.280	26.955	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.4	2	-9.9	9	-9.9999	-9.9	
8220	500.8	34.648	-9.999	8.329	8.276	26.956	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.4	2	-9.9	9	-9.9999	-9.9	
8219	500.2	34.648	-9.999	8.334	8.281	26.955	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.0	2	-9.9	9	-9.9999	-9.9	
8218	500.0	34.648	-9.999	8.330	8.277	26.956	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.1	2	-9.9	9	-9.9999	-9.9	
8217	500.7	34.648	-9.999	8.326	8.273	26.956	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2272.6	2	-9.9	9	-9.9999	-9.9	
8216	501.8	34.648	-9.999	8.325	8.272	26.957	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.8	2	-9.9	9	-9.9999	-9.9	
8215	501.2	34.647	-9.999	8.323	8.270	26.956	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.6	2	-9.9	9	-9.9999	-9.9	
8214	500.9	34.646	-9.999	8.312	8.259	26.957	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.3	2	-9.9	9	-9.9999	-9.9	
8213	501.8	34.644	-9.999	8.273	8.220	26.961	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.0	2	-9.9	9	-9.9999	-9.9	
8212	500.9	34.644	-9.999	8.269	8.217	26.962	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.0	2	-9.9	9	-9.9999	-9.9	
8211	500.2	34.644	-9.999	8.265	8.213	26.963	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.3	2	-9.9	9	-9.9999	-9.9	
8210	501.1	34.643	-9.999	8.257	8.205	26.963	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.7	2	-9.9	9	-9.9999	-9.9	
8209	502.0	34.642	-9.999	8.228	8.176	26.967	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.3	2	-9.9	9	-9.9999	-9.9	
8208	502.6	34.640	-9.999	8.226	8.174	26.965	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.0	2	-9.9	9	-9.9999	-9.9	
8207	502.8	34.639	-9.999	8.219	8.167	26.966	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2274.3	2	-9.9	9	-9.9999	-9.9	
8206	502.5	34.641	-9.999	8.232	8.180	26.965	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.6	2	-9.9	9	-9.9999	-9.9	
8205	502.3	34.642	-9.999	8.221	8.169	26.968	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.5	2	-9.9	9	-9.9999	-9.9	
8204	501.4	34.641	-9.999	8.231	8.179	26.965	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.5	2	-9.9	9	-9.9999	-9.9	
8203	501.6	34.642	-9.999	8.232	8.180	26.966	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.9	2	-9.9	9	-9.9999	-9.9	
8202	502.6	34.643	-9.999	8.232	8.180	26.967	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2273.6	2	-9.9	9	-9.9999	-9.9	
8201	503.3	34.643	-9.999	8.227	8.174	26.968	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9999	-9.9	

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	22 85 25	OPS NO. DATE	920710941 11-Mar-92	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Pressure db	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
8524				27.014	27.014	35.371	35.371	0.1	22.990	0.0	3.1	2	2.3	203.8	2	2010.1	2	306.6	2	2335	-9.9999	-9.9
8523				27.009	27.009	35.370	35.370	18.2	22.994	0.0	3.2	2	2.3	203.8	2	2010.7	2	304.9	2	2342	-9.9999	-9.9
8522				27.008	27.017	35.375	35.375	38.3	22.994	0.0	4.4	2	2.3	203.6	2	2010.9	2	307.8	2	2334	-9.9999	-9.9
8521				25.126	25.126	35.661	35.661	63.0	23.802	0.0	3.7	2	1.4	203.3	2	2033.4	2	313.3	2	2358	-9.9999	-9.9
8520				23.604	23.604	35.675	35.675	75.5	24.270	0.6	1.3	2	1.7	194.1	2	2055.5	2	344.5	2	2363	-9.9999	-9.9
8519				21.545	21.564	35.854	35.854	97.0	24.992	1.7	1.6	2	1.0	187.3	2	2087.8	2	380.4	2	2378	-9.9999	-9.9
8518				20.405	20.427	35.732	35.732	116.5	25.214	2.5	1.7	2	1.0	177.2	2	2104.5	2	432.9	2	2371	-9.9999	-9.9
8517				19.628	19.651	35.632	35.632	127.2	25.343	0.8	5.9	2	1.4	170.5	2	2111.3	2	457.7	2	2362	-9.9999	-9.9
8516				18.742	18.766	35.517	35.517	136.6	25.483	0.3	8.8	2	1.5	154.3	2	2124.2	2	509.0	2	2355	-9.9999	-9.9
8515				17.271	17.295	35.338	35.338	145.9	25.710	0.0	12.8	2	5.4	128.7	2	2142.0	2	610.1	2	2337	-9.9999	-9.9
8514				13.804	13.804	34.967	34.967	171.1	26.208	0.0	24.9	2	22.7	29.5	2	2222.9	2	1190.8	2	2313	-9.9999	-9.9
8513				12.570	12.596	34.900	34.900	194.1	26.404	0.0	27.9	2	28.9	26.5	2	2230.6	2	1277.4	2	2314	-9.9999	-9.9
8512				11.817	11.817	34.865	34.865	232.5	26.523	0.0	31.2	2	35.3	25.4	2	2237.9	2	1348.8	2	2313	-9.9999	-9.9
8511				11.481	11.514	34.846	34.846	261.9	26.570	0.0	32.3	2	40.6	23.6	2	2242.0	2	1390.1	2	2313	-9.9999	-9.9
8510				11.126	11.126	34.822	34.822	293.0	26.622	0.0	31.9	2	41.6	27.8	2	2258.0	2	1403.2	2	2313	-9.9999	-9.9
8509				10.504	10.544	34.785	34.785	335.2	26.697	0.0	34.5	2	49.2	14.8	2	2258.4	2	1558.6	2	2321	-9.9999	-9.9
8508				10.504	10.544	34.784	34.784	335.2	26.697	0.0	34.5	2	45.2	16.2	2	2269.0	2	1553.9	2	2313	-9.9999	-9.9
8507				10.007	10.052	34.756	34.756	380.3	26.761	0.0	35.4	2	54.8	11.9	2	2288.4	2	1664.5	2	2313	-9.9999	-9.9
8506				7.071	7.071	34.585	34.585	600.5	27.094	0.0	41.1	2	69.7	23.4	2	2287.1	2	1844.3	2	2347	-9.9999	-9.9
8505				5.435	5.504	34.543	34.543	801.1	27.285	0.0	39.6	2	68.1	62.3	2	2292.7	2	1613.7	2	2338	-9.9999	-9.9
8504				4.545	4.545	34.544	34.544	999.7	27.375	0.0	38.4	2	80.9	86.4	2	2339.3	2	1482.3	2	2355	-9.9999	-9.9
8503				2.271	2.271	34.640	34.640	1997.2	27.678	0.0	37.2	2	123.9	115.5	2	2337.1	2	1344.8	2	2420	-9.9999	-9.9
8502				1.869	1.869	34.669	34.669	2496.0	27.733	0.0	35.7	2	-9.9	133.0	9	2336.5	2	1236.7	2	2432	-9.9999	-9.9
8501				1.489	1.712	34.680	34.680	3013.0	27.757	0.0	34.9	2	135.8	144.3	2	2336.5	2	1165.8	2	2437	-9.9999	-9.9

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STATION 23      OPS NO. 920740701      LATITUDE 7° 58.6 S  
 CAST 90      DATE 14-Mar-92      LONGITUDE 125° 2.1 W  
 CTD 26

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2		DIC		fCO2 @20° C		TALK μmol/kg	pH	TOC μmol/kg	
										QC μmol/L	QC μmol/L	QC μmol/kg	QC μatm	QC μatm	QC μmol/kg				
9024	0.1	35.677	35.682	28.034	28.034	22.895	0.0	2.3	0.0	2	199.9	2	2002.8	2	278.1	2	2356	-9.9999	-9.9
9023	18.9	35.676	35.681	28.037	28.033	22.895	0.0	2.2	0.0	2	200.1	2	2001.6	2	276.3	2	2354	-9.9999	-9.9
9022	37.8	35.676	35.680	28.039	28.030	22.895	0.0	2.5	0.0	2	200.0	2	2002.1	2	278.8	2	2355	-9.9999	-9.9
9021	62.6	35.680	35.684	27.938	27.923	22.933	0.0	1.9	0.0	2	199.9	2	2002.4	2	275.6	2	2356	-9.9999	-9.9
9020	77.6	35.887	35.889	26.369	26.351	23.594	0.0	0.9	0.0	2	196.8	2	2023.7	2	287.2	2	2374	-9.9999	-9.9
9019	98.4	36.263	36.263	25.203	25.181	24.242	0.0	0.7	0.0	2	190.9	2	2053.3	2	300.1	2	2409	-9.9999	-9.9
9018	117.6	36.159	36.165	23.299	23.275	24.735	3.2	0.5	0.0	2	184.1	2	2079.3	2	348.4	2	2403	-9.9999	-9.9
9017	127.4	36.123	36.141	22.539	22.513	24.927	3.1	0.4	0.0	2	184.1	2	2087.3	2	361.5	2	2393	-9.9999	-9.9
9016	137.1	35.993	35.993	21.668	21.641	25.075	1.6	3.3	0.0	2	178.3	3	2095.2	3	392.0	2	2384	-9.9999	-9.9
9015	149.2	35.915	35.915	21.140	21.111	25.162	0.0	5.2	0.0	2	173.0	2	2100.4	2	411.2	2	2385	-9.9999	-9.9
9014	171.8	35.569	35.575	18.966	18.935	25.474	0.0	8.5	4.5	2	150.9	2	2118.5	2	502.0	2	2353	-9.9999	-9.9
9013	195.3	35.209	35.209	16.143	16.112	25.884	0.0	13.4	8.1	2	118.4	2	2145.2	2	658.3	2	2329	-9.9999	-9.9
9012	234.4	34.865	34.864	12.902	12.870	26.315	0.0	23.5	18.0	2	46.6	2	2211.8	2	1149.0	2	2308	-9.9999	-9.9
9011	261.3	34.793	34.791	11.539	11.506	26.522	0.0	29.2	30.9	2	18.9	2	2245.0	2	1477.6	3	2307	-9.9999	-9.9
9010	293.1	34.776	34.772	10.567	10.532	26.685	0.0	30.8	32.6	2	50.6	2	2229.6	2	1286.9	2	2311	-9.9999	-9.9
9009	293.1	34.776	34.771	10.567	10.532	26.685	0.0	29.3	29.1	2	50.2	2	2229.5	2	1283.8	2	2310	-9.9999	-9.9
9008	334.4	34.740	34.737	9.876	9.837	26.777	0.0	33.0	39.0	2	45.4	2	2240.7	2	1433.8	2	2311	-9.9999	-9.9
9007	383.6	34.700	34.705	9.296	9.253	26.843	0.0	33.9	37.2	2	44.6	2	2246.9	2	1780.7	2	2312	-9.9999	-9.9
9006	602.0	34.590	34.585	7.066	7.008	27.095	0.0	40.4	56.5	2	29.8	2	2284.7	2	1572.5	2	2337	-9.9999	-9.9
9005	800.8	34.543	34.540	5.400	5.332	27.274	0.0	40.1	77.5	2	68.5	2	2283.0	2	1440.7	2	2357	-9.9999	-9.9
9004	1000.5	34.548	34.544	4.370	4.291	27.396	0.0	38.5	93.2	3	95.5	2	2289.5	2	1388.1	2	2391	-9.9999	-9.9
9003	1498.8	34.604	34.600	2.942	2.835	27.584	0.0	38.6	135.4	2	107.5	2	2319.6	2	1169.5	2	2428	-9.9999	-9.9
9002	2997.3	34.684	34.688	1.690	1.469	27.759	0.0	35.0	144.0	2	144.4	2	2332.4	2	1070.3	2	2429	-9.9999	-9.9
9001	3998.4	34.698	34.695	1.416	1.099	27.796	0.0	34.0	151.4	2	168.9	2	2314.0	2		2			

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STATION	24	OPS NO.	920741820	LATITUDE	5° 59.4 S													
CAST	94	DATE	14-Mar-92	LONGITUDE	125° 0.9 W													
CTD	27																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	Talk μmol/kg	pH	TOC μmol/kg
9424	2.0	35.488	-9.999	27.901	27.901	22.796	-9.9	-9.9	-9.9	200.3	9	2002.5	2	290.5	2	2346	-9.9999	-9.9
9423	4.5	35.489	35.492	27.881	27.880	22.804	0.0	2.9	0.0	200.6	2	2001.4	2	288.6	2	2340	-9.9999	-9.9
9422	17.1	35.489	35.491	27.836	27.832	22.820	0.0	3.1	0.0	200.7	2	2002.6	2	291.1	2	2339	-9.9999	-9.9
9421	26.0	35.488	35.491	27.819	27.813	22.825	0.0	1.0	0.0	200.5	2	2002.1	2	289.0	2	2343	-9.9999	-9.9
9420	36.1	35.488	35.492	27.820	27.812	22.825	0.0	3.4	0.0	200.5	2	2002.8	2	289.0	2	2376	-9.9999	-9.9
9419	55.7	35.490	35.543	27.817	27.804	22.829	0.0	3.4	0.0	200.3	2	2002.9	2	289.3	2	2340	-9.9999	-9.9
9418	77.7	35.558	35.973	27.760	27.742	22.901	0.0	3.4	0.0	199.1	2	2005.3	2	292.0	2	2347	-9.9999	-9.9
9417	95.5	36.009	36.067	26.696	26.674	23.584	0.0	0.5	0.0	199.9	2	2015.2	2	272.2	2	2379	-9.9999	-9.9
9416	115.8	36.070	36.019	23.383	23.359	24.643	3.1	0.7	0.0	179.2	2	2077.3	3	357.2	2	2389	-9.9999	-9.9
9415	126.4	36.022	36.042	22.038	22.013	24.992	1.0	4.0	0.0	177.0	2	2088.1	2	377.0	2	2388	-9.9999	-9.9
9414	136.4	36.036	35.729	21.866	21.839	25.052	0.6	3.7	0.0	174.0	2	2093.1	2	392.6	2	2383	-9.9999	-9.9
9413	156.7	35.696	35.542	19.471	19.442	25.440	0.0	6.6	0.0	161.8	2	2108.8	2	456.5	2	2364	-9.9999	-9.9
9412	163.0	35.548	35.021	18.611	18.582	25.547	0.0	8.6	3.2	146.8	2	2122.2	2	520.4	2	2361	-9.9999	-9.9
9411	196.2	35.013	35.022	14.117	14.088	26.179	0.0	23.5	12.7	37.3	2	2211.5	2	1101.3	2	2314	-9.9999	-9.9
9410	233.7	34.888	34.888	12.197	12.166	26.471	0.0	30.0	24.1	15.5	2	2240.1	2	1398.7	2	2311	-9.9999	-9.9
9409	260.0	34.863	34.860	11.738	11.705	26.539	0.0	32.0	24.4	22.4	2	2239.1	2	1372.7	2	2310	-9.9999	-9.9
9408	260.0	34.863	34.860	11.738	11.705	26.539	0.0	31.4	23.2	29.3	2	2238.8	2	1379.1	2	2312	-9.9999	-9.9
9407	333.7	34.793	34.791	10.670	10.629	26.681	0.0	34.0	33.6	12.7	3	2258.3	2	1576.6	2	2312	-9.9999	-9.9
9406	333.7	34.793	34.792	10.670	10.629	26.681	0.0	34.5	30.7	11.7	2	2258.4	2	1579.6	2	2325	-9.9999	-9.9
9405	380.2	34.753	34.751	10.019	9.975	26.764	0.0	35.5	32.3	8.8	2	2267.3	2	1680.3	2	2329	-9.9999	-9.9
9404	453.0	34.696	34.693	9.078	9.028	26.876	0.0	37.6	36.6	12.9	2	2274.3	2	1735.1	2	2314	-9.9999	-9.9
9403	600.2	34.590	34.586	7.097	7.039	27.091	0.0	39.9	46.2	43.3	2	2271.9	2	1649.8	2	2319	-9.9999	-9.9
9402	999.3	34.550	34.550	4.400	4.321	27.394	0.0	39.3	87.8	89.2	3	2293.2	2	1446.3	2	2363	-9.9999	-9.9
9401	1002.3	34.551	34.550	4.386	4.307	27.397	0.0	38.9	89.1	89.4	3	2293.7	2	1433.2	2	2357	-9.9999	-9.9

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STATION	25	OPS NO.	920750511	LATITUDE	5° 2.2 S													
CAST	98	DATE	15-Mar-92	LONGITUDE	124° 57.7 W													
CTD	28																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fcO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
9824	1.5	35.377	35.386	27.907	27.907	22.711	0.0	3.2	0.0	199.9	2	1998.5	2	293.4	2	2329	-9.9999	-9.9
9823	9.9	35.379	35.384	27.906	27.904	22.713	0.0	4.2	0.0	200.1	2	1998.5	2	292.0	2	2331	-9.9999	-9.9
9822	19.1	35.380	35.384	27.902	27.898	22.716	0.0	3.9	0.0	200.1	2	1999.5	2	293.9	2	2328	-9.9999	-9.9
9821	28.9	35.379	35.384	27.902	27.895	22.716	0.0	4.4	0.0	200.1	2	1998.5	2	292.2	2	2332	-9.9999	-9.9
9820	38.1	35.376	35.379	27.848	27.839	22.732	0.0	4.3	0.0	199.8	2	1998.6	2	295.2	2	2332	-9.9999	-9.9
9819	59.0	35.361	35.366	27.776	27.762	22.746	0.0	4.5	0.0	200.3	2	1999.0	2	296.1	2	2335	-9.9999	-9.9
9818	78.1	35.472	35.454	27.160	27.142	23.030	0.1	4.6	0.0	196.1	2	2010.8	2	306.2	2	2341	-9.9999	-9.9
9817	98.6	35.449	35.449	24.508	24.487	23.838	0.4	7.0	-9.9	187.1	9	2057.7	2	377.5	2	2343	-9.9999	-9.9
9816	116.7	36.080	36.083	22.601	22.577	24.876	3.2	2.9	0.0	176.1	2	2087.8	2	372.4	2	2390	-9.9999	-9.9
9815	129.5	36.006	36.018	21.770	21.744	25.056	1.0	3.9	0.0	172.0	2	2096.8	2	394.4	2	2383	-9.9999	-9.9
9814	138.9	35.822	35.847	20.400	20.374	25.291	0.1	7.2	0.0	166.3	2	2104.6	2	432.4	2	2372	-9.9999	-9.9
9813	149.4	35.465	35.485	18.372	18.346	25.543	0.1	13.0	3.4	131.0	2	2194.4	2	562.7	2	2354	-9.9999	-9.9
9812	171.9	35.088	35.092	14.717	14.691	26.108	0.0	22.1	10.8	59.9	2	2192.0	2	930.3	2	2319	-9.9999	-9.9
9811	193.9	34.981	34.978	13.185	13.158	26.347	0.0	27.8	19.4	44.7	2	2211.3	2	1092.5	2	2316	-9.9999	-9.9
9810	232.9	34.881	34.880	11.830	11.800	26.535	0.0	28.9	23.0	72.4	2	2201.8	2	1030.7	2	2324	-9.9999	-9.9
9809	263.4	34.838	34.838	11.356	11.323	26.591	0.0	29.3	24.6	68.2	2	2210.1	2	1086.2	2	2313	-9.9999	-9.9
9808	263.4	34.838	34.839	11.356	11.323	26.591	0.0	29.2	27.1	70.0	3	2210.4	2	1085.8	2	2313	-9.9999	-9.9
9807	294.7	34.806	34.804	10.861	10.825	26.656	0.0	33.5	28.4	39.4	2	2235.2	2	1328.0	2	2314	-9.9999	-9.9
9806	331.7	34.770	34.767	10.305	10.266	26.727	0.0	34.6	38.7	18.4	2	2258.7	2	1561.9	2	2312	-9.9999	-9.9
9805	382.7	34.722	34.721	9.516	9.473	26.824	0.0	37.3	38.3	18.0	2	2264.8	2	1637.4	2	2315	-9.9999	-9.9
9804	453.6	34.665	34.663	8.539	8.491	26.936	0.0	38.1	43.5	31.5	2	2264.7	2	1613.1	2	2324	-9.9999	-9.9
9803	608.9	34.582	34.580	6.886	6.828	27.113	0.0	37.6	49.7	46.0	2	2274.0	2	1644.6	2	2322	-9.9999	-9.9
9802	1001.5	34.552	34.546	4.384	4.305	27.398	0.0	40.2	89.9	73.8	3	-9.9	9	-9.9	9	2339	-9.9999	-9.9
9801	1006.2	34.554	34.556	4.364	4.285	27.401	0.0	39.9	89.2	86.3	2	2296.9	2	1445.1	2	2367	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION	26	OPS NO.	920751200	LATITUDE	4° 0 S														
CAST	100	DATE	15-Mar-92	LONGITUDE	125° 0.7 W														
CTD	29																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Potential	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	@20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
10024	1.6	35.146	35.146	27.756	27.756	27.756	0.0	3.1	2	0.0	200.8	2	1988.4	2	293.8	2	2318	-9.9999	-9.9
10023	7.8	35.144	35.148	27.756	27.754	27.754	0.0	3.1	2	0.0	201.1	2	1988.5	2	295.1	2	2318	-9.9999	-9.9
10022	17.4	35.149	35.152	27.749	27.745	27.745	0.0	3.1	2	0.0	200.9	2	1989.0	2	297.8	2	2319	-9.9999	-9.9
10021	26.4	35.161	35.164	27.746	27.740	27.740	0.0	3.4	2	0.0	200.8	2	1989.3	2	296.2	2	2318	-9.9999	-9.9
10020	38.0	35.196	35.192	27.730	27.721	27.721	0.0	3.3	2	0.0	200.9	2	1989.6	2	300.3	2	2320	-9.9999	-9.9
10019	57.4	35.316	35.316	27.664	27.651	27.651	0.0	3.9	2	0.0	198.0	2	2000.7	2	303.6	2	2331	-9.9999	-9.9
10018	75.6	35.389	35.391	26.514	26.497	26.497	0.0	5.2	2	1.6	194.8	2	2026.3	2	335.6	2	2337	-9.9999	-9.9
10017	95.9	35.628	35.611	24.115	24.095	24.095	0.8	4.8	2	1.9	181.5	2	2064.0	2	380.7	2	2354	-9.9999	-9.9
10016	116.3	35.609	35.611	19.455	19.434	19.434	0.4	9.2	2	2.6	141.6	2	2123.2	2	517.1	2	2364	-9.9999	-9.9
10015	126.5	35.414	35.414	17.603	17.582	17.582	0.2	13.3	2	6.2	109.5	2	2149.7	2	634.5	2	2340	-9.9999	-9.9
10014	136.5	35.244	35.243	15.892	15.870	15.870	0.0	20.1	2	11.3	74.4	2	2177.8	2	808.0	2	2327	-9.9999	-9.9
10013	147.3	34.977	34.979	13.641	13.620	13.620	0.0	30.0	2	21.6	30.2	2	2214.8	2	1148.8	2	2323	-9.9999	-9.9
10012	171.0	34.933	34.933	13.155	13.131	13.131	0.0	29.6	2	27.5	33.5	2	2215.8	2	1154.5	2	2308	-9.9999	-9.9
10011	196.1	34.910	34.910	12.821	12.794	12.794	0.0	30.6	2	26.0	29.2	2	2222.5	2	1212.2	2	2311	-9.9999	-9.9
10010	196.1	34.910	34.909	12.821	12.794	12.794	0.0	30.5	2	25.1	31.7	2	2222.7	2	1210.4	2	2310	-9.9999	-9.9
10009	260.6	34.885	34.885	12.299	12.264	12.264	0.0	32.7	2	33.1	12.8	2	2241.2	2	1410.3	2	2310	-9.9999	-9.9
10008	260.6	34.885	34.884	12.299	12.264	12.264	0.0	33.8	2	29.5	13.3	2	2241.9	2	1406.8	2	2308	-9.9999	-9.9
10007	290.8	34.867	34.865	12.037	11.999	11.999	0.0	31.7	4	27.8	23.8	2	2234.2	2	1334.4	4	2314	-9.9999	-9.9
10006	330.7	34.839	34.839	11.455	11.413	11.413	0.0	33.8	2	34.7	13.9	2	2249.9	2	1490.0	2	2309	-9.9999	-9.9
10005	380.1	34.782	34.781	10.504	10.458	10.458	0.0	34.9	2	35.3	6.7	2	2265.4	2	1651.9	2	2312	-9.9999	-9.9
10004	451.1	34.689	34.685	8.905	8.856	8.856	0.0	38.5	2	48.1	12.6	3	2275.7	2	1743.6	2	2312	-9.9999	-9.9
10003	801.0	34.542	34.542	5.378	5.310	5.310	0.0	38.4	2	71.2	85.6	3	2274.2	2	1428.1	2	2344	-9.9999	-9.9
10002	1005.4	34.548	34.550	4.422	4.343	4.343	0.0	37.9	2	93.7	98.5	3	2286.2	2	1383.4	2	2358	-9.9999	-9.9
10001	1004.2	34.548	34.550	4.422	4.343	4.343	0.0	38.1	2	93.6	98.8	3	2286.5	2	1360.5	3	2356	-9.9999	-9.9

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STATION 27 OPS NO. 920751822 LATITUDE 3° 0.2 S  
 CAST 104 DATE 15-Mar-92 LONGITUDE 125° 0.7 W  
 CTD 30

Sample ID	Pressure db	Salinity	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3		H4SiO4		O2		DIC		fCO2 @20° C		TALK μmol/kg	pH	TOC μmol/kg
									QC μmol/L	μmol/L	QC μmol/L	μmol/L	QC μmol/L	μmol/L	QC μmol/L	QC μmol/L	QC μmol/L	QC μmol/L			
10424	0.3	34.854	34.859	34.859	27.733	27.733	22.374	0.0	3.4	2	1.9	2	201.7	2	1974.3	2	297.1	2	2299	-9.9999	-9.9
10423	7.4	34.856	34.860	34.860	27.698	27.696	22.387	0.0	3.1	2	2.4	3	201.8	2	1974.6	2	304.9	2	2298	-9.9999	-9.9
10422	18.5	35.005	34.992	34.992	27.652	27.648	22.515	0.0	3.5	2	1.2	2	202.3	2	1982.8	2	-9.9	9	2305	-9.9999	-9.9
10421	28.1	35.130	35.130	35.130	27.508	27.501	22.657	0.0	3.9	2	1.0	2	202.5	2	1992.3	2	299.6	2	2313	-9.9999	-9.9
10420	37.8	35.179	35.183	35.183	27.442	27.433	22.716	0.0	3.6	2	1.0	2	201.4	2	1998.1	2	306.9	2	2318	-9.9999	-9.9
10419	57.9	35.193	35.193	35.193	27.322	27.309	22.766	0.2	4.3	2	1.3	2	200.7	2	2001.5	2	311.1	2	2318	-9.9999	-9.9
10418	75.0	35.179	35.195	35.195	26.034	26.017	23.165	0.3	5.5	2	1.9	2	193.9	2	2025.1	2	350.2	2	2322	-9.9999	-9.9
10417	95.9	35.260	35.267	35.267	20.484	20.466	24.837	4.1	14.1	2	8.0	2	119.7	2	2118.1	2	592.3	2	2328	-9.9999	-9.9
10416	117.9	35.013	35.015	35.015	14.239	14.222	26.151	0.0	28.0	2	19.2	2	43.8	2	2208.1	2	1042.7	2	2311	-9.9999	-9.9
10415	128.8	34.970	34.968	34.968	13.717	13.699	26.228	0.0	30.0	2	18.0	2	40.0	2	2208.1	2	1085.3	2	2308	-9.9999	-9.9
10414	137.6	34.948	34.948	34.948	13.427	13.408	26.271	0.0	-9.9	9	23.5	2	49.8	2	2203.9	2	1052.4	2	2314	-9.9999	-9.9
10413	147.4	34.943	34.939	34.939	13.351	13.330	26.282	0.0	29.0	2	21.8	2	52.9	2	2201.1	2	1031.5	2	2313	-9.9999	-9.9
10412	172.7	34.917	34.917	34.917	12.993	12.969	26.335	0.0	30.5	2	22.0	2	43.0	2	2210.8	2	1119.9	2	2310	-9.9999	-9.9
10411	204.3	34.905	34.901	34.901	12.751	12.723	26.375	0.0	-9.9	9	25.9	2	49.9	2	2208.7	2	1092.9	2	2311	-9.9999	-9.9
10410	229.3	34.897	34.893	34.893	12.594	12.563	26.401	0.0	32.9	2	25.1	2	23.6	2	2229.7	2	1300.4	2	2311	-9.9999	-9.9
10409	262.0	34.890	34.885	34.885	12.442	12.407	26.426	0.0	33.7	2	27.3	2	12.4	2	2238.5	2	1383.3	2	2310	-9.9999	-9.9
10408	292.7	34.878	34.874	34.874	12.220	12.181	26.426	0.0	-9.9	9	27.1	2	12.6	2	2239.7	2	1376.7	2	2313	-9.9999	-9.9
10407	332.8	34.860	34.855	34.855	11.830	11.787	26.460	0.0	34.1	2	28.0	2	9.8	2	2243.8	2	1404.8	2	2310	-9.9999	-9.9
10406	380.9	34.797	34.794	34.794	10.757	10.710	26.521	0.0	-9.9	9	30.9	2	7.1	2	2252.5	2	1485.4	2	2309	-9.9999	-9.9
10405	449.1	34.713	34.708	34.708	9.379	9.328	26.670	0.0	36.9	2	32.4	2	7.2	2	2263.1	2	1603.9	2	2314	-9.9999	-9.9
10404	802.4	34.554	34.553	34.553	5.362	5.294	26.841	0.0	39.6	2	43.6	2	8.6	2	2277.8	2	1723.5	2	2350	-9.9999	-9.9
10403	1004.2	34.555	34.555	34.555	4.437	4.358	27.287	0.0	42.4	2	70.3	3	65.8	2	2291.5	2	1568.3	2	2362	-9.9999	-9.9
10402	1004.2	34.555	34.554	34.554	4.436	4.357	27.394	0.0	40.9	2	-9.9	9	89.2	2	2296.3	2	1421.4	2	2387	-9.9999	-9.9
10401	1004.2	34.555	34.554	34.554	4.436	4.357	27.395	0.0	41.2	2	88.7	3	89.1	2	2296.8	2	-9.9	9	2369	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	28	OPS NO.	920760138	LATITUDE	1° 58.8 S																
CAST	107	DATE	16-Mar-92	LONGITUDE	124° 57.4 W																
CTD	31																				
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
10724	0.9	35.018	-9.999	27.873	27.873	22.452	0.0	2	3.0	2	1.4	2	206.8	2	1981.8	2	293.3	2	2308	-9.9999	-9.9
10723	11.3	35.028	35.032	27.774	27.771	22.492	0.0	2	3.2	2	1.4	2	202.7	2	1982.2	2	295.5	2	2309	-9.9999	-9.9
10722	20.0	35.031	35.035	27.727	27.722	22.511	0.0	2	3.1	2	1.4	2	202.6	2	1982.8	2	-9.9	9	2306	-9.9999	-9.9
10721	29.7	35.145	35.139	27.657	27.650	22.620	0.3	2	3.3	3	1.4	2	203.1	2	1991.0	2	297.7	3	2318	-9.9999	-9.9
10720	40.4	35.171	35.174	27.318	27.309	22.750	0.0	2	6.0	2	2.1	2	201.7	2	2000.8	2	309.4	2	2320	-9.9999	-9.9
10719	59.8	35.180	35.180	25.983	25.980	23.177	0.0	2	8.6	2	3.6	2	195.6	2	2023.2	2	346.2	2	2322	-9.9999	-9.9
10718	77.4	35.129	35.146	24.922	24.905	23.469	0.0	4	-9.9	9	-9.9	9	178.4	9	2049.2	2	401.5	2	2313	-9.9999	-9.9
10717	100.1	35.044	35.044	14.858	14.843	26.041	0.0	4	-9.9	9	-9.9	9	52.8	9	2193.3	2	966.1	2	2320	-9.9999	-9.9
10716	119.3	34.935	34.934	13.313	13.296	26.283	-9.9	9	-9.9	9	-9.9	9	65.5	9	2190.6	3	962.4	2	2320	-9.9999	-9.9
10715	129.2	34.932	34.932	13.254	13.236	26.293	0.0	2	28.8	3	35.0	3	64.2	3	2192.2	2	973.1	2	2311	-9.9999	-9.9
10714	138.2	34.923	34.921	13.037	13.018	26.330	-9.9	9	-9.9	9	-9.9	9	48.0	9	2205.7	2	1081.9	2	2314	-9.9999	-9.9
10713	147.8	34.907	34.906	12.758	12.738	26.374	0.0	2	28.9	2	36.4	3	50.7	3	2206.8	2	1078.8	2	2313	-9.9999	-9.9
10712	173.0	34.875	34.873	12.330	12.307	26.433	0.0	2	27.9	2	37.4	3	63.7	3	2201.9	2	1017.0	2	2314	-9.9999	-9.9
10711	198.0	34.871	34.870	12.285	12.259	26.440	0.0	2	28.7	2	38.0	3	58.8	3	2205.2	2	1068.9	2	2312	-9.9999	-9.9
10710	198.0	34.871	34.870	12.285	12.259	26.440	0.0	2	28.6	2	37.8	3	59.2	3	2204.5	2	1073.5	2	2313	-9.9999	-9.9
10709	262.3	34.862	34.860	12.137	12.102	26.463	0.0	2	30.3	2	41.8	3	41.4	3	2219.1	2	1189.4	2	2306	-9.9999	-9.9
10708	262.3	34.862	34.860	12.137	12.102	26.463	0.0	2	30.1	2	42.1	3	41.2	3	2219.9	2	1189.2	2	2310	-9.9999	-9.9
10707	292.3	34.850	34.848	11.987	11.949	26.483	0.0	2	32.7	2	44.2	3	24.0	3	2233.8	2	1332.7	2	2344	-9.9999	-9.9
10706	332.3	34.831	34.828	11.663	11.620	26.530	0.0	2	32.8	2	43.7	3	17.8	3	2241.9	2	1404.6	2	2310	-9.9999	-9.9
10705	383.2	34.807	34.804	11.039	10.991	26.627	0.0	2	33.6	2	45.8	3	20.8	3	2247.6	2	1398.5	2	2310	-9.9999	-9.9
10704	606.1	34.582	34.580	7.045	6.987	27.092	0.0	2	36.4	2	72.5	3	70.8	3	2255.5	2	1385.0	2	2326	-9.9999	-9.9
10703	804.0	34.552	34.552	5.596	5.526	27.258	0.0	2	39.1	2	-9.9	9	69.5	9	2282.9	2	1526.1	2	2340	-9.9999	-9.9
10702	1012.4	34.556	34.556	4.509	4.428	27.388	0.0	9	-9.9	9	-9.9	9	83.3	9	2296.6	2	1454.9	2	2391	-9.9999	-9.9
10701	1008.7	34.554	34.554	4.528	4.447	27.384	0.0	9	-9.9	9	-9.9	9	83.2	9	2296.1	2	-9.9	9	2359	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION 29 112 32	OPS NO. DATE	920761430 16-Mar-92	LATITUDE LONGITUDE	0° 59.4 S 124° 56.2 W	Potential		Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC µmol/kg	fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg		
						Temp °C	Temp °C					QC	QC		QC	QC					
11224	3.0	34.881	34.891	27.663	27.662	22.417	0.3	2	3.4	2	0.9	2	201.9	2	1974.7	2	292.5	2	2299	-9.9999	-9.9
11223	10.3	34.880	34.888	27.662	27.660	22.417	0.3	2	3.2	2	0.9	2	202.1	2	1975.2	2	-9.9	9	2303	-9.9999	-9.9
11222	20.4	34.891	34.900	27.674	27.669	22.422	0.3	2	3.0	2	0.9	2	202.3	2	1974.9	2	296.1	2	2301	-9.9999	-9.9
11221	30.0	34.927	34.930	27.656	27.649	22.456	0.4	2	3.4	2	0.9	2	202.3	2	1977.1	2	-9.9	9	2305	-9.9999	-9.9
11220	39.5	35.051	35.049	27.596	27.577	22.573	0.4	2	3.6	2	0.9	2	201.9	2	1986.7	2	299.5	2	2311	-9.9999	-9.9
11219	60.6	35.161	35.161	27.518	27.504	22.679	0.3	2	3.7	2	0.9	2	200.9	2	1993.7	2	306.1	2	2321	-9.9999	-9.9
11218	79.2	35.175	35.181	26.340	26.322	23.066	0.0	2	5.3	2	0.9	2	198.3	2	2011.9	2	330.8	2	2320	-9.9999	-9.9
11217	97.9	35.375	35.375	22.873	22.863	24.262	1.9	2	8.6	2	2.3	2	165.7	2	2082.0	2	447.0	2	2338	-9.9999	-9.9
11216	119.7	35.179	35.183	16.460	16.441	25.784	0.0	2	22.7	2	11.4	2	71.3	2	2174.6	3	809.7	2	2323	-9.9999	-9.9
11215	130.1	35.077	35.084	14.927	14.907	26.052	0.0	2	23.7	2	15.0	2	74.3	2	2178.1	2	845.9	2	2321	-9.9999	-9.9
11214	138.4	35.032	35.032	14.184	14.164	26.178	0.0	2	23.6	2	16.4	2	81.4	2	2174.8	2	801.5	2	2318	-9.9999	-9.9
11213	149.6	34.979	34.979	13.623	13.602	26.255	0.0	2	22.7	2	15.5	2	94.0	2	2169.1	2	789.0	2	2318	-9.9999	-9.9
11212	175.0	34.919	34.919	13.085	13.061	26.319	0.0	2	24.6	2	16.9	2	85.9	2	2179.3	2	-9.9	9	2312	-9.9999	-9.9
11211	198.6	34.912	34.914	12.978	12.951	26.335	0.0	2	25.3	2	20.0	2	81.3	2	2183.0	2	899.8	2	2313	-9.9999	-9.9
11210	198.6	34.912	34.914	12.978	12.951	26.335	0.0	2	24.8	2	19.4	2	81.4	2	2183.1	2	902.2	2	2313	-9.9999	-9.9
11209	264.4	34.862	34.863	12.181	12.146	26.454	0.0	2	29.7	2	22.6	2	42.3	2	2218.1	2	-9.9	9	2312	-9.9999	-9.9
11208	264.4	34.862	34.863	12.181	12.146	26.454	0.0	2	29.8	2	22.6	2	43.3	2	2218.8	2	1185.0	2	2311	-9.9999	-9.9
11207	294.5	34.857	34.857	12.123	12.084	26.462	0.0	2	30.5	2	26.7	2	34.6	2	224.8	2	1247.0	2	2311	-9.9999	-9.9
11206	336.1	34.809	34.808	11.311	11.269	26.578	0.0	2	33.4	2	29.1	2	14.2	2	2250.0	2	-9.9	9	2311	-9.9999	-9.9
11205	394.7	34.745	34.745	10.215	10.169	26.724	0.0	2	34.7	2	29.9	2	23.3	2	2254.1	2	1519.7	2	2313	-9.9999	-9.9
11204	454.8	34.642	34.642	8.348	8.300	26.948	0.0	2	37.2	2	43.4	2	38.7	2	2263.1	2	1564.9	2	2318	-9.9999	-9.9
11203	806.7	34.550	34.551	5.622	5.582	27.253	0.0	2	38.8	2	65.7	2	71.4	2	2282.1	2	1504.1	2	2342	-9.9999	-9.9
11202	1005.9	34.550	34.552	4.620	4.539	27.371	0.0	2	38.8	2	-9.9	2	89.3	2	2290.0	2	-9.9	9	2378	-9.9999	-9.9
11201	1008.5	34.551	34.552	4.606	4.525	27.373	0.0	2	38.9	2	87.7	2	90.2	3	2292.6	2	1412.3	2	2358	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	30	OPS NO.	920761816	LATITUDE	0° 29.7 S														
CAST	113	DATE	16-Mar-92	LONGITUDE	124° 58.7 W														
CTD	33																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	QC	QC	fCO2 @20° C μatm	QC	QC	TAlk μmol/kg	pH	TOC μmol/kg
11324	0.5	34.823	34.827	27.781	27.781	22.335	0.1	2.5	0.9	202.4	1969.8	2	2	290.9	2	2	2316	-9.9999	-9.9
11323	8.5	34.834	34.833	27.716	27.714	22.365	0.0	2.7	0.9	202.7	1971.1	2	2	-9.9	9	9	2298	-9.9999	-9.9
11322	18.6	34.845	34.848	27.702	27.698	22.379	0.1	2.6	0.9	202.9	1971.7	2	2	290.1	2	2	2306	-9.9999	-9.9
11321	27.8	34.886	34.886	27.649	27.643	22.427	0.1	2.5	0.9	202.7	1975.4	2	2	-9.9	9	9	2301	-9.9999	-9.9
11320	37.6	35.015	35.015	27.505	27.496	22.572	0.2	2.0	0.9	202.6	1985.3	2	2	300.1	2	2	2311	-9.9999	-9.9
11319	57.2	35.100	35.096	27.502	27.489	22.638	0.4	3.9	0.9	200.4	1992.4	2	2	303.8	2	2	2312	-9.9999	-9.9
11318	76.4	35.262	35.258	25.821	25.804	23.294	0.2	6.8	1.5	192.6	2034.0	2	2	358.5	2	2	2326	-9.9999	-9.9
11317	97.9	35.443	35.443	19.477	19.469	25.243	0.0	15.3	4.7	123.5	2119.6	2	2	537.8	2	2	2341	-9.9999	-9.9
11316	118.7	35.155	35.156	15.334	15.316	26.022	0.2	20.9	11.5	102.5	2152.1	3	3	700.8	2	2	2335	-9.9999	-9.9
11315	127.0	35.094	35.101	14.847	14.828	26.083	0.0	22.3	12.2	99.8	2158.5	2	2	-9.9	9	9	2321	-9.9999	-9.9
11314	138.8	34.992	34.994	13.914	13.894	26.204	0.0	23.3	13.7	103.6	2159.7	2	2	751.0	2	2	2318	-9.9999	-9.9
11313	147.5	34.955	34.955	13.728	13.707	26.214	0.0	22.7	15.8	110.8	2156.3	2	2	735.8	2	2	2316	-9.9999	-9.9
11312	171.5	34.946	34.945	13.428	13.404	26.270	0.0	24.4	15.0	98.1	2168.0	2	2	-9.9	9	9	2317	-9.9999	-9.9
11311	197.8	34.925	34.925	13.157	13.130	26.309	0.0	25.8	18.6	86.7	2179.2	2	2	868.3	2	2	2317	-9.9999	-9.9
11310	231.2	34.879	34.879	12.447	12.416	26.415	0.0	29.7	21.0	66.1	2200.4	2	2	-9.9	9	9	2314	-9.9999	-9.9
11309	263.2	34.869	34.869	12.286	12.251	26.440	0.0	32.5	21.9	43.7	2218.3	2	2	-9.9	9	9	2315	-9.9999	-9.9
11308	263.2	34.869	34.869	12.286	12.251	26.440	0.0	32.4	25.0	43.3	2218.3	2	2	1161.7	2	2	2314	-9.9999	-9.9
11307	293.9	34.824	34.824	11.532	11.495	26.548	0.0	36.9	27.1	14.6	2246.9	2	2	-9.9	9	9	2313	-9.9999	-9.9
11306	332.7	34.774	34.773	10.695	10.655	26.662	0.0	38.7	31.8	14.4	2256.0	2	2	-9.9	9	9	2315	-9.9999	-9.9
11305	382.7	34.689	34.689	9.219	9.177	26.847	0.0	41.2	39.0	24.0	2262.6	2	2	-9.9	9	9	2316	-9.9999	-9.9
11304	452.8	34.638	34.637	8.212	8.165	26.965	0.0	42.4	39.7	33.3	2268.5	2	2	1596.3	2	2	2320	-9.9999	-9.9
11303	804.6	34.549	34.549	5.393	5.325	27.280	0.0	43.8	74.5	75.0	2284.6	2	2	-9.9	9	9	2348	-9.9999	-9.9
11302	999.4	34.558	34.559	4.355	4.277	27.406	0.0	43.3	86.7	88.5	2299.2	2	2	-9.9	9	9	2367	-9.9999	-9.9
11301	999.6	34.558	34.559	4.355	4.277	27.406	0.0	43.2	87.9	89.7	2299.3	2	2	1409.9	2	2	2367	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 31 OPS NO. 920770442 LATITUDE 0° 15.1 S  
 CAST 116 DATE 17-Mar-92 LONGITUDE 125° 0.8 W  
 CTD 34

