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**HYDROGRAPHIC DATA
FROM OREGON WATERS
1970**

by

Bruce Wyatt, Richard Tomlinson,
William Gilbert, Louis Gordon
and Dennis Barstow

Office of Naval Research
Contract N00014-67-A-0369-0007
Project NR 083-102
NSF Grant GA 12113

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Data Report 49

Reference 71-23

October 1971

DEPARTMENT OF OCEANOGRAPHY

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OREGON STATE UNIVERSITY

Corvallis, Oregon 97331

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John V. Byrne
Chairman

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INTRODUCTION

Hydrographic Data from Oregon Waters, 1970, is the latest in a series of reports on the water masses along the Oregon coast. Reports for time periods beginning in 1955 are listed on page 10. Also included in this report are data from the Gulf of Alaska and Sea of Cortez.

DATA COLLECTING AND PROCESSING

Data were collected by Oregon State University personnel aboard the R/V YAQUINA and the R/V CAYUSE. Most of the cruises were concerned with surveying hydrographic conditions along a latitudinal track at 44°39.1'N and studying the Columbia River plume.

Most stations are identified by a letter-number code. Numerals that have a BH, CH, HH, GK, Y, A, BC, NH or DB prefix are the distance offshore in nautical miles. Thus NH-85 is a hydrographic station 85 miles off the coast from Newport, Oregon. All stations that have other letter prefixes were numbered sequentially with the letter prefix designating either a particular leg of that cruise or designating what work was done on that particular station. Cruise tracks are included to facilitate location of stations.

Explanation

Letter

DB	Off Depoe Bay, Oregon, on a line between 44°48.80', 124°05.38'N (DB-1) and 45°00.00', 124°34.64'N (DB-25)
OR	Off Otter Rock, Oregon, along 44°45.3'N
NH	Off Newport, Oregon, along 44°39.1'N
BC	Off Beaver Creek, Oregon, along 44°31.0'N
A	Off Alsea, Oregon, along 44°26.0'N
Y	Off Yachats, Oregon, along 44°20.0'N
GK	Off Gwynn Knoll, Oregon, along 44°13.9'N
HH	Off Heceta Head, Oregon, along 44°08.1'N
CH	Off Coos Bay, Oregon, along 43°20.6'N
BH	Off Brookings, Oregon, along 42°00.0'N

Depth

Depth determinations were made by the "depth-difference" method described in the U.S. Hydrographic Office Publication 607 (1968). At least once each year three to six calibration casts were made to monitor the

pressure coefficients for unprotected thermometers. Depth estimates have an approximate accuracy of 1.5 percent at 750 m depth. Depths of the second cast are followed by an asterisk if two or more casts were used as a single station.

Temperature

Thermometers were calibrated at Oregon State University using the Oceanography Department's calibration tank. A quartz thermometer system Hewlett-Packard Model 2801A was the standard. It was calibrated against a platinum resistance thermometer and a Mueller bridge calibrated by the U.S. Bureau of Standards. Intercalibration tests were also made with the University of Washington Department of Oceanography. Comparisons of results from five thermometers from the University of Washington indicated corrections obtained from our tests averaged within 0.007°C of corrections obtained from University of Washington calibrations for the previous year. This was only a preliminary attempt at intercalibration and a more conclusive test is planned for the Oceanographic Instrumentation Center to standardize our procedures and to reduce further the errors in temperature measurements resulting from procedure, time between calibrations, and the accuracy of the two standard thermometers.

The accuracy of reduced temperature readings is believed to be $\pm 0.02^{\circ}\text{C}$ for the reversing thermometers. All sampling bottles were equipped with two reversing thermometers. Those used below 200 m also have an unprotected thermometer for determination of thermometric depth.

Salinity

Salinity was determined with an inductive salinometer, Model 11, manufactured in Australia by Industrial Manufacturing Engineers Pty. Ltd. and with a Hytech salinometer, Model 6220. The method was described by Brown and Hamon (1961). Substandard water was prepared from seawater that had been collected 100 miles off Oregon and stored for three months. Copenhagen water was used as standard seawater.

Precision Comparison of Salinometers

The following experiment was conducted to determine if either of the laboratory salinometers in use at Oregon State University was more precise than the other.

Eleven sets of salinity samples at different concentrations were prepared containing six replications. Each set of replications was considered a separate experiment. Within these six replications, 3 samples were analyzed with the Hytech salinometer and 3 with the Australian salinometer. The hypothesis was tested that there was no difference in salinity determinations between the two salinometers. The two-tailed T test was used (Li, 1957).

For 8 of the 11 sets of samples ranging in concentration from 32‰ to 37‰, the hypothesis was accepted at the 95% confidence interval. For samples at 30‰, the hypothesis was accepted at the 99% confidence level. For sets at 15‰ and 20‰ the hypothesis was rejected at the 99% confidence level.

The standard error (standard deviation/(number of samples)^{1/2}), a measure of precision, was more for the Hytech salinometer; i.e., the Hytech was less precise. The average standard error was 0.0026‰ for the Hytech compared to 0.0015‰ for the Australian salinometer.

Accuracy of Inductive Salinometers

The following experiment estimated the accuracy for inductive salinometers in use at Oregon State University Department of Oceanography. Artificial seawater samples prepared by the National Oceanographic Instrumentation Center (NOIC) were accepted as the primary standard. These samples, consisting of 6 replications of samples from each of 4 salinity concentrations, were assumed to be unbiased and precise to within ± 0.004 ‰. The mean difference of salinity determinations for each set of 6 samples is given below:

<u>NOIC Sample Concentration (‰)</u>	<u>Standard Error in ‰ of OSU Determinations (UNESCO Tables)</u>
31.080	0.0001
34.248	0.0006
36.262	0.0013
39.212	0.0026

The mean standard error is 0.0012‰ which lies within the precision claimed (± 0.004 ‰) for preparation of the standard seawater.

These samples were analyzed with the Australian salinometer, but since there is no difference in salinity determinations made between the Australian and the Hytech salinometer (see previous section), it is concluded that both the Hytech and the Australian salinometer have an accuracy within the range of precision for preparation of the artificial seawater, or ± 0.004 ‰.

Oxygen

Most of the oxygens were run at sea. The modified Winkler method (Strickland and Parsons, 1968) was used.

The precision for land run oxygens given by Strickland and Parsons is $2s = 0.0336$ ml/l.

Automated Nutrient Analysis

All nutrient analysis procedures using the Autoanalyzer[®] have been described in detail by Atlas, et al. (1971). These methods were applied to samples from all 1970 cruises other than Y7001-A and Y7001-C, which were analyzed according to the methods outlined by Barstow, et al. (1968) and Hager, et al. (1968).

The method used for silicate analysis was basically that of Armstrong, et al. (1967). Three sampling tubes were used to give ranges of 0 - 12 μM , 0 - 50 μM , and 0 - 200 μM . Precision was estimated as $\pm 1.6\%$ at 2σ for 48 samples in the medium range.

Nitrate and nitrite concentrations were determined according to the method outlined by Armstrong, et al. (1967). Two sampling tubes were used in these analyses to give ranges of 0 - 15 μM and 0 - 40 μM . Precision has been estimated as $\pm 3\%$ at 2σ for 48 samples in the high range.

The phosphate analysis was a modification of the procedure of Bernhart and Wilhelms (1967) which substituted 1% (w/v) hydrazine sulfate for ascorbic acid. Sample to sample, precision was about $\pm 1.8\%$ at 2σ for 48 samples. This method gives a 10% increase in sample absorbance over that used for cruises Y7001-A and Y7001-C (Barstow, et al., 1969).

Manual Phosphate Analysis

When measured manually, phosphate was determined using a Beckman DU spectrophotometer and the method described by Barstow, et al. (1969). For cruises Y7001-A and Y7001-C, manual phosphate values were used to normalize those obtained using the Technicon Autoanalyzer[®] according to the Grasshoff modification described previously (Barstow, et al., 1969).

Reported values are determined by $y = ax - b$, where y is the reported value, a is the average slope, x is the Autoanalyzer[®] value, and b is the average intercept. The average slopes and intercepts used are given below.

<u>Cruise</u>	<u>Average Slope</u>	<u>Average Intercept</u>
Y7001-A	0.838	-0.09
Y7001-C	1.03	-0.36

Normalization was not necessary on subsequent cruises because of improved Autoanalyzer[®] techniques.

pH

An Orion model 801 digital pH meter was used for all pH determinations. Precisely weighed Beckman 7.41 buffers were used for instrument standardization. The method is described by Park (1966). Values for all cruises have

been corrected to in situ temperature using the O.S.U. CDC 3300 computer.

Alkalinity

The alkalinity was determined on the previously measured pH samples using the method of Anderson and Robinson (1946). On the YALOC-70 cruise, alkalinity was determined using 1.5 ml of 0.1 N hydrochloric acid, rather than the customary 15 ml of 0.01 N acid. The higher final salinities which resulted from this change lay within the range found by Culberson, et al. (1970) to correspond to a nearly constant value of the activity coefficient of hydrogen ions. Their value for the coefficient was used for the reduction of this data.

Precision of Chemical Data

The data for phosphate, nitrate and nitrite, silicate and A.O.U. (apparent oxygen utilization) were spot checked for the Newport and Depoe Bay hydrographic lines by visual inspection of vertical profiles plotted by the O.S.U. CDC 3300 computer. Assuming that seasonal changes below 500 meters are insignificant, examination of the data prompted no rejection of points.

