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**Chemical Data from
Oregon Waters, 1972**

by

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L. Barstow,
D. R. Standley,
S. Williams,
L. I. Gordon,
P. K. Park

Office of Naval Research
Contract N00014-67-A-0369-0007
Project NR083-102

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Data Report 56 Reference 73-15
September 1973

SCHOOL OF OCEANOGRAPHY
OREGON STATE UNIVERSITY
Corvallis, Oregon 97331

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John V. Byrne
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ABSTRACT

This report presents data collected on six cruises made during the months May-October 1972 along the Oregon coast. Both complete data listings and sequential surface data contour charts are presented. The latter graphically display rapid changes in surface water characteristics on time scales as short as a few hours.

The data were gathered concurrently with CUEA data previously published. All chemical data presented herein have been submitted to the National Oceanographic Data Center.

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INTRODUCTION

Description of Cruise Program

The data presented in this report were collected on a series of six cruises made during the months May-October, 1972 aboard Oregon State University's R/V YAQUINA. Two of these cruises, Y7205-C and Y7207-C, represent cooperative efforts between marine chemists and phytoplankton ecologists.

The remaining four cruises were made under the auspices of the 1972 Coastal Upwelling Experiment (CUE-I) sponsored by the IDOE office of the National Science Foundation. In these instances, marine chemists, phytoplankton ecologists, and optical oceanographers were invited to gather data to complement the intensive CUE hydrographic effort. These circumstances permitted the collection of chemical data as repeated examinations of a dynamic upwelling regime, covering most of one seasonal upwelling cycle, from the time of initiation to a few weeks prior to cessation. As the data show, this cycle included a number of upwelling "events" or pulses generated by intermittent periods of strong north to northwesterly winds.

Format of Data Presentation

In addition to the computer Data Listings in this report, the surface

dissolved nutrients (PO_4^{3-} , $\text{NO}_3^- + \text{NO}_2^-$ and H_4SiO_4) and P_{CO_2} data have been manually contoured and presented in graphical form. In general, portions of cruise tracks repeated during a single cruise were displayed as separate "legs." This was necessary due to the rapid movement of surface water, which often radically changed the isogram distribution during periods of a few hours. This potential for rapid change should also be considered while examining the plots representing extended periods of data collection. Inclusive dates and times for all cruise legs are given in Table I.

Table I. Summary of Cruise Leg Designations for 1972 Chemical Surface Data.

Cruise	Leg	Beginning			Ending		
		Stn.	Date	Time	Stn.	Date	Time
Y7205-C		DB-1	5/28	1105	DB2-3	6/5	0924
Y7206-C	I	C-2	6/20	1940	H-2	6/22	1110
	II	H-2	6/22	1052	DB-1	6/23	0920
	III	DB-1	6/23	0905	Pos. 8	6/23	1220
Y7207-A	I	C-2	7/5	1050	H-1.5	7/7	0707
	II	H-1.5	7/7	0656	C-2	7/7	1200
	III	C-2	7/7	1145	D-5	7/9	0005
Y7207-C		DB-0.5	7/19	1914	SM-18	7/22	1028
Y7207-E	I	C-2	7/31	1104	H-1.33	8/2	0804
	II	H-1.33	8/2	0753	E-4	8/2	1651
Y7208-E	I	DB-1	8/26	1646	H-6	8/27	0302
	II	H-6	8/27	0218	D-2	8/28	2045
	III	D-2	8/28	2328	D-6	8/29	0617

Although some of the cruise legs consist of only one or two straight track sections, their value in describing water movements was regarded as sufficient justification for their inclusion in the plot sequence. These

plots show only points of contour intersection with the data track. No implication of isogram direction or linear continuity is intended. On the other hand, surface data from Y7205-C were considered too widely dispersed and too much separated in time from subsequent cruises to provide any meaningful graphic coherence. Therefore, plots of Y7205-C data are not given.

Each Surface Contour plot is presented with a corresponding chart giving sample locations. If no sample value was available for a station, it is not indicated on the location chart, even though the position may appear in the Data Listings. Such a listing signifies that only hydrographic and no chemical data were obtained at that location and time.

Standard contour intervals are indicated by a thick, solid line. A thin solid line depicts a non-standard, intermediate interval. Dashed lines denote a relatively uncertain estimate of contour locations.

The surface plots are presented in chronological order, one parameter at a time. However, Table II provides a list of page numbers of corresponding plots of different parameters for each time period, to give the reader the option of either examining time-related changes in surface distributions, or of making inter-parameter comparisons for selected time periods.

The hydrographic data gathered concurrently with those given here have been published as a series of CUEA data reports (Anonymous, 1972a, 1972b, 1972c, 1972d, 1972e, 1973a, 1973b, 1973c; and Halpern and

Table II. Index of Page Numbers for Plots of 1972 Chemical Surface Data.

Cruise	Leg	Page Number of Surface Plot			
		PO_4^{3-}	$\text{NO}_3^- + \text{NO}_2^-$	H_4SiO_4	PCO_2
Y7205-C		--	--	--	--
Y7206-C	I	15	23	31	39
	II	15	23	31	39
	III	16	24	32	40
Y7207-A	I	16	24	32	40
	II	17	25	33	--
	III	17	25	33	--
Y7207-C		18	26	34	41
Y7207-E	I	19	27	35	42
	II	19	27	35	42
Y7208-E	I	20	28	36	43
	II	20	28	36	43
	III	21	29	37	44

Holbrook, 1972), and as a collection of vertical sections (Huyer, 1973). Similarly, the optics data have been presented by Plank and Pak (1973), and the phytoplankton data are available upon request from Dr. Lawrence F. Small, OSU School of Oceanography (Small, 1973).

Station Designations

Most of the sample stations are identified by a letter-number code. The standard CUE station grid is numbered with consecutive integers at 6' intervals of increasing longitude, beginning with 1 at 124°00'W. Similarly, 5' intervals of increasing latitude are lettered consecutively,

beginning with A at $44^{\circ}25'N$. The designations of stations occurring between standard grid locations include decimal fractions. For example, station D-2.5 is located midway between D-2 and D-3.

The letter prefixes NH and DB refer to stations off Newport, Oregon (along $44^{\circ}39.1'N$) and Depoe Bay, Oregon (on a line between $44^{\circ}48.8'N$, $124^{\circ}05.4'W$ and $45^{\circ}00.0'N$, $124^{\circ}34.6'W$). Attendant number suffixes in these cases refer to the distance offshore in nautical miles and the ordinal number of the station occupation as part of a repeated, single-cruise sequence (e. g. DB2-3 refers to the second occupation of a station 3 n. mi. off Depoe Bay. Similarly, the single station YA-5 on cruise Y7205-C was made 5 n. mi. offshore between Yachats and Alsea, Oregon.

Stations with the letter prefixes CP (Y7205-C), P (Y7206-C) and SM (Y7207-C) were given consecutive integer suffixes designating the order of occupation only, and bearing no relationship to station location.

DATA COLLECTION AND PROCESSING

Sampling

On cruises Y7205-C and Y7207-C, chemical samples were taken using three different methods of collection: 1) On station, standard hydrographic casts were made with 1.4 l NIO (National Institute of Oceanography, England) bottles. Samples were drawn for salinity, dissolved oxygen, phosphate, nitrate + nitrite and silicate determinations. In situ temperatures were measured with reversing thermometers. In this report, lines

of data from hydrographic casts are denoted in the Data Listings by a (*) appearing immediately after the sample depths. 2) P_{CO_2} casts were also made on station, using a submersible pump to draw water from selected depths between the surface and 100 m. Measurements of both sea and air P_{CO_2} were made, the former on the sample stream and the latter on an air stream pumped from the bow jack-staff head. In addition, all measurements listed for the hydrographic casts were also made on the P_{CO_2} casts, with the sole exception of in situ temperature. 3) Between stations, water was drawn in a continuous stream from a seacock at 2 m depth. All parameters were measured as for the P_{CO_2} casts, with the P_{CO_2} and nutrient (Auto-Analyzer) systems operating in a continuous mode, and periodic discrete samples being taken for salinity and dissolved oxygen.

On cruises Y7206-C, Y7207-A, Y7207-E and Y7208-E chemical sampling at depth was not possible. The P_{CO_2} and AutoAnalyzer systems were operated in the continuous mode on the seacock sample stream. Bucket samples were taken for salinity determinations; dissolved oxygen was not measured.

Analytical Methodology

Dissolved Nutrients

Phosphate, nitrate + nitrite and silicate concentrations were measured using an AutoAnalyzer I system as described in detail by Atlas et al. (1971) and by Wyatt et al. (1971). Sample to sample precisions were estimated for sets of replicate samples. These results are listed in

Table III. $\text{NO}_3 + \text{NO}_2$ precisions for Y7206-C, however, are probably no better than $\pm 5\%$ at full scale, due to equipment malfunction. Non-linearities in SiO_4 determinations were corrected with the aid of calibration curves run periodically.

Table III. Summary of Precision Estimates for 1972 Chemical Data.

Parameter	Y7205-C			Y7207-C		
	mean	1 s	no. samples	mean	1 s	no. samples
PO_4 (μM)	0.39	0.01	10 ^a	1.72	0.01	10
	0.55	0.01	10	1.99	0.01	10
	1.51	0.02	8			
	2.38	0.01	10 ^a			
$\text{NO}_3 + \text{NO}_2$ (μM)	2.3	0.1	9	24.2	0.1	10
	2.4	0.3	10 ^a	29.4	0.4	10
	20.0	0.1	8			
	33.7	0.1	10 ^a			
SiO_4 (μM)	4.5	0.1	10	30.2	0.1	10
	5.6	0.1	10 ^a	38.5	0.2	10
	25.6	0.4	10			
	53.7	0.2	10 ^a			
S (‰)	31.962	0.001	10	33.851	0.000	9
	32.397	0.001	10			
	33.954	0.009	10			
	35.574	0.001	10			
O_2 (ml/l)	2.15	0.01	7	2.43	0.00	6 ^a
	2.23	0.02	4	3.70	0.01	3 ^a
	2.33	0.01	8	4.83	0.00	3
	2.39	0.07	6	5.41	0.00	2
	6.84	0.01	3 ^a			
	7.33	0.01	3			

^a Replicate samples run consecutively, rather than interspersed among other samples.

All nutrient data given in this report are estimated to be accurate and precise to $\pm 1\%$ (one standard deviation) of full scale, or deep Pacific, values. This accuracy figure was determined in two ways; through preliminary comparisons of OSU primary standards with a Na_2CO_3 fusion of ultrapure SiO_2 , and $(\text{NH}_4)\text{H}_2\text{PO}_4$ and KNO_3 primary standards obtained from the National Bureau of Standards; and through comparison of the automated technique with manual procedures (Hager et al., 1972). The precision estimate is based upon replicate sample analyses performed on numerous cruises by several operators (see for example, Hager et al., 1972).

P_{CO_2}

Determinations of the P_{CO_2} of air and seawater samples were done using the semi-automated instrument system and methodology described by Gordon (1973) and Gordon and Park (1972). This system uses a non-dispersive infrared gas analyzer to measure concentrations of carbon dioxide in an air stream equilibrated with the seawater. The level of P_{CO_2} saturation of the seawater samples was calculated as the difference between the P_{CO_2} of the seawater and that of the overlying atmosphere. A thermistor bridge thermometer was used to monitor the equilibrators temperature. These readings have an estimated precision of $\pm .02^\circ\text{C}$ and an accuracy of $\pm .05^\circ\text{C}$.

The precision of P_{CO_2} measurements for cruise Y7207-A was estimated from repeated on-station measurements to be of the order of $\pm 4\%$

coefficient of variation. The precision of all other P_{CO_2} determinations was similarly estimated as $\pm 2\%$.

Salinity

Salinity was determined for cruises Y7205-C and Y7207-C using a Bissett-Berman Model 6230 inductive salinometer. The method has been described by Brown and Hamon (1961). Estimates of precision for these measurements are given in Table III. All other salinity determinations were done with an Australian-made salinometer (Industrial Manufacturing Engineers Pty. Ltd., Model 17). Precision and accuracy estimates for this instrument are given by Wyatt et al. (1972). Substandard water was prepared from seawater collected 100 miles from the Oregon coast and stored for several months prior to filtration and use. This water was standardized against Copenhagen water.

Oxygen

All oxygen measurements were done at sea, using the modified Winkler method outlined by Strickland and Parsons (1968). Precision estimates are given in Table III.

Values of apparent oxygen utilization (AOU) were calculated according to the equation given by Redfield (1942): $O_2' - O_2$, where O_2' is the saturation value of oxygen at the in situ temperature and salinity, and O_2 is the measured dissolved oxygen concentration.

Calculations

The dissolved nutrient calculations were done on a WANG model 600-14 programmable calculator according to the method described by Atlas et al. (1971). The WANG calculator was also used for all of the oxygen computations. The remainder of the data processing was accomplished with the aid of the OSU CDC 3300 computer.

The plots presented in the Surface Contours of this report represent a combination of discrete sample measurements and values selected from continuous chart traces. Positions of discrete sample stations (indicated as ●) were in all cases determined by satellite navigation. On the other hand, the locations corresponding to selected intermediate sample values (given as ○) were calculated with the knowledge of discrete station departure and arrival times, and the assumptions of constant ship speed and bearing between these stations. In the few instances when these conditions were altered, no data are given.

All station arrival and departure times were taken from the ship's log, and are accurate to within one minute of the actual event. The interpolated locations of intermediate data are therefore accurate to within .2 n. mi. of the given location. In most cases, the first time designated for a given station in the Data Listings is the arrival time, while the last is the departure time. The only exceptions are the P (Y7206-C) and SM (Y7207-C) stations, at which locations the ship did not stop, and stations DB-25 through CP-10 (Y7205-C), CP-11 through CP-20 (Y7205-C), and

DB-25 through CP-6 (Y7207-C), which represent three drift station cast sequences. The P and SM samples were taken from the seacock at 2 m, as described previously.

Weather codes were adopted from the U. S. Naval Oceanographic Office Publication No. 607 (1968). Included in the weather data are barometric pressure (inches Hg), relative humidity (% of total saturation), and wind speed and direction.

A magnetic tape of the data in this report has been submitted to the National Oceanographic Data Center.

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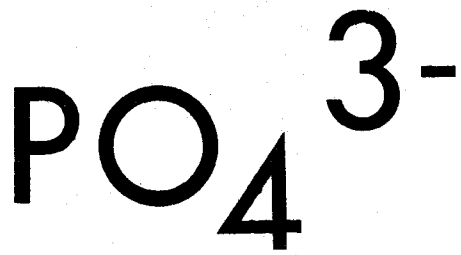
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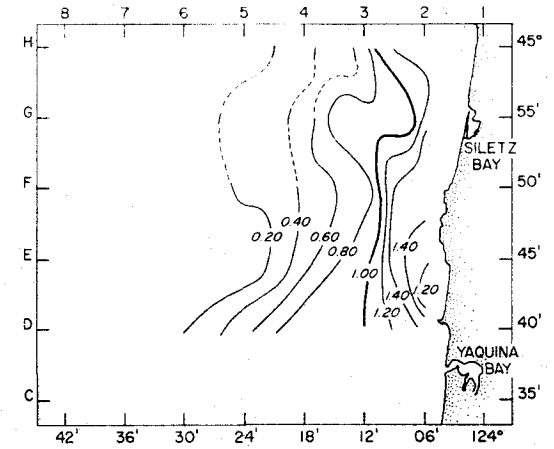
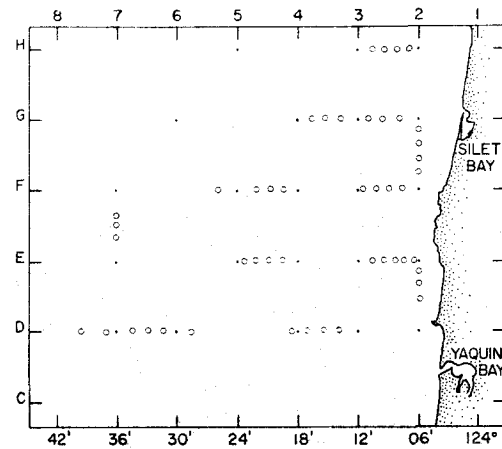
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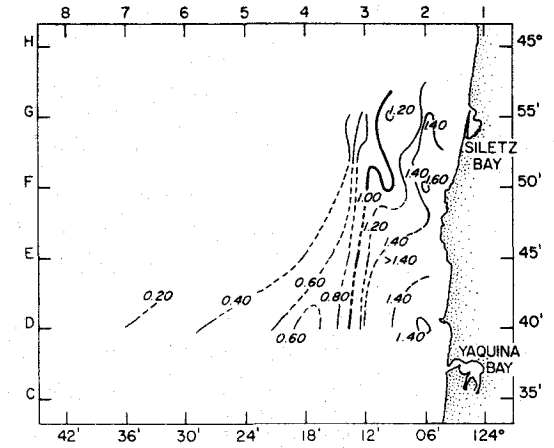
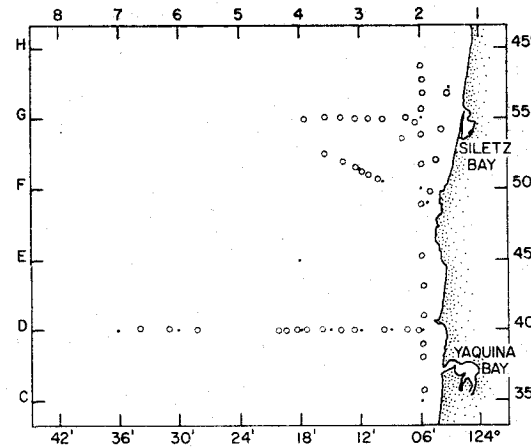
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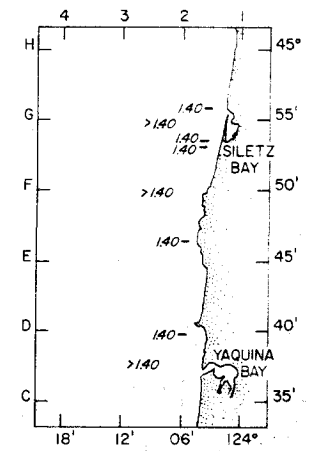
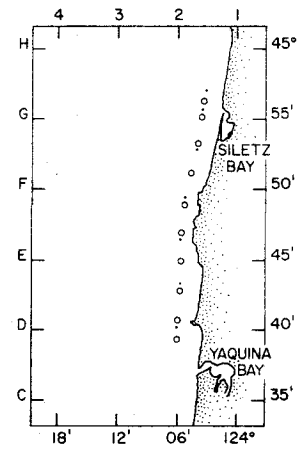
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 Y7206-C
 6/20, 1940--6/22, 1110



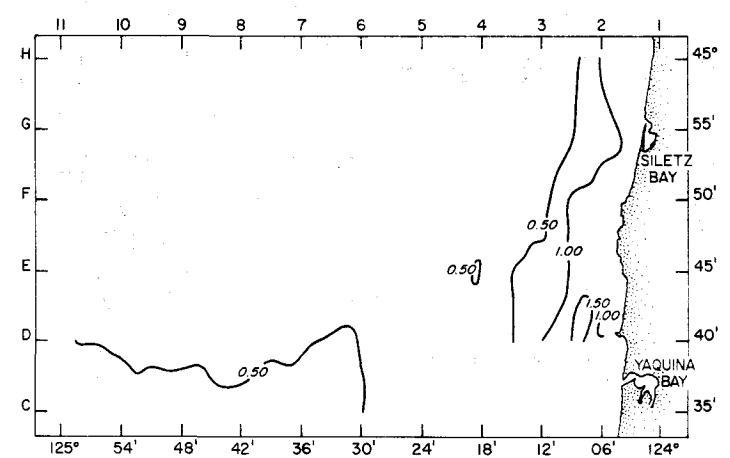
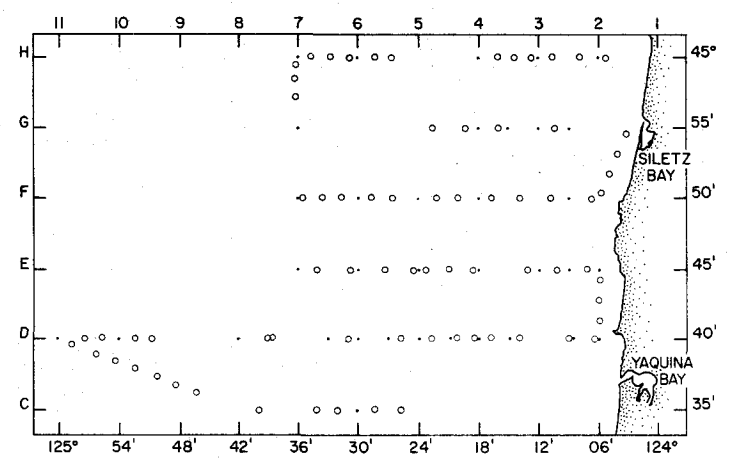
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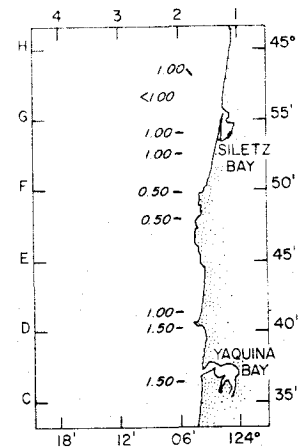
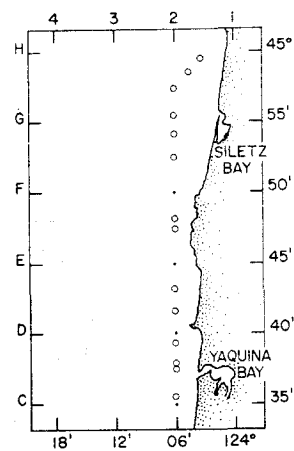
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 Y7206-C
 6/23, 0905 -- 6/23, 1220



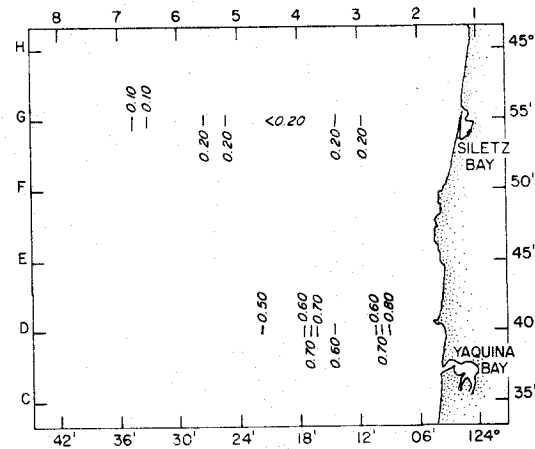
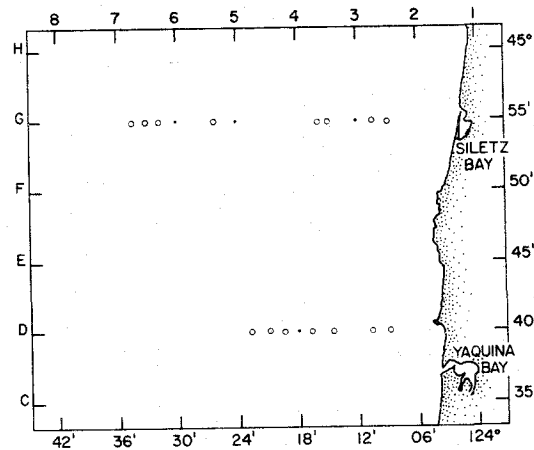
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 Y7207-A
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 7/7, 0707



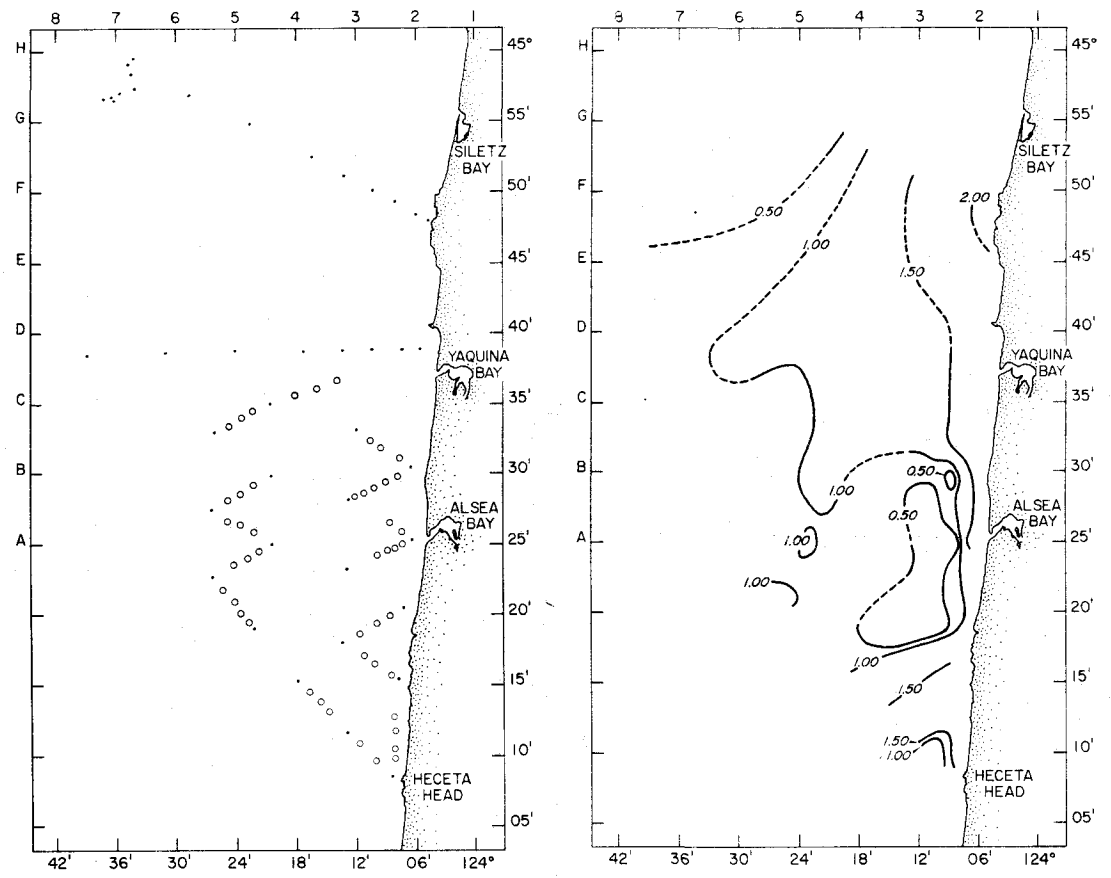
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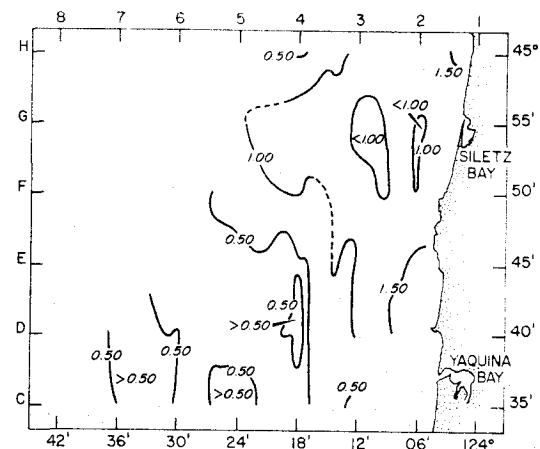
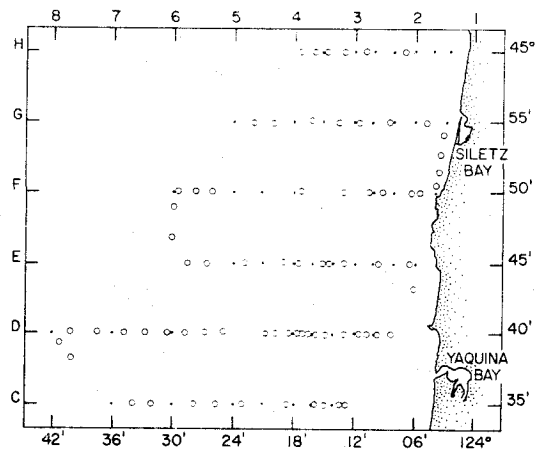
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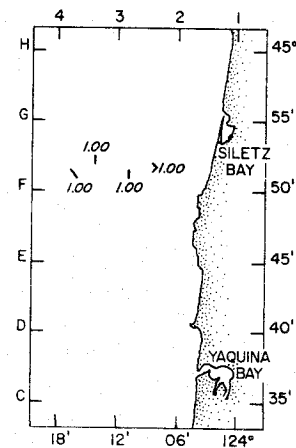
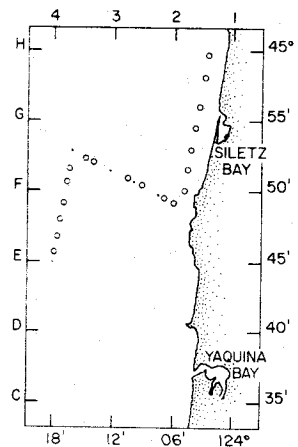
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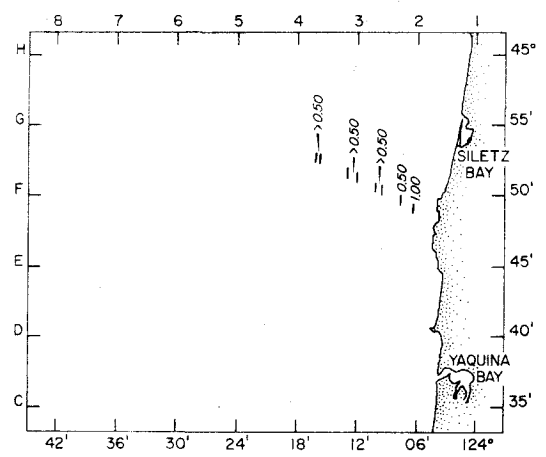
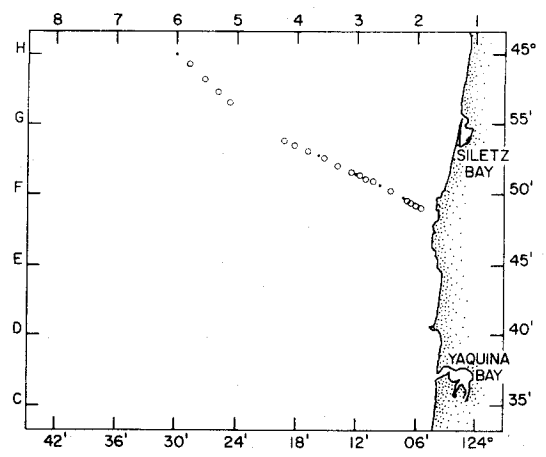
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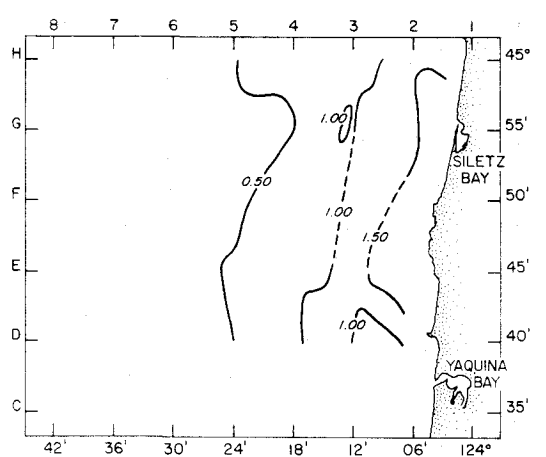
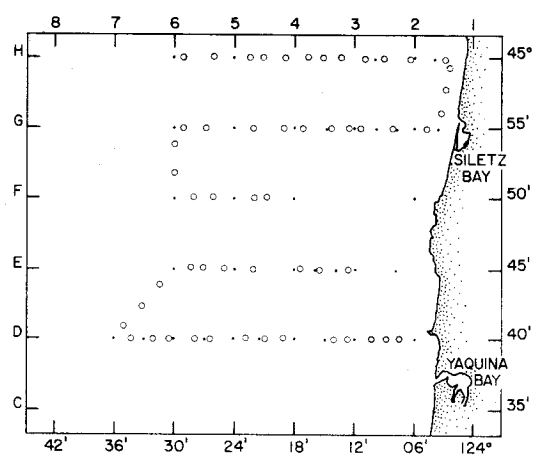
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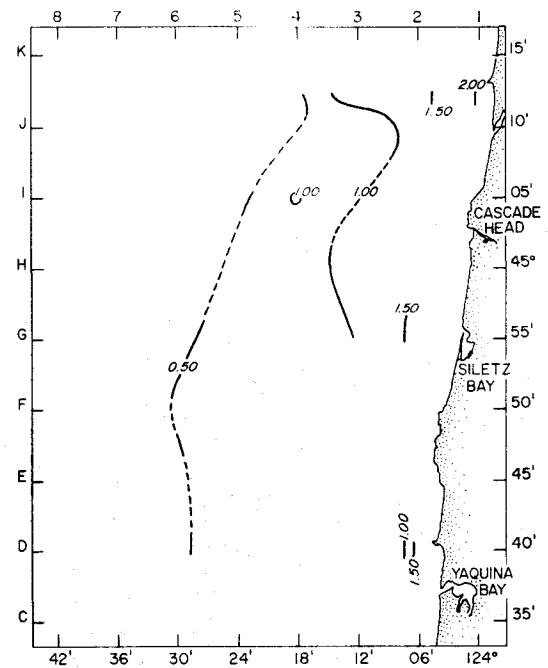
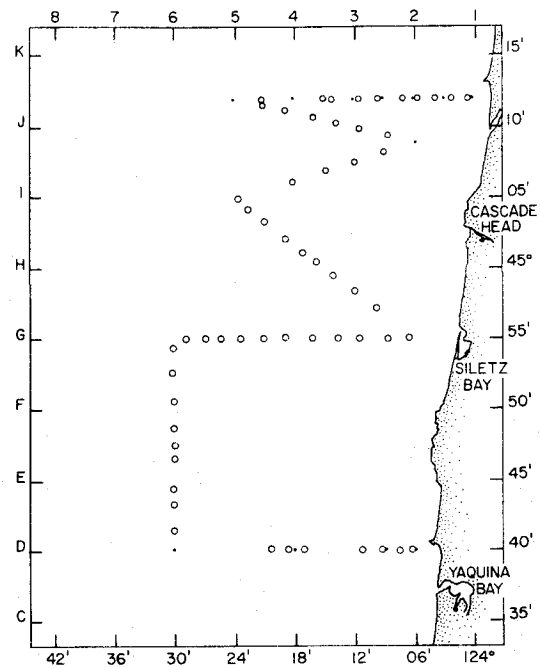
PO_4^{3-} (μM)
Y7208-E
8/26, 1646--8/27, 0302