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	TALK µmol/kg	pH	TOC µmol/kg
11624	1.0	34.854	34.859	27.871	27.871	22.329	0.3	1.4	2	0.0	203.7	2	1971.2	2	290.9	2296	-9.9999	-9.9
11623	9.6	34.857	34.857	27.763	27.763	22.367	0.3	1.8	2	0.6	204.1	2	1971.4	2	-9.9	2298	-9.9999	-9.9
11622	18.8	34.878	34.882	27.695	27.691	22.406	0.3	1.5	2	0.0	204.3	2	1973.4	2	290.8	2298	-9.9999	-9.9
11621	28.3	34.999	34.996	27.481	27.474	22.567	0.3	2.4	2	0.0	204.1	2	1983.1	2	-9.9	2308	-9.9999	-9.9
11620	38.4	35.062	35.063	27.435	27.435	22.627	0.4	2.7	2	0.6	202.4	2	1989.7	2	304.1	2310	-9.9999	-9.9
11619	58.0	35.185	35.185	26.434	26.421	23.043	0.3	4.2	2	0.5	200.1	2	2015.7	2	335.3	2319	-9.9999	-9.9
11618	80.0	35.469	35.486	21.081	21.066	24.834	0.3	11.2	2	4.0	132.7	2	2104.6	2	486.8	2340	-9.9999	-9.9
11617	98.0	35.334	35.349	18.951	18.934	25.295	0.0	12.7	2	5.3	125.8	2	2115.7	2	536.0	2333	-9.9999	-9.9
11616	119.1	35.103	35.103	15.256	15.238	26.000	0.0	16.3	2	9.1	124.5	2	2136.1	2	637.4	2315	-9.9999	-9.9
11615	123.0	35.104	35.103	15.176	15.157	26.018	0.4	15.8	2	10.4	121.1	2	2139.8	2	-9.9	2322	-9.9999	-9.9
11614	138.7	34.967	34.968	13.823	13.803	26.204	0.0	19.5	2	12.6	114.0	2	2153.5	2	725.6	2317	-9.9999	-9.9
11613	146.9	34.928	34.928	13.635	13.614	26.213	0.0	19.9	2	15.5	108.3	2	2158.0	2	759.6	2316	-9.9999	-9.9
11612	172.2	34.948	34.947	13.393	13.369	26.279	0.0	21.5	2	15.4	97.9	2	2169.5	2	-9.9	2315	-9.9999	-9.9
11611	198.1	34.935	34.933	13.264	13.236	26.295	0.0	22.8	2	15.9	91.7	2	2173.7	2	844.5	2316	-9.9999	-9.9
11610	233.3	34.872	34.870	12.310	12.279	26.437	0.0	28.3	2	22.6	50.3	2	2213.1	2	-9.9	2312	-9.9999	-9.9
11609	263.1	34.863	34.863	12.189	12.154	26.454	0.0	29.4	2	21.4	39.0	2	2221.0	2	-9.9	2311	-9.9999	-9.9
11608	263.1	34.863	34.863	12.189	12.154	26.454	0.0	31.5	2	24.2	40.1	2	2221.3	2	1205.5	2310	-9.9999	-9.9
11607	295.2	34.809	34.806	11.223	11.186	26.593	0.0	32.6	2	27.2	12.7	2	2252.2	2	-9.9	2311	-9.9999	-9.9
11606	331.7	34.766	34.762	10.408	10.368	26.706	0.0	33.4	2	31.8	19.4	2	2254.7	2	-9.9	2314	-9.9999	-9.9
11605	381.5	34.681	34.678	9.006	8.964	26.874	0.0	35.9	2	40.6	24.9	2	2264.8	2	-9.9	2316	-9.9999	-9.9
11604	457.0	34.624	34.621	7.881	7.835	27.003	0.0	36.5	2	40.4	39.5	2	2268.5	2	1585.7	2320	-9.9999	-9.9
11603	603.1	34.576	34.574	6.713	6.657	27.132	0.0	37.4	2	45.8	58.7	2	2271.5	2	-9.9	2328	-9.9999	-9.9
11602	977.5	34.557	34.557	4.559	4.481	27.383	0.0	37.7	2	84.5	84.1	2	2298.0	2	-9.9	2366	-9.9999	-9.9
11601	986.8	34.557	34.557	4.511	4.432	27.388	0.0	37.7	2	77.4	84.7	2	2297.9	2	1451.1	2364	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 32 OPS NO. 920770855 LATTITUDE 0° 0' N  
 CAST 118 DATE 17-Mar-92 LONGITUDE 125° 0' 1' W  
 CTD 35

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TALK	pH	TOC
							μmol/L	μmol/L	QC	QC	QC	QC	QC	QC	QC	QC	QC	QC			
11824	0.8	34.805	34.806	27.776	27.776	22.323	0.3	1.6	2	2	0.0	2	202.6	2	1970.4	2	290.6	2	2295	-9.9999	-9.9
11823	10.8	34.915	34.917	27.768	27.765	22.409	0.3	2.0	2	2	0.0	2	203.1	2	1977.2	2	293.3	2	2303	-9.9999	-9.9
11822	18.5	34.931	34.937	27.683	27.679	22.450	0.3	1.9	2	2	0.0	2	203.1	2	1978.8	2	292.3	2	2305	-9.9999	-9.9
11821	39.2	35.059	35.072	27.377	27.368	22.654	0.4	2.7	2	2	0.5	3	200.8	2	1992.4	2	305.3	2	2312	-9.9999	-9.9
11820	48.6	35.137	35.140	27.410	27.399	22.695	0.4	3.3	2	2	0.0	2	199.3	2	1998.8	2	308.8	2	2318	-9.9999	-9.9
11819	59.0	35.264	35.250	26.140	26.127	23.195	0.3	4.7	2	2	0.9	2	193.8	2	2027.2	2	346.7	2	2326	-9.9999	-9.9
11818	78.8	35.434	35.434	22.775	22.759	24.334	0.6	9.8	2	2	2.8	2	143.3	2	2080.1	2	435.3	2	2339	-9.9999	-9.9
11817	87.4	35.342	35.340	19.727	19.711	25.100	0.2	12.9	2	2	5.5	2	128.0	2	2110.1	2	521.8	2	2333	-9.9999	-9.9
11816	98.4	35.250	35.250	18.215	18.198	25.416	0.0	14.4	2	2	6.9	2	126.0	2	2115.9	2	549.4	2	2326	-9.9999	-9.9
11815	109.4	35.162	35.160	16.184	16.167	25.835	0.0	15.3	2	2	7.7	2	124.0	2	2129.0	2	606.8	2	2330	-9.9999	-9.9
11814	118.0	35.075	35.078	15.100	15.082	26.013	0.0	16.4	2	2	10.7	2	124.9	2	2135.5	2	637.5	2	2321	-9.9999	-9.9
11813	129.1	35.100	35.101	14.888	14.869	26.079	0.0	18.1	2	2	10.4	2	113.3	2	2147.6	2	682.8	2	2321	-9.9999	-9.9
11812	147.0	34.966	34.964	13.930	13.909	26.181	0.0	18.3	2	2	12.9	2	117.8	2	2149.4	2	706.9	2	2315	-9.9999	-9.9
11811	162.5	34.934	34.934	13.652	13.629	26.214	0.0	19.6	2	2	15.7	2	109.0	2	2157.1	2	748.4	2	2314	-9.9999	-9.9
11810	162.5	34.934	34.940	13.652	13.629	26.214	0.0	20.0	2	2	14.4	2	110.1	2	2156.8	2	749.5	2	2315	-9.9999	-9.9
11809	195.5	34.941	34.939	13.345	13.318	26.284	0.0	21.0	2	2	16.0	2	98.0	2	2169.0	2	809.9	2	2315	-9.9999	-9.9
11808	253.5	34.870	34.867	12.275	12.241	26.442	0.0	28.0	2	2	22.9	2	44.0	2	2219.0	2	1174.4	2	2313	-9.9999	-9.9
11807	303.2	34.801	34.798	11.061	11.023	26.617	0.0	33.0	2	2	28.4	2	11.4	2	2255.2	2	1537.0	2	2311	-9.9999	-9.9
11806	401.7	34.653	34.654	8.458	8.416	26.939	0.0	36.6	2	2	37.4	2	32.8	2	2266.3	2	1608.8	2	2318	-9.9999	-9.9
11805	603.6	34.576	34.573	6.673	6.617	27.137	0.0	37.3	2	2	52.9	2	59.7	2	2272.7	2	1532.8	2	2329	-9.9999	-9.9
11804	803.1	34.556	34.550	5.309	5.241	27.295	0.0	36.7	2	2	66.6	2	76.5	2	2286.5	2	1503.9	2	2348	-9.9999	-9.9
11803	1500.1	34.611	34.608	2.975	2.867	27.587	0.0	38.7	2	2	113.0	3	94.1	2	2335.1	2	1458.3	2	2403	-9.9999	-9.9
11802	2498.4	34.667	34.664	1.885	1.707	27.728	0.0	37.0	2	2	146.6	3	121.8	2	2347.4	2	1297.0	2	2437	-9.9999	-9.9
11801	3518.1	34.690	34.690	1.515	1.247	27.779	0.0	35.6	2	2	139.8	3	148.6	3	2338.5	2	1136.0	2	2442	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 33 OPS NO. 920771838 LATTITUDE 0° 15 N  
 CAST 124 DATE 17-Mar-92 LONGITUDE 125° 0.8 W  
 CTD 36

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
12424	1.0	34.924	34.925	27.822	27.822	22.398	0.4	2.2	0.0	203.1	2	1974.8	2	293.7	2	2302	-9.9999	-9.9
12423	7.4	34.918	34.923	27.883	27.881	22.374	0.5	2.1	0.0	203.0	2	1974.9	2	-9.9	9	2303	-9.9999	-9.9
12422	17.1	34.941	34.945	27.723	27.719	22.444	0.5	2.1	0.0	203.1	2	1977.5	2	293.8	2	2302	-9.9999	-9.9
12421	36.7	35.118	35.116	27.379	27.370	22.690	0.5	3.0	0.0	200.7	2	1993.8	2	308.5	2	2317	-9.9999	-9.9
12420	47.9	35.141	35.146	27.354	27.343	22.716	0.4	3.7	0.0	202.2	2	1997.8	2	-9.9	9	2331	-9.9999	-9.9
12419	57.1	35.172	35.154	27.298	27.285	22.758	0.5	3.7	0.0	198.6	2	1998.2	2	312.7	2	2318	-9.9999	-9.9
12418	75.2	35.385	35.385	24.727	24.711	23.722	1.4	7.2	1.0	169.2	2	2053.9	2	388.9	2	2345	-9.9999	-9.9
12417	88.2	35.359	35.237	21.400	21.383	24.664	0.5	10.8	3.5	133.9	2	2080.0	2	-9.9	9	2324	-9.9999	-9.9
12416	94.2	35.010	35.015	18.877	18.860	25.066	0.0	14.9	6.6	118.1	2	2104.5	2	558.1	2	2314	-9.9999	-9.9
12415	105.2	35.114	35.114	17.768	17.750	25.422	0.0	14.8	6.7	125.7	2	2110.9	2	-9.9	9	2321	-9.9999	-9.9
12414	118.4	35.109	35.112	15.969	15.950	25.844	0.0	15.8	7.2	129.5	2	2123.4	2	598.6	2	2320	-9.9999	-9.9
12413	127.4	35.046	35.047	15.028	15.009	26.006	0.0	17.3	10.3	127.2	2	2133.2	2	-9.9	9	2321	-9.9999	-9.9
12412	136.5	35.004	35.001	14.718	14.698	26.042	0.0	18.0	9.9	125.5	2	2134.3	2	647.3	2	2344	-9.9999	-9.9
12411	144.7	35.040	35.038	14.701	14.679	26.074	0.0	17.8	9.2	124.5	2	2138.5	2	-9.9	9	2323	-9.9999	-9.9
12410	159.2	34.970	34.968	14.143	14.120	26.139	0.0	18.6	10.3	125.2	2	2140.0	2	671.8	2	2318	-9.9999	-9.9
12409	177.4	34.936	34.932	13.660	13.635	26.215	0.0	21.0	11.8	111.3	2	2154.6	2	-9.9	9	2316	-9.9999	-9.9
12408	177.4	34.936	34.934	13.660	13.635	26.215	0.0	21.0	13.3	111.0	2	2154.1	2	1175.6	2	2314	-9.9999	-9.9
12407	192.6	34.934	34.930	13.343	13.316	26.278	0.0	22.0	13.0	104.4	2	2163.1	2	-9.9	9	2316	-9.9999	-9.9
12406	252.1	34.868	34.865	12.260	12.227	26.444	0.0	29.8	18.1	41.3	2	2219.0	2	748.5	4	2311	-9.9999	-9.9
12405	300.1	34.809	34.806	11.240	11.202	26.590	0.0	34.2	26.5	13.7	2	2250.5	2	-9.9	9	2312	-9.9999	-9.9
12404	407.6	34.652	34.650	8.492	8.449	26.933	0.0	37.7	32.7	33.5	2	2263.8	2	1563.8	2	2316	-9.9999	-9.9
12403	798.1	34.550	34.549	5.424	5.356	27.277	0.0	39.7	51.6	75.1	2	2283.2	2	-9.9	9	2345	-9.9999	-9.9
12402	798.1	34.550	34.550	5.424	5.356	27.227	0.0	39.7	-9.9	74.4	2	2282.3	2	1466.8	2	2346	-9.9999	-9.9
12401	1010.2	34.560	34.561	4.410	4.330	27.401	0.0	39.7	73.5	83.1	2	2303.1	2	-9.9	9	2368	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION 34 OPS NO. 920772154 LATITUDE 0° 29.6 N  
 CAST 125 DATE 17-Mar-92 LONGITUDE 125° 0.4 W  
 CTD 37

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3		H4SiO4		O2		DIC		fCO2 @20° C		TALK μmol/kg	pH	TOC μmol/kg
								QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μatm			
12524	1.9	34.939	34.939	27.964	27.964	22.363	0.1	2.9	0.9	2	201.2	2	1978.0	2	296.6	2	2327	-9.9999	-9.9	
12523	7.8	34.941	34.943	27.664	27.664	22.462	0.1	3.0	0.7	2	201.1	2	1979.4	2	-9.9	9	2304	-9.9999	-9.9	
12522	17.0	34.964	34.965	27.570	27.570	22.510	0.1	2.9	0.7	2	200.1	2	1981.8	2	297.6	2	2309	-9.9999	-9.9	
12521	37.3	35.145	35.146	27.242	27.242	22.751	0.1	4.1	1.1	2	198.8	2	1988.6	2	312.6	2	2323	-9.9999	-9.9	
12520	47.8	35.187	35.187	27.139	27.128	22.820	0.1	4.6	0.9	3	196.7	2	2004.0	2	-9.9	9	2333	-9.9999	-9.9	
12519	58.3	35.349	35.350	26.177	26.164	23.247	0.1	5.8	1.4	2	191.0	2	2031.0	2	344.2	2	2332	-9.9999	-9.9	
12518	76.6	35.280	35.293	24.637	24.621	23.670	0.3	9.3	2.6	2	155.0	2	2051.7	2	395.4	2	2330	-9.9999	-9.9	
12517	86.4	35.042	35.042	21.137	21.120	24.494	0.1	13.0	6.5	2	126.3	2	2081.4	2	-9.9	9	2311	-9.9999	-9.9	
12516	97.7	35.059	35.060	18.056	18.039	25.309	0.0	16.1	9.5	2	119.4	2	2112.5	2	572.5	2	2318	-9.9999	-9.9	
12515	111.2	35.063	35.050	16.934	16.916	25.584	0.0	15.3	8.6	2	128.3	2	2113.3	2	-9.9	9	2321	-9.9999	-9.9	
12514	116.5	35.042	34.985	16.194	16.175	25.741	0.0	16.3	10.8	2	128.5	2	2119.8	2	596.1	2	2314	-9.9999	-9.9	
12513	126.4	34.978	34.917	15.495	15.475	25.850	0.0	17.0	11.5	2	123.3	2	2131.7	3	-9.9	9	2314	-9.9999	-9.9	
12512	139.0	34.914	34.918	14.157	14.137	26.093	0.0	19.4	15.2	2	121.7	2	2143.5	3	688.3	2	2328	-9.9999	-9.9	
12511	149.5	34.923	34.935	13.853	13.832	26.164	0.0	20.1	16.0	2	117.5	2	2150.0	2	-9.9	9	2315	-9.9999	-9.9	
12510	158.5	34.933	34.931	13.651	13.629	26.214	0.0	21.0	14.5	2	111.5	2	2157.4	2	748.5	2	2330	-9.9999	-9.9	
12509	176.1	34.931	34.931	13.392	13.367	26.266	0.0	22.3	17.4	2	103.5	2	2165.6	2	-9.9	9	2319	-9.9999	-9.9	
12508	176.1	34.931	34.932	13.392	13.367	26.266	0.0	22.3	16.0	2	103.3	2	2165.5	2	791.0	2	2316	-9.9999	-9.9	
12507	195.1	34.928	34.927	13.203	13.176	26.302	0.0	23.6	17.6	2	93.9	2	2176.1	2	-9.9	9	2319	-9.9999	-9.9	
12506	254.3	34.861	34.860	12.164	12.130	26.457	0.0	31.2	25.9	2	34.5	2	2227.8	2	1240.6	2	2313	-9.9999	-9.9	
12505	304.9	34.798	34.799	11.106	11.068	26.606	0.0	35.1	30.6	2	13.8	2	2255.0	2	-9.9	9	2313	-9.9999	-9.9	
12504	401.6	34.668	34.666	8.791	8.748	26.899	0.0	38.2	43.1	2	-9.9	2	2266.7	2	1602.4	2	2317	-9.9999	-9.9	
12503	602.2	34.576	34.576	6.710	6.654	27.132	0.0	39.7	55.4	2	52.8	2	2277.1	2	-9.9	9	2330	-9.9999	-9.9	
12502	999.5	34.560	34.562	4.480	4.401	27.394	0.0	40.3	84.0	2	79.5	2	2305.9	2	-9.9	9	2370	-9.9999	-9.9	
12501	1000.2	34.560	34.561	4.480	4.401	27.394	0.0	40.4	79.9	2	79.4	2	2304.0	2	1471.5	2	2365	-9.9999	-9.9	

# NOAA Equatorial Pacific Spring 1992

STATION 35  
 CAST 128  
 CTD 38

OPS NO. 920780445  
 DATE 18-Mar-92

LATITUDE 0° 58.4 N  
 LONGITUDE 125° 0.6 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	Talk µmol/kg	pH	TOC µmol/kg
12824	0.3	34.869	34.875	27.898	27.898	22.332	0.4	1.9	0.0	206.6	2	1974.4	2	293.4	2	2299	-9.9999	-9.9
12823	7.8	34.871	34.875	27.805	27.803	22.364	0.4	2.3	0.0	199.5	2	1975.6	2	296.4	2	2298	-9.9999	-9.9
12822	18.4	34.875	34.879	27.478	27.474	22.474	0.5	2.4	0.0	197.9	2	1977.9	2	297.4	2	2298	-9.9999	-9.9
12821	37.4	34.915	34.920	27.015	27.006	22.654	0.7	3.4	0.0	188.6	2	1982.5	2	315.6	2	2302	-9.9999	-9.9
12820	48.2	35.016	35.005	26.599	26.588	22.863	1.0	4.6	0.9	179.7	2	2005.7	2	332.3	2	2314	-9.9999	-9.9
12819	57.8	35.254	35.245	26.492	26.479	23.077	1.1	5.3	1.6	179.6	2	2022.1	2	341.7	2	2322	-9.9999	-9.9
12818	77.6	34.918	34.931	24.662	24.645	23.388	1.0	7.3	2.2	152.3	2	2031.0	2	390.6	2	2300	-9.9999	-9.9
12817	87.4	34.896	34.896	22.898	22.880	23.891	0.5	9.5	3.8	135.5	2	2052.6	2	444.6	2	2300	-9.9999	-9.9
12816	97.0	34.870	34.870	20.462	20.444	24.546	0.4	13.8	6.2	115.9	2	2086.1	2	534.4	2	2299	-9.9999	-9.9
12815	106.5	34.868	34.868	17.210	17.192	25.368	0.3	17.8	11.2	98.0	2	2128.5	2	-9.9	9	2303	-9.9999	-9.9
12814	117.9	34.873	34.867	15.936	15.917	25.670	0.0	19.8	11.8	99.9	2	2137.9	2	705.2	2	2306	-9.9999	-9.9
12813	128.7	34.864	34.859	14.842	14.823	25.907	0.0	20.6	14.8	102.8	2	2144.9	2	-9.9	9	2306	-9.9999	-9.9
12812	137.2	34.867	34.867	13.963	13.943	26.097	0.0	23.7	14.8	81.3	2	2169.3	2	854.6	2	2308	-9.9999	-9.9
12811	148.0	34.895	34.891	13.444	13.423	26.226	0.0	22.5	15.4	100.5	2	2163.5	2	-9.9	9	2311	-9.9999	-9.9
12810	158.6	34.916	34.916	13.291	13.269	26.274	0.0	22.5	14.9	101.8	2	2164.4	2	802.6	2	2316	-9.9999	-9.9
12809	177.2	34.922	34.922	13.165	13.140	26.305	0.0	23.6	15.0	94.9	2	2171.5	2	-9.9	9	2312	-9.9999	-9.9
12808	177.2	34.922	34.922	13.165	13.140	26.305	0.0	23.1	16.8	94.4	2	2172.6	2	840.6	2	2315	-9.9999	-9.9
12807	197.2	34.913	34.912	13.068	13.041	26.318	0.0	24.3	17.0	91.8	2	2174.7	2	-9.9	9	2313	-9.9999	-9.9
12806	254.4	34.861	34.860	12.155	12.121	26.458	0.0	30.8	22.3	32.8	2	2225.1	2	1254.6	2	2313	-9.9999	-9.9
12805	302.4	34.847	34.846	11.939	11.900	26.490	0.0	32.0	23.3	23.3	2	2236.1	2	1351.5	2	2309	-9.9999	-9.9
12804	403.5	34.667	34.666	8.874	8.830	26.885	0.0	37.6	39.7	23.7	2	2266.2	2	1625.9	2	2316	-9.9999	-9.9
12803	603.4	34.571	34.571	6.742	6.685	27.124	0.0	38.6	47.8	63.1	2	2266.8	2	1485.5	2	2326	-9.9999	-9.9
12802	801.8	34.552	34.554	5.617	5.548	27.255	0.0	39.1	58.0	69.7	2	2282.4	2	1438.4	2	2345	-9.9999	-9.9
12801	1010.6	34.559	34.560	4.445	4.365	27.397	0.0	40.2	79.0	80.6	3	2304.4	2	-9.9	9	2366	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	36	OFS NO.	920781308	LATITUDE	1° 54.6 N	LONGITUDE	125° 9.6 W												
CAST	131	DATE	18-Mar-92																
CTD	39																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
13124	0.3	34.752	34.763	27.990	27.990	22.214	0.3	0.9	2	0.0	204.9	2	1957.4	2	279.1	2	2294	-9.9999	-9.9
13123	6.5	34.765	34.774	27.981	27.979	22.227	0.3	0.9	2	0.0	205.5	2	1959.3	2	282.0	2	2294	-9.9999	-9.9
13122	15.2	34.787	34.794	27.906	27.902	22.268	0.2	0.6	2	0.0	205.3	2	1960.3	2	-9.9	9	2296	-9.9999	-9.9
13121	36.5	34.768	34.774	27.811	27.802	22.287	0.2	0.6	2	0.0	202.8	2	1960.4	2	281.7	2	2293	-9.9999	-9.9
13120	45.8	34.793	34.822	27.752	27.741	22.325	0.3	1.5	2	0.0	202.9	2	1966.8	2	290.6	2	2304	-9.9999	-9.9
13119	53.1	34.795	34.791	27.102	27.090	22.537	0.5	1.9	2	0.0	189.4	2	1975.9	2	306.1	2	2292	-9.9999	-9.9
13118	74.7	34.824	34.829	22.965	22.950	23.816	1.2	8.7	2	3.0	139.9	2	2050.2	2	446.4	2	2296	-9.9999	-9.9
13117	84.5	34.814	34.813	21.044	21.028	24.346	0.8	10.8	2	5.0	124.4	2	2077.1	2	511.2	2	2295	-9.9999	-9.9
13116	96.3	34.813	34.804	17.712	17.696	25.204	0.4	19.3	2	11.0	88.2	2	2134.9	2	713.9	2	2299	-9.9999	-9.9
13115	105.4	34.843	34.844	15.796	15.780	25.678	0.3	24.2	2	13.4	66.2	2	2169.0	2	873.8	2	2301	-9.9999	-9.9
13114	115.5	34.890	34.889	14.727	14.710	25.951	0.0	25.3	2	16.6	58.8	2	2183.2	2	961.9	2	2307	-9.9999	-9.9
13113	125.1	34.912	34.911	14.007	13.989	26.122	0.0	25.9	2	16.2	60.8	2	2187.4	2	955.0	2	2306	-9.9999	-9.9
13112	135.4	34.911	34.909	13.497	13.478	26.228	0.0	26.3	2	17.6	68.7	2	2187.8	2	948.3	2	2312	-9.9999	-9.9
13111	145.3	34.909	34.906	13.311	13.291	26.264	0.0	24.8	2	-9.9	75.1	2	2183.0	2	915.1	2	2310	-9.9999	-9.9
13110	158.8	34.906	34.907	13.071	13.049	26.311	0.0	23.7	2	16.4	84.7	2	2179.0	2	883.6	2	2316	-9.9999	-9.9
13109	174.2	34.907	34.905	12.959	12.935	26.334	0.0	24.5	2	15.6	88.2	2	2178.2	2	875.2	2	2312	-9.9999	-9.9
13108	174.2	34.907	34.905	12.959	12.935	26.334	0.0	24.4	2	17.7	88.5	3	2177.5	2	878.0	2	2315	-9.9999	-9.9
13107	196.9	34.898	34.897	12.809	12.782	26.358	0.0	25.1	2	17.8	84.0	2	2182.8	2	909.0	2	2313	-9.9999	-9.9
13106	250.8	34.864	34.861	12.193	12.160	26.453	0.0	29.0	2	20.9	53.0	2	2211.5	3	1115.5	2	2313	-9.9999	-9.9
13105	300.2	34.834	34.834	11.837	11.798	26.499	0.0	31.6	2	25.7	30.3	2	2231.1	2	1308.0	2	2309	-9.9999	-9.9
13104	399.9	34.689	34.685	9.279	9.234	26.837	0.0	37.6	2	35.4	11.4	2	2272.7	2	1707.5	2	2317	-9.9999	-9.9
13103	799.8	34.554	34.554	5.528	5.459	27.267	0.0	40.3	2	67.5	61.6	2	2291.2	2	1582.9	2	2344	-9.9999	-9.9
13102	1014.5	34.562	34.562	4.459	4.378	27.398	0.0	40.3	2	86.9	76.0	3	2305.2	2	1501.4	2	2370	-9.9999	-9.9
13101	1013.5	34.562	34.562	4.462	4.382	27.397	0.0	40.3	2	78.6	76.9	3	2306.0	2	-9.9	9	2365	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 37  
 CAST 135  
 CTD 40

OPS NO. 920782055  
 DATE 18-Mar-92

LATITUDE 2° 59.6 N  
 LONGITUDE 125° 1.8 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	QC	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C		pH	TOC µmol/kg	
																µatm	TALK µmol/kg			
13524	0.2	34.776	34.778	27.858	27.858	22.275	0.0	2.7	2	0.0	3	203.2	2	1967.8	2	289.7	3	2293	-9.9999	-9.9
13523	3.7	34.773	34.778	27.942	27.941	22.245	0.0	2.6	2	0.0	3	203.1	2	1967.5	2	292.4	3	2306	-9.9999	-9.9
13522	13.1	34.772	34.777	27.792	27.789	22.294	0.0	2.6	2	0.0	3	203.5	2	1968.2	2	290.0	3	2295	-9.9999	-9.9
13521	32.8	34.789	34.793	27.579	27.571	22.377	0.0	2.6	2	0.0	3	203.6	2	1968.8	2	293.9	3	2293	-9.9999	-9.9
13520	43.7	34.799	34.804	27.578	27.568	22.386	0.0	2.3	3	0.0	3	203.3	2	1969.4	2	291.7	3	2299	-9.9999	-9.9
13519	52.5	34.805	34.809	27.592	27.580	22.387	0.5	1.7	3	0.0	3	202.9	2	1968.9	2	294.7	3	2300	-9.9999	-9.9
13518	74.1	34.848	34.835	27.154	27.137	22.562	1.0	2.2	2	0.0	2	192.3	2	1981.1	2	310.5	2	2294	-9.9999	-9.9
13516	93.4	34.816	34.817	22.897	22.878	23.831	0.7	8.9	2	3.0	2	140.6	2	2051.7	3	441.8	2	2295	-9.9999	-9.9
13516	84.6	34.862	34.886	25.719	25.700	23.024	1.4	3.8	2	1.0	2	173.5	2	2010.4	2	349.8	2	2329	-9.9999	-9.9
13515	103.1	34.805	34.804	20.963	20.943	24.362	0.3	11.1	2	5.3	2	125.5	2	2072.9	2	504.4	2	2291	-9.9999	-9.9
13514	114.4	34.755	34.743	17.151	17.132	25.296	0.3	17.2	2	9.2	2	99.5	2	2121.7	2	665.2	2	2293	-9.9999	-9.9
13513	125.1	34.971	34.971	14.953	14.934	25.965	0.3	21.1	2	12.8	2	93.9	2	2156.9	2	762.9	2	2315	-9.9999	-9.9
13512	134.4	34.951	34.951	14.457	14.437	26.057	0.0	23.4	2	14.4	2	81.8	2	2169.0	2	832.6	2	2328	-9.9999	-9.9
13511	143.2	34.942	34.941	14.067	14.046	26.133	0.0	24.6	2	15.3	2	73.6	2	2178.6	2	887.9	2	2306	-9.9999	-9.9
13510	157.7	34.934	34.934	13.725	13.703	26.199	0.0	25.8	2	16.8	2	63.8	2	2189.5	2	951.6	2	2313	-9.9999	-9.9
13509	173.6	34.924	34.924	13.459	13.435	26.246	0.0	26.2	2	16.6	2	58.7	2	2195.7	2	980.1	2	2304	-9.9999	-9.9
13508	173.6	34.924	34.924	13.459	13.435	26.246	0.0	26.4	2	15.8	2	58.9	3	2194.4	2	995.6	2	2323	-9.9999	-9.9
13507	193.8	34.918	34.916	13.244	13.217	26.286	0.0	26.8	2	18.5	2	57.5	2	2197.2	2	1005.4	2	2309	-9.9999	-9.9
13506	250.5	34.881	34.877	12.562	12.528	26.395	0.0	27.7	2	19.1	2	52.4	2	2207.7	2	1087.8	2	2310	-9.9999	-9.9
13505	300.0	34.839	34.836	12.034	11.995	26.466	0.0	31.4	2	21.7	2	25.8	2	2232.5	2	1309.5	2	2313	-9.9999	-9.9
13504	597.0	34.583	34.582	7.121	7.063	27.082	0.0	37.5	2	47.5	2	53.0	2	2269.7	2	1546.5	2	2323	-9.9999	-9.9
13503	802.9	34.553	34.552	5.703	5.633	27.246	0.0	39.1	2	58.7	2	66.4	2	2285.1	2	1542.9	2	2359	-9.9999	-9.9
13502	996.5	34.556	34.556	4.805	4.723	27.355	0.0	39.5	2	82.6	2	72.4	2	2301.7	2	1536.1	2	2371	-9.9999	-9.9
13501	988.8	34.556	34.556	4.828	4.747	27.352	0.0	38.8	2	84.9	2	72.6	3	2299.6	2	1508.9	2	2357	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TAlk µmol/kg	pH	TOC µmol/kg
13724	38	0.1	34.556	34.562	28.136	28.136	22.019	0.0	0.0	0.0	203.4	2	1938.3	2	262.8	2	2283	-9.9999	-9.9
13723	137	8.0	34.555	34.561	28.139	28.141	22.017	0.0	0.0	0.0	203.2	2	1938.2	2	265.6	2	2278	-9.9999	-9.9
13722	41	17.7	34.581	34.581	28.044	28.040	22.069	0.0	0.5	0.5	203.6	2	1938.9	2	263.3	2	2281	-9.9999	-9.9
13721		37.8	34.716	34.716	27.846	27.837	22.236	0.0	1.2	0.9	202.1	2	1952.8	2	275.9	2	2289	-9.9999	-9.9
13720		45.6	34.712	34.718	27.825	27.814	22.241	0.0	1.9	0.7	198.9	2	1953.6	2	276.3	2	2289	-9.9999	-9.9
13719		57.5	34.748	34.748	27.698	27.685	22.310	0.9	4.2	1.8	176.3	2	1961.4	2	286.1	2	2291	-9.9999	-9.9
13718		76.4	34.887	34.888	25.951	25.934	22.971	1.6	6.3	3.2	159.8	2	2008.9	2	349.2	2	2301	-9.9999	-9.9
13717		85.7	34.878	34.878	24.497	24.479	23.408	0.0	16.3	9.7	101.8	2	2031.3	2	400.4	2	2297	-9.9999	-9.9
13716		96.0	34.781	34.785	18.363	18.346	25.020	0.0	17.6	12.5	97.8	2	2114.6	2	636.6	2	2299	-9.9999	-9.9
13715		105.4	34.762	34.762	17.692	17.674	25.171	0.0	20.7	14.2	81.2	2	2122.5	2	675.5	2	2295	-9.9999	-9.9
13714		115.4	34.783	34.783	16.382	16.364	25.498	0.0	26.4	18.8	59.9	2	2147.8	2	782.7	2	2299	-9.9999	-9.9
13713		126.9	34.890	34.888	13.797	13.779	26.149	0.0	26.3	18.7	57.7	2	2188.5	2	974.5	2	2305	-9.9999	-9.9
13712		138.3	34.910	34.909	13.475	13.456	26.231	0.0	26.9	21.7	53.3	2	2192.4	2	998.7	2	2311	-9.9999	-9.9
13711		147.0	34.920	34.918	13.418	13.397	26.251	0.0	27.3	20.3	51.7	2	2196.6	2	1025.5	2	2308	-9.9999	-9.9
13710		158.5	34.914	34.914	13.222	13.200	26.287	0.0	28.2	21.1	49.8	2	2198.1	2	1041.8	2	2314	-9.9999	-9.9
13709		174.6	34.904	34.904	13.011	12.987	26.322	0.0	27.6	22.8	49.9	2	2201.8	2	1069.8	2	2309	-9.9999	-9.9
13708		174.6	34.887	34.884	12.718	12.692	26.322	0.0	27.6	22.8	37.0	2	2202.6	2	1068.8	2	2310	-9.9999	-9.9
13707		195.7	34.887	34.884	12.718	12.692	26.367	0.0	29.9	22.5	35.9	2	2213.9	2	1163.2	2	2306	-9.9999	-9.9
13706		252.1	34.830	34.829	11.870	11.837	26.489	0.0	30.6	24.3	50.1	2	2223.6	2	1254.4	2	2311	-9.9999	-9.9
13705		301.4	34.779	34.776	11.150	11.112	26.583	0.0	30.7	28.0	24.1	2	2221.2	2	1215.0	2	2309	-9.9999	-9.9
13704		600.1	34.592	34.592	7.213	7.155	27.076	0.0	40.0	44.9	24.0	2	2287.4	2	1781.5	2	2331	-9.9999	-9.9
13703		600.1	34.592	34.591	7.213	7.155	27.076	0.0	40.0	44.9	24.0	2	2287.8	2	1770.8	2	2326	-9.9999	-9.9
13702		800.1	34.559	34.558	5.767	5.697	27.242	0.0	40.6	-9.9	48.1	9	2294.2	2	1632.8	2	2346	-9.9999	-9.9
13701		1003.8	34.559	34.559	4.800	4.718	27.358	0.0	39.2	82.5	58.7	3	2308.7	2	1634.5	2	2361	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	39	OPS NO.	920791706	LATITUDE	5° 7.2 N	LONGITUDE	125° 0.8 W											
CAST	144	DATE	19-Mar-92															
CTD	42																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
14424	0.5	34.581	34.587	27.896	27.896	22.116	0.0	0.7	0.0	203.2	2	1944.3	2	270.3	2	2282	-9.9999	-9.9
14423	4.4	34.582	34.587	27.911	27.910	22.112	0.0	0.7	0.0	203.1	2	1944.4	2	273.1	2	2283	-9.9999	-9.9
14422	14.7	34.583	34.586	27.889	27.886	22.121	0.0	0.5	0.0	203.3	2	1945.0	2	270.8	2	2282	-9.9999	-9.9
14421	32.8	34.666	34.666	27.830	27.822	22.204	0.0	0.9	0.0	202.2	2	1952.0	2	278.2	2	2288	-9.9999	-9.9
14420	47.1	34.709	34.710	27.783	27.772	22.252	0.0	0.6	0.0	200.9	2	1956.0	2	279.7	2	2289	-9.9999	-9.9
14419	55.1	34.722	34.729	27.770	27.757	22.267	0.0	0.9	0.0	199.4	2	1958.5	2	280.4	2	2314	-9.9999	-9.9
14418	76.9	34.721	34.722	27.682	27.664	22.296	0.0	1.3	0.0	195.1	2	1961.6	2	285.8	2	2288	-9.9999	-9.9
14417	86.2	34.768	34.768	27.275	27.255	22.463	0.3	1.6	1.0	186.2	2	1973.5	2	302.8	2	2309	-9.9999	-9.9
14416	93.9	34.810	34.810	25.120	25.100	23.169	0.8	3.9	2.1	153.9	2	2011.7	2	367.4	2	2294	-9.9999	-9.9
14415	104.8	34.776	34.776	22.825	22.804	23.822	0.8	5.0	3.6	146.0	2	2030.8	2	405.2	2	2304	-9.9999	-9.9
14414	116.2	34.819	34.819	20.150	20.128	24.591	0.0	11.2	6.2	122.6	2	2077.1	2	515.2	2	2295	-9.9999	-9.9
14413	126.8	34.749	34.751	18.336	18.314	25.003	0.0	12.5	8.6	120.8	2	2093.4	2	567.7	2	2312	-9.9999	-9.9
14412	136.5	34.691	34.693	16.477	16.455	25.406	0.0	16.2	11.9	104.5	2	2122.5	2	680.2	2	2298	-9.9999	-9.9
14411	147.9	34.658	34.658	14.921	14.899	25.731	0.0	20.2	15.5	84.7	2	2150.9	2	818.5	2	2294	-9.9999	-9.9
14410	157.9	34.637	34.634	13.450	13.428	26.026	0.0	25.2	20.0	61.7	2	2185.5	2	1025.5	2	2295	-9.9999	-9.9
14409	176.1	34.631	34.630	12.093	12.070	26.290	0.0	26.8	26.1	63.5	2	2198.1	2	1090.8	2	2313	-9.9999	-9.9
14408	176.1	34.631	34.630	12.093	12.070	26.290	0.0	26.9	26.1	63.2	2	2198.1	2	1092.7	2	2303	-9.9999	-9.9
14407	195.4	34.620	34.617	11.284	11.260	26.433	0.0	26.7	26.1	79.0	2	2196.0	2	1052.0	2	2316	-9.9999	-9.9
14406	252.3	34.678	34.674	10.270	10.240	26.660	0.0	28.2	30.7	80.5	2	2210.8	2	1108.6	2	2312	-9.9999	-9.9
14405	301.8	34.699	34.708	9.973	9.938	26.728	0.0	30.1	27.9	72.1	2	2220.0	2	1170.7	2	2312	-9.9999	-9.9
14404	400.5	34.665	34.662	9.224	9.180	26.827	0.0	33.4	36.0	-9.9	9	2244.8	2	1410.4	2	2312	-9.9999	-9.9
14403	802.9	34.560	34.559	5.701	5.631	27.251	0.0	42.0	71.6	29.3	2	2313.8	2	1868.6	2	2351	-9.9999	-9.9
14402	1004.1	34.564	34.563	4.708	4.626	27.372	0.0	42.1	84.9	47.4	3	2323.9	2	1752.3	2	2364	-9.9999	-9.9
14401	1003.6	34.564	34.564	4.708	4.626	27.372	0.0	-9.9	-9.9	46.5	9	2324.2	2	1723.8	3	2368	-9.9999	-9.9