All numerical estimates of precision are given as two standard deviations from the mean, based on replicate analysis from the same sampling bottle. The results for chemical data other than nutrients are summarized in Table 1.

It should be noted that, contrary to data processing methods previously used, negative nutrient values were not rejected and called zero.

All nutrient values for cruise C7002-D and those indicated by the letter, "L", for cruise Y7006-A were frozen for over one year prior to analysis. The pH and alkalinity values for cruise C7002-D were measured using a pH meter found to have a systematic inaccuracy of approximately +0.1 pH unit. No attempt has been made to correct the data for this effect. These portions of the data should therefore be considered as only approximations to environmental values. Obviously, spurious values in the C7002-D nutrient data were rejected by visual inspection.

Computations

All hydrographic data were processed with the aid of the CDC 3300 computer. Auxiliary temperature corrections and index corrections obtained from laboratory thermometer calibrations were applied with a computer program. Property values at standard depths are determined by three-point parabolic interpolation. (Two observed property points above the standard depth and one point below were interpolated parabolically: the result was averaged with similar interpolation by using one observed point above the standard depth and two points below.) The specific volume anomaly, dynamic height,

TABLE 1. Summary of Precision Estimates

Cruise	Y7005-A		Y7006-A		YALOC-70	
	mean $\pm$ 2 s	no. samples	mean $\pm$ 2 s	no. samples	mean $\pm$ 2 s	no. samples
Salinity (%)			33.877 $\pm$ 0.000	5*	32.615 $\pm$ 0.003 32.649 $\pm$ 0.004 32.926 $\pm$ 0.002	9 10* 10
Oxygen (ml/l)	1.57 $\pm$ 0.29	5*	0.56 $\pm$ 0.08 1.34 $\pm$ 0.10 2.47 $\pm$ 0.10 2.50 $\pm$ 0.00 2.53 $\pm$ 0.03 3.60 $\pm$ 0.06 4.22 $\pm$ 0.02	7* 7* 7* 5* 7* 5* 5*	0.75 $\pm$ 0.20 6.59 $\pm$ 0.08	10* 6
pH	7.505 $\pm$ 0.010 8.074 $\pm$ 0.006	12* 11*	7.710 $\pm$ 0.008 7.971 $\pm$ 0.011	4* 7*	8.064 $\pm$ 0.010 8.065 $\pm$ 0.010 8.203 $\pm$ 0.004 8.226 $\pm$ 0.009	10 10 10 10
Alkalinity (meq/l)	2.43 $\pm$ 0.01 2.54 $\pm$ 0.01	12* 12*	2.17 $\pm$ 0.12 2.26 $\pm$ 0.02	8* 5*	2.23 $\pm$ 0.03 2.24 $\pm$ 0.03 2.24 $\pm$ 0.04 2.26 $\pm$ 0.03	10 10
ΣCO_2 (μM)			2.21 $\pm$ 0.02 2.29 $\pm$ 0.02	9*		

* Replicate samples were run in succession rather than interspersed among other samples.

and sigma-t were computed by using interpolated properties. The same computer program has been used in all Oregon State University hydrographic data reports.

Weather codes and cloud cover codes were adopted from the National Oceanographic Data Center Manual "Processing Physical and Chemical Data from Oceanographic Stations," Publication M-2 (Rev. Aug. 1964).

ACKNOWLEDGMENTS

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TABLE 2

Cruise Dates, Stations, Observations, and Personnel for Hydrographic Cruises for 1970

CRUISE	DATE	STATIONS	OBSERVATIONS	PERSONNEL
Y7001-A	6-9 Jan.	Off Columbia River (1 to 30 miles) Off Depoe Bay, Ore. (3 to 25 miles)	Temperature, Salinity, O_2 , pH, NO_3 - NO_2 , Secchi disc., BT, light scattering, PCO_2 , alk.	Hasong Pak, Lyndal Brixius, Ron Jones, Richard Tomlinson, Paul Longueville, Ken Bowman, Dan Frye, James Mueller, Richard Iverson, David Ball, Richard Gates, Mike King
Y7001-C	25-27 Jan.	Off Newport, Ore. (3 to 165 miles)	Temperature, Salinity, O_2 , NO_3 - NO_2 , pH, alk., Secchi disc., BT, Drift bottles, Drogue	Dennis Barstow, Lyndal Brixius, David Ball, Priscilla Harney, Jane Huyer, Gary Rossknecht, Jim Pete From Clatsop Community College: William Husse, David Gosser, Kerry Wymetalek, Richard Gann, Patricia Laurs, James Kite
C7001-C	14-26 Jan.	Vicinity Strait of Juan de Fuca, Georgia Strait, Hood Canal, Puget Sound	Temperature, Salinity, O_2 , NO_3 - NO_2 , alk., pH, light scattering, CO_3 , Secchi disc.	Bruce Wyatt, James Washburn, Ron Jones, Larry Helm, David Menzies, Howard Hennebry, Richard Evans From Clatsop Community College: J. Mulvey From Univ. of Washington: David LeBlanc, John Helseth, Melvin Jackson, Robert Goodman IV
Y7002-D	25 Feb. - 4 March	Off Newport, Ore. (3 to 165 miles)	Temperature, Salinity, BT, Drift bottles, Zooplankton sampling, Drogue	Dennis Barstow, David Cutchin, Clive Dorman, Edward Sobey, Lilly Muller, John Detweiler, David Enfield, Judy Sherer From Dept. of Chemistry, Ore. St. Univ.: Wayne Thompson
Y7003-A	9-14 March	65 miles off New- port, Ore.	Temperature, Salinity, PO_4 , BT, Nekton, Zooplankton sampling	Peter Kalk, David Stein, Jack Groelle, John Butler From Clatsop Community College: Jack Fenton From Ore. St. Univ.: Lin Craft, Cathy Blake, Charles Moreland From Humboldt State College: Don Costa, Edward Sims, John Hope From Navy R.O.T.C., Ore. St. Univ.: Joe Marra, Chris Lane, William Lyndell From Univ. of Washington: Rodney Eagle
C7002-D	25 Feb. - 18 April	Newport, Ore., San Diego, Cal., Puerto Vallarta, Guaymas, Ensenada, San Diego	Temperature, Salinity, O_2 , pH, PO_4 , NO_3 , BT, alk., Secchi disc., pigment samples, partic- ulate carbon, Optics, Drogue, Core samples	Bruce Wyatt, Ron Jones, Lyndal Brixius, James Washburn, Gary Adair, David Helwig, Yi-Maw Chang From Institute de Marine Sciences, Ensenada, Baja: Luis Alvarez From Institute de Monterey: Enrique Carrio, Andre Solis Preciar
Y7005-A	4-10 May	Between $44^{\circ}08'$ and $45^{\circ}N$ and up to 165 miles off Newport, Ore	Temperature, Salinity, O_2 , pH, alk., BT, Drift bottles, partic- ulate C-N, ECO_2 , PCO_2 , NO_3 - NO_2	Dennis Barstow, Mike King, David Ball, Richard Tomlinson, Harold O'Connors, Percy Donaghay, Alan Vogel, Karen Zakar, Lynn McCrow, Douglas Coughenower, Wayne Esaias, Phil Larsen From Clatsop Community College: Scott Willis, David Gosser, Robert Blaedel

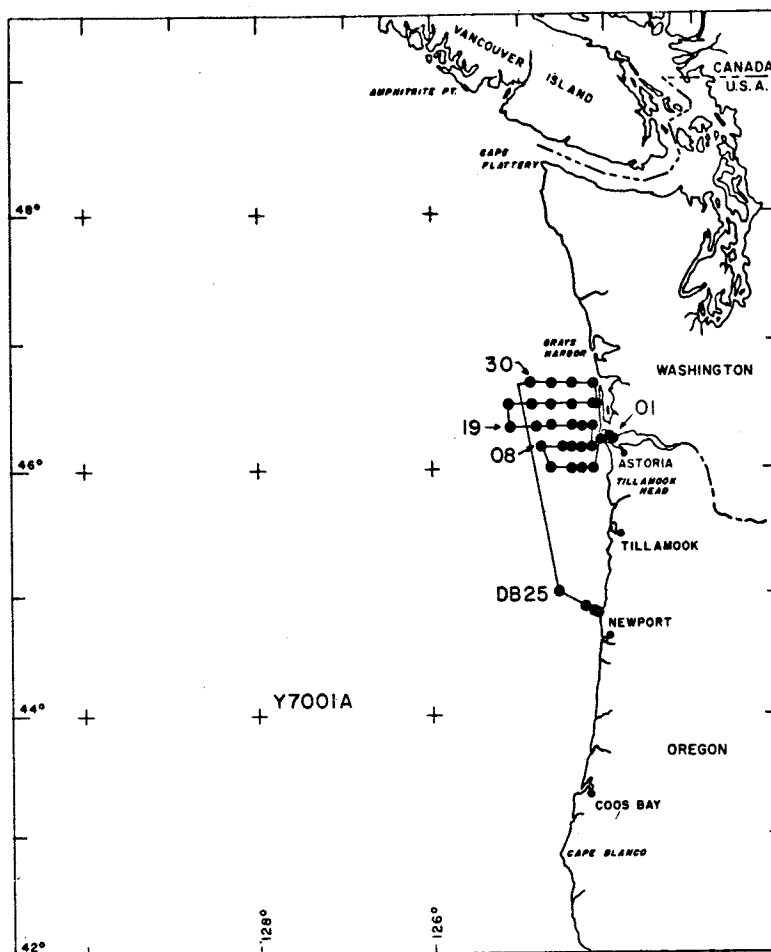
TABLE 2 -- cont.