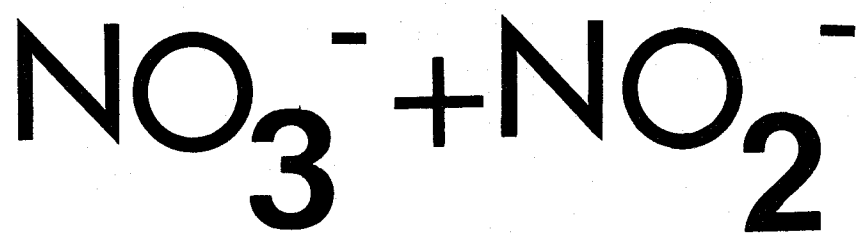


PO_4^{3-} (μM)
Y7208-E
8/27, 0218--8/28, 2045

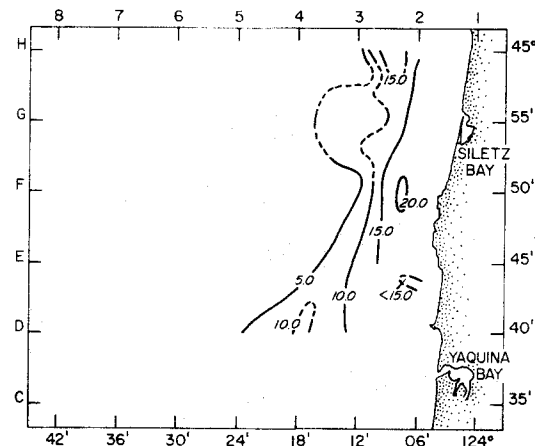
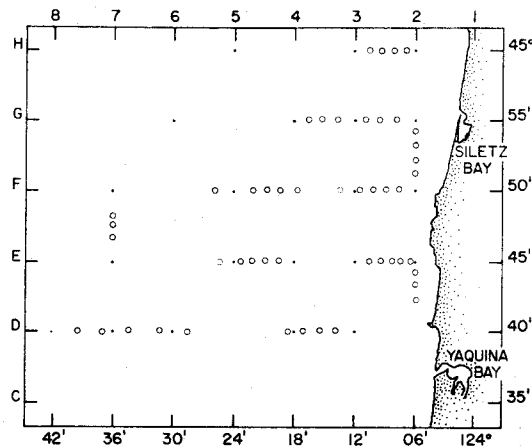


PO_4^{3-} (μM)
Y7208-E
8/28, 2328 -- 8/29, 0617

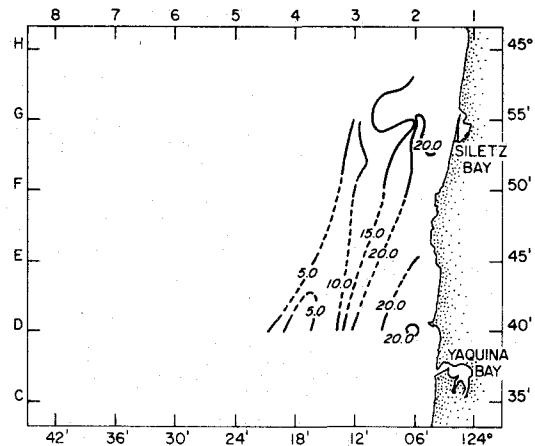
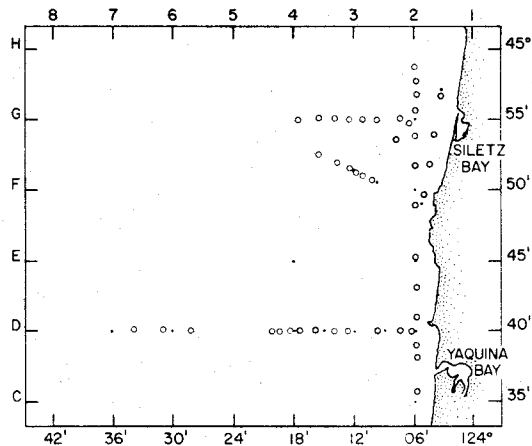




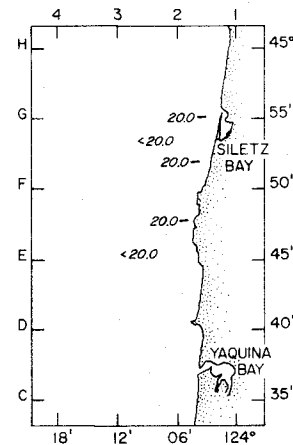
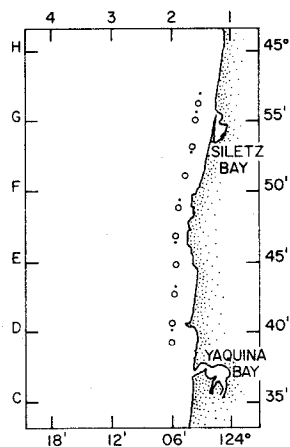
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7206-C
 6/20, 1940--6/22, 1110



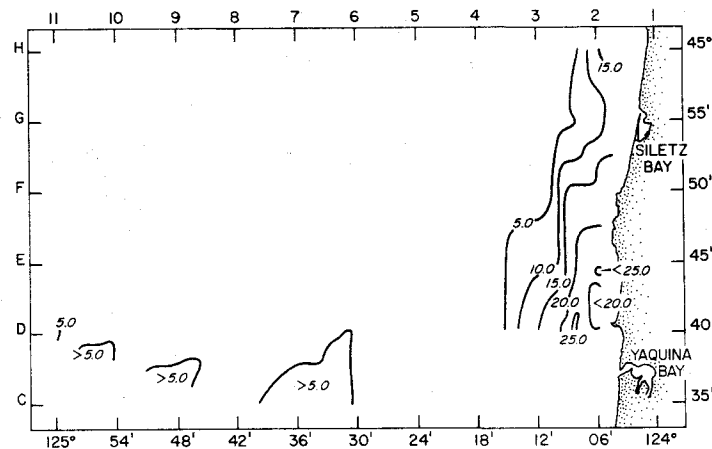
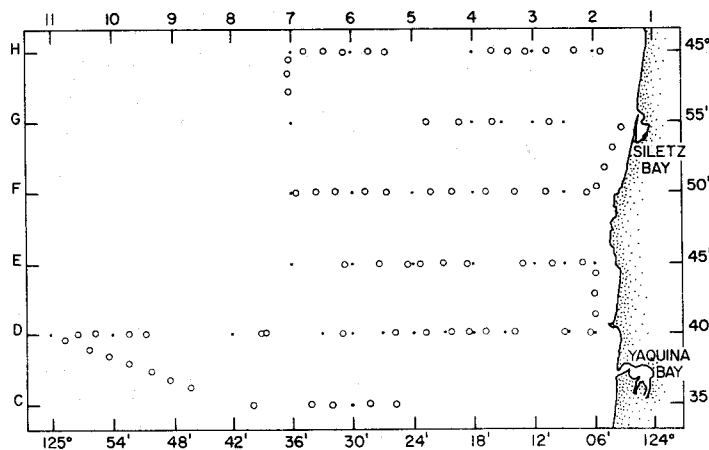
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7206-C
 6/22, 1052--6/23, 0920



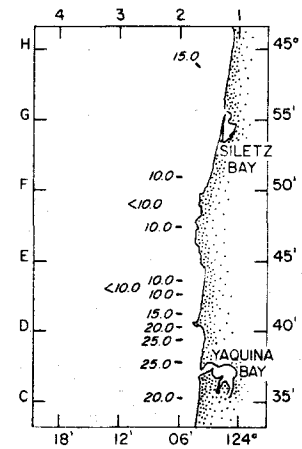
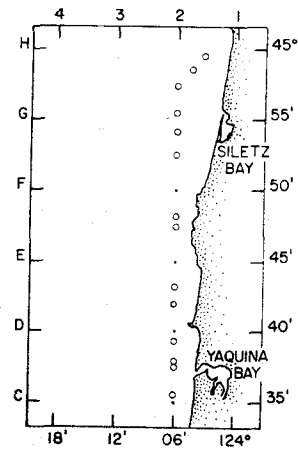
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7206-C
 6/23, 0905--6/23, 1220



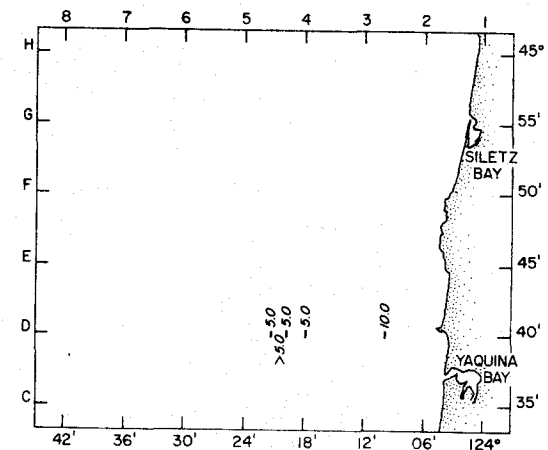
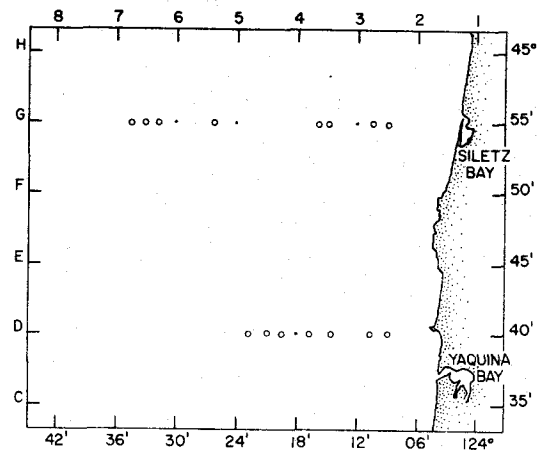
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7207-A
 7/5, 1050--
 7/7, 0707



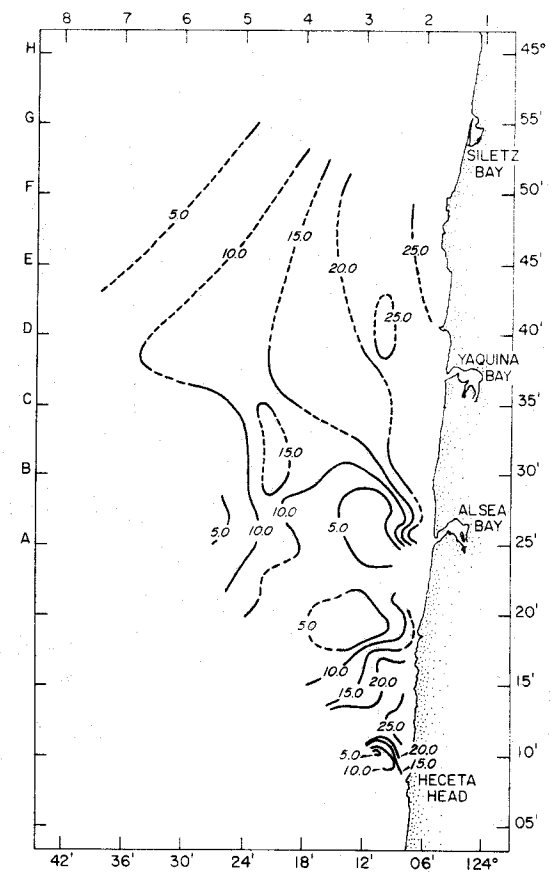
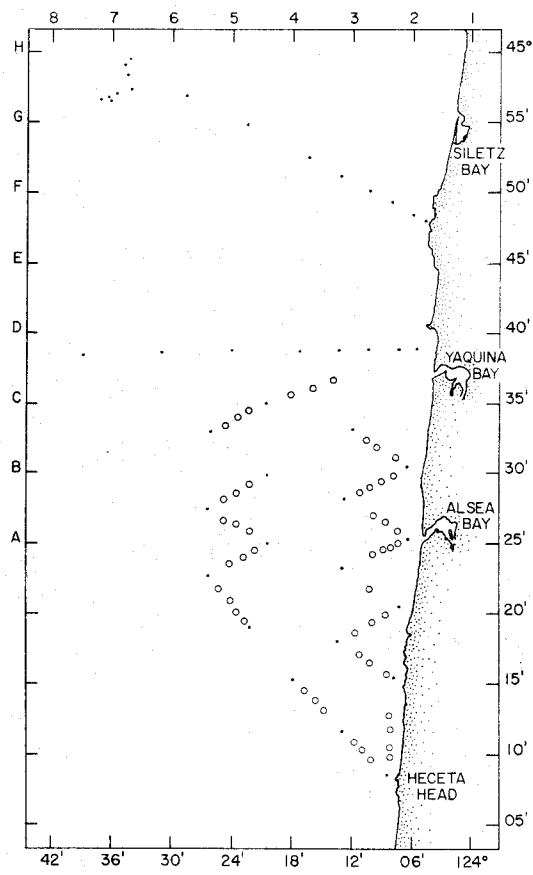
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7207-A
 7/7, 0656--7/7, 1200



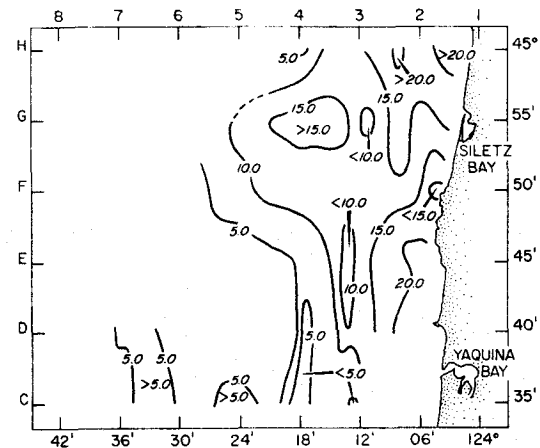
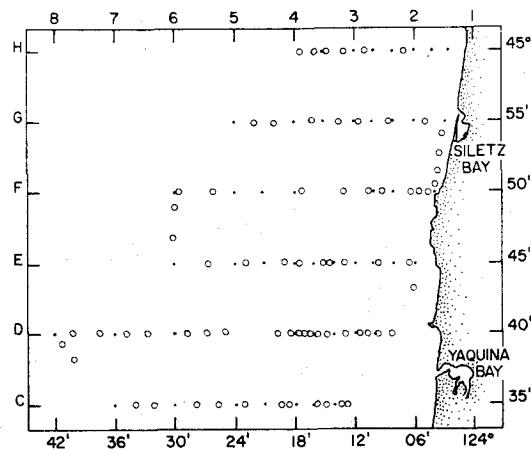
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7207-A
 7/7, 1145--7/9, 0005



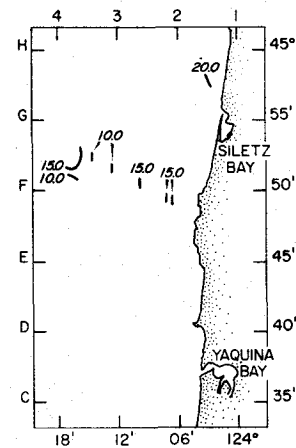
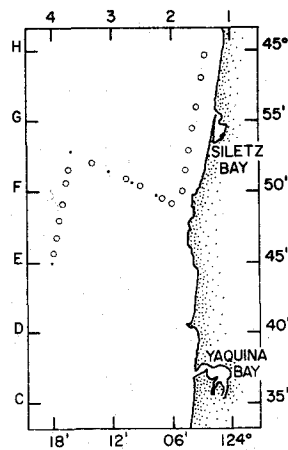
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
Y7207-C
7/19, 1914--7/22, 1928



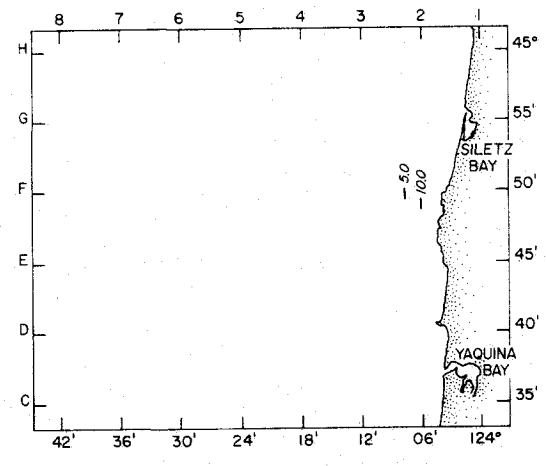
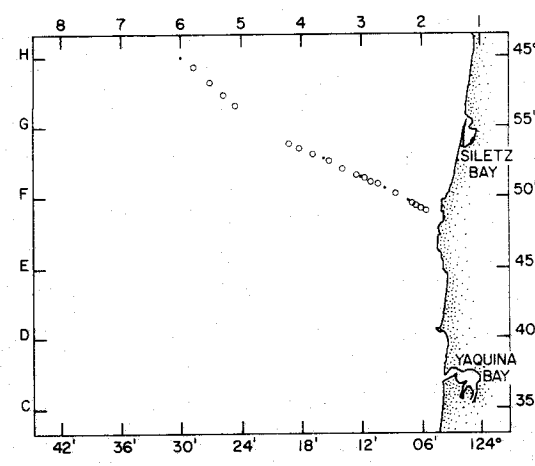
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7207-E
 7/31, 1104--8/2, 0804



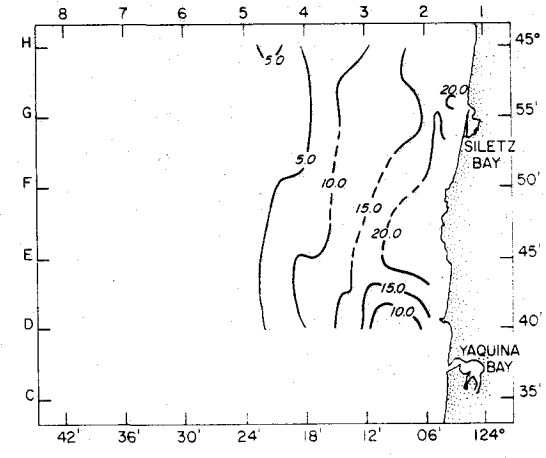
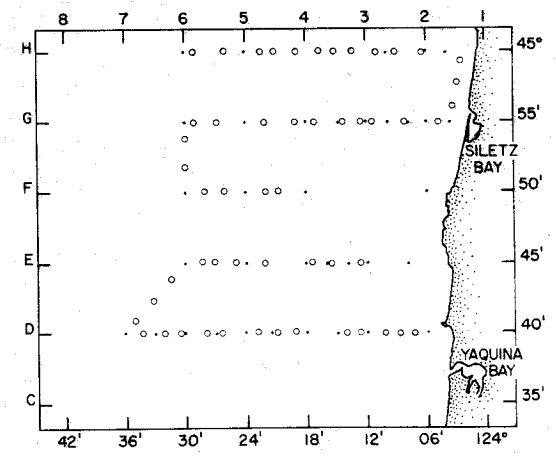
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7207-E
 8/2, 0753--8/2, 1651



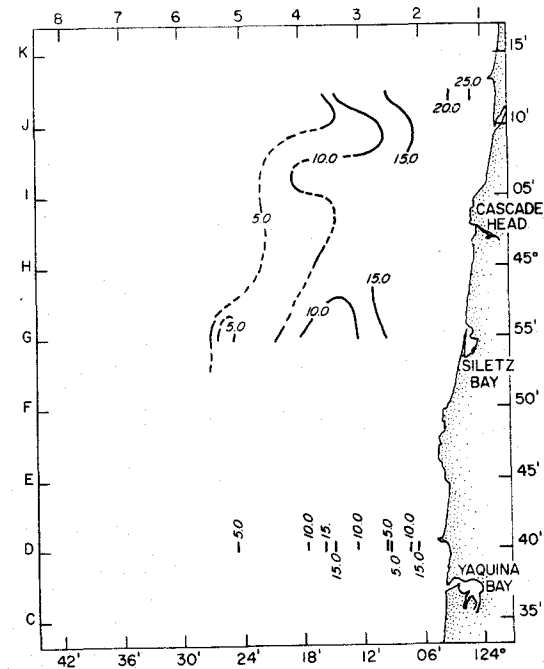
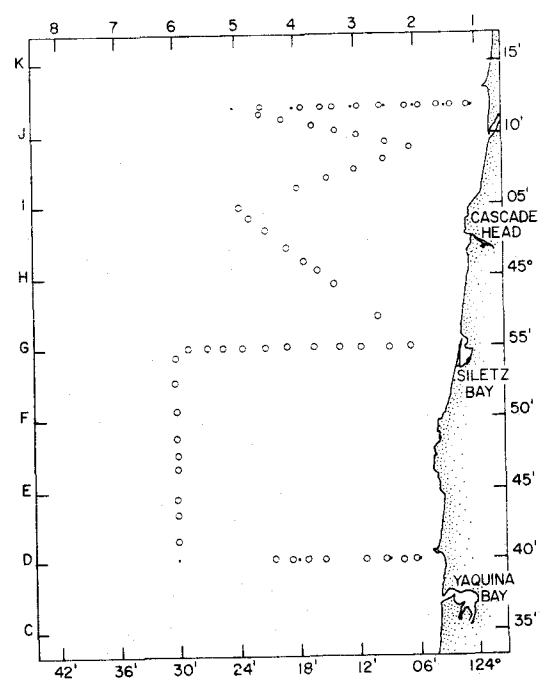
$\text{NO}_3^- + \text{NO}_2^-$ (μM)
Y7208-E
8/26, 1646--8/27, 0302

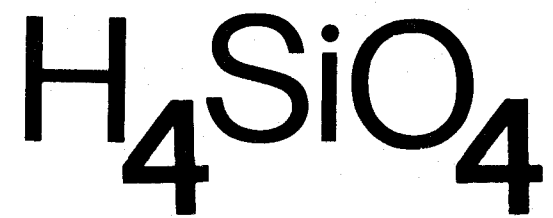


$\text{NO}_3^- + \text{NO}_2^-$ (μM)
Y7208-E
8/27, 0218--8/28, 2045

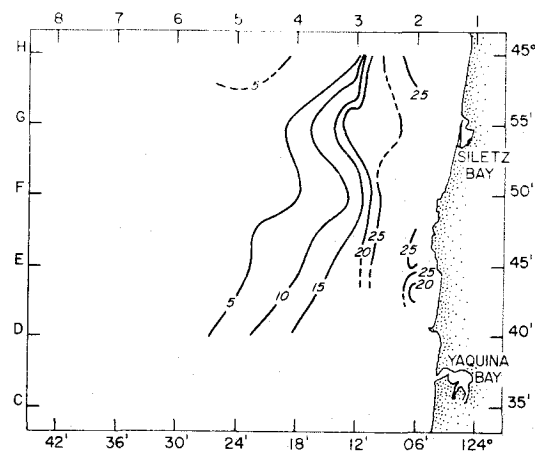
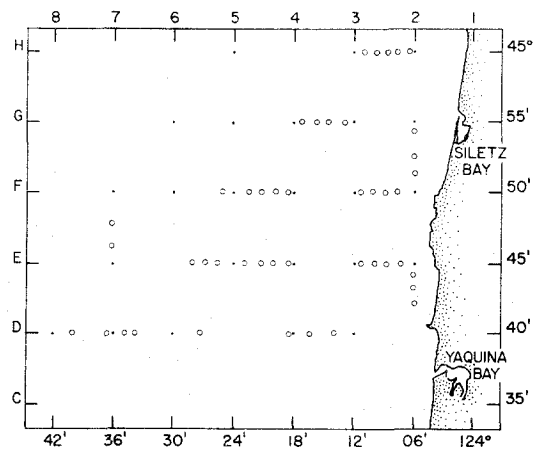


$\text{NO}_3^- + \text{NO}_2^-$ (μM)
 Y7208-E
 8/28, 2328--8/29, 0617

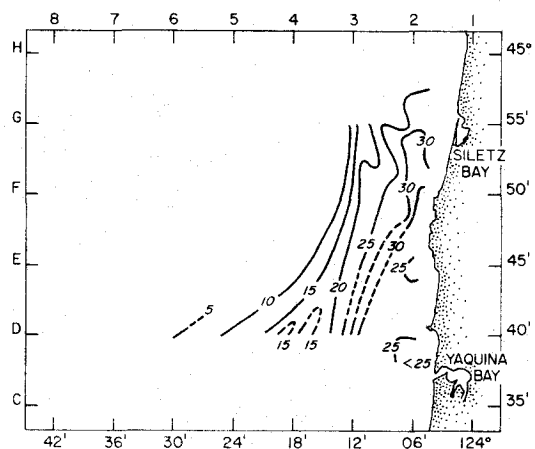
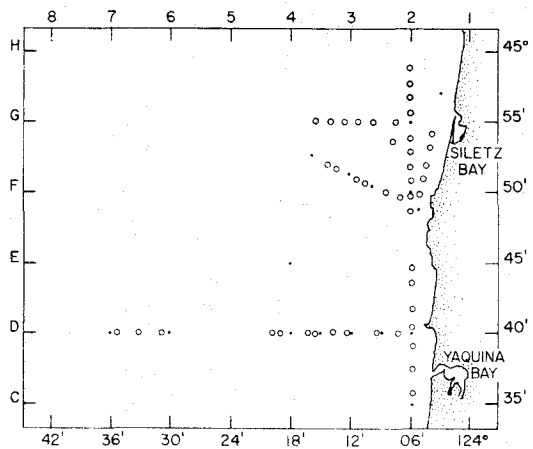




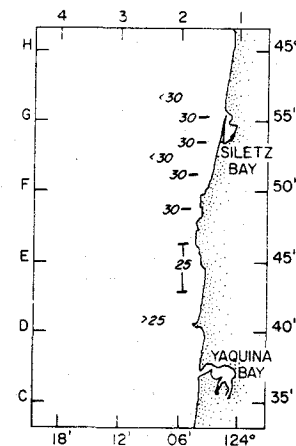
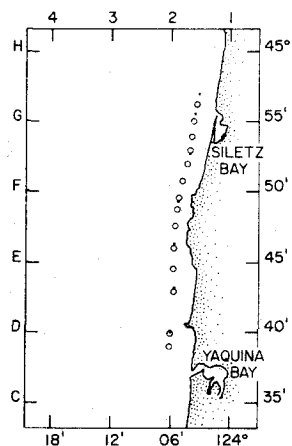
H_4SiO_4 (μM)
 Y7206-C
 6/20, 1940--6/22, 1110



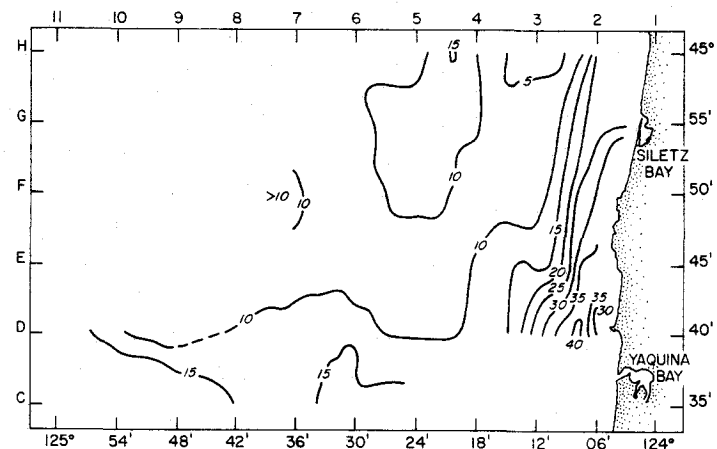
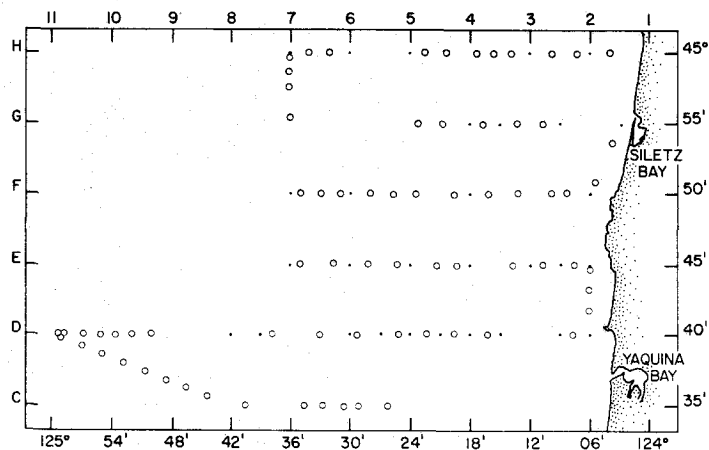
H_4SiO_4 (μM)
 Y7206-C
 6/22, 1052--6/23, 0920



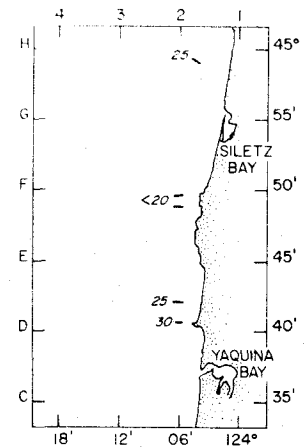
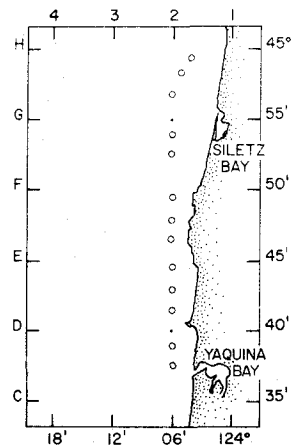
H₄SiO₄ (μM)
 Y7206-C
 6/23, 0905--6/23, 1220



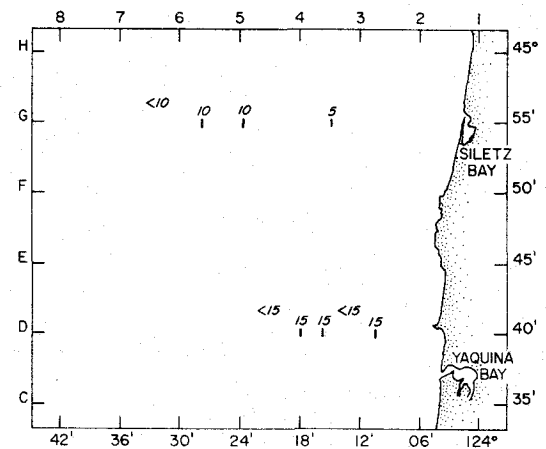
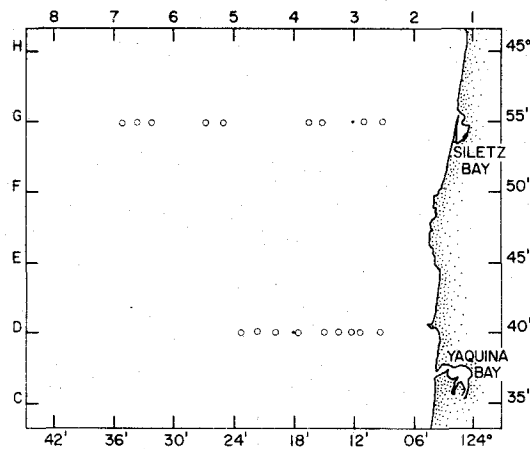
H₄SiO₄ (μM)
 Y7207-A
 7/5, 1050--
 7/7, 0707



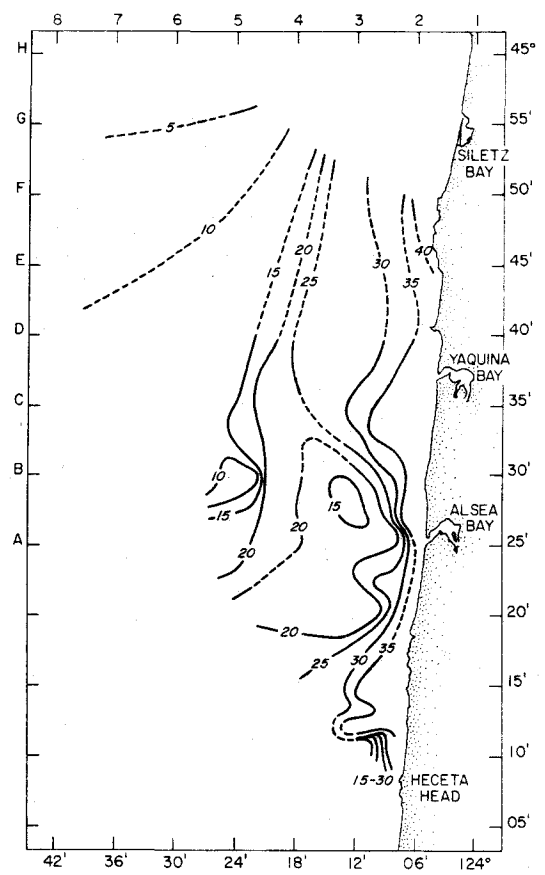
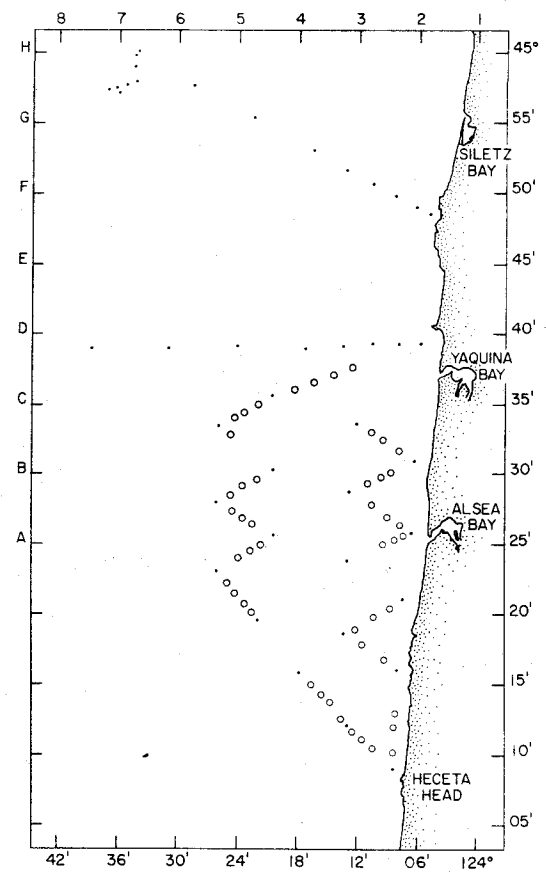
H_4SiO_4 (μM)
 Y7207-A
 7/7,0656 --7/7,1200