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STATION CAST CTD	STATION ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TAlk μmol/kg	pH	TOC μmol/kg
								μmol/L	QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μmol/L	QC	μatm	QC			
	14724	3.4	34.690	34.696	28.092	28.091	22.134	0.0	2	0.9	2	0.0	2	203.0	2	1951.8	2	274.8	2	2292	-9.9999	-9.9
	14723	9.4	34.690	34.696	28.098	28.096	22.132	0.0	2	0.8	2	0.0	2	203.1	2	1952.1	2	273.2	2	2294	-9.9999	-9.9
	14722	18.9	34.690	34.696	28.048	28.044	22.150	0.0	2	0.8	2	0.0	2	203.5	2	1951.1	2	273.3	2	2308	-9.9999	-9.9
	14721	39.3	34.695	34.700	27.902	27.893	22.202	0.0	2	0.9	2	0.0	2	203.6	2	1952.3	2	277.1	2	2293	-9.9999	-9.9
	14720	47.0	34.704	34.709	27.887	27.876	22.215	0.0	2	1.1	2	0.0	2	203.2	2	1954.2	2	275.4	2	2298	-9.9999	-9.9
	14719	58.9	34.720	34.723	27.845	27.831	22.241	0.0	2	1.4	2	0.0	2	202.6	2	1956.7	2	280.5	2	2288	-9.9999	-9.9
	14718	79.2	34.780	34.780	27.780	27.761	22.309	0.0	2	1.9	2	0.0	2	200.0	2	1964.9	2	285.9	2	2293	-9.9999	-9.9
	14717	87.6	34.801	34.805	27.724	27.704	22.344	0.1	2	1.8	2	0.0	2	198.0	2	1968.6	2	292.3	2	2303	-9.9999	-9.9
	14716	98.9	34.767	34.767	22.920	22.900	23.787	0.5	2	3.6	2	0.8	2	158.2	2	2025.8	2	388.8	2	2295	-9.9999	-9.9
	14715	107.5	34.838	34.838	21.563	21.542	24.223	0.6	2	9.5	2	3.2	2	128.3	2	2060.6	2	469.4	2	2341	-9.9999	-9.9
	14714	119.1	34.832	34.832	20.270	20.248	24.569	0.5	2	10.4	2	3.8	2	125.8	2	2069.6	2	493.0	2	2295	-9.9999	-9.9
	14713	127.9	34.685	34.694	16.991	16.970	25.281	0.0	2	16.0	2	10.5	2	111.9	2	2113.9	2	644.3	2	2294	-9.9999	-9.9
	14712	139.1	34.651	34.649	14.607	14.586	25.793	0.0	2	19.0	2	15.0	2	66.2	2	2171.4	2	938.2	2	2300	-9.9999	-9.9
	14711	147.1	34.677	34.676	13.225	13.205	26.102	0.0	2	28.7	2	18.3	2	42.7	2	2198.9	2	1154.0	2	2334	-9.9999	-9.9
	14710	159.5	34.723	34.705	12.775	12.753	26.228	0.0	2	30.2	2	20.8	2	32.1	2	2212.5	2	1252.1	2	2330	-9.9999	-9.9
	14709	179.6	34.781	34.781	12.271	12.247	26.372	0.0	2	33.6	2	24.9	2	12.3	2	2234.0	2	1421.6	2	2301	-9.9999	-9.9
	14708	179.6	34.781	34.781	12.271	12.247	26.372	0.0	2	32.0	2	21.9	2	11.8	2	2234.3	2	1402.8	2	2300	-9.9999	-9.9
	14707	254.1	34.709	34.710	10.342	10.312	26.671	0.0	2	32.7	2	24.0	2	44.5	2	2231.9	2	1319.8	2	2325	-9.9999	-9.9
	14706	254.1	34.709	34.710	10.342	10.312	26.671	0.0	2	32.5	2	28.3	3	44.7	2	2232.2	2	1322.6	2	2328	-9.9999	-9.9
	14705	303.1	34.696	34.694	9.933	9.898	26.732	0.0	2	32.8	2	29.0	2	54.5	2	2235.2	2	1301.5	2	2311	-9.9999	-9.9
	14704	403.2	34.669	34.668	9.254	9.209	26.826	0.0	2	36.5	2	30.2	2	30.3	2	2255.5	2	1545.0	2	2328	-9.9999	-9.9
	14703	803.9	34.559	34.559	5.673	5.603	27.254	0.0	2	43.3	2	65.3	2	30.1	2	2312.6	2	1872.0	2	2355	-9.9999	-9.9
	14702	1003.5	34.562	34.566	4.726	4.644	27.369	0.0	2	43.4	2	94.3	3	45.2	3	2323.0	3	1779.0	2	2364	-9.9999	-9.9
	14701	1001.6	34.563	34.571	4.728	4.647	27.369	0.0	2	42.4	2	84.1	3	45.4	3	2320.9	2	1727.7	3	2366	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 41 OPS NO. 920801350 LATITUDE 8° 0.1 N  
 CAST 150 DATE 20-Mar-92 LONGITUDE 125° 0.3 W  
 CTD 44

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
15024	0.6	34.492	34.506	27.856	27.856	22.062	0.0	0.0	0.0	202.6	2	1928.5	2	256.3	2	2276	-9.9999	-9.9
15023	8.3	34.494	34.500	27.853	27.851	22.065	0.0	0.0	0.0	202.4	2	1929.0	2	258.6	2	2274	-9.9999	-9.9
15022	17.9	34.497	34.501	27.836	27.832	22.073	0.0	0.0	0.0	202.7	2	1928.2	2	257.0	2	2276	-9.9999	-9.9
15021	37.9	34.505	34.508	27.784	27.775	22.098	0.0	0.0	0.0	202.8	2	1930.2	2	260.8	2	2275	-9.9999	-9.9
15020	47.2	34.501	34.505	27.738	27.727	22.110	0.0	0.0	0.0	202.3	2	1930.3	2	259.1	2	2278	-9.9999	-9.9
15019	56.9	34.504	34.506	27.672	27.659	22.135	0.0	0.0	0.0	201.9	2	1931.8	2	264.5	2	2274	-9.9999	-9.9
15018	79.6	34.601	34.601	23.193	23.177	23.582	0.0	0.0	1.8	196.3	2	2001.8	2	352.0	2	2293	-9.9999	-9.9
15017	87.9	34.707	-9.999	19.335	19.319	24.717	-9.9	-9.9	-9.9	153.0	9	2070.4	2	496.0	2	2293	-9.9999	-9.9
15016	98.3	34.596	34.605	16.642	16.626	25.293	0.7	15.4	11.7	114.5	2	2123.5	2	688.1	2	2292	-9.9999	-9.9
15015	106.3	34.605	34.605	14.779	14.763	25.720	0.4	22.7	16.5	70.7	2	2168.8	2	935.7	2	2289	-9.9999	-9.9
15014	118.8	34.681	34.681	13.680	13.663	26.011	0.0	30.6	23.9	22.7	2	2216.9	2	1290.4	2	2297	-9.9999	-9.9
15013	128.2	34.705	34.698	13.204	13.186	26.127	0.0	31.4	23.1	20.0	2	2223.2	2	1327.8	2	2233	-9.9999	-9.9
15012	137.9	34.697	34.697	12.688	12.669	26.224	0.0	31.4	26.6	27.9	2	2221.0	2	1297.0	2	2300	-9.9999	-9.9
15011	147.6	34.692	34.589	12.131	12.112	26.329	0.0	31.1	27.4	38.4	2	2218.7	2	1242.3	2	2300	-9.9999	-9.9
15010	160.2	34.728	34.722	11.883	11.862	26.405	0.0	32.0	26.9	38.2	2	2216.2	2	1239.9	2	2304	-9.9999	-9.9
15009	176.3	34.715	34.710	11.449	11.427	26.476	-9.9	-9.9	-9.9	40.2	2	2222.4	2	1272.1	2	2306	-9.9999	-9.9
15008	176.3	34.715	34.711	11.449	11.427	26.476	0.0	31.9	28.8	40.8	2	2223.1	2	1276.3	2	2308	-9.9999	-9.9
15007	195.8	34.742	34.740	11.252	11.228	26.534	0.0	33.7	27.0	28.9	2	2233.7	2	1364.5	2	2307	-9.9999	-9.9
15006	252.2	34.719	34.717	10.672	10.642	26.621	0.0	32.9	31.9	42.9	2	2230.9	2	1313.1	2	2311	-9.9999	-9.9
15005	301.9	34.713	34.710	10.320	10.284	26.679	0.0	34.8	33.4	32.7	2	2242.3	2	1425.5	2	2309	-9.9999	-9.9
15004	401.7	34.675	34.671	9.405	9.360	26.806	0.0	37.5	35.4	11.1	2	2270.4	2	1717.8	2	2316	-9.9999	-9.9
15003	801.6	34.553	34.553	5.506	5.437	27.269	0.0	44.8	81.8	26.3	3	2321.7	2	1936.7	2	2350	-9.9999	-9.9
15002	1021.1	34.565	34.567	4.482	4.401	27.398	0.0	44.8	92.7	41.4	2	2334.7	2	1802.5	2	2375	-9.9999	-9.9
15001	1022.0	34.564	34.564	4.481	4.400	27.397	0.0	44.5	99.8	44.7	3	2332.1	2	1782.3	2	2369	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TAIK µmol/kg	pH	TOC µmol/kg
								µmol/L	µmol/L	QC	µmol/L	QC	µmol/L	QC	µmol/L	QC	µatm	QC	µmol/kg			
15824	42	0.1	34.305	34.311	27.373	27.373	22.077	0.0	2	0.0	2	0.0	2	202.0	2	1918.2	2	256.2	2	2263	-9.9999	-9.9
15823	158	9.9	34.305	34.310	27.329	27.327	22.092	0.0	2	0.0	2	0.0	2	-9.9	9	1918.4	2	258.3	2	2261	-9.9999	-9.9
15822	45	18.3	34.303	34.308	27.244	27.240	22.118	0.0	2	0.0	2	0.0	2	202.2	2	1919.0	2	256.0	2	2265	-9.9999	-9.9
15821		37.1	34.302	34.306	27.221	27.212	22.126	0.0	2	0.0	2	0.0	2	202.3	2	1918.1	2	258.7	2	2260	-9.9999	-9.9
15820		48.7	34.301	34.305	27.210	27.199	22.130	0.0	2	0.0	2	0.0	2	202.1	2	1917.8	2	257.5	2	2264	-9.9999	-9.9
15819		56.5	34.307	34.310	27.175	27.162	22.146	0.0	2	0.0	2	0.0	2	201.8	2	1917.9	2	262.4	2	2260	-9.9999	-9.9
15818		77.3	34.513	34.513	18.688	18.674	24.732	0.2	2	10.0	2	6.1	2	144.2	2	2095.6	2	588.4	2	2293	-9.9999	-9.9
15817		87.6	34.510	34.511	15.875	15.861	25.403	0.6	2	19.0	2	13.0	2	85.6	2	2151.4	2	860.1	2	2284	-9.9999	-9.9
15816		96.3	34.717	34.717	15.059	15.044	25.745	0.3	2	29.3	2	17.6	2	9.7	2	2218.2	2	1340.9	2	2295	-9.9999	-9.9
15815		107.8	34.765	34.765	13.851	13.836	26.041	0.0	2	31.0	2	23.1	2	2.8	2	2231.6	2	1436.2	2	2295	-9.9999	-9.9
15814		117.5	34.774	34.766	13.151	13.135	26.191	0.0	2	31.9	2	25.0	2	1.7	2	2236.8	2	1472.4	2	2301	-9.9999	-9.9
15813		128.2	34.777	34.777	12.767	12.750	26.271	0.0	2	32.4	2	23.2	2	1.7	2	2240.0	2	1553.6	2	2296	-9.9999	-9.9
15812		147.1	34.777	34.775	12.271	12.252	26.368	0.0	2	32.7	2	28.7	2	2.0	2	2244.1	2	1559.7	2	2303	-9.9999	-9.9
15811		162.5	34.769	34.766	12.022	12.001	26.410	0.0	2	33.2	2	27.6	2	3.8	2	2246.3	2	1515.6	2	2297	-9.9999	-9.9
15810		196.1	34.757	34.754	11.582	11.557	26.484	0.0	2	33.4	2	27.0	2	10.3	2	2250.1	2	1516.0	2	2306	-9.9999	-9.9
15809		251.2	34.730	34.724	10.802	10.771	26.607	0.0	2	33.8	2	32.7	2	5.7	2	2263.3	2	1609.6	2	2304	-9.9999	-9.9
15808		251.2	34.730	34.725	10.802	10.771	26.607	0.0	2	34.1	2	28.9	2	5.7	2	2257.6	2	1599.5	2	2310	-9.9999	-9.9
15807		300.2	34.711	34.706	10.339	10.303	26.674	0.0	2	33.8	2	35.8	2	2.7	2	2267.4	2	1774.6	2	2308	-9.9999	-9.9
15806		401.1	34.649	34.645	9.246	9.201	26.811	0.0	2	34.7	2	39.0	2	2.9	2	2281.2	2	1775.0	2	2317	-9.9999	-9.9
15805		601.4	34.559	34.555	6.812	6.755	27.105	0.0	2	38.5	2	61.2	2	2.9	2	2318.9	2	2023.3	2	2336	-9.9999	-9.9
15804		799.5	34.547	34.541	5.324	5.257	27.286	0.0	2	42.8	2	89.0	2	20.9	2	2328.8	2	1953.1	2	2355	-9.9999	-9.9
15803		1496.7	34.606	34.601	3.127	3.018	27.569	0.0	2	41.5	2	124.4	2	66.1	2	2353.5	2	1664.1	2	2402	-9.9999	-9.9
15802		2495.8	34.670	34.664	1.870	1.692	27.731	0.0	2	39.1	2	144.9	2	108.9	2	2365.3	2	1367.6	2	2442	-9.9999	-9.9
15801		3497.0	34.688	34.684	1.544	1.277	27.776	0.0	2	36.2	2	149.6	2	139.5	2	2343.1	2	1195.2	2	2432	-9.9999	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	44 165 47	OPS NO. DATE	920831949 23-Mar-92	LATITUDE		LONGITUDE		NO3 QC	NO2 µmol/L	Sigma Theta	Temp °C	Potential		Salinity CTD	Salinity Bottle	Temp °C	Pressure db	Sample ID	H4SiO4 µmol/L	O2 QC	DIC QC	fCO2 QC	@20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
				14° 35.4 N	135° 6.5 W	QC	µmol/L					QC	µmol/L														
16524	3.0	34.086	34.097	23.594	23.593	0.0	0.0	2	0.0	2	1.5	3	215.7	2	1930.1	2	276.1	2	2258	2	2258	-9.9999	-9.9				
16523	3.0	34.086	34.090	23.589	23.588	0.0	0.0	2	0.0	2	1.3	2	215.9	2	-9.9	2	278.1	2	2253	2	2253	-9.9999	-9.9				
16522	3.0	34.086	34.093	23.596	23.595	0.0	0.0	2	0.0	2	1.3	2	215.9	2	-9.9	2	277.5	2	2249	2	2249	-9.9999	-9.9				
16521	89.1	34.623	34.629	21.195	21.178	0.0	0.0	2	0.0	2	1.8	3	220.5	2	-9.9	2	325.7	3	2309	3	2309	-9.9999	-9.9				
16520	88.3	34.628	34.632	21.261	21.244	0.0	0.0	2	0.0	2	1.3	2	220.3	2	-9.9	2	332.4	2	2299	2	2299	-9.9999	-9.9				
16519	89.2	34.631	34.632	21.254	21.237	0.0	0.0	2	0.0	2	1.3	2	220.8	2	1998.1	2	332.4	2	2297	2	2297	-9.9999	-9.9				
16518	196.4	34.731	34.729	12.287	12.261	0.0	0.0	2	36.0	2	32.7	3	1.3	2	-9.9	2	1541.2	2	2315	2	2315	-9.9999	-9.9				
16517	194.5	34.734	34.729	12.297	12.271	0.0	0.0	2	35.8	2	29.9	2	0.7	2	-9.9	2	1553.0	2	2309	2	2309	-9.9999	-9.9				
16516	195.5	34.732	34.730	12.287	12.261	0.0	0.0	2	35.7	2	29.9	2	0.9	2	-9.9	2	1545.1	2	2308	2	2308	-9.9999	-9.9				
16515	198.1	34.707	34.730	12.161	12.135	0.0	0.0	2	36.0	2	30.8	2	0.9	2	-9.9	2	1557.2	2	2303	2	2303	-9.9999	-9.9				
16514	197.7	34.719	34.726	12.175	12.149	0.0	0.0	2	36.1	2	31.4	2	1.4	2	2250.0	2	1538.4	2	2303	2	2303	-9.9999	-9.9				
16513	198.6	34.702	34.726	12.114	12.088	0.0	0.0	2	36.2	2	28.8	2	0.9	2	-9.9	2	1573.0	3	2303	3	2303	-9.9999	-9.9				
16512	301.1	34.640	34.642	10.383	10.347	0.0	0.0	2	35.5	2	37.1	2	2.2	2	-9.9	2	1779.6	2	2318	2	2318	-9.9999	-9.9				
16511	300.1	34.641	34.642	10.386	10.350	0.0	0.0	2	35.5	2	43.3	2	1.3	2	-9.9	2	1767.0	2	2313	2	2313	-9.9999	-9.9				
16510	299.0	34.641	34.643	10.387	10.351	0.0	0.0	2	35.8	2	43.1	2	1.5	2	-9.9	2	1770.0	2	2312	2	2312	-9.9999	-9.9				
16509	299.7	34.641	34.643	10.388	10.352	0.0	0.0	2	35.5	2	37.1	2	1.4	2	2272.5	2	1769.6	2	2309	2	2309	-9.9999	-9.9				
16508	299.9	34.641	34.644	10.390	10.354	0.0	0.0	2	35.7	2	42.3	2	1.5	2	-9.9	2	1778.5	2	2301	2	2301	-9.9999	-9.9				
16507	300.3	34.641	34.643	10.391	10.355	0.0	0.0	2	35.8	2	43.1	2	1.7	2	-9.9	2	1771.7	2	2300	2	2300	-9.9999	-9.9				
16506	499.8	34.530	34.534	7.756	7.706	0.0	0.0	2	43.2	2	56.8	2	5.9	2	-9.9	2	1930.2	2	2328	2	2328	-9.9999	-9.9				
16505	498.2	34.529	34.533	7.766	7.716	0.0	0.0	2	43.7	2	56.9	2	5.5	2	-9.9	2	1997.0	3	2328	3	2328	-9.9999	-9.9				
16504	498.8	34.531	34.533	7.768	7.718	0.0	0.0	2	43.0	2	66.9	2	5.5	2	2298.3	2	1940.3	2	2323	2	2323	-9.9999	-9.9				
16503	500.5	34.529	34.533	7.760	7.710	0.0	0.0	2	43.5	2	63.4	2	5.5	2	-9.9	2	1975.9	2	2319	2	2319	-9.9999	-9.9				
16502	500.0	34.530	34.533	7.764	7.714	0.0	0.0	2	43.5	2	-9.9	2	6.1	2	-9.9	2	1946.8	2	2317	2	2317	-9.9999	-9.9				
16501	499.8	34.530	34.534	7.775	7.725	0.0	0.0	2	43.4	2	65.4	2	5.9	2	-9.9	2	1896.7	3	-9	3	-9	-9.9999	-9.9				

# NOAA Equatorial Pacific Spring 1992

STATION 45 OPS NO. 920930018 LATTITUDE 17° 26.1 N  
 CAST 166 DATE 2-Apr-92 LONGITUDE 157° 49.9 W  
 CTD 48

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TAlk µmol/kg	pH	TOC µmol/kg
16624	312.1	34.364	34.364	10.770	10.732	26.329	0.0	26.5	2	25.0	2	82.7	2	-9.9	9	-9.9	9	-9.9999	-9.9
16623	312.3	34.364	34.364	10.768	10.730	26.329	0.0	26.8	2	26.4	2	84.5	2	-9.9	9	-9.9	9	-9.9999	-9.9
16622	313.0	34.365	34.365	10.772	10.734	26.329	0.0	26.5	2	21.4	2	82.3	2	-9.9	9	-9.9	9	-9.9999	-9.9
16621	313.2	34.364	34.364	10.772	10.734	26.328	0.0	26.2	2	24.3	2	83.9	2	-9.9	9	-9.9	9	-9.9999	-9.9
16620	312.4	34.365	34.365	10.777	10.739	26.328	0.0	26.6	2	26.4	4	81.5	2	-9.9	9	-9.9	9	-9.9999	-9.9
16619	312.6	34.367	34.367	10.782	10.744	26.329	0.0	26.7	2	21.7	2	83.2	2	-9.9	9	-9.9	9	-9.9999	-9.9
16618	311.4	34.330	34.369	10.916	10.878	26.276	0.0	26.7	2	23.4	2	80.7	2	-9.9	9	-9.9	9	-9.9999	-9.9
16617	311.1	34.371	34.371	10.922	10.884	26.307	0.0	26.9	2	24.5	2	81.3	2	-9.9	9	-9.9	9	-9.9999	-9.9
16616	309.3	34.375	34.375	11.035	10.997	26.290	0.0	27.3	2	20.3	2	80.4	2	-9.9	9	-9.9	9	-9.9999	-9.9
16615	306.8	34.387	34.393	11.213	11.175	26.267	0.0	27.2	2	21.7	2	75.0	2	-9.9	9	-9.9	9	-9.9999	-9.9
16614	303.3	34.402	34.403	11.394	11.356	26.246	0.0	27.8	2	23.6	2	70.4	2	-9.9	9	-9.9	9	-9.9999	-9.9
16613	296.5	34.398	34.395	11.487	11.449	26.225	0.0	27.2	2	20.1	2	76.9	2	-9.9	9	-9.9	9	-9.9999	-9.9
16612	293.2	34.395	34.391	11.532	11.495	26.214	0.0	27.0	2	20.6	2	75.9	2	-9.9	9	-9.9	9	-9.9999	-9.9
16611	294.7	34.395	34.395	11.508	11.471	26.219	0.0	27.1	2	23.8	2	74.7	2	-9.9	9	-9.9	9	-9.9999	-9.9
16610	297.6	34.400	34.401	11.491	11.453	26.226	0.0	26.7	2	21.0	2	71.9	2	-9.9	9	-9.9	9	-9.9999	-9.9
16609	302.2	34.393	34.390	11.337	11.299	26.249	0.0	26.7	2	22.0	2	76.2	2	-9.9	9	-9.9	9	-9.9999	-9.9
16608	305.6	34.384	34.384	11.164	11.126	26.273	0.0	26.7	2	24.3	2	77.0	2	-9.9	9	-9.9	9	-9.9999	-9.9
16607	311.3	34.364	34.365	10.839	10.801	26.316	0.0	26.4	2	21.4	2	82.4	2	-9.9	9	-9.9	9	-9.9999	-9.9
16606	312.9	34.362	34.362	10.793	10.755	26.323	0.0	26.9	2	24.2	2	82.4	2	-9.9	9	-9.9	9	-9.9999	-9.9
16605	313.8	34.360	9.999	10.768	10.730	26.326	0.0	-9.9	9	-9.9	9	106.7	3	-9.9	9	-9.9	9	-9.9999	-9.9
16604	311.7	34.364	34.368	10.849	10.811	26.315	0.0	26.6	2	21.0	2	82.1	2	-9.9	9	-9.9	9	-9.9999	-9.9
16603	304.8	34.387	34.396	11.213	11.175	26.267	0.0	26.7	2	23.8	2	75.5	2	-9.9	9	-9.9	9	-9.9999	-9.9
16602	302.6	34.395	34.395	11.365	11.327	26.245	0.0	26.7	2	21.9	2	73.9	2	-9.9	9	-9.9	9	-9.9999	-9.9
16601	304.3	34.388	34.390	11.224	11.186	26.266	0.0	26.7	2	21.2	2	76.9	2	-9.9	9	-9.9	9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 45  
 CAST 168  
 CTD 49

OPS NO. 920903022  
 DATE 2-Apr-92

LATITUDE 17° 25.5 N  
 LONGITUDE 157° 52.5 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	QC	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
16824	156.4	34.998	34.998	21.037	21.007	24.492	0.0	0.0	2	0.0	2	203.6	2	-9.9	2	-9.9	9	2317	-9.9999	-9.9
16823	156.3	35.007	35.002	20.999	20.969	24.509	0.0	0.0	2	0.0	2	203.0	2	-9.9	2	-9.9	9	2301	-9.9999	-9.9
16822	156.6	35.005	34.998	20.976	20.946	24.514	0.0	0.0	2	0.0	2	203.1	2	-9.9	2	-9.9	9	2314	-9.9999	-9.9
16821	157.3	34.992	34.993	21.059	21.029	24.481	0.0	0.0	2	0.0	2	204.2	2	-9.9	2	-9.9	9	2308	-9.9999	-9.9
16820	300.0	34.337	34.337	10.639	10.603	26.330	0.0	24.8	2	22.2	2	92.8	2	-9.9	2	-9.9	9	2290	-9.9999	-9.9
16819	301.6	34.336	34.335	10.634	10.598	26.330	0.0	25.0	2	24.8	2	92.3	2	-9.9	2	-9.9	9	2288	-9.9999	-9.9
16818	301.3	34.337	34.338	10.640	10.604	26.330	0.0	25.1	2	24.8	2	92.3	2	-9.9	2	-9.9	9	2274	-9.9999	-9.9
16817	303.2	34.338	34.338	10.581	10.545	26.341	0.0	24.7	2	22.0	2	93.4	2	-9.9	2	-9.9	9	2271	-9.9999	-9.9
16816	302.4	34.335	34.336	10.618	10.582	26.333	0.0	24.7	2	26.0	2	93.3	2	-9.9	2	-9.9	9	2271	-9.9999	-9.9
16815	805.0	34.492	34.492	5.767	5.696	27.189	0.0	41.2	2	69.3	2	19.6	2	-9.9	2	-9.9	9	2352	-9.9999	-9.9
16814	806.5	34.493	34.493	5.764	5.693	27.191	0.0	40.7	2	63.0	3	23.0	2	-9.9	2	-9.9	9	2348	-9.9999	-9.9
16813	805.6	34.492	34.492	5.768	5.697	27.189	0.0	40.7	2	74.8	3	21.7	2	-9.9	2	-9.9	9	2337	-9.9999	-9.9
16812	805.9	34.492	34.492	5.767	5.696	27.189	0.0	40.3	2	71.1	3	21.4	2	-9.9	2	-9.9	9	2342	-9.9999	-9.9
16811	805.8	34.492	34.494	5.767	5.696	27.189	0.0	40.4	2	63.3	3	19.2	2	-9.9	2	-9.9	9	2358	-9.9999	-9.9
16810	805.8	34.493	34.494	5.766	5.695	27.190	0.0	40.3	2	74.5	3	19.2	2	-9.9	2	-9.9	9	2365	-9.9999	-9.9
16809	805.3	34.492	34.494	5.768	5.697	27.189	0.0	40.4	2	69.2	2	21.6	2	-9.9	2	-9.9	9	2335	-9.9999	-9.9
16808	804.5	34.493	34.495	5.769	5.698	27.190	0.0	40.3	2	64.0	3	19.9	2	-9.9	2	-9.9	9	2344	-9.9999	-9.9
16807	1006.8	34.522	34.523	4.759	4.677	27.333	0.0	41.2	2	-9.9	9	29.2	2	-9.9	2	-9.9	9	2360	-9.9999	-9.9
16806	1006.3	34.522	34.522	4.759	4.677	27.333	0.0	41.2	2	82.0	2	27.0	2	-9.9	2	-9.9	9	2376	-9.9999	-9.9
16805	1004.6	34.520	-9.999	4.761	4.679	27.331	0.0	-9.9	9	-9.9	9	33.4	2	-9.9	2	-9.9	9	2346	-9.9999	-9.9
16804	1006.1	34.521	34.521	4.759	4.677	27.332	0.0	41.7	2	91.2	2	28.2	2	-9.9	2	-9.9	9	2381	-9.9999	-9.9
16803	1004.1	34.521	34.521	4.761	4.679	27.332	0.0	41.7	2	82.3	2	27.3	2	-9.9	2	-9.9	9	2360	-9.9999	-9.9
16802	1004.6	34.521	34.523	4.761	4.679	27.332	0.0	42.9	2	82.3	2	27.0	2	-9.9	2	-9.9	9	2357	-9.9999	-9.9
16801	1005.3	34.522	34.525	4.759	4.677	27.333	0.0	42.2	2	93.3	2	29.0	2	-9.9	2	-9.9	9	2364	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION ID      46  
 CAST            172  
 CTD            50

OPS NO.      920951704  
 DATE        4-Apr-92

LATITUDE    9° 59.3 N  
 LONGITUDE  170° 1.1 W

Sample ID	Pressure db	Salinity		Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	fCO2 @20° C		TAlk μmol/kg	pH	TOC μmol/kg	
		CTD	Bottle									QC	μatm				
17224	2.9	34.548	-9.999	26.735	22.464	0.0	0.0	0.0	202.3	2	1932.8	2	256.5	2	2286	8.1168	-9.9
17223	10.8	34.548	34.552	26.754	22.458	0.0	0.0	0.0	202.1	2	1932.5	2	261.9	2	2273	8.1180	-9.9
17222	21.2	34.548	34.553	26.738	22.464	0.0	0.0	0.0	202.0	2	1934.6	2	256.4	2	2279	8.1154	-9.9
17221	41.1	34.549	34.552	26.739	22.466	0.0	0.0	0.0	201.7	2	1932.9	2	261.5	2	2272	8.1176	-9.9
17220	50.8	34.559	34.561	26.687	22.487	0.0	0.0	0.0	201.9	2	1933.6	2	257.7	2	2283	8.1171	-9.9
17219	58.9	34.642	34.636	26.690	22.549	0.0	0.0	0.0	202.3	2	1936.4	2	264.3	2	2283	8.1164	-9.9
17218	78.5	34.688	34.689	25.344	23.008	0.0	0.0	0.0	197.7	2	1960.9	2	284.8	2	2285	8.0856	-9.9
17217	100.4	34.705	34.705	17.569	25.156	0.0	5.3	3.2	173.7	2	2067.5	2	307.9	2	2299	7.9058	-9.9
17216	119.0	34.564	34.587	15.474	25.536	0.0	10.7	5.5	156.9	2	2085.6	2	557.8	2	2298	7.8422	-9.9
17215	137.6	34.476	34.472	14.119	25.762	0.0	15.6	9.2	137.7	2	2115.2	2	580.9	2	2284	7.7705	-9.9
17214	158.0	34.497	34.498	12.733	26.057	0.0	24.0	15.0	85.6	2	2168.0	2	949.1	2	2288	7.6387	-9.9
17213	178.3	34.436	34.428	10.967	26.347	0.0	27.4	19.9	80.3	2	2193.3	2	1003.7	2	2288	7.5808	-9.9
17212	197.2	34.600	-9.999	10.880	26.490	-9.9	-9.9	-9.9	35.1	9	-9.9	2	1392.0	D	2306	7.5280	-9.9
17211	296.1	34.637	34.631	9.641	26.735	0.0	36.0	26.4	30.0	2	2252.5	2	1421.6	2	2323	7.4675	-9.9
17210	397.5	34.621	34.624	8.920	26.841	0.0	37.4	36.6	25.6	2	2264.7	2	1608.8	2	2309	7.4362	-9.9
17209	594.3	34.551	-9.999	6.913	27.077	0.0	40.5	60.3	30.1	2	2289.7	2	1617.2	2	2330	7.4098	-9.9
17208	794.0	34.539	34.529	5.718	27.233	0.0	40.1	60.9	29.9	3	2289.2	2	1726.1	2	2340	7.4087	-9.9
17207	1000.8	34.553	34.546	4.623	27.373	0.0	43.8	90.2	45.4	3	2326.9	2	1718.8	2	2363	7.4048	-9.9
17206	1000.8	34.553	34.547	4.623	27.373	0.0	43.6	86.9	3	3	2326.6	2	1718.8	2	2363	7.4048	-9.9
17205	1497.1	34.601	34.597	3.009	27.576	0.0	41.9	113.6	3	3	2346.3	2	1737.5	2	2401	7.4543	-9.9
17204	1996.9	34.641	34.638	2.194	27.680	0.0	41.2	126.6	3	3	2351.0	2	1436.1	2	2426	7.4968	-9.9
17203	2501.4	34.660	34.657	1.935	27.718	0.0	40.4	128.5	3	3	2351.3	2	1427.5	2	2431	7.5216	-9.9
17202	3002.1	34.677	34.677	1.646	27.756	0.0	39.0	142.7	3	3	2342.9	2	1235.5	2	2434	7.5521	-9.9
17201	3726.6	34.688	34.687	1.451	27.784	0.0	37.9	146.8	2	2	2324.2	2	1242.4	2	2428	7.5788	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	47	OFS NO.	920960850	LATITUDE	7° 59.6 N											
CAST	178	DATE	5-Apr-92	LONGITUDE	170° 1.3 W											
CTD	51															
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
17824	3.7	34.197	34.203	27.305	27.304	22.018	0.0	0.0	0.0	200.6	1906.7	244.4	2	2279	8.1309	-9.9
17823	10.3	34.197	34.202	27.311	27.309	22.017	0.0	0.0	0.0	200.5	1907.9	245.9	2	2269	8.1324	-9.9
17822	19.6	34.197	34.204	27.311	27.306	22.017	0.0	0.0	0.0	200.4	1907.0	-9.9	9	2267	8.1315	-9.9
17821	39.5	34.219	34.217	27.301	27.292	22.038	0.0	0.0	0.0	200.5	1907.9	245.6	2	2249	8.1317	-9.9
17820	51.2	34.365	34.368	27.218	27.206	22.176	0.0	0.0	0.0	200.9	1915.8	246.6	2	2261	8.1297	-9.9
17819	59.5	34.396	34.397	27.183	27.169	22.211	0.0	0.0	0.0	200.6	1917.9	248.6	2	2285	8.1293	-9.9
17818	77.9	34.455	34.456	27.106	27.088	22.281	0.0	0.0	0.0	200.3	1921.3	249.5	2	2265	8.1275	-9.9
17817	87.9	34.473	34.473	27.063	27.043	22.309	0.0	0.0	0.0	200.1	1923.2	252.2	2	2269	8.1264	-9.9
17816	97.5	34.708	34.707	22.763	22.743	23.787	0.0	1.2	0.0	188.1	2004.8	344.2	2	2310	8.0174	-9.9
17815	109.4	34.832	34.825	20.868	20.847	24.409	0.4	5.0	3.2	163.2	2043.1	346.1	2	2302	7.9555	-9.9
17814	116.7	34.823	34.832	19.740	19.719	24.702	0.8	7.9	6.9	147.3	2064.7	463.2	2	2286	7.9120	-9.9
17813	129.1	34.794	34.794	18.639	18.616	24.982	0.0	10.2	6.3	140.2	2078.7	463.2	2	2303	7.8805	-9.9
17812	136.3	34.757	34.757	17.904	17.881	25.116	0.0	10.4	7.1	136.6	2086.7	532.3	2	2294	7.8613	-9.9
17811	147.5	34.639	34.646	15.808	15.808	25.514	0.0	15.0	12.4	124.0	2113.0	533.7	2	2282	7.7951	-9.9
17810	158.5	34.554	34.554	14.460	14.437	25.751	0.0	17.9	13.3	113.0	2135.4	742.3	2	2285	7.7345	-9.9
17809	176.4	34.525	34.525	13.243	13.219	25.982	0.0	21.8	15.0	92.7	2159.9	746.9	2	2292	7.6672	-9.9
17808	196.3	34.560	34.558	12.331	12.305	26.189	0.0	27.7	23.1	52.8	2204.3	1191.2	2	2293	7.5553	-9.9
17807	252.5	34.679	34.673	10.478	10.448	26.624	0.0	34.0	29.8	27.2	2247.3	1183.6	2	2341	7.4737	-9.9
17806	303.5	34.672	34.669	9.635	9.601	26.764	0.0	35.7	31.9	25.1	2258.8	1545.9	3	2312	7.4510	-9.9
17805	303.5	34.672	34.672	9.635	9.601	26.764	0.0	35.6	34.8	26.1	-9.9	1560.2	D	2309	7.4509	-9.9
17804	601.7	34.558	34.558	6.813	6.756	27.104	0.0	39.9	50.8	31.3	2299.6	1733.6	2	2323	7.4066	-9.9
17803	803.3	34.545	34.546	5.322	5.322	27.277	0.0	41.0	78.6	51.0	2306.0	1729.1	2	2354	7.4249	-9.9
17802	803.3	34.545	34.546	5.322	5.322	27.277	0.0	41.4	78.1	-9.9	2307.0	1627.7	3	2361	7.4242	-9.9
17801	1004.3	34.556	34.558	4.574	4.493	27.380	0.0	41.8	80.2	55.1	2323.2	1619.7	2	2458	7.4243	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 48      OPS NO. 920962254      LATITUDE 6° 0 N  
 CAST 184      DATE 5-Apr-92      LONGITUDE 170° 1 W  
 CTD 52