CRUISE	DATE	STATIONS	OBSERVATIONS	PERSONNEL
Y7005-C	27 May - 9 June	Between 43°28' and 45°09'N and up to 215 miles off New- port, Ore.	Temperature, Salinity, O ₂ , BT, OT, Core Samples	Michael Kyte, David Stein, John Hawley, Charles Culberson, Lyndal Brixius From Univ. of Washington: John Ambler, Patricia Loners From Univ. of Idaho: Kristy Beito, Kathy Robinson
Y7006-A	16-30 June	Between 44°08' and 46°30'N and up to 105 miles off New- port, Ore.	Temperature, Salinity, O ₂ , NO ₃ -NO ₂ , pH, alk., ECO ₂ , BT, Light Scattering, Drift bottles	Louis Gordon, George Beardsley, Dennis Barstow, Ron Jones, Nancy Scherer, Gertrude Margules, Mike King, Edward Seifert, Saul Alvarez-Borrego, David Ball, Richard Tomlinson, Lyndal Brixius, John Callaway, Ian Dunlap, Peter Kalk, Linda Mitchell, Allan Vogel, Douglas Coughenower From Univ. of Baja California: Maria Argote-Espinoya, A. Amador-Bueneostro, H. Cabrera-Muro From Lehigh Univ.: Matthew Hulbert From Dept. of Fisheries, Ore. St. Univ.: Taylor Poynter From Dept. of Production Technology, Ore. St. Univ.: Milton Sheeley
C7006-E	25 June - 2 July	Off Brookings and Newport, Ore. (3 to 165 miles)	Temperature, Salinity, BT, Drift bottles, MWT	James Washburn, Mark Halsey, Larry Carr From Dept. of Fisheries, Ore. St. Univ.: Taylor Poynter From Clatsop Community College: Scott Wills Observer: Alan Forrest
C7008-E	27 Aug. - 3 Sept.	Off Columbia River (35 to 145 miles)	Temperature, Salinity, BT, MWT, photometer readings	Dennis Barstow, Peter Kalk, Richard Evans, Mark Halsey, Ron Jones, Ron Kurahara From Dept. of Zoology, Ore. St. Univ.: Mike Scott
YALOC-70	17 July - 25 Aug.	Newport, Ore. to Adak, Alaska, to Juneau, Alaska, to Newport, Ore.	Temperature, Salinity, O ₂ , NO ₃ -NO ₂ , pH, core samples, Nephelometer, pCO ₂ , alk., PO ₄ , SiO ₄ , Magnetics, seismic profiling, BT	Lyndal Brixius, Jack Dymond, Hasong Pak, William Plank, Robert Bee, Timothy Baumgartner, David Ball, Paul Dauphin, Saul Alvarez- Borrego, Kenneth Bowman, David Cornwell, Ross Heath, Bruce Mal- fait, Steve Wilcox, James Rawers, Edward Seifert, Robert Lowell, Tom Sholes, Priscilla Harney, Michael Gemperle, Richard Couch, Gordon Ness, William MacFarlane, John Harlett, Vern Kulm, Mark Halsey, Robert Buehrig, Steve Johnson, Kenneth Scheidegger, Donald Heinrichs, Robert Whitsett From Univ. of Washington: Patricia Loners From Lebanon High School, Lebanon, Ore.: Keith Olmstead From Arizona State Univ.: James Sheffield From Clatsop Community College: Michael Tarker From Univ. of Calif. at Santa Cruz: Gary Griggs

TABLE 2 -- cont.

CRUISE	DATE	STATIONS	OBSERVATIONS	PERSONNEL
C7009-B	8-11 Sept.	Off of Coos Bay, Ore. (10 miles)	Temperature, Salinity, BT	James Washburn, Lyndal Brixius, Ron Jones, Jane Huyer Observers: Mark Branlund, Susan VanDyke From Lebanon High School, Lebanon, Ore.: Keith Olmstead
C7010-C	12-17 Oct.	Coos Bay, Ore. and south to Cape Blanco, Ore. (5 to 95 miles)	Temperature, Salinity, BT	Dennis Barstow, Lyndal Brixius, John Berman From Clatsop Community College: Rick Dornes, Kim Moline, Linda Prescott, Marsha Koos, David Baldwin
Y7011-B	19-22 Nov.	Off Newport, Ore. (3 to 165 miles)	Temperature, Salinity, O ₂ , BT, Drift bottles	Lyndal Brixius, Mark Halsey From Division of Continuing Education, Ore. St. Univ.: Sharon Fredrickson, Terry Klei, Janice Backstrom, Claire Lorenz, David Alteneder, Harrison Wilder, Rolland Kerr, Tom Burns, Patrick Cary, Susan Tubach, Martha Tubach, Mary McFarland, Sister Kieran, Mary Judge, Lillian Beck
Y7011-D	30 Nov. - 5 Dec.	Between Heceta Head and Newport, Ore. (1 to 205 miles)	Temperature, Salinity, O ₂ , Drift bottles, BT	Bruce Wyatt, Dennis Barstow, Lyndal Brixius, John Berman, Ron Jones From Clatsop Community College: Scott Wills, Linda Prescott, David McNalley, Linda Critelli, Thom Haight

Table 3. Hydrographic Data.



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)	(x10 ⁵)	(dyn.m)	
0	1	46 14.8 N	123 56.2 W	DATE 06 JAN 70		1934 GCT		WIRE 00		DRY 40.0 WET 37.0		CRUISE Y7001A			
WIND DIRECTION 07		VEL 18 KTS		BAR 27		SWELL DIRECTION		H		T		CLOUD 0 AMT 2		WEATHER 00	
0	7.24	24.436	7.12	1.02	8.08	1.86	13.1	53							
5	8.03	26.388	6.83	1.09		1.96	12.4	46							
0	02	46 15.5 N	124 00.2 W	DATE 06 JAN 70		2035 GCT		WIRE 16		DRY 43.0 WET 38.1		CRUISE Y7001A			
WIND DIRECTION 09		VEL 22 KTS		BAR 26		SWELL DIRECTION		H		T		CLOUD 0 AMT 2		WEATHER 02	
0	6.21	13.536	7.86	1.51	8.00	1.52	18.2	43		0	6.21	13.54	10.69	1678.7	0
5	6.50	16.469	7.67	1.18	8.03	1.58	17.0	47		10	6.72	17.40	13.68	1387.1	.153
10	6.72	17.396	7.61		8.06	1.69	16.3	52							
15	6.99	27.554	6.62	1.10	8.11	2.05	11.0	43							
0	03	46 14.5 N	124 05.7 W	DATE 06 JAN 70		2145 GCT		WIRE 20		DRY 42.0 WET 37.5		CRUISE Y7001A			
WIND DIRECTION 09		VEL 26 KTS		BAR 24		SWELL DIRECTION		H		T		CLOUD 0 AMT 7		WEATHER 03	
0	7.68	24.405	7.03		8.15	1.91		63							
5	7.96	25.471	6.90		8.18	1.98	11.7	60							
10	7.88	26.916	6.74		8.18	1.98	10.8	51							