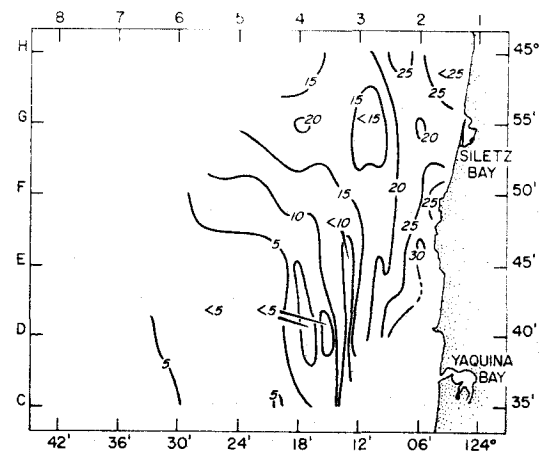
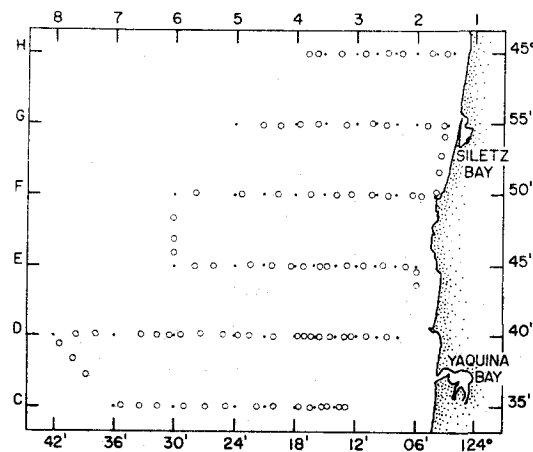
H_4SiO_4 (μM)
 Y7207-A
 7/7,1145 --7/9,0005



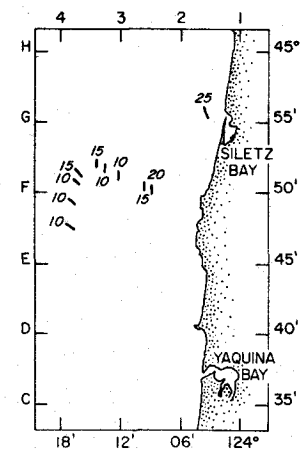
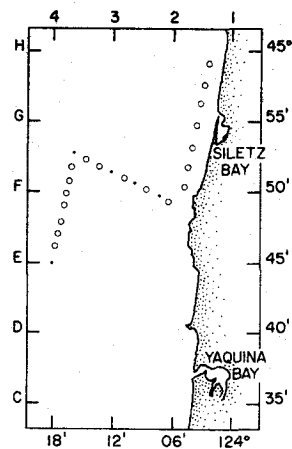
H_4SiO_4 (μM)
Y7207-C
7/19, 1914--7/22, 1028



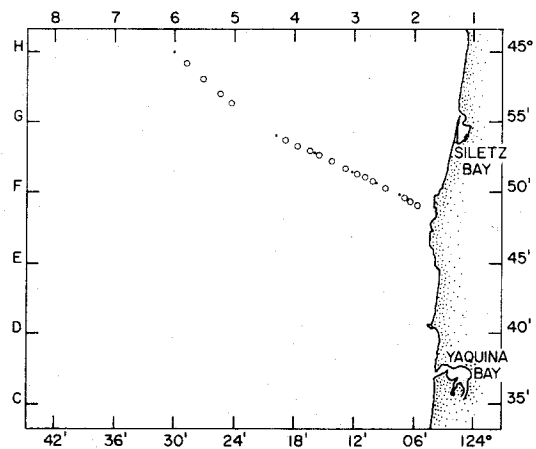
H_4SiO_4 (μM)
 Y7207-E
 7/31, 1104--8/2, 0804



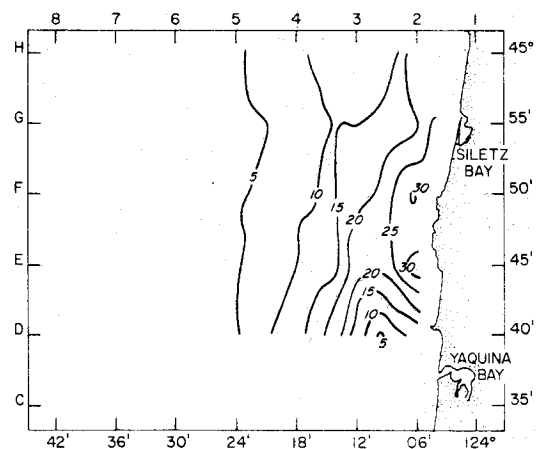
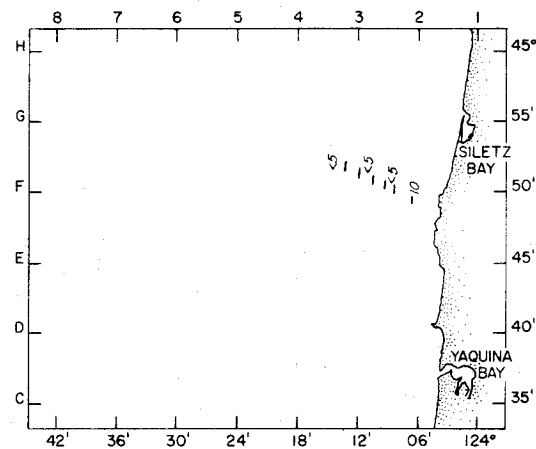
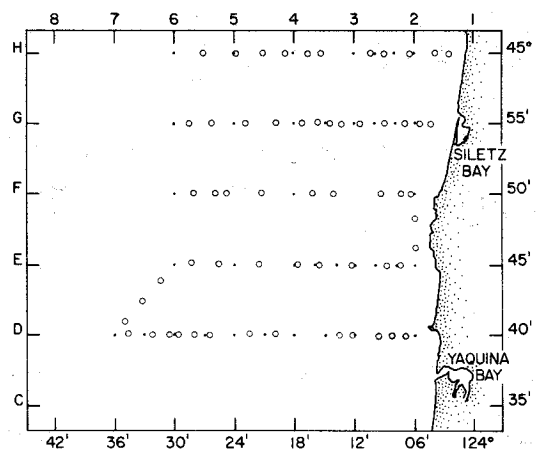
H_4SiO_4 (μM)
 Y7207-E
 8/2, 0753--8/2, 1651



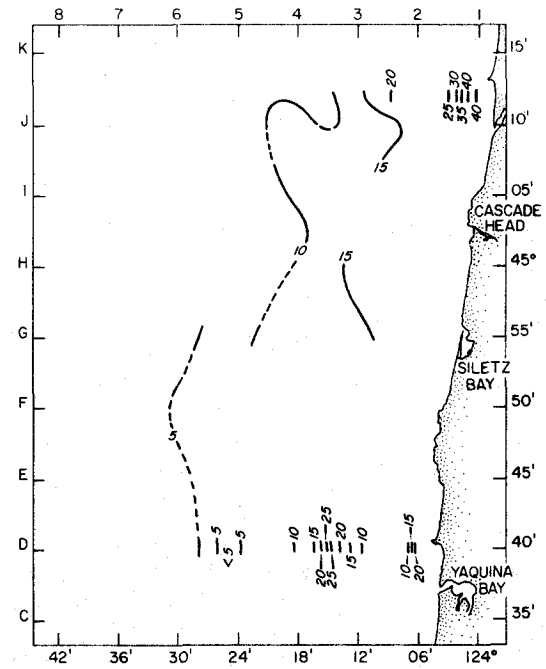
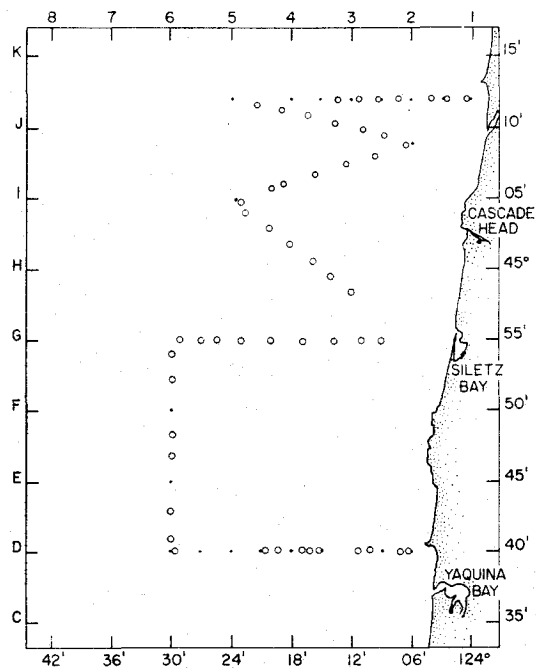
H_4SiO_4 (μM)
 Y7208-E
 8/26, 1646--8/27, 0302



H_4SiO_4 (μM)
 Y7208-E
 8/27, 0218--8/28, 2045

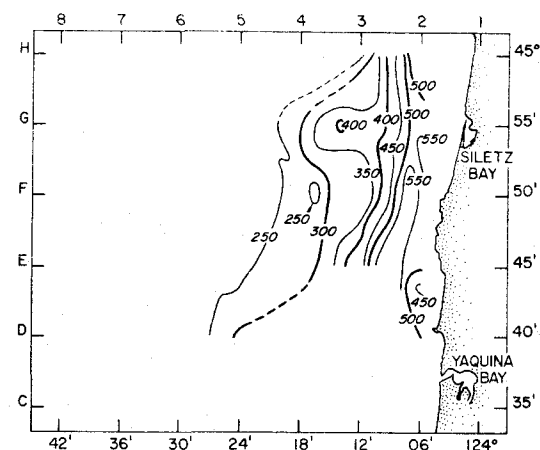
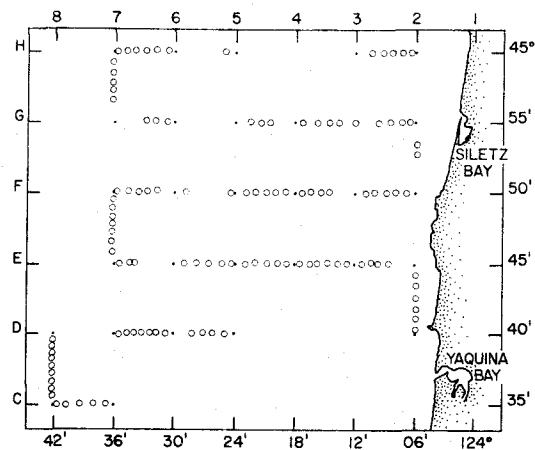


H_4SiO_4 (μM)
Y7208-E
8/28, 2328--8/29, 0617

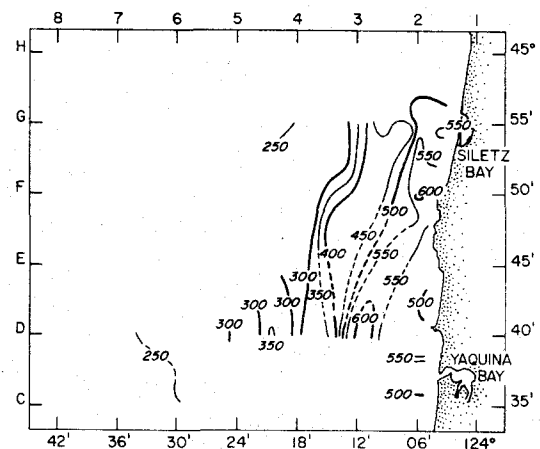
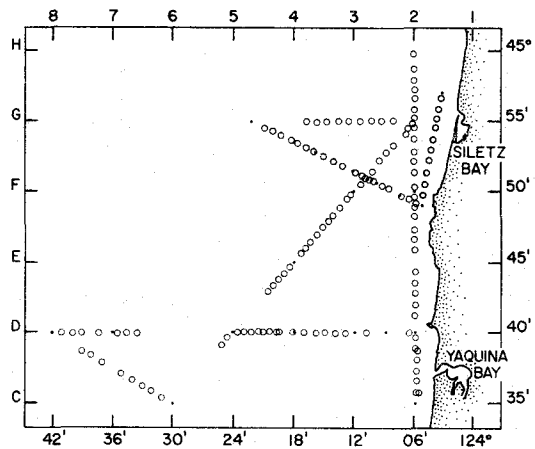


P
CO
2

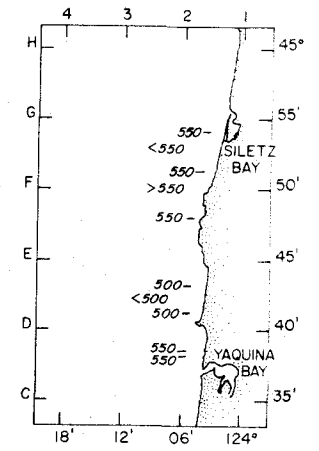
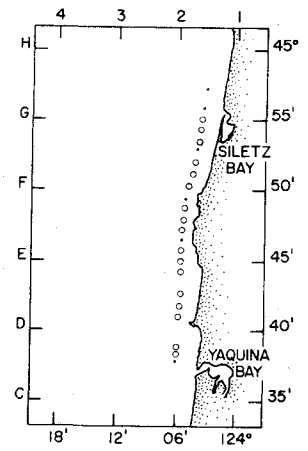
PCO_2 (ppm)
 Y7206-C
 6/20, 1940--6/22, 1110



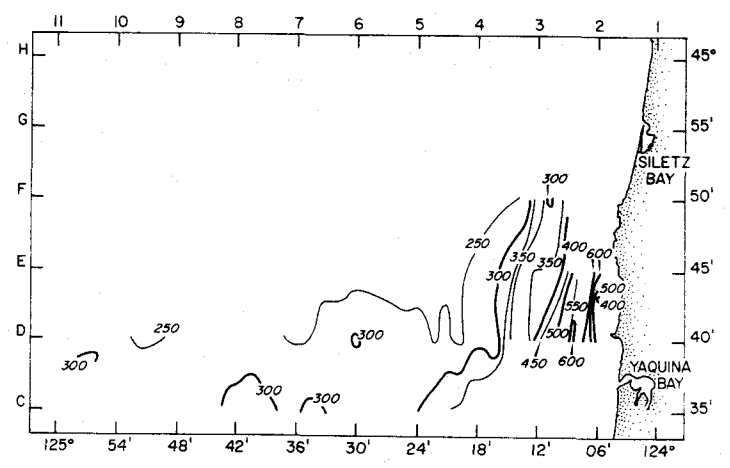
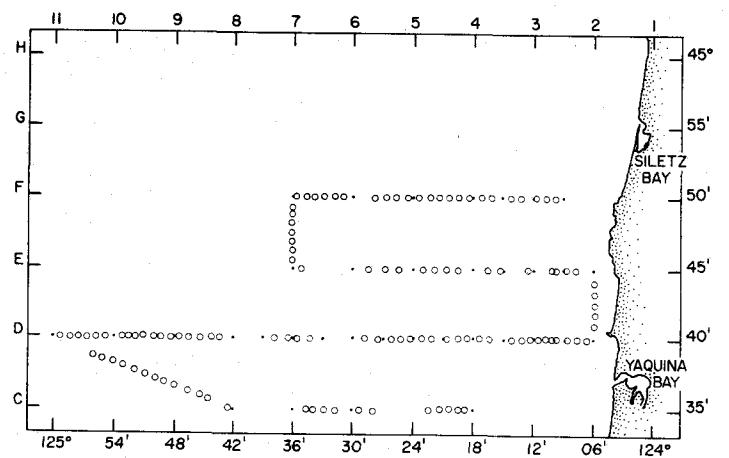
PCO_2 (ppm)
 Y7206-C
 6/22, 1052--6/23, 0920



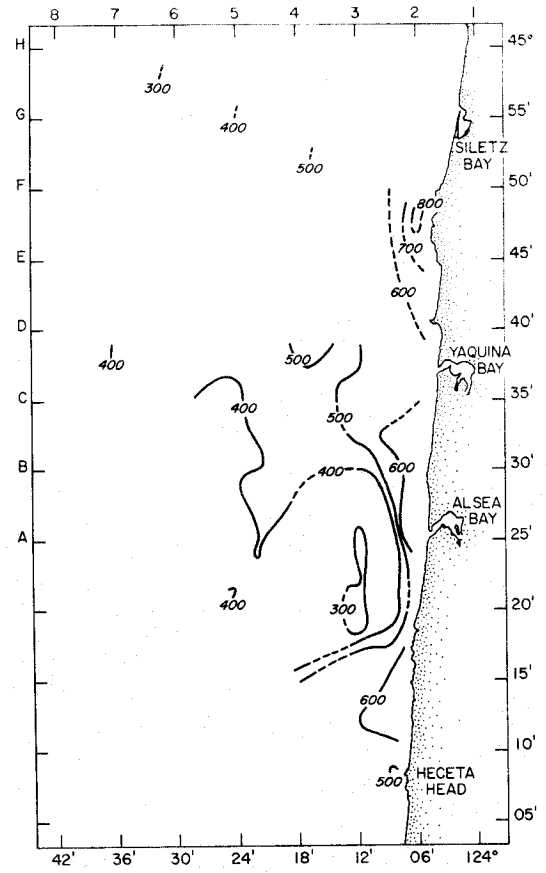
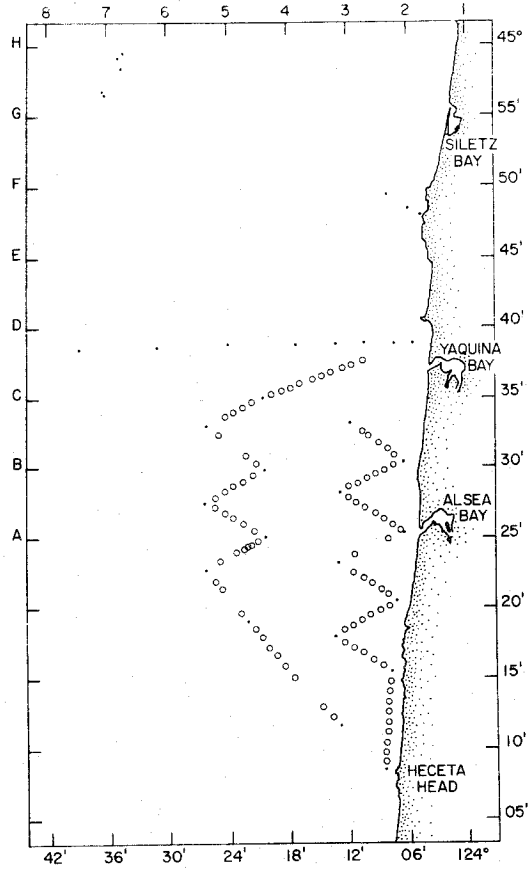
PCO₂ (ppm)
 Y7206-C
 6/23, 0905--6/23, 1220



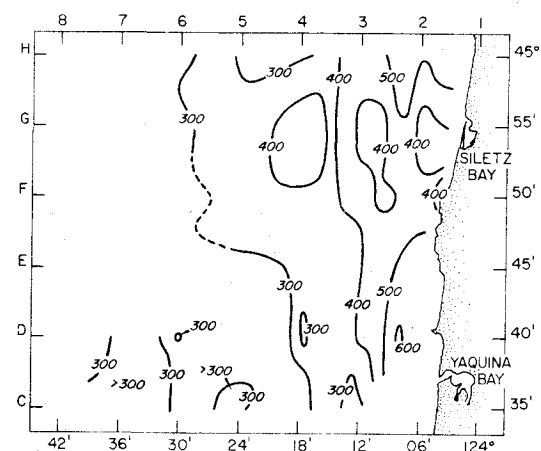
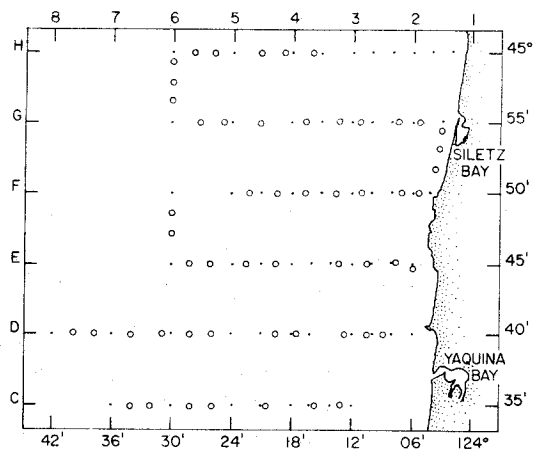
PCO₂ (ppm)
 Y7207-A
 7/23, 1050--
 7/23, 1070



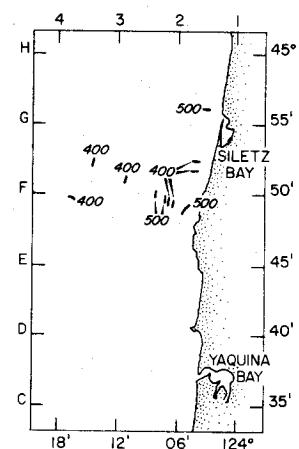
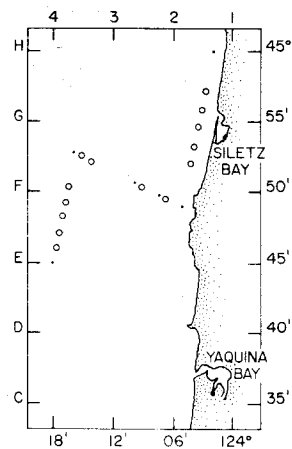
P_{CO2} (ppm)
Y7207-C
7/19, 1914--7/22, 1928



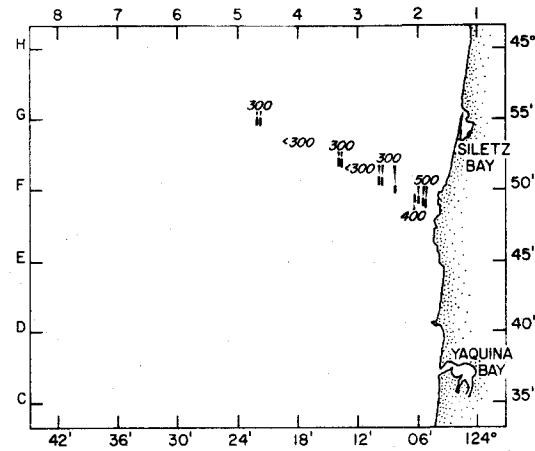
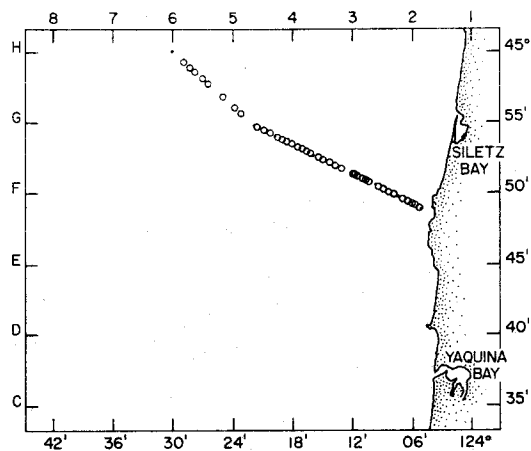
P_{CO_2} (ppm)
 Y7207-E
 7/31, 1104--8/2, 0804



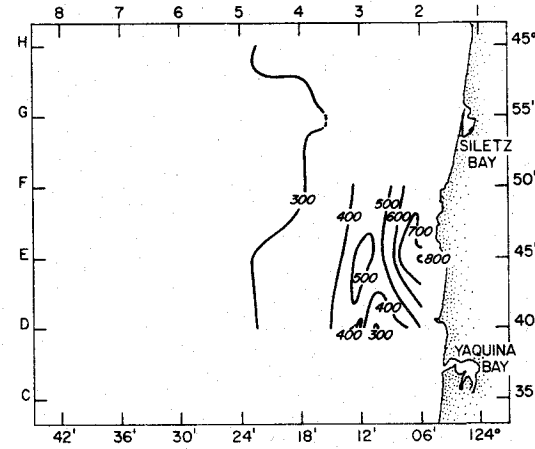
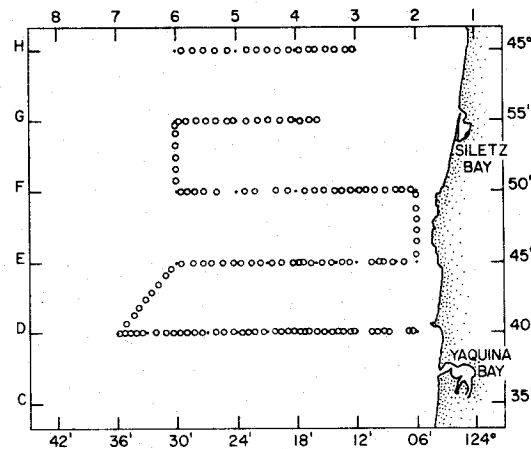
P_{CO_2} (ppm)
 Y7207-E
 8/2, 0753- 8/2, 1651



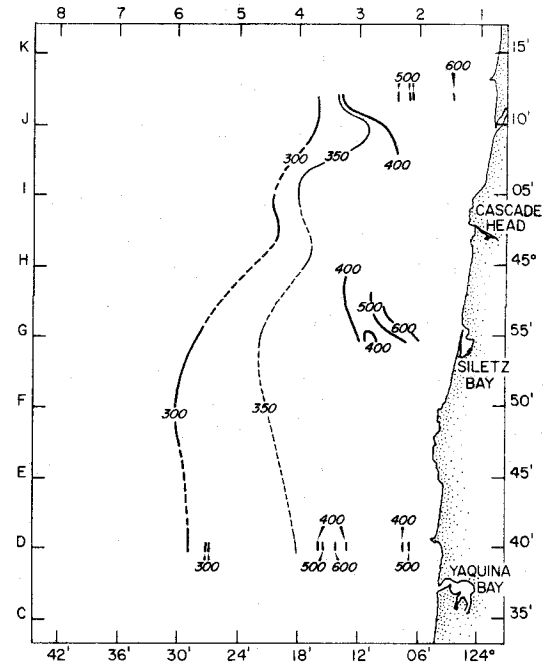
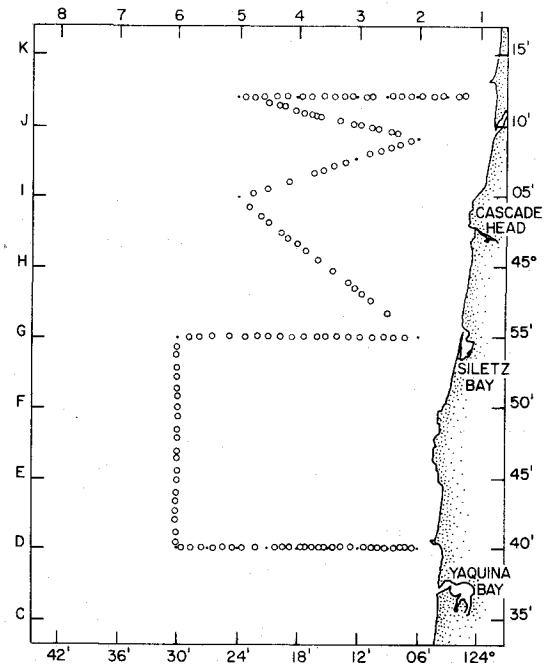
P_{CO_2} (ppm)
 Y7208-E
 8/26,1646- 8/27,0302



P_{CO_2} (ppm)
 Y7208-E
 8/27,0218--8/28,2045



P_{CO_2} (ppm)
Y7208-E
8/28, 2328--8/29, 0617



DATA LISTINGS

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	NO. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	STA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.		
528	1105	DB 1	44 48.5	124 5.6	10.55					29.98	18 4						
528	1147	04*			10.50	32.398						6.43	281	-3	1.06	9.8	18
528	1147	10**			10.50	32.376						6.45	282	-4	1.05	9.5	17
528	1147	20**			9.24	32.828						5.76	252	33	1.18	10.4	19
528	1147	25**			8.93												
528	1401	24			10.55	32.283	384.8					6.58	287	-10	.97	8.8	16
528	1404	25M			9.15	33.391	673.7					3.46	151	133	2.02	22.5	36
528	1425	15M			9.31	32.896	422.3					5.54	242	42	1.25	11.2	21
528	1432	10M			10.54		435.1					5.88	257		1.28	11.5	20
528	1525	DB 1															
528	1529	DB 3	44 49.5	124 7.3	10.80		352.9	321.4	31.5	29.98	97 18 4						
528	1648	04*			10.67	32.261						6.67	291	-15	.93	8.0	16
528	1648	10**			10.29	32.446						6.41	290	-1	1.04	9.2	18
528	1648	15**			9.51							6.04	264		1.09	9.6	19
528	1648	25**			7.94	33.149						4.21	184	1 9	1.94	20.4	29
528	1648	40**			7.78	33.687						3.08	134	158	2.24	27.6	39
528	1648	50**			7.53	33.804						2.66	116	178	2.52	29.7	46
528	1738	50M			8.20	33.834	801.5					2.65	116		2.47	30.3	47
528	1755	40M			8.40	33.650	790.2					3.23	141		2.21	27.1	38
528	1808	25M			9.30	33.037	509.5					4.81	210		1.53	15.6	26
528	1823	10M			10.28	32.454	378.4					6.18	270		1.06	9.2	18
528	1833	24			10.30	32.349	361.6	319.9	41.7			6.59	288		.97	8.6	17
528	1850	DB 3															
528	1908	DB 5	44 50.4	124 10.3			236.8			29.99	99 18 4						
528	2030	70M			7.95	33.879	799.9					2.59	113		2.20	30.8	47
528	2159	50M			8.35	33.703	751.6					2.95	129		2.04	27.9	41
528	2210	40M				33.720	740.8										
528	2222	25M			9.65		412.3					5.64	246		1.15	11.9	20
528	2236	15M			9.00	33.311	445.7					5.59	244		1.25	14.3	20
528	2250	10M			9.80	31.990	344.0					6.49	284		.82	7.7	14
528	2303	5M			13.18	30.292	221.2					7.24	317		.24	.1	5
528	2311	2M			13.24	30.169	222.9	312.2	-89.3	30.00		7.19	315		.23	.2	5
528	2324	DB 5															
528	2350	DB 7	44 51.5	124 13.0							97 18 4						
529	46	04*			11.76	30.097						7.12	311	-37	.23	.3	5
529	46	10**			8.88	31.374						7.10	310	-20	.85	8.2	13
529	46	15**			7.89	32.037						4.67	204	91	1.67	20.2	28
529	46	25**			7.78	32.375						4.58	200	95	1.61	19.1	27
529	46	40**			7.97	32.873						4.75	207	86	1.45	17.4	25
529	46	50**			7.90	33.203						4.13	180	112	1.62	20.8	29
529	46	75**			7.71	33.702						3.01	131	162	2.01	27.6	40
529	46	90**			7.55							3.29	144		2.09	29.2	42
529	135	100M			8.00	33.834	743.7					2.88	126		2.04	28.6	42
529	143	75M			8.20	33.771	689.1					3.03	132		1.96	28.4	39
529	151	50M			8.40	33.382	594.9					3.78	165		1.73	23.5	33
529	156	40M			8.46	33.050	538.1					4.31	188		1.55	19.3	27
529	203	25M			8.35	32.380	540.7					4.54	198		1.56	18.6	27
529	216	15M			8.40	32.165	554.2					4.62	202		1.63	20.3	30
529	225	10M			10.70	30.291	231.9					7.24	317		.29	.9	6
529	239	2M			11.95	30.096	238.2	321.0	-82.8			7.04	308		.21	.4	5