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC		fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg
										QC µmol/L	µmol/L	QC µmol/L	µmol/kg	QC µatm	µmol/kg			
18424	2.1	34.215	-9.999	27.961	27.961	21.819	0.0	0.0	0.0	199.0	1902.1	2	241.3	2	2257	8.1009	-9.9	
18423	9.5	34.214	34.222	27.964	27.962	21.818	0.0	0.0	0.0	200.6	1902.2	2	245.0	2	2259	8.0575	-9.9	
18422	19.9	34.337	34.337	28.047	28.042	21.885	0.0	0.0	0.0	198.1	1908.5	2	242.9	2	2262	8.1016	-9.9	
18421	38.5	34.387	34.389	28.085	28.076	21.911	0.0	0.0	0.0	199.3	1905.8	2	240.8	2	2270	8.1198	-9.9	
18420	49.7	34.410	34.410	28.093	28.081	21.927	0.0	0.0	0.0	197.4	1913.6	2	241.2	2	2262	8.0817	-9.9	
18419	58.8	34.447	34.447	27.854	27.840	22.033	0.0	0.0	0.0	197.2	1915.9	2	243.0	2	2271	8.1230	-9.9	
18418	77.3	34.527	34.527	27.387	27.369	22.245	0.0	0.0	0.0	196.7	1922.9	2	251.8	2	2277	8.1010	-9.9	
18417	87.8	34.609	34.630	24.729	24.710	23.135	0.2	1.2	1.1	180.1	1978.0	2	253.4	2	2282	7.9988	-9.9	
18416	98.8	34.951	34.945	21.085	21.066	24.440	0.0	8.4	5.5	141.9	2055.1	2	447.9	2	2297	7.9003	-9.9	
18415	107.9	34.918	34.918	20.449	20.429	24.587	0.0	9.2	6.0	139.8	2063.4	2	448.9	2	2303	7.8757	-9.9	
18414	117.8	34.847	34.847	19.325	19.304	24.828	0.0	10.0	8.6	136.5	2074.7	2	532.5	2	2291	7.8408	-9.9	
18413	127.5	34.793	34.794	18.187	18.165	25.074	0.0	11.2	9.7	133.7	2083.4	2	533.6	2	2304	7.7964	-9.9	
18412	138.4	34.729	34.729	16.813	16.790	25.357	0.0	13.2	11.7	129.4	2100.1	2	637.4	2	2284	7.7847	-9.9	
18411	148.0	34.649	34.649	15.583	15.560	25.578	0.0	14.8	12.9	119.8	2117.3	2	641.8	2	2287	-9.9999	-9.9	
18410	158.4	34.622	34.623	14.033	14.010	25.894	0.0	19.2	20.3	107.7	2141.9	2	1107.7	2	2287	-9.9999	-9.9	
18409	176.7	34.600	34.598	11.824	11.801	26.317	0.0	27.0	30.4	57.8	2201.6	3	1127.2	3	2298	7.5569	-9.9	
18408	176.7	34.600	34.598	11.824	11.801	26.317	0.0	27.0	27.9	43.5	2205.5	3	1338.9	3	2291	7.5712	-9.9	
18407	252.6	34.669	34.665	10.017	9.988	26.696	0.0	31.6	-9.9	43.7	2240.4	3	1367.3	2	2307	7.5006	-9.9	
18406	252.6	34.669	34.665	10.017	9.988	26.696	0.0	32.8	28.9	51.8	2238.5	3	1370.2	2	2316	7.5003	-9.9	
18405	302.8	34.655	34.652	9.392	9.358	26.790	0.0	33.4	27.2	54.7	2241.8	2	1343.4	2	2306	7.4797	-9.9	
18404	401.8	34.631	34.626	8.621	8.578	26.896	0.0	34.4	29.4	-9.9	2249.0	2	1682.6	2	2314	7.4479	-9.9	
18403	806.5	34.547	34.545	5.359	5.291	27.282	0.0	40.8	77.7	50.3	2307.0	2	1675.5	2	2341	7.4199	-9.9	
18402	998.5	34.561	34.561	4.407	4.328	27.402	0.0	40.0	86.6	69.7	2315.6	2	1586.8	2	2362	7.4484	-9.9	
18401	1000.0	34.562	34.562	4.407	4.328	27.403	0.0	40.6	83.8	71.0	-9.9	2	1573.0	9	2369	7.4498	-9.9	



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	49 185 53	OPS NO. DATE	920970646 6-Apr-92	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
18524	0.6	34.444	34.461	28.229	28.229	21.904	0.0	3	0.0	3	0.0	3	197.4	3	1913.7	3	246.7	3	2272	8.1411	-9.9
18523	11.3	34.444	34.447	28.225	28.228	21.905	0.0	3	0.0	3	0.0	3	197.3	3	1913.5	3	244.6	3	2280	8.1408	-9.9
18522	19.7	34.446	34.447	28.226	28.231	21.906	0.0	3	0.0	3	0.0	3	197.2	3	1913.1	3	241.8	3	2268	8.1404	-9.9
18521	40.0	34.465	34.465	28.177	28.186	21.937	0.0	3	0.0	3	0.0	3	197.1	3	1915.0	3	413.5	3	2279	8.1397	-9.9
18520	78.2	34.994	35.034	23.779	23.795	23.704	0.0	3	-9.9	9	3.8	3	124.9	3	2048.5	3	414.2	3	2302	7.9515	-9.9
18519	98.3	34.914	34.913	21.488	21.488	24.301	0.0	3	8.5	3	4.6	3	141.9	3	2049.0	3	459.0	3	2296	7.9439	-9.9
18518	121.1	34.864	34.854	19.928	19.906	24.684	0.0	3	9.9	3	6.5	3	140.8	3	2062.3	3	458.9	3	2293	7.9142	-9.9
18517	139.0	34.753	34.775	17.116	17.093	25.304	0.0	3	13.4	3	9.4	3	131.6	3	2091.2	3	653.0	3	2308	7.8505	-9.9
18516	157.5	34.667	34.662	14.859	14.835	25.752	0.0	3	16.3	3	17.7	3	122.7	3	2121.0	3	652.6	3	2290	7.7803	-9.9
18515	177.0	34.600	34.595	12.547	12.523	26.178	0.0	3	25.1	3	25.2	3	79.6	3	2180.2	3	1277.2	3	2306	7.6329	-9.9
18514	195.2	34.633	34.626	11.318	11.294	26.437	0.0	3	31.1	3	28.7	3	39.3	3	2226.0	3	1298.7	3	2295	7.5166	-9.9
18513	245.3	34.661	34.653	9.647	9.619	26.752	0.0	3	32.3	3	32.7	3	58.7	3	2234.7	3	1325.1	3	2304	7.5226	-9.9
18512	291.7	34.652	34.645	9.186	9.154	26.821	0.0	3	33.6	3	40.6	3	56.7	3	2239.4	3	1342.5	3	2306	7.5090	-9.9
18511	401.3	34.623	34.615	8.321	8.279	26.936	0.0	3	33.4	3	41.8	3	63.2	3	2245.4	3	1544.8	3	2318	7.5031	-9.9
18510	615.4	34.573	34.565	6.788	6.788	27.112	0.0	3	38.4	3	52.8	3	57.7	3	2273.3	3	1537.0	3	2321	7.4528	-9.9
18509	615.4	34.573	34.565	6.846	6.846	27.112	0.0	3	38.3	3	61.5	3	64.9	3	2274.4	3	1563.9	3	2340	7.4524	-9.9
18508	801.0	34.550	34.543	5.556	5.487	27.261	0.0	3	39.1	3	86.9	3	71.2	3	2292.4	3	1553.1	3	2338	7.4505	-9.9
18507	999.8	34.564	34.557	4.471	4.392	27.398	0.0	3	38.7	3	96.1	3	83.9	3	2311.5	3	1554.1	3	2369	7.4567	-9.9
18506	1498.0	34.609	34.603	3.064	2.955	27.577	0.0	3	39.8	3	122.5	3	104.0	3	2342.3	3	1571.0	3	2410	7.4686	-9.9
18505	2006.1	34.646	34.640	2.238	2.097	27.680	0.0	3	39.2	3	152.6	3	130.6	3	2350.0	3	1283.2	3	2418	7.5029	-9.9
18504	2987.8	34.676	34.673	1.677	1.457	27.753	0.0	3	37.4	3	134.2	3	170.8	3	2341.7	3	1262.0	3	2454	7.5593	-9.9
18503	4002.8	34.698	34.693	1.329	1.014	27.802	0.0	3	35.4	3	138.3	3	185.6	3	2307.5	3	1091.9	3	2415	7.5980	-9.9
18502	4504.5	34.705	34.703	1.242	0.874	27.817	0.0	3	33.5	3	127.4	3	-9.9	3	2290.9	3	1034.6	3	2397	7.6100	-9.9
18501	5302.9	34.705	34.703	1.295	0.830	27.819	0.0	3	33.4	3	143.8	3	-9.9	3	2284.9	3	-9.9	9	2398	7.6112	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION 50 190 54	OFS NO. DATE	920971937 6-Apr-92	LATTITUDE LONGITUDE	3° 59.9 N 170° 0.3 W	Potential		NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC µmol/kg	fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg		
						Temp °C	Temp °C				QC	QC		QC	QC					
19024	1.9	34.649	34.654	28.689	28.689	0.0	0.0	0.0	0.0	0.0	3	195.4	3	1925.4	3	242.5	3	2290	8.1346	-9.9
19023	9.2	34.649	34.652	28.687	28.685	0.0	0.0	0.0	0.0	0.0	3	195.6	3	1926.0	3	244.7	3	2289	8.1371	-9.9
19022	19.7	34.649	34.671	28.690	28.685	0.0	0.0	0.0	0.0	0.0	3	195.5	3	1926.0	3	242.4	3	2284	8.1380	-9.9
19021	39.0	34.652	34.653	28.688	28.679	0.0	0.0	0.0	0.0	0.0	3	195.4	3	1926.0	3	245.4	3	2290	8.1383	-9.9
19020	48.6	34.654	34.656	28.678	28.666	0.0	0.0	0.0	0.0	0.0	3	195.1	3	1926.2	3	249.9	3	2281	8.1373	-9.9
19019	58.1	34.630	34.634	28.431	28.417	0.0	0.0	0.0	0.0	0.0	3	193.8	3	1927.1	3	246.6	3	2292	8.1328	-9.9
19018	78.2	35.089	35.089	25.098	25.081	0.4	7.7	3.5	3.5	5.4	3	131.2	3	2035.3	3	383.8	3	2310	7.9795	-9.9
19017	88.9	35.090	35.089	24.362	24.343	0.0	8.6	3.5	8.6	5.4	3	128.6	3	2042.8	3	385.7	3	2303	7.9643	-9.9
19016	97.6	35.065	35.067	23.763	23.743	0.0	8.7	4.2	8.7	4.2	3	130.8	3	2045.5	3	404.1	3	2306	7.9588	-9.9
19015	108.5	35.008	35.008	22.920	22.898	0.0	8.5	4.4	8.5	4.4	3	134.2	3	2047.0	3	406.8	3	2309	7.9569	-9.9
19014	117.6	34.981	34.979	21.968	21.945	0.0	9.0	5.6	9.0	5.6	3	135.0	3	2068.0	3	430.8	3	2303	7.9421	-9.9
19013	128.5	34.886	34.886	19.983	19.959	0.0	9.7	7.6	9.7	7.6	3	135.7	3	2082.4	3	433.8	3	2303	7.9039	-9.9
19012	138.1	34.820	34.817	18.372	18.348	0.0	10.6	9.9	10.6	9.9	3	134.5	3	2101.8	3	515.6	3	2308	7.8789	-9.9
19011	146.2	34.722	34.721	16.028	16.005	0.0	14.4	14.8	14.4	14.8	3	133.6	3	2115.6	3	518.0	3	2300	7.8266	-9.9
19010	159.2	34.689	34.680	15.011	14.987	0.0	16.0	15.5	16.0	15.5	3	128.3	3	2115.2	3	634.1	3	2292	7.7949	-9.9
19009	177.8	34.579	34.578	12.246	12.223	0.0	22.2	24.8	22.2	24.8	3	106.5	3	-9.9	9	634.4	3	2299	-9.9999	-9.9
19008	177.8	34.579	34.578	12.246	12.223	0.0	22.0	26.6	22.0	26.6	3	96.1	3	2162.2	3	844.7	3	2294	7.6868	-9.9
19007	196.7	34.581	34.581	11.628	11.603	0.0	24.1	26.0	24.1	26.0	3	73.3	3	2178.3	3	849.0	3	2308	7.6609	-9.9
19006	253.1	34.645	34.642	10.001	9.972	0.0	29.7	36.9	29.7	36.9	3	-9.9	9	2217.9	3	1156.8	3	2315	7.5667	-9.9
19005	303.7	34.646	34.646	9.445	9.411	0.0	30.8	36.0	30.8	36.0	3	63.1	3	2222.2	3	1176.0	3	2307	7.5558	-9.9
19004	402.4	34.634	34.633	8.739	8.696	0.0	33.4	38.5	33.4	38.5	3	-9.9	9	2239.8	3	1332.1	3	2325	7.5106	-9.9
19003	804.0	34.549	34.548	5.587	5.517	0.0	38.8	75.7	38.8	75.7	3	68.8	3	2286.1	3	1354.4	3	2339	7.4647	-9.9
19002	804.0	34.549	34.548	5.587	5.517	0.0	39.3	-9.9	39.3	-9.9	9	-9.9	9	2287.5	3	1511.9	3	2378	7.4663	-9.9
19001	1002.1	34.558	34.558	4.540	4.460	0.0	39.3	96.5	39.3	96.5	3	75.8	3	2306.7	3	1525.1	3	2350	7.4701	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	51 191 55	OPS NO. DATE	920980136 7-Apr-92	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Pressure db	Salinity CTD	Salinity Bottle	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg	
19124	1.9	34.548	34.520	29.147	29.147	34.548	34.520	29.147	34.548	34.520	0.0	0.0	2	0.0	2	196.9	2	1917.3	3	245.5	2	2284	8.1368	-9.9
19123	8.8	34.668	34.660	29.185	29.187	34.668	34.660	29.185	34.668	34.660	0.0	0.0	2	0.0	2	197.3	2	1928.1	3	244.6	2	2285	8.1359	-9.9
19122	18.8	34.768	34.764	29.087	29.092	34.768	34.764	29.087	34.768	34.764	0.4	0.8	2	0.0	2	197.7	2	1931.4	3	242.3	2	2343	8.1405	-9.9
19121	38.9	34.919	34.906	28.902	28.911	34.919	34.906	28.902	34.919	34.906	0.6	0.6	2	0.0	2	194.7	2	1945.2	3	257.8	2	2300	8.1287	-9.9
19120	48.7	34.964	34.957	28.809	28.821	34.964	34.957	28.809	34.964	34.957	0.9	2.2	2	2.0	2	192.1	2	1946.4	3	255.9	2	2305	8.1211	-9.9
19119	57.7	35.005	35.002	28.763	28.749	35.005	35.002	28.763	35.005	35.002	0.5	6.0	3	2.1	2	189.1	2	1949.9	3	367.6	2	2306	8.1158	-9.9
19118	78.1	35.068	35.069	26.102	26.085	35.068	35.069	26.102	35.068	35.069	0.1	8.1	2	2.4	2	134.4	2	1954.8	3	368.7	2	2303	7.9789	-9.9
19117	87.9	35.021	35.022	25.332	25.351	35.021	35.022	25.332	35.021	35.022	0.1	8.1	2	5.4	2	129.5	2	2023.0	3	407.0	2	2304	7.9790	-9.9
19116	99.1	35.030	35.026	24.158	24.137	35.030	35.026	24.158	35.030	35.026	0.0	8.0	2	4.7	2	126.6	2	2028.8	3	406.2	2	2306	7.9580	-9.9
19115	109.3	34.949	34.950	22.399	22.377	34.949	34.950	22.399	34.949	34.950	0.0	9.2	2	8.1	2	127.9	2	2041.6	3	444.5	2	2298	7.9327	-9.9
19114	116.1	34.927	34.924	21.942	21.919	34.927	34.924	21.942	34.927	34.924	0.2	10.1	2	15.1	2	128.5	2	2052.1	3	443.4	2	2299	7.9266	-9.9
19113	127.2	34.833	34.833	18.844	18.821	34.833	34.833	18.844	34.833	34.833	0.5	12.3	2	18.0	2	132.8	2	2055.4	3	573.8	2	2301	7.8825	-9.9
19112	138.2	34.731	34.732	16.109	16.109	34.731	34.732	16.109	34.731	34.732	0.0	12.3	2	19.7	2	132.7	2	2099.3	2	575.8	2	2292	7.8310	-9.9
19111	148.1	34.655	34.658	14.046	14.025	34.655	34.658	14.046	34.655	34.658	0.0	14.5	2	19.4	3	136.1	2	2115.1	2	671.7	2	2294	7.7965	-9.9
19110	161.6	34.652	34.646	13.053	13.031	34.652	34.646	13.053	34.652	34.646	0.0	15.6	2	22.4	2	134.9	2	2127.4	2	668.8	2	2299	7.7713	-9.9
19109	178.2	34.747	34.742	12.198	12.175	34.747	34.742	12.198	34.747	34.742	0.0	21.8	2	28.3	3	123.6	2	2155.7	2	786.4	2	2299	7.7229	-9.9
19108	197.4	34.789	34.786	11.914	11.888	34.789	34.786	11.914	34.789	34.786	0.0	25.8	3	25.3	3	118.2	2	2163.1	2	800.1	2	2316	7.7075	-9.9
19107	250.3	34.774	34.770	10.999	10.968	34.774	34.770	10.999	34.774	34.770	0.0	26.3	2	28.7	2	78.0	2	2204.6	2	1052.7	2	2308	7.6009	-9.9
19106	250.3	34.774	34.770	10.999	10.968	34.774	34.770	10.999	34.774	34.770	0.0	31.2	3	58.8	3	72.7	2	2204.8	2	1059.1	2	2308	7.6007	-9.9
19105	302.4	34.750	34.745	10.558	10.522	34.750	34.745	10.558	34.750	34.745	0.0	31.6	3	67.6	3	-9.9	9	2213.9	3	1418.0	3	2318	7.5793	-9.9
19104	603.6	34.580	34.577	7.019	6.961	34.580	34.577	7.019	34.580	34.577	0.0	36.1	2	-9.9	9	42.9	2	2278.1	2	1648.5	2	2324	7.4308	-9.9
19103	801.1	34.549	34.545	5.666	5.596	34.549	34.545	5.666	34.549	34.545	-9.9	-9.9	9	-9.9	9	71.8	2	2278.9	2	1515.1	2	2353	7.4662	-9.9
19102	1003.2	34.557	34.556	4.486	4.486	34.557	34.556	4.486	34.557	34.556	-9.9	-9.9	9	-9.9	9	73.9	2	2308.1	2	1550.5	2	2360	7.4583	-9.9
19101	1004.9	34.557	34.552	4.467	4.467	34.557	34.552	4.467	34.557	34.552	0.0	41.7	2	94.7	3	73.4	2	2309.2	2	1546.3	2	2375	7.4583	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	52	OPS NO.	920980858	LATITUDE	1° 59.7 N																
CAST	193	DATE	7-Apr-92	LONGITUDE	170° 2.3 W																
CTD	56																				
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
19324	1.9	34.641	34.648	29.225	29.225	21.722	0.0	2	0.0	3	0.0	3	196.8	2	1917.5	2	790.7	3	2283	8.1469	-9.9
19323	8.1	34.640	34.647	29.221	29.219	21.723	0.0	2	0.0	3	0.0	3	196.6	2	1923.1	2	236.7	3	2290	8.1496	-9.9
19322	19.5	34.672	34.672	28.162	29.157	21.768	0.0	2	0.0	3	0.0	3	197.9	2	1925.8	2	239.6	3	2283	8.1470	-9.9
19321	40.4	35.013	34.997	28.830	28.820	22.136	0.0	2	1.1	3	0.0	3	196.7	2	1959.3	2	258.7	3	2309	8.1203	-9.9
19320	51.1	35.075	35.081	28.740	28.728	22.213	0.6	2	1.6	3	0.0	3	182.5	2	1966.5	2	270.8	3	2317	8.1045	-9.9
19319	57.7	35.091	35.085	28.716	28.702	22.234	0.5	2	1.7	3	0.0	3	180.8	2	1974.2	2	275.6	3	2310	8.1001	-9.9
19318	78.2	35.122	35.124	25.982	25.965	23.138	0.0	2	6.5	3	2.1	3	156.2	2	2021.1	2	326.0	3	2313	8.0204	-9.9
19317	87.4	35.113	35.113	25.539	25.520	23.269	0.0	2	6.5	3	2.8	3	155.7	2	2020.3	2	345.9	3	2312	8.0220	-9.9
19316	100.1	35.124	35.124	23.831	23.810	23.793	0.0	2	7.9	3	4.1	3	148.1	2	2039.4	2	368.2	3	2312	7.9873	-9.9
19315	108.7	35.058	35.071	22.386	22.364	24.161	0.0	2	10.3	3	6.5	3	134.3	2	2063.1	2	433.2	3	2309	7.9399	-9.9
19314	117.0	34.949	34.959	20.978	20.956	24.469	0.0	2	10.6	3	8.4	3	130.8	2	2067.3	2	448.1	3	2308	7.9222	-9.9
19313	128.5	34.865	34.863	18.940	18.917	24.940	0.0	2	11.5	3	11.9	3	131.2	2	2081.9	2	502.8	3	2300	7.8936	-9.9
19312	137.5	34.849	34.849	17.819	17.796	25.208	0.0	2	12.2	3	12.2	3	132.1	2	2088.7	2	513.4	3	2297	7.8705	-9.9
19311	147.4	34.777	34.777	16.659	16.635	25.430	0.0	2	13.1	3	16.6	3	131.4	2	2099.9	2	566.1	3	2308	7.8387	-9.9
19310	158.2	34.701	34.703	14.520	14.497	25.851	0.0	2	15.3	3	24.0	3	132.5	2	2118.6	2	595.3	3	2302	7.7985	-9.9
19309	176.7	34.722	34.722	12.624	12.600	26.257	0.0	2	19.0	3	-9.9	3	126.3	2	2149.4	2	736.4	3	2301	7.7393	-9.9
19308	197.1	34.758	34.758	11.864	11.839	26.432	0.0	2	20.9	3	37.4	3	120.8	2	2163.5	2	760.4	3	2297	7.7188	-9.9
19307	253.6	34.807	34.810	11.452	11.420	26.549	0.0	2	26.4	3	40.3	3	77.9	2	2201.2	2	1019.2	3	2319	7.6229	-9.9
19306	303.4	34.768	34.769	10.909	10.872	26.618	0.0	2	29.2	3	39.6	3	61.0	2	2219.7	2	1059.7	3	2311	7.5679	-9.9
19305	303.4	34.768	34.769	10.909	10.872	26.618	0.0	2	30.2	3	35.9	3	-9.9	2	2219.0	2	1152.6	3	2310	7.5803	-9.9
19304	603.5	34.566	34.569	6.750	6.693	27.119	0.0	2	34.2	3	63.8	3	59.4	2	2271.7	2	1284.9	3	2343	7.4699	-9.9
19303	805.2	34.543	34.548	5.364	5.296	27.278	0.0	2	38.7	3	82.3	3	77.0	2	2286.1	2	1475.9	3	2347	7.4789	-9.9
19302	805.2	34.543	34.547	5.364	5.296	27.278	0.0	2	37.9	3	97.1	3	-9.9	2	2286.1	2	1485.4	3	2344	7.4788	-9.9
19301	999.4	34.552	34.559	4.477	4.398	27.388	0.0	2	39.7	3	109.4	3	92.4	2	2299.7	2	1471.0	3	2362	7.4941	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	53	OPS NO.	920982018	LATITUDE	1° 0.2 N														
CAST	199	DATE	7-Apr-92	LONGITUDE	170° 1.9 W														
CTD	57																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
19924	9.1	34.554	34.567	29.305	29.303	21.630	0.0	0.0	2	0.0	205.4	2	1913.2	2	233.8	2	2272	8.1515	-9.9
19923	19.0	34.564	34.564	29.295	29.290	21.642	0.0	0.0	2	0.0	196.3	2	1912.7	2	236.3	2	2287	8.1500	-9.9
19922	38.8	34.650	34.653	29.063	29.054	21.786	0.0	0.0	2	0.0	196.4	2	1911.8	3	233.7	2	2283	8.1507	-9.9
19921	50.0	34.805	34.804	28.969	28.957	21.934	0.0	0.0	2	0.0	-9.9	9	1920.9	3	238.0	2	2293	8.1447	-9.9
19920	50.0	34.805	34.803	28.969	28.957	21.934	0.0	0.0	2	0.0	196.6	2	1934.3	3	241.6	2	2290	8.1377	-9.9
19919	58.5	35.024	35.010	28.797	28.783	22.157	0.0	1.6	2	0.5	185.9	2	1960.3	3	265.0	2	2305	8.1102	-9.9
19918	77.4	35.129	35.129	27.588	27.570	22.634	0.0	5.0	2	3.6	168.1	2	1994.1	3	274.9	2	2309	8.0608	-9.9
19917	89.3	35.171	35.172	23.661	23.642	23.878	0.0	9.4	2	3.3	146.4	2	2045.7	3	392.1	2	2317	7.9734	-9.9
19916	98.4	35.175	35.180	22.991	22.971	24.076	0.0	9.6	2	3.3	144.8	2	2051.6	3	396.6	2	2319	7.9646	-9.9
19915	108.4	35.178	35.178	21.916	21.895	24.384	0.0	10.6	2	5.5	139.9	2	2064.4	3	-9.9	9	2321	7.9425	-9.9
19914	116.5	35.185	35.185	20.874	20.852	24.676	0.0	11.5	2	5.2	135.7	2	2074.9	3	453.4	9	2312	7.9225	-9.9
19913	127.5	35.159	35.164	20.060	20.036	24.875	0.0	11.5	2	6.0	133.4	2	2083.8	3	-9.9	9	2317	7.9036	-9.9
19912	138.1	35.123	35.126	19.275	19.250	25.052	0.0	13.7	2	8.1	133.5	2	2087.4	3	464.4	2	2322	7.8934	-9.9
19911	147.5	35.098	35.101	18.510	18.484	25.228	0.0	12.4	2	6.9	134.9	2	2092.6	2	-9.9	9	2312	7.8833	-9.9
19910	158.7	35.071	35.070	17.876	17.849	25.365	0.0	12.3	2	6.5	136.2	2	2096.0	2	523.6	2	2310	7.8715	-9.9
19909	176.3	34.947	34.975	16.168	16.140	25.676	0.0	14.4	2	10.9	137.2	2	2103.3	2	-9.9	9	2313	7.8499	-9.9
19908	176.3	34.947	34.970	16.168	16.140	25.676	0.0	14.4	2	10.9	136.4	2	2103.2	2	543.0	2	2309	7.8488	-9.9
19907	197.8	34.795	34.795	14.281	14.252	25.976	0.0	14.2	2	13.5	102.8	2	2121.7	2	-9.9	9	2310	7.7984	-9.9
19906	252.3	34.856	34.855	12.098	12.065	26.465	0.0	17.4	2	20.5	50.0	2	2175.1	2	-9.9	9	2322	7.6839	-9.9
19905	302.1	34.809	34.807	11.335	11.297	26.573	0.0	25.3	3	25.3	2	2221.7	2	-9.9	9	2307	7.5487	-9.9	
19904	401.7	34.733	34.733	10.068	10.021	26.740	0.0	32.7	2	31.4	2	2235.2	2	1318.1	2	2307	7.5100	-9.9	
19903	802.6	34.544	34.545	5.434	5.366	27.271	-9.9	-9.9	9	-9.9	9	2274.5	2	1327.7	3	2347	7.4929	-9.9	
19902	802.6	34.544	34.546	5.434	5.366	27.271	0.0	40.1	2	67.3	4	2273.4	2	-9.9	9	2341	7.4918	-9.9	
19901	1004.8	34.555	34.557	4.543	4.463	27.383	0.0	40.8	2	98.2	3	2298.2	2	-9.9	9	2370	7.4749	-9.9	

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STATION CAST CTD	Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg	LATTITUDE 0° 29.5 N		LONGITUDE 170° 0.6 W	
																						OPS NO. DATE	QC	QC	QC
20124	2.3	34.356	34.157	29.418	29.417	21.443	0.0	0.0	0.0	0.0	2	0.0	2	197.8	2	1890.3	2	235.7	2	2259	8.1529	-9.9			
20123	9.7	34.447	34.434	29.385	29.383	21.523	0.0	0.0	0.0	0.0	2	0.0	2	195.3	2	1905.5	2	-9.9	9	2273	8.1515	-9.9			
20122	18.7	34.561	34.569	29.328	29.323	21.629	0.0	0.0	0.0	0.0	2	0.0	2	197.1	2	1910.8	2	231.1	2	2286	8.1503	-9.9			
20121	38.6	34.686	34.674	29.154	29.145	21.782	0.0	0.0	0.0	0.0	2	0.0	2	197.9	2	1920.7	2	245.2	2	2293	8.1453	-9.9			
20120	48.7	34.747	34.746	29.033	29.021	21.869	0.0	0.0	0.0	0.0	2	0.0	2	196.7	2	1927.0	2	-9.9	9	2286	8.1415	-9.9			
20119	56.5	34.807	34.807	29.009	28.995	21.923	0.0	0.0	0.0	0.0	2	0.0	2	195.4	2	1932.2	2	244.4	2	2301	8.1367	-9.9			
20118	77.0	35.179	35.180	24.554	24.538	23.618	0.3	6.6	2	1.5	2	15.2	2	156.1	2	2030.1	2	420.2	2	2321	8.0020	-9.9			
20117	88.6	35.214	35.218	22.029	22.011	24.379	0.0	10.0	2	3.8	2	10.0	2	140.8	2	2064.4	2	-9.9	9	2317	7.9450	-9.9			
20116	100.0	35.229	-9.999	20.777	20.758	24.735	0.0	9.8	2	4.1	2	9.8	2	136.4	2	2074.8	2	450.8	2	2320	7.9208	-9.9			
20115	104.5	35.232	35.189	20.762	20.742	24.742	0.0	9.6	2	3.9	2	9.6	2	132.3	2	2080.3	2	-9.9	9	2329	7.9149	-9.9			
20114	104.5	35.232	35.237	20.762	20.742	24.742	0.0	9.6	2	3.9	2	9.6	2	134.4	2	2083.8	2	495.6	2	2317	7.9035	-9.9			
20113	116.2	35.192	35.193	19.966	19.945	24.924	0.0	11.4	2	5.0	2	11.4	2	136.5	2	2090.0	2	-9.9	9	2316	7.8848	-9.9			
20112	128.3	35.112	35.116	18.672	18.649	25.197	0.0	12.7	2	5.4	2	12.7	2	138.0	2	2092.0	2	507.4	2	2321	7.8785	-9.9			
20111	136.7	35.076	35.083	18.068	18.044	25.320	0.0	12.5	2	8.0	2	12.5	2	138.5	2	2100.5	2	-9.9	9	2312	7.8601	-9.9			
20110	147.6	35.037	35.037	16.820	16.796	25.592	0.0	12.9	2	7.6	2	12.9	2	139.5	2	2103.2	2	572.5	2	2312	7.8603	-9.9			
20109	159.6	34.961	34.968	16.230	16.205	25.672	0.0	13.6	2	8.6	2	13.6	2	137.8	2	2118.2	2	-9.9	9	2321	7.8470	-9.9			
20108	179.2	34.946	34.946	14.938	14.911	25.951	0.0	15.4	2	13.1	2	15.4	2	111.0	2	2123.8	2	595.3	2	2309	7.8193	-9.9			
20107	194.4	34.888	34.891	14.367	14.338	26.030	0.0	16.0	2	13.5	2	16.0	2	49.8	2	2166.8	2	-9.9	9	2311	7.8029	-9.9			
20106	254.1	34.867	34.867	12.258	12.224	26.443	0.0	23.0	2	17.0	2	23.0	2	41.5	2	2223.2	2	1119.7	2	2312	7.7068	-9.9			
20105	302.1	34.786	34.790	11.123	11.085	26.594	0.0	30.9	2	23.0	2	30.9	2	-9.9	9	2241.8	2	-9.9	9	2311	7.5461	-9.9			
20104	402.3	34.725	34.725	9.940	9.893	26.756	0.0	38.6	2	75.6	2	38.6	2	85.0	2	2277.6	2	1389.1	2	2307	7.4948	-9.9			
20103	804.0	34.543	34.546	5.370	5.302	27.278	0.0	38.6	2	75.6	2	38.6	2	-9.9	9	2277.6	2	-9.9	9	2341	7.4873	-9.9			
20102	804.0	34.543	34.546	5.370	5.302	27.278	0.0	38.6	2	75.6	2	38.6	2	-9.9	9	2278.0	2	-9.9	9	2354	7.4857	-9.9			
20101	1005.3	34.553	34.557	4.478	4.398	27.388	0.0	39.7	2	79.8	2	39.7	2	87.5	2	2299.3	2	1414.2	2	2364	7.4788	-9.9			

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STATION	55	OPS NO.	920991130	LATITUDE	0° 14.8 N															
CAST	202	DATE	8-Mar-92	LONGITUDE	170° 1 W															
CTD	59																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
20224	1.6	34.209	-9.999	29.331	29.331	21.362	-9.9	9	-9.9	9	-9.9	195.5	9	1885.5	2	229.9	2	2259	8.1538	-9.9
20223	9.7	34.142	34.166	29.301	29.299	21.323	0.0	2	0.0	2	0.0	195.5	2	1890.2	2	230.3	2	2260	8.1537	-9.9
20222	19.3	34.568	34.570	29.188	29.183	21.681	0.0	2	0.0	2	0.0	197.9	2	1912.6	2	-9.9	9	2279	8.1496	-9.9
20221	38.7	34.739	34.745	29.026	29.017	21.865	0.0	2	0.0	2	0.0	195.6	2	1928.2	2	239.5	2	2301	8.1413	-9.9
20220	48.6	34.854	34.859	28.964	28.952	21.973	0.0	2	0.0	2	0.0	194.8	2	1934.8	2	-9.9	9	2292	8.1361	-9.9
20219	57.7	34.906	34.909	28.962	28.948	22.013	0.0	2	0.6	2	0.0	191.8	2	1944.9	2	250.8	2	2315	8.1294	-9.9
20218	78.7	35.212	35.213	22.450	22.434	24.258	0.2	2	9.4	2	3.6	143.4	2	2058.6	2	-9.9	9	2323	7.9590	-9.9
20217	88.9	35.262	35.259	21.008	20.991	24.697	0.0	2	11.6	2	3.8	132.3	2	2081.5	2	372.5	2	2320	7.9193	-9.9
20216	99.0	35.227	35.231	20.563	20.544	24.791	0.0	2	11.7	2	3.5	132.1	2	2080.9	2	-9.9	9	2320	7.9145	-9.9
20215	108.4	35.218	35.222	19.979	19.959	24.940	0.0	2	12.0	2	5.3	131.6	2	2087.7	2	476.8	2	2329	7.9047	-9.9
20214	118.8	35.135	35.140	18.918	18.897	25.152	0.0	2	13.0	2	5.9	133.9	2	2090.9	2	-9.9	9	2313	7.8907	-9.9
20213	127.9	35.117	35.123	18.780	18.757	25.173	0.0	2	12.5	2	5.3	133.7	2	2089.5	2	489.4	2	2324	7.8878	-9.9
20212	137.7	35.154	35.160	18.496	18.472	25.274	0.0	2	12.4	2	5.3	136.1	2	2093.6	2	-9.9	9	2314	7.8877	-9.9
20211	146.7	35.186	35.186	18.022	17.997	25.416	0.0	2	12.1	2	6.6	136.3	2	2100.1	2	513.0	2	2320	7.8784	-9.9
20210	146.7	35.186	35.185	18.022	17.997	25.416	0.0	2	13.0	2	6.3	139.4	2	2100.6	2	515.9	2	2327	7.8796	-9.9
20209	159.8	34.948	35.047	15.464	15.439	25.835	0.0	2	16.2	2	8.5	139.6	2	2116.0	2	-9.9	9	2323	7.8321	-9.9
20208	177.0	35.050	35.046	15.498	15.471	25.907	0.0	2	15.6	2	7.3	135.1	2	2119.5	2	585.9	2	2326	7.8323	-9.9
20207	196.4	34.868	34.868	13.626	13.598	26.169	0.0	2	18.3	2	12.4	110.3	2	2131.4	2	-9.9	9	2309	7.7868	-9.9
20206	252.7	34.876	34.878	12.332	12.298	26.436	0.0	2	23.7	2	16.8	47.4	2	2170.2	2	717.3	2	2312	7.7068	-9.9
20205	303.1	34.791	34.791	11.179	11.141	26.588	0.0	2	32.4	2	22.9	49.2	2	2224.4	2	-9.9	9	2311	7.5441	-9.9
20204	403.4	34.689	34.689	9.434	9.389	26.812	0.0	2	35.7	2	26.2	-9.9	9	2240.1	2	1363.6	2	2311	7.4996	-9.9
20203	803.7	34.544	34.546	5.292	5.224	27.288	0.0	2	39.8	2	56.2	81.1	2	2280.0	2	-9.9	9	2345	7.4801	-9.9
20202	1021.1	34.553	34.558	4.431	4.350	27.394	0.0	2	41.3	2	84.6	86.0	2	2299.2	2	-9.9	9	2349	7.4803	-9.9
20201	1021.1	34.553	34.557	4.431	4.350	27.394	0.0	2	41.2	2	75.3	93.5	3	2297.0	2	1366.2	2	2362	7.4810	-9.9