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
O 04 46 00.0 N 124 11.0 W DATE 07 JAN 70 0011 GCT WIRE 00 DRY 45.0 WET 38.8 CRUISE Y7001A																
WIND DIRECTION 07 VEL 12 KTS BAR 14 SWELL DIRECTION25 H 04 T 07 CLOUD 6 AMT 7 WEATHER 02																
0	8.95	30.689	6.71		8.18	2.09	3.6	30		0	8.95	30.69	23.79	412.8	0	
5	9.05	30.739	6.72		8.20	2.09	3.6	23		10	10.02	31.16	23.98	394.6	.040	
10	10.02	31.152	6.45		8.16	2.11	3.9	21		20	10.49	32.04	24.59	337.1	.077	
15	10.39	31.764	6.31		8.16	2.14	3.9	15		30	10.56	32.35	24.82	315.4	.110	
20	10.49	32.032	6.17		8.16	2.15	3.9	14		50	10.31	32.76	25.18	281.3	.169	
25	10.53	32.172	6.18		8.16	1.88	4.0	20		75	9.48	33.36	25.78	224.1	.232	
30	10.56	32.343	6.16		8.16	2.19	4.1	14								
35	10.56	32.437	6.08		8.15	2.21	5.3	15								
40	10.52	32.490	6.02		8.15	2.19	5.5	13								
45	10.33	32.633	5.92		8.12	2.17	6.9	22								
50	10.31	32.755	5.72		8.08	1.94	9.2	18								
75	9.48	33.356	4.20		7.95	2.28	19.5	29								
O 05 46 00.0 N 124 18.2 W DATE 07 JAN 70 0135 GCT WIRE 01 DRY 44.5 WET 38.2 CRUISE Y7001A																
WIND DIRECTION 07 VEL 16 KTS BAR 23 SWELL DIRECTION25 H 04 T 08 CLOUD 6 AMT 6 WEATHER 01																
0	9.03	29.676	6.70				5.4	29		0	9.03	29.68	22.99	489.4	0	
5	9.28	29.959	6.65	.86			4.6	27		10	9.92	30.76	23.69	422.5	.046	
10	9.92	30.755	6.44	.93			4.3	21		20	10.43	32.14	24.68	328.3	.083	
15	10.18	31.573	6.37	.85			4.1	14		30	10.43	32.33	24.83	314.4	.115	
20	10.43	32.138	6.31	.82			3.2	9		50	10.60	32.56	24.97	301.0	.177	
25	10.57	32.250	6.26	.89			2.9	17		75	9.72	33.17	25.60	241.8	.245	
30	10.43	32.328	6.22	.83			3.3	19		100	9.28	33.51	25.93	210.6	.301	
35	10.46	32.399	6.25	.83			3.6	9								
40	10.51	32.455	6.23	.88			4.2	10								
45	10.47	32.488	6.22	.88			4.0	10								
50	10.60	32.552	6.13	1.04			4.6	15								
75	9.72	33.168	5.00	2.16			14.5	26								
100	9.28	33.503	3.94	1.65			21.8	27								
O 06 46 00.0 N 124 25.5 W DATE 07 JAN 70 0250 GCT WIRE 08 DRY 45.0 WET 39.5 CRUISE Y7001A																
WIND DIRECTION 07 VEL 16 KTS BAR 22 SWELL DIRECTION25 H 04 T 08 CLOUD 4 AMT 6 WEATHER 02																
0	8.91	29.435	6.75	.67			5.8	27		0	8.91	29.44	22.82	505.6	0	
5	8.90	29.418	6.74	.68			6.1	26		10	9.23	29.82	23.07	481.9	.049	
10	9.23	29.817	6.69	.70			5.5	23		20	10.08	31.21	24.01	392.2	.093	
15	9.84	30.688	6.45	.73			4.5	18		30	10.13	31.89	24.53	342.5	.130	
20	10.08	31.200	6.34	.99			4.2	17		50	10.36	32.32	24.83	314.3	.195	
25	10.06	31.640	6.45	.63			3.8	12		75	10.53	32.84	25.21	279.2	.270	
30	10.12	31.881	6.40	.88			3.1	10		100	8.90	33.55	26.03	201.5	.330	
35	10.24	32.031	6.37	.95			2.3	10								
40	10.34	32.216	6.32	.63			2.6	9								
45	10.26	32.276	6.33	1.00			2.5	9								
50	10.36	32.320	6.32	.64			2.5	8								
75	10.53	32.838	5.47	1.10			9.0	17								
100	8.90	33.547	3.62	1.71			21.2	32								
125	8.11	33.764	3.28	1.81			26.8	37								
O 07 46 00.1 N 124 39.8 W DATE 07 JAN 70 0430 GCT WIRE 00 DRY 46.5 WET 41.0 CRUISE Y7001A																
WIND DIRECTION 10 VEL 12 KTS BAR 21 SWELL DIRECTION25 H 04 T 08 CLOUD 6 AMT 6 WEATHER 02																
0	9.72	31.737	6.52	.76			3.4	12		0	9.72	31.74	24.48	346.4	0	
5	9.77	31.757	6.48	.80			3.6	11		10	9.89	31.84	24.54	341.7	.034	
10	9.89	31.839	6.47	.89			3.7	11		20	10.44	32.33	24.82	314.8	.067	
15	10.16	31.958	6.40	.88			2.9	10		30	10.49	32.38	24.85	311.6	.099	
20	10.44	32.322	6.32	.98			3.4	10		50	10.57	32.47	24.91	306.7	.160	
25	10.46	32.338	6.29	1.01			3.7	8		75	10.54	32.72	25.11	288.2	.235	
30	10.49	32.380	6.23	1.01			3.8	9		100	7.74	32.77	25.59	242.9	.301	
35	10.49	32.415	6.32	.96			3.1	7		150	7.58	33.61	26.27	178.9	.406	
40	10.50	32.428	6.30	.97			2.9	8								
45	10.48	32.435	6.33	.96			2.8	7								
50	10.57	32.469	6.23	1.06			3.4	7								
75	10.54	32.719	5.90	1.06			3.5	7								
100	7.74	32.764	5.73	1.39			7.0	11								
125	7.66	33.303	4.65	1.52			10.5	14								
150	7.58	33.609	4.11	1.09			19.6	24								

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
0	08	46	10.2	N	124	47.2	W	DATE 07 JAN 70	0615	GCT	WIRE 02	DRY 46.0	WET	41.0	CRUISE Y7001A		
WIND	DIRECTION	10	VEL	18	KTS	BAR 20	SWELL	DIRECTION28	H 04	T 08	CLOUD	6	AMT	7	WEATHER 02		
0	10.34	32.351	6.48	1.07				.7	6		0	10.34	32.36	24.86	310.7	0	
5	10.34	32.345	6.46	.52				.7	6		10	10.38	32.35	24.85	311.8	.031	
10	10.38	32.347	6.47	.50				.6	4		20	10.38	32.36	24.85	311.7	.062	
15	10.38	32.346	6.47	.48				.6	5		30	10.35	32.36	24.86	310.8	.093	
20	10.38	32.351	6.46	.50				.7	7		50	10.34	32.38	24.88	309.9	.155	
25	10.38	32.360	6.43	.59				.8	8		75	9.95	32.50	25.03	295.5	.231	
30	10.35	32.360	6.45	.53				.8	8		100	7.72	32.78	25.60	241.9	.298	
35	10.32	32.371	6.45	.53				.8	11		150	7.78	33.67	26.29	177.1	.403	
40	10.33	32.369	6.45	.54				1.0	6								
45	10.31	32.372	6.45	.52				.9	7								
50	10.34	32.375	6.44	.48				2.4	5								
75	9.95	32.491	6.29	1.24				4.4	3								
100	7.72	32.773	5.71	2.47				13.1	22								
125	8.00	33.353	4.53	1.43				22.6	25								
150	7.78	33.671	3.82	1.69				27.4	37								
0	09	46	10.1	N	124	32.3	W	DATE 07 JAN 70	0805	GCT	WIRE 02	DRY 44.0	WET	38.0	CRUISE Y7001A		
WIND	DIRECTION	09	VEL	26	KTS	BAR 20	SWELL	DIRECTION28	H 04	T 08	CLOUD	6	AMT	7	WEATHER 02		
0	7.89	28.293	7.08								0	7.90	28.30	22.07	577.2	0	
5	7.99	28.260	7.06	.64				7.3	32		10	9.43	30.96	23.92	400.6	.049	
10	9.43	30.950	6.74	.66				3.3	16		20	10.26	32.25	24.79	318.0	.085	
15	9.72	31.441	6.54	.63				5.5	13		30	10.28	32.33	24.85	312.1	.116	
20	10.26	32.240	6.44	.59				2.7	8		50	10.40	32.44	24.92	306.2	.178	
25	10.32	32.312	6.44	.58				3.0	7		75	10.48	32.85	25.22	277.8	.251	
30	10.28	32.327	6.34	.60				3.1	8		100	9.54	33.22	25.66	236.0	.315	
35	10.31	32.352	6.35	.61				3.2	8								
40	10.39	32.364	6.36	.60				3.1	10								
45	10.36	32.432	6.35	.62				3.9	8								
50	10.40	32.438	6.25	.68				3.8	8								
75	10.48	32.847	5.72	.96				9.6	13								
100	9.54	33.214	4.72	1.31				17.0	27								
125	8.09	33.809	3.11	1.92				29.6	39								
0	10	46	10.0	N	124	25.4	W	DATE 07 JAN 70	0934	GCT	WIRE 04	DRY 42.4	WET	37.0	CRUISE Y7001A		
WIND	DIRECTION	09	VEL	20	KTS	BAR 20	SWELL	DIRECTION28	H 04	T 07	CLOUD	6	AMT	7	WEATHER 02		
0	7.94	28.166	6.96	.70				7.0	34		0	7.94	28.17	21.95	587.3	0	
5	8.01	28.221	7.04	.66				7.0	38		10	8.36	28.44	22.11	573.1	.058	
10	8.36	28.431	6.88	.75				6.6	36		20	9.66	31.04	23.95	397.6	.107	
15	9.74	30.442	6.53	.72				4.8	19		30	9.82	31.91	24.60	335.8	.143	
20	9.66	31.040	6.46					5.0	20		50	10.50	32.48	24.93	304.8	.207	
25	9.91	31.585	6.47	.69				3.2	14		75	10.17	33.20	25.55	246.8	.276	
30	9.82	31.908	6.18	.63				3.4	17		100	8.14	33.64	26.21	184.1	.330	
35	10.01	32.103	6.46	.67				3.3	14								
40	10.26	32.352	6.04	.68				3.6	16								
45	10.42	32.423	6.02	.66				3.7	8								
50	10.50	32.479	6.16	.68				4.3	8								
75	10.17	33.197	4.82	1.30				15.0	23								
100	8.14	33.631	3.12	1.59				26.0	42								
0	11	46	10.0	N	124	18.2	W	DATE 07 JAN 70	1201	GCT	WIRE 22	DRY 42.8	WET	37.2	CRUISE Y7001A		
WIND	DIRECTION	09	VEL	22	KTS	BAR 18	SWELL	DIRECTION29	H 05	T 07	CLOUD	6	AMT	8	WEATHER 03		
0	7.75	26.610	7.01	.83				9.4	45		0	7.76	26.61	20.77	701.5	0	
5	7.85	26.655	7.03	.94				9.4	45		10	8.10	28.02	21.82	600.7	.065	
10	8.10	28.016	6.73	.86				7.6	36		20	10.31	31.49	24.19	374.7	.114	
15	8.43	28.881		.84				6.5	30		30	10.52	32.18	24.69	327.3	.149	
20	10.31	31.485	6.16	.84				3.4	14		50	10.52	32.56	24.98	299.7	.212	
25	10.49	31.911	6.44	.81				3.2	10		75	8.79	32.58	25.28	271.8	.283	
30	10.52	32.174	6.07	.80				3.3	9								
35	10.56	32.315	6.12	.87				4.0	18								
40	10.57	32.404	5.96	.90				4.7	11								
45	10.54	32.524	6.04	.98				5.2	10								
50	10.52	32.552	6.04	1.13				5.3	16								
75	9.79	32.571	4.43	1.70				20.5	23								
0	12	46	10.0	N	124	11.0	W	DATE 07 JAN 70	1237	GCT	WIRE 12	DRY 43.2	WET	37.9	CRUISE Y7001A		
WIND	DIRECTION	09	VEL	26	KTS	BAR 17	SWELL	DIRECTION28	H 04	T 07	CLOUD	6	AMT	8	WEATHER 02		
0	8.41	28.665	6.79	2.46				7.1	34		0	8.41	28.67	22.29	556.2	0	
5	8.44	28.669	6.76	1.00				7.1	31		10	8.63	28.99	22.51	535.2	.055	
10	8.63	28.987	6.68	1.16				6.7	33		20	10.53	32.25	24.74	322.4	.097	
15	10.47	31.972	6.17	.80				3.3	10		30	10.52	32.54	24.97	300.4	.129	
20	10.53	32.240	6.05	.79				3.5	9		50	9.78	33.11	25.54	246.6	.183	
25	10.57	32.430	5.01	.94				4.3	9								
30	10.52	32.538	5.72					6.1	19								
35	10.40	32.637	5.68	1.12				6.7	12								
40	10.25	32.836	5.55	1.15				9.6	17								
45	10.07	32.949	5.28	1.37				12.0	18								
50	9.78	33.109	4.83	1.51				15.4	21								