PCO2 AND CHEMICAL DATA
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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR FCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AQU PHOS.NIT. (UM/L)	SIL.
529	313	08 7												
529	340	08 10	44 52.8	124 16.2	12.33		240.2				96 18 4			
529	355	2M			12.42		250.2							
529	405	2M			12.17		258.1							
529	415	2M			12.33		236.1							
529	423	0M*				11.96	29.901					7.21	315	-42 .19 .1 5
529	428	10M*				8.95	31.287					6.25	273	17 .96 9.7 14
529	428	15M*				7.90	31.911					5.14	225	71 1.22 13.8 18
529	428	25M*				7.80	32.395					5.43	237	58
529	428	40M*				7.78	32.690					5.51	241	54 1.21 13.8 17
529	428	50M*				7.79	33.122					4.26	186	1 8 1.61 20.4 28
529	428	75M*				7.88	33.686					3.33	145	147 1.93 26.3 35
529	428	100M*				7.64								1.97 27.6 38
529	428	115M*				7.49	33.875					2.96	129	165 2.05 28.8 41
529	504	103M			8.20		697.7					3.16	138	
529	519	75M			8.35	33.678	680.9					3.32	145	1.89 26.0 35
529	534	59M			8.30	32.998	517.9					4.36	190	1.53 18.9 26
529	542	40M			8.30	32.673	432.3					5.50	240	1.19 13.4 17
529	549	25M			8.40	32.184	554.3					4.67	204	1.57 19.8 27
529	607	15M			9.26	31.326	352.6					6.63	290	.99 10.6 15
529	617	10M			12.39	29.462	223.9					7.24	317	.15 6
529	629	2M			12.55	29.317	227.3	318.4	-91.1			6.72	294	.15 6
529	647	08 10												
529	720	08 15	44 55.2	124 22.3	12.85	13.00	242.9				97 18 2			
529	1000	100M			8.19	7.60	33.641	643.7				3.49	152	142 1.89 25.6 34
529	1017	75M			8.05	7.63	33.192					4.44	194	1 1 1.73 22.5 31
529	1026	50M			8.29	7.73	32.700	398.5				5.55	242	53 1.13 12.5 16
529	1032	40M			8.31	7.95		405.7						
529	1046	30M			9.06			343.5						
529	1058	25M			8.93	8.00		346.4						
529	1106	20M			9.08		31.941					6.19	270	1.34 15.1 22
529	1120	15M			9.06	7.85	31.722	454.0				5.72	250	46 1.37 15.6 22
529	1129	10M				7.90	31.593					6.68	292	5 1.03 10.2 16
529	1147	5M			13.54	28.913	250.6					6.58	288	.16 11
529	1157	2M			13.15	13.00	246.6	323.8	-77.2					
529	1250	08 15												
529	1320	08 20	44 57.5	124 28.5	13.54		245.2				95 18 4			
529	1425	0M*				13.20	28.859					6.49	284	-16 .18 .1 9
529	1425	10M*				9.56	31.712					7.41	324	-38 .60 3.5 11
529	1425	15M*				9.49	32.392					7.37	322	-39 .36 3
529	1425	25M*				9.04	32.413					7.00	306	-19 .52 1.8 3
529	1425	40M*				8.73	32.464					6.74	294	-6 .63 3.3 5
529	1425	50M*				8.42	32.498					6.60	288	2 .71 4.9 7
529	1425	75M*				8.04	33.000					5.23	228	64 1.30 15.2 18
529	1425	100M*				7.99	33.575					3.72	162	129 1.86 24.3 33
529	1425	151M*				7.49	33.883					3.08	134	160 2.09 28.3 42
529	1425	201M*				6.79	33.962					2.28	99	199 2.44 33.1 54
529	1425	251M*				6.24	33.990					2.04	89	214 2.57 35.6 61
529	1425	302M*				6.03	34.024					1.66	72	232 2.72 37.1 70
529	1443	2M			13.35		246.6					30.11		

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.		
529	1508	10JM			8.55	33.648	640.7					3.55	155	1.87	25.1	35	
529	1533	75M			8.80	33.065	454.7					4.99	218	1.39	16.6	20	
529	1549	50M			9.15	32.605	339.1					6.23	272	.88	7.9	9	
529	1557	40M			9.60	32.447	310.5					6.62	289	.65	4.4	6	
529	1607	25M			10.22	32.394	266.3					7.24	316	.39	.1	4	
529	1613	15M			10.25	31.814	262.5					7.33	320	.52	2.3	9	
529	1623	10M			11.15	30.691	223.2					7.98	349	.39	.6	9	
529	1630	2M			13.35	28.912	246.6	315.7	-69.1			6.44	282	.14		9	
529	1659	DB 20															
529	1730	DB 25	44	59.8	124	34.3	13.58	265.3	318.4	-53.1	30.12	91	18	4			
529	1942	0M*			13.56	29.131						6.30	276	-10	.16	.1	9
529	1942	10M*			12.03	31.639						6.80	297	-27	.51	.1	4
529	1942	15M*			10.82	32.108						7.14	312	-36	.32		3
529	1942	25M*			9.04	32.255						6.79	297	-10	.54	2.7	7
529	1942	40M*			8.73	32.456						6.57	287	2	.67	4.1	6
529	1942	50M*			8.58	32.477						6.48	283	7	.73	5.1	7
529	1942	75M*			8.01	32.911						5.22	228	65	1.35	15.2	19
529	1942	100M*			7.81	33.284						3.96	173	120	1.89	22.4	30
529	1942	150M*			7.69	33.833						3.20	140	153	2.06	27.7	38
529	1942	200M*			7.08	33.939						2.64	115	182	2.30	31.1	47
529	1942	250M*			6.63	33.970						2.33	102	198	2.48	34.1	54
529	1942	300M*			6.15	33.009						1.86	81	224	2.69	36.3	63
529	1942	400M*			5.55	34.064						1.22	53	254	2.96	39.8	78
529	2025	100M			8.40	33.267	582.1					4.07	178		1.71	22.1	29
529	2048	75M			8.60	32.740	408.5					5.51	241		1.25	14.1	17
529	2057	50M			9.25	32.467	313.9					6.52	285		.74	5.4	7
529	2109	2M			13.58	29.174	266.5	324.1	-57.6			6.33	277		.18	.1	9
529	2239	CP 1	45	.5	124	33.2	13.42	265.4	317.7	-52.3	30.12	93	18	3			
529	2239	0M*			13.46	29.242						6.36	278	-12	.18	.1	9
529	2239	10M*			11.12	31.010						6.99	306	-29	.30	.1	3
529	2239	15M*			10.86	32.040						7.08	309	-33	.30	.1	3
529	2239	25M*			8.90	32.265						6.64	290	-2	.60	4.0	7
529	2239	40M*			8.69							6.52	285		.69	5.3	7
529	2239	50M*			8.31	32.458						6.31	276	16	.82	7.9	10
529	2239	75M*			8.02	32.938						5.23	228	64	1.29	15.3	19
529	2239	100M*			7.97	33.562						3.62	158	134	1.86	24.7	34
529	2312	100M			8.32	33.383	613.9					3.75	164		1.78	23.5	32
529	2321	75M			8.60	32.788	421.1					5.39	235		1.23	14.2	17
529	2330	50M			8.97	32.476	332.6					6.32	276		.82	7.7	10
529	2340	25M			9.50	32.277	304.6					6.60	288		.61	4.0	8
529	2349	15M			10.18	31.852	244.5					7.52	329		.33	.1	6
529	2357	2M			13.42	29.186	268.6	318.8	-50.2			6.32	277		.15	.1	9
530	130	CP 2	45	.7	124	33.5											
530	130	0M*			13.45	29.079						6.32	277	-10	.15	.1	9
530	130	10M*			11.43	31.317						6.84	299	-25	.26	.1	5
530	130	15M*			9.57	31.898						7.57	331	-46	.33		7
530	130	25M*			8.91	32.280						6.67	291	-3	.60	3.7	7
530	130	30M*				32.453											
530	130	40M*			8.94	32.442						6.79	297	-9	.59	2.8	5
530	130	50M*			8.33	32.832						6.33	276	14	.83	7.9	10

DATE	TIME	STN.	LAT. N+ S-- (DEG MIN)	LONG. W+ E-- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND DIR VEL	OXYGEN (ML/ (UM/KG) L)	DOU	PHOS.NIT. (UM/L)	SIL.		
530	1116	04*			13.63	28.918						6.29	275	-10	.15	.2	9
530	1116	104*			11.39	31.652						6.84	299	-25	.28	.1	4
530	1116	154*			10.28	32.239						7.16	313	-34	.33	.1	3
530	1116	254*			9.09	32.373						6.76	295	-9	.55	2.6	5
530	1116	404*			8.68	32.420						6.53	285	4	.73	5.2	7
530	1116	504*			8.53	32.477						6.47	283	7	.25	5.8	7
530	1116	754*			8.03	32.959						5.15	225	68	1.32	15.6	19
530	1116	1004*			7.96	33.534						3.70	161	130	1.83	24.2	32
530	1136	1004			8.50	33.508	634.2	3				3.64	159		1.78	24.3	33
530	1140	754			8.80	32.878	429.1					5.15	225		1.25	15.1	19
530	1206	504			9.50	32.456	326.9					6.44	281				
530	1227	404			9.20		310.5								.64	5.0	7
530	1240	254			9.93	32.267	311.0					6.59	288		.60	3.9	8
530	1250	154			11.40	31.865	259.3					7.14	312		.31	.1	5
530	1256	104			13.80	31.684	261.7					6.87	300		.27	.1	4
530	1308	2M			13.82	29.197	272.5					6.27	274		.13	.1	8
530	1532	CP 6	44	57.3	124	36.4											
530	1532	04*			13.84	29.364						6.31	276	-12	.19	.1	9
530	1532	104*			10.83	32.187						7.06	308	-32	.35		3
530	1532	154*			10.21	32.273						7.18	314	-34	.34		3
530	1532	254*			9.12	32.364						6.71	293	-7	.58	3.4	6
530	1532	404*			8.63	32.442						6.63	290	-0	.64	4.4	6
530	1532	504*			8.40	32.471						6.39	279	12	.78	7.0	9
530	1532	754*			8.06	32.890						5.45	238	54	1.20	14.0	17
530	1532	1004*			7.94	33.456						3.78	165	127	1.76	23.7	31
530	1550	2M			13.84		269.8			30.07	86	33	4				
530	1622	1004			8.50	33.529	620.7					3.70	161		1.78	24.2	32
530	1637	754			8.75	32.964	418.3					5.31	232		1.24	14.9	18
530	1643	504			9.25	32.485	333.2					6.44	281		.74	6.2	8
530	1649	404			9.15	32.386	313.8					6.66	291		.69	4.1	6
530	1654	254			10.00	32.275	300.1					6.82	298		.52	2.7	5
530	1700	154			11.42		271.0					7.12	311		.32		2
530	1707	104			11.70	31.875	265.7					7.08	309				
530	1714	2M			13.75	29.430	267.7	321.8	-54.1			6.31	276		.15		8
530	1840	CP 7	44	56.3	124	38.7	271.9	319.3	-47.4	30.67	85	31	3				
530	1840	04*			13.86	29.373						6.30	276	-12	.15	.1	8
530	1840	104*			10.85	32.203						7.05	308	-32	.30	.1	3
530	1840	154*			10.15	32.311						7.14	312	-32	.32	.1	2
530	1840	254*			9.12	32.388						6.79	297	-10	.52	2.7	5
530	1840	404*			9.00	32.441						6.79	297	-10	.53	3.0	5
530	1840	504*			8.44	32.478						6.39	279	12	.73	6.6	8
530	1840	754*			8.04							5.40	236		1.19	13.8	17
530	1840	1004*			8.01	33.528						3.72	162	129	1.78	24.0	32
530	1840	1254*			7.93	33.760						3.38	147	144	1.91	26.4	36
530	1840	1514*			7.61							2.98	130		2.07	28.8	41
530	1840	1764*			7.24	33.883						2.99	130	165	2.08	29.6	43
530	1840	2014*			6.87	33.926						2.81	123	176	2.18	31.2	48
530	1947	1004			8.52	33.592	615.2					3.74	163		1.74	24.0	32
530	1950	754			8.68	32.731	383.5					5.73	250		1.03	11.4	14
530	2003	504			9.18	32.456	319.8					6.59	288		.65	4.3	6

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ UM/KG)	AOU	PHOS.NIT. (UM/L)	SIL.		
530	2015	25M			10.26	32.405	275.4					7.28	318	.35	.1	3	
530	2024	15M					277.1										
530	2030	10M			11.85	30.443	246.8					7.69	336	.24	.1	6	
530	2039	2M			13.89	29.420	285.2	321.9	-36.7	30.07		6.31	276	.14		8	
530	2300	CP 8	44 56.1	124 40.5													
530	2300	0M*			13.93	28.963						6.28	275	-11	.15	9	
530	2300	10M*			11.13	31.764						7.08	309	-34	.29	4	
530	2300	15M*			10.55	32.309						7.16	313	-35	.34	.1	2
530	2300	25M*			9.21	32.381						6.93	303	-17	.50	1.7	5
530	2300	40M*			8.77	32.450						6.63	290	-1	.62	3.6	6
530	2300	50M*			8.26	32.475						6.34	277	15	.81	7.4	9
530	2300	75M*			7.99	32.880						5.35	234	59	1.23	14.1	17
530	2300	100M*			8.00	33.532						3.74	163	128	1.76	23.8	31
530	2300	125M*			7.97	33.710						3.49	152	139	1.85	25.8	34
530	2300	150M*			7.73	33.819						3.12	136	156	2.00	28.0	38
530	2300	175M*			7.53	33.873						2.93	128	166	2.10	29.3	42
530	2300	200M*			6.93							2.92	127		2.14	30.6	46
530	2310	2M			14.01		268.7	320.1	-51.4	30.10	81						
530	2339	100M			8.47	33.588	619.4					3.74	163		1.72	23.4	31
530	2347	85M			8.40	33.270	572.4					4.14	181		1.55	20.2	26
530	2350	75M			8.52	32.802	395.7					5.40	236		1.20	14.3	17
531	8	50M			8.80	32.492	346.7					6.33	276		.83	8.2	10
531	19	40M			9.25	32.441	304.3					6.60	288		.59	3.8	6
531	29	25M			9.75	32.315	272.0					7.11	311		.43	1.1	5
531	39	15M			11.25	31.046	265.3					7.07	309		.29	.1	4
531	47	10M			11.35	31.792	262.8					7.00	306		.29	.2	4
531	55	2M			13.85	28.032	270.6	318.3	-47.7			6.35	278		.16	.2	9
531	216	CP 9	44 56.0	124 42.0													
531	216	0M*			13.94	28.919						6.25	274	-10	.15	.1	9
531	216	10M*			11.57	31.522						6.87	300	-27	.26	.1	4
531	216	15M*			10.63	32.139						7.17	313	-36	.31	.1	3
531	216	25M*			9.09	32.269						6.92	302	-15	.48	1.9	6
531	216	40M*			9.10							6.79	297		.53	2.1	4
531	216	50M*			8.72	32.471						6.58	287	1	.64	4.1	6
531	216	75M*			8.06	32.783						5.68	248	45	1.10	12.3	15
531	216	100M*			8.01	33.642						3.70	161	130	1.82	24.7	32
531	230	2M			14.04		269.4			30.10	74 32 3						
531	305	100M			8.50	33.494	600.7								1.70	23.1	29
531	313	85M			8.35		499.2										
531	321	75M			8.60	32.724	409.4								1.78	24.2	32
531	326	50M			9.20	32.483	326.8								.68	5.0	7
531	332	40M			9.40		305.5										
531	338	25M			9.56	32.328	298.2								.50	2.5	6
531	344	15M			9.60	32.094	275.8								.41	.7	8
531	353	10M			10.80	31.817	267.3								.29	.1	5
531	356	2M			13.90	28.948	277.6	320.3	-42.7						.14		9
531	515	CP 10	44 56.7	124 44.5													
531	515	0M*			13.90	29.127						6.21	272	-8	.17		9
531	515	10M*			10.93	32.144						6.99	305	-30	.29		3
531	515	15M*			10.09	32.322						7.00	306	-26	.34		2

DATE	TIME	STN.	LAT. N+ S-- (DEG MIN)	LONG. W+ E-- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR FCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.		
531	515	254*			9.18	32.446						6.79	297	-11	.51	1.8	4
531	515	404*			8.75	32.477						6.58	287	1	.63	4.0	6
531	515	504*			8.56	32.487						6.49	283	6	.69	5.3	7
531	515	754*			8.04	32.864						5.47	239	54	1.16	13.3	16
531	515	1004*			8.01	33.538									1.81	23.5	30
531	530	24			13.70		274.1	321.3	-47.2	30.11	81 32 3						
531	554	100M			8.45	33.531	600.8					3.87	169		1.71	23.2	30
531	603	85M			8.35		558.3										
531	615	75M			8.57	32.820	413.0					5.57	243		1.12	12.9	15
531	628	50M			9.15	32.480	331.5					6.51	284		.67	4.8	7
531	633	25M			9.63	32.382	302.1					6.83	298		.50	2.0	5
531	641	15M			10.17	31.935	263.0					7.45	326		.34		7
531	650	10M			12.80		252.5										
531	657	CP 10			13.87	29.211	278.8	319.5	-40.7			6.21	272		.14		8
531	725				13.83		275.6	319.1	-43.5								
531	730	SM 1	44	54.9	124	43.7	13.78										
531	745				13.48		272.8										
531	750	SM 2	44	53.5	124	42.5	13.48										
531	800				13.48		260.5										
531	805				13.57		257.0										
531	810	SM 3	44	48.9	124	39.2	13.48										
531	815				13.48		254.6										
531	825				13.48		251.8										
531	830	SM 4	44	46.2	124	36.5	13.43										
531	845				13.39		256.4										
531	850	SM 5	44	42.7	124	33.7	13.36	320.0	-73.4			246.6					
531	900				13.18		243.6										
531	910	SM 6	44	40.2	124	31.6	13.29										
531	920				13.29		239.8										
531	930	SM 7	44	37.2	124	29.4	13.43										
531	940				13.41		239.8										
531	950	SM 8	44	34.0	124	27.0	13.52										
531	1000				13.48		243.2										
531	1010	SM 9	44	31.8	124	24.6	13.55	318.6	-77.4			241.2					
531	1020				13.52		235.6										5
531	1030	SM 10	44	28.3	124	25.6	13.48										
531	1040	SM 11	44	26.3	124	26.2	13.34										5
531	1045				13.25		253.7										5
531	1050						249.2										
531	1100						238.2										4
531	1100																4
531	1100	SM 12	44	27.0	124	21.6	13.13	229.6	318.4	-88.8							
531	1110	SM 13	44	27.6	124	19.4	13.08										
531	1115				13.18		229.7										
531	1120				12.95		222.8										
531	1125				12.88		234.5							.13	.1		4
531	1135				13.02		237.3							.15	.2		6
531	1145	SM 14	44	30.4	124	12.4	12.65							.12	.2		5
531	1155				12.65		222.1							.11	.1		5
531	1200	SM 15	44	29.0	124	7.8	12.58	238.1	319.8	-81.7				.16	.1		7
							244.7										

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	ADU PHOS.NIT. (UM/L)	SIL.		
531	1205				12.51		250.5									
531	1210				12.51		244.6					.16		7		
531	1220				12.38		249.2					.15		8		
531	1225				12.31		250.9					.18	.1	8		
531	1230	SM 16	44 25.5	124 8.2	12.38		256.4									
531	1240				12.55		263.8									
531	1245				12.67		252.9							6		
531	1250	SM 17	44 22.2	124 8.9	12.67		242.7					.10		5		
531	1255				12.67		231.0							1		
531	1300				12.44		214.1	318.2	-104.1							
531	1305				12.50		217.6					.03				
531	1310	SM 18	44 18.5	124 9.5	12.56		214.1									
531	1320				12.44		209.6							1		
531	1330	SM 19	44 14.9	124 10.0	12.22		219.2					.05		1		
531	1335				12.44		223.6									
531	1340				12.31		223.3					.09	.1	3		
531	1345				11.90		237.9									
531	1350	SM 20	44 11.4	124 10.4	12.26		234.7							3		
531	1405				12.28		228.2	318.6	-90.4							
531	1410	SM 21	44 9.9	124 10.9	12.51		236.1					.12	.2	4		
531	1415	SM 22	44 8.4	124 11.0								.20	.1	6		
531	1420	SM 23	44 8.4	124 11.9	12.10		252.2									
531	1425				12.22		254.0									
531	1430				12.56		260.2									
531	1432	SM 24	44 8.7	124 14.6												
531	1435				12.44		292.1									
531	1440				12.35		211.6									
531	1445				12.35		226.0									
531	1450	SM 25	44 11.3	124 14.4												
531	1455				12.47		225.7	317.1	-91.4							
531	1500				12.44		238.1									
531	1510	SM 26	44 14.6	124 13.3	12.83		240.5									
531	1515				12.83		237.0									
531	1520				12.81		233.6					.11		2		
531	1525				12.72		204.7									
531	1530	SM 27	44 17.9	124 13.7								.05				
531	1540				12.19		240.0					.19		4		
531	1545				12.12		252.5							8		
531	1550	SM 28	44 20.4	124 13.1	12.31		243.4					.16		5		
531	1555				12.26		241.8									
531	1600				13.52		207.4					.04	.1	2		
531	1605				12.88		220.4							1		
531	1610	SM 29	44 23.2	124 13.1	12.97		248.9					.12	.1	5		
531	1615				13.25		240.6							5		
531	1620				13.11		219.4					.11				
531	1625				13.22		226.6							5		
531	1630	SM 30	44 23.5	124 12.3								.12		5		
531	1645	CP 11	44 22.0	124 13.1	12.55		233.9	316.8	-82.9					2		
531	1800	04*			12.23	32.254						7.48	327 -59	.17	2	
531	1800	104*			9.40	32.396						7.66	335 -50	.30	.2	2

DATE	TIME	SIN.	LAT. N+S-	LONG. W+E-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.			
531	1800	154*			8.51	32.674						5.41	236	53	1.16	12.7	17	
531	1800	254*			8.13	33.165						4.29	187	1	4	1.58	19.7	27
531	1800	404*			7.90	33.677						2.40	105	188	2.18	29.5	44	
531	1800	504*			7.64	33.785						2.17	95	199	2.28	30.8	50	
531	1805	24			12.38		233.0			30.12								
531	2328	CP 12	44	20.8	124	13.2												
531	2328	04*			12.17	32.048						7.65	334	-66	.16	.3	2	
531	2328	104*			8.41	32.628						5.02	219	71	1.31	15.1	21	
531	2328	154*			7.91	32.857						4.88	213	80	1.33	16.1	21	
531	2328	254*			7.97	33.215						4.07	178	115	.44	2.5	5	
531	2328	354*			7.92	33.601						2.80	122	170	2.07	27.4	42	
531	2328	454*			7.64							2.40	105		2.18	30.5	47	
601	45	24			12.38		224.7			30.10	88	36	4					
601	115	554			8.10	33.823	926.6					2.17	95		2.26	31.4	51	
601	123	404			8.35	33.648	768.1					2.90	127		2.26	30.8	50	
601	133	254			8.45	33.039	539.3					4.51	197		1.47	18.9	23	
601	136	154			8.45	32.787	507.0					4.77	208		1.40	17.5	22	
601	142	104			9.05	32.478	577.2					5.25	229		1.22	14.4	19	
601	206	24			12.05	31.026	228.0	325.3	-97.3						.20	.3	2	
601	245	CP 13	44	21.9	124	13.5												
601	245	04*			12.02	31.954						7.48	327	-57	.19	.3	4	
601	245	104*			8.70	32.029						6.52	285	5	.74	5.9	12	
601	245	154*			8.27	32.620						5.05	221	71	1.27	15.6	20	
601	245	254*			7.88	32.997						4.68	204	89	1.42	18.3	22	
601	245	404*			7.80	33.582						3.14	137	156	1.93	27.0	38	
601	245	504*			7.59	33.787						2.33	102	192		8.9	48	
601	300	24			12.00	11.20	241.4	321.2	-79.8	30.10	99	36	4					
601	338	554			8.29	7.87	33.829	939.3				2.08	91	2	1	2.27	31.6	51
601	350	404			8.31	8.10	33.685	839.2				2.53	110	180	2.08	29.0	43	
601	403	254			8.47	8.16	33.029	525.2				4.52	197	94	1.45	18.8	23	
601	408	154			8.69	8.39	32.611	488.9				4.92	215	76	1.31	16.4	22	
601	423	104			11.22	8.81	31.931	257.7				7.31	319	-30	.34	1.1	6	
601	434	24			12.03	12.08	31.940	237.9				7.41	324	-55	.21	.2	4	
601	443	54			11.56		249.0	328.7	-79.7			5.77	252		1.00	11.3	18	
601	700	CP 14	44	22.1	124	14.0												
601	700	04*			11.91	31.876						7.28	318	-48	.28	.1	5	
601	700	104*			9.59	32.070						7.24	316	-32	.51	3.3	13	
601	700	154*			7.33	32.539						4.97	217	77	1.31	16.5	21	
601	700	254*			7.88							4.52	197		1.43	18.8	23	
601	700	404*			7.80	33.585						3.08	134	158	1.86	27.1	38	
601	700	504*			7.53	33.704						3.12	136	158	2.15	31.5	52	
601	705	24			11.87		246.9	328.8	-81.9	30.10	88	10	4					
601	730	554			8.11	33.826	918.7					2.11	92		2.22	34.4	52	
601	740	404			8.45	33.619	741.8					3.06	134		1.94	27.5	40	
601	752	254			8.53	33.041	518.5					5.07	221		1.49	18.7	23	
601	812	154			8.93	32.822	499.5					4.65	203		1.46	17.8	25	
601	824	104			9.06	32.406	470.5					5.14	225		1.26	14.2	19	
601	855	24			12.00	31.862	248.9					7.41	324		.28	.4	7	
601	907	24			12.05	31.898	240.2	331.0	-90.8			7.40	323		.19	.1	4	
601	1103	CP 15	44	20.1	124	14.0												

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	FCC2 SATN. (PPM)	BAFO- METRIC PRESS.	WIND		OXYGEN		AOU	PHOS.NIT. (UM/L)	SIL.	
			N=+ (DEG MIN)	S=- (DEG MIN)	W=+ (DEG MIN)	E=- (DEG MIN)	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL	(ML/ L)	(UM/KG)				
601	1103	04*					11.66	31.912							7.34	321	-49	.27	.8	6
601	1103	104*					9.44	32.637							5.01	219	71	1.30	15.4	20
601	1103	154*					7.90	32.913							4.73	207	87	1.40	17.2	20
601	1103	254*					7.88	33.183							4.27	186	1 7	1.59	20.4	26
601	1103	404*					7.73	33.721							2.49	109	184	2.19	28.8	44
601	1103	504*					7.48	33.833							2.14	93	2 1	2.34	31.0	51
601	1108	2M					11.86		237.8	323.7	-85.9		78 35 5							
601	1130	63M					8.20	33.834	939.7					2.08	91		2.28	31.0	50	
601	1140	50M					8.37		928.3											
601	1150	40M					8.55	33.647	766.0					2.97	130		2.02	28.1	40	
601	1200	25M					8.73	33.188	565.2					4.19	183		1.64	21.0	26	
601	1208	15M					9.23	32.783	529.4					4.99	218		1.43	17.3	22	
601	1216	10M					9.75	32.235	382.7					5.99	262		.99	10.2	15	
601	1227	7M					11.70	31.953	283.5					7.19	314		.39	2.0	7	
601	1238	2M					10.90	31.018	284.1	330.6	-46.5			6.84	299		.50	3.6	9	
601	1430	CP 16	44 18.5		124 15.5		11.03		270.4	325.0	-54.6	30.09	96 35 5							
601	1431	04*					10.89	32.026						7.00	306	-30	.43	2.5	8	
601	1431	104*					8.41	32.761						4.65	203	87	1.44	17.1	22	
601	1431	154*					9.50	32.875						4.98	217	72	1.36	16.1	20	
601	1431	254*					8.04	33.398						3.45	151	141	1.86	24.4	34	
601	1431	404*					7.63	33.699						2.89	126	167	2.10	29.0	41	
601	1431	504*					7.61	33.793						2.42	106	183	2.26	31.2	46	
601	1453	55M					8.38	31.805	893.3					2.42	106		2.27	31.4	48	
601	1504	40M					8.68	33.659	794.4					2.95	129		2.06	28.4	40	
601	1514	25M					9.00	33.289	592.8					3.96	173		1.70	21.9	30	
601	1525	15M					9.10	32.692	480.4					5.07	221		1.26	14.3	18	
601	1532	10M					9.30	32.573	448.1					5.38	235		1.13	12.1	16	
601	1542	2M					10.40	32.145	292.5	321.2	-28.7			6.67	291		.59	4.5	10	
601	1800	CP 17	44 17.0		124 18.5		10.79		282.3			30.05	85 36 6							
601	1839	53M					8.48	33.708	825.4					2.67	117		2.09	29.2	40	
601	1849	45M					9.56	33.679	804.7					2.75	120		2.05	28.7	39	
601	1929	35M					6.58	33.579	728.3					3.19	139		1.92	26.3	35	
601	1931	30M					8.79	33.335	653.7					3.70	161		1.71	23.2	30	
601	1937	25M					8.90		636.2											
601	1947	20M					9.34	32.912	479.0					4.74	207		1.18	13.4	19	
601	1957	15M					10.86	32.483	268.4					6.99	305		.29	1.1	3	
601	2017	2M					10.83	32.267	291.5	322.5	-31.0			6.77	296		.41	2.5	6	
601	2100	CP 18	44 15.7		124 19.0		10.72		281.4	323.4	-42.0		84 36 5							
601	2103	04*					10.57							6.76	295		.39	2.3	6	
601	2103	104*					9.64	32.783						5.32	232	50	.91		14	
601	2103	154*					8.83	32.901						4.90	214	73	1.10		18	
601	2103	254*					7.99	33.488						3.56	155	136	1.77	23.0	31	
601	2103	404*					7.80	33.687						2.80	122	170	2.04	27.2	39	
601	2103	504*					7.64	33.771						2.50	109	184	2.16	28.2	43	
601	2144	53M					8.19	33.751	860.2					2.52	110		2.06	29.9	42	
601	2158	45M					8.81	33.646	774.8					2.79	122		1.98	28.4	38	
601	2212	33M					8.40	33.588	759.0					3.05	133		1.90	27.1	36	
601	2222	30M					8.55	33.505	684.8					3.41	149		1.79	25.1	32	
601	2232	25M					8.62	33.313	634.2					3.48	152		1.70	23.0	30	
601	2304	20M					9.00	32.984	522.3					4.71	206		1.31	16.2	22	

DATE	TIME	STN.	LAT. N S E W	LONG. E W	TD. IN SITU TEMPERATURE (DEG.C)	SFA SAL. (0/00)	AIR PCO2 (PPM)	POC2 PCO2 (PPM)	BAPO- METRIC PRESS.	WIND DIR VEL	OXYGEN (ML/L)	MOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
601	2316	15M			10.18	32.615	266.3				7.53	329	.20	.2
601	2327	10M			10.73	32.367	290.6				6.84	299	.37	2.1
601	2341	2M			10.65	32.333	288.7	322.6	-33.9	30.05	6.76	295	.38	2.3
601	2355	CP 19	44	14.8	124	20.7								
601	2355	0M*			10.56	32.349					6.76	295	-18	.36
601	2355	10M*			10.49	32.373					6.86	300	-22	.32
601	2355	15M*			9.37						5.61	245	.69	7.4
601	2355	25M*			8.05	33.454					3.53	154	137	1.72
601	2355	40M*			7.77	33.698					2.74	120	173	2.01
601	2355	50M*			7.62	33.796					2.37	103	190	2.11
602	25	2M			10.68		290.5			93 36 5				
602	50	75M			7.78	33.923	975.8				1.93	84		
602	102	65M			7.97	33.856	933.8				2.17	95	2.23	31.6
602	110	55M			8.23	33.800	879.7				2.33	102	2.18	30.3
602	121	45M			8.30	33.708	823.2				2.64	115	2.06	28.9
602	128	35M			8.43	33.548	696.8				3.32	145	1.83	25.4
602	137	30M			8.53	33.504	674.6				3.46	151	1.79	24.6
602	150	25M			8.90	33.871	445.3				4.93	215	1.23	14.5
602	206	25M			8.62	33.271	608.1				3.73	163	1.65	21.6
602	214	20M			9.50	32.696	374.4				5.78	252	.78	7.4
602	220	15M			10.44	32.439	296.1				6.93	303	.36	1.8
602	223	12M			10.75	32.565	295.6				6.70	293	.42	2.9
602	235	7M			10.60	32.374	293.8			30.13	6.72	294	.42	3.0
602	358	CP 20	44	22.0	124	13.0								
602	426	55M			7.98	33.829	942.4				2.01	88	2.26	31.3
602	429	35M			8.60	33.703	867.7				2.91	127	1.99	28.1
602	436	25M			8.32	33.369	619.3				3.74	163	1.70	23.0
602	443	20M			8.40	33.016	564.3				4.32	189	1.51	19.5
602	451	15M			8.65	32.936	554.7				4.52	197	1.48	18.2
602	458	10M			9.05	32.405	392.0				6.05	264	.83	8.9
602	512	12M			8.90	32.695	455.8				5.27	230	1.16	14.0
602	519	5M			9.56	32.389	380.9				6.08	266	.85	9.0
602	521	2M			9.40	32.385	384.5	333.4	51.1	34 4	6.05	264	.84	9.0
602	525	CP 20												
602	600				9.50		408.1	333.6	74.5					
602	610				9.97		381.7							
602	620				9.65		408.3							
602	625				9.76		397.3							
602	630				9.52		425.8							
602	635				9.35		444.6							
602	640				9.12		463.7							
602	652				9.18		469.8	339.1	130.7					
602	705				9.08		475.8							
602	950	NH 1	44	39.1	124	5.9								
602	1055	04*			8.46	33.221					3.70	162	127	1.70
602	1055	54*			8.18	33.491					3.07	134	156	1.81
602	1055	15M*			7.75	33.700					2.54	111	182	2.12
602	1100	75M			6.57	33.716	852.3				2.61	114	2.11	28.3
602	1121	15M			8.70		832.3							
602	1130	10M			8.77	33.560	818.2				2.83	124	1.97	25.9