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STATION	56	OPS NO.	920991655	LATITUDE	0° 2 S																	
CAST	204	DATE	8-Mar-92	LONGITUDE	170° 5.2 W																	
CTD	60																					
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C pamt	QC	TAlk μmol/kg	QC	pH	TOC μmol/kg
20424	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	9	-9.9999	-9.9
20423	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	9	-9.9999	-9.9
20422	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	9	-9.9999	-9.9
20421	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	9	-9.9999	-9.9
20420	2.7	34.398	34.398	29.249	29.248	21.531	0.0	2	0.0	2	0.0	2	144.6	2	-9.9	9	233.0	D	-9	D	8.1503	-9.9
20419	11.0	34.433	34.414	29.243	29.240	21.560	0.0	2	0.0	2	0.0	2	132.8	2	-9.9	9	233.0	D	-9	D	8.1497	-9.9
20418	21.6	34.629	34.627	29.018	29.013	21.784	0.0	2	0.0	2	0.0	2	133.9	2	-9.9	9	243.0	D	-9	D	8.1437	-9.9
20417	40.1	34.842	34.842	29.006	29.006	21.949	0.0	2	0.5	2	0.0	2	134.7	3	-9.9	9	238.0	D	-9	D	8.1364	-9.9
20416	79.1	35.231	35.235	22.980	22.964	24.121	0.2	2	9.0	2	3.4	2	135.9	2	-9.9	9	404.0	D	-9	D	7.9623	-9.9
20415	101.1	35.241	35.242	20.546	20.527	24.807	0.0	2	11.0	2	5.2	2	139.7	2	-9.9	9	470.0	D	-9	D	7.9137	-9.9
20414	118.8	35.228	35.214	19.362	19.341	25.109	0.0	2	11.6	2	4.6	3	137.4	2	-9.9	9	489.0	D	-9	D	7.8981	-9.9
20413	136.5	35.163	35.163	18.918	18.894	25.174	0.0	2	11.6	2	7.2	2	114.5	3	-9.9	9	492.0	D	-9	D	7.8902	-9.9
20412	157.6	35.224	35.217	18.021	17.994	25.446	0.0	2	12.4	2	5.9	2	47.2	3	-9.9	9	516.0	D	-9	D	7.8749	-9.9
20411	176.8	35.021	35.022	15.563	15.536	25.870	0.0	2	15.1	2	-9.9	9	47.2	3	-9.9	9	577.0	D	2316	D	7.8329	-9.9
20410	176.8	35.021	35.021	15.563	15.536	25.870	0.0	2	14.9	2	-9.9	9	73.1	3	-9.9	9	617.0	3	2316	3	7.8290	-9.9
20409	196.0	34.956	34.966	14.539	14.510	26.045	0.0	2	16.6	2	-9.9	9	-9.9	9	-9.9	9	581.0	D	2310	D	7.8074	-9.9
20408	245.0	34.899	34.899	12.485	12.452	26.424	0.0	2	21.9	2	-9.9	9	-9.9	9	-9.9	5	777.0	D	2313	D	7.7185	-9.9
20407	295.3	34.801	34.801	11.267	11.230	26.579	0.0	2	31.2	2	-9.9	9	-9.9	9	2217.9	2	1223.2	E	2314	E	7.5444	-9.9
20406	400.1	34.688	34.687	9.366	9.321	26.822	0.0	2	34.8	2	-9.9	9	-9.9	9	2236.9	2	1398.8	E	2308	E	7.4945	-9.9
20405	599.8	34.563	34.563	6.560	6.505	27.142	0.0	2	38.6	2	-9.9	9	138.0	2	2255.1	2	1442.2	2	2333	2	7.4659	-9.9
20404	3000.6	34.672	34.674	1.642	1.422	27.753	0.0	2	37.2	2	123.4	3	-9.9	9	2326.9	2	1226.2	E	2429	E	7.5584	-9.9
20403	4002.9	34.691	34.696	1.397	1.081	27.792	0.0	2	35.2	2	-9.9	9	165.5	2	2307.0	2	1111.5	2	2418	2	7.5973	-9.9
20402	5006.1	34.703	34.704	1.245	0.818	27.819	0.0	2	33.7	2	128.6	3	185.9	2	2281.9	2	1054.5	2	2418	2	7.6094	-9.9
20401	5224.9	34.702	34.708	1.268	0.814	27.818	0.0	2	33.6	2	120.6	3	192.5	2	2274.7	2	1062.8	2	2393	2	7.6115	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	56 209 61	OPS NO. DATE	921000319 9-Mar-92	LATITUDE LONGITUDE	0° 1.8 S 170° 7.5 W	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	QC	QC	QC	fCO2 @20° C µatm	TALK µmol/kg	pH	TOC µmol/kg
20924	3.0	34.407	34.431	29.455	29.454	21.469	0.0	0.0	0.0	0.0	195.3	1906.0	2	2	231.4	2272	8.1512	-9.9	
20923	10.9	34.412	34.450	29.372	29.369	21.501	0.0	0.0	0.0	0.0	196.0	1907.1	2	2	232.0	2280	8.1504	-9.9	
20922	21.8	34.579	34.635	29.070	29.065	21.729	0.0	0.0	0.0	0.0	199.0	1917.6	2	2	235.4	2294	8.1465	-9.9	
20921	40.3	34.730	34.854	29.020	29.010	21.860	0.0	0.3	0.0	0.0	197.0	1935.9	2	2	242.0	2298	8.1358	-9.9	
20920	50.1	34.873	34.999	29.057	29.045	21.956	0.0	0.6	0.0	0.0	196.7	1948.1	2	2	247.0	2305	8.1329	-9.9	
20919	57.1	34.954	35.087	29.012	28.998	22.032	0.1	1.1	0.0	0.0	189.0	1963.4	2	2	258.8	2319	8.1165	-9.9	
20918	79.5	35.212	35.243	24.022	24.005	23.802	0.0	10.5	2.7	0.0	139.2	2073.3	2	2	436.2	2329	7.9335	-9.9	
20917	91.0	35.242	35.236	21.553	21.535	24.533	0.0	11.0	5.3	0.0	134.3	2082.8	2	2	458.0	2320	7.9151	-9.9	
20916	100.8	35.225	35.219	20.572	20.553	24.787	0.0	11.2	6.0	0.0	133.6	2085.7	2	2	467.3	2321	7.9093	-9.9	
20915	108.0	35.212	35.193	19.809	19.789	24.980	0.0	11.7	4.6	0.0	133.7	2091.0	2	2	484.3	2328	7.8961	-9.9	
20914	118.9	35.170	35.178	19.209	19.188	25.104	0.0	11.7	6.2	0.0	134.1	2091.5	2	2	486.4	2315	7.8951	-9.9	
20913	127.2	35.166	35.190	18.992	18.969	25.157	0.0	11.8	5.9	0.0	135.3	2092.6	2	2	487.9	2324	7.8941	-9.9	
20912	127.2	35.166	35.166	18.992	18.969	25.157	0.0	12.0	5.0	0.0	136.8	2095.3	2	2	493.6	2320	7.8895	-9.9	
20911	140.2	35.167	35.182	18.599	18.574	25.258	0.0	12.6	7.6	0.0	138.7	2101.6	2	2	511.6	2318	7.8759	-9.9	
20910	147.3	35.154	35.147	17.845	17.820	25.435	0.0	12.6	6.5	0.0	139.5	2099.3	2	2	513.1	2323	7.8755	-9.9	
20909	161.9	34.984	34.981	15.548	15.523	25.844	0.0	15.0	8.9	0.0	139.4	2116.5	2	2	578.7	2312	7.8295	-9.9	
20908	176.3	35.035	35.027	15.529	15.502	25.888	0.0	15.4	10.9	0.0	136.2	2117.5	2	2	578.4	2314	7.8309	-9.9	
20907	198.1	34.919	34.912	14.329	14.300	26.062	0.0	17.9	12.1	0.0	116.1	2129.4	2	2	-9.9	2307	7.7958	-9.9	
20906	245.0	34.908	34.898	12.754	12.721	26.378	0.0	22.2	14.4	0.0	47.4	2164.4	2	2	775.2	2319	7.7204	-9.9	
20905	296.2	34.797	34.795	11.292	11.255	26.571	0.0	31.6	26.4	0.0	53.6	2227.1	2	2	1223.6	2306	7.5431	-9.9	
20904	396.0	34.707	34.697	9.699	9.654	26.782	0.0	34.4	28.6	0.0	-9.9	2240.4	2	2	1349.4	2314	7.5066	-9.9	
20903	797.3	34.549	34.547	5.556	5.487	27.260	0.0	39.2	64.6	0.0	78.7	2280.4	2	2	1459.0	2347	7.4792	-9.9	
20902	998.6	34.558	34.557	4.454	4.375	27.395	0.0	39.8	86.1	0.0	87.1	2301.4	2	2	-9.9	2363	7.4829	-9.9	
20901	999.0	34.558	34.556	4.450	4.371	27.395	-9.9	39.7	-9.9	0.0	88.8	2297.9	2	2	1441.7	2360	7.4824	-9.9	

# NOAA Equatorial Pacific Spring 1992

STATION 57 OPS NO. 921000837 LATITUDE 0° 14.8 S  
 CAST 210 DATE 9-Mar-92 LONGITUDE 169° 59.6 W  
 CTD 62

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	fCO2 @20° C		TALK μmol/kg	pH	TOC μmol/kg
													QC	μatm			
21024	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	195.6	9	-9.9	9	-9.9	-9	-9.9999	-9.9
21023	5.4	34.391	34.436	29.344	29.343	21.495	0.0	0.0	0.0	194.8	2	1906.5	2	234.4	2	2282	8.1511
21022	16.6	34.540	34.436	29.132	29.128	21.678	0.0	0.0	0.0	198.0	2	1906.8	2	237.0	2	2272	8.1516
21021	23.9	34.614	34.584	29.064	29.058	21.757	0.0	0.0	0.0	190.5	2	1915.8	2	233.1	2	2287	8.1484
21020	43.1	34.847	34.776	29.118	29.108	21.916	0.0	0.0	0.0	-9.9	2	1929.8	2	237.1	2	2292	8.1449
21019	82.0	35.234	35.235	22.407	22.391	24.287	0.2	8.4	4.2	134.0	2	2062.9	2	-9.9	9	2325	7.9526
21018	101.3	35.223	35.249	20.619	20.600	24.773	0.0	11.3	4.9	135.2	2	2082.1	2	456.7	2	2320	7.9182
21017	121.3	35.209	35.188	19.151	19.129	25.149	0.0	11.8	4.8	137.4	2	2090.8	2	-9.9	9	2327	7.8952
21016	141.4	35.134	35.109	18.173	18.149	25.339	0.0	12.7	7.1	137.6	2	2097.0	2	510.1	2	2314	7.8784
21015	165.8	35.071	35.135	15.655	15.629	25.887	0.0	15.4	9.6	136.9	2	2120.1	2	-9.9	9	2320	7.8368
21014	180.0	34.983	34.964	14.721	14.694	26.026	0.0	16.1	10.1	134.8	2	2128.7	2	618.8	2	2312	7.8047
21013	200.7	34.972	34.996	14.004	13.975	26.171	0.0	18.0	11.6	101.1	2	2139.4	2	645.7	2	2320	7.7881
21012	248.8	34.881	34.906	12.309	12.276	26.444	0.0	21.4	15.1	47.4	2	2163.9	2	-9.9	9	2350	7.7255
21011	299.9	34.796	34.803	11.164	11.127	26.594	0.0	30.8	21.1	2	2	2227.7	2	1216.1	2	2305	7.5465
21010	400.1	34.696	34.699	9.517	9.472	26.804	0.0	33.6	-9.9	68.9	2	2243.5	2	1350.4	2	2314	7.5064
21009	598.2	34.593	34.566	7.499	7.439	27.036	0.0	37.4	-9.9	79.2	3	2267.5	2	1455.3	2	2366	7.4762
21008	598.2	34.593	34.566	7.499	7.439	27.036	0.0	37.4	-9.9	87.5	3	2267.5	2	1455.6	2	2321	7.4775
21007	798.2	34.546	34.547	5.664	5.595	27.245	0.0	38.6	-9.9	99.6	2	2280.8	2	-9.9	9	2352	7.4787
21006	996.9	34.556	34.559	4.517	4.438	27.387	0.0	38.8	-9.9	-9.9	9	2111.1	3	1460.4	2	2374	7.4839
21005	1498.3	34.600	34.598	3.110	3.001	27.566	0.0	38.7	-9.9	138.7	2	2151.3	3	1414.3	2	2395	7.4989
21004	2999.6	34.672	34.673	1.688	1.467	27.749	0.0	36.9	135.2	-9.9	9	2239.5	3	-9.9	9	2432	7.5596
21003	3997.8	34.692	34.692	1.417	1.101	27.791	0.0	35.2	132.5	164.8	2	2313.8	3	1116.5	2	2416	7.5981
21002	3997.8	34.692	34.696	1.417	1.101	27.791	0.0	35.2	119.6	-9.9	9	2293.2	3	-9.9	9	2419	7.5972
21001	5003.6	34.704	34.704	1.250	0.824	27.819	0.0	33.3	109.7	192.0	2	2278.7	3	1059.2	2	2391	7.6114



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STATION	58	OPS NO.	921001830	LATITUDE	0° 30.6 S															
CAST	212	DATE	9-Mar-92	LONGITUDE	170° 0.9 W															
CTD	64																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	@20° C μatm	QC	Talk μmol/kg	pH	TOC μmol/kg
21224	3.1	34.396	34.391	29.261	29.260	21.526	0.0	0.0	2	0.0	2	195.4	2	1905.5	2	232.7	2	2274	8.1495	-9.9
21223	21.8	34.414	34.402	29.265	29.260	21.540	0.0	0.0	2	0.0	2	195.9	2	1906.1	2	235.5	2	-9	8.1499	-9.9
21222	30.3	34.513	34.549	29.193	29.186	21.639	0.0	0.0	2	0.0	2	198.5	2	1927.3	2	237.0	2	2276	8.1480	-9.9
21221	49.7	34.715	34.768	29.178	29.166	21.797	0.0	0.0	2	0.0	2	199.2	2	1946.1	2	-9.9	9	2273	8.1460	-9.9
21220	56.7	34.808	34.949	29.248	29.234	21.844	0.0	0.0	2	0.0	2	196.3	2	2064.6	2	412.0	2	2293	8.1361	-9.9
21219	78.5	35.253	35.257	23.064	23.048	24.113	0.0	9.7	2	2.2	2	142.4	2	2092.2	2	479.3	2	2301	7.9554	-9.9
21218	99.3	35.289	35.284	20.860	20.841	24.758	0.0	11.5	2	4.8	2	130.8	2	-9.9	9	-9.9	9	2327	7.9003	-9.9
21217	99.0	35.289	35.274	20.885	20.866	24.752	0.0	11.4	2	4.7	2	131.0	2	2092.7	2	-9.9	9	2322	7.9001	-9.9
21216	119.1	35.268	35.385	19.349	19.327	25.143	0.0	12.2	2	3.9	2	128.6	2	2107.2	2	503.1	2	2322	7.8849	-9.9
21215	127.7	35.411	35.246	19.554	19.531	25.200	0.0	12.5	2	4.5	2	134.7	2	2108.2	2	-9.9	9	2342	7.8720	-9.9
21214	139.0	35.266	35.167	18.316	18.292	25.404	0.0	14.1	2	5.9	2	137.9	2	2115.1	2	550.4	2	2323	7.8503	-9.9
21213	147.3	35.293	35.107	17.886	17.861	25.532	0.0	14.3	2	8.2	2	139.4	2	2116.2	2	-9.9	9	2318	7.8425	-9.9
21212	172.9	35.102	35.166	15.854	15.827	25.866	0.0	14.8	2	6.7	2	138.1	2	2121.9	2	574.8	2	2327	7.8354	-9.9
21211	195.4	35.075	35.014	14.728	14.699	26.096	0.0	16.9	2	8.0	2	139.3	2	2130.0	2	-9.9	9	2319	7.8056	-9.9
21210	226.0	35.004	34.997	13.886	13.853	26.222	0.0	18.2	2	11.2	2	133.0	3	2141.9	2	664.9	2	2312	7.7799	-9.9
21209	226.0	35.004	34.998	13.886	13.853	26.222	0.0	18.3	2	11.0	2	108.2	3	2141.5	2	-9.9	9	2319	7.7781	-9.9
21208	255.1	34.915	34.886	12.752	12.717	26.384	0.0	23.3	2	14.8	2	75.3	2	2171.3	2	824.3	2	2322	7.6996	-9.9
21207	284.5	34.860	34.844	12.122	12.085	26.465	0.0	27.7	2	16.8	2	44.1	2	2198.7	2	-9.9	9	2312	7.6227	-9.9
21206	324.0	34.790	34.775	10.980	10.940	26.623	0.0	35.0	2	27.8	2	-9.9	9	2233.3	2	1290.5	2	2315	7.5225	-9.9
21205	374.8	34.712	-9.999	9.772	9.729	26.773	-9.9	-9.9	9	-9.9	9	62.3	2	-9.9	9	-9.9	9	2314	-9.9999	-9.9
21204	445.7	34.679	34.657	9.158	9.109	26.850	0.0	36.5	2	38.0	2	87.4	2	2252.8	2	1456.8	2	-9	7.4716	-9.9
21203	596.3	34.561	34.566	6.588	6.533	27.137	0.0	38.3	2	49.0	2	-9.9	9	2265.0	2	-9.9	9	-9	7.4770	-9.9
21202	996.7	34.557	34.559	4.449	4.370	27.395	0.0	38.9	2	72.8	3	98.3	2	2299.2	2	-9.9	9	-9	7.4871	-9.9
21201	997.1	34.557	-9.999	4.446	4.367	27.395	0.0	37.8	2	60.4	4	100.5	4	2279.4	2	1367.3	2	-9	7.5040	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	STATION CAST CTD	OPS NO. DATE	DATE	Latitude Longitude	Latitude Longitude	Potential Temp	Temp	Salinity CTD	Salinity Bottle	Pressure db	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg	
22224	222	921011330	10-Mar-92	2° 2.9 S	170° 5.4 W	29.639	29.640	34.743	34.799	3.4	29.640	21.659	0.0	0.0	2	0.0	0.0	197.2	2	1927.5	2	233.7	2	2304	8.1509	-9.9
22223	222					29.639	29.640	34.743	34.796	3.6	29.640	21.659	0.0	0.0	2	0.0	0.0	199.9	2	1926.6	2	234.2	2	2309	8.1501	-9.9
22222	66					29.632	29.635	34.761	34.806	12.3	29.635	21.675	0.0	0.0	2	0.0	0.0	197.3	2	1928.2	2	233.5	2	2307	8.1504	-9.9
22221						29.742	29.747	34.853	34.857	21.1	29.742	21.706	0.0	0.0	2	0.0	0.0	199.3	2	1929.8	2	234.5	2	2302	8.1501	-9.9
22220						29.679	29.687	34.860	34.908	33.1	29.687	21.733	0.0	0.0	2	0.0	0.0	200.6	2	1934.2	2	235.0	2	2297	8.1495	-9.9
22219						29.557	29.568	34.914	34.958	42.9	29.568	21.814	0.0	0.0	2	0.0	0.0	200.2	2	1936.7	2	235.8	2	2310	8.1490	-9.9
22218						29.418	29.433	35.008	35.308	59.9	29.433	21.932	0.0	1.5	2	0.0	0.0	193.4	2	1976.4	2	259.1	2	2392	8.1171	-9.9
22217						28.839	28.858	35.333	35.396	79.0	28.858	22.370	0.4	3.1	2	0.0	0.0	183.4	2	1989.1	3	283.1	2	2330	8.0868	-9.9
22216						26.431	26.453	35.497	35.482	98.1	26.453	23.275	0.3	10.4	2	1.3	2	148.9	2	2062.2	3	382.1	2	2339	7.9818	-9.9
22215						21.541	21.564	35.565	35.604	119.3	21.564	24.777	0.0	12.7	2	2.3	2	123.2	2	2111.4	3	473.6	2	2351	7.9060	-9.9
22214						19.099	19.122	35.487	35.475	127.9	19.122	25.369	0.0	15.3	2	3.2	2	113.8	2	2134.2	3	554.4	2	2333	7.8472	-9.9
22213						18.051	18.075	35.449	35.421	137.4	18.075	25.604	0.0	16.2	2	7.0	2	113.3	2	2145.2	3	593.3	2	2342	7.8199	-9.9
22212						16.691	16.715	35.313	35.314	149.6	16.715	25.829	0.0	15.9	2	7.3	4	112.9	2	2146.4	2	621.7	2	2333	7.8058	-9.9
22211						14.247	14.273	35.106	35.159	175.4	14.273	26.217	0.0	17.0	3	8.9	2	115.7	2	2155.9	2	679.2	2	2323	7.7716	-9.9
22210						14.247	14.273	35.106	35.159	175.4	14.273	26.217	0.0	20.0	3	7.3	3	121.6	3	2156.6	2	673.3	2	2332	7.7718	-9.9
22209						13.020	13.047	34.991	34.978	198.4	13.047	26.383	0.0	21.3	2	15.0	2	121.5	2	2164.0	2	734.6	2	2320	7.7374	-9.9
22208						11.622	11.651	34.864	34.856	226.8	11.651	26.566	0.0	23.9	2	18.3	2	81.8	2	2172.2	2	811.6	2	2308	7.7040	-9.9
22207						11.288	11.320	34.825	34.812	257.4	11.320	26.587	0.0	29.7	2	22.8	2	75.0	2	2204.6	2	1015.8	2	2313	7.6167	-9.9
22206						11.070	11.106	34.806	-9.999	287.2	11.106	26.612	0.0	30.6	2	23.1	2	73.9	2	2211.8	2	1081.8	2	2312	7.5943	-9.9
22205						10.730	10.770	34.780	34.779	328.9	10.770	26.653	0.0	31.6	2	22.6	2	64.5	2	2212.2	2	1097.1	2	2309	7.5869	-9.9
22204						9.358	9.409	34.700	34.687	448.0	9.409	26.825	0.0	34.9	2	32.2	2	61.3	2	2236.6	2	1240.2	2	2308	7.5219	-9.9
22203						7.161	7.219	34.590	34.582	599.0	7.219	27.074	0.0	40.9	2	49.7	2	78.1	2	2265.8	2	1490.3	2	2329	7.4633	-9.9
22202						5.440	5.509	34.546	34.545	800.1	5.509	27.263	0.0	40.0	2	64.7	3	-9.9	3	-9.9	9	1486.9	D	2344	7.4709	-9.9
22201						4.387	4.466	34.551	34.551	997.2	4.466	27.388	0.0	38.9	2	-9.9	9	92.7	2	2293.9	2	1440.4	2	2359	7.4865	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TAlk µmol/kg	pH	TOC µmol/kg
							µmol/L	QC	µmol/L	QC	µmol/L	QC	µmol/L	QC	µatm	QC	µmol/kg	QC			
22524	2.5	34.822	-9.999	29.515	29.514	21.760	0.0	2	0.0	2	0.0	2	199.5	2	1929.0	2	235.3	2	2296	8.1485	-9.9
22523	10.1	34.833	34.830	29.488	29.486	21.778	0.0	2	0.0	2	0.0	2	196.8	2	1929.0	2	235.7	2	2292	8.1486	-9.9
22522	21.7	34.874	34.912	29.502	29.497	21.805	0.0	2	0.0	2	0.0	2	197.3	2	1933.6	2	236.1	2	2310	8.1486	-9.9
22521	31.1	34.933	35.035	29.522	29.514	21.843	0.0	2	0.0	2	0.0	2	198.2	2	1940.2	2	237.1	2	2311	8.1489	-9.9
22520	40.9	35.031	35.064	29.385	29.375	21.964	0.0	2	0.0	2	0.0	2	198.1	2	1943.3	2	260.2	2	2312	8.1162	-9.9
22519	60.7	35.170	35.255	29.133	29.118	22.154	0.4	2	0.8	2	0.0	2	192.5	2	1970.5	2	241.6	2	2333	8.1435	-9.9
22518	80.2	35.311	35.316	28.433	28.414	22.495	2.0	2	2.3	2	0.0	2	178.7	2	2008.0	2	311.8	2	2313	8.0543	-9.9
22517	99.6	35.436	35.459	27.650	27.627	22.846	2.7	2	4.1	2	0.0	2	170.5	2	2027.3	2	333.5	2	2330	8.0316	-9.9
22516	119.6	35.824	35.815	25.422	25.396	23.845	0.4	2	8.8	2	0.0	2	141.9	2	2077.1	2	384.9	2	2362	7.9847	-9.9
22515	130.1	35.708	35.669	23.011	22.984	24.477	0.0	2	12.0	2	0.0	2	128.0	2	2101.1	2	450.2	2	2347	7.9271	-9.9
22514	137.7	35.579	35.560	20.819	20.793	24.993	0.0	2	14.2	2	2.7	2	117.1	2	2130.7	2	535.5	2	2341	7.8652	-9.9
22513	146.7	35.530	35.459	19.072	19.046	25.416	0.0	2	16.6	2	5.2	2	109.7	2	2147.3	2	597.5	2	-9	7.8206	-9.9
22512	171.8	35.222	35.111	15.196	15.170	26.106	0.0	2	20.4	2	8.7	2	109.3	2	2165.3	2	733.4	2	2316	7.7425	-9.9
22511	197.6	35.027	34.922	13.313	13.285	26.357	0.0	2	21.7	2	11.3	2	122.8	2	2164.0	2	769.0	2	2311	7.7257	-9.9
22510	197.6	35.027	34.922	13.313	13.285	26.357	0.0	2	21.8	2	15.2	2	117.0	2	2166.1	2	769.7	2	2310	7.7245	-9.9
22509	226.7	34.884	34.820	11.801	11.772	26.543	0.0	2	24.8	2	18.0	2	109.4	2	2180.3	2	862.0	2	2308	7.6797	-9.9
22508	256.7	34.812	34.801	10.958	10.926	26.643	0.0	2	25.9	2	18.3	2	72.9	2	2188.1	2	913.0	2	2308	7.6590	-9.9
22507	286.9	34.778	34.759	10.606	10.571	26.680	0.0	2	30.6	2	22.6	2	88.3	2	2216.1	2	1132.5	2	2315	7.5756	-9.9
22506	327.3	34.753	34.751	10.280	10.241	26.718	0.0	2	28.3	2	23.0	2	75.9	2	2208.9	2	1069.4	2	2302	7.5996	-9.9
22505	376.3	34.738	34.721	10.037	9.993	26.749	0.0	2	32.0	2	31.9	2	77.2	2	2222.0	2	1174.4	2	2307	7.5632	-9.9
22504	447.0	34.700	34.696	9.459	9.408	26.817	0.0	2	33.0	2	30.2	2	48.6	2	2226.5	2	1193.4	2	2306	7.5523	-9.9
22503	595.6	34.600	34.594	7.322	7.264	27.067	0.0	2	41.1	2	47.1	2	76.0	2	2275.1	2	1598.4	2	2321	7.4375	-9.9
22502	800.4	34.548	34.550	5.476	5.407	27.269	0.0	2	40.3	2	-9.9	2	-9.9	9	-9.9	9	1497.8	D	-9	7.4680	-9.9
22501	995.4	34.551	34.553	4.454	4.375	27.389	0.0	2	40.5	3	79.3	3	97.8	3	2290.9	2	1348.3	3	-9	7.4957	-9.9

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STATION 62 OPS NO. 921020644 LATTITUDE 4° 0.3 S  
 CAST 229 DATE 11-Mar-92 LONGITUDE 170° 0.4 W  
 CTD 68

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC		fCO2 @20° C		TAIk µmol/kg	pH	TOC µmol/kg
										QC µmol/L	µmol/L	QC µmol/kg	µatm	QC µatm	QC µmol/kg			
22924	3.3	34.857	-9.999	29.223	29.222	21.885	0.0	0.0	0.0	200.0	1933.9	2	235.5	2	2309	8.1499	-9.9	
22923	11.5	34.855	34.864	29.235	29.232	21.880	0.0	0.0	0.0	199.2	1933.4	2	235.9	2	2302	8.1493	-9.9	
22922	20.0	34.871	34.863	29.196	29.191	21.906	0.0	0.0	0.0	199.4	1933.7	2	235.8	2	2308	8.1505	-9.9	
22921	31.5	34.967	34.976	29.060	29.052	22.024	0.0	0.0	0.0	201.3	1939.2	2	237.3	2	2303	8.1481	-9.9	
22920	41.7	34.992	34.994	28.887	28.877	22.101	0.0	0.0	0.0	198.4	1943.6	2	241.3	2	2306	8.1435	-9.9	
22919	61.1	35.038	35.049	28.661	28.646	22.213	0.4	0.5	0.0	191.4	1957.5	2	254.5	2	2307	8.1255	-9.9	
22918	81.2	35.261	35.268	28.330	28.311	22.491	1.1	3.4	0.0	177.8	1997.0	2	291.9	2	2330	8.0768	-9.9	
22917	99.5	35.452	35.474	27.084	27.061	23.041	0.9	6.6	0.0	162.4	2034.7	2	338.3	2	2327	8.0270	-9.9	
22916	121.1	35.748	35.750	25.943	25.916	23.626	0.2	8.0	0.0	149.9	2062.7	2	362.3	2	2348	8.0052	-9.9	
22915	126.7	36.033	36.028	24.717	24.690	24.218	0.0	8.8	0.0	142.9	2085.5	2	377.0	2	2370	7.9948	-9.9	
22914	137.9	36.060	36.068	23.372	23.343	24.639	0.0	8.9	0.0	140.4	2101.4	2	401.9	2	2366	7.9715	-9.9	
22913	149.4	35.827	35.834	21.310	21.281	25.048	0.0	11.7	1.7	129.7	2117.5	2	464.6	2	2363	7.9183	-9.9	
22912	174.0	35.417	35.428	17.352	17.323	25.758	0.0	17.5	4.8	110.3	2148.6	2	614.2	2	2336	7.8123	-9.9	
22911	198.7	35.082	35.085	13.801	13.773	26.299	0.0	22.2	9.1	103.2	2170.5	2	771.1	2	2330	7.7248	-9.9	
22910	198.7	35.082	35.083	13.801	13.773	26.299	0.0	23.2	20.9	108.3	2170.7	2	805.3	2	2315	7.7061	-9.9	
22909	229.0	34.971	34.972	12.646	12.615	26.448	0.0	23.7	24.0	107.8	2173.7	2	869.1	2	2321	7.6777	-9.9	
22908	260.4	34.872	34.874	11.560	11.527	26.580	0.0	25.7	27.0	106.8	2182.3	2	940.3	2	2309	7.6477	-9.9	
22907	289.5	34.789	34.794	10.598	10.563	26.690	0.0	27.4	29.3	86.6	2192.5	2	1097.1	2	2308	7.5881	-9.9	
22906	330.5	34.728	34.732	9.857	9.819	26.771	0.0	31.2	-9.9	94.2	2212.7	2	1077.2	2	2313	7.5925	-9.9	
22905	376.0	34.704	34.704	9.536	9.493	26.806	0.0	31.9	-9.9	92.5	2210.4	2	1129.7	2	2304	7.5733	-9.9	
22904	449.4	34.667	34.668	8.967	8.918	26.871	0.0	33.5	51.8	53.1	2217.9	2	1539.2	2	2309	7.4517	-9.9	
22903	600.8	34.594	34.596	7.287	7.228	27.067	0.0	41.3	66.7	2	2268.7	2	1385.1	D	2330	7.4971	-9.9	
22902	800.7	34.536	34.539	5.690	5.620	27.234	0.0	-9.9	91.4	-9.9	-9.9	9	1418.4	2	2352	7.4857	-9.9	
22901	1003.8	34.544	34.549	4.609	4.528	27.367	0.0	42.1	89.5	2	2292.4	2						



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STATION	63	OPS NO.	921021246	LATITUDE	5° 0.5 S											
CAST	230	DATE	11-Mar-92	LONGITUDE	169° 59 W											
CTD	69															
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
23024	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23023	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23022	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23021	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23020	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23019	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23018	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23017	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23016	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23015	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23014	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23013	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	9	-9	-9.9999	-9.9
23012	2.5	35.009	34.995	28.124	29.123	22.032	0.0	0.0	0.0	196.7	1942.6	243.1	2	2389	8.1353	-9.9
23011	12.5	35.057	35.062	29.138	29.135	22.064	0.0	0.0	0.0	198.3	1946.3	243.8	2	2346	8.1352	-9.9
23010	21.3	35.047	35.047	29.058	29.053	22.084	0.0	0.0	0.0	198.3	1945.3	243.1	2	2366	8.1354	-9.9
23009	40.0	35.049	35.046	28.884	28.874	22.145	0.0	0.0	0.0	199.3	1946.0	243.4	2	2387	8.1345	-9.9
23008	61.5	35.056	35.041	28.676	28.661	22.221	0.3	0.0	0.0	197.4	1947.6	246.1	2	2359	8.1329	-9.9
23007	79.4	35.262	35.208	28.181	28.162	22.541	0.7	2.2	0.0	182.3	1979.7	277.3	2	2332	8.0919	-9.9
23006	98.2	35.631	35.626	27.420	27.397	23.068	0.9	6.5	0.0	162.6	2036.8	331.1	2	2325	8.0338	-9.9
23005	118.5	35.994	35.946	25.988	25.961	23.797	0.9	6.2	0.0	151.1	2064.9	350.4	2	2306	8.0126	-9.9
23004	136.7	36.125	36.140	24.250	24.221	24.429	0.5	7.0	0.0	143.6	2092.9	382.6	2	2306	7.9841	-9.9
23003	157.1	35.873	35.890	20.814	20.784	25.219	0.4	10.0	1.4	132.1	2121.1	465.6	2	2316	7.9116	-9.9
23002	177.2	35.620	35.636	18.755	18.724	25.567	0.0	13.7	2.8	117.8	2140.2	534.1	2	2316	7.8484	-9.9
23001	198.0	35.464	35.464	17.336	17.303	25.799	0.0	16.2	4.5	106.7	2154.4	625.0	2	2309	7.7984	-9.9

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STATION	63	OPS NO.	921021839	LATITUDE	4° 59.4 S															
CAST	233	DATE	11-Mar-92	LONGITUDE	170° 2.1 W															
CTD	70																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20°C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
23324	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23323	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23322	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23321	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23320	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23319	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23318	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23317	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23316	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23315	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23314	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23313	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23312	245.4	34.953	34.925	12.701	12.668	26.423	0.0	27.1	2	15.7	2	75.1	2	2200.7	2	993.4	2	2324	7.6291	-9.9
23311	295.7	34.860	-9.999	11.583	11.545	26.567	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	7.6268	-9.9
23310	398.9	34.707	34.700	9.642	9.596	26.792	0.0	35.3	2	31.8	2	56.3	2	2239.6	2	1346.2	2	2327	7.5063	-9.9
23309	595.6	34.588	34.591	7.278	7.220	27.064	-9.9	-9.9	9	-9.9	9	58.9	2	2261.1	2	1490.6	2	2324	7.4610	-9.9
23308	798.8	34.528	34.533	5.728	5.658	27.223	0.0	38.9	3	59.5	3	100.2	2	2257.8	2	1275.4	3	-9	7.5134	-9.9
23307	1000.4	34.534	34.544	4.681	4.600	27.351	0.0	35.1	2	81.8	2	100.1	2	2286.1	2	1393.5	2	2353	7.4981	-9.9
23306	1499.4	34.599	34.602	2.922	2.815	27.582	0.0	35.3	2	120.2	2	112.5	2	2320.0	2	1349.4	2	2384	7.5142	-9.9
23305	2000.3	34.644	34.646	2.168	2.029	27.684	0.0	35.4	2	140.1	2	121.2	2	2335.3	2	1309.7	2	2408	7.5279	-9.9
23304	2497.5	34.661	34.661	1.883	1.705	27.723	0.0	35.3	2	140.0	2	131.7	2	2335.4	2	1211.6	2	2421	7.5489	-9.9
23303	3000.1	34.676	34.675	1.665	1.445	27.754	0.0	34.0	2	136.1	2	147.7	2	2327.5	2	1185.5	2	2422	7.5701	-9.9
23302	3500.1	34.686	34.685	1.522	1.255	27.776	0.0	33.4	2	132.8	2	159.7	2	2319.0	2	1138.8	2	2401	7.5858	-9.9
23301	4004.1	34.695	34.694	1.401	1.084	27.795	0.0	33.1	2	141.1	2	170.8	2	2310.6	2	1092.9	2	2413	7.5961	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 64  
 CAST 234  
 CTD 71