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		($\times 10^5$)	(dyn.m)

0 19 46 19.7 N 125 08.5 W DATE 07 JAN 70 2218 GCT WIRE 09 DRY 46.2 WET 42.1 CRUISE Y7001A
WIND DIRECTION 09 VEL 22 KTS BAR 12 SWELL DIRECTION 27 H 05 T 07 CLOUD 6 AMT 8 WEATHER 02

0	10.11	32.390	6.48	.56	8.19	2.17	1.3	5	0	10.11	32.39	24.93	304.1	0
5	10.13	32.388	6.49	.58	8.19	2.17	1.3	5	10	10.15	32.39	24.92	304.9	.030
10	10.15	32.390	6.50	.60	8.19	2.17	1.4	5	20	10.17	32.39	24.92	305.5	.061
15	10.16	32.391	6.49	.61	8.19	2.17	1.3	5	30	10.13	32.39	24.92	305.1	.091
20	10.17	32.389	6.46	.59	8.20	2.17	1.3	5	50	10.13	32.39	24.92	305.4	.153
25	10.16	32.387	6.48	.59	8.20	2.19	1.3	5	75	8.45	32.67	25.41	259.5	.223
30	10.12	32.386	6.46	.62	8.19	2.17	1.4	5	100	7.81	33.09	25.83	219.6	.283
35	10.12	32.388	6.47	.74	8.20	2.19	1.5	5	150	7.94	33.75	26.33	173.7	.381
40	10.12	32.387	6.50	.60	8.20	2.17	2.1	6						
45	10.10	32.388	6.48	.61	8.20	2.19	2.0	6						
50	10.13	32.390	6.46	.62	8.19	2.17	1.7	5						
75	8.45	32.669	5.99	1.06	8.10	2.19	9.2	10						
100	7.80	33.088	4.97	1.45	7.99	2.21	20.1	20						
125	7.99	33.469	4.12	1.81	7.91	2.23	27.8	28						
150	7.94	33.747	3.48	2.01	7.88	2.25	32.3	34						

0 20 46 30.0 N 125 08.8 W DATE 07 JAN 70 2359 GCT WIRE 05 DRY 46.4 WET 42.0 CRUISE Y7001A
WIND DIRECTION 10 VEL 20 KTS BAR 11 SWELL DIRECTION 27 H 05 T 07 CLOUD 6 AMT 7 WEATHER 01

0	10.15	32.345	6.46	0	10.15	32.35	24.89	308.1	0
5	10.16	32.345	6.46	10	10.19	32.35	24.88	308.9	.031
10	10.19	32.345	6.47	20	10.19	32.35	24.88	308.8	.062
15	10.20	32.347	6.46	30	10.14	32.35	24.89	308.3	.093
20	10.19	32.349	6.46	50	10.11	32.35	24.89	308.4	.154
25	10.18	32.348	6.47	75	7.90	32.63	25.46	254.8	.225
30	10.14	32.347	6.46	100	7.95	33.17	25.87	216.3	.283
35	10.12	32.343	6.47	150	7.90	33.73	26.32	174.1	.381
40	10.13	32.344	6.48						
45	10.10	32.344	6.46						
50	10.11	32.345	6.47						
75	7.89	32.627	6.13						
100	7.95	33.161	4.67						
125	7.98	33.426	4.19						
150	7.90	33.734	3.55						

0 21 46 30.0 N 124 54.2 W DATE 08 JAN 70 0153 GCT WIRE 08 DRY 46.3 WET 41.5 CRUISE Y7001A
WIND DIRECTION 10 VEL 22 KTS BAR 10 SWELL DIRECTION 27 H 04 T 08 CLOUD 6 AMT 8 WEATHER 02

0	10.20	32.307	6.46	0	10.20	32.31	24.85	311.7	0
5	10.20	32.308	6.43	10	10.24	32.31	24.84	312.5	.031
10	10.24	32.307	6.44	20	10.26	32.32	24.84	312.5	.062
15	10.27	32.307	6.44	30	10.23	32.32	24.85	312.4	.094
20	10.26	32.314	6.45	50	10.36	32.35	24.85	312.7	.156
25	10.25	32.315	6.44	75	10.28	32.87	25.27	273.1	.229
30	10.23	32.312	6.44	100	9.64	33.30	25.71	231.6	.292
35	10.23	32.313	6.44	150	8.38	33.75	26.26	179.6	.395
40	10.26	32.312	6.44						
45	10.23	32.315	6.42						
50	10.36	32.341	6.40						
75	10.28	32.865	5.75						
100	9.64	33.295	4.58						
125	9.29	33.554	3.71						
150	8.38	33.753	3.24						

0 22 46 30.0 N 124 39.8 W DATE 08 JAN 70 0355 GCT WIRE 03 DRY 45.3 WET 41.0 CRUISE Y7001A
WIND DIRECTION 10 VEL 25 KTS BAR 10 SWELL DIRECTION 27 H 04 T 08 CLOUD 6 AMT 8 WEATHER 63

0	10.19	32.334	6.39	0	10.19	32.34	24.87	309.5	0
5	10.20	32.338	6.37	10	10.24	32.34	24.86	310.7	.031
10	10.24	32.332	6.38	20	10.30	32.41	24.91	306.2	.062
15	10.25	32.330	6.37	30	10.08	32.48	25.00	297.5	.092
20	10.30	32.408	6.33	50	10.25	32.66	25.11	287.9	.151
25	10.29	32.490	6.33	75	10.43	32.93	25.29	271.0	.220
30	10.08	32.480	6.36	100	10.13	33.12	25.49	252.3	.286
35	10.11	32.510	6.32	150	8.03	33.77	26.33	173.6	.392
40	10.06	32.520	6.33						
45	10.12	32.580	6.21						
50	10.25	32.653	6.07						
75	10.43	32.928	5.63						
100	10.12	33.119	5.02						
125	8.81	33.444	4.12						
150	8.03	33.766	3.26						

0	9.04	31.428	6.68	.88	4.7	12	0	9.04	31.43	24.35	359.2	0
5	9.07	31.426	6.63	.55	4.8	12	10	9.10	31.48	24.38	356.6	.036
10	9.10	31.476	6.59	.74	4.8	12	20	9.36	31.69	24.50	345.1	.071
15	9.20	31.560	6.62	.63	4.7	11	30	9.68	32.21	24.86	311.5	.104
20	9.36	31.686	6.65	.61	4.4	11	50	9.76	32.28	24.89	300.3	.166
25	9.65	32.022	6.60	.61	3.6	8	75	8.83	32.65	25.33	267.0	.238
30	9.68	32.207	6.48	.59	3.2	6	100	8.05	32.86	25.62	240.2	.301
35	9.67	32.219	6.50	.52	3.0	6						
40	9.70	32.254	6.55	.57	3.0	5						
45	9.71	32.256	6.52	.59	3.0	5						
50	9.76	32.271	6.45	.46	3.1	5						
75	8.83	32.644	5.88	.98	11.3	11						
100	8.05	32.853		1.34	18.7	18						
125	8.40	33.483	4.02	1.84	27.4	28						

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	

0 30 46 40.0 N 124 54.3 W DATE 08 JAN 70 1440 GCT WIRE 08 DRY 43.0 WET 41.5 CRUISE Y7001A
WIND DIRECTION 10 VEL 30 KTS BAR 08 SWELL DIRECTION 25 H 04 T 08 CLOUD 5 AMT 8 WEATHER 65