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)		SIL.	
			N=+ (DEG MIN)	S=- (DEG MIN)	W=+ (DEG MIN)	E=- (DEG MIN)	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL						
602	1143	2M					8.70	33.295	633.1	333.1	300.0	29.98			4.19	183	1.61	20.4	31	
602	1210	NH 1					9.18		602.8	333.9	268.9									
602	1215						8.95		592.3											
602	1220						8.74		651.6											
602	1222	NH 3	44	39.1	124	7.9	8.74		654.9											
602	1248	0M*					8.34	33.304							3.93	172	118	1.80	22.4	34
602	1248	10M*					7.94	33.560							3.33	145	146	1.92	25.2	35
602	1248	15M*					7.86	33.678							3.22	141	152	1.99	26.5	36
602	1248	25M*					7.60	33.792							2.92	127	166	2.13	28.8	43
602	1248	40M*					7.60	33.798							2.75	120	174	2.17	28.9	43
602	1255	2M					8.72		646.9			29.97	36	4						
602	1306	40M					8.30	33.803	810.0						2.70	118		2.14	28.9	43
602	1316	25M					8.40	33.778	755.1						2.91	127		2.13	28.5	42
602	1324	15M					8.65	33.663	727.8								5.43	8.8	35	
602	1335	10M					8.83	33.434	692.1						3.53	154		4.95	8.4	33
602	1347	2M					8.80	33.293	669.9	329.7	340.2				4.01	175		4.66	8.3	34
602	1350	NH 3																		
602	1402	NH 5	44	39.0	124	10.6														
602	1500	4M*					8.89	32.987							4.52	197	89	1.58	20.0	30
602	1500	9M*					7.90	33.163							4.04	176	116	1.66	21.3	29
602	1500	19M*					8.00	33.419							3.38	148	144	1.87	24.1	36
602	1500	34M*					7.67	33.789							3.00	131	162	2.03	28.1	40
602	1500	44M*					7.57	33.830							2.84	124	170	2.09	28.8	42
602	1500	79M*					7.57	33.836							2.82	123	171	2.11	28.8	42
602	1510	2M					9.16		582.7				93	35	4					
602	1522	45M					8.46	33.833	784.4						2.79	122		2.07	28.8	43
602	1530	25M					9.85	33.932	767.5						3.03	132		1.94	25.7	38
602	1540	15M					9.20	33.338	686.9						3.57	156		1.78	22.8	34
602	1547	10M					9.60	33.003	609.2						4.12	180		1.60	20.3	30
602	1555	2M					9.32	32.958	587.3	323.3	264.0	29.94			4.73	207		1.57	19.8	30
602	1630	NH 5					9.08		583.3	321.9	261.4									
602	1640						9.20		578.0											
602	1650						9.18		512.3											
602	1653	NH 7	44	39.1	124	13.5														
602	1728	0M*					8.59	32.341							5.07	221	68	1.39	17.3	22
602	1728	10M*					7.82	32.584							5.24	229	66	1.26	15.5	19
602	1728	15M*					7.87	32.794							5.38	235	59	1.20	14.2	17
602	1728	25M*					7.82	33.176							4.03	176	117	1.69	21.8	29
602	1728	40M*					7.80	33.693							3.14	137	155	1.97	27.8	37
602	1728	50M*					7.78	33.763							3.15	137	155	1.97	28.0	37
602	1728	60M*					7.53	33.813							2.93	128	166	2.05	29.5	41
602	1728	65M*					7.51	33.865							2.89	126	168	2.08	29.6	41
602	1755	2M					9.08		511.6			29.20	93	35	4					
602	1825	5M					8.10	33.845	742.1						2.91	127		2.02	29.2	40
602	1833	50M					8.33		726.4											
602	1902	25M					8.64	33.323	653.0						3.69	161		1.78	23.6	33
602	1914	15M					8.50	32.882	468.8						4.51	197		1.44	18.2	25
602	1925	10M					8.82	32.676	504.8						4.98	217		1.40	17.3	23
602	1933	2M					8.90	32.563	509.8	319.9	189.9				5.10	223		1.37	17.2	22
602	2000	NH 7																		

DATE	TIME	STN.	LAT. N+ S--	LONG. W+ E--	EC. IN SITU TEMPERATURE (DEG.C)	SAL. (P/00)	SEA PC02 (PPM)	AIR PC02 (PPM)	F002 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ UM/KG)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
602	2031	NH 10	44	39.4	124	17.9									
602	2115	0M*					9.63	31.975				5.87	256	27	1.07 11.8 16
602	2115	10M*					8.44	32.034				5.54	242	49	1.16 12.6 16
602	2115	15M*					8.00	32.290				5.86	256	38	1.00 9.6 13
602	2115	25M*					7.71	32.677				5.47	239	56	1.16 13.6 17
602	2115	40M*					7.82	33.132				4.11	179	114	1.60 21.3 28
602	2115	50M*					7.84	33.499				3.41	149	144	1.84 25.8 34
602	2115	73M*					7.42					2.58	113		2.17 30.9 45
602	2120	2M				9.71			423.5		92 33 4				
602	2135	75M				7.88	33.883	803.1				2.62	114		2.17 31.0 46
602	2143	50M				8.28	33.537	585.8				3.22	141		1.89 26.4 35
602	2157	25M				8.38	32.741	414.9				5.51	241		1.12 13.1 16
602	2203	2M				9.50	31.917	421.8	317.6	104.2	29.97	5.89	257		1.05 11.7 15
602	2207	NH 10													
602	2234	NH 15	44	39.1	124	24.9	9.73	31.491	382.3	321.2	61.1			96	6.25 273 .98 10.4 14
602	2340	NH 15													
603	10	NH 20	44	39.1	124	31.7	10.05	31.205	338.0	322.6	15.4	30.00	95		6.67 292 .69 6.1 14
603	105	NH 20													
603	115					10.23			323.5	322.3	1.2				
603	125					10.27			305.4						
603	138	NH 25	44	39.2	124	38.5	10.30		322.2	321.9	.4	30.01	91		6.55 286 .64 5.8 13
603	237	NH 25													
603	240					10.34			312.7						
603	245					10.70			262.3						
603	255					10.96			251.0						
603	300					10.96			256.1						
603	305					10.81			267.7						
603	310					10.94			256.4						
603	325					11.64			240.7						
603	335					12.17			253.4						
603	354	NH 35	44	39.2	124	52.8	12.70	29.636	253.5	319.4	-65.9			90	6.60 289 .18 9
603	437	0M*				12.60	29.671					6.54	286	-16	.13 .1 9
603	437	10M*				12.13	30.077					6.76	296	-24	.18 .2 8
603	437	15M*				10.86	30.984					7.04	308	-30	.34 1.5 9
603	437	25M*				9.23	32.418					7.15	312	-27	.37 .5 4
603	437	40M*				8.64	32.464					6.55	286	3	.61 4.4 7
603	437	50M*				7.99	32.500					6.19	270	23	.85 8.8 11
603	437	75M*				8.15	32.126					4.87	213	81	1.36 17.2 21
603	437	100M*				7.97	33.650					3.57	156	136	1.82 25.0 34
603	437	125M*				7.84	33.795					3.21	140	152	1.84 27.1 38
603	437	151M*				7.64	33.871					2.99	130	163	2.04 28.4 41
603	437	176M*				7.37	33.915					2.78	121	174	2.12 29.6 44
603	437	201M*				7.03	33.951					2.51	110	188	2.24 31.6 49
603	437	251M*				6.48	34.011					1.87	82	219	2.57 35.3 60
603	437	302M*				6.25	34.037					1.63	71	231	2.68 36.6 66
603	437	392M*				5.76	34.072					1.29	56	250	2.80 38.6 74
603	505	NH 35													
603	515					12.67			257.4	321.7	-64.3				
603	520					12.61			251.6						
603	535					12.45			249.6						

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SEA PCO2 (PPM)	AIR FCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
603	550				12.85			254.2						
603	600				12.90			259.0						
603	605				12.90			253.5						
603	617	NH 45	44 39.1	125 6.8	12.92			319.5	275.6	43.9	30.10	84	6.46	282 .11 .1 6
603	756	NH 45												
603	855				13.28			317.9	287.6	30.3				
603	915				13.34			313.0						
603	925				13.28			313.7						
603	935				13.21			319.3						
603	945				13.12			314.8						
603	1010	NH 65	44 39.1	125 35.0	12.88	31.320		317.2	297.0	20.2	30.13	80	6.28	275 .26 .2 4
603	1135	NH 65												
603	1210				12.76			319.2						
603	1443	NH 85	44 39.3	126 3.4										
603	1653	NH 85												
603	1845	NH1 5	44 39.1	126 31.0	13.27	31.625		291.5	326.7	-35.2	30.17	79	6.20	271 .23 .2 5
603	2214	NH105												
603	2230				13.10			290.7	324.9	-34.2	30.20			
603	2300				13.43			302.7						
603	2330				13.05			296.2	326.5	-30.3				
604	20	NH125	44 20.1	126 59.0	12.81	32.337		293.1	320.6	-27.5	30.20	80	6.25	273 .32 .2 1
604	205	NH125												
604	230				12.19			299.9	319.7	-29.8				
604	300				11.97			283.8						
604	345				12.12			283.8						
604	400	NH145	44 39.0	127 27.2	11.90	32.547		281.8	322.2	-40.4	30.18	76	6.61	289 .31 .1 1
604	715	04*			11.88	32.568							6.59	288 -19 .31 .1 1
604	715	104*			11.90	32.572							6.59	288 -19 .32 .2
604	715	154*			11.89	32.576							6.58	287 -18 .33 .2
604	715	254*			11.85	32.584							6.59	288 -19 .33 .2
604	715	404*			9.86	32.620							7.06	308 -27 .38 .4
604	715	504*			8.55	32.660							6.81	297 -8 .58 3.5 2
604	715	754*			7.87	32.641							6.71	293 1 .73 5.5 4
604	715	1004*			7.72	32.923							5.91	258 37 1.03 11.2 12
604	715	1514*				33.709							4.19	183 1.65 23.5 32
604	715	2014*			0.72								3.29	144 2.04 29.4 45
604	715	2514*			6.11	33.911							2.82	123 181 2.27 33.0 54
604	715	3024*			5.50	33.924							2.25	98 210 2.51 36.8 63
604	715	4024*			4.80	33.988							1.38	60 253 2.87 41.9 82
604	715	6034*			+.13	34.158							.62	27 291 3.12 45.0 108
604	715	8044*			3.85	34.336							.27	12 3 8 3.22 45.9 125
604	715	10054*			3.37	34.426							.34	15 3 9 3.24 46.3 141
604	715	12064*			2.58									3.20 46.0 152
604	743	NH145												
604	800				12.10			285.2	320.1	-34.9				
604	830				11.99			283.5						
604	900				12.19			290.9						
604	930				12.34			290.6						
604	1030				13.18			296.4						
604	1100				13.50			299.0	323.1	-24.1				

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EG. IN SITU TEMPERATURE (DEG.C)	SAL. (0/100)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
604	1130				13.34		290.6								
604	1150				13.90		293.8	322.7	-28.9						
604	1245				13.68		287.9								
604	1300				13.68		288.5								
604	1330				13.74		289.2								
604	1400				13.87		292.9			30.18					
604	1430				13.72		280.9								
604	1500				13.97		282.8								
604	1530				13.97		280.2	321.8	-41.6						
604	1605				13.74		269.5	322.6	-53.1						
604	1630				13.56		257.2								
604	1700				13.59		245.9								
604	1730				12.85		236.4								
604	1800				12.32		225.4								
604	1830				11.55		209.5								
604	1901				11.09		331.4	328.8	2.6						
604	1930				10.79		303.1								
604	2020				8.04		397.7								
604	2040				8.18		503.5								
604	2123	YA3-5	44 22.2	124 12.6	10.40		461.4	317.6	143.8	30.11					
604	2155	0M*			10.34	32.676					5.80	253	25	1.19	14.4 21
604	2155	10M*			9.45						5.49	240		1.22	14.2 20
604	2155	15M*			8.03	32.999					4.60	201	91	1.46	18.1 23
604	2155	25M*			7.94	32.999					3.48	152	141	1.83	24.2 33
604	2155	40M*			7.58	32.999					2.43	106	189	2.18	30.4 45
604	2155	50M*			7.55	32.999					2.09	91	2 4	2.28	31.3 50
604	2219	55M			8.00	33.818	690.3				2.04	89		2.28	31.7 49
604	2230	45M			8.09		670.3								
604	2238	35M			8.18	33.769	606.4								
604	2248	30M			8.25	33.677	537.1				2.57	112		2.17	30.1 44
604	2259	25M			8.35	33.518	499.7				3.06	134		2.03	28.1 38
604	2330	20M			8.45	33.309	438.7				3.37	147		1.87	25.3 33
604	2350	15M			8.65	33.135	417.0				3.86	168		2.20	22.8 30
605	4	10M			9.15	32.744	359.8				4.19	183		1.56	19.4 27
605	17	5M			10.30	32.632	326.6				4.78	209		1.42	17.2 23
605	29	2M			10.31	32.636	323.7	216.5	107.2	30.12	5.72	250		1.23	14.7 21
605	35	YA3-5									5.73	250		1.18	14.5 21
605	37														
605	43													1.14	14.8
605	49													.99	12.5
605	100	SM 31	44 39.8	124 12.5	10.42		485.4	336.3	149.1					.87	10.3
605	110													.91	11.3 22
605	116													.88	10.8 23
605	123													.97	11.7 17
605	130	SM 32	44 14.4	124 13.6	10.33		428.1							1.18	16.0 16
605	137													.98	12.2 18
605	143													1.09	13.8
605	149													1.26	17.6 17
605	152													1.42	19.2
605	156														
														1.56	22.6

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	FHCS.NIT. (UM/L)	SIL.
			N=+ (DEG MIN)	S=-	W=+ (DEG MIN)	E=-	TEMPERATURE (DEG.C)	SAL. (0/00)									
605	203	SM 33	44	8.8	124	15.0										1.66 24.3	18
605	210						9.22		477.8							1.66 24.3	
605	212																25
605	216															1.58 22.6	
605	219																27
605	220						8.84		571.3								
605	226	SM 34	44	8.5	124	9.8											
605	228																32
605	230						8.63		676.2								
605	240						8.63		706.2								34
605	246																32
605	252																33
605	300	SM 35	44	13.6	124	8.6	8.51		693.8								34
605	314															1.59 23.7	34
605	321																33
605	325															1.48 21.1	
605	330	SM 36	44	18.4	124	8.6	9.20		573.7							1.36 19.3	27
605	341																28
605	344															1.34 18.4	
605	347																28
605	400	SM 37	44	23.2	124	7.9	9.91		504.1							1.27 16.7	25
605	407																27
605	414															1.24 17.7	26
605	421																28
605	430	SM 38	44	28.0	124	6.9	9.86		540.8							1.36 18.2	26
605	439																29
605	445	SM 39	44	30.6	124	7.4										1.45 20.1	29
605	454															19.6	28
605	500	SM 40	44	32.1	124	7.8	9.65		542.8							1.39 18.7	27
605	530	SM 41	44	38.3	124	7.0	9.48		590.4								
605	553																1.60 22.3
605	600	SM 42	44	43.7	124	6.9	9.20		650.2							1.60 21.7	33
605	608															1.60 21.4	33
605	614															1.62 21.9	
605	619																32
605	621															1.82 24.4	
605	628	SM 43	44	48.7	124	5.8										1.67 22.2	37
605	636																33
605	639	DB2-3	44	49.4	124	7.7											
605	710	0M*					9.75	32.864					5.26	230	52	1.71 24.1	36
605	710	10M*					9.29	33.330					4.61	201	32	1.76 24.4	34
605	710	15M*					8.49	33.438					3.54	155	134	1.86 26.5	36
605	710	25M*					7.66	33.770					2.74	120	174	2.07 30.7	41
605	710	40M*					7.59	33.816					2.66	116	178	2.13 29.7	43
605	710	50M*					7.54	33.830					2.66	116	178	2.07 29.7	42
605	715	2M					9.82		607.9	361.5	246.4						
605	737	55M					8.05	33.835	797.2				2.66	116		2.06 31.2	42
605	800	15M					8.89	33.468	713.7				3.33	145		1.88 26.7	37
605	816	10M					9.82	33.282	671.9				4.57	199		1.74 24.2	34
605	827	2M					9.82	32.985	623.8	342.4	281.4		5.09	222		1.76 23.9	36

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	PARO- METRIC PRESS.	WIND DIR VEL	OXYGEN (ML/ (UM/KG)	ADU (UM/L)	PHOS. (UM/L)	NIT. (UM/L)	SIL. (UM/L)	
605	924	DB2-3															

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU PHOS.NIT. (UM/L)	SIL.
620	1940	C	2	44 35.0	124 6.0								
620	1955	C	2										
620	2025	C	3	44 35.0	124 12.0								
620	2040	C	3										
620	2112	C	4	44 35.0	124 18.0								
620	2130	C	4										
620	2155	C	5	44 35.0	124 24.0								
620	2210	C	5										
620	2236	C	6	44 35.0	124 30.0								
620	2300	C	6										
620	2325	C	7	44 35.0	124 36.0	11.38							
620	2357	C	7				33.082	244.4	318.0	-73.6	30.13	91 35 3	
621						11.38		241.7					
621	5					11.62		239.0					
621	10					11.78		237.6					
621	15					11.88		236.9					
621	20					12.37		232.8					
621	21	C	8	44 35.0	124 42.0	12.17	31.453	228.0			67 36 5		
621	55	C	8										
621	100					12.28		230.1					
621	105					12.65		228.0					
621	110					12.92		228.6					
621	115					13.10		231.9					
621	120					13.27		231.9					
621	125					13.30		233.2					
621	130					13.38		233.9					
621	134												
621	135					13.47		234.5					3
621	140					13.58		237.9					
621	143	D	8	44 40.0	124 42.0	13.88	30.535	239.0			77 35 4		4
621	233	D	8										
621	235					13.94		237.8					
621	241												
621	243												4
621	252											.05	
621	254											.08	
621	255	D	7	44 40.0	124 36.0	12.30	31.587	237.6			79 34 4		2
621	406	D	7									.10	1
621	407												
621	410					12.37		237.5				.11	
621	414												
621	415					12.37		235.0	315.0	-80.0	30.13		1
621	417												
621	420					12.26		236.3				.12	
621	421												
621	425					12.35		235.6					1
621	428												
621	430					12.26		237.6				.13	
621	435					12.21		239.0					
621	437											.15	

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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU TEMPERATURE (DEG.C)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	FCO2 SATN. (PFM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.		
			N=+ (DEG MIN)	S=-	W=+	E=-						RH	DIR VEL						
621	440																		
621	445	D	6	44	40.0	124	30.0	11.80		31.850	240.3								
621	530	D	6									30.12	81	36	4		.18	.2	3
621	537																		
621	540							11.45			243.8	317.7					.24	.1	
621	544																		
621	545							11.25			246.5								4
621	550							10.91			259.3								
621	555							10.60			286.5								
621	600	D	5	44	40.0	124	24.0	10.63		31.993	302.8								
621	717	D	5										85	34	4				
621	752																		
621	755	D	4	44	40.1	124	18.0										.94	9.9	15
621	840	D	4														.92	9.0	15
621	844																		
621	846																.93	10.2	
621	850																		18
621	857																.83	9.2	
621	905	D	3	44	40.0	124	11.9										.87	9.7	16
621	942	D	3														.92	9.4	17
621	1007							9.96			439.2	320.0	119.2	30.12					
621	1010							10.58			472.4								
621	1012	D	2	44	40.2	124	5.8	10.18		32.881									
621	1043	D	2										88	34	2				
621	1045							10.58			492.7								
621	1050							10.13			489.1								
621	1055							10.41			473.8	320.4	153.4	30.12					
621	1057																		
621	1100							10.30			484.3						1.13	15.6	20
621	1104																		
621	1105							10.50			447.7						1.12	14.2	18
621	1110							10.37			476.0								
621	1115	E	2	44	45.0	124	6.2	10.99		33.129	514.0						1.21	15.8	21
621	1135	E	2										100	34	3		1.29	17.2	26
621	1137																		
621	1142																1.22	15.1	25
621	1144																	19.7	
621	1147																		30
621	1150							10.11			574.2	319.9	254.4				1.46	19.3	
621	1151																		
621	1154																		29
621	1155																1.42	19.4	
621	1157																		
621	1200							9.88			549.4								30
621	1205							10.00			450.1						1.07	13.6	
621	1207	E	3	44	45.1	124	12.0	9.83		32.443	420.9								
621	1225	E	3														.97	11.2	19
621	1230							10.26			421.3	320.3	101.1						
621	1235							10.60			374.3								
621	1240							10.69			341.0								

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR FCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL L	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
621	1725				13.30		220.0									
621	1730				13.30		219.3									
621	1735				13.30		219.3									
621	1743	F	6	44 49.9	124 30.0	13.03	31.626	218.9	317.5	-98.6	79 36 5				2	
621	1804	F	6													
621	1810				12.83		218.7									
621	1825													.19		
621	1829															
621	1835	F	5	44 50.0	124 24.0	12.13	31.822	223.1			84 35 4			.21	3	
621	1854	F	5												3	
621	1855				11.95		223.4									
621	1900				12.06		226.0									
621	1902															
621	1905				11.73		230.0								4	
621	1909												.28	.5	4	
621	1910				11.62		241.4									
621	1912													1.4		
621	1915				11.38		249.4									
621	1916														4	
621	1919												.37	1.5		
621	1920				11.34		252.8									
621	1926	F	4	44 50.0	124 18.0	11.02	32.104	267.7	318.6	-50.9	30.06	83 35 5		.45	2.8	5
621	1946	F	4													
621	1950				10.95		255.9									
621	1955				10.76		244.5									
621	2000				10.78		285.1									
621	2005				10.71		313.4									
621	2012													4.5		
621	2019														10	
621	2020	F	3	44 49.8	124 12.0	10.73	32.222	303.0	319.3	-16.3	30.05	87 35 5		4.0	11	
621	2035	F	3													
621	2037													.75	5.1	14
621	2040				10.63		319.0									
621	2044													1.04	11.6	20
621	2045				10.20		385.9									
621	2050				9.92		449.0							1.40	17.8	28
621	2055				10.73		537.6									
621	2057													1.57	20.1	29
621	2100				10.13		571.5									
621	2106	F	2	44 50.1	124 6.0	9.91	33.271	547.6			94 35 4			1.52	19.5	26
621	2116	F	2													
621	2120				9.83		554.4									
621	2124													1.52	19.6	27
621	2130													1.50	19.2	
621	2134															28
621	2136															
621	2137													1.53		
621	2140				10.13		572.3									
621	2144													1.37	18.3	28
621	2150	G	2	44 55.1	124 6.3	9.40	32.947	532.5	319.4	213.1	30.03	91 36 4		1.38	18.5	27

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS. (UM/L)	NIT. (UM/L)	SIL.	
621	2243	G 2															
621	2246				9.00		523.4										
621	2250				9.66		475.2										
621	2252																
621	2255				10.45		420.7							.76	13.2		
621	2300				10.39		372.2										
621	2305																8.3
621	2310	G 3	44 55.1	124 12.0	10.56	32.511	376.9	322.1	54.8	30.03	92 2 4			.94	8.6		
622	17	G 3												.84	9.8		20
622	22																
622	25				9.96		405.1	322.1	83.0	30.01				.90	8.6		21
622	29																
622	30				9.83		372.9										13
622	32																
622	35				10.05		375.1							.85	8.5		12
622	39													.62	4.7		
622	42				10.07		323.4										7
622	45	G 4	44 55.0	124 18.0	10.49	31.848	276.3				88 36 4			.44	2.1		5
622	128	G 4															
622	140				11.76		245.5	318.1	-72.6								
622	145				12.13		226.7										
622	150				12.62		222.6										
622	155				12.82		223.2										
622	157	G 5	44 55.0	124 24.1	12.96	31.253	226.0	320.5	-94.5	29.98	72 36 4						3
622	258	G 5															
622	323	G 6	44 55.0	124 30.0	12.87	31.453	219.4				71 36 4			.11			3
622	416	G 6															
622	420				12.95		220.4										
622	425				13.08		220.3										
622	430				12.99		220.3										
622	445	G 7	44 54.9	124 35.6	13.33	31.353	230.7	316.4	-85.7		71 32 4						
622	537	G 7															
622	550				12.99		230.6	325.4	-94.8	29.98							
622	555				13.08		220.7										
622	600				13.26		222.6										
622	605				13.62		237.1										
622	610				14.02		233.0										
622	616	H 7	45 .0	124 36.2	14.06	30.179	232.3				72 33 4						
622	649	H 7															
622	650				14.23		231.0										
622	655				14.25		233.0										
622	700				14.32		233.6										
622	705				14.32		237.6										
622	710				14.34		238.3										
622	715				14.34		233.0										
622	718	H 6	45 .0	124 29.8	14.35	30.060	234.5				73 35 3						
622	746	H 6															
622	810				14.20		232.9	317.8	-84.9	29.97							
622	815	H 5	44 59.9	124 24.0	14.20	30.130	228.1				68 35 3			.05			6
622	844	H 5															

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AQU PHOS.NIT. (UM/L)	SIL.
622	915	H 4	45	.0	124 18.0									
622	935	H 4												
622	1004	H 3	45	.0	124 11.9	11.65	223.0					.66	2.7	3
622	1022	H 3												
622	1030				10.69		304.2	321.3	-17.0					
622	1032													17
622	1034											1.04	11.4	
622	1035				10.63		400.0							
622	1039													23
622	1040				10.52		450.9					1.21	15.4	
622	1045				10.58		502.1							28
622	1047											1.19	15.7	
622	1050				10.48		483.9							25
622	1052	H 2	45	.2	124 6.0	9.86	32.749	465.8			84 36 2	1.13	14.6	23
622	1110	H 2												
622	1117											1.14	14.5	23
622	1120				10.11		460.0							
622	1124											1.18	15.2	23
622	1125				10.15		467.5							
622	1130				10.05		483.3					1.39	18.7	27
622	1135													
622	1137											1.38	18.7	27
622	1140				9.94		534.7							
622	1145				9.98		540.8							
622	1146	G 2	44	55.0	124 6.0		33.105	547.9			84 35 2	1.46	20.3	28
622	1157	G 2												
622	1200				10.03		549.4							
622	1204											1.45	20.9	36
622	1205				10.80		556.5	321.4	235.2	29.97				
622	1210				10.33		565.4							33
622	1215				10.76		571.5							
622	1217											1.56	21.6	33
622	1220				10.26		584.4							
622	1222													33
622	1226				10.28		593.9							
622	1228	F 2	44	50.0	124 6.0	9.65	33.313	603.8			82 34 2	1.61	21.7	32
622	1238	F 2												
622	1240				10.05		598.8							32
622	1244											1.32	21.3	
622	1245				10.37		585.1							
622	1247													30
622	1250				10.24		548.2							
622	1255				9.96		583.7							
622	1300				9.98		562.4							
622	1305				9.98		542.8							
622	1307													
622	1311	E 2	44	45.0	124 6.0							1.55	20.6	
622	1321	E 2										18.4		25
622	1325				10.11		512.3	320.7	191.6	29.94				
622	1330				9.88		533.3							25

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
622	1332													27
622	1334												1.34 18.1	
622	1335				9.94		544.3							
622	1340				9.88		543.5							
622	1342													27
622	1345				9.98		545.0							
622	1347												1.38 18.4	
622	1352													26
622	1354												1.38 18.1	
622	1355				9.94		549.0							
622	1400				10.11		548.1						1.25 16.3	25
622	1400												1.25 16.3	25
622	1407												1.25 16.2	
622	1410				10.24		514.5							25
622	1415				10.30		510.7							
622	1420				10.03		497.7						1.24 16.5	22
622	1425	C 2	44 35.0	124 6.0	10.58	33.174	517.2			73 30 3			1.25 16.6	21
622	1435	C 2												
622	1440				10.37		522.4							
622	1445				10.26		534.9							
622	1450				10.24		506.2							
622	1455				10.30		509.3							
622	1500				10.00		511.7							
622	1508	D 2	44 40.0	124 6.0	9.99	33.134	539.4			78 31 2			1.45 20.1	27
622	1528	D 2												
622	1532				10.15		540.4							
622	1534												1.41 20.3	25
622	1540												1.37 19.7	
622	1543	D 2.5	44 40.0	124 9.0									1.39 19.0	26
622	1551	D 2.5	44 40.0	124 9.0	10.26	33.066	502.7 318.0	184.7		80 31 2			1.39 19.0	26
622	1554													28
622	1555												1.53 21.1	
622	1600				11.52		611.9							
622	1605	D 3	44 40.0	124 12.1	10.79	33.242	603.5			83 32 2			1.54 21.9	31
622	1626	D 3												
622	1627													30
622	1629												1.15 19.7	
622	1630				10.91		569.2 318.3	250.9 29.94						
622	1634													20
622	1635				10.71		406.3						.87 9.8	
622	1640	D 3.5	44 40.2	124 15.1	10.80	32.416	337.5			82 33 2			.74 6.1	16
622	1650	D 3.5												
622	1654													17
622	1655				11.93		343.8						.64 5.9	
622	1700				11.52		306.0							15
622	1702												.52 2.8	
622	1704	D 4	44 40.0	124 17.9	11.52	32.290	294.2			87 32 2			.69 4.9	15
622	1731	D 4												
622	1732				11.78		293.4 320.0	-26.6						
622	1734												.50 2.1	

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
622	1740															
622	1742													.65	5.2	13
622	1744				12.00		347.1									
622	1745				12.00		345.0									
622	1747															
622	1749															16
622	1750				11.96		351.4								5.2	
622	1755				11.89		313.5									
622	1800				11.56		306.6									
622	1805				12.24		269.4									
622	1810				12.26		250.5									
622	1815				11.93		272.2									
622	1918	D	5	44 40.0	124 25.2	10.74	32.110	291.2			91 31 2					
622	1858	D	5													
622	1914															
622	1921	D	6	44 40.0	124 30.0									.35	1.6	4
622	2001	D	6													
622	2004															
622	2005													.25	.9	3
622	2015															4
622	2019													.32	.7	4
622	2020				12.24		253.5	320.3	-66.8							
622	2025				12.42		240.6									4
622	2030				12.88		227.8	320.3	-92.5							
622	2032	D	7	44 40.0	124 36.0	12.43	31.756	223.6		29.23	98 31 4			.20	1.5	2
622	2140	D	7													
622	2147				12.42		223.3									
622	2155				12.60		220.6									
622	2200				12.64		217.3									
622	2205				12.88		217.9									
622	2210	D	8	44 39.8	124 41.8	13.00	31.603	218.6	325.9	-107.3	29.23	79 32 4				
622	2300	D	8													
622	2315				12.35		217.0									
622	2320				12.20		215.7									
622	2325				12.22		216.4									
622	2335				12.11		216.4									
622	2340				11.63		215.0									
622	2345				11.52		216.4									
622	2350				11.34		232.2									
622	2355				11.56		246.8									
623		C	5	44 35.0	124 30.0	11.54	32.115	246.4			31 2			.35	1.7	5
623	15	C	6													
623	55				10.80		288.8									
623	100				10.74		300.4									
623	105	D	5	44 39.9	124 24.0	10.51	32.129	319.9		29.97	31 3					
623	117	C	5													
623	150				10.71		331.6									
623	155				10.54		326.6									
623	200				10.80		310.2									
623	205				10.91		286.3									

PCO2 AND CHEMICAL DATA
CRUISE Y7206C

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
623	210				10.93		287.0								
623	215	E 4	44 44.9	124 17.9	10.87	32.051	269.3				77 31 4			.44 2.3	7
623	230	E 4													
623	237				10.87		262.8								
623	240				10.80		268.3								
623	245				10.74		306.7								
623	250				10.65		351.7								
623	255				10.65		402.2								
623	300				10.58		430.5								
623	305				10.84		430.4								
623	310				10.74		423.7	319.7	104.0	29.97					
623	315				10.67		407.3								
623	320				10.43	32.706	407.4				93 31 3				
623	323	F 3	44 50.0	124 12.0	10.22		409.5								
623	338	F 3													
623	342				11.21					29.48					
623	345				10.69		416.5								
623	350				10.22		425.0								
623	355				10.24		432.5								
623	400				10.09		428.1								
623	405				10.28		434.0								
623	407												1.06	12.9	29
623	415				10.24		431.8								
623	417												1.10	13.0	25
623	419	G 2	44 54.8	124 6.1	10.00	32.897	469.9				85 30 5		1.28	17.1	27
623	433	G 2													
623	437												1.17	15.6	25
623	440				10.13		443.4	319.3	124.1						
623	445				10.48		463.0								
623	447												1.20	16.3	25
623	450				10.28		453.2						.90	10.3	15
623	454														
623	455				10.74		370.9								
623	500				11.17		316.7						.53	4.3	8
623	505				11.80		277.9						.35	1.4	6
623	507														
623	510				12.20		264.6								
623	514												.34	.5	5
623	515				12.22		257.7								
623	520				12.33		253.6								
623	524												.33	.2	
623	545	DB 15	44 55.3	124 22.4	13.63	30.112	235.9				81 29 4				
623	607	DB 15													
623	615				13.46		233.5	318.1	-84.6						
623	620				12.98		236.4								
623	625				12.42		251.6								
623	631				12.13		257.2								
623	635				12.04		257.9								
623	646	DB 10	44 52.8	124 16.5	11.77	30.843	259.7				89			1.3	6
623	700	DB 10													

02

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	LQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
623	702													.25	
623	705				12.13		258.5								
623	710				11.67		267.7								6
623	715				11.78		269.0							.34 .7	
623	717														6
623	721	08 7	44 51.3	124 12.7	10.16	32.163	396.3	319.0	77.3		94 21 2			.96 9.6	14
623	739	08 7													
623	740				10.30		398.2	319.0	79.2						
623	742													.95 9.7	
623	745				10.41		423.7								
623	747														19
623	749													1.03 13.8	
623	750				10.63		445.7								
623	754				10.30		426.8							.96 12.9	23
623	755	08 5	44 50.8	124 10.1	10.00	32.718	438.4				92 19 2			.96 12.6	22
623	810	08 5													
623	815				10.11		437.5								
623	820				10.50		481.1								
623	820	08 3	44 49.4	124 8.0	10.14	33.128	536.0	324.2	211.8		94 16 3			1.28 17.8	25
623	849	08 3													
623	850				10.24		538.4								
623	852														26
623	855				10.26		543.2								
623	900				10.22		555.2								
623	905	08 1	44 48.8	124 5.3	9.93	33.242	555.4				93 17 3			1.55 22.7	29
623	920	08 1													
623	925				9.90		571.5							1.59 22.0	
623	927														29
623	930				9.98		565.8								
623	934														31
623	935				10.05		580.4								
623	939													1.43 20.3	
623	940				10.33		544.7								27
623	945				9.85		511.6								
623	947														27
623	950				9.85		502.2								
623	952													1.30 17.5	
623	954														26
623	955				9.77		497.5								
623	1000				10.03		531.3								
623	1005				10.11		515.4								
623	1010				10.05		492.7								
623	1012	P 1	44 57.1	124 3.0										1.29 17.1	
623	1017													1.26 17.3	27
623	1017													1.28 17.4	27
623	1020	P 2	44 55.7	124 3.5										1.46 18.9	27
623	1024													1.51 20.9	33
623	1025				9.81		558.5	322.4	236.1	30.06					
623	1030				10.07		552.8								
623	1032														
623	1035				9.83		524.8								32