OPS NO. 921030103  
 DATE 12-Mar-92

LATITUDE 5° 59.7 S  
 LONGITUDE 170° 1.3 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC		fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg
									QC µmol/L	µmol/L	QC µmol/L	µmol/kg	QC µatm	µatm			
23424	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23423	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23422	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23421	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23420	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23419	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23418	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23417	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23416	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23415	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23414	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23413	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23412	3.4	35.071	-9.999	29.418	21.980	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23411	11.3	35.068	35.077	29.329	22.008	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	1944.0	2	2376	8.1426	-9.9
23410	22.0	35.066	35.074	29.187	22.055	0.0	0.0	0.0	0.0	2	-9.9	2	1943.6	2	2374	8.1436	-9.9
23409	31.2	35.063	35.069	29.068	22.093	0.0	0.0	0.0	0.0	2	-9.9	2	1943.3	2	2361	8.1423	-9.9
23408	38.9	35.058	-9.999	28.854	22.162	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23407	59.9	35.046	35.047	28.522	22.265	0.2	0.4	0.0	0.0	2	-9.9	2	1948.3	2	2347	8.1345	-9.9
23406	78.8	35.340	35.306	28.123	22.618	0.6	2.7	0.0	0.0	2	205.5	4	1988.6	2	2317	8.0876	-9.9
23405	98.5	35.750	35.682	26.803	23.355	1.0	6.4	0.0	0.0	2	170.8	2	2042.1	2	-9	8.0289	-9.9
23404	119.0	35.991	35.987	25.908	23.820	0.5	7.3	0.0	0.0	2	149.3	2	2067.6	2	2323	8.0144	-9.9
23403	126.7	36.041	36.030	24.850	24.184	0.3	7.6	0.0	0.0	2	148.3	2	2078.3	2	2311	8.0035	-9.9
23402	138.7	36.090	36.107	23.688	24.570	0.2	7.1	0.0	0.0	2	146.1	2	2093.2	2	2317	7.9842	-9.9
23401	146.7	36.021	36.045	22.801	24.776	0.4	8.0	0.0	0.0	2	134.6	2	2102.3	2	-9	7.9628	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 64  
 CAST 238  
 CTD 72

OPS NO. 921030314  
 DATE 12-Mar-92

LATITUDE 5° 59.2 S  
 LONGITUDE 170° 0.4 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
23824	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23823	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23822	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23821	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23820	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23819	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23818	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23817	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23816	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23815	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23814	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23813	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
23812	2.5	35.099	35.089	29.864	29.863	21.849	0.0	0.0	0.0	201.5	2	1946.0	2	241.6	2	2327	8.1416	-9.9
23811	171.3	35.753	35.617	19.860	19.828	25.383	0.0	12.6	3.6	120.3	2	2143.7	2	564.3	2	2342	7.8482	-9.9
23810	195.7	35.455	35.365	17.469	17.436	25.760	0.0	18.7	5.8	102.8	2	2165.4	2	673.1	2	2334	7.7772	-9.9
23809	236.7	35.137	35.079	14.733	14.698	26.145	0.0	23.9	11.4	88.7	2	2183.8	2	838.3	2	2330	7.6908	-9.9
23808	274.8	34.928	34.892	12.327	12.290	26.478	0.0	28.0	15.3	81.0	2	2204.9	2	996.7	2	2313	7.6259	-9.9
23807	326.7	34.764	34.765	10.342	10.303	26.716	0.0	31.3	19.5	77.2	2	2220.1	2	1136.6	2	2314	7.5734	-9.9
23806	375.4	34.712	34.723	9.584	9.541	26.805	0.0	34.0	27.1	68.0	2	2230.9	2	1269.7	2	2321	7.5324	-9.9
23805	446.0	34.664	34.666	8.836	8.788	26.889	0.0	32.9	27.1	96.7	2	2221.9	2	1150.6	2	2308	7.5697	-9.9
23804	596.8	34.582	34.586	7.415	7.356	27.040	0.0	35.6	33.0	102.6	2	2235.3	2	1223.3	2	2304	7.5447	-9.9
23803	798.7	34.541	34.542	5.834	5.763	27.220	0.0	40.8	49.1	85.4	2	2270.6	2	1438.6	2	2330	7.4811	-9.9
23802	874.1	34.535	34.541	5.405	5.330	27.268	-9.9	-9.9	-9.9	96.1	2	2287.4	2	1395.1	2	2347	7.4885	-9.9
23801	997.5	34.541	34.542	4.796	4.714	27.344	0.0	40.7	65.6	95.3	2	2287.9	2	1401.0	2	2348	7.4880	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	65	OPS NO.	921031438	LATITUDE	8° 0.5 S														
CAST	240	DATE	12-Mar-92	LONGITUDE	170° 0.4 W														
CTD	73																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
24024	3.0	35.066	35.061	29.622	29.621	21.907	0.0	0.0	-9.9	2	196.0	1	1948.4	2	245.7	2	2324	8.1345	-9.9
24023	11.0	35.065	35.060	29.617	29.614	21.909	0.2	0.0	-9.9	2	195.9	1	1948.7	2	245.8	2	2309	8.1347	-9.9
24022	18.9	35.056	35.058	29.557	29.552	21.923	0.0	0.0	-9.9	2	196.0	1	1947.3	2	246.2	2	2306	8.1285	-9.9
24021	31.7	35.034	35.043	29.205	29.197	22.026	0.0	0.0	-9.9	2	198.3	1	1947.7	2	246.4	2	2317	8.1334	-9.9
24020	41.0	35.074	35.098	28.985	28.975	22.130	0.0	0.0	-9.9	2	199.3	1	1952.8	2	249.5	2	2315	8.1224	-9.9
24019	56.7	35.155	35.151	28.623	28.609	22.313	0.0	0.4	-9.9	2	196.2	2	1953.5	2	251.3	2	2313	8.1263	-9.9
24018	80.4	35.994	35.892	26.859	26.841	23.520	0.5	4.6	-9.9	2	155.3	1	2044.8	2	320.1	2	2352	8.0475	-9.9
24017	100.3	36.055	36.020	25.771	25.749	23.910	0.5	6.7	-9.9	2	148.8	1	2067.3	2	344.7	2	2366	8.0236	-9.9
24016	120.7	36.067	36.085	24.739	24.713	24.237	0.3	7.2	-9.9	2	143.8	1	2086.8	2	371.5	2	2450	7.9983	-9.9
24015	129.7	36.084	36.094	24.338	24.310	24.371	0.1	7.5	-9.9	2	142.5	1	2093.6	2	383.9	2	2378	7.9867	-9.9
24014	139.8	36.074	36.098	23.754	23.725	24.538	0.0	8.1	-9.9	2	140.0	1	2105.9	2	406.9	2	2374	7.9660	-9.9
24013	148.0	36.051	36.042	22.884	22.854	24.775	0.0	8.7	-9.9	2	138.2	1	2112.5	2	425.5	2	2394	7.9485	-9.9
24012	175.0	35.825	35.705	20.671	20.638	25.222	0.0	12.2	-9.9	2	121.4	1	2136.4	2	531.4	2	2361	7.8695	-9.9
24011	199.0	35.537	-9.999	18.346	18.311	25.607	0.0	-9.9	-9.9	9	-9.9	1	-9.9	9	-9.9	9	-9	-9.9999	-9.9
24010	226.4	35.382	35.324	16.852	16.815	25.853	0.0	15.7	-9.9	2	111.6	1	2152.3	2	638.2	2	2337	7.7974	-9.9
24009	257.6	35.069	35.156	14.080	14.043	26.232	0.0	19.0	-9.9	2	101.6	1	2166.8	2	729.3	2	2318	7.7457	-9.9
24008	287.5	34.914	34.909	12.441	12.402	26.445	0.0	24.3	-9.9	2	87.8	1	2190.4	2	914.6	2	2321	7.6581	-9.9
24007	329.7	34.727	34.729	10.115	10.076	26.726	0.0	29.4	-9.9	2	91.5	1	2207.7	2	1073.0	2	2312	7.5996	-9.9
24006	379.3	34.670	34.667	9.108	9.066	26.849	0.0	30.5	-9.9	2	107.9	1	2205.8	2	1054.2	2	2309	7.6052	-9.9
24005	448.7	34.606	34.603	8.125	8.079	26.953	0.0	32.4	-9.9	2	113.8	1	2213.6	2	1111.3	2	2303	7.5874	-9.9
24004	598.6	34.545	34.546	6.747	6.691	27.103	0.0	34.1	-9.9	2	116.4	1	2228.9	2	1177.8	2	2312	7.5629	-9.9
24003	797.9	34.528	34.528	5.368	5.300	27.266	0.0	38.5	-9.9	2	100.8	1	2263.4	2	1343.9	2	2336	7.5110	-9.9
24002	1017.6	34.537	34.537	4.485	4.404	27.375	0.0	38.9	-9.9	2	109.2	1	2280.0	2	1323.4	D	2348	7.5168	-9.9
24001	1019.1	34.537	34.544	4.482	4.401	27.375	0.0	40.5	-9.9	2	111.6	1	2278.6	2	1264.4	2	2342	7.5179	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 66 OPS NO. 921040538 LATITUDE 10° 0.5 S  
 CAST 245 DATE 13-Apr-92 LONGITUDE 169° 59.5 W  
 CTD 74

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC		fCO2 @20° C		TAlk µmol/kg	pH	TOC µmol/kg	
									QC µmol/L	µmol/L	QC µmol/L	µmol/L	QC µmol/L	µmol/L				QC µmol/L
24524	-9.9	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	1	198.6	2	-9.9	9	9	2309	-9.9999	-9.9	
24523	2.7	35.266	35.266	29.418	22.126	0.0	0.0	-9.9	1	198.7	2	1954.3	2	240.7	2	2327	8.1451	-9.9
24522	14.1	35.301	35.307	29.408	22.157	0.0	0.0	-9.9	1	198.4	2	1955.0	2	241.3	2	2329	8.1449	-9.9
24521	23.5	35.301	35.306	29.304	22.192	0.0	0.0	-9.9	1	194.8	2	1958.8	2	243.5	2	2340	8.1417	-9.9
24520	43.1	35.302	35.310	28.637	22.418	0.2	1.4	-9.9	1	174.7	2	1971.5	2	258.9	2	2317	8.1205	-9.9
24519	61.7	35.551	35.551	28.052	22.799	0.6	3.4	-9.9	1	154.2	2	2004.7	2	285.8	2	2340	8.0869	-9.9
24518	82.1	35.948	35.950	26.728	23.527	0.5	5.6	-9.9	1	148.8	2	2054.7	2	331.7	2	2370	8.0380	-9.9
24517	101.7	36.087	36.083	25.860	23.906	0.3	6.8	-9.9	1	143.8	2	2069.0	2	347.4	2	2371	8.0233	-9.9
24516	121.1	36.154	36.154	24.198	24.458	0.3	7.9	-9.9	1	144.0	2	2092.9	2	373.5	2	2387	7.9912	-9.9
24515	141.7	36.101	36.091	22.622	24.888	0.0	8.3	-9.9	1	141.7	2	2106.0	2	409.1	2	2382	7.9627	-9.9
24514	159.2	35.897	35.907	20.857	25.226	0.0	9.8	-9.9	1	138.1	2	2116.5	2	457.6	2	2366	7.9291	-9.9
24513	178.7	35.786	35.786	19.926	25.391	0.0	10.7	-9.9	1	134.9	2	2122.1	2	482.3	2	2354	7.9060	-9.9
24512	198.6	35.637	35.637	18.796	25.570	0.0	12.2	-9.9	1	95.8	2	2129.6	2	514.9	2	2352	7.8803	-9.9
24511	298.5	34.865	34.864	11.860	26.519	0.0	26.2	-9.9	1	103.8	2	2189.4	2	919.6	2	2303	7.6571	-9.9
24510	396.4	34.695	34.693	9.455	26.813	0.0	29.0	-9.9	1	-9.9	9	2197.8	2	1044.3	2	2305	7.6073	-9.9
24509	596.0	34.537	-9.999	6.637	27.111	0.0	-9.9	-9.9	1	124.2	2	-9.9	9	-9.9	9	-9	7.5455	-9.9
24508	800.5	34.511	34.510	5.256	27.266	0.0	38.1	-9.9	1	120.2	2	2248.3	2	1226.6	2	2332	7.5459	-9.9
24507	994.4	34.532	34.532	4.377	27.382	0.0	-9.9	-9.9	1	138.2	2	2271.1	2	1287.5	2	2343	7.5312	-9.9
24506	1496.0	34.587	34.587	2.916	27.573	0.0	-9.9	-9.9	1	-9.9	9	2292.9	2	1236.1	2	2383	7.5524	-9.9
24505	2501.3	34.665	34.672	1.836	27.730	0.0	-9.9	-9.9	1	156.2	2	2315.3	2	1165.9	2	2419	7.5781	-9.9
24504	2992.8	34.676	34.677	1.663	27.754	0.0	-9.9	-9.9	1	155.0	2	2320.1	2	1164.4	2	2426	7.5791	-9.9
24503	3498.6	34.685	34.685	1.524	27.775	0.0	-9.9	-9.9	1	165.3	2	2311.5	2	1129.4	2	2407	7.5906	-9.9
24502	4001.8	34.695	34.696	1.358	27.797	0.0	-9.9	-9.9	1	181.1	2	2297.8	2	1082.9	2	2418	7.6011	-9.9
24501	4504.6	34.709	34.715	1.060	27.831	0.0	-9.9	-9.9	1	210.9	2	2262.0	2	1034.3	2	-9	7.6138	-9.9







# NOAA Equatorial Pacific Spring 1992

STATION	69	OPS NO.	921170215	LATITUDE	6° 59.5 S	LONGITUDE	140° 1.3 W											
CAST	256	DATE	26-Apr-92															
CTD	77																	
Sample ID	Pressure db	Pressure	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
25624	0.5	35.564	35.566	35.566	29.494	29.494	22.324	0.0	0.0	0.0	193.3	1979.1	2	254.7	2	2347	8.1292	-9.9
25623	9.2	35.558	35.559	35.559	29.403	29.401	22.351	0.0	1.3	0.0	193.6	1980.0	2	253.4	2	2356	8.1282	78.4
25622	19.4	35.557	35.561	35.561	29.380	29.375	22.359	0.0	1.0	0.0	194.0	1980.4	2	254.3	2	2357	8.1293	-9.9
25621	28.0	35.558	35.561	35.561	29.364	29.357	22.365	0.0	1.3	0.0	193.7	1980.3	2	254.1	2	2341	8.1295	-9.9
25620	38.5	35.558	35.561	35.561	29.364	29.355	22.366	0.0	0.9	0.0	192.4	1980.7	2	254.6	2	2343	8.1303	-9.9
25619	59.2	35.559	35.562	35.562	29.356	29.342	22.371	0.0	1.3	0.0	193.5	1980.7	2	254.8	2	2342	8.1265	-9.9
25618	78.7	35.559	35.564	35.564	29.342	29.323	22.378	0.0	1.3	0.0	192.8	1981.9	2	256.4	2	2342	8.1269	-9.9
25617	98.6	35.894	35.896	35.896	28.006	27.983	23.075	0.9	0.7	0.0	174.8	2019.0	2	281.2	2	2364	8.0988	-9.9
25616	118.7	36.289	36.292	36.292	26.656	26.629	23.810	0.0	1.2	0.0	178.9	2047.8	2	290.6	2	2398	8.0899	-9.9
25615	128.0	36.366	36.369	36.369	25.624	25.596	24.192	2.6	0.9	0.0	171.8	2066.2	2	311.7	2	2400	8.0640	-9.9
25614	137.5	36.315	36.306	36.306	24.487	24.457	24.502	3.2	1.2	0.0	169.7	2079.3	2	334.4	2	2398	8.0410	-9.9
25613	151.8	36.155	36.156	36.156	23.032	23.001	24.811	2.8	2.7	0.0	166.8	2088.1	2	362.0	2	2392	8.0118	-9.9
25612	175.4	35.934	35.934	35.934	20.918	20.884	25.238	0.0	5.3	0.0	163.3	2107.6	2	419.4	2	2370	7.9595	-9.9
25611	193.4	35.701	35.701	35.701	19.320	19.285	25.485	0.0	7.3	0.0	158.0	2110.7	2	462.7	2	2354	7.9220	-9.9
25610	231.5	35.102	35.102	35.102	14.672	14.637	26.131	0.0	18.3	6.7	90.2	2170.5	2	767.8	2	2321	7.7250	-9.9
25609	257.7	34.860	34.860	34.860	12.538	12.538	26.377	0.0	24.5	14.0	41.1	2219.8	2	1179.3	2	2306	7.5611	-9.9
25608	290.1	34.802	34.800	34.800	11.372	11.335	26.561	0.0	30.1	24.0	31.3	2240.9	2	1363.1	2	2304	7.5017	-9.9
25607	328.2	34.759	34.758	34.758	10.327	10.288	26.715	0.0	33.2	26.9	42.0	2242.5	2	1377.6	2	2310	7.5031	-9.9
25606	379.1	34.713	34.712	34.712	9.470	9.427	26.824	0.0	34.4	28.7	47.0	2246.0	2	1404.9	2	2310	7.4928	-9.9
25605	447.5	34.659	34.658	34.658	8.534	8.534	26.925	0.0	34.0	30.8	60.6	2245.2	2	1395.5	2	2312	7.4973	-9.9
25604	598.6	34.577	34.575	34.575	6.913	6.913	27.098	0.0	38.4	32.5	67.6	2260.3	2	1468.5	2	2319	7.4761	-9.9
25603	799.4	34.536	34.534	34.534	5.400	5.332	27.269	0.0	41.8	57.5	69.9	2285.4	2	1561.3	2	2336	7.4515	-9.9
25602	999.4	34.544	34.542	34.542	4.363	4.285	27.394	0.0	39.1	80.7	91.7	2294.2	2	1436.0	2	2353	7.4838	-9.9
25601	999.2	34.544	34.542	34.542	4.360	4.282	27.394	0.0	40.2	85.1	92.1	2295.2	2	1429.9	2	2353	7.4829	-9.9





# NOAA Equatorial Pacific Spring 1992

STATION	71	OFS NO.	921180420	LATITUDE	5° 0.6 S																
CAST	265	DATE	27-Apr-92	LONGITUDE	140° 0.4 W																
CTD	80																				
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C patm	QC	TALK μmol/kg	pH	TOC μmol/kg
26524	11.6	35.199	35.204	29.030	29.027	22.207	0.0	2	1.7	2	0.0	2	195.0	2	1973.3	2	267.6	2	-9	8.1092	-9.9
26523	10.2	35.200	35.204	29.022	29.020	22.210	0.0	2	0.7	2	0.0	2	195.0	2	1972.5	2	268.4	2	2323	8.1055	-9.9
26522	12.3	35.200	35.205	29.031	29.028	22.207	0.0	2	0.0	2	0.0	2	195.0	2	1973.0	2	267.6	2	2324	8.1106	-9.9
26521	12.5	35.200	35.205	29.032	29.029	22.207	0.0	2	1.7	2	0.0	2	195.0	2	1972.6	2	272.7	2	2314	8.1067	-9.9
26520	1002.6	34.560	-9.000	4.294	29.030	27.414	0.0	2	38.1	2	-9.9	9	92.3	2	2295.1	2	1414.8	2	2362	7.4870	-9.9
26519	1002.6	34.560	34.558	4.294	4.216	27.414	0.0	2	39.7	2	74.1	2	91.9	2	2296.0	2	1418.9	2	2362	7.4873	-9.9
26518	1001.4	34.559	34.558	4.293	4.215	27.413	0.0	2	38.6	2	81.6	2	-9.9	9	-9.9	2	1434.5	2	2367	7.4890	-9.9
26517	999.9	34.560	34.555	4.291	4.213	27.414	0.0	2	40.7	2	81.0	2	94.3	2	2295.4	2	1428.2	D	2359	7.4914	-9.9
26516	999.5	34.560	34.558	4.281	4.203	27.415	0.0	2	39.9	2	69.0	2	94.5	2	2295.2	2	1424.6	2	2359	7.4921	-9.9
26515	999.8	34.560	34.557	4.270	4.192	27.416	0.0	2	39.8	2	73.1	2	93.9	2	2294.0	2	1428.1	2	2365	7.4908	-9.9
26514	1000.9	34.559	34.558	4.263	4.185	27.416	0.0	2	41.0	2	79.2	2	100.2	2	2306.5	3	1412.1	2	2382	7.4989	-9.9
26513	1249.7	34.590	34.589	3.402	3.311	27.529	0.0	2	40.9	2	106.7	2	102.3	2	2329.5	2	1417.1	2	2397	7.5005	42.8
26512	1501.1	34.616	34.615	2.851	2.745	27.602	0.0	2	39.7	2	104.3	2	119.7	2	2333.2	2	1365.0	2	2408	7.5170	-9.9
26511	1748.6	34.635	34.633	2.479	2.357	27.650	0.0	2	40.0	2	102.3	2	124.0	2	2329.0	2	1261.6	2	2416	7.5306	37.7
26510	1994.2	34.648	34.646	2.241	2.101	27.682	0.0	2	38.4	2	120.5	2	130.0	2	2335.9	2	1186.4	2	2418	7.5398	33.8
26509	2252.3	34.660	34.658	2.046	1.887	27.708	0.0	2	39.0	2	130.8	2	136.5	2	2335.2	2	1165.7	2	2430	7.5501	33.5
26508	2490.3	34.671	34.669	1.885	1.708	27.731	0.0	2	38.7	2	123.6	2	144.0	2	2327.2	2	1186.4	2	2429	7.5654	-9.9
26507	2746.6	34.680	34.678	1.751	1.553	27.750	0.0	2	37.8	2	-9.9	9	149.5	2	2326.4	2	1165.7	2	2440	7.5748	33.8
26506	2994.6	34.684	34.682	1.649	1.429	27.762	0.0	2	34.9	2	-9.9	9	154.0	2	2323.8	2	1145.9	2	2424	7.5909	34.7
26505	3248.5	34.688	34.686	1.569	1.326	27.772	0.0	2	36.9	2	125.6	2	158.5	2	2312.5	2	1099.8	2	2436	7.5968	37.4
26504	3495.4	34.693	34.690	1.513	1.247	27.782	0.0	2	37.7	2	133.1	2	167.9	2	2323.4	2	1090.3	2	2431	7.5939	33.8
26503	3746.1	34.695	34.693	1.477	1.186	27.788	0.0	2	37.2	2	-9.9	9	172.3	2	2306.7	2	1089.4	2	2435	7.6015	38.4
26502	3999.8	34.700	34.697	1.420	1.103	27.797	0.0	2	36.0	2	-9.9	9	171.8	2	2307.9	2	1089.4	2	2419	7.6059	39.7
26501	4101.7	34.701	34.699	1.398	1.071	27.800	0.0	2	35.9	2	113.5	2	171.8	2	2307.9	2	1089.4	2	2406	7.6052	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 71 OPS NO. 921182138 LATITUDE 4° 58 S  
 CAST 271 DATE 27-Apr-92 LONGITUDE 139° 59 W  
 CTD 81

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
27124	0.5	35.198	-9.999	29.167	29.167	22.159	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27123	0.3	35.198	-9.999	29.177	29.177	22.156	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27122	0.0	35.198	-9.999	29.179	29.179	22.155	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27121	0.0	35.197	-9.999	29.163	29.163	22.160	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27120	0.5	35.198	-9.999	29.159	29.159	22.162	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27119	1.2	35.191	-9.999	29.173	29.173	22.152	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27118	0.6	35.198	-9.999	29.143	29.143	22.167	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27117	0.2	35.198	-9.999	29.142	29.142	22.168	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27116	0.4	35.197	-9.989	29.143	29.143	22.166	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27115	0.7	35.197	-9.999	29.144	29.144	22.166	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27114	0.4	35.198	-9.999	29.138	29.138	22.169	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27113	1.4	35.198	-9.999	29.146	29.146	22.166	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27112	0.5	35.197	-9.999	29.149	29.149	22.164	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27111	1.3	35.198	-9.999	29.148	29.148	22.166	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27110	1.7	35.198	-9.999	29.146	29.146	22.166	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27109	1.5	35.201	-9.999	29.142	29.142	22.170	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27108	1.7	35.197	-9.999	29.137	29.137	22.169	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27107	1.6	35.197	-9.999	29.142	29.142	22.167	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27106	1.3	35.196	-9.999	29.124	29.124	22.172	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27105	1.5	35.197	-9.999	29.137	29.137	22.169	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27104	1.8	35.196	-9.999	29.130	29.130	22.170	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27103	0.1	35.198	-9.999	29.138	29.138	22.169	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27102	1.0	35.197	-9.999	29.117	29.117	22.175	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9
27101	500.8	34.631	-9.999	8.076	8.024	26.981	-9.9	-9.9	-9.9	-9.9	9	-9.9	-9.9	9	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 72 OPS NO. 921190340  
 CAST 273 DATE 28-Apr-92  
 CTD 82

LATITUDE 4° 0.5 S  
 LONGITUDE 140° 0.8 W

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C		pH	TOC μmol/kg
															μmol/L	μatm		
27324	2.0	34.989	34.977	28.895	28.895	22.093	0.0	1.4	2	0.0	196.4	2	1963.4	2	270.7	2315	8.1042	-9.9
27323	9.0	34.989	34.978	28.902	28.900	22.092	0.0	2.1	2	0.0	196.2	2	1963.2	2	271.0	2312	8.1018	72.0
27322	19.6	35.005	34.993	28.910	28.905	22.102	0.0	1.8	2	0.0	196.3	2	1964.2	2	270.7	2307	8.1042	-9.9
27321	29.0	35.035	35.027	28.906	28.899	22.126	0.0	1.9	2	0.0	196.4	2	1975.6	2	272.1	2310	8.1024	-9.9
27320	38.0	35.164	35.145	28.893	28.884	22.228	0.0	2.0	2	0.0	197.4	2	1973.2	2	274.2	-9	8.1014	-9.9
27319	59.8	35.451	35.440	28.311	28.297	22.639	0.0	2.6	2	0.0	197.0	2	1994.2	2	282.9	2327	8.0910	-9.9
27318	77.8	35.482	35.473	27.719	27.701	22.957	0.0	2.6	2	0.0	189.4	2	2009.7	2	301.0	2341	8.0704	-9.9
27317	97.5	35.569	35.526	26.022	26.000	23.465	0.2	4.2	2	0.0	181.7	2	2038.4	2	338.3	2347	8.0310	-9.9
27316	117.6	35.967	35.958	23.189	23.165	24.621	3.2	2.9	2	0.0	163.4	2	2085.4	2	381.2	2372	7.9905	-9.9
27315	128.1	35.816	35.811	21.060	21.035	25.107	0.3	8.6	2	1.8	144.5	2	2115.9	2	459.5	2367	7.9243	-9.9
27314	137.8	35.671	35.670	19.502	19.477	25.412	0.0	9.4	2	1.9	138.0	2	2126.4	2	507.1	2353	7.8881	-9.9
27313	148.2	35.370	35.370	17.012	16.987	25.802	0.0	15.7	2	5.8	99.0	2	2159.1	2	671.5	2328	7.7796	-9.9
27312	174.5	35.098	35.090	14.304	14.278	26.205	0.0	25.5	2	13.8	50.0	2	2202.5	2	983.8	2317	7.6308	-9.9
27311	198.2	35.006	35.006	13.339	13.311	26.335	0.0	26.5	2	17.5	51.5	2	2207.1	2	1117.3	2314	7.6114	-9.9
27310	229.1	34.937	34.937	12.730	12.699	26.405	0.0	30.1	3	24.6	32.1	2	2224.2	3	1203.0	2302	7.5516	-9.9
27309	257.8	34.909	34.909	12.277	12.243	26.472	0.0	27.7	2	18.0	61.0	2	2207.3	2	1059.9	2316	7.6040	-9.9
27308	292.8	34.872	34.873	11.837	11.799	26.528	0.0	28.1	2	18.4	62.2	2	2211.5	2	1090.1	2312	7.5917	-9.9
27307	329.9	34.835	34.835	11.201	11.160	26.618	0.0	27.4	2	20.8	69.6	2	2212.0	2	1090.9	2303	7.5914	-9.9
27306	375.2	34.779	34.779	10.359	10.314	26.726	0.0	33.1	2	26.7	27.8	2	2252.0	2	1471.5	2314	7.4709	-9.9
27305	449.3	34.693	34.692	8.946	8.897	26.895	0.0	37.2	2	32.1	13.4	2	2276.1	2	1748.6	2311	7.4027	-9.9
27304	596.3	34.594	34.594	7.063	7.006	27.098	0.0	38.1	2	38.4	49.7	2	2271.7	2	1592.7	2309	7.4395	-9.9
27303	798.3	34.544	34.544	5.288	5.221	27.288	0.0	39.2	2	57.7	80.9	2	2278.7	2	1468.1	2340	7.4754	-9.9
27302	998.3	34.554	34.554	4.320	4.242	27.406	0.0	38.9	2	71.9	54.2	3	2294.7	2	1426.6	2357	7.4857	-9.9
27301	999.1	34.554	34.553	4.311	4.233	27.407	0.0	38.2	2	68.6	92.7	2	2295.7	2	1420.3	2356	7.4857	-9.9

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STATION	73	OPS NO.	921190940	LATITUDE	2° 59.2 S														
CAST	274	DATE	28-Apr-92	LONGITUDE	140° 0.1 W														
CTD	83																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	Talk μmol/kg	pH	TOC μmol/kg
27424	10.2	34.971	-9.999	28.766	28.764	22.123	0.0	2.0	2	0.0	196.6	2	-9.9	9	275.3 E	2309	-9.9999	-9.9	
27423	21.5	34.971	34.962	28.763	28.758	22.125	0.0	2.2	2	0.0	196.5	2	1969.8	2	275.0	2302	8.0967	68.2	
27422	29.1	34.973	34.962	28.775	28.768	22.123	0.0	2.2	2	0.0	196.5	2	1968.5	2	275.6	2303	8.0979	-9.9	
27421	40.2	34.976	34.965	28.777	28.767	22.126	0.0	2.2	2	0.0	196.7	2	1968.3	2	275.5	2305	8.0982	-9.9	
27420	58.4	35.203	34.963	28.423	28.409	22.415	0.0	2.0	2	0.0	196.5	2	1968.2	2	277.0	2294	8.0972	-9.9	
27419	79.4	35.491	35.188	24.773	24.756	23.788	0.0	2.6	2	0.0	197.7	2	1985.8	2	286.1	2313	8.0869	-9.9	
27418	98.8	35.864	35.476	21.416	21.397	25.044	1.0	5.9	2	1.0	179.4	2	2058.4	2	373.0	2343	7.9971	-9.9	
27417	119.2	35.272	35.899	16.403	16.384	25.869	1.3	7.1	2	0.4	154.0	2	2107.8	2	429.5	2367	7.9509	-9.9	
27416	128.3	35.086	35.266	14.692	14.673	26.111	0.2	22.7	2	7.7	75.3	2	-9.9	9	-9.9	2326	7.7179	-9.9	
27415	140.2	34.993	35.083	13.630	13.610	26.264	0.0	28.6	2	14.5	45.6	2	2201.6	2	992.8	2317	7.6276	-9.9	
27414	139.9	34.986	34.947	13.640	13.620	26.256	0.0	31.7	2	18.2	32.6	2	2215.5	2	-9.9	2298	7.5760	-9.9	
27413	150.9	34.953	34.947	13.223	13.202	26.316	0.0	32.6	2	-9.9	29.6	2	2219.7	2	1189.3	2303	7.5598	-9.9	
27412	198.6	34.911	34.916	12.720	12.693	26.386	0.0	31.6	2	19.8	30.5	2	2221.8	2	1209.0	2318	7.5519	-9.9	
27411	198.5	34.911	34.903	12.722	12.695	26.385	0.0	33.6	2	19.3	29.3	2	2223.6	2	1237.6	2296	7.5455	-9.9	
27410	231.4	34.895	34.883	12.448	12.417	26.428	0.0	34.4	2	22.8	22.5	2	2232.3	2	-9.9	2306	7.5210	-9.9	
27409	254.7	34.884	34.875	12.274	12.240	26.453	0.0	34.8	2	23.5	30.0	2	2228.0	2	1267.4	2298	7.5330	-9.9	
27408	289.3	34.867	34.856	11.967	11.929	26.500	0.0	34.7	2	-9.9	28.4	2	2233.1	2	-9.9	2301	7.5204	-9.9	
27407	328.9	34.839	34.833	11.408	11.366	26.584	0.0	35.7	2	24.6	21.5	2	2244.9	2	1422.4	2305	7.4861	-9.9	
27406	382.0	34.769	34.763	10.239	10.194	26.739	0.0	38.4	2	31.8	11.0	2	2264.1	2	1634.7	2313	7.4289	-9.9	
27405	453.8	34.693	34.685	9.012	8.962	26.884	0.0	41.4	2	34.0	12.5	2	2274.7	2	1746.5	2297	7.4028	-9.9	
27404	594.0	34.596	34.590	7.091	7.034	27.096	0.0	43.8	2	40.9	40.4	2	2277.6	2	1661.3	2317	7.4221	-9.9	
27403	800.8	34.552	34.550	5.408	5.340	27.280	0.0	43.8	2	52.2	70.8	2	2285.5	2	1511.5	2345	7.4579	-9.9	
27402	1002.8	34.556	34.553	4.388	4.309	27.400	0.0	42.5	2	70.4	90.4	2	2294.1	2	-9.9	2353	7.4855	-9.9	
27401	1001.5	34.557	34.553	4.391	4.312	27.401	0.0	43.2	2	67.2	90.3	2	2294.6	2	1419.2	2356	7.4838	-9.9	

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STATION CAST CTD	74 276 84	OPS NO. DATE	921191612 28-Apr-92	LATTITUDE LONGITUDE	1° 59.9 S 140° 0.9 W	Potential		Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2		DIC µmol/kg	fCO2 @20° C		TAIk µmol/kg	pH	TOC µmol/kg	
						Temp °C	Temp °C					QC µmol/L	QC µmol/L		QC µmol/L	QC µmol/L				
27624	0.3	34.947	34.943	28.699	28.699	22.127	0.0	2.2	2.0	0.0	2.0	198.6	2	1967.5	2	274.4	2	2313	8.0965	75.8
27623	9.5	34.948	34.943	28.689	28.687	22.132	0.0	1.4	2.0	0.0	2.0	198.7	2	1966.1	2	276.0	2	2299	8.0952	71.7
27622	19.1	34.951	34.954	28.687	28.682	22.135	0.0	1.6	2.0	0.0	2.0	198.8	2	1967.4	2	276.5	2	2305	8.0982	68.8
27621	28.6	34.965	35.005	28.701	28.694	22.142	0.0	2.2	2.0	0.0	2.0	198.8	2	1969.8	2	278.2	2	2313	8.0962	73.9
27620	40.7	35.022	35.451	28.700	28.690	22.186	0.0	3.3	2.0	0.0	2.0	200.5	2	2001.5	2	290.6	2	2328	8.0856	70.3
27619	58.0	35.459	35.356	28.113	28.099	22.710	0.5	6.9	2.0	1.0	2.0	183.8	2	2041.7	2	378.7	2	2330	7.9897	61.9
27618	79.4	35.288	35.270	24.376	24.359	23.754	1.2	21.3	3.0	6.0	3.0	83.1	3	2167.8	3	747.2	3	2333	7.7403	53.8
27617	99.1	35.255	34.965	17.614	17.597	25.567	0.0	32.2	2.0	15.7	2.0	34.6	2	2214.8	2	1133.1	2	2295	7.5760	49.3
27616	120.9	34.967	34.950	13.669	13.652	26.235	0.0	32.7	2.0	18.7	2.0	34.2	2	2201.7	3	1153.0	2	2305	7.5711	46.8
27615	129.6	34.950	34.942	13.461	13.443	26.265	0.0	32.4	2.0	17.2	2.0	32.9	2	2216.6	2	1157.1	2	2312	7.5694	46.7
27614	140.7	34.946	34.936	13.368	13.348	26.281	0.0	32.1	2.0	15.9	2.0	33.0	2	2217.6	2	1166.2	2	2297	7.5663	43.4
27613	149.9	34.933	34.912	13.280	13.259	26.289	0.0	32.7	2.0	20.0	2.0	34.3	2	2218.9	2	1177.6	2	2305	7.5609	44.5
27612	175.2	34.913	34.893	12.939	12.915	26.343	0.0	33.0	2.0	21.4	2.0	36.1	2	2220.6	2	1189.1	2	2312	7.5580	40.7
27611	199.1	34.897	34.876	12.650	12.623	26.389	0.0	34.3	2.0	21.8	2.0	27.5	2	2229.7	2	1278.9	2	2299	7.5242	43.7
27610	229.8	34.880	34.860	12.363	12.332	26.432	0.0	35.6	2.0	24.1	2.0	21.6	2	2236.5	2	1355.0	2	2306	7.5070	44.2
27609	259.0	34.864	34.833	12.060	12.026	26.479	0.0	35.0	2.0	25.5	2.0	34.2	2	2232.1	2	1295.2	2	2311	7.5284	-9.9
27608	290.6	34.836	34.812	11.625	11.588	26.540	0.0	34.8	2.0	24.5	2.0	38.3	2	2234.3	2	1306.3	2	2301	7.5180	44.9
27607	329.7	34.809	34.752	11.148	11.107	26.608	0.0	36.0	2.0	25.3	2.0	44.2	2	2239.8	2	1347.5	2	2310	7.5073	41.5
27606	379.2	34.751	34.662	10.193	10.148	26.733	0.0	41.6	2.0	37.4	2.0	29.4	2	2267.5	2	1635.0	2	2315	7.4294	43.4
27605	450.5	34.662	34.578	8.562	8.514	26.930	0.0	43.7	2.0	48.0	2.0	51.2	3	2273.5	2	1591.0	2	-9	7.4411	41.1
27604	626.5	34.571	34.544	6.782	6.723	27.119	0.0	42.7	2.0	56.9	2.0	81.3	2	2281.1	2	1467.8	2	2339	7.4758	43.0
27603	801.3	34.543	34.556	5.311	5.243	27.285	0.0	42.5	2.0	72.7	2.0	85.1	2	2300.8	2	1475.4	2	2353	7.4765	37.4
27602	1002.8	34.553	34.557	4.398	4.309	27.398	0.0	43.0	2.0	72.7	2.0	85.3	2	2300.5	2	1452.1	2	2362	7.4747	-9.9
27601	999.4	34.553	34.557	4.393	4.314	27.397	0.0	43.2	2.0	74.4	2.0	84.9	2	2301.3	2	1449.5	2	2355	7.4760	36.8



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STATION	74	OPS NO.	921192213	LATITUDE	2° 0.4 S																
CAST	279	DATE	28-Apr-92	LONGITUDE	140° 6.9 W																
CTD	85																				
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
27924	0.9	34.959	-9.999	28.995	28.995	22.037	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27923	1.3	34.949	-9.999	28.943	28.943	22.047	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27922	1.2	34.928	-9.999	28.966	28.966	22.024	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27921	0.9	34.952	-9.999	28.906	28.906	22.062	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27920	0.1	34.954	-9.999	28.894	28.894	22.067	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27919	0.2	34.954	-9.999	28.869	28.869	22.076	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27918	0.1	34.951	-9.999	28.873	28.873	22.072	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27917	1.4	34.954	-9.999	28.831	28.831	22.088	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27916	0.6	34.956	-9.999	28.840	28.840	22.087	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27915	0.2	34.953	-9.999	28.813	28.813	22.093	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27914	0.4	34.956	-9.999	28.808	28.808	22.097	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27913	0.3	34.952	-9.999	28.812	28.812	22.093	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27912	0.4	34.953	-9.999	28.797	28.797	22.099	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27911	0.6	34.957	-9.999	28.876	28.876	22.076	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27910	0.3	34.953	-9.999	28.827	28.827	22.089	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27909	0.3	34.948	-9.999	28.822	28.822	22.087	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27908	0.3	34.953	-9.999	28.855	28.855	22.080	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27907	1.4	34.950	-9.999	28.857	28.857	22.077	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27906	0.8	34.948	-9.999	28.963	28.963	22.040	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27905	1.3	34.956	-9.999	28.886	28.886	22.072	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27904	1.9	34.963	-9.999	29.040	29.040	22.025	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27903	2.0	34.944	-9.999	29.014	29.014	22.020	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27902	2.7	34.955	-9.999	28.940	28.940	22.053	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
27901	203.3	34.895	-9.999	12.664	12.666	26.379	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9