0	10.07	32.365	6.40	.63				3.6	6	0	10.07	32.37	24.92	305.3	0
5	10.07	32.366	6.38	.65				3.7	7	10	10.10	32.37	24.91	306.1	.031
10	10.10	32.364	6.37	.61				3.7	6	20	10.11	32.37	24.91	306.6	.061
15	10.11	32.360	6.40	.59				3.5	6	30	10.10	32.37	24.91	306.4	.092
20	10.11	32.362	6.39	.57				3.4	6	50	10.42	32.89	25.26	273.1	.150
25	10.11	32.380	6.36	.58				3.6	6	75	10.26	32.99	25.37	263.7	.217
30	10.10	32.365	6.37	.59				3.4	6	100	9.85	33.50	25.83	220.3	.277
35	10.17	32.503	6.31	.72				5.8	8	150	8.51				
40	10.26	32.582	6.03	.79				7.4	9						
45	10.38	32.691		.92				9.3	12						
50	10.42	32.890	5.72	1.31					14						
75	10.26	32.988		1.26					16						
100	9.85	33.492	4.90	1.49					20						
125	8.92	33.663	3.91	1.89					28						
150	8.51		3.58	2.13					34						

08 25 45 00.0 N 124 34.7 W DATE 09 JAN 70 1516 GCT WIRE 04 DRY 48.0 WET 47.5 CRUISE Y7001A
WIND DIRECTION 15 VEL 10 KTS BAR 01 SWELL DIRECTION 20 H 04 T 08 CLOUD 5 AMT 8 WEATHER 63

0	9.96	32.559	6.42	.77	8.18	2.09	5.6	10	2.03	0	9.96	32.56	25.08	289.2	0
10	9.96	32.567	6.43	.78	8.18	2.09	5.6	10	2.06	10	9.96	32.57	25.09	288.8	.029
20	9.99	32.580	6.45	.82	8.18	2.09	5.9	10	2.07	20	9.99	32.58	25.10	288.5	.058
30	10.08	32.617	6.42	.79	8.18	2.09	5.7	11	2.02	30	10.08	32.62	25.11	287.4	.087
50	10.21	33.678	6.38	.80	8.17	2.21	5.6	9	2.04	50	10.21	33.68	25.91	211.4	.136
75	10.81	33.172	5.34	1.28	8.05	2.21	12.1	16	2.09	75	10.81	33.18	25.42	259.3	.195
100	10.35	33.337	4.76	1.35	8.01	2.23		19	2.10	100	10.36	33.34	25.62	240.1	.258
125	9.28	33.649	3.60	1.76	7.89	2.23		28	2.19	150	9.05	33.73	26.14	191.3	.365
150	9.05	33.728	3.31	1.91	7.87	2.23	25.5	31	2.16	200	8.44	33.85	26.33	174.5	.457
200	8.44	33.846	2.99	2.01	7.84	2.26	27.7	35	2.12						

08 10 44 52.9 N 124 16.3 W DATE 09 JAN 70 1735 GCT WIRE 02 DRY 48.0 WET 47.5 CRUISE Y7001A
WIND DIRECTION 05 VEL 04 KTS BAR 02 SWELL DIRECTION 20 H 04 T 07 CLOUD 6 AMT 8 WEATHER 61

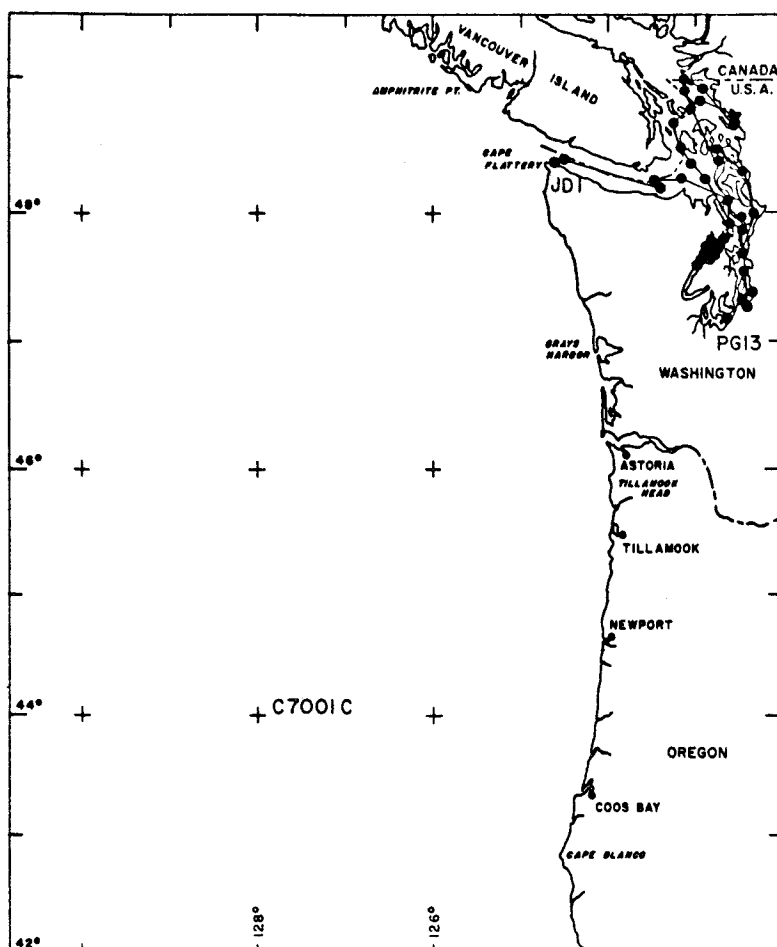
0	9.30	31.767	6.54	.76	8.16	2.11	7.4	14	1.97	0	9.30	31.77	24.57	337.8	0
10	9.36	31.890	6.53	.87	8.16	2.14	7.8	14	1.99	10	9.36	31.90	24.66	329.8	.033
20	9.42	31.905	6.54	.86	8.17	2.14	7.9	14	2.03	20	9.42	31.91	24.66	329.7	.066
30	9.93	32.065	6.35	.60	8.15	2.14	5.2	9	2.10	30	9.93	32.07	24.70	325.9	.099
50	10.53	32.658	6.01	.78	8.12	2.19	6.7	9	2.07	50	10.53	32.66	25.07	292.1	.161
75	10.57	32.944	5.64	1.17	8.07	2.19	12.5	16	2.12	75	10.57	32.95	25.28	272.1	.231
100	9.44	33.485	4.10	1.56	7.93	2.26	21.9	26	2.17	100	9.44	33.49	25.89	214.4	.292

08 5 44 50.5 N 124 10.2 W DATE 09 JAN 70 1835 GCT WIRE 01 DRY 47.8 WET 47.5 CRUISE Y7001A
WIND DIRECTION 34 VEL 05 KTS BAR 02 SWELL DIRECTION 20 H 04 T 07 CLOUD 6 AMT 8 WEATHER 61

0	9.31	31.845	6.53	.91	8.15	2.17	8.2	15	1.96	0	9.31	31.85	24.63	332.2	0
10	9.37	31.925	6.53	.93	8.15	2.17	8.5	15	2.03	10	9.38	31.93	24.69	327.3	.033
20	9.42	31.943	6.50	1.01	8.15	2.17	8.8	16	1.96	20	9.42	31.95	24.69	326.9	.066
30	9.53	32.016	6.43	.84	8.16	2.19	8.9	15	1.97	30	9.53	32.02	24.73	323.3	.098
50	10.61	32.903	5.78		8.03	2.23	7.1	10	2.01	50	10.61	32.91	25.24	275.3	.158

08 3 44 49.4 N 124 07.3 W DATE 09 JAN 70 1937 GCT WIRE 02 DRY 46.8 WET 46.1 CRUISE Y7001A
WIND DIRECTION 02 VEL 12 KTS BAR 02 SWELL DIRECTION 20 H 04 T 07 CLOUD 6 AMT 8 WEATHER 61

0	9.06	31.632	6.62	.91	8.15		6.6	14	1.95						
10	9.12	31.731	6.60	1.08	8.15	2.14	7.9	15	1.97						
20	9.29	31.779	6.59	.95	8.13	2.15	8.1	15	1.93						
30		32.679	6.06	.76	8.12	2.19	6.3	9	1.95						



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

JD 1 48 22.2 N 124 37.3 W DATE 16 JAN 70 2122 GCT WIRE 00 DRY 39.5 WET 33.5 CRUISE C7001C
WIND DIRECTION 10 VEL 16 KTS BAR 16 SWELL DIRECTION H T CLOUD 6 AMT 7 WEATHER 01

0	6.60	6.49
4	6.66	6.64

JD 2 48 23.6 N 124 30.4 W DATE 16 JAN 70 2330 GCT WIRE 35 DRY 41.5 WET 35.5 CRUISE C7001C
WIND DIRECTION 10 VEL 30 KTS BAR 16 SWELL DIRECTION H 08 T 04 CLOUD 6 AMT 7 WEATHER 02

0	7.71	31.092	6.34	8.00	0	7.71	31.10	24.28	365.7	0
10	7.71	31.088	6.31	8.01	2.09	10	7.71	31.09	24.28	366.1
20	7.77	31.124	6.21	8.02	2.09	20	7.78	31.13	24.30	364.3
30	7.87	31.269	6.05	8.03	2.11	30	7.88	31.27	24.40	355.0
40	7.96	31.371	5.03	8.03	2.09	50	8.02	31.42	24.49	346.6
50	8.02	31.412	5.93	8.01	2.11	75	8.03	31.50	24.55	340.9
77		31.516		7.99	2.09	100	8.04	32.02	24.96	302.4
102	8.04	32.035	5.07	7.94	2.09					