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
623	1037													1.39	18.8	
623	1039															28
623	1040	P 3	44 52.9	124	4.0	9.98		541.6						1.44	19.5	29
623	1045					10.11		529.5								28
623	1050					10.00		554.4						1.54	20.5	
623	1052															31
623	1055					9.98		575.5								
623	1059															31
623	1100	P 4	44 49.4	124	5.4	10.13		570.5						1.53	21.6	31
623	1104													1.58	21.9	30
623	1105					10.03		580.3								
623	1110					10.00		547.2								
623	1112															26
623	1115					10.26		531.0								
623	1117													1.36	18.7	
623	1120	P 5	44 46.5	124	5.6	10.37		514.1						1.40	17.5	25
623	1122															25
623	1125					10.39		521.2								
623	1130					10.20		513.4						1.32	18.3	
623	1132															25
623	1135					10.26		503.9								
623	1140	P 6	44 43.4	124	5.8									1.27	17.5	25
623	1142															25
623	1144													1.28	17.6	
623	1145					10.26		498.6	321.2	177.4	30.06					
623	1150					10.05		492.4								
623	1154					10.37		505.6								
623	1157													1.32	18.2	
623	1200	P 7	44 40.2	124	6.1									1.38	18.8	28
623	1202															29
623	1207													1.42	19.1	
623	1209															29
623	1210					10.52		534.9	320.8	214.0						
623	1215					10.52		562.0								
623	1220	P 8	44 37.8	124	6.2	10.46		515.9								

DATE	TIME	STN.	LAT. N+ S-	LONG. W+ E-	TEMP. IN SITU (DEG. C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARG- METRIC PRES.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AMU PHOS.NIT. (UM/L)	SIL.	
705	1050	C 2	4+	35.0	124	0.0									
705	1127	C 2													
705	1139	C 2.5	4+	35.3	124	9.0									
705	1202	C 2.5													
705	1217	C 3	4+	35.0	124	12.0									
705	1253	C 3													
705	1310	C 3.5	4+	35.0	124	15.0									
705	1343	C 3.5													
705	1355	C 4	4+	35.0	124	18.0	10.34	32.442	374.2	311.8	62.3	30.12	85	30 2	
705	1418	C 4													
705	1422				10.83				370.5						
705	1425				10.79				356.6						
705	1430				10.77				357.8						
705	1435				10.79				337.4						
705	1440				11.09				317.6						
705	1448	C 5	4+	35.0	124	24.0	32.335								
705	1505	C 5													
705	1512												.36	2.9	
705	1514													17	
705	1520				11.84			251.9	316.3	-64.4			.39	2.9	
705	1524													16	
705	1525				11.70			270.0							
705	1528	C 6	4+	34.8	124	30.0	11.38	32.168	255.6		30.12	87	31 2	.53	3.4
705	1552	C 6													
705	1553				11.75			253.9	316.5	-62.7					
705	1554														
705	1600				11.77			265.0					.70	9.1	
705	1604													18	
705	1605				11.42			298.2							
705	1610				11.22			311.1					.60	6.1	
705	1612												.60	6.1	
705	1614													12	
705	1615				11.29			310.3							
705	1621	C 7	4+	35.0	124	30.0	11.29	32.030	292.9			93	31 3		
705	1645	C 7													
705	1701												.60	5.0	
705	1704														
705	1711	C 3	4+	35.0	124	42.0	11.12	32.076	318.2			93	31 4		
705	1743	C 3													
705	1745				11.42			306.0	315.7	-9.7					
705	1754														
705	1755				11.77			261.9						16	
705	1800				11.73			277.0							
705	1804												.55	4.5	
705	1805				11.88			282.5						17	
705	1810				11.92			291.7					.66	7.0	
705	1814													19	
705	1815				11.68			299.5							
705	1820				11.84			293.8					.62	6.1	
705	1824													18	

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ UM/KG)	ADU PHOS.NIT. (UM/L)	SIL.		
			N=+ (DEG MIN)	S=-	W=+ (DEG.0)	E=-	TEMPERATURE (DEG.0)	SAL. (0/00)					RH	DIR VEL					
705	1830						11.97		267.8							.48	3.5		
705	1831															.18	3.5		
705	1834																	16	
705	1835						11.77		271.4										
705	1840						11.75		274.9							.55	4.7		
705	1844																	18	
705	1845						11.57		278.4										
705	1850						11.05		307.6			30.10				.62	6.8		
705	1854																	17	
705	1901															.51	4.0		
705	1904																	17	
705	1909	0	11	44	40.0	125	.0	11.31	31.825	282.5	318.4	-35.9		85	33	4	.57	5.2	
705	2015	0	11																17
705	2020							11.77		274.0									16
705	2024																		
705	2025						11.86		268.4										
705	2030						12.01		263.4							.47	4.1		15
705	2034																		
705	2035						12.03		262.0										
705	2040						12.03		257.9							.40	2.3		12
705	2044																		
705	2045						11.99		255.8										
705	2050	0	10	44	40.0	124	54.0	11.51	31.784	284.9	319.2	-34.3	30.11	83	31	3	.42	4.1	
705	2132	0	10																15
705	2134																		
705	2137						11.77		267.1										
705	2140						11.77		260.8							.29	1.3		7
705	2144																		
705	2145						11.97		238.7										
705	2150						11.84		246.0							.22	.2		7
705	2154																		
705	2155						11.88		241.2										
705	2200						11.86		248.8										
705	2207	0	9	44	40.0	124	48.0	11.43	32.094	270.0				87	31	3			
705	2238	0	9																
705	2240						11.46		274.2										
705	2245						11.53		284.6										
705	2250						11.59		253.3										
705	2255						10.90		274.7										
705	2300						11.16		285.1										
705	2306	0	8	44	40.0	124	42.0	11.73	31.986	261.7				81	31	3	.37	2.0	10
705	2343	0	8																
705	2348	0	7.5	44	40.0	124	39.0	11.71	31.886	279.7	310.3	-36.6		87	31	3	.47	3.8	12
706	30	0	7.5													.43	4.2		
706	34																		11
706	35						12.06		262.4										
706	40						12.21		249.9										
706	42	0	7	44	40.0	124	36.0	12.16	31.832	250.0				85	31	3	1.69	4.2	
706	50																		
706	107	0	7													1.85	5.1		

DATE	TIME	LAT. N+ S-	LONG. W+ E-	EQ. IN SITU		SEA PCO2	AIR PCO2	PCO2 SATN.	BAFO- METRIC PRESS.	WIND RF DIR VEL	OXYGEN (ML/ (UM/KG) L)	PHOS.NIT. (UM/L)	SIL.
				TEMPERATURE (DEG.C)	SAL. (0/00)								
706	109				12.17		250.6						
706	116				12.01		294.1						
706	120	0 8.0	44 40.0	124 32.0	11.04	31.891	272.1			61 31 4			
706	140	0 8.0											
706	151												
706	155	0 6	44 39.0	124 30.0	11.12	32.017	307.2	317.2	-10.0	87 31 3		.59 5.1	
706	221	0 6										.48 3.8	14
706	224												
706	225				11.27		294.5						11
706	230				11.42		279.5						
706	232	0 5.5	44 40.0	124 27.0	11.37	32.109	282.9			91 31 2		.43 3.1	10
706	255	0 5.5											
706	300				11.48		272.5					.47 2.0	
706	304												
706	305				11.29		268.4						9
706	310				11.35		267.7						
706	312	0 5	44 40.0	124 24.0	11.40	31.906	270.4			83 31 4		.39 1.3	9
706	323											.22 .5	
706	330											.39 1.3	
706	337	0 5											
706	340				11.73		260.0					.22 .5	
706	344												9
706	345				11.84		252.4						
706	350	0 4.5	44 40.0	124 21.0	11.48	31.724	271.4			83 31 4		.28 .8	9
706	407	0 4.5											
706	409				11.75		254.1						
706	411												
706	414											.32 1.2	
706	415				11.70		249.3						10
706	420				11.51		267.2						
706	423	0 4	44 40.0	124 18.0	11.45	31.990	288.0			31.20 85 31 3		.39 4.0	
706	445	0 4										.31 2.2	11
706	450				11.68		273.6	317.2	-43.6			.31 2.2	
706	454											.38 3.6	
706	455				11.42		277.8						12
706	500	0 3.5	44 40.0	124 15.0	9.95	32.298	348.6			87 31 3		.49 5.3	14
706	516	0 3.5											
706	520				10.98		318.4						
706	524											.70 10.1	
706	525				10.86		337.9						20
706	530				10.46		361.1						
706	532	0 3	44 40.0	124 12.0	10.16	32.969	418.1			91 30 2			
706	549	0 3											
706	550				9.88		454.5						
706	555				9.75		453.8						
706	600				9.47		492.6						
706	605				9.47		521.5						
706	606	0 2.5	44 40.0	124 9.0	9.48	33.350	539.6			86 33 3		1.45 22.2	40
706	619	0 2.5											
706	620				8.98		616.3			30.12		1.71 22.6	

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU TEMPERATURE (DEG.C)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	DOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.	
			N==	S==	W==	E==											
706	624																41
706	625					9.07		563.7									
706	630					9.84		650.5							1.04	20.1	
706	633	J 2	44	40.0	124	0.0	9.94	33.747	464.6			89 33 3			1.08	20.4	31
706	643	D 2															
706	645					10.01		468.6									
706	650					10.22		441.1							.88	17.1	
706	654																28
706	655					10.35		426.0									
706	700					10.35		396.2							1.36	17.1	
706	704																39
706	705					10.03		554.6									
706	710					9.77		594.8							1.44	25.2	
706	714																39
706	715	E 2	44	45.0	124	6.0	9.73	599.7				86 33 3			1.36	23.7	37
706	726	E 2															
706	731														1.40	24.0	
706	734																38
706	735					9.52		553.8	318.3	235.5							
706	740					9.58		490.6									
706	741	E 2.5	44	45.0	124	9.0	9.57	32.874	443.0			89 33			1.15	16.3	23
706	750														1.15	16.3	
706	753	E 2.5															
706	801					10.70		394.8							.64	8.9	
706	804																14
706	805					10.35		352.9									
706	808	E 3	44	45.0	124	12.0	10.34	32.531	354.0			89 31 1			.73	9.6	14
706	828	E 3															
706	830					10.51		340.1	317.5	22.7					.60	7.6	
706	834																15
706	835					10.79		350.9									
706	838	E 3.5	44	45.0	124	15.0	11.08	31.955	304.9			91 31 1					
706	859	E 3.5															
706	900					11.09		313.8	317.0	-3.1							
706	905					12.10		279.7									
706	910					11.48		261.1							.35	1.1	10
706	910	E 4	44	45.0	124	15.0	11.52	31.966	256.9			87 31 1					
706	929	E 4															
706	931														.54	4.9	
706	934																8
706	935					11.54		247.8	317.1	-69.3							
706	940					11.75		237.9							.24	.2	
706	944																7
706	945					11.58		229.7									
706	950					11.52		229.7							.20		
706	954	E 5	44	45.0	124	24.0	11.57	31.525	229.7			77 31 2			.31	.6	6
706	1010																
706	1011														.24	.5	
706	1014																6
706	1015					12.03		229.1	319.0	-49.3							

DATE	TIME	STN.	LAT.		LONG.		TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	FOO2 PCO2 (PPM)	BARO- METRIC PRES.	WIND RH DIR VEL	OXYGEN (ML/ L)	AM (UM/KG)	PHOS.NIT. (UM/L)	SIL.
			N+ S-	W+ E-	W+ E-	W+ E-										
706	1023					12.10		229.8								
706	1024															
706	1025					12.12		233.9								8
706	1030	E	6	44 45.0	124 30.0	12.30	31.339	230.2			81 31 2			.24		8
706	1043	E	6													
706	1051													.26	.2	
706	1054															7
706	1101													.26	.2	
706	1104															6
706	1109					12.94		237.2	315.6	-81.4						
706	1108	E	7	44 45.0	124 30.0	12.91	31.275	232.5			77 31 2			.26	.2	7
706	1130	E	7													
706	1135					12.99		232.7	313.5	-80.3						
706	1140					13.10		236.1								
706	1145					13.21		233.4								
706	1150					13.21		232.0								
706	1155					12.72		232.8								
706	1200					12.65		228.1								
706	1205					13.10		228.6								
706	1210	F	7	44 50.0	124 36.0	13.24	30.404	226.6	315.4	-68.3	78 32 2			.19	.4	8
706	1230													.19	.3	
706	1240													.19	.4	
706	1243	F	7													
706	1250					13.41		227.9						.19	.2	
706	1254															9
706	1255					13.39		226.6								
706	1300					13.39		223.9						.20	.4	
706	1304															9
706	1305					13.39		222.8								
706	1310					13.39		220.1						.20	.5	
706	1314															8
706	1315					13.48		219.4								
706	1320	F	6	44 50.1	124 30.0	13.02	30.116	220.8			79 32 2			.16	.5	8
706	1346	F	6													
706	1351													.17	.7	
706	1354															9
706	1355					13.59		218.7	315.3	-97.2						
706	1400					13.44		219.4						.21	.8	
706	1404															11
706	1405					13.44		225.5								
706	1410					13.41		226.1								
706	1412	F	5	44 50.0	124 24.1	12.92	29.577	220.6			83 32 2			.21	.9	
706	1432	F	5													
706	1434															
706	1435					13.44		222.3								11
706	1440					12.92		229.9								
706	1445					13.37		231.8						.21	.9	
706	1450					13.19		234.6								
706	1454													.25	.9	
706	1455					12.99		236.0								9

DATE	TIME	STN.	LAT.			LONG.			TEMP. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ (UM/KG) L)	AQU PHOS.NIT. (UM/L)	SIL.
			N+	S-	W+	E-	T-	PERATURE (DEG.C)	VEL	DIR									
706	1500							13.30		238.0									
706	1502	F	44	45.0	124	13.0	12.65		30.678	229.3				78	32	3			
706	1525	F																	
706	1530							13.26		233.8			30.16				.22	1.1	
706	1534																	6	
706	1535							13.21		237.2									
706	1540	F	3.5	44	50.0	124	14.9	12.34		31.025	245.6			78	32	2			
706	1556	F	3.5																
706	1600							13.06		246.8							.27	1.2	
706	1604							12.65		255.9								6	
706	1610	F	3	44	50.0	124	12.3	10.28		31.956	346.3			85	32	3			
706	1620	F	3																
706	1627							10.05		372.7									
706	1631							12.06		297.2							.54	4.3	
706	1634																	12	
706	1635							11.55		335.1									
706	1638	F	2.5	44	50.0	124	9.0	10.55		32.803	387.3			81	32		1.12	15.6	
706	1652	F	2.5																
706	1654																	25	
706	1701																1.12	15.6	
706	1705	F	2	44	50.0	124	6.3											31	
706	1719	F	2																
706	1721																1.21	15.7	
706	1724																	32	
706	1731																1.21	17.1	
706	1741																1.00	13.3	
706	1744																	33	
706	1751																1.08	14.3	
706	1755	S	1.5	44	55.0	124	3.3											25	
706	1800	S	1.5																
706	1824	S	2	44	55.0	124	5.0												
706	1830	S	2																
706	1850	S	2.5	44	55.0	124	9.2										.46	3.5	
706	1904	S	2.5															12	
706	1911																.39	1.4	
706	1914																	7	
706	1922	S	3	44	55.0	124	12.9										.21	1.2	
706	1943	S	3																
706	1944																	8	
706	1950	S	3.5	44	55.0	124	15.3										.17	.3	
706	2005	S	3.5															5	
706	2011																.21	.2	
706	2014																	6	
706	2019	S	4	44	55.0	124	15.3										.23	.2	
706	2045	S																11	
706	2051																.17	.2	
706	2054																	12	
706	2101																.17	.5	
706	2104																	13	
706	2105	S	5	44	55.0	124	24.3												

DATE	TIME	STN.	LAT.		LONG.		TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ (UM/KG)) VEL L)	AMM PHOS. (UM/L)	NIT. (UM/L)	SIL.	
			N	S	W	E						RH	DIR					
706	2134	S																
706	2155	S			44	55.0	124	30.0										
706	2232	S																
706	2300	G			44	55.0	124	30.0										
706	2340	S																
706	2344																	
707	1																	5
707	7														.14	.2		
707	11														.07	.2		5
707	14														.07	.2		6
707	21														.07	.2		6
707	24														.07	.2		6
707	25	H			45	.0	124	30.0							.07			6
707	114	H			7										.07			6
707	121														.07			
707	124														.07			7
707	131														.07	.1		7
707	134														.07	.1		7
707	141														.07	.1		7
707	145	H			45	.0	124	29.8							.08			7
707	232	H			6										.10	.1		
707	241														.14	.1		
707	251														.10	.1		
707	305	H			45	.2	124	24.0							.14	.1		7
707	338	H			5													
707	344																	
707	354																	11
707	405	H			45	.0	124	13.0							.21	.1		15
707	431	H			4													
707	434																	
707	441																	8
707	444														.13	.1		
707	447	H			45	.0	124	19.0										6
707	508	H			3.5													
707	511																	
707	514														.28	1.3		
707	524	H			45	.0	124	12.0							.27	1.3		3
707	544	H			3										.27	1.3		4
707	551																	
707	554														.31	1.7		
707	558	H			45	.0	124	9.0										4
707	615	H			2.5													
707	621																	
707	624														.53	5.0		
707	631	H			45	.0	124	0.0										10
707	644	H			2										1.05	14.4		22
707	651																	
707	654														1.10	15.0		
707	656	H			45	.0	124	3.0										25
707	707	H			1.5													

DATE	TIME	STN.	LAT. N+ S-	LONG. W+ E-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (P/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL L	OXYGEN (ML/ (UM/KG)	AMU (UM/L)	PHOS.NIT. (UM/L)	SIL.
707	714														26
707	721												1.01	14.8	
707	724														23
707	733	H	G	44	57.3	124	6.0						.96	13.8	
707	750	H	G												
707	754														23
707	801												.96	13.5	
707	803	S	2	44	55.0	124	6.0								23
707	815	G	2												
707	821												1.00	14.3	
707	824														22
707	831	G	F	44	52.5	124	6.0						1.00	14.6	23
707	845	G	F												
707	853	F	2	44	50.0	124	6.0						.51	7.3	
707	910	F	2												
707	914														19
707	921												.40	6.6	
707	924														20
707	926	F	2	44	47.5	124	6.0						.71	10.6	
707	940	F	2												
707	944														21
707	952	E	2	44	45.0	124	6.0						.74	11.8	
707	1002	E	2												
707	1004														20
707	1011												.62	9.7	
707	1014														22
707	1016	E	0	44	42.5	124	6.0								
707	1028	E	0												
707	1031												.70	11.4	
707	1034														28
707	1044	D	2	44	40.0	124	6.0						1.54	21.6	32
707	1055	D	2												
707	1101												1.68	25.7	
707	1104														35
707	1111												1.63	25.4	
707	1114	D	0	44	36.5	124	7.2						1.58	23.3	32
707	1132	D	0												
707	1134														33
707	1141												1.40	20.6	
707	1145	C	2	44	35.0	124	6.5						1.36	19.7	32
707	1200	C	2												
707	2055	S	1.5	44	55.0	124	2.0								
707	2115	S	1.5												
707	2126	G	2	44	55.0	124	6.0								
707	2214	G	2												
707	2225	S	2.5	44	55.0	124	6.0								
707	2243	G	2.5												
707	2251												.15		
707	2254														2
707	2300	G	3	44	55.0	124	12.0						.22		3

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA SAL.	AIR PCO2	PCO2 SATN.	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AM PHOS.	NIT. (UM/L)	SIL.
			N	W	E	S	TEMPERATURE	SAL.									
708	10	3															
708	12	G 3.0	++	55.4	124	14.5											
708	35	G 3.0													.19	.1	5
708	41														.19		
708	44																6
708	56	G 4	44	55.0	124	18.0											
708	144	G 4															
708	215	G 5	++	54.9	124	24.5									.16		
708	330	G 5															
708	334																
708	341														.23		10
708	344																
708	400	G 6	44	55.0	124	30.0									.14		11
708	530	G 6													.14		8
708	541														.14		
708	544																7
708	551														.10		
708	554														.10		6
708	601														.10		
708	604																6
708	611	G 7	44	55.1	124	35.0											
708	717	G 7															
708	1455	E 4	44	45.0	124	18.0											
708	1740	E 4															
708	1853	D 2	44	40.0	124	6.0											
708	1930	D 2															
708	1939	D 2.25	44	40.0	124	6.5											
708	1949	D 2.25															
708	2000	D 2.5	44	40.0	124	9.0											
708	2012	D 2.5													.84	13.6	
708	2014																
708	2021														.57	6.7	19
708	2024																12
708	2026	D 3	44	40.0	124	12.0											
708	2103	D 3															
708	2104																12
708	2114																12
708	2121														.60	5.4	
708	2123	D 3.5	44	40.0	124	15.0											14
708	2130	D 3.5															
708	2141														.71	7.1	
708	2144																18
708	2145	D 4	44	40.0	124	15.0									.55	4.8	13
708	2234	D 4													.52	4.9	
708	2241																15
708	2244																
708	2251														.56	5.4	
708	2254																14
708	2301														.41	3.7	
708	2308	D 5	44	40.0	124	24.0											

PCO2 AND CHEMICAL DATA
CRUISE Y7207C

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DATE TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.				
719 1914	DB0.5	44	48.4	124	4.3												
719 1930	04*				9.52	33.737				5.17	226	2.14	29.1	45			
719 1930	54*				9.36	33.736				5.15	225	2.03	28.8	44			
719 1930	104*				8.65	33.741				3.65	159	1.97	28.6	43			
719 1930	154*				9.47	33.753				3.29	144	2.14	29.2	45			
719 1930	204*				8.45	33.763				3.23	141	2.14	29.3	45			
719 1954	25M			9.10	33.762	930.9	320.3	610.6	30.14	85	35	4	3.07	134	2.18	29.5	46
719 2002	20M			9.10	33.760	917.2				3.04	133	2.03	29.5	45			
719 2009	15M			9.05	33.758	895.0				3.08	134	2.14	29.3	45			
719 2020	10M			9.08	33.746	843.5				4.06	177	2.10	29.2	44			
719 2029	5M			9.97	33.746	815.2				3.70	161	2.17	28.9	44			
719 2050	2M			9.57	33.738	783.2	320.3	463.0		5.03	219	2.17	29.0	44			
719 2114	DB0.5																
719 2128	DB 1	44	48.7	124	5.7												
719 2142	04*				8.93	33.736				3.80	166	2.14	28.7	44			
719 2142	104*				7.93	33.792				2.72	119	2.21	30.1	45			
719 2142	154*				7.65	33.812				2.19	96	2.31	31.4	48			
719 2142	254*				7.64	33.816				2.19	96	2.27	31.3	48			
719 2209	30M			8.21	33.816	1002.1			30.14	79	36	4	2.08	91	2.32	31.9	48
719 2216	15M			8.38	33.814	854.8				2.47	108	2.31	31.6	47			
719 2224	10M			8.99	33.741	848.3				3.35	146	2.15	29.2	43			
719 2231	5M			9.27		832.3											
719 2239	2M			8.86	33.736	814.4	315.5	498.9		4.01	175	2.13	28.9	44			
719 2244	DB 1																
719 2319	DB 3	44	49.7	124	7.8												
720 5	50M			7.86	33.884	956.3				2.04	89	2.28	32.2	48			
720 20	40M			8.09	33.810	866.0				2.50	109	2.07	30.5	41			
720 33	25M			8.65	33.414	714.0				3.72	162	1.88	25.1	34			
720 43	15M			9.05	33.345	688.3				3.96	173	1.84	24.4	34			
720 53	10M			9.11	33.372	676.8				4.02	175	1.61	25.8	34			
720 115	0M			10.00		640.0						1.73	23.5	33			
720 121	2M			9.42		616.0			30.14								
720 154	DB 3																
720 224	DB 5	44	50.6	124	10.1												
720 345	DB 5																
720 400	DB 7	44	51.5	124	13.0												
720 457	DB 7																
720 525	DB 10	44	53.4	124	16.2												
720 935	DB 10																
720 1054	DB 15	44	55.4	124	22.3												
720 1447	DB 15																
720 1515	DB 20	44	57.5	124	28.5												
720 1911	DB 20																
720 1955	DB 25	45	.0	124	34.6												
720 2229	2M			15.23													
720 2320	CF 1	44	59.8	124	34.8	15.80	263.8	319.4	-55.6	29.92	90	35	3				
720 2338	04*				15.09	31.839						6.20	271				
720 2338	104*				14.60	31.866						6.21	271				
720 2338	154*				11.95	32.223						6.92	302				
720 2338	254*				9.19	32.487						7.24	316				

DATE	TIME	STN.	LAT.		LONG.		LO. IN SITU		SEA	AIR	PC02	PC02	FCC2	BARC-	WIND	OXYGEN	AOU	FHCS.	NIT.	SIL.
			N=+ S=-	W=+ E=-	TEMPERATURE	SAL.	(PPM)	(PPM)												
			(DEG MIN)		(DEG.C)	(0/00)							FRESS.	VEL	L)					
720	2338	40M*					8.08	32.511								6.38	279			
720	2338	50M*					7.82	32.580								6.04	264			
720	2338	75M*					8.06	33.128								4.91	214			
720	2338	100M*					8.11	33.516								3.94	172			
720	2338	150M*					7.64	33.836								3.06	134			
720	2338	200M*					7.09	33.948								2.50	109			
720	2338	251M*					6.65	33.986								2.17	95			
720	2338	301M*					6.29	34.014								1.87	82			
720	2338	402M*					5.71	34.056								1.38	60			
721	47	100M					8.72	33.628	474.4											
721	105	75M					8.61	33.021	347.2						36 2	5.07	221	1.57	25.7	30
721	120	50M					8.74	32.535	293.6							6.12	267	1.15	15.4	18
721	136	40M					8.97	32.495	260.6							6.54	286	.87	7.0	8
721	149	25M					9.97	32.474	238.4							7.08	309	.76	5.8	8
721	204	2M					15.30		226.6									.50	.7	2
721	255	CP 2	44	59.1	124	34.9	15.66		270.5	316.1	-45.6	29.92	92	36 3						
721	520	2M					15.28		271.1	312.9	-41.8	30.14								
721	550	CP 3	44	58.1	124	34.6														
721	605	0M*					15.22	31.834								6.13	268	.16	.2	3
721	605	10M*					14.85	31.911								6.12	267	.16	.1	2
721	605	15M*					14.26	32.021								6.46	282	.19	.1	1
721	605	25M*					9.07	32.482								7.12	311	.40	.5	2
721	605	40M*					7.88	32.523								6.18	270	.77	7.4	9
721	605	50M*					7.85	32.725								5.79	253	.96	10.9	12
721	605	75M*					8.11	33.359								4.33	189	1.38	21.3	25
721	605	100M*					7.99	33.679								3.49	152	1.68	27.3	32
721	605	150M*					7.41	33.905								2.69	117	1.99	33.0	42
721	605	200M*					7.02	33.961								2.42	106	2.11	35.7	47
721	605	251M*					6.53	33.996								2.04	89	2.23	38.5	53
721	605	301M*					6.31	34.012								1.83	80	2.34	39.6	56
721	605	402M*					5.78	34.055								1.37	60	2.50	42.6	65
721	915	CP 4	44	57.8	124	35.6														
721	934	0M*					15.11	31.876								6.11	267	.16		3
721	934	10M*					14.79	31.924								6.13	268	.16		2
721	934	15M*					14.12	31.973								6.32	276	.17		1
721	934	25M*					8.75	32.480								6.90	301	.50	1.6	3
721	934	40M*					7.88	32.529								6.16	269	.80	8.0	9
721	934	50M*					7.91	32.685								5.86	256	.92	10.6	12
721	934	75M*					8.07	33.232								4.66	203	1.29	19.3	21
721	934	100M*					8.01	33.626								3.61	158	1.62	26.5	31
721	934	150M*					7.45	33.885								2.75	120	1.93	32.2	40
721	934	200M*					7.00	33.963								2.29	100	2.10	35.6	47
721	934	251M*					6.57	33.994								2.04	89	2.23	37.9	52
721	934	301M*					6.30	34.014								1.83	80	2.34	39.4	57
721	934	402M*					5.83	34.052								1.35	59	2.50	42.4	64
721	1240	CP 5	44	57.4	124	36.5	15.66		254.2	313.6	-59.4	29.95	69							
721	1312	0M*					15.38	31.773								6.25	273	.17	.1	4
721	1312	10M*					12.93	32.101								6.62	289	.25	.1	1
721	1312	15M*					9.49	32.424								7.17	313	.48	.2	2
721	1312	25M*					8.65	32.517								6.84	299	.62	2.6	2

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BAFO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.	
721	1312	404*			7.86	32.542						6.19	270	.94	10.1	9
721	1312	504*			7.85	32.638						5.96	260	.99	17.6	11
721	1312	754*			8.03	33.170						4.83	211	1.39	24.2	20
721	1312	1004*			8.09	33.580						3.78	165	1.76	29.9	29
721	1312	1504*			7.57	33.855						2.98	130	2.06	33.3	38
721	1312	2004*			7.08	33.944						2.44	106	2.32	35.6	45
721	1312	2514*			6.61	33.989						2.17	95	2.44	37.3	51
721	1312	3014*			6.30	34.016						1.85	81	2.60	40.2	57
721	1312	4024*			5.82	34.056						1.39	61	2.75		65
721	1413	100M			8.86	33.606	620.8									
721	1430	75M			9.01	33.022	449.9					5.10	223	1.35		18
721	1446	50M			9.48	32.545	365.8					6.11	267	1.02	15.3	9
721	1500	25M			13.33	32.122	289.3					6.76	295	.22		4
721	1509	15M			15.68	31.886	257.3					6.34	277	.18		2
721	1515	10M			15.94	31.882	263.4					6.21	271	.16		2
721	1524	0M			17.97	31.738	285.7					6.28	274	.12		5
721	1540	2M			16.85		275.1									
721	1630	CP 5	44 57.3	124 36.5			265.5	313.9	-48.4	29.95	76 21 1					
721	1738	100M			8.78	33.688	667.8					3.28	143	1.76	26.2	32
721	1753	75M			8.99	33.230	525.5					4.40	192	1.43	19.4	22
721	1809	50M			9.12	32.781	386.7	315.6	71.0	29.95	76 21 1	5.68	248	1.07	12.0	12
721	1822	25M			9.85	32.462	291.6					6.79	297	.56	3.2	4
721	1840	15M				32.042	262.9									
721	1850	10M			15.44		262.9									
721	1859	5M			15.99	31.859	266.5					6.15	269	.15	2.7	
721	1910	2M			16.37		276.3	313.5	-37.2							
721	1948	CP 7	44 57.3	124 37.4												
721	2114	CP 7														
721	2315	NH 25	44 39.1	124 39.2												
721	2345	0M*			11.70	32.417						6.44	281	.77	6.8	11
721	2345	10M*			9.69	32.512						6.12	267	1.07	11.0	15
721	2345	15M*			8.87	32.644						5.26	230	1.41	17.3	19
721	2345	25M*			8.43	32.691						5.29	231	1.39	16.3	19
721	2345	40M*			7.49	32.852						4.83	211	1.42	17.9	20
721	2345	50M*			7.72	33.211						4.30	188	1.56	20.8	25
721	2345	75M*			7.78	33.704						3.14	137	1.91	28.0	35
721	2345	100M*			7.48	33.854						2.98	130	2.00	29.6	39
721	2345	150M*			7.35	33.866						2.90	127	2.00	30.2	39
721	2345	200M*			7.08	33.924						2.64	115	2.12	31.9	43
722	18	100M			8.11	33.826	748.1			30.11	94	2.90	127	2.01	29.8	38
722	28	75M			8.42	33.648	712.2					3.16	138	1.90	27.8	34
722	38	50M			8.51	33.372	617.6					3.81	166	1.69	23.7	28
722	52	40M			8.32	32.776	481.4					4.99	218	1.39	16.9	19
722	101	25M			8.35	32.738	542.1					4.99	218	1.49	18.4	21
722	109	15M			10.04	32.548	447.4					5.80	253	1.27	13.8	17
722	118	10M			10.41	32.516	420.8					6.02	263	1.07	11.8	15
722	132	2M			11.42	32.438	372.9	312.5	60.4			6.42	280	.85	8.1	12
722	143	NH 25														
722	227	NH 20	44 39.1	124 31.6			475.5			29.95	88					
722	305	0M*			10.34	32.613						5.72	250		13.1	14