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STATION CAST CTD	77 286 88	OPS NO. DATE	921201407 29-Apr-92	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Pressure db	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg			
28624	3.2	35.048	35.045	28.465	28.464	22.280	0.3	2.8	0.4	2	0.4	4	194.5	2	1972.1	3	287.6	2	2315	8.0824	-9.9
28623	13.2	35.086	35.086	28.389	28.386	22.335	0.4	2.8	0.0	2	0.0	2	193.5	2	1982.1	2	-9.9	9	2302	8.0813	67.0
28622	22.1	35.108	35.103	28.217	28.212	22.409	0.5	3.1	0.0	2	0.0	2	189.7	2	1985.6	2	294.9	2	2316	8.0753	-9.9
28621	31.5	35.135	35.129	27.885	27.878	22.538	0.6	3.9	0.6	2	0.6	2	183.0	2	1989.4	2	-9.9	9	2315	8.0635	-9.9
28620	42.5	35.302	35.267	27.474	27.464	22.798	1.2	4.7	0.8	2	0.8	2	175.8	2	2011.2	2	321.0	2	2313	8.0473	-9.9
28619	61.3	35.407	35.407	25.988	25.984	23.347	2.1	7.2	1.0	2	1.0	2	157.3	2	2042.4	2	363.0	2	2327	8.0034	-9.9
28618	82.0	35.418	35.418	21.483	21.483	24.685	0.6	11.5	3.7	2	3.7	2	140.1	2	2083.2	2	453.5	2	2340	7.9263	-9.9
28617	103.5	35.260	35.258	17.585	17.568	25.578	0.0	15.2	5.5	2	5.5	2	131.6	2	2110.6	2	534.9	2	2323	7.8621	-9.9
28616	121.8	35.209	35.211	16.488	16.468	25.801	0.0	16.4	8.5	2	8.5	2	127.5	2	2123.5	2	-9.9	9	2323	7.8345	-9.9
28615	131.0	35.205	35.203	16.249	16.228	25.854	0.0	17.1	8.1	2	8.1	2	126.8	2	2126.6	2	590.8	2	2328	7.8279	-9.9
28614	140.5	35.197	35.195	15.844	15.822	25.941	0.0	18.1	8.0	2	8.0	2	122.1	2	2134.6	2	-9.9	9	2313	7.8122	-9.9
28613	150.7	35.111	35.116	14.733	14.710	26.122	0.0	20.8	11.8	2	11.8	2	111.2	2	2150.8	2	687.0	2	2319	7.7676	-9.9
28612	177.9	34.965	34.965	13.441	13.416	26.282	0.0	20.9	13.3	2	13.3	2	127.1	2	2147.8	2	696.1	2	2318	7.7657	-9.9
28611	201.9	34.931	34.928	12.983	12.955	26.349	0.0	23.2	16.3	2	16.3	2	113.1	2	2160.7	2	761.6	2	2307	7.7286	-9.9
28610	224.6	34.904	34.903	12.689	12.659	26.387	0.0	25.5	22.8	2	22.8	2	96.5	2	2175.8	2	1459.7	2	2309	7.6893	-9.9
28609	261.1	34.876	34.873	12.374	12.339	26.428	0.0	29.2	23.4	2	23.4	2	75.3	2	2193.4	2	-9.9	9	2321	7.6360	-9.9
28608	290.5	34.800	34.802	11.134	11.098	26.603	0.0	36.5	27.1	2	27.1	2	21.0	2	2246.0	2	860.0	4	2304	7.4798	-9.9
28607	331.9	34.757	34.757	10.503	10.463	26.682	0.0	38.0	30.8	2	30.8	2	27.5	2	2247.8	2	-9.9	9	2316	7.4775	-9.9
28606	377.7	34.718	34.717	9.783	9.740	26.776	0.0	38.5	33.4	2	33.4	2	25.6	2	2255.5	2	1530.5	2	2314	7.4550	-9.9
28605	448.0	34.660	34.660	8.726	8.678	26.903	0.0	40.5	39.1	2	39.1	2	30.9	2	2263.3	2	1579.4	2	2311	7.4414	-9.9
28604	600.7	34.576	34.576	6.865	6.808	27.111	0.0	42.2	38.7	2	38.7	2	57.5	2	2269.1	2	-9.9	9	2322	7.4551	-9.9
28603	800.8	34.547	34.549	5.391	5.323	27.278	0.0	42.3	63.9	2	63.9	2	73.9	2	2284.2	2	1494.7	2	2347	7.4669	-9.9
28602	999.5	34.553	34.557	4.502	4.422	27.386	0.0	43.2	78.3	2	78.3	2	81.3	2	2300.5	2	-9.9	9	2354	7.4724	-9.9
28601	1000.6	34.553	34.556	4.494	4.414	27.387	0.0	42.4	80.2	2	80.2	2	81.5	2	2301.2	2	1466.5	2	2360	7.4731	-9.9

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STATION	78	OPS NO.	921201738	LATITUDE	0° 0.6 S																
CAST	287	DATE	29-Apr-92	LONGITUDE	140° 3.1 W																
CTD	89																				
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
28724	1.7	35.049	35.034	28.525	28.525	22.261	0.3	2	2.2	2	0.0	2	194.6	2	1978.4	3	286.3	2	2308	8.0844	66.1
28723	11.1	35.097	35.083	28.391	28.398	22.342	0.3	2	2.3	2	0.0	2	192.5	2	1982.8	2	290.4	2	-9	8.0779	66.0
28722	21.0	35.120	35.112	28.121	28.116	22.449	0.6	2	5.7	2	0.9	2	186.3	2	1990.7	2	297.4	2	2302	8.0702	68.4
28721	40.5	35.017	35.006	26.496	26.487	22.895	0.3	2	6.7	2	1.4	2	148.8	2	2015.3	2	350.9	2	2304	8.0130	60.7
28720	50.1	35.195	35.139	25.726	25.715	23.271	1.2	2	8.4	2	1.6	2	144.5	2	2033.1	2	373.2	2	2314	7.9889	57.7
28719	59.1	35.289	35.289	25.249	25.236	23.489	0.3	2	12.2	2	3.3	2	147.3	2	2046.4	2	382.5	2	2316	7.9838	58.4
28718	80.7	35.406	35.379	21.231	21.215	24.746	0.0	2	13.9	2	5.0	2	136.4	2	2090.8	2	461.2	2	2332	7.9179	49.9
28717	90.7	35.287	35.283	18.618	18.602	25.343	0.0	2	13.8	2	-9.9	2	128.5	2	2108.0	2	519.3	2	2324	7.8714	47.6
28716	101.6	35.254	35.244	17.726	17.709	25.539	0.0	2	14.3	2	5.4	2	131.3	2	2109.6	2	530.8	2	2324	7.8648	47.5
28715	111.1	35.248	35.248	17.138	17.120	25.677	0.0	2	13.6	2	7.2	2	131.7	2	2115.4	2	547.8	2	2326	7.8518	45.5
28714	121.3	35.144	35.144	16.176	16.157	25.823	0.0	2	15.6	2	7.5	2	136.0	2	2116.6	2	560.4	2	2316	7.8443	45.1
28713	129.7	35.171	35.171	15.868	15.848	25.915	0.0	2	16.6	2	7.3	2	131.2	2	2125.9	2	587.2	2	2310	7.8267	46.7
28712	139.8	35.184	35.181	15.738	15.716	25.955	0.0	2	16.0	2	7.7	2	129.1	2	2129.7	2	598.3	2	2324	7.8204	46.0
28711	149.5	35.131	35.131	15.204	15.181	26.034	0.0	2	18.8	2	11.3	2	130.5	2	2131.8	2	612.6	2	2320	7.8121	47.3
28710	165.2	35.010	35.010	13.922	13.898	26.217	0.0	2	20.5	2	15.1	2	128.7	2	2141.3	2	663.1	2	2303	7.7800	45.7
28709	180.4	34.915	34.915	13.097	13.072	26.313	0.0	2	22.4	2	-9.9	2	118.3	2	2154.6	2	734.2	2	2314	7.7402	42.8
28708	200.5	34.919	34.917	12.886	12.869	26.359	0.0	2	21.8	2	15.4	2	109.4	2	2164.3	2	781.3	2	2312	7.7177	-9.9
28707	249.5	34.876	34.874	12.467	12.434	26.410	0.0	2	25.7	2	18.9	2	83.2	2	2185.8	2	928.1	2	2308	7.6560	44.8
28706	301.0	34.786	34.786	11.107	11.070	26.597	0.0	2	36.8	2	25.7	2	21.6	2	2244.1	2	1438.8	2	2310	7.4816	44.7
28705	399.1	34.691	34.694	9.351	9.306	26.827	0.0	2	39.7	2	28.5	2	29.9	2	2258.0	2	1524.6	2	2308	7.4530	43.1
28704	600.7	34.581	34.586	7.161	7.103	27.075	0.0	2	42.5	2	36.6	2	54.5	2	2267.6	2	1531.8	2	2317	7.4555	41.6
28703	797.4	34.543	34.549	5.531	5.462	27.258	0.0	2	43.3	2	31.2	2	73.3	2	2281.9	2	1500.2	2	2343	7.4668	38.0
28702	999.3	34.553	34.557	4.524	4.444	27.393	0.0	2	44.1	2	67.6	2	80.3	2	2300.8	2	1503.1	2	2364	7.4710	37.3
28701	998.6	34.553	34.559	4.525	4.445	27.383	0.0	2	45.2	2	64.4	2	80.5	2	2302.0	2	1493.5	2	2357	7.4689	38.1

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STATION	78	OPS NO.	921210328	LATITUDE	0° 0.1 S	LONGITUDE	139° 59.8 W											
CAST	291	DATE	30-Apr-92															
CTD	90																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	TALK µmol/kg	pH	TOC µmol/kg
29124	3.7	35.106	35.095	28.559	28.558	22.293	0.0	2.9	2	0.5	193.7	2	1984.0	2	292.6	2	8.0814	-9.9
29123	3.0	35.106	35.094	28.552	28.551	22.295	0.2	3.0	2	0.7	193.8	2	1983.9	2	292.1	2	8.0809	-9.9
29122	2.6	35.106	35.093	28.583	28.582	22.285	0.3	2.9	2	0.7	193.9	2	1982.3	2	296.2	2	8.0826	-9.9
29121	2.5	35.106	35.094	28.591	28.590	22.282	0.3	2.9	2	0.5	194.1	2	1982.0	2	287.5	2	8.0838	-9.9
29120	2.1	35.105	35.095	28.597	28.596	22.280	0.3	2.9	2	0.6	193.9	2	1984.2	2	-9.9	9	8.0815	-9.9
29119	999.6	34.556	34.555	4.529	4.449	27.385	0.0	42.7	2	104.1	79.5	2	2302.8	2	-9.9	9	7.4721	-9.9
29118	999.7	34.556	34.556	4.528	4.448	27.385	0.0	42.0	2	110.3	79.4	2	2303.0	2	1505.6	2	7.4703	-9.9
29117	1000.6	34.557	34.557	4.526	4.446	27.386	0.0	43.0	2	106.4	80.2	2	2301.4	2	1504.7	2	7.4718	-9.9
29116	999.6	34.556	34.557	4.527	4.447	27.385	0.0	43.4	2	107.6	79.8	2	2302.0	2	1501.0	2	7.4703	39.0
29115	1000.3	34.557	34.557	4.526	4.446	27.386	0.0	43.1	2	106.1	80.4	2	2301.7	2	1505.3	2	7.4719	38.2
29114	1001.4	34.556	34.555	4.525	4.445	27.386	0.0	42.9	2	104.9	79.8	2	2301.8	2	1501.7	2	7.4709	38.0
29113	1250.9	34.580	34.579	3.674	3.580	27.495	0.0	42.9	2	-9.9	84.2	2	2321.1	2	1506.2	2	7.4743	38.8
29112	1501.1	34.600	34.600	3.062	2.953	27.570	0.0	42.8	2	-9.9	94.7	2	2330.6	2	1452.4	2	7.4902	37.1
29111	1747.6	34.625	34.625	2.556	2.433	27.636	0.0	41.3	2	-9.9	99.2	2	2343.0	2	1433.9	2	7.4986	35.6
29110	2001.9	34.642	34.643	2.228	2.088	27.678	0.0	41.3	2	-9.9	106.3	2	2347.7	2	1387.5	2	7.5121	36.0
29109	2251.2	34.651	34.651	2.067	1.908	27.699	0.0	42.1	2	-9.9	111.5	2	2347.4	2	1356.1	2	7.5225	36.5
29108	2487.0	34.661	34.662	1.877	1.700	27.723	0.0	41.2	2	-9.9	120.4	2	2346.2	2	1309.5	2	7.5379	37.7
29107	2742.8	34.668	34.672	1.731	1.533	27.741	0.0	40.8	2	-9.9	130.0	2	2341.0	2	1270.2	2	7.5542	37.9
29106	2998.8	34.673	34.674	1.675	1.454	27.751	0.0	41.0	2	-9.9	134.3	2	2338.5	2	1234.2	2	7.5605	41.7
29105	3249.6	34.677	34.680	1.583	1.340	27.762	0.0	39.6	2	-9.9	142.2	2	2333.3	2	1194.5	2	7.5710	36.1
29104	3503.8	34.684	34.682	1.493	1.227	27.776	0.0	40.3	2	-9.9	149.2	2	2331.3	2	1152.6	2	7.5870	37.5
29103	3751.9	34.689	34.691	1.423	1.133	27.787	0.0	40.3	2	-9.9	155.3	2	2328.1	2	1116.5	2	7.5993	38.4
29102	3998.0	34.691	34.693	1.384	1.078	27.792	0.0	39.4	2	-9.9	161.1	2	2323.5	2	1102.1	2	7.6051	40.1
29101	4198.1	34.691	34.694	1.397	1.059	27.793	0.0	39.2	2	-9.9	162.4	2	2322.0	2	1097.0	2	7.6056	36.7



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STATION	79	OPS NO.	921220012	LATITUDE	0° 14.8 N															
CAST	298	DATE	1-May-92	LONGITUDE	140° 0.6 W															
CTD	92																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
29824	5.6	35.082	35.047	28.670	28.669	22.238	0.0	1.6	2	0.0	2	196.0	2	1979.8	2	287.1	2	2321	8.0824	-9.9
29823	11.8	35.088	35.080	28.508	28.505	22.297	0.3	2.0	2	0.0	2	194.0	2	1982.2	2	288.8	2	2328	8.0796	64.9
29822	20.3	35.098	35.087	28.403	28.398	22.340	0.3	1.2	2	0.0	2	194.6	2	1983.8	2	290.2	2	2332	8.0782	-9.9
29821	40.3	34.971	34.971	26.649	26.640	22.812	0.5	3.1	2	0.0	2	174.6	2	1996.2	2	319.9	2	2307	8.0444	-9.9
29820	50.1	35.017	35.011	25.178	25.167	23.305	0.7	5.7	2	0.0	2	136.3	2	2033.9	2	385.6	2	2303	7.9784	-9.9
29819	59.5	35.144	35.133	24.774	24.761	23.524	0.8	6.0	2	1.4	2	139.0	2	2044.3	2	394.7	2	2302	7.9700	-9.9
29818	80.0	35.235	35.226	21.262	21.247	24.607	0.0	8.0	2	3.6	2	134.9	2	2082.6	2	463.7	2	2326	7.9152	-9.9
29817	89.4	35.270	35.270	18.944	18.928	25.247	0.0	9.4	2	3.9	2	129.7	2	2102.5	2	-9.9	9	2326	7.8819	-9.9
29816	99.5	35.173	35.155	17.609	17.592	25.506	0.0	9.3	2	6.6	2	132.2	2	2105.5	2	529.3	2	2305	7.8664	-9.9
29815	109.5	35.201	35.207	16.821	16.803	25.716	0.0	9.6	2	6.9	2	132.1	2	2115.9	2	554.7	2	2325	7.8508	-9.9
29814	119.4	35.123	35.130	15.879	15.860	25.875	0.0	10.7	2	9.0	2	137.0	2	2119.6	2	-9.9	9	2327	7.8383	-9.9
29813	129.4	35.093	35.093	15.372	15.352	25.966	0.0	11.4	2	9.1	2	134.5	2	2125.1	2	597.2	2	2321	7.8213	-9.9
29812	137.2	35.082	35.079	14.853	14.832	26.073	0.0	13.0	2	10.1	2	133.8	2	2131.4	2	620.6	2	2321	7.8083	-9.9
29811	149.0	35.023	35.026	14.212	14.190	26.165	0.0	15.3	2	10.0	2	132.8	2	2137.0	2	-9.9	9	2322	7.7946	-9.9
29810	163.8	34.967	34.970	13.668	13.645	26.236	0.0	17.1	2	13.9	2	130.0	2	2142.5	2	675.5	2	2308	7.7767	-9.9
29809	178.3	34.913	34.915	13.158	13.133	26.299	0.0	18.0	2	13.7	2	118.3	2	2155.0	2	-9.9	9	2316	7.7431	-9.9
29808	200.0	34.882	34.881	12.656	12.629	26.376	0.0	21.0	2	15.8	2	101.6	2	2172.1	2	831.8	2	2312	7.6980	-9.9
29807	247.2	34.879	34.875	12.491	12.458	26.407	0.0	22.9	2	16.5	2	83.7	2	2187.1	2	-9.9	9	2310	7.6568	-9.9
29806	301.2	34.772	34.773	10.872	10.835	26.628	0.0	29.7	2	32.6	2	25.9	2	2243.4	2	1424.8	2	2311	-9.9999	-9.9
29805	400.5	34.687	34.686	9.337	9.292	26.826	0.0	30.7	2	32.6	2	29.6	2	2259.7	2	1552.4	2	2311	7.4495	-9.9
29804	596.7	34.574	34.578	7.002	6.945	27.091	0.0	33.6	2	41.2	2	56.7	2	2267.4	2	1528.6	2	-9	7.4584	-9.9
29803	797.7	34.544	34.551	5.793	5.723	27.227	0.0	32.7	2	59.9	2	68.9	2	2281.6	2	1513.0	2	2342	7.4600	-9.9
29802	997.6	34.546	34.555	4.561	4.481	27.374	0.0	32.3	2	89.0	2	80.7	2	-9.9	5	-9.9	9	2364	7.4732	-9.9
29801	998.3	34.545	34.555	4.559	4.479	27.373	0.0	31.6	2	88.9	2	81.3	2	2301.9	2	1477.6	2	-9	7.4736	-9.9



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STATION	80	OPS NO.	921220317	LATITUDE	0° 29.9 N												
CAST	299	DATE	1-May-92	LONGITUDE	139° 59.9 W												
CTD	93																
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
29924	3.1	35.036	35.027	28.581	28.580	22.233	0.1	2.6	0.0	203.8	2	2	286.5	2	2312	8.0837	-9.9
29923	12.5	35.036	35.028	28.551	28.548	22.244	0.3	2.2	0.0	-9.9	9	2	286.3	2	2315	8.0830	66.8
29922	23.1	35.055	35.043	28.378	28.373	22.316	0.3	2.5	0.5	204.0	2	2	288.7	2	-9	8.0819	-9.9
29921	41.2	34.971	34.958	27.638	27.628	22.496	0.3	3.5	1.0	-9.9	9	2	302.7	2	2303	8.0623	-9.9
29920	52.4	34.965	34.965	24.630	24.619	23.432	0.6	7.1	2.2	145.1	2	2	385.2	2	2297	7.9799	-9.9
29919	61.4	35.088	35.076	24.074	24.061	23.692	0.5	9.2	2.9	-9.9	9	2	406.3	2	2321	7.9596	-9.9
29918	81.4	35.196	35.243	21.732	21.716	24.448	0.3	11.1	3.3	141.4	2	2	441.3	2	2322	7.9322	-9.9
29917	92.5	35.214	35.208	20.268	20.251	24.860	0.0	11.7	5.3	-9.9	9	2	-9.9	9	2320	7.9026	-9.9
29916	101.1	35.257	35.256	18.956	18.938	25.235	0.0	13.1	5.6	139.0	2	2	502.4	2	2310	7.8866	-9.9
29915	112.3	35.160	35.160	17.844	17.825	25.439	0.0	13.0	6.3	-9.9	9	2	524.4	2	2320	7.8713	-9.9
29914	120.9	35.195	35.195	17.191	17.171	25.624	0.0	14.0	6.6	141.8	2	2	-9.9	2	2319	7.8598	-9.9
29913	133.5	35.093	35.096	15.880	15.859	25.852	0.0	14.8	7.1	-9.9	9	2	568.1	2	2303	7.8389	-9.9
29912	141.0	35.146	35.146	15.707	15.685	25.933	0.0	15.7	7.4	141.9	2	2	399.8	3	2323	7.8290	-9.9
29911	153.4	35.016	35.016	14.741	14.718	26.047	0.0	16.6	8.7	-9.9	9	2	-9.9	9	2317	7.8105	-9.9
29910	162.4	35.046	35.043	14.648	14.624	26.090	0.0	17.1	8.5	140.4	2	2	619.0	2	2307	7.8080	-9.9
29909	181.6	34.948	34.948	13.696	13.670	26.216	0.0	19.3	10.1	-9.9	9	2	-9.9	9	2317	7.7737	-9.9
29908	201.9	34.896	34.893	13.212	13.184	26.276	0.0	20.7	12.1	120.4	2	2	742.9	2	2311	7.7399	-9.9
29907	250.4	34.883	34.880	12.559	12.525	26.397	0.0	24.8	14.1	-9.9	9	2	-9.9	9	2306	7.6715	-9.9
29906	302.6	34.815	34.829	11.734	11.695	26.504	0.0	32.2	17.7	33.0	2	2	1341.5	2	2311	7.5118	-9.9
29905	400.5	34.696	34.696	9.511	9.466	26.805	0.0	36.2	25.0	-9.9	9	2	1515.2	2	2312	7.4521	-9.9
29904	599.6	34.581	34.581	7.050	6.992	27.090	0.0	38.1	41.2	62.8	2	2	1507.4	2	2330	7.4619	-9.9
29903	803.0	34.545	34.548	5.340	5.272	27.283	0.0	39.4	65.7	-9.9	9	2	1497.5	2	2351	7.4683	-9.9
29902	997.2	34.555	34.559	4.442	4.363	27.394	0.0	39.3	83.3	79.9	2	2	-9.9	9	2367	7.4663	-9.9
29901	1000.7	34.554	34.560	4.435	4.356	27.394	0.0	39.3	83.0	-9.9	9	2	1506.1	2	2357	7.4695	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	81	OPS NO.	921220831	LATITUDE	1° 0 N															
CAST	301	DATE	1-May-92	LONGITUDE	140° 1.7 W															
CTD	94																			
Sample ID	Pressure	Salinity	Salinity	Temp	Potential	Sigma	NO2	NO3	H4SiO4	O2	QC	DIC	QC	fCO2	QC	@20° C	QC	TALK	pH	TOC
	db	CTD	Bottle	°C	°C	Theta	µmol/L	µmol/L	µmol/L	µmol/L	µmol/L	µmol/kg	µmol/L	µatm	µmol/kg	µatm	µmol/kg	µmol/kg		µmol/kg
30124	4.2	34.933	34.934	28.651	28.650	22.133	0.2	0.0	0.0	197.9	2	1971.8	2	284.6	2	284.6	2	2307	8.0851	62.4
30123	12.2	34.931	34.931	28.623	28.620	22.141	0.0	0.0	0.0	-9.9	2	1971.5	2	284.7	2	284.7	2	2310	8.0846	62.0
30122	22.5	34.979	34.976	28.439	28.434	22.239	0.5	0.6	0.0	197.5	2	1975.4	2	286.0	2	286.0	2	2304	8.0828	62.9
30121	41.2	34.975	34.975	28.253	28.243	22.298	0.0	1.5	0.0	-9.9	2	1978.0	2	290.5	2	290.5	2	2306	8.0787	62.0
30120	51.9	34.946	34.946	24.807	24.796	23.364	0.7	7.1	2.0	145.0	2	2028.6	2	379.4	2	379.4	2	2299	7.9839	62.9
30119	61.7	34.967	34.967	22.939	22.926	23.931	0.3	9.9	3.1	-9.9	2	2054.0	2	430.9	2	430.9	2	2296	7.9375	59.7
30118	84.0	35.178	35.165	19.273	19.258	25.092	0.0	13.2	6.1	133.2	3	2095.3	2	499.7	2	499.7	2	2321	7.8868	59.1
30117	96.2	35.201	35.200	19.087	19.070	25.158	0.0	13.9	5.5	-9.9	2	2096.5	2	502.5	2	502.5	2	2320	7.8849	51.9
30116	104.6	35.136	35.127	18.406	18.388	25.281	0.0	14.9	5.3	133.2	2	2099.1	2	516.2	2	516.2	2	2313	7.8745	48.9
30115	110.4	35.103	35.103	17.917	17.898	25.377	0.0	16.7	6.9	-9.9	2	2102.0	2	526.5	2	526.5	2	2319	7.8678	45.0
30114	120.5	35.073	35.052	16.484	16.465	25.697	0.0	17.3	7.3	137.4	2	2110.1	2	554.5	2	554.5	2	2314	7.8486	46.8
30113	129.4	35.044	35.044	15.746	15.726	25.845	0.0	18.3	9.6	-9.9	2	2116.7	2	573.8	2	573.8	2	2301	7.8353	45.3
30112	140.3	35.066	35.065	15.511	15.489	25.915	0.0	19.0	8.8	138.3	2	2121.8	2	610.5	2	610.5	2	2321	7.8285	43.9
30111	147.5	35.026	35.026	15.262	15.239	25.940	0.0	19.3	8.3	-9.9	2	2122.4	2	511.0	2	511.0	2	2316	7.8231	44.2
30110	162.7	34.891	34.891	13.857	13.834	26.138	0.0	23.9	14.5	119.8	2	2145.9	2	761.6	2	761.6	2	2301	7.7595	43.9
30109	181.5	34.864	34.862	13.139	13.114	26.265	0.0	27.5	16.6	-9.9	2	2171.0	2	1024.7	2	1024.7	2	2314	7.6931	43.8
30108	202.7	34.873	34.876	12.517	12.490	26.396	0.0	28.8	17.7	61.0	2	2185.8	2	994.2	2	994.2	2	2311	7.6585	43.7
30107	252.1	34.868	34.864	12.311	12.278	26.434	0.0	31.3	24.3	-9.9	2	2205.9	2	1386.6	2	1386.6	2	2308	7.6026	43.5
30106	301.0	34.816	34.813	11.560	11.522	26.537	0.0	37.3	22.9	24.2	2	2240.5	2	1306.5	2	1306.5	2	2311	7.4992	42.6
30105	404.5	34.704	34.704	9.682	9.636	26.783	0.0	40.0	29.1	-9.9	2	2254.2	2	1412.2	2	1412.2	2	2310	7.4595	42.6
30104	603.3	34.582	34.585	7.136	7.078	27.079	0.0	42.4	45.0	59.1	2	2264.8	2	1526.8	2	1526.8	2	2317	7.4639	40.3
30103	800.5	34.544	34.548	5.554	5.485	27.256	0.0	42.4	54.9	-9.9	2	2283.6	2	1506.0	2	1506.0	2	2346	7.4694	38.6
30102	995.3	34.554	34.559	4.429	4.350	27.394	0.0	41.4	82.0	86.2	2	2302.7	2	1478.1	2	1478.1	2	2357	7.4774	38.1
30101	998.2	34.554	34.560	4.413	4.334	27.396	0.0	41.2	79.6	-9.9	2	2304.5	2	1486.9	2	1486.9	2	2365	7.4744	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	82	OPS NO.	921230711	LATITUDE	1° 59.7 N													
CAST	305	DATE	2-May-92	LONGITUDE	140° 5.3 W													
CTD	95																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	@20° C μatm	TALK μmol/kg	pH	TOC μmol/kg
30524	2.3	34.602	34.600	28.390	28.389	21.970	0.0	1.4	2	0.0	199.8	2	1948.7	2	275.5	2308	8.0972	65.4
30523	14.8	34.658	34.658	28.430	28.426	22.000	0.0	1.5	2	0.0	-9.9	2	1954.2	2	276.2	-9	8.0958	65.1
30522	24.2	34.717	34.713	28.445	28.439	22.040	0.0	1.5	2	0.0	199.1	2	1956.7	2	277.1	2291	8.0935	-9.9
30521	44.0	34.848	34.843	28.382	28.372	22.161	0.2	1.3	2	0.0	-9.9	2	1966.7	2	282.5	2297	8.0875	64.9
30520	53.4	34.836	34.830	27.970	27.957	22.287	0.3	1.4	2	0.9	188.5	2	1972.3	2	292.3	2294	8.0769	64.2
30519	62.8	34.884	34.881	25.955	25.941	22.966	1.2	4.3	2	1.9	-9.9	2	2007.1	2	346.1	2286	8.0149	58.0
30518	83.4	34.842	34.842	21.921	21.905	24.126	0.5	10.3	2	4.9	122.6	2	2062.6	2	473.3	2294	7.9080	53.7
30517	104.7	34.847	34.835	15.263	15.247	25.800	0.0	25.1	2	12.6	-9.9	2	2164.9	2	836.5	2301	7.6892	46.1
30516	123.1	34.879	34.879	13.957	13.939	26.107	0.0	24.8	2	16.0	67.4	2	2183.0	2	918.1	2293	7.6537	46.5
30515	142.9	34.889	34.886	13.307	13.287	26.249	0.0	26.2	2	18.8	-9.9	2	2194.3	2	992.6	2311	7.6264	44.5
30514	163.6	34.881	34.878	12.649	12.627	26.376	0.0	24.4	2	19.7	89.0	2	2181.4	3	884.9	2309	7.6716	45.4
30513	182.6	34.880	34.879	12.540	12.516	26.397	0.0	26.2	2	19.1	-9.9	2	2191.9	2	959.6	2299	7.6409	45.2
30512	201.7	34.866	34.847	12.256	12.229	26.442	0.0	27.9	2	20.5	56.2	2	2209.3	2	1085.6	2313	7.5923	-9.9
30511	252.3	34.848	34.845	11.990	11.957	26.480	0.0	29.9	2	24.4	-9.9	2	2227.3	2	1258.3	2307	7.5364	43.7
30510	300.9	34.820	34.816	11.529	11.491	26.546	0.0	32.2	2	23.8	26.4	2	2236.6	2	1346.6	2300	7.5040	44.3
30509	400.6	34.710	34.710	9.957	9.910	26.741	0.0	33.4	2	29.9	-9.9	2	2244.9	2	1398.5	2316	7.4900	43.2
30508	600.6	34.583	34.583	7.208	7.150	27.070	0.0	38.6	2	41.6	47.7	2	2273.3	2	1570.3	2324	7.4462	38.3
30507	801.8	34.547	34.550	5.529	5.460	27.262	0.0	39.7	2	70.1	-9.9	2	2288.3	2	1546.6	2328	7.4570	42.0
30506	999.3	34.555	34.558	4.484	4.405	27.389	0.0	41.4	2	69.2	78.2	2	2305.4	2	1520.1	2368	7.4673	36.4
30505	1200.1	34.575	34.578	3.827	3.736	27.475	0.0	41.5	2	93.6	-9.9	2	2325.3	2	1568.3	2381	7.4576	40.5
30504	1298.4	34.586	34.589	3.522	3.425	27.515	0.0	41.5	2	106.3	76.8	2	2333.3	2	1575.7	2371	7.4578	40.2
30503	1402.3	34.594	34.598	3.225	3.123	27.550	0.0	42.2	2	114.7	-9.9	2	2338.8	2	1546.1	2402	7.4659	35.6
30502	1500.4	34.605	34.608	3.012	2.904	27.579	0.0	41.4	2	109.6	85.0	2	2343.3	2	1529.2	2404	7.4706	-9.9
30501	1598.6	34.613	34.617	2.820	2.706	27.603	0.0	41.7	2	126.3	-9.9	2	2345.4	2	1503.2	2388	7.4787	39.2