JD 3 48 10.1 N 127 24.1 W DATE 17 JAN 70 1214 GCT WIRE 00 DRY 37.0 WET 35.0 CRUISE C7001C
WIND DIRECTION VEL 00 KTS BAR 09 SWELL DIRECTION H T CLOUD 8 AMT 8 WEATHER 02

0	7.47	31.476	5.69	7.91	2.07	0	7.47	31.48	24.62	333.9	0
10	7.67	31.511	5.50	7.91	2.05	10	7.68	31.62	24.69	326.6	.033
20	7.73	31.731	5.35	7.91	2.05	20	7.73	31.74	24.78	318.5	.065
30	7.72	31.771	5.34	7.91	2.07	30	7.72	31.78	24.81	315.6	.097
40	7.74	31.792	5.26	7.91	2.07	50	7.82	31.81	24.83	314.4	.160
50	7.81	31.806	5.20	7.91	2.07	75	8.01	32.41	25.27	273.1	.233
63	7.89	32.021	3.36	7.90	2.09						
76	8.02	32.447	3.47	7.89	2.09						

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

JOB NO	WIND DIRECTION	SPEED	TEMP	DATETIME	SWELL DIRECTION	HEIGHT	CLOUD	WET	CRUISE
4	01	M	N	17 JAN 70	GCT	13	37.0	34.0	07001C
13.6	VEL	KTS	29.2	BAR	09	SWELL	8	8	WEATHER
W									02
0	7.48	31.417	5.84	7.89	2.07	0	7.48	31.42	24.57 338.4 .0
20	7.64	31.500	5.54	7.89	2.07	10	7.60	31.43	24.56 339.2 .034
40	7.85	31.635	5.25	7.88	2.07	20	7.69	31.50	24.61 335.1 .068
61	7.85	31.827	5.18	7.89	2.09	30	7.78	31.56	24.64 332.3 .101
82	8.02	32.024	4.93	7.89	2.11	50	7.85	31.72	24.75 321.5 .166
102	8.10	32.456	4.37	7.89		75	7.96	31.94	24.91 306.9 .245
122	8.29	32.683	4.30	7.89	2.14	100	8.09	32.41	25.26 274.2 .317
143	8.05	32.707	4.26	7.89	2.15				

JD	5	48	15.0	N	123	09.9	W	DATE	17	JAN	70	1705	GCT	WIRE	00	DRY	37.5	WET	36.0	CRUISE	C7001C
WIND	DIRECTION	05	VEL	05	KTS	BAR	10	SWELL	DIRECTION	H	T	CLOUD	6	AMT	8	WEATHER	02				
0	7.54	30.717	5.61			7.90	2.03					0	7.55	30.72		24.01	391.5		0		
20	7.87	31.192	5.31			7.87	2.03					10	7.84	31.12		24.28	365.8		.038		
41	7.93	31.343	4.77			7.88	2.05					20	7.88	31.20		24.34	360.6		.074		
61	7.91	31.436	5.04			7.88	2.05					30	7.92	31.29		24.40	354.5		.110		
82	7.94	31.652	4.82			7.89	2.09					50	7.92	31.38		24.48	347.9		.180		
102	7.98	31.719	4.93			7.89	2.09					75	7.93	31.58		24.63	333.4		.265		
122	8.08	31.970	4.77			7.89	2.09					100	7.97	31.71		24.73	324.7		.348		

[illegible]

H 1 47 54.5 N 122 37.3 W				DATE 18 JAN 70 0143 GCT			WIRE 00		DRY 38.8 WET 38.5		CRUISE C70010	
WIND DIRECTION VEL 00 KTS				BAR 11 SWELL DIRECTION			H T		CLOUD 7 AMT 8		WEATHER 02	
0	7.64	29.404	5.78	7.82	2.05		0	7.65	29.41	22.97	490.9	0
10	7.84	29.460	5.70	7.81	2.05		10	7.84	29.46	22.99	489.4	.049
20	8.09	30.112	5.49	7.82	2.09		20	8.09	30.12	23.46	444.1	.096
30	8.05	30.262	5.41	7.83	2.11		30	8.05	30.27	23.58	432.5	.140
40	8.06	30.317	5.10	7.83	2.09		50	8.10	30.38	23.66	425.1	.225
50	8.10	30.373		7.85	2.09		75	8.10	30.54	23.79	413.4	.330
77	8.10	30.549	5.54	7.85	2.11							
92	8.06	30.580	5.38	7.85	2.11							

H	WIND	2	47	47.5 N	122	42.6 W	DATE 18	JAN 70	0500 GCT	WIRE 00	DRY 43.6	WET 39.3	CRUISE C70010
	DIRECTION			VEL 00 KTS			BAR 10	SWELL	DIRECTION	H	T	CLOUD 6	AMT 8 WEATHER 02
0	7.89	29.261	5.07		7.81	2.05							
10		30.045	4.52		7.74	2.09							
20		30.164	4.83		7.80	2.09							
30		30.160	5.03		7.81	2.09							
40	8.24	30.161	5.05		7.81	2.10							

WIND DIRECTION 08		VEL 06 KTS	BAR 09	SWELL DIRECTION	WIRE H	T	DRY 42.2	WET 41.8	CRUISE C70010
0	6.33	5.47	7.87	1.69					
20		4.34	7.74	2.09					
30		4.28	7.74	2.09					
40		4.38	7.74	2.11					
50		4.46	7.75	2.11					
61		4.44	7.76	2.11					
72		4.48	7.77	2.09					
82		4.62	7.77	2.09					
92		4.71	7.79	2.11					
102	4.49	4.96	7.80	2.11					

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

M 4 47 38.7 N 122 53.3 W DATE 18 JAN 70 1757 GCT WIRE 07 DRY 42.5 WET 41.3 CRUISE C7001C
WIND DIRECTION 02 VEL 06 KTS BAR 10 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02

0	6.47	6.91	7.93	1.56
10		28.763	4.85	2.05
30		30.215	3.96	2.09
50		30.308	3.93	2.11
72		30.389	3.75	2.11
92		30.411	3.82	2.11
112		30.318	4.03	2.11
132	8.91	30.333	3.60	2.14
147		30.409	4.13	2.14

H 5 47 40.5 N 122 52.1 W DATE 18 JAN 70 1833 GCT WIRE 00 DRY 47.2 WET 44.0 CRUISE C7001C
 WIND DIRECTION VEL 00 KTS BAR 10 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02

0	7.17	6.16	7.83	1.88
10		4.22	7.69	2.03
20		3.96	7.69	2.05
30		4.00	7.69	2.05
50		3.96	7.69	2.07
72		4.44	7.73	2.07
92		4.59	7.76	2.05
112	8.53	4.80	7.77	2.05
122		4.82	7.78	2.05

H 6 47 35.2 N 122 58.7 W DATE 18 JAN 70 2055 GCT WIRE 00 DRY 45.0 WET 44.5 CRUISE C70010
WIND DIRECTION VEL 00 KTS BAR 10 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 01

0	6.33	15.680	7.54	7.86	1.39	0	6.33	15.68	12.36	1515.0	0
3	7.72		5.79	7.79	1.98	10	8.24	29.93	23.30	459.9	.099
6	7.95		5.58	7.79	2.01	20	8.92	30.10	23.33	456.7	.145
15		30.016	3.64	7.68	2.11	30	8.20	30.28	23.57	433.8	.189
30		30.271	3.68	7.69	2.14	50	8.41	30.39	23.63	428.7	.275
50		30.382	3.56	7.68	2.14	75	8.68	30.44	23.63	428.9	.383
77		30.440	3.53	7.68	2.14	100	8.94	30.46	23.61	431.4	.490
102		30.461	3.39	7.68	2.19	150	9.47	30.46	23.53	439.8	.708
132		30.468	3.78	7.69	2.17						
142		30.465	3.83	7.68	2.17						
152	9.49	30.462	3.84	7.68	2.17						
162		30.462	3.85	7.68	2.19						

H 7A 47 42.6 N 122 52.8 W DATE 19 JAN 70 0025 GCT WIRE 00 DRY 46.5 WET 46.0 CRUISE C7001C
WIND DIRECTION VEL 00 KTS BAR 11 SWELL DIRECTION H T CLOUD 7 AMT 8 WEATHER 02

0	7.20	6.28	7.84	1.91	0	7.20
5	7.79	5.75	7.78	2.01	10	8.59
10	8.59	4.96	7.74	2.05	20	8.77
20		4.08	7.69	2.09	30	8.95
30		3.83	7.68	2.11	50	9.31
40		4.02	7.68	2.14		
50		3.91	7.68	2.11		
61	9.51	3.80	7.68	2.11		
72		3.59	7.67	2.30		

W 8 47 45.2 N 122 49.2 W DATE 19 JAN 70 0158 GCT WIRE 00 DRY 47.0 WET 46.1 CRUISE C7001C
WIND DIRECTION VEL 00 KTS BAR 11 SWELL DIRECTION H T CLOUD 8 AMT 8 WEATHER 02

0	7.63	27.883	5.90	7.80	2.07
5	8.08	28.726	5.56	7.80	2.11
15		29.562	4.64	7.76	2.15
30		30.253	3.62	7.69	2.19
50		30.410	3.26	7.67	2.21
77		30.368	3.24	7.67	2.21
102		30.457	3.66	7.71	2.21
112		30.457	3.76	7.71	2.19
122		30.455	3.89	7.71	2.19
132		30.461	3.89	7.72	2.19
142		30.466	3.74	7.71	2.19
151		30.470	3.91	7.73	2.21
162		30.470	3.96	7.73	2.19
173	9.23	30.470	3.99	7.73	2.19
183		30.475	3.64	7.71	2.19