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DATE	TIME	STN.	LAT.		LONG.		EG. IN SITU		SEA	AIR	PCO2	BARO-	WIND		OXYGEN	DOU	PHOS.NIT.	SIL.	
			N=+ S=-	W=+ E=-	TEMPERATURE	SAL.	PCO2	FCO2					RH	DIF					(ML/ (UM/KG)
			(DEG MIN)		(DEG.C)	(0/00)	(PPM)	(PPM)				PRESS.	VEL	L					
722	305	10M*				9.49	32.628								5.60	245	1.19	13.9	14
722	305	15M*				9.04	32.652								5.43	237	1.30	14.7	16
722	305	25M*				8.41	32.835								4.83	211	1.52	19.1	23
722	305	40M*				7.96	33.228								4.02	175	1.66	23.1	29
722	305	50M*				7.87	33.443								3.47	151	1.81	25.6	33
722	305	75M*				7.59	33.808								2.98	130	1.92	28.7	38
722	305	100M*				7.36	33.886								2.51	110		31.4	43
722	347	100M				8.00	33.876	778.7							2.74	120			
722	355	75M				8.25	33.761	761.6							2.90	127			
722	406	50M				8.55	33.454	713.2											
722	414	40M				8.44	33.108	600.6							4.17	182			
722	424	25M				9.03	32.786	526.8							4.86	212			
722	432	15M				8.76	32.628	458.4							5.54	242			
722	438	10M				10.26	32.638	465.8							5.60	245			
722	448	2M				10.19	32.644	466.7	311.1	155.6				5.64	246				
722	455	NH 20																	
722	537	NH 15	44	39.2	124	24.5													
722	705	85M				7.95	33.858	932.8	314.7	618.1	30.10	95	7	2.11	92	2.18	32.2	47	
722	728	50M				8.35	33.657	876.2						2.73	119	1.96	28.9	37	
722	740	25M				9.70	32.943	530.0						4.70	205	1.32	18.5	22	
722	755	35M				9.50	33.108	560.6						4.25	186	1.52	20.6	26	
722	805	15M				10.10	32.510	438.5						5.46	238	1.09	12.1	10	
722	815	10M				10.60		437.3											
722	823	2M				10.90	32.490	427.3	315.1	112.2				5.88	257	.96	9.9	11	
722	930	NH 15																	
722	1014	NH 10	44	39.0	124	17.4													
722	1145	65M				8.20	33.876	1060.6	320.0	740.6		95	2	1.84	80				
722	1156	50M				8.57	33.720	865.4						2.66	116	1.83	30.0	40	
722	1216	35M				8.73	33.690	927.0						2.74	120	1.94	28.7	37	
722	1225	25M				8.85	33.476	738.4						3.24	141	1.58	24.7	33	
722	1229	15M				9.85	33.046	566.4								1.36	19.5	27	
722	1247	10M				10.82	33.101	554.5						5.47	239	1.39	18.6	28	
722	1300	2M				10.59	33.107	520.0	321.8	198.1	29.95			5.60	244	1.41	18.9	28	
722	1317	NH 10																	
722	1443	NH 7	44	39.1	124	13.5													
722	1537	50M				8.80	33.824	920.3	313.6	606.8		88	36	2.32	101				
722	1547	40M				9.10	33.610	800.2						2.93	128				
722	1556	25M				9.20	33.478	757.4						3.14	137				
722	1609	15M				9.20	33.150	638.6						3.94	172				
722	1617	10M				9.25	33.149	639.7						4.15	181				
722	1629	2M				10.51	33.044	491.1	314.5	176.7				5.83	255				
722	1633	NH 7																	
722	1658	NH 5	44	39.4	124	10.5													
722	1756	50M				8.42	33.833	1026.7	313.6	713.1				1.84	80	2.24	32.9	42	
722	1811	40M				8.45	33.771	904.8						2.29	100	2.10	31.4	42	
722	1836	25M				8.85	33.383	671.5						3.63	158	1.66	24.3	30	
722	1857	15M				8.80	33.342	649.2						3.59	157	1.72	24.5	31	
722	1914	10M				10.70	33.343	553.2						5.35	234	1.54	20.7	33	
722	1923	2M				10.85	33.135	507.9				30.03		5.66	247	1.34	18.2	33	
722	1928	NH 5																	

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (UM/KG) L)	AOU PHOS.NIT. (UM/L)	SIL.
722	1947	NH 3	44 39.1	124 7.9										
722	2050	35M			8.30	33.793	989.4	313.8	675.6		82 34 3	2.09 91	2.14 31.7	45
722	2105	25M			8.45	33.438	679.3					3.29 143	1.77 25.5	33
722	2115	15M			8.75	33.316	639.1					3.92 171	1.65 23.3	31
722	2141	2M			10.80	33.398	563.9	312.6	251.3			5.44 237	1.53 21.5	34
722	2154	NH 3												
722	2211	NH 1	44 39.1	124 5.6										
722	2218	0M*			10.36	33.530						5.39 235	1.72 24.0	36
722	2218	10M*			9.34	33.634						4.46 195	1.90 26.8	40
722	2218	15M*			8.79	33.694						3.56 155	2.05 28.7	42
722	2218	20M*			8.68	33.697						3.41 149	2.05 28.5	42
722	2251	23M			9.30	33.689	821.2							
722	2302	15M			9.30	33.689	833.5				34 2	3.43 150	2.07 28.5	42
722	2333	5M				33.560	613.3	309.5	303.7			3.45 151	2.08 28.6	42
722	2341	2M			10.40	33.543	587.8			29.95		5.31 232	1.70 15.0	37
722	2350	NH 1										5.35 233	1.69 24.5	38
723	15				10.69		514.9	314.9	200.0	29.95				
723	20				10.78		499.6							
723	24													29
723	25				10.93		495.7							
723	30				11.02		497.2							
723	31												1.31 18.1	
723	34													28
723	35				11.17		483.6							
723	40				11.24		479.1							
723	41												1.28 17.4	
723	44													26
723	45				11.35		481.3							
723	50				11.66		463.1							
723	51												1.24 15.8	
723	54													25
723	55				11.57		466.7							
723	100				11.31		464.0							
723	104	SM 1	44 35.5	124 20.5	11.48	32.862	437.9					6.19 270	1.10 14.6	22
723	110				11.59		445.3							
723	114												1.10 15.4	22
723	115				11.33		443.9							
723	120				11.20		381.4							
723	121												.93 10.5	16
723	125				11.35		371.3							
723	127												.94 9.5	15
723	134											6.96 304		
723	135	SM 2	44 33.4	124 26.2	11.50	32.526	338.6						.76 6.9	13
723	141				11.75		373.0	312.8	60.2	29.95				15
723	155				11.46		363.1							
723	200				11.53		418.0							
723	204	SM 3	44 30.3	124 20.7	11.80	32.980	466.1							
723	205											6.05 264		
723	210				11.77		469.8							
723	211												1.21 15.4	

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.	
			N=+	S=-	W=+	E=-						RH	DIR					VEL
723	214																	6
723	215					11.57		451.2										
723	220					11.55		412.2										
723	221															.95	11.5	
723	225					11.55		356.7								.78	7.2	6
723	227																	
723	230					12.09		337.5										
723	235	SM 4	44	27.9	124	26.5	11.75	32.397	313.1						.64	4.6	10	
723	236											7.13	311					
723	240					11.53		313.9										
723	245					11.86		329.1										
723	248															.82	6.6	17
723	250					11.68		354.5								1.00	10.4	19
723	254																	
723	255					11.40		380.3										
723	300					11.33		401.3										
723	306	SM 5	44	25.4	124	20.7	13.10	33.084	392.7			6.51	284		.85	10.2	22	
723	310					12.99		382.6										
723	313					12.56		395.8								.91	11.2	22
723	315					12.33		409.7										
723	319															1.02	12.0	20
723	320					11.17		400.6										
723	325					11.24		375.4										
723	326															.92	10.2	19
723	330					11.57		363.8										
723	338	SM 6	44	23.0	124	26.6	12.20	32.603	329.7						.60	5.6	16	
723	344														1.01	10.2	21	
723	345					11.53		376.0										
723	350					11.48		415.8										
723	351															1.02	13.1	21
723	358														.56	6.2	19	
723	404														.60	6.7	19	
723	405					12.99		331.9	314.5	17.4								
723	410	SM 7	44	19.4	124	22.5	13.15	32.996	324.8	314.5	10.4							
723	411												6.54	286				
723	415					13.10		323.5										
723	420					12.94		336.1										
723	425					12.87		334.0										
723	430					12.63		355.9					5.89	257				
723	435					11.88		394.8										
723	440	SM 8	44	15.6	124	19.0												
723	446														1.07	9.9	25	
723	453														1.34	13.0	29	
723	455														1.36	14.0	30	
723	459					10.82		503.7										
723	500					10.84		532.0							1.59	20.2	27	
723	506					10.54		569.8	314.2	255.6								
723	509																	
723	511	SM 9	44	11.7	124	13.2	10.45	33.534	598.1									35
723	512												5.12	223		1.67	21.2	

DATE	TIME	STN.	LAT.		LONG.		EG. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN ADU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
			N=+ (DEG MIN)	S=-	W=+	E=-	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL			
723	516																37
723	518															1.54 22.7	
723	522																11
723	524														.54 4.6		11
723	529														.68 5.9		11
723	531																
723	542	SM 10	44	8.5	124	8.5	10.02	33.656	488.8	314.2	174.7			6.10 266	1.38 18.8	28	
723	545						9.93		517.0								
723	549															1.56 20.7	32
723	550						9.82		557.7								
723	555						9.46		591.0								
723	600						9.37		620.4								
723	602																36
723	604															1.73 25.4	
723	605						9.33		630.6								
723	609																38
723	610						9.29		649.3								
723	611															1.90 26.1	
723	615						9.35		651.6			30.02					
723	620						9.37		660.2								
723	625						9.22		695.7								
723	629													4.83 211			
723	630	SM 11	44	15.6	124	7.8	9.35	33.612	681.7								39
723	633															1.62 24.3	
723	635						10.76		581.9								
723	637																35
723	640						10.95		576.0								
723	643															1.48 21.2	
723	645						11.00		553.7								32
723	649															1.24 18.0	
723	650						11.28		504.2								
723	651																28
723	655						12.69		385.1								
723	700	SM 12	44	18.3	124	13.4	13.15		302.0					6.89 301	.41 3.5	17	
723	705						13.38		295.5								
723	706																17
723	709														.38 3.1		
723	710						13.40		296.9								
723	715						13.40		305.6								
723	717																17
723	719														.42 3.6		
723	720						13.38		311.4								
723	725						12.92		332.8								
723	726														.72 7.3	22	
723	730						12.26		375.0								
723	735	SM 13	44	20.7	124	7.3	11.84		460.5							1.24 16.8	30
723	735													5.85 255			
723	740						12.51		408.3								
723	741																9.5
723	745						12.87		355.3								

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU	PHOS.NIT. (UM/L)	SIL.
723	748													.51	5.6
723	750				13.33		324.9								
723	751														18
723	755				13.33		314.7								
723	800				13.42		300.1								
723	803	SM 14	44	23.5	124	13.0	302.3	312.0	-9.7						
723	810											6.90	301		
723	816													.41	2.9
723	817				13.44		298.0								
723	819														17
723	823													.37	3.2
723	830													.09	6.0
723	835				12.20		377.8	311.9	65.9					1.52	18.1
723	836													1.52	18.1
723	842											5.51	240		20
723	844	SM 15	44	25.6	124	0.4	643.8							1.75	23.8
723	846				11.31		626.0								37
723	850				11.66		648.7								
723	851													1.40	20.3
723	855				12.31		413.7								38
723	858													.67	6.9
723	900				12.92		337.2							.50	4.8
723	904														
723	906														19
723	907				13.19		318.0								
723	911				13.24		308.9								
723	915				13.33		307.1								
723	920	SM 16	44	28.5	124	12.8	302.7					6.92	302	.45	3.1
723	925				13.38		306.7								12
723	926													.38	3.3
723	929														
723	930				13.03		328.0								18
723	933													.60	5.9
723	935				11.77		375.1								
723	936														26
723	939													.48	19.5
723	940				11.37		551.7								
723	942														
723	945				11.44		568.9								33
723	946													1.47	20.7
723	950				11.51		599.7								
723	953											5.54	242		
723	955	SM 17	44	30.7	124	6.3	620.8							1.58	22.9
723	1000				11.46		621.6								37
723	1003													1.53	22.0
723	1005				11.52		611.4								36
723	1010				11.46		603.0								
723	1013													1.52	21.0
723	1017				10.78		600.0								35
723	1019													1.40	19.1
															39

PCO2 AND CHEMICAL DATA
 CRUISE Y7207C

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCC2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.	
723	1021				10.98		565.6									
723	1025											5.54	242			
723	1028	SM 18	44 33.4	124 12.0	11.06		563.9							1.39	18.2	32

06

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	FCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
731	1104	C 2	44 35.0	124 5.9										
731	1136	C 2												
731	1200	C2.33	44 35.0	124 8.0										
731	1218	C2.33												
731	1236	C2.67	44 35.0	124 10.0										
731	1248	C2.67												
731	1306	C 3	44 35.0	124 12.0	10.17	33.872	289.7	317.0	-27.2	30.24	89 18 3			
731	1320	C 3												
731	1335				10.32		277.6	313.7	-36.1					
731	1347	C3.33	44 35.0	124 14.0	9.99	32.918	320.0			86 18 3		.76	9.4	10
731	1400	C3.33												
731	1408												.69	8.0 9
731	1414													8
731	1415				10.14		312.1							
731	1418												.66	8.2
731	1421	C3.67	44 35.0	124 16.0	10.21	32.894	305.5		30.27	86 18 2		.57	7.0	8
731	1438	C3.67												
731	1441													5
731	1447													3
731	1449	C 4	44 35.0	124 18.0	10.01	32.868	256.6	317.3	-60.7	91 18 3		.33	3.0	4
731	1503	C 4												
731	1508												.39	3.7
731	1514													5
731	1515				9.88		289.8							5.7
731	1518	C 4.5	44 35.0	124 21.0	9.92	32.805	263.4			87 18 3		.41	3.7	4
731	1532	C 4.5												
731	1534													3
731	1538													
731	1542	C 5	44 35.0	124 24.0	9.55	32.694	309.7			91 20 1		.56	5.7	5
731	1600	C 5											.58	6.1
731	1604													5
731	1608												.56	5.8
731	1610				9.97		308.3							
731	1614													4
731	1618												.44	4.0
731	1620				10.06		275.7							
731	1624													5
731	1629	C 6	44 35.0	124 30.0	9.55	32.849	277.4			90 29 1		.47	4.2	5
731	1648	C 6												
731	1658												.83	7.7 6
731	1700				10.92		357.3							
731	1706													6
731	1708												.87	6.7
731	1710				11.13		339.1							
731	1716													6
731	1718												.68	5.3
731	1720	C 7	44 35.0	124 36.0	10.84	32.513	339.5			95 29 2				7
731	1739	C 7												
731	1758												.30	.3 6
731	1808												.20	.1 6

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU	SEA	AIR	PCO2	BARO-	WIND	OXYGEN	AOU	PHOS.	NIT.	SIL.
			N=+ S=-	W=+ E=-	TEMPERATURE	SAL.	PCO2	PCO2	PCO2	METRIC	RH DIR	VEL	(ML/ (UM/KG)		(UM/L)		
			(DEG MIN)	(DEG MIN)	(DEG.C)	(0/00)	(PPM)	(PPM)	(PPM)	PRESS.			L)				
731	1818														.20		
731	1819																6
731	1825	D 8	44 40.0	124 42.0	14.58	31.879	262.4	315.7	-53.3		95 33 3			.18		6	
731	1930	D 8													.20		
731	1938																
731	1940				14.48		264.5										
731	1941																6
731	1949																5
731	1950				11.94		275.5										
731	1951														.34	.6	
731	1957	D 7	44 40.0	124 36.0	10.54	32.540	318.4	315.2	3.2		96 33 3			.66	5.5	6	
731	2055	D 7															
731	2101														.63	5.3	
731	2105				11.26		324.8										
731	2109																6
731	2111														.56	5.3	
731	2116																4
731	2120				10.86		288.2										
731	2122														.48		4
731	2124	D 6	44 40.0	124 30.0	10.26	32.522	300.9	316.7	-15.8	30.27	94 33 3			.54	3.4	4	
731	2225	D 6															
731	2229																4
731	2231														.14	2.3	
731	2235				11.58		288.6										
731	2239																4
731	2241														.46	3.0	
731	2245				10.34		286.8										
731	2249																3
731	2251														.44	1.9	
731	2255	D 5	44 39.9	124 24.0	9.77	32.694	284.8	315.7	-30.8		91 33 3						3
731	2334	D 5															
731	2336																2
731	2342																3
731	2349	D 4.5	44 40.1	124 21.0	9.99	32.827	284.8	315.6	-30.8		93 33 3						3
801	17	D 4.5															
801	19														.36		
801	22																3
801	24														.50	3.7	
801	25				10.86		281.1										
801	31														.50	3.9	
801	33	D 4	44 40.0	124 18.0	10.06	32.582	326.5				87 33 3			.77	8.3	9	
801	145	D 4															
801	147																3
801	148														.51	4.2	
801	150				10.41		294.9										
801	154														.51	4.3	3
801	201														.71	5.6	3
801	203	D 3.67	44 39.8	124 16.0	9.70	32.600	341.0				92 34 3			.71	9.3	8	
801	223	D 3.67															
801	227														.62	5.3	4

PCO2 AND CHEMICAL DATA
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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	TEMPERATURE (DEG.C)	EQ. IN SITU SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
801	233													.62	5.6	4
801	238													.87	10.2	15
801	310															
801	315					10.17		326.6								
801	316															9
801	319													.95	10.2	
801	322															19
801	326	D 3	44	40.0	124	12.0	9.95	33.043	413.7		90	34	3	1.04	13.5	18
801	409	D 3														
801	411													1.06	11.3	
801	416															20
801	418													1.14	14.2	
801	420						9.92		425.7							
801	423	D2.67	44	40.0	124	10.0	9.66	33.227	474.3		85	33	2	1.30	16.7	23
801	441	D2.67														
801	443													1.33	16.1	23
801	449															31
801	450						9.29		527.2							
801	453													1.62	20.8	
801	456	D2.33	44	40.0	124	8.0	8.92	33.588	609.1		30.28	92	33	3		
801	522	D2.33														
801	536	D 2	44	40.0	124	6.0	9.16	33.561	512.6			98	34	3		
801	553	D 2														
801	613													1.44	20.7	
801	616															28
801	622															31
801	623						9.13		560.0							
801	624	E 2	44	45.0	124	6.0	8.94	33.531	590.6	319.0	271.6		98	35	3	
801	640	E 2														
801	643													1.60	22.6	
801	646															27
801	650						9.42		502.1							
801	652	E2.33	44	45.0	124	8.0	9.27	33.166	502.3	318.2	184.1		99	34	4	
801	705	E2.33												1.14	18.2	22
801	712															19
801	713													1.32	16.9	
801	716	E2.67	44	45.0	124	10.0	9.18	33.240	464.0			98	34	4		
801	733	E2.67												1.30	16.4	21
801	735															
801	739						9.35		422.5	318.5	104.0					
801	742	E 3	44	45.0	124	12.0	8.62	32.913	396.8			97	34	4		16
801	755	E 3												1.15	13.2	13
801	803													.69	7.3	7
801	805						9.64		338.5							
801	810	E3.33	44	45.0	124	14.0	9.92	32.993	374.5			99	1	2		
801	820	E3.33												.98	10.7	13
801	823													1.05	12.3	
801	829															13
801	833													.69	9.0	
801	836															11

PCO2 AND CHEMICAL DATA
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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA SAL.	AIR PCO2	PCO2 SATN.	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ L)	ADU (UM/KG)	PHOS.NIT. (UM/L)	SIL.		
			N=+	S=-	W=+	E=-	TEMPERATURE (DEG.C)	(0/00)					(PPM)	(PPM)					RH	DIR VEL
801	843	E3.67	44	45.0	124	16.1	9.77	32.703	324.2	317.3	6.9		99	2			.62	7.1	7	
801	902	E3.67																		6
801	909																			6
801	911																.43	6.0		6
801	915	E 4	44	45.0	124	18.2	9.46	32.585	317.1			30.29	97	35	2		.49	5.9	4	
801	947	E 4																		4
801	949																			5
801	952																.12	4.1		5
801	955						10.14		296.6											3
801	959																			3
801	1002	E 4.5	44	45.1	124	21.0	10.12	32.544	285.4	316.7	-31.3		98	34	3		.40	3.4	2	
801	1021	E 4.5																		2
801	1029																			2
801	1030						10.57		283.9											2
801	1031																.29	2.1		2
801	1038	E 5	44	45.1	124	24.0	10.70	32.467	288.1				96	35	3		.29	1.8	2	
801	1058	E 5																		2
801	1109																			2
801	1110						11.17		288.0											2
801	1111																.28	1.4		1
801	1119																			1
801	1120						11.15		271.4											1
801	1122																.25			2
801	1129	E 6	44	45.1	124	30.2	11.10	32.343	273.4	315.8	-42.3	30.31	91	34	3		.7		2	
801	1146	E 6																		2
801	1152																			2
801	1158																.34	2.1		2
801	1200						11.26		287.9											1
801	1209																			1
801	1210						11.81		265.7											1
801	1213																.14	.3		1
801	1220	F 6	44	50.0	124	30.0	11.75	32.419	258.9				94	35	4		.12	.7	1	
801	1250	F 6																		1
801	1252																.13	.5		1
801	1259																.20			1
801	1306																.63	6.8		8
801	1309																			8
801	1314	F 5	44	50.0	124	24.0	10.25	32.571	335.9				90	34	4		.73	8.0	8	
801	1346	F 5																		8
801	1349																			8
801	1355						10.39		375.4											8
801	1400	F 4.5	44	50.0	124	21.0	9.55	32.720	382.3				99	34	4		.97	11.1	9	
801	1422	F 4.5																		9
801	1429																			12
801	1430						10.08		389.4											12
801	1438	F 4	44	50.0	124	18.0	10.50	32.854	374.7				86	34	4					12
801	1500	F 4																		12
801	1503																.91	11.0		11
801	1505						10.92		378.1			30.28								11
801	1506																			11

PCO2 AND CHEMICAL DATA
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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR	PCO2	BARO-	WIND	OXYGEN	AOU	PHOS.NIT.	SIL.	
			N=+	S=-	W=+	E=-	TEMPERATURE	SAL.										PCO2
			(DEG	MIN)	(DEG	MIN)	(DEG.C)	(0/00)	(PPM)	(PPM)	(PPM)	PRESS.	VEL	L)				
801	1511	F 3.5	44	50.0	124	15.0	10.21	32.664	379.7	317.3	62.5		89	34	4		13	
801	1532	F 3.5																
801	1539																14	
801	1540						10.61		408.2									
801	1543															1.10	12.4	
801	1547																16	
801	1550	F 3	44	50.0	124	12.0	10.52	32.751	423.7			87	34	4				
801	1603	F 3																
801	1610						10.54		444.6									
801	1614															1.08	14.5	
801	1617	F2.67	44	50.0	124	10.0	9.95	32.799	387.6			91	35	4	.99	12.6	18	
801	1630	F2.67															17	
801	1634															.98	12.9	
801	1637																17	
801	1641	F2.33	44	50.0	124	8.0	9.70	32.961	402.3			94	3	2	1.14	14.2	21	
801	1655	F2.33																
801	1700						10.10		403.7									
801	1704															1.00	13.1	21
801	1706	F 2	44	50.0	124	6.0	9.68	33.261	424.5			96	10	1				
801	1721	F 2																
801	1724															1.18	15.7	28
801	1725						9.75		437.0			30.24						
801	1732	F1.67	44	50.0	124	4.5	10.01	33.612	380.8	317.8	63.0	91	1	2	1.14	14.5	21	
801	1742	F1.67																
801	1744																25	
801	1746															1.18	15.2	
801	1754															1.26	16.2	27
801	1755						9.75		411.7									
801	1803															1.11	14.2	
801	1804																20	
801	1805						9.88		354.1									
801	1814															1.12	14.3	20
801	1815						9.97		357.0									
801	1820	G 1.5	44	55.0	124	3.0	9.59	33.542	417.7			89	36	4	1.24	17.3	24	
801	1845	G 1.5																
801	1847																24	
801	1853															1.03	13.9	22
801	1855						10.03		331.9									
801	1858	G 2	44	55.0	124	6.0	9.73	33.092	372.2	318.6	53.6	91	36	4	.95	13.6	19	
801	1923	G 2																
801	1930						10.32		495.1									
801	1933	G2.33	44	55.0	124	8.0	9.84	32.919	494.5	318.5	176.1	89	36	4	1.33	18.1	21	
801	1950	G2.33																
801	1953															1.23	17.5	
801	1957																16	
801	2003	G2.67	44	54.9	124	10.0	9.40	32.663	357.8	317.9	40.0	89	35	4	.86	10.1	10	
801	2022	G2.67																
801	2024																10	
801	2030						10.30		364.1	315.8	48.2							
801	2033															.76	6.8	10

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	PHOS.NIT. (UM/L)	SIL.
801	2035	G 3	44 55.0	124 12.2	10.17	32.588	369.7	312.8	56.9	30.23	93 35 4		.91 11.1	12
801	2108	G 3												18
801	2114				10.10		467.9							
801	2115												1.18 16.3	
801	2116												1.31 16.9	18
801	2124	G 3.5	44 55.0	124 15.1	9.77	32.573	488.1	316.8	171.3		94 35 4			
801	2147	G 3.5												19
801	2151												1.34 17.5	
801	2153													
801	2155				10.26		491.3							20
801	2201													20
801	2203	G 4	44 55.0	124 18.2	10.19	32.759	482.4	316.5	165.9		89 35 4		1.32 17.3	
801	2243	G 4												19
801	2251												1.21 15.7	
801	2253													18
801	2259													
801	2300				10.52		397.8							
801	2303												1.11 14.0	
801	2314	G 5	44 55.0	124 24.2	10.88	32.378	334.4	305.4	29.1	30.25	94 4		.94 11.6	15
802	6	G 5												
802	10				11.10		348.3							
802	20				11.08		369.8							
802	33	G 6	44 55.0	124 30.0	11.65	32.477	210.5				90 4			
802	129	G 6												
802	140				11.31		286.6							
802	150				11.53		322.5							
802	200				11.42		258.8							
802	205	H 6	45 .0	124 30.0	11.35	32.450	259.7				89 4			
802	252	H 6												
802	305				11.10		324.9							
802	315				11.94		328.2							
802	326	H 5	45 .0	124 24.0	11.85	32.065	286.8	311.9	-25.2	30.22	91 3			
802	353	H 5												
802	405				12.26		265.9							
802	415				12.01		275.6							
802	419	H 4	45 .0	124 18.0	11.56	32.103	293.5				87 2 4			
802	447	H 4												
802	451												.47 4.3	
802	456													11
802	500				11.67		306.1							
802	502												.75 8.5	14
802	506	H 3.5	45 .0	124 15.0	10.77	32.593	372.2	317.4	54.8	30.19	86 2 4		.94 11.4	16
802	529	H 3.5											.85 9.6	
802	531													
802	539													18
802	548	H 3	44 59.8	124 11.9	10.19	32.908	454.8				87 1 3		1.16 14.6	19
802	605	H 3												
802	609													19
802	611												1.26 16.2	
802	616	H2.67	45 .0	124 10.0	9.29	33.017	482.3				86 1 3		1.31 17.3	21

PCO2 AND CHEMICAL DATA
CRUISE Y7207E

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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2	AIR PCO2	PCO2 SATN.	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ UM/KG)	AOU	PHOS.NIT. (UM/L)	SIL.	
			N=+ (DEG MIN)	S=-	W=+ (DEG MIN)	E=-	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL					
802	630	H2.67																	
802	637																	26	
802	641	H2.33	45	.1	124	6.0	9.07	33.218	560.6	313.0	247.6		86	2 3		1.46	20.7	27	
802	655	H2.33																	
802	659																	26	
802	701																1.34	19.4	
802	707	H 2	45	.1	124	5.9	8.85	33.223	502.0	314.6	187.4		82	2 3		1.32	18.9	25	
802	720	H 2																	
802	729																		28
802	732	H1.67	45	.0	124	4.0	8.57	33.416	572.2	313.9	258.4		80	2 3		1.44	20.5	29	
802	743	H1.67																	
802	749																		28
802	753	H1.33	45	.0	124	2.0	8.96	33.594	578.5	321.7	256.8		80	2 3		1.54	21.4	29	
802	804	H1.33																	
802	806																1.45	20.3	
802	809																		29
802	815						9.14		541.4										
802	818																1.42	20.2	28
802	825						9.29		491.0										
802	829																		26
802	831																1.24	17.6	
802	835						9.35		439.7										
802	839																		24
802	841																1.20	17.2	
802	845						9.51		430.2										
802	849																		21
802	851																1.07	15.1	
802	855						9.68		392.8										
802	859																		21
802	901																1.08	15.2	
802	911																1.29	17.9	
802	919	DB 1	44	48.7	124	5.5	9.09	33.651	503.8	313.7	190.1	30.18	84	35 3					
802	928	DB 1																	
802	934																1.37	17.1	
802	939																		21
802	940						9.86		388.6										
802	941																1.17	14.3	
802	947	DB 3	44	49.6	124	7.6	8.42	33.127	504.7				84	34 3		1.31	17.0	23	
802	1000	DB 3																	
802	1009																		21
802	1010						9.79		495.6										
802	1011																		
802	1017	DB 5	44	50.7	124	10.3	8.96	32.765	422.6				89	34 3		1.32	18.0		
802	1031	DB 5															1.16	14.2	13
802	1036																		
802	1039																1.02	12.3	
802	1050	DB 7	44	51.7	124	12.7											.88	10.4	13
802	1105	DB 7																	11
802	1110						10.26		355.3										
802	1112																		9

PCO2 AND CHEMICAL DATA
CRUISE Y7207E

PAGE 8

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR		PCO2	BARO-	WIND		OXYGEN		AOU	PHOS.NIT.	SIL.	
			N=+ S=-	(DEG MIN)	W=+ E=-	(DEG.C)	TEMPERATURE	SAL.		(0/00)	PCO2			PCO2	(PPM)	(PPM)	SATN.				METRIC
802	1114																		.67	7.9	
802	1119																		1.25		18
802	1120						10.48			489.5											
802	1127	DB 10	44	53.1	124	16.2	10.21		32.777	477.9	312.6	165.3		89	34	3			1.21	15.2	17
802	1145	DB 10																			
802	1150						10.92			477.7											
802	1152																				18
802	1154																		1.22	15.6	
802	1159																				8
802	1200						10.86			341.2											
802	1201																		.56	5.6	
802	1206																				8
802	1210						10.14			335.0											
802	1211																		.80	9.0	11
802	1219																		.73	8.4	10
802	1220						10.12			358.3											
802	1226																				8
802	1228																		.65	7.7	
802	1230						10.23			351.1											
802	1232																				10
802	1236																		.70	7.9	
802	1240	E 4	44	44.4	124	18.0	9.99		32.677	339.6	314.9	24.7	30.15	66	34	3			.71	7.7	7
802	1651	E 4																			

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.		
826	1620				10.22		587.5	318.8	268.7	29.96							
826	1625				9.83		607.4										
826	1634				10.07		515.0										
826	1640				10.20		467.9	317.5	150.3								
826	1646	DB 1	44	48.8	124	5.5	9.95	33.502	513.1		96	35	5				
826	1710	DB 1															
826	1711				10.51		458.1	311.5	146.6								
826	1714													1.05	10.8	13	
826	1719				10.79		516.2										
826	1721													1.02	10.0		
826	1722				10.77		496.3										
826	1724															11	
826	1728				10.24		389.7										
826	1734				10.59		350.5	312.5	37.9					.78	8.2		
826	1740	DB 3	44	49.6	124	7.5	10.57	33.213	330.4		95	35	5	.59	5.6	9	
826	1753	DB 3												.54	5.2	9	
826	1756				10.59		330.8										
826	1801				10.92		297.7										
826	1804													.26	1.6	4	
826	1806				11.26		255.8										
826	1811				11.39		240.8										
826	1813	DB 5	44	50.8	124	10.2	10.47	33.012	300.1	310.5	-10.4	92	35	5	.57	4.9	6
826	1925	DB 5															
826	1926													.46	3.2	5	
826	1930				10.29		296.4										
826	1935				10.62		281.3	313.1	-31.8								
826	1936													.40	2.7		
826	1940				11.06		263.6										
826	1941															4	
826	1945				10.88		279.2										
826	1946													.39	2.9		
826	1950				10.99		275.5									5	
826	1954																
826	1955				10.97		281.4										
826	1956													.43	3.1		
826	1959				11.01		280.4										
826	2000	DB 7	44	51.7	124	12.2	10.52	32.843	293.2	315.8	-22.5	96	35	5	.58	4.9	6
826	2105	DB 7															
826	2108													.54	4.8		
826	2111															6	
826	2115				10.86		295.4	315.1	-19.7								
826	2120				10.95		303.7										
826	2121													.36	2.0		
826	2124															4	
826	2125				11.39		283.5										
826	2130				11.57		273.0										
826	2134													.22	.5		
826	2135				11.82		280.4										
826	2137															3	
826	2139	DB 10	44	53.0	124	16.2	11.52	32.527	293.9	311.0	-17.1	96	35	5	.52	1.0	3

PCO2 AND CHEMICAL DATA
CRUISE Y7208E

PAGE 2

DATE	TIME	STN.	LAT. N+= S=- (DEG MIN)	LONG. W+= E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG)	AOU	PHOS.NIT. (UM/L)	SIL.
826	2317	08 10													
826	2320				11.55		280.2								
826	2321														3
826	2325				11.59		279.4							.33	1.0
826	2328														
826	2330				11.35		295.1								
826	2334														3
826	2335				11.55		290.6								
826	2340				11.59		290.2								
826	2341													.30	.7
826	2345				11.66		296.2								
826	2347														3
826	2350				11.77		293.6							.28	.5
826	2354														
826	2355				11.82		294.3								
826	2357	08 13	44	54.3	124	19.7	11.83	32.395	291.3		96	36	5		3
827	30	08 13													
827	35				11.84		289.1								
827	40				11.95		284.6								
827	45				12.09		299.5								
827	48	08 15	44	55.2	124	22.4	12.04	32.330	301.0		94	35	5		
827	115	08 15													
827	125				12.38		267.5	308.0	-40.5	29.93					
827	130				12.09		275.0								
827	133														4
827	135				12.40		264.8							.30	
827	136														
827	140				12.45		264.4								
827	141														3
827	146													.43	1.6
827	150				11.75		279.7	318.9	-39.3						
827	154														5
827	155				11.86		277.0							.41	1.1
827	156														
827	200				12.00		274.4								
827	205				12.18		267.4								
827	207														4
827	209													.32	.1
827	210				12.40		264.1								
827	218	H 6	45	.0	124	30.0	12.46	32.300	263.5	312.2	-48.7	98	35	5	4
827	302	H 5													
827	305				12.51		260.2							.30	.6
827	306														
827	310				12.54		258.9								
827	315				12.49		259.3								
827	316														4
827	320				12.36		262.6	308.6	-46.0					.29	.5
827	321														
827	325				12.09		265.2								
827	330	H 5	45	.0	124	24.0	11.64	32.343	275.1	310.7	-35.6	96	35	5	4