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STATION	83	OPS NO.	921231944	LATITUDE	2° 59.4 N	LONGITUDE	140° 1.3 W															
CAST	309	DATE	2-May-92																			
CTD	96																					
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	Talk μmol/kg	pH	TOC μmol/kg
30924	7.5	34.727	34.713	28.442	28.440	22.047	-9.9	-9.9	9	-9.9	9	-9.9	9	198.4	9	1953.6	2	272.8	2	2302	8.0973	-9.9
30923	15.9	34.727	34.711	28.447	28.443	22.046	0.0	1.4	2	0.4	2	0.0	2	-9.9	2	1953.4	2	272.9	2	2317	8.0975	64.9
30922	25.5	34.727	34.710	28.418	28.412	22.056	0.0	1.4	2	0.0	2	0.0	2	198.6	2	1954.0	2	272.6	2	2301	8.0954	-9.9
30921	46.6	34.731	34.709	28.410	28.399	22.064	0.0	1.4	2	0.0	2	0.0	2	-9.9	2	1954.1	3	273.8	2	2289	8.0978	-9.9
30920	54.8	34.734	34.714	28.376	28.363	22.078	0.0	1.4	2	0.0	2	0.0	2	197.4	2	1954.9	2	275.2	2	2285	8.0960	-9.9
30919	64.1	34.818	34.779	27.588	27.573	22.399	-9.9	2.8	9	2.8	9	0.0	2	-9.9	9	1973.6	2	434.1	2	2282	8.0687	-9.9
30918	85.1	34.883	34.863	22.571	22.554	23.974	0.5	8.4	2	5.1	2	5.1	2	131.3	2	2049.5	2	595.9	2	2286	7.9363	-9.9
30917	95.3	34.764	34.764	18.255	18.239	25.033	0.4	14.8	2	9.9	2	9.9	2	-9.9	2	2104.9	2	-9.9	9	2293	7.8169	-9.9
30916	104.3	34.731	34.714	15.715	15.699	25.610	0.0	18.4	2	16.0	2	16.0	2	98.9	2	2136.8	2	721.9	2	2287	7.7471	-9.9
30915	114.5	34.804	34.794	14.338	14.321	25.968	0.0	22.3	2	18.7	2	18.7	2	-9.9	2	2166.9	2	847.8	2	2306	7.6853	-9.9
30914	124.9	34.864	34.856	13.688	13.670	26.151	0.0	24.9	2	17.3	2	17.3	2	64.8	2	2185.6	2	955.3	2	2305	7.6434	-9.9
30913	133.4	34.883	34.878	13.483	13.464	26.209	0.0	25.7	2	19.3	2	19.3	2	-9.9	2	2192.8	2	996.3	2	2305	7.6254	-9.9
30912	143.8	34.907	34.904	13.207	13.187	26.284	0.0	26.5	2	20.6	2	20.6	2	53.0	2	2200.0	2	1044.0	2	2315	7.6104	-9.9
30911	153.5	34.905	34.902	13.138	13.117	26.296	0.0	27.4	2	-9.9	9	-9.9	9	1059.5	2	2201.6	2	1059.5	2	2308	7.6038	-9.9
30910	168.5	34.897	34.893	12.947	12.924	26.329	0.0	27.4	2	20.7	2	20.7	2	46.4	2	2207.2	2	1097.8	2	2318	7.5898	-9.9
30909	182.7	34.895	34.890	12.882	12.857	26.341	0.0	28.7	2	20.4	2	20.4	2	-9.9	2	2208.0	2	1106.2	2	2314	7.5853	-9.9
30908	203.7	34.874	34.871	12.564	12.537	26.388	0.0	30.1	2	23.1	2	23.1	2	33.7	2	2219.1	2	1210.1	2	2309	7.5521	-9.9
30907	252.5	34.835	34.836	11.975	11.942	26.473	0.0	31.3	2	24.9	2	24.9	2	-9.9	2	2229.7	2	1286.5	2	2300	7.5238	-9.9
30906	302.8	34.800	34.799	11.442	11.404	26.546	0.0	31.0	2	29.6	2	29.6	2	40.7	2	2227.1	2	1252.6	2	2322	7.5345	-9.9
30905	402.9	34.708	34.708	10.108	10.061	26.714	0.0	31.3	2	29.5	2	29.5	2	-9.9	2	2232.5	2	1285.9	2	2309	7.5245	-9.9
30904	601.0	34.568	34.573	6.849	6.792	27.107	0.0	37.9	2	49.0	2	49.0	2	52.0	2	2272.3	2	1582.8	2	2312	7.4453	-9.9
30903	803.6	34.540	34.545	5.387	5.319	27.273	0.0	37.9	2	62.4	2	62.4	2	-9.9	2	2284.9	2	1501.2	2	2353	7.4699	-9.9
30902	994.7	34.549	34.557	4.525	4.446	27.380	0.0	39.6	2	87.7	2	87.7	2	72.6	2	2309.4	2	1559.9	2	2364	7.4540	-9.9
30901	994.8	34.550	34.562	4.522	4.443	27.381	0.0	39.6	2	87.6	2	87.6	2	-9.9	2	2309.4	2	1561.2	2	2344	7.4536	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	84	OPS NO.	921240217	LATITUDE	3° 59.7 N	LONGITUDE	140° 1 W											
CAST	313	DATE	3-May-92															
CTD	97																	
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	TALK µmol/kg	pH	TOC µmol/kg
31324	6.5	34.663	34.655	28.571	28.569	21.956	0.0	1.2	2	0.0	201.9	2	1946.3	2	267.2	2298	8.1053	-9.9
31323	16.0	34.666	34.655	28.560	28.556	21.963	0.0	0.0	2	0.0	-9.9	2	1945.4	2	266.7	2295	8.1047	66.3
31322	24.8	34.669	34.654	28.546	28.540	21.971	0.0	1.3	2	0.0	200.7	2	1946.1	2	267.2	-9	8.1030	-9.9
31321	44.0	34.677	34.665	28.502	28.492	21.993	0.0	1.3	2	0.0	-9.9	2	1947.7	2	267.8	2285	8.1037	-9.9
31320	52.0	34.694	34.666	28.500	28.488	21.999	0.5	0.6	2	0.0	199.3	2	1948.7	2	269.7	2292	8.1026	-9.9
31319	63.2	34.792	34.764	27.479	27.464	22.407	0.3	2.7	2	0.0	-9.9	2	1973.3	2	297.5	2273	8.0667	-9.9
31318	84.8	34.906	34.906	22.968	22.951	23.878	0.0	9.2	2	2.9	128.5	2	2046.0	2	425.1	2298	7.9416	-9.9
31317	93.5	34.895	34.832	21.056	21.038	24.359	0.0	9.1	2	5.1	-9.9	2	2060.6	2	458.1	2295	7.9132	-9.9
31316	102.8	34.776	34.777	18.585	18.567	24.961	0.0	13.8	2	8.1	113.3	2	2096.5	2	568.4	2281	7.8359	-9.9
31315	114.8	34.681	34.681	15.617	15.599	25.594	0.0	17.3	2	14.6	-9.9	2	2130.4	2	697.6	2298	7.7574	-9.9
31314	122.7	34.664	34.664	14.709	14.691	25.781	0.0	19.8	2	16.7	94.3	2	2147.8	2	774.4	2300	7.7175	-9.9
31313	133.1	34.728	34.721	13.168	13.150	26.153	0.0	19.7	2	18.2	-9.9	2	2166.2	2	838.7	2295	7.6879	-9.9
31312	144.0	34.824	34.824	12.976	12.956	26.266	0.0	26.7	2	22.2	65.2	2	2192.0	2	984.3	2310	7.6274	-9.9
31311	152.5	34.833	34.829	12.837	12.816	26.301	0.0	26.8	2	21.3	-9.9	2	2195.9	2	1008.3	2308	7.6196	-9.9
31310	168.2	34.812	34.812	12.301	12.279	26.390	0.0	26.8	2	20.5	66.6	2	2199.6	2	1026.3	2304	7.6125	-9.9
31309	183.1	34.793	34.793	11.937	11.913	26.445	0.0	26.7	2	23.6	-9.9	2	2197.8	2	1017.3	2309	7.6175	-9.9
31308	205.0	34.790	34.790	11.446	11.420	26.536	0.0	28.1	2	23.8	67.1	2	2207.6	2	1078.8	2310	7.5940	-9.9
31307	253.4	34.755	34.753	10.918	10.887	26.606	0.0	26.0	2	22.3	-9.9	4	2195.3	2	982.0	2295	7.6323	-9.9
31306	301.8	34.722	34.722	10.420	10.384	26.669	0.0	28.1	2	31.1	85.2	2	2206.2	2	1052.2	2313	7.6026	-9.9
31305	400.8	34.661	34.661	9.250	9.205	26.820	0.0	33.3	2	31.7	-9.9	2	2243.8	2	1371.1	2313	7.4964	-9.9
31304	601.3	34.578	34.578	7.007	6.949	27.094	0.0	38.9	2	54.2	39.8	2	-9.9	9	1655.0	2313	7.4235	-9.9
31303	801.3	34.543	34.552	5.553	5.484	27.256	0.0	40.3	2	53.8	-9.9	2	2294.0	2	1599.2	2352	7.4424	-9.9
31302	1002.4	34.550	34.559	4.626	4.545	27.370	0.0	39.4	2	87.7	65.1	2	2312.8	2	1611.8	2366	7.4414	-9.9
31301	1000.9	34.549	34.561	4.633	4.552	27.368	0.0	39.3	2	86.2	-9.9	2	2313.6	2	1623.4	2348	7.4410	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	85 315 98	OPS NO. DATE	921240855 3-May-92	Potential		Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	fCO2 @20° C		TAlk μmol/kg	pH	TOC μmol/kg	
				Temp °C	Temp °C								μatm	QC				
31524	4.1	34.621	34.611	28.433	28.432	21.970	0.0	0.0	0.0	198.7	2	1933.9	3	258.9	2	2288	8.1159	65.6
31523	12.6	34.621	34.611	28.431	28.428	21.972	0.0	0.0	0.0	-9.9	2	1934.3	3	259.4	2	-9	8.1163	65.1
31522	20.9	34.622	34.608	28.438	28.433	21.971	0.0	0.0	0.0	198.7	2	1934.7	3	258.3	2	2274	8.1159	66.3
31521	41.1	34.622	34.609	28.442	28.432	21.971	0.0	0.0	0.0	-9.9	2	1934.5	3	259.3	2	2285	8.1163	65.2
31520	50.4	34.622	34.609	28.445	28.433	21.971	0.0	0.0	0.0	198.5	2	1935.0	3	259.6	2	2285	8.1163	64.4
31519	59.6	34.623	34.608	28.441	28.427	21.973	0.0	0.0	0.0	-9.9	9	1935.8	3	260.0	2	2267	8.1160	66.2
31518	80.6	34.926	34.918	23.290	23.273	23.800	1.1	6.4	3.4	138.3	2	2039.3	3	406.4	2	2300	7.9601	54.8
31517	91.6	34.908	34.908	22.389	22.371	24.045	1.1	7.7	3.6	-9.9	9	2048.5	3	428.2	2	2295	7.9405	52.5
31516	100.9	34.862	34.861	21.110	21.091	24.366	0.1	9.8	4.9	134.5	2	2059.5	3	455.3	2	2290	7.9181	52.0
31515	110.4	34.827	-9.999	19.747	19.727	24.703	0.1	11.2	6.0	-9.9	9	2071.8	3	490.1	2	2298	7.9839	-9.9
31514	121.0	34.751	34.749	18.158	18.137	25.049	0.0	12.9	9.4	124.5	2	2091.1	3	552.5	2	2292	7.8466	52.1
31513	130.8	34.685	34.685	16.785	16.764	25.329	0.0	14.8	9.5	-9.9	9	2108.0	2	595.6	2	2276	7.8036	50.9
31512	141.4	34.682	34.647	15.491	15.469	25.624	0.0	19.6	17.7	98.7	2	-9.9	5	726.0	D	2296	7.7445	51.8
31511	151.3	34.650	34.641	14.170	14.148	25.886	0.0	23.2	18.6	-9.9	9	2158.7	2	840.4	2	2294	7.6886	46.1
31510	166.3	34.629	34.628	13.146	13.123	26.081	0.0	26.2	22.7	66.8	2	2186.4	2	1014.7	2	2279	7.6179	48.8
31509	180.8	34.628	34.648	11.591	11.568	26.382	0.0	29.1	28.1	-9.9	9	2205.7	2	1124.6	2	2305	7.5775	50.4
31508	200.9	34.668	34.666	10.909	10.884	26.523	0.0	31.3	28.9	2	2	2218.1	2	1215.0	2	2304	7.5498	48.4
31507	249.8	34.670	34.706	9.973	9.944	26.704	0.0	31.5	32.0	-9.9	9	2219.5	2	1177.3	2	2296	7.5617	44.3
31506	301.4	34.677	34.653	9.651	9.617	26.765	0.0	31.5	31.8	70.8	2	2224.5	2	1231.9	2	2313	7.5474	44.4
31505	401.8	34.650	34.650	8.978	8.934	26.855	0.0	35.5	38.3	-9.9	9	2249.0	2	1457.0	2	2313	7.4790	42.4
31504	600.2	34.582	34.586	7.203	7.145	27.070	0.0	43.5	54.5	19.5	2	2295.0	2	1829.7	2	2312	7.3861	41.0
31503	797.6	34.548	34.590	5.573	5.504	27.257	0.0	42.6	59.4	-9.9	9	2303.2	2	1723.2	2	2349	7.4132	41.6
31502	1001.5	34.557	34.566	4.725	4.644	27.365	0.0	43.0	89.3	46.1	2	2323.9	2	1768.5	2	2363	7.4057	40.9
31501	1002.9	34.557	34.565	4.723	4.641	27.365	0.0	44.3	88.2	-9.9	9	2324.0	2	1763.4	2	2359	7.4053	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION	85	OPS NO.	921241342	LATITUDE	4° 55.6 N												
CAST	317	DATE	3-May-92	LONGITUDE	140° 0.6 W												
CTD	99																
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	DIC μmol/kg	fCO2 @20° C μatm	QC	QC	TALK μmol/kg	pH	TOC μmol/kg
31724	5.1	34.628	34.610	28.398	28.397	21.987	0.0	0.9	0.0	198.6	1940.6	263.0	2	2	2290	8.1123	-9.9
31723	4.0	34.629	34.610	28.394	28.393	21.989	0.0	0.6	0.0	-9.9	1942.4	262.3	2	2	2296	8.1129	-9.9
31722	3.6	34.628	34.613	28.406	28.405	21.984	0.0	0.7	0.0	198.3	1940.6	263.7	2	2	2274	8.1110	-9.9
31721	3.0	34.629	34.611	28.399	28.398	21.987	0.0	0.8	0.0	-9.9	1940.2	267.6	2	2	2284	8.1134	-9.9
31720	3.9	34.628	34.611	28.408	28.407	21.984	0.0	0.5	0.0	198.6	1941.4	269.2	2	2	2280	8.1132	-9.9
31719	1003.1	34.565	34.563	4.698	4.617	27.374	0.0	44.3	89.0	-9.9	2327.7	1757.6	2	2	2349	7.4082	-9.9
31718	1001.8	34.565	34.563	4.698	4.617	27.374	0.0	44.6	86.2	47.8	2326.5	1757.1	2	2	2370	7.4088	-9.9
31717	1003.5	34.565	34.560	4.699	4.618	27.374	0.0	44.6	93.9	-9.9	2328.7	1755.8	2	2	2373	7.4077	-9.9
31716	1001.3	34.565	34.560	4.699	4.618	27.374	0.0	44.5	93.8	48.1	2325.4	1740.0	2	2	2350	7.4094	-9.9
31715	1002.3	34.565	34.561	4.700	4.619	27.374	0.0	43.7	88.8	-9.9	2327.0	-9.9	2	9	2370	7.4087	-9.9
31714	1003.6	34.565	34.563	4.700	4.619	27.374	0.0	43.4	93.9	47.0	2325.6	1753.9	2	2	2370	7.4094	-9.9
31713	1255.6	34.586	34.586	3.773	3.678	27.490	0.0	42.7	108.6	-9.9	2338.9	1654.7	2	2	2365	7.4348	37.8
31712	1498.3	34.609	34.609	3.034	2.926	27.580	0.0	41.9	138.7	77.1	2350.6	1609.0	2	2	2411	7.4577	36.6
31711	1752.5	34.630	34.631	2.547	2.423	27.641	0.0	40.8	138.0	-9.9	2352.9	1504.1	2	2	2421	7.4839	37.1
31710	2002.6	34.646	34.647	2.211	2.071	27.682	0.0	40.8	-9.9	99.5	2357.3	1455.9	2	2	2414	7.4988	36.4
31709	2250.6	34.658	34.659	1.983	1.825	27.711	0.0	40.1	152.3	-9.9	2354.1	1392.4	2	2	2440	7.5150	-9.9
31708	2497.7	34.666	34.668	1.860	1.682	27.729	0.0	39.7	-9.9	116.8	2353.0	1328.8	2	2	2441	7.5300	33.7
31707	2750.4	34.669	34.667	1.793	1.594	27.738	0.0	38.8	152.7	-9.9	2353.1	1311.7	2	2	2421	7.5363	-9.9
31706	2998.4	34.677	34.679	1.663	1.443	27.755	0.0	39.2	-9.9	127.7	2350.6	1268.7	2	2	2444	7.5505	32.9
31705	3251.5	34.683	34.684	1.545	1.303	27.770	0.0	38.0	154.6	-9.9	2343.2	1207.7	2	2	2442	7.5683	-9.9
31704	3498.6	34.687	34.687	1.478	1.212	27.779	0.0	37.5	163.5	148.6	2334.6	1164.7	2	3	2420	7.5822	33.9
31703	3752.2	34.690	34.692	1.423	1.133	27.787	0.0	36.4	143.6	-9.9	2327.5	1130.5	2	2	2440	7.5940	-9.9
31702	3998.8	34.694	34.696	1.389	1.073	27.795	0.0	36.6	156.7	162.3	2323.4	1092.6	2	2	2436	7.5999	-9.9
31701	4203.4	34.694	34.695	1.387	1.049	27.796	0.0	37.0	150.9	-9.9	2321.4	1091.3	2	2	2421	7.6021	-9.9

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STATION CAST CTD	86 322 100	OPS NO. DATE	921250049 4-May-92	LATTITUDE LONGITUDE	5° 59.5 N 140° 0.6 W	Potential		Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	DIC µmol/kg	fCO2 @20° C		TALK µmol/kg	pH	TOC µmol/kg		
						Temp °C	Temp °C							QC	µatm					
32224	8.0	34.602	34.586	28.413	28.411	21.963	0.0	0.0	2	0.0	2	200.3	2	1936.6	2	257.1	2	2292	8.1187	-9.9
32223	16.7	34.602	34.585	28.343	28.339	21.987	0.0	0.0	2	0.0	2	-9.9	9	1935.2	2	258.2	2	-9	8.1194	67.0
32222	24.7	34.608	34.590	28.275	28.269	22.014	0.0	0.0	2	0.0	2	200.4	2	1936.2	2	257.7	2	2276	8.1177	-9.9
32221	45.2	34.616	34.597	28.253	28.242	22.029	0.0	0.0	2	0.0	2	-9.9	9	1937.2	2	258.8	2	2277	8.1174	-9.9
32220	56.8	34.612	34.595	28.249	28.236	22.028	0.0	0.0	2	0.0	2	199.9	2	1937.7	2	259.1	2	2283	8.1175	-9.9
32219	64.1	34.621	34.597	28.252	28.237	22.034	0.0	0.5	2	0.6	2	-9.9	9	1938.6	2	259.6	2	2268	8.1148	-9.9
32218	83.8	34.618	34.602	27.850	27.830	22.165	0.0	0.6	2	0.6	2	194.1	2	1943.3	2	265.3	2	2283	8.0966	-9.9
32217	94.7	34.864	34.846	22.324	22.305	24.030	0.6	6.3	2	1.1	2	-9.9	9	2044.4	2	412.5	2	2299	7.9526	-9.9
32216	104.2	34.792	34.792	19.584	19.565	24.718	0.7	8.7	2	2.7	2	139.9	2	2070.8	2	479.2	2	2279	7.9980	-9.9
32215	115.2	34.693	34.693	16.851	16.832	25.319	0.0	15.4	2	5.5	2	-9.9	9	2111.4	2	617.4	2	2297	7.9038	-9.9
32214	123.3	34.668	34.668	16.051	16.032	25.486	0.0	17.9	2	8.3	2	109.3	2	2125.0	2	670.4	2	2294	7.7711	-9.9
32213	133.6	34.613	34.613	14.487	14.467	25.790	0.0	22.7	2	12.3	2	-9.9	9	2156.0	2	852.1	2	2282	7.6909	-9.9
32212	144.3	34.625	34.619	13.135	13.115	26.080	0.0	29.3	2	15.0	2	54.6	2	2195.7	2	1099.6	2	2296	7.5906	-9.9
32211	154.7	34.648	34.643	12.248	12.228	26.273	0.0	31.7	2	16.6	2	-9.9	9	2220.4	2	1277.1	2	2301	7.5255	-9.9
32210	169.0	34.676	34.676	11.478	11.457	26.440	0.0	33.9	2	19.3	2	27.8	2	2233.6	2	1367.9	2	2293	7.5016	-9.9
32209	183.8	34.681	34.680	10.978	10.955	26.536	0.0	35.2	2	21.5	2	-9.9	9	2237.4	2	1353.8	2	2310	7.5031	-9.9
32208	204.3	34.683	34.683	10.503	10.479	26.622	0.0	33.0	2	21.2	2	41.9	2	2235.2	2	1338.3	2	2312	7.5127	-9.9
32207	253.9	34.685	34.682	9.993	9.964	26.713	0.0	35.1	2	24.1	2	-9.9	9	2240.4	2	1357.1	2	2301	7.5065	-9.9
32206	303.4	34.680	34.680	9.621	9.587	26.772	0.0	36.4	2	26.5	2	43.4	2	2245.9	2	1405.2	2	2314	7.4935	-9.9
32205	502.4	34.609	34.609	7.976	7.925	26.978	0.0	42.0	2	34.0	2	-9.9	9	2288.1	2	1773.3	2	2330	7.3954	-9.9
32204	601.6	34.589	34.572	6.901	6.844	27.101	0.0	44.6	2	41.5	2	11.3	2	2305.8	2	1916.1	2	2320	7.3655	-9.9
32203	801.2	34.551	34.556	5.300	5.232	27.292	0.0	46.4	2	59.7	2	-9.9	9	2318.2	2	1811.0	2	2362	7.3932	-9.9
32202	1002.7	34.560	34.565	4.466	4.386	27.395	0.0	45.4	2	77.2	2	50.4	2	2329.9	2	1741.6	2	2376	7.4127	-9.9
32201	1002.4	34.560	34.566	4.465	4.385	27.395	0.0	45.5	2	77.1	2	-9.9	9	2330.9	2	1731.0	2	2354	7.4125	-9.9



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STATION 87      OPS NO. 921251125      LATITUDE 8° 0 N  
 CAST 324      DATE 4-May-92      LONGITUDE 140° 0.6 W  
 CTD 101

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	fCO2 @20° C		Talk µmol/kg	pH	TOC µmol/kg
													QC	µatm			
32424	6.7	34.591	34.574	27.493	27.491	22.254	0.0	0.0	0.0	200.7	2	1929.8	2	257.9	2294	8.1238	-9.9
32423	14.8	34.591	34.573	27.502	27.499	22.252	0.0	0.0	0.0	-9.9	2	1929.8	2	254.7	-9	8.1234	68.9
32422	24.6	34.591	34.573	27.492	27.486	22.256	0.0	0.0	0.0	200.7	2	-9.9	9	253.6	2284	8.1229	-9.9
32421	44.7	34.591	34.574	27.508	27.498	22.252	0.0	0.0	0.0	-9.9	2	1907.9	3	253.8	2279	8.1248	-9.9
32420	55.1	34.592	34.574	27.509	27.496	22.253	0.0	0.0	0.0	200.4	2	1914.0	3	252.8	2285	8.1238	-9.9
32419	65.2	34.716	34.670	27.489	27.474	22.354	0.0	0.0	0.0	-9.9	2	1924.0	3	253.9	2282	8.1233	-9.9
32418	84.7	34.735	34.719	27.385	27.365	22.403	0.0	0.0	0.0	199.6	2	1937.2	3	254.5	2292	8.1232	-9.9
32417	92.4	34.733	34.714	27.275	27.254	22.438	0.2	0.0	0.0	-9.9	2	1934.6	2	260.2	2293	8.1207	-9.9
32416	105.7	34.522	34.520	18.359	18.341	24.823	0.3	7.9	4.9	158.8	2	2081.7	2	524.0	2287	7.9643	-9.9
32415	115.9	34.466	34.471	16.171	16.153	25.303	0.3	15.1	6.7	-9.9	2	2122.6	2	689.3	2287	7.7628	-9.9
32414	125.6	34.519	34.511	13.433	13.415	25.937	0.0	29.7	14.9	36.4	2	2208.2	2	1271.9	2291	7.5253	-9.9
32413	135.3	34.704	34.704	12.579	12.561	26.251	0.0	35.1	18.3	-9.9	2	2242.6	2	1510.7	2298	7.4587	-9.9
32412	137.4	34.697	34.697	12.542	12.524	26.253	0.0	35.1	18.2	5.5	2	2240.9	2	1521.8	2301	7.4598	-9.9
32411	154.5	34.731	34.727	11.961	11.941	26.392	0.0	36.6	18.4	-9.9	2	2244.7	2	1516.6	2305	7.4593	-9.9
32410	170.3	34.708	34.706	11.467	11.446	26.467	0.0	35.6	19.5	8.0	2	2248.4	2	1550.5	2306	7.4545	-9.9
32409	183.8	34.717	34.715	11.307	11.284	26.504	0.0	36.5	20.5	-9.9	4	2247.2	2	1516.6	2307	7.4612	-9.9
32408	204.9	34.723	34.719	10.976	10.951	26.569	0.0	37.9	20.2	12.5	2	2250.8	2	1541.4	2313	7.4568	-9.9
32407	253.8	34.703	34.700	10.368	10.338	26.662	0.0	36.6	20.2	-9.9	2	2241.3	2	1388.1	2311	7.4979	-9.9
32406	304.3	34.692	34.689	9.920	9.885	26.731	0.0	38.4	20.8	31.7	2	2250.9	2	1487.6	2318	7.4735	-9.9
32405	402.4	34.663	34.657	9.238	9.193	26.823	0.0	40.5	23.7	-9.9	2	2265.1	2	1599.2	2320	7.4361	-9.9
32404	603.4	34.561	34.563	7.161	7.102	27.059	0.0	43.4	36.7	7.9	2	2306.2	2	1939.1	2329	7.3626	-9.9
32403	804.3	34.547	34.548	5.300	5.232	27.289	0.0	48.4	54.3	89.3	4	2326.9	2	1928.4	2359	7.3682	-9.9
32402	1001.6	34.556	34.562	4.500	4.420	27.388	0.0	47.5	73.8	41.2	2	2335.1	2	1840.0	2373	7.3900	-9.9
32401	1002.4	34.555	34.562	4.502	4.422	27.387	0.0	46.4	76.0	-9.9	2	2335.5	2	1826.9	2367	7.3941	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 88      OPS NO. 921260613      LATITUDE 8° 59.5 N  
 CAST 328      DATE 5-May-92      LONGITUDE 140° 17.8 W  
 CTD 102

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
32824	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32823	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32822	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32821	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32820	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32818	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32817	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32816	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32815	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32814	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32813	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32812	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32811	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32809	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32808	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32807	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32806	4.5	34.729	-9.999	27.428	27.427	22.379	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32805	24.4	34.727	-9.999	27.429	27.423	22.379	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32804	44.0	34.729	-9.999	27.410	27.400	22.388	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32803	77.8	34.737	-9.999	27.388	27.370	22.403	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32802	101.2	34.691	-9.999	27.053	27.030	22.478	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
32801	503.6	34.592	-9.999	8.211	8.159	26.930	-9.9	-9.9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	OPS NO. DATE	88 329 103	LATITUDE 8° 59.8 N		LONGITUDE 140° 0.4 W		921260908 5-May-92	Potential		Sigma Theta	NO2 µmol/L	NO3 µmol/L	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TALK µmol/kg	pH	TOC µmol/kg
			Temp °C	Temp °C																		
32924			5.3	34.719	34.694	27.352	27.351	22.396	0.0	0.0	2	0.0	0.0	2	201.2	1936.4	2	258.0	2	2303	8.1234	-9.9
32923			13.9	34.717	34.695	27.331	27.328	22.402	0.0	0.0	2	0.0	0.0	2	-9.9	1936.3	2	258.0	2	2297	8.1236	-9.9
32922			23.4	34.717	34.697	27.340	27.335	22.400	0.0	0.0	2	0.0	0.0	2	200.8	1935.8	2	255.5	2	2310	8.1225	-9.9
32921			43.3	34.722	34.699	27.343	27.333	22.404	0.0	0.0	2	0.0	0.0	2	-9.9	1935.5	2	254.6	2	2274	8.1240	-9.9
32920			53.2	34.721	34.700	27.344	27.332	22.404	0.0	0.0	2	0.0	0.0	2	201.0	1936.2	2	253.7	2	2289	8.1251	-9.9
32919			61.6	34.725	34.702	27.317	27.303	22.416	0.0	0.0	2	0.0	0.0	2	-9.9	1937.2	2	254.4	2	2288	8.1227	-9.9
32918			80.7	34.725	34.698	27.282	27.263	22.428	0.0	0.0	2	0.0	0.0	2	200.5	1936.2	2	254.1	2	2276	8.1230	-9.9
32917			90.8	34.629	34.699	21.615	21.597	24.049	0.0	1.7	2	2.0	2.0	2	-9.9	2011.4	2	371.3	2	2287	7.9952	-9.9
32916			102.3	34.479	34.479	16.382	16.366	25.264	0.4	15.5	2	18.2	9.6	2	120.8	2123.9	2	688.8	2	2286	7.7616	-9.9
32915			112.0	34.597	34.590	14.008	13.992	25.878	0.5	25.3	2	21.4	18.2	2	-9.9	2179.5	2	991.9	2	2278	7.6232	-9.9
32914			123.9	34.621	34.616	12.976	12.959	26.108	0.1	31.0	2	21.4	21.4	2	37.7	2209.2	2	1218.3	2	2294	7.5454	-9.9
32913			132.3	34.636	34.635	12.586	12.568	26.197	0.0	32.5	2	24.5	24.5	2	-9.9	2218.6	2	1296.0	2	2294	7.5204	-9.9
32912			143.3	34.676	34.672	12.053	12.034	26.331	0.1	35.0	2	30.1	30.1	4	19.4	2234.4	2	1415.6	2	2291	7.4893	-9.9
32911			151.8	34.711	34.708	11.817	11.797	26.404	0.0	36.5	2	26.9	26.9	2	-9.9	2243.7	2	1488.5	2	2305	7.4745	-9.9
32910			167.7	34.719	34.714	11.511	11.490	26.467	0.0	36.9	2	27.0	27.0	2	14.1	2245.4	2	1485.6	2	2306	7.4715	-9.9
32909			181.5	34.725	34.722	11.324	11.301	26.507	0.0	-9.9	9	28.8	28.8	2	-9.9	2245.7	2	1486.6	2	2293	7.4689	-9.9
32908			203.5	34.722	34.719	11.064	11.039	26.552	0.0	36.1	2	28.1	28.1	2	15.7	2247.4	2	1503.8	2	2311	7.4677	-9.9
32907			254.4	34.711	34.710	10.520	10.490	26.642	0.0	38.3	2	31.0	31.0	2	-9.9	2255.2	2	1569.8	2	2313	7.4495	-9.9
32906			302.0	34.697	34.696	10.105	10.070	26.704	0.0	38.8	2	32.4	32.4	2	5.5	2267.5	2	1715.8	2	2299	7.4167	-9.9
32905			402.1	34.636	34.636	9.016	8.972	26.838	0.0	40.0	2	38.3	38.3	2	-9.9	2283.7	2	1815.2	2	2323	7.3865	-9.9
32904			602.9	34.545	34.548	6.883	6.826	27.085	0.0	43.4	2	58.7	58.7	2	13.7	2303.5	2	1907.6	2	2329	7.3710	-9.9
32903			801.3	34.540	34.546	5.519	5.450	27.258	0.0	46.5	2	74.2	74.2	2	-9.9	2326.6	2	1903.3	2	2349	7.3743	-9.9
32902			1002.2	34.550	34.557	4.572	4.492	27.376	0.0	47.4	2	-9.9	-9.9	9	40.4	2331.6	2	1840.3	2	2373	7.3920	-9.9
32901			1002.9	34.551	34.559	4.570	4.490	27.377	0.0	49.3	2	96.0	96.0	2	-9.9	2332.3	2	1832.6	2	2366	7.3930	-9.9



# NOAA Equatorial Pacific Spring 1992

STATION	90	OFS NO.	921292012	LATITUDE	0° 0.3 S	LONGITUDE	128° 0.2 W												
CAST	336	DATE	8-May-92																
CTD	105																		
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 µmol/L	NO3 µmol/L	QC	H4SiO4 µmol/L	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TAlk µmol/kg	pH	TOC µmol/kg
33624	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33623	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33622	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33621	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33620	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33619	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33618	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33617	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33616	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33615	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33614	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33613	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33612	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33611	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33610	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33609	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33608	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33607	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33606	6.3	35.011	34.969	28.192	28.191	22.343	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33605	6.1	35.020	34.962	28.182	28.181	22.353	-9.9	-9.9	9	-9.9	9	9	-9.9	9	-9.9	9	2305	-9.9999	-9.9
33604	17.4	35.038	34.991	28.084	28.080	22.399	-9.9	-9.9	9	-9.9	9	188.8	2	-9.9	9	-9.9	2308	-9.9999	68.6
33603	26.5	35.063	35.011	28.014	28.008	22.442	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	2305	-9.9999	-9.9
33602	1002.3	34.562	34.560	4.453	4.374	27.398	-9.9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	2306	-9.9999	-9.9
33601	1003.1	34.563	34.564	4.449	4.370	27.399	-9.9	-9.9	9	-9.9	9	81.9	2	-9.9	9	-9.9	2367	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	OPS NO. DATE	91 337 106	LATITUDE LONGITUDE	0° 0.6 N 124° 0 W	Potential Temp °C	Temp °C	Salinity CTD	Salinity Bottle	Sigma Theta	NO2 µmol/L	QC	NO3 µmol/L	QC	H4SiO4 µmol/L	QC	O2 µmol/L	QC	DIC µmol/kg	QC	fCO2 @20° C µatm	QC	TAIk µmol/kg	pH	TOC µmol/kg
33724					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33723					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33722					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33721					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33719					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33718					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33717					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33716					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33715					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33714					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33713					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33712					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33711					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33710					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33709					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33708					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33707					-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33706					27.613	27.611	35.044	35.044	22.587	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33705					27.611	27.609	35.042	35.042	22.589	-9.9	9	-9.9	9	-9.9	9	192.0	2	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33704					27.537	27.533	35.042	35.042	22.613	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	65.3
33703					27.350	27.344	35.044	35.044	22.676	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33702					4.518	4.496	34.549	35.557	27.381	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33701					4.517	4.437	34.549	35.556	27.381	-9.9	9	-9.9	9	-9.9	9	81.4	2	-9.9	9	-9.9	9	-9	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION CAST CTD	OPS NO. DATE	92 338 107	921311046 10-May-92	LATITUDE LONGITUDE	0° 0.6 S 120° 0.6 W															
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	QC	NO3 μmol/L	QC	H4SiO4 μmol/L	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TAlk μmol/kg	pH	TOC μmol/kg
33824	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33823	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33822	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33821	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33820	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33819	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33818	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33817	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33816	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33815	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33814	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33813	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33812	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33811	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33810	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33809	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33808	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33807	-9.9	-9.999	-9.999	-9.999	-9.999	-9.999	-9.9	9	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
33806	4.5	34.944	34.905	27.878	27.877	22.395	0.3	2	3.3	2	2.1	-9.9	2	-9.9	9	-9.9	9	2299	-9.9999	-9.9
33805	3.4	34.944	34.905	27.884	27.883	22.393	0.3	2	3.4	2	2.1	199.3	2	-9.9	9	-9.9	9	2301	-9.9999	-9.9
33804	15.7	34.941	34.905	27.764	27.760	22.431	0.4	2	2.7	2	1.6	-9.9	9	-9.9	9	-9.9	9	2299	-9.9999	66.6
33803	23.6	34.934	34.906	27.670	27.664	22.456	0.0	4	-9.9	9	-9.9	-9.9	9	-9.9	9	-9.9	9	2300	-9.9999	-9.9
33802	997.3	34.554	34.558	4.414	4.335	27.396	0.0	2	40.1	2	85.0	-9.9	9	-9.9	9	-9.9	9	2364	-9.9999	-9.9
33801	999.3	34.553	34.558	4.410	4.331	27.396	0.0	2	40.4	2	85.3	83.1	2	-9.9	9	-9.9	9	2365	-9.9999	-9.9

# NOAA Equatorial Pacific Spring 1992

STATION 94 OPS NO. 921340435 LATITUDE 0° 4.7 N  
 CAST 344 DATE 13-May-92 LONGITUDE 110° 4.2 W  
 CTD 110

Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Temp °C	Sigma Theta	NO2		NO3		H4SiO4		O2		DIC		fCO2 @20° C		TALK	pH	TOC
							µmol/L	µmol/L	QC	µmol/L	QC	µmol/L	QC	µmol/L	QC	µmatm	QC	µmol/kg			
34424	6.0	34.242	34.180	28.158	28.157	21.776	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9999	-9.9	
34423	6.2	34.227	34.181	28.148	28.147	21.768	-9.9	9	-9.9	9	-9.9	9	-9.9	9	1929.9	2	-9.9	9	-9.9999	-9.9	
34422	5.6	34.243	34.181	28.152	28.151	21.778	-9.9	9	-9.9	9	-9.9	9	-9.9	9	1931.0	2	-9.9	9	-9.9999	-9.9	
34421	5.3	34.244	34.183	28.150	28.149	21.780	-9.9	9	-9.9	9	-9.9	9	202.1	2	-9.9	9	-9.9	9	-9.9999	-9.9	
34420	6.1	34.244	34.182	28.150	28.149	21.780	-9.9	9	-9.9	9	-9.9	9	201.9	2	-9.9	9	-9.9	9	-9.9999	-9.9	
34419	997.5	34.567	34.563	4.239	4.162	27.425	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9999	-9.9	
34418	995.8	34.567	34.562	4.247	4.170	27.424	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9999	-9.9	
34417	995.6	34.567	34.563	4.248	4.171	27.424	-9.9	9	-9.9	9	-9.9	9	-9.9	9	2307.8	2	-9.9	9	-9.9999	-9.9	
34416	997.2	34.568	34.562	4.239	4.162	27.426	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9999	-9.9	
34415	996.2	34.566	34.562	4.246	4.169	27.423	-9.9	9	-9.9	9	-9.9	9	81.8	2	-9.9	9	-9.9	9	-9.9999	-9.9	
34414	999.3	34.568	34.563	4.235	4.157	27.426	-9.9	9	-9.9	9	-9.9	9	81.2	2	2307.2	2	-9.9	9	-9.9999	36.0	
34413	1254.3	34.593	34.589	3.504	3.411	27.522	-9.9	9	-9.9	9	-9.9	9	81.5	2	2328.8	2	-9.9	9	-9.9999	36.2	
34412	1501.8	34.613	34.609	2.904	2.797	27.595	-9.9	9	-9.9	9	-9.9	9	94.6	2	2336.7	2	-9.9	9	-9.9999	37.9	
34411	1751.6	34.633	34.630	2.474	2.352	27.649	-9.9	9	-9.9	9	-9.9	9	101.1	2	2346.2	2	-9.9	9	-9.9999	35.6	
34410	2004.2	34.646	34.642	2.239	2.098	27.680	-9.9	9	-9.9	9	-9.9	9	105.8	2	2348.6	2	-9.9	9	-9.9999	36.3	
34409	2257.0	34.657	34.655	1.990	1.832	27.710	-9.9	9	-9.9	9	-9.9	9	116.3	2	2348.4	2	-9.9	9	-9.9999	-9.9	
34408	2508.5	34.665	34.661	1.891	1.712	27.726	-9.9	9	-9.9	9	-9.9	9	121.2	2	2347.1	2	-9.9	9	-9.9999	35.7	
34407	2755.8	34.673	34.669	1.747	1.548	27.744	-9.9	9	-9.9	9	-9.9	9	129.8	2	2344.4	2	-9.9	9	-9.9999	-9.9	
34406	3007.5	34.677	34.669	1.664	1.443	27.755	-9.9	9	-9.9	9	-9.9	9	129.1	2	2344.4	2	-9.9	9	-9.9999	38.3	
34405	3252.8	34.681	34.673	1.619	1.375	27.763	-9.9	9	-9.9	9	-9.9	9	137.3	2	2339.3	2	-9.9	9	-9.9999	-9.9	
34404	3505.3	34.689	34.676	1.521	1.254	27.778	-9.9	9	-9.9	9	-9.9	9	141.2	2	2336.8	2	-9.9	9	-9.9999	35.2	
34403	3503.1	34.688	34.685	1.522	1.255	27.777	-9.9	9	-9.9	9	-9.9	9	148.3	2	-9.9	9	-9.9	9	-9.9999	-9.9	
34402	3707.7	34.694	34.691	1.443	1.157	27.789	-9.9	9	-9.9	9	-9.9	9	157.2	2	2329.5	2	-9.9	9	-9.9999	-9.9	
34401	3705.9	34.694	34.691	1.443	1.157	27.789	-9.9	9	-9.9	9	-9.9	9	157.6	2	-9.9	9	-9.9	9	-9.9999	-9.9	



# NOAA Equatorial Pacific Spring 1992

STATION	95	OPS NO.	921360758	LATITUDE	0° 0.3 N															
CAST	347	DATE	15-May-92	LONGITUDE	99° 59.9 W															
CTD	111																			
Sample ID	Pressure db	Salinity CTD	Salinity Bottle	Temp °C	Potential Temp °C	Sigma Theta	NO2 μmol/L	NO3 μmol/L	QC	H4SiO4 μmol/L	QC	O2 μmol/L	QC	DIC μmol/kg	QC	fCO2 @20° C μatm	QC	TALK μmol/kg	pH	TOC μmol/kg
34724	5.4	34.289	34.261	26.463	26.462	22.355	-9.9	3.0	2	-9.9	2	189.7	2	1961.6	2	315.5	2	2272	-9.9999	-9.9
34723	14.5	34.287	34.262	26.488	26.485	22.346	-9.9	4.0	2	-9.9	2	-9.9	2	1960.6	2	347.6	2	2292	-9.9999	-9.9
34722	24.4	34.480	34.418	25.331	25.326	22.851	-9.9	6.0	2	-9.9	2	-9.9	2	1984.7	2	342.2	2	2265	-9.9999	-9.9
34721	34.5	34.798	34.753	24.080	24.073	23.469	-9.9	7.0	2	-9.9	2	-9.9	2	2027.4	2	409.2	2	2292	-9.9999	-9.9
34720	44.3	34.968	34.953	22.870	22.861	23.951	0.6	11.2	2	-9.9	2	-9.9	2	2056.2	2	429.2	2	2297	-9.9999	-9.9
34719	52.4	35.030	35.005	21.143	21.133	24.482	0.6	15.0	2	-9.9	2	-9.9	2	2084.5	2	481.4	2	2313	-9.9999	-9.9
34718	64.5	34.924	34.920	18.877	18.866	24.998	0.7	18.7	2	-9.9	2	-9.9	2	2106.3	2	578.8	2	2297	-9.9999	-9.9
34717	73.2	35.175	35.175	17.604	17.592	25.507	1.2	18.8	2	-9.9	2	-9.9	2	2119.0	2	529.8	2	2320	-9.9999	-9.9
34716	84.5	35.164	35.127	16.690	16.676	25.718	1.1	18.6	2	-9.9	2	-9.9	2	2124.4	2	584.0	2	2314	-9.9999	-9.9
34715	91.8	35.151	35.151	16.141	16.126	25.836	0.9	18.6	2	-9.9	2	-9.9	2	2128.3	2	551.3	2	2321	-9.9999	-9.9
34714	103.3	35.126	35.125	15.474	15.458	25.968	0.7	20.8	2	-9.9	2	-9.9	2	2140.6	2	660.2	2	2317	-9.9999	-9.9
34713	113.2	35.078	35.073	14.964	14.947	26.045	0.0	21.9	2	-9.9	2	-9.9	2	2145.8	2	617.5	2	2318	-9.9999	-9.9
34712	122.9	35.058	35.057	14.798	14.780	26.066	0.0	22.4	2	-9.9	2	-9.9	2	2146.1	2	678.9	2	2316	-9.9999	-9.9
34711	134.3	35.054	35.054	14.763	14.743	26.071	0.0	21.4	2	-9.9	2	-9.9	2	2143.5	2	620.7	2	2319	-9.9999	-9.9
34710	141.8	35.044	35.042	14.708	14.687	26.075	0.0	22.1	2	-9.9	2	-9.9	2	2143.4	2	681.6	2	2311	-9.9999	-9.9
34709	152.8	35.037	35.037	14.640	14.617	26.085	0.0	22.5	2	-9.9	2	-9.9	2	2145.6	2	600.6	2	2317	-9.9999	-9.9
34708	161.6	35.020	35.019	14.546	14.522	26.092	0.0	23.0	2	-9.9	2	-9.9	2	2148.6	2	704.3	2	2311	-9.9999	-9.9
34707	172.1	35.009	35.006	14.485	14.460	26.097	0.0	24.4	2	-9.9	2	-9.9	2	2152.8	2	644.8	2	2315	-9.9999	-9.9
34706	183.3	35.008	35.005	14.473	14.446	26.099	0.0	24.7	2	-9.9	2	-9.9	2	2154.3	2	732.3	2	2314	-9.9999	-9.9
34705	202.2	34.990	34.989	14.241	14.211	26.135	0.0	27.4	2	-9.9	2	83.3	2	2170.2	2	727.5	2	2317	-9.9999	-9.9
34704	1002.6	34.545	-9.999	4.277	4.199	27.403	0.0	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
34703	1001.3	34.545	-9.999	4.279	4.201	27.403	0.0	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
34702	1001.5	34.545	-9.999	4.276	4.198	27.404	0.0	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9
34701	1000.8	34.545	-9.999	4.281	4.203	27.403	0.0	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9.9	9	-9	-9.9999	-9.9