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND DIR VEL	OXYGEN (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.		
827	405	H 5															
827	406																
827	410				11.06		289.7								4		
827	413													.65	5.1		
827	415				10.77		316.4							.64	5.5		
827	419														7		
827	420				10.79		317.1										
827	425				10.64		315.8										
827	430				10.68		302.4										
827	433	H 4	45	.0	124	18.0	10.65	32.565	317.8	311.1	6.7	94	36	4	.53	4.5	6
827	458	H 4															7
827	500				10.53		302.5										
827	505				10.31		310.5										
827	506																
827	510				9.91		326.1							.71	6.5		
827	511																
827	514													.78	8.1		10
827	515				9.96		336.2										
827	520				9.72		352.0										
827	523																
827	525				9.61		351.3							.84	9.0		11
827	530				9.61		363.7										
827	531	H 3	45	.0	124	12.0	9.59	32.821	368.1	312.9	55.2	94	36	4			12
827	552	H 3															
827	601																
827	604													.94	10.3		
827	606	H2.67	45	.0	124	10.0		32.863									13
827	623	H2.67												.98	10.6		12
827	628																
827	634	H2.33	45	.0	124	8.0		32.993						1.00	11.2		13
827	649	H2.33															14
827	659																
827	702	H 2	45	.0	124	6.0		33.360						1.47	19.3		23
827	716	H 2												1.45	18.8		24
827	727	H1.67	45	.0	124	4.0		33.441									
827	738	H1.67									35	3		1.40	17.5		21
827	746																
827	750	H1.33	45	.0	124	2.0										16.9	20
827	801	H1.33															
827	803																
827	806										29.92						
827	819													1.37	16.0		
827	834													1.78	18.3		
827	843	G1.50	44	55.0	124	3.0		33.538						1.81	20.2		
827	914	G1.50												1.91	19.6		
827	921																
827	923																
827	931													1.61	20.0		26
827	936	G 2	44	55.0	124	6.0		33.002									21
827	1016	G 2									93	34	2	1.33	16.0		19

DATE	TIME	STN.	LAT. N+ S-- (DEG MIN)	LONG. W+ E--	EQ. IN SITU TEMPERATURE (DEG.C)	SEA SAL. (0/00)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS. (UM/L)	NIT. (UM/L)	SIL.
827	1019														14.5
827	1020								29.92						
827	1024														16
827	1032	G2.33	44 54.8	124 8.0		33.021				91 35 3			1.19	11.4	17
827	1044	G2.33													
827	1046												1.16	11.7	
827	1051														16
827	1059	G2.67	44 55.0	124 10.1		32.986				83 35 3			1.07	13.0	15
827	1112	G2.67													
827	1123												1.08	12.6	15
827	1128	G 3	44 55.0	124 12.1		32.834				91 1 2			.95	11.8	14
827	1216	G 3													
827	1219												1.06	12.9	
827	1222														15
827	1228												.84	11.7	9
827	1231	G3.50	44 55.0	124 15.0		32.826				93 34 4			.70	7.2	9
827	1250	G3.50													
827	1254														8
827	1255				10.24		294.7								
827	1300				10.13		296.1								
827	1303												.64	5.0	7
827	1305				10.31		296.0								
827	1308	G 4	44 55.0	124 18.0	10.73	32.533	279.3			93 34 4			.48	3.1	6
827	1413	G 4													
827	1415				11.06		295.6	315.0	-19.5	29.92					
827	1418												.47	2.5	
827	1420				11.19		275.6								
827	1421														5
827	1425				11.48		284.1								
827	1430				11.46		277.5								
827	1431												.35	1.2	
827	1434														4
827	1435				12.29		272.0								
827	1440	G 5	44 55.0	124 24.0	12.06	32.315	272.1			92 34 4			.38	1.0	4
827	1619	G 5													
827	1620				12.49		289.2								
827	1625				12.36		283.9								
827	1630				12.45		277.3								
827	1631														4
827	1633												.29	.1	
827	1635				12.58		270.0								
827	1640				12.72		262.1								
827	1644														4
827	1645				12.77		279.2								
827	1646												.27	.1	
827	1650				12.83		277.8								
827	1651	G 6	44 55.0	124 30.0	12.50	32.288	256.2			97 35 4			.31	.5	4
827	1819	G 6													
827	1820				12.69		247.6								
827	1825				12.49		250.9								

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	TEMPERATURE (DEG.C)	EQ. IN SITU SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
827	1826													.31	.8
827	1830				12.45		258.1								
827	1835				12.58		257.4								
827	1839													.22	
827	1840				12.90		247.6								
827	1845				12.92		249.5								
827	1850	F 6	44 50.0	124 30.0	12.56	32.240	257.2				86 35 4			.30	.3 3
827	2052	F 6													
827	2055				12.83		249.3								
827	2100				12.83		242.5								
827	2105				12.85		247.0								
827	2107													.26	3.0
827	2110				12.85		243.7								
827	2119													.28	
827	2120				12.85		256.4								
827	2121														
827	2129														3
827	2134	F 5	44 50.2	124 25.4	11.70	32.442	255.7	313.5	-57.9		92 35 5			.40	4
827	2155	F 5													
827	2200				11.66		249.4								
827	2205				11.48		248.5								
827	2213													.51	2.3 5
827	2215				10.79		256.5	313.6	-57.1						
827	2220				10.18		279.1								
827	2223														
827	2225	F 4	44 50.0	124 18.1	10.19	32.791	283.4				92 35 5			.59 5.0	9
827	2400	F 4												.63 5.7	
828	5				9.87		321.9								
828	10				9.83		331.5								
828	14														
828	15				9.74		330.1								9
828	20				9.65		332.9								
828	25				9.22		366.2								
828	27														
828	30				9.22		404.9								15
828	32	F 3	44 50.0	124 12.0	9.35	33.203	419.1	314.7	104.4	29.92	86 35 5				
828	54	F 3													
828	55				9.22		430.6								
828	100				9.18		442.1								
828	102														
828	104													1.35 16.9	21
828	105				9.20		469.9								
828	110				9.20		497.2								
828	114													1.62 19.7	
828	115				9.01		558.7								
828	116														
828	120				8.94		634.1								28
828	124				8.96		663.9								
828	127	F 2	44 50.0	124 6.0	8.86	33.415	632.4	314.6	317.8		93 35 5			1.69 22.4	31
828	148	F 2												1.65 20.8	28

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG.C)	CO. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR FCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
828	150				8.94		664.9									
828	155				9.22		676.0									
828	158												1.68	21.6	29	
828	200				9.22		639.3									
828	205				9.11		646.4									
828	210				8.98		671.0									
828	211												1.75	21.7	29	
828	215				8.86		719.6									
828	219	E 2	44	45.0	124	6.0	8.76	33.645	806.4		90 35 5				33	
828	240	E 2														
828	243												1.78	24.0		
828	245				8.86		736.5									
828	246														30	
828	248	E 2.33	44	45.0	124	8.0	8.86	33.578	709.0		93 35 5		1.76	23.1	30	
828	308	E 2.33														
828	309												2.05	21.5		
828	310				8.83		626.5									
828	312														22	
828	315				9.33		517.7									
828	316												1.34	17.0		
828	318				9.35		517.7									
828	319	E 2.67	44	45.0	124	10.0	9.29	33.421	495.7	311.3	184.4		91 35 5		21	
828	344	E 2.67														
828	345				9.29		498.4									
828	348	E 3	44	45.0	124	12.0	9.03	33.360	516.8	311.6	205.2		91 35 5	1.37	18.2	22
828	405	E 3														
828	407														22	
828	409												1.37	18.0		
828	410				9.05		501.0									
828	415				9.20		439.3									
828	419	E 3.33	44	45.0	124	14.0	9.16	33.014	392.7		92 36 4		1.02	13.0	14	
828	437	E 3.33														
828	440				9.16		378.5									
828	445				9.29		363.4									
828	446												.92	11.0	12	
828	448	E 3.67	44	45.0	124	16.0	9.32	32.909	361.0		92 36 4		.92	10.6	12	
828	510	E 3.67														
828	515				9.35		355.5									
828	520				9.46		352.1									
828	523													10.0	10	
828	525				9.07		359.7									
828	526	E 4	44	45.0	124	18.0	8.95	357.7			83 36 4		.92	9.8	11	
828	547	E 4														
828	550				9.18		348.8									
828	555				8.73		328.8									
828	600				9.07		323.6									
828	603	E 4.5	44	45.0	124	21.0	9.20	32.595	319.0		90 36 4					
828	622	E 4.5														
828	625				9.37		314.9									
828	626															

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR	PCO2	BARO-	WIND		OXYGEN	AOU	PHOS.	NIT.	SIL.	
			N=+	S=-	W=+	E=-	TEMPERATURE	SAL.	PCO2	PCO2	SATN.	METRIC	RH	DIR	(ML/ L)	(UM/KG)	(UM/L)			
			(DEG	MIN)	(DEG	MIN)	(DEG.C)	(0/00)	(PPM)	(PPM)	(PPM)	PRESS.	VEL	VEL						
828	628																			
828	630						9.48		304.3	307.6	-3.3	29.92					.65	5.4		
828	635						9.63		292.5											
828	637	E	5	44	45.0	124	24.0	10.32	32.440	293.6			91	36	4		.53	3.0	4	
828	658	E	5																	
828	700						10.42		292.6											
828	703																			
828	705						10.99		284.0								.52	2.8		
828	706																			4
828	710						10.35		275.1											
828	714																			
828	715						11.70		260.9								.34	.7		
828	718																			
828	720						11.88		260.8								.32		3	
828	725						12.00		259.5											
828	727	E	6	44	45.0	124	30.0	11.97	32.322	261.7			96	35	4		.31	.6	3	
828	751	E	6																	
828	755						11.84		263.7											
828	800						11.88		259.1											
828	801																			
828	805						12.40		241.0								.30	.4	3	
828	810						12.45		239.8											
828	814																.26	.4	3	
828	815						12.40		238.8											
828	820						12.27		236.9											
828	825						12.09		240.4											
828	828																			
828	830						11.64		246.9								.34	1.0	3	
828	837	D	7	44	40.0	124	35.7	11.41	263.4	308.4	-45.0					.41	1.5	4		
828	1138	D	7																	
828	1140						11.41		268.6											
828	1145						11.93		252.9											
828	1150						12.02		242.0											
828	1151																			
828	1155						12.04		242.0								.31		3	
828	1200						12.09		239.3											
828	1205	D	6.5	44	40.0	124	33.0	12.14	32.519	234.2			93	35	5		.28	.4	3	
828	1240	D	6.5																	
828	1244																			
828	1245						12.22		234.6								.30	.3	3	
828	1250						12.20		237.1											
828	1253																			
828	1255						12.09		235.0								.28	.3	3	
828	1256	D	6	44	40.0	124	30.0	12.11	32.511	234.3			96	35	5		.28	.3	2	
828	1353	D	6																	
828	1355						12.13		237.5											
828	1356																			2
828	1400						12.13		234.5											
828	1405						12.18		237.6											
828	1406																.25	.1	2	

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
828	1410				12.18		238.1								
828	1413	D 5.5	44 40.0	124 28.0	12.15	32.421	237.5				85 35 4			.25	2
828	1430	D 5.5												.28	.1 3
828	1433														
828	1435				11.89		247.1								
828	1440				11.58		257.7								
828	1445				10.70		275.3								
828	1447	D 5	44 40.0	124 24.0	10.54	32.454	278.0				97 35 4			.49 1.9	4
828	1515	D 5													
828	1520				9.95		293.7								
828	1521													.55 3.8	
828	1525				9.72		289.9							.75 5.9	7
828	1528														
828	1530				9.48		301.4								
828	1538				8.92		343.4	312.8	30.5						
828	1540	D 4.5	44 40.0	124 21.0	9.04	32.623	340.7				95 35 4			.84 8.7	9
828	1600	D 4.5													
828	1605				9.78		307.2								
828	1607														10
828	1610				9.67		309.0	313.0	-4.1	29.97				.85 9.3	
828	1613														
828	1615				9.56		320.2								
828	1620				9.50		324.1								
828	1622	D 4	44 40.0	124 18.0	9.48	32.905	318.9				98 36 5			.89 10.0	12
828	1702	D 4													
828	1705				9.50		311.6								
828	1710				9.59		312.3								
828	1714				9.54		315.9								
828	1723				9.39		352.0	311.4	40.6						
828	1730				9.33		387.3								
828	1733	D 3.5	44 40.0	124 15.0	9.37	33.239	414.0				98 5			1.25 16.1	21
828	1810	D 3.5													
828	1815				9.35		473.9								
828	1818													1.35 17.5	
828	1820				9.35		484.2								
828	1822														20
828	1825				9.76		492.0								
828	1830				10.04		488.9							1.23 16.0	
828	1834														13
828	1835				10.61		374.3								
828	1836	D 3	44 40.0	124 12.0	10.32	33.432	419.8				98 36 6			.99 10.7	13
828	1940	D 3													
828	1950				11.09		296.8								
828	1953													.62 4.9	
828	1955				10.91		303.4								
828	1956														5
828	2000				10.96		319.7								
828	2003													.86 6.1	
828	2004				10.65		354.3								
828	2007														9

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ UM/KG) L)	AQU PHOS.NIT. (UM/L)	SIL.
828	2013												.98	7.7
828	2017				10.19		407.6	311.6	96.0	29.92				8
828	2020				10.04		436.7							
828	2024	D 2	44 40.0	124 5.9	9.72	33.510	510.3				87 35 6		1.36	12.9 13
828	2025	D 2			9.80		497.0							
828	2050				9.69		533.2							
828	2053												1.57	14.4 17
828	2055				9.72		558.8							
828	2058				9.72		568.6							
828	2104				9.80		554.2							
828	2106												1.56	13.9 16
828	2110				9.91		559.5							
828	2115				11.38		551.2							
828	2120				12.65		577.1							
828	2125	YBBAR												
828	2140	YBBAR												
828	2250				12.04		549.9							
828	2255				9.80		595.9							
828	2300				9.98		579.0							
828	2304				9.67		584.5							
828	2315				9.63		555.4	312.5	242.9					
828	2320				9.59		556.4							
828	2325				9.54		548.1							
828	2328	D 2	44 40.0	124 5.9	9.64		587.6				35 6		1.62	18.1 24
828	2340	D 2												
828	2343												1.60	17.8 22
828	2345				9.65		577.1							
828	2349													
828	2350				10.28		438.1							8
828	2353												.96	9.0
828	2355				10.76		368.6							
828	2400				10.91		345.2							
829	4	D 2.5	44 40.0	124 9.0	10.98	33.341	337.1				93 35 4		.71	5.2 6
829	33	D 2.5												
829	35				11.00		326.4							
829	36												.67	4.9
829	40				10.91		320.4							
829	41													6
829	45				10.87		324.7							
829	49												.73	7.7 9
829	50				10.65		346.7							
829	53	D 3	44 40.0	124 12.0	10.84	33.392	333.1	311.7	21.4		86 34 4			
829	125	D 3												
829	130				10.56		362.1							
829	135				9.87		469.0							
829	140				9.63		521.6							
829	142	D 3.5	44 40.0	124 15.0	9.02	33.451	589.3				29.95 91 35 5			
829	207	D 3.5												
829	209													
829	210				9.16		522.8							24

DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=- (DEG MIN)	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
829	211													16.5	
829	215				9.33		405.9								
829	216														15
829	220				9.31		378.7								
829	222														12
829	224											.90	10.3		
829	225				9.22		357.6								
829	229				9.07		353.5								
829	232	0	4	44 40.0	124 18.0	9.03	32.765	353.2	312.0	41.2	87 35 5		.87	9.6	10
829	300	0	4												
829	304												.76	8.4	
829	306				9.26		335.6								
829	309														8
829	310				9.37		327.5								
829	314												.76	8.4	
829	315				9.37		334.2								
829	317														9
829	320	0	4.5	44 40.0	124 21.0	9.46	32.766	332.2			87 35 5				9
829	355	0	4.5												
829	400				9.59		332.1								
829	406				9.50		332.2								
829	407	0	5	44 40.0	124 24.0	9.48		332.0			91 36 4				4
829	447	0	5												
829	450				9.50		333.5								
829	455				9.80		320.8								
829	500				9.69		308.8								
829	503	0	5.5	44 40.0	124 27.0	9.96	32.559	298.9	311.5	-12.6	96 36 4				5
829	532	0	5.5												
829	535				9.98		304.8								
829	540				10.24		303.4								
829	544														4
829	545				10.67		288.2								
829	546	0	6	44 40.0	124 30.0	10.54	32.460	287.6	308.8	-21.2	94 35 4		.47	.5	4
829	617	0	6												
829	620				10.56		286.3								
829	624														4
829	625				10.61		284.3								
829	626											.46	1.7		
829	630				10.87		283.0								
829	635				10.96		281.0								
829	637														3
829	639											.44	1.1		
829	640				10.80		284.3								
829	645				11.05		287.5								
829	646											.44	2.0		
829	650				11.33		279.6								
829	651														4
829	655				11.44		272.5								
829	700				11.29		274.4								
829	701											.38	.5		

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL L	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.	
829	704															3
829	705				11.36		276.4									
829	708												.45	.5		
829	710				10.52		292.2									
829	714															7
829	715				10.54		304.7									
829	716												.63	4.9		
829	720				10.59		308.6									
829	724				10.56		308.6									
829	727															6
829	729												.59	4.7		
829	730				10.56		306.0									
829	735				11.07		290.8									
829	740				11.22		288.1									
829	741															4
829	743												.41	1.7		
829	745				11.24		277.7									
829	751				11.78		267.9									
829	754															3
829	755				10.54		268.1									
829	756												.32	.4		
829	800	G	6	44 55.0	124 30.0	11.02	270.0						.42	.4		2
829	804	G	6													
829	805				10.52		276.6									
829	810				10.35		308.7									
829	813												.66	5.7		8
829	815				10.70		313.2									
829	821												.60	3.8		6
829	823				10.24		309.4									
829	828												.76	6.9		
829	830				10.13		334.0	308.2	25.9							
829	831															9
829	835				9.69		344.9									
829	839												.95	9.6		
829	840				9.69		366.6									
829	844															13
829	845				9.54		381.0									
829	848												.99	10.5		
829	850				9.63		378.2									
829	855				9.72		365.2									
829	857															12
829	901												.90	9.1		
829	902				9.87		356.3									
829	905				9.91		354.3									
829	910				10.00		352.2									
829	911															
829	915				9.29		382.4	308.2	74.3	29.95			.91	5.4		11
829	920				9.07		401.8									
829	921															
829	924												1.06	12.0		14

DATE	TIME	ST. I.	LAT.		LONG.		EQ. IN SITU		SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
			N=+ (DEG)	S=- (MIN)	W=+ (DEG)	E=- (MIN)	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL				
829	925							9.37		396.2								
829	930							9.22		438.8								
829	932																	19
829	934															1.27	15.6	
829	935							9.11		476.7								
829	940							9.24		511.4								
829	943															1.67	19.4	
829	946	G	2	44	55.0	124	6.0	9.03		624.4								
829	1005	G	2					9.52		634.2								
829	1009															1.31	15.9	
829	1010							9.48		584.7								
829	1015							9.41		509.8								
829	1020							9.50		472.2								
829	1023															1.15		16
829	1025							9.59		447.9								
829	1030							9.76		405.7								
829	1036															1.05	12.0	14
829	1040							9.54		383.7								
829	1048							9.52		388.5					.93	11.9		12
829	1054														.85	8.8		
829	1055							9.76		336.8								
829	1100							10.21		336.7								
829	1101																	9
829	1104														.66	6.0		
829	1105							10.56		308.0	308.8	-0.8						
829	1110							11.00		301.3								
829	1114																	8
829	1117							11.18		296.6								
829	1118														.65	5.7		
829	1123							11.36		294.6								
829	1127																	8
829	1129														.50	4.0		
829	1130							11.49		309.0								
829	1137	I	5	45	5.0	124	24.0	12.18		285.9						.50	2.2	
829	1139	I	5															
829	1141																	7
829	1144							11.87		293.2	306.9	-13.7						
829	1150							11.78		289.9								
829	1156																	8
829	1200							10.63		330.2								
829	1202																	15
829	1204															1.01	11.1	
829	1205							10.26		379.1								
829	1210							10.21		375.0								
829	1215							10.21		366.8								
829	1216																	13
829	1218														.94	10.3		
829	1219							10.24		366.1								
829	1225							10.21		362.0								
829	1229																	13

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR	PCO2	BARO-	WIND		OXYGEN	AOU	PHOS.NIT.	SIL.
			N=+ S=-	(DEG MIN)	W=+ E=-	(DEG.C)	TEMPERATURE	SAL.					PCO2	FCO2				
829	1834																	14
829	1835						9.98		409.2									
829	1840						9.82		409.3									
829	1841	K 3	45	12.0	124	12.0	9.77	32.736	414.4	306.9	107.5		91 35 5			1.14 13.3	14	
829	1936	K 3																
829	1939																1.13 12.9	
829	1941																	15
829	1942						9.69		461.6	310.8	150.8							
829	1945						9.50		464.5									
829	1953																	
829	1955	K 2.5	45	12.0	124	9.0	9.32	32.996	489.1				92 35 6			1.29 18.7	14	
829	2033	K 2.5															1.36 16.0	19
829	2035						9.39		484.1									
829	2040						9.65		510.0									
829	2041																	22
829	2043																1.44 17.3	
829	2045						9.33		499.2									
829	2048	K 2	45	12.0	124	6.1	9.59	33.098	501.3				83 35 5			1.41 17.0	21	
829	2150	K 2																
829	2153						10.02		507.7								1.45 16.9	
829	2203						9.93		518.0									
829	2204																	23
829	2206																1.55 18.1	
829	2209						9.69		545.8									
829	2212	K 1.5	45	12.0	124	3.0	9.48	33.480	592.2				84 35 5			1.64 20.0	26	
829	2255	K 1.5																
829	2257																	28
829	2259																1.69 20.4	
829	2304						9.35		606.7	311.2	295.4							
829	2307						9.26		644.2									
829	2311																	45
829	2313																1.96 25.3	
829	2316	K 1	45	11.9	124		8.79	33.682		313.2			82 36 4			2.00 26.4	41	
829	2344	K 1																
829	2351																	39
829	2354																1.98 25.2	
830	4																	35
830	6																1.90 24.1	
830	13																1.93 24.6	37
830	14																1.93 24.6	
830	27						8.54		747.1	303.3	443.9	30.15						
830	34						8.54		789.4									
830	41						8.86		735.0									
830	45						9.05		824.3									
830	50						8.90		759.0									
830	55						8.86		815.2									
830	100		45	22.2	124	2.4	8.86		665.9									
830	105						8.81		663.0									
830	110						8.79		670.3									
830	121						8.73		612.7								1.60 23.1	28

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2	AIR PCO2	PCO2 SATN.	BARO- METRIC PRESS.	WIND		OXYGEN (UM/KG)	AOU	PHOS.NIT. (UM/L)	SIL.
			N=+ (DEG MIN)	S=-	W=+ (DEG MIN)	E=-	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL				
830	123																	
830	126						8.75		602.7								1.60 23.1	
830	130						8.81		595.6									
830	134																	
830	136																	26
830	138																1.61 21.5	
830	147																1.61 21.5	
830	150						8.88		612.6	302.7	309.9							26
830	151																1.58 20.6	
830	155						8.62		624.2								1.58 20.6	
830	200	45	30.2		124	3.5	8.67		667.4									
830	201																	
830	204																	30
830	205						8.69		650.0								1.65 23.3	
830	210						8.67		632.8								1.65 23.3	
830	214																	
830	217						8.81		676.1									27
830	218																1.59 21.6	
830	220						9.09		636.9	302.7	334.2	30.15					1.59 21.6	
830	225						9.54		595.3									
830	227																	
830	230						10.06		555.8									22
830	231																1.35 17.2	
830	235						10.15		539.2								1.35 17.2	
830	240						10.21		543.3									
830	241																	
830	244																	21
830	251																1.44 17.3	
830	254																1.51 21.3	
830	255						9.76		581.1									22
830	259																	
830	300	45	38.7		124	5.7	10.30		488.6								1.21 14.3	
830	305						10.72		480.4								1.21 14.3	
830	326						10.52		573.7	311.1	262.6							
830	327																	
830	329																	21
830	330						10.96		527.6								15.0	
830	335						11.33		451.8								15.0	
830	340						11.58		441.4									
830	341																	
830	343																	17
830	345						11.75		433.5								.94 10.1	
830	350						11.51		437.5								.94 10.1	
830	354																	
830	355						11.20		440.3									16
830	356																1.04 10.8	
830	400	45	47.5		124	7.5	10.61		508.8								1.04 10.8	
830	403																	
830	405						11.09		508.6								1.22 15.1	
830	407																1.22 15.1	

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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR	PCO2	BARO-	WIND		OXYGEN	AOU	PHOS.NIT.	SIL.
			N=+	S=-	W=+	E=-	TEMPERATURE	SAL.					PCO2	PCO2				
			(DEG MIN)				(DEG.C)	(0/00)	(PPM)	(PPM)	(PPM)	METRIC	VEL	L)				
830	655						13.70		462.4									
830	659																	
830	700	46	13.7	124	7.1	14.11			507.8							.86	10.5	52
830	705					14.13			571.4							.86	10.5	
830	710					14.34			520.0									
830	713																	
830	717	46	15.2	124	7.1	13.70			523.1							.82	8.9	55
830	720					14.32			596.7									
830	723															1.00	11.0	
830	725					14.81			712.4							1.00	11.0	
830	726																	57
830	730					15.12			636.2									
830	733																	
830	735					17.04			672.4							1.21	8.6	
830	739															1.21	8.6	
830	740					17.22			689.8									82
830	743																	
830	745	46	14.7	124	.1	17.06			712.1							.59	4.9	
830	800					18.28			610.9							.59	4.9	
830	805					18.51			576.8									
830	809																	73
830	810					18.64			592.2									
830	815					18.60			590.8							.43	2.6	
830	816															.43	2.6	
830	820					18.94			684.0									
830	822																	74
830	825					18.85			569.5									
830	829																	
830	830					19.43			593.0							.34	1.3	
830	835					19.48			564.9							.34	1.3	
830	836																	75
830	840					19.59			563.4									
830	843																	
830	847	46	11.7	123	51.0	19.80			534.1	315.6	218.5					.29	.6	
830	849																	77
830	850					20.04			497.1									
830	855					20.01			377.4							.20		
830	856															.20		
830	900					20.20			388.4				95					
830	902																	76
830	905					20.32			399.9									
830	909															.15		
830	910					20.34			384.5							.15		
830	914																	78
830	915					20.34			364.0									
830	920					20.27			379.4									
830	923																	
830	925					20.25			418.2							.12		
830	927															.12		
830	930					20.18			418.2	313.4	104.8							82

DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA	AIR	PCO2	BARO-	WIND		OXYGEN	AOU	PHOS.NIT.	SIL.
			N=+ S=-	W=+ E=-	TEMPERATURE	SAL.	PCO2	PCO2					RH	DIR				
			(DEG MIN)		(DEG.C)	(0/00)	(PPM)	(PPM)	(PPM)	METRIC	PRESS.	VEL	L)					
830	936																.11	
830	941																	81
830	945		46	15.3	123	39.8												
830	948						20.34		496.6								.08	
830	949																.08	
830	954						20.34		471.0			76						88
830	1007																	89
830	1009																.10	.2
830	1020						20.41		461.3									
830	1021																	89
830	1023																.09	.5
830	1025						20.30		462.7								.09	.5
830	1030						20.32		424.3									
830	1035						20.37		432.1	313.3	118.8						.09	.7
830	1036																.09	.7
830	1040						20.37		456.0									
830	1047						20.44		448.0									91
830	1051																.08	.9
830	1052						20.37		448.4	310.2	138.1						.08	.9
830	1055						20.34		468.4									
830	1100						20.44		448.3			69						
830	1101																	90
830	1104																.08	1.0
830	1105						20.53		405.0								.08	1.0
830	1110						20.46		445.7									
830	1114																	90
830	1115						20.41		445.7									
830	1118																.06	.5
830	1120						20.46		444.3								.06	.5
830	1125						20.51		452.6									
830	1127																	90
830	1130						20.51		464.6									.4
830	1131																	.4
830	1135						20.51		486.0									
830	1140						20.51		510.3									
830	1141																	90
830	1144																.05	.7
830	1145						20.51		448.6								.05	.7
830	1150						20.51		436.8									
830	1154																	90
830	1155						20.37		391.3									
830	1158																.05	1.4
830	1200		46	8.7	123	21.8	20.37		381.1			61					.05	1.4
830	1205						20.41		354.9									
830	1207																	
830	1210						20.56		367.4								.05	1.4
830	1211																.05	1.4
830	1215						20.58		375.0									
830	1220						20.60		348.5									
830	1221																	88

DATE TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ L)	AOU (UM/KG)	PHOS.NIT. (UM/L)	SIL.
830 1224														
830 1225				20.60		390.4						.06	1.8	
830 1230				20.60		426.6						.06	1.8	
830 1247				20.60		497.2	301.4	195.9						
830 1252				20.58		441.4								
830 1256				20.58		421.8								
830 1300	46	11.1	123 10.8	20.60		356.5				61		.11	2.6	
830 1305				20.60		384.4								
830 1306														
830 1309														97
830 1310				20.60		385.7						.11	3.1	
830 1315				20.60		352.8						.11	3.1	
830 1319														
830 1320				20.60		367.9				30.19		.11	4.6	96
830 1325				20.53		405.0						.11	4.6	
830 1326												.07	1.7	
830 1330				20.53		486.5						.07	1.7	
830 1335				20.56		420.5								
830 1339														
830 1341				20.58		362.8						.07	1.1	
830 1346				20.58		345.2						.07	1.1	
830 1350				20.58		342.7	307.4	35.4						87
830 1353														
830 1356				20.58		365.4						.08	1.6	
830 1359														
830 1400	46	8.3	123 1.0	20.53		365.4				37				90
830 1404														
830 1405				20.58		335.3						.09	.8	
830 1410				20.58		331.5	308.6	22.9	30.19			.09	.8	
830 1412												.09	1.3	
830 1415				20.56		340.3								89
830 1418														
830 1420				20.56		341.5						.09	1.3	
830 1425				20.56		349.0								
830 1426														
830 1430				20.58		349.0								87
830 1431												.08	1.3	
830 1435				20.58		359.7						.08	1.3	
830 1439														
830 1440				20.60		344.6								89
830 1444														
830 1445				20.58		344.6						.11	1.0	
830 1450				20.58		378.7						.11	1.0	
830 1452														
830 1457	46	3.3	122 52.9	20.53		394.1				35				92
830 1500														
830 1513				20.58		366.0						.02		
830 1517														
830 1518				20.53		338.4								87
830 1523														

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DATE	TIME	STN.	LAT. N=+ S=- (DEG MIN)	LONG. W=+ E=-	EQ. IN SITU TEMPERATURE (DEG.C)	SAL. (0/00)	SEA PCO2 (PPM)	AIR PCO2 (PPM)	PCO2 SATN. (PPM)	BARO- METRIC PRESS.	WIND RH DIR VEL	OXYGEN (ML/ (UM/KG) L)	AOU	PHOS.NIT. (UM/L)	SIL.
830	1525				20.58		332.1							.13	.7
830	1530				20.58		335.9								
830	1531														88
830	1534											.13		.7	
830	1535				20.58		339.6					.13		.7	
830	1540				20.58		359.4			30.13		.18		6.3	
830	1544														89
830	1545				20.58		329.4					.10		1.3	
830	1546											.10		1.3	
830	1550				20.56		338.1								
830	1553											.15		.8	
830	1555				20.58		355.6					.15		.8	
830	1557														97
830	1600		45 56.3	122 48.2	20.58		307.8				34	.14		4.1	
830	1605				20.58		314.0					.10		1.4	
830	1607											.10		1.4	
830	1610				20.58		289.5								
830	1613											.11		3.5	89
830	1616				20.53		283.4	298.6	-15.2						
830	1619											.18		2.7	
830	1620				20.53		300.5					.18		2.7	
830	1625				20.51		322.7					.09		.9	
830	1626											.09		.9	90
830	1630				20.56		325.1								
830	1635				20.60		291.9								
830	1639											.09		.9	88
830	1640				20.60		281.0					.09		.9	
830	1645				20.58		318.9								
830	1650				20.66		256.9								
830	1653											.10		.7	88
830	1655				20.56		302.9					.10		.7	
830	1700		45 48.2	122 47.4	20.51		302.3			30.11	31				
830	1705				20.53		296.2								
830	1707											.11			87
830	1710				20.49		296.2					.11			
830	1715				20.49		303.6								
830	1719											.14			87
830	1720				20.49		302.4					.14			
830	1725				20.49		298.7								
830	1730				20.49		292.6								
830	1732														87
830	1734											.10			
830	1735				20.49		293.8					.10			
830	1740				20.49		291.3								
830	1745				20.51		288.9					.11			
830	1746											.11			88
830	1750				20.51		288.9	298.4	-9.5	30.11					
830	1755				20.53		281.6								
830	1800				20.58		279.7				35			.16	87
830	1805				20.58		274.9								

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DATE	TIME	STN.	LAT.		LONG.		EQ. IN SITU		SEA PCO2	AIR PCO2	PCO2 SATN.	BARO- METRIC PRESS.	WIND		OXYGEN (ML/ L)	AOU	PHOS. (UM/L)	NIT. (UM/L)	SIL.	
			N=+ (DEG)	S=- (MIN)	W=+ (DEG)	E=- (MIN)	TEMPERATURE (DEG.C)	SAL. (0/00)					RH	DIR VEL						
830	1808		45	39.4	122	45.8	20.58		270.0											
830	1813																.15	2.5	95	
830	1815		45	38.2	122	47.1	20.66		450.0								.15	2.5		
830	1819																.01		22	
830	1820								596.7											
830	1823																.31	13.5		
830	1825		45	36.9	122	47.2			1365.0								.31	13.5		
830	1826																.02		20	
830	1830								1802.0	316.3	1485.7									
830	1834																.98	40.5		
830	1835								1782.5								.98	40.5		
830	1838		45	35.1	122	45.8			1746.0											
830	1839																.02		26	
830	1845								1574.8								1.08	40.6		
830	1846																1.08	40.6		
830	1850		45	34.0	122	43.4			1658.1					33						
830	1852																.02		18	