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

M 88 47 45.8 N 122 49.9 W DATE 19 JAN 70 0248 GCT WIRE 00 DRY 47.0 WET 46.1 CRUISE C70010
WIND DIRECTION VEL 00 KTS BAR 11 SWELL DIRECTION H T CLOUD 8 AMT 8 WEATHER 02

174	9.26	30.468	4.16	7.72	2.19	1.95
176		30.468	3.94	7.72	2.21	1.96
178		30.461	3.94	7.72	2.21	1.93
180		30.462	3.81	7.71	2.19	1.94
183		30.466	3.74	7.67	2.17	2.00

M 9 47 47.8 N 122 51.5 W DATE 19 JAN 70 1539 GCT WIRE 00 DRY 47.9 WET 47.9 CRUISE C70010
WIND DIRECTION VEL 00 KTS BAR 04 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 05

0	8.00		5.65	7.74	2.01
3	8.09	28.013	5.00	7.78	2.02
6	8.38	28.668	4.91	7.74	2.05
10	8.63	29.218	4.73	7.73	2.07
16		29.518	4.15		2.11

M 10 47 46.5 N 122 51.4 W DATE 19 JAN 70 1643 GCT WIRE 00 DRY 48.5 WET 48.5 CRUISE C70010
WIND DIRECTION 16 VEL 11 KTS BAR 03 SWELL DIRECTION H T CLOUD 7 AMT 8 WEATHER 05

0	8.09	28.539	5.63	0	8.09	28.54	22.23	562.1	0
3	8.18	28.716	5.29	10	8.60	29.27	22.73	514.0	.054
6	8.36	28.929	5.00	20	9.23	29.65	22.93	494.7	.104
9	8.54	29.196	4.90	30	9.63	29.98	23.13	476.1	.153
15	8.93	29.543	4.33	50	9.31	30.40	23.50	440.7	.244
20	9.23	29.647	4.28	75	8.68	30.45	23.64	428.2	.353
40	9.75	30.298	3.38						
61		30.422	3.30						
81		30.450	3.35						
91		30.452	3.49						

M 11B 47 46.0 N 122 49.3 W DATE 19 JAN 70 1740 GCT WIRE 00 DRY 49.5 WET 49.5 CRUISE C70010
HIND DIRECTION 17 VEL 15 KTS BAR 03 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 05

0	7.50	6.23	
3	7.57	6.01	
6	8.03	5.48	
9	8.16	5.35	
12	8.70	4.81	
144*	9.30	3.92	1.90
147*		3.93	1.85
153*		3.80	1.95
162*		3.77	1.96
175*		3.66	1.98

W 12 47 47.9 N 122 48.3 W DATE 19 JAN 70 1921 GCT WIRE 00 DRY 52.0 WET 50.9 CRUISE C70010
WIND DIRECTION 16 VEL 18 KTS BAR 03 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02

0	7.45	6.36	0	7.45	0
3	7.45	6.23	10	7.91	28.36
10	7.90	28.358	20	8.76	30.06
30	9.53	30.181	30	9.53	30.19
50	9.95	30.422	50	9.95	30.43
71	9.73	30.457	75	8.99	30.46
92		30.431			

W 13 47 36.7 N 122 54.2 W DATE 19 JAN 70 2103 GCT WIRE 00 DRY 50.0 WET 46.0 CRUISE C7001C
WIND DIRECTION 22 VEL 12 KTS BAR 14 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02

0	7.23	19.184
3	8.21	28.420
6	8.41	28.850

H 14 47 38.5 N 122 54.5 W DATE 19 JAN 70 2116 GCT WIRE 00 DRY WET CRUISE C70010
WIND DIRECTION 22 VEL 12 KTS BAR 14 SWELL DIRECTION M T CLOUD 6 AMT 8 WEATHER 02

0	7.32	18.600
3	8.08	27.422
6	8.46	28.850

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
M 15	47	38.4	N	122	54.9	W	DATE 19	JAN 70	2132	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION	22	VEL	12	KTS	BAR 14	SWELL		DIRECTION	H	T	CLOUD	6	AMT	8 WEATHER 02	
0	7.19	17.390														
3	7.87	27.714														
6	8.45	28.762														
M 16	47	38.3	N	122	55.4	W	DATE 19	JAN 70	2148	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION	22	VEL	12	KTS	BAR 14	SWELL		DIRECTION	H	T	CLOUD	6	AMT	8 WEATHER 02	
0	7.24	18.460														
3	8.01	27.823														
6	8.49	28.349														
M 17	47	38.2	N	122	55.8	W	DATE 19	JAN 70	2201	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION	22	VEL	12	KTS	BAR 14	SWELL		DIRECTION	H	T	CLOUD	6	AMT	8 WEATHER 02	
0	7.25	19.270														
3	8.34	28.231														
6	8.64	28.991														
M 18	47	38.1	N	122	51.3	W	DATE 19	JAN 70	2219	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 14	SWELL		DIRECTION	H	T	CLOUD	6	AMT	8 WEATHER 02	
0	7.28	23.841														
3	7.80	27.386														
6	8.56	28.574														
M 19	47	37.9	N	122	56.1	W	DATE 19	JAN 70	2235	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 14	SWELL		DIRECTION	H	T	CLOUD	6	AMT	8 WEATHER 02	
0	7.60	18.910														
3	7.71	23.030														
6	8.24	27.938														
M 20	47	38.2	N	122	55.3	W	DATE 19	JAN 70	2253	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 15	SWELL		DIRECTION	H	T	CLOUD	6	AMT	7 WEATHER 02	
0	7.60	20.460														
3	7.98	25.262														
6	8.32	28.273														
M 21A	47	38.3	N	122	54.9	W	DATE 19	JAN 70	2257	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 15	SWELL		DIRECTION	H	T	CLOUD	6	AMT	7 WEATHER 02	
0		19.100														
3		23.812														
6		28.254														
M 21B	47	38.3	N	122	54.9	W	DATE 19	JAN 70	2307	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 15	SWELL		DIRECTION	H	T	CLOUD	6	AMT	7 WEATHER 02	
0	6.30	6.160														
3	11.48	26.533														
6	9.19	28.477														
M 22	47	39.4	N	122	54.4	W	DATE 19	JAN 70	2315	GCT	WIRE 00	DRY	WET	CRUISE C7001C		
WIND	DIRECTION		VEL	00	KTS	BAR 16	SWELL		DIRECTION	H	T	CLOUD	6	AMT	7 WEATHER 02	
0	6.00	2.840														
3	7.75	21.788														
6	7.93	26.788														
M 23	47	38.5														

OBSERVED

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COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁻³)	(dyn.m)	
H 24	47 38.5 N	122 54.1 W	DATE 19 JAN 70	2335 GCT	WIRE 00	DRY	WET	CRUISE C7001C								
WIND DIRECTION	VEL 00 KTS	BAR 16	SWELL DIRECTION	H T	CLOUD 6	AMT 7	WEATHER 02									
0	7.10	16.410														
3	18.140															
6	8.81	26.540														
H 25	47 40.9 N	122 46.5 W	DATE 20 JAN 70	0022 GCT	WIRE 00	DRY 52.7	WET 50.5	CRUISE C7001C								
WIND DIRECTION	04 VEL 07 KTS	BAR 06	SWELL DIRECTION	H T	CLOUD 8	AMT 5	WEATHER 01									
0	7.64	21.470														
1	21.560															
H 26	47 45.0 N	122 44.5 W	DATE 20 JAN 70	0050 GCT	WIRE 00	DRY 51.0	WET 49.5	CRUISE C7001C								
WIND DIRECTION	16 VEL 09 KTS	BAR 06	SWELL DIRECTION	H T	CLOUD 7	AMT 5	WEATHER 01									
0	7.77	23.563														
1	7.78	24.022														
H 27	47 48.6 N	122 41.3 W	DATE 20 JAN 70	0127 GCT	WIRE 00	DRY 52.9	WET 50.1	CRUISE C7001C								
WIND DIRECTION	18 VEL 08 KTS	BAR 06	SWELL DIRECTION	H T	CLOUD 8	AMT 6	WEATHER 01									
0	8.04	26.915														
1	8.28	26.984														
JD 6	48 14.7 N	122 54.1 W	DATE 20 JAN 70	1800 GCT	WIRE 00	DRY 51.0	WET 48.0	CRUISE C7001C								
WIND DIRECTION	14 VEL 15 KTS	BAR 17	SWELL DIRECTION	H T	CLOUD 7	AMT 6	WEATHER 01									
0	7.73	30.885			0	7.73	30.89	24.12	381.4	0						
10	7.69	30.500	5.66		10	7.69	30.50	23.82	409.7	.040						
20	7.82	30.695	4.73		20	7.82	30.70	23.96	397.0	.080						
30	7.83	30.760	5.49		30	7.83	30.76	24.01	392.4	.119						
50	7.86	31.320	5.31		50	7.86	31.32	24.44	351.3	.194						
72	31.593	5.30														
JD 7	48 21.2 N	123 08.2 W	DATE 20 JAN 70	1929 GCT	WIRE 00	DRY 50.7	WET 48.7	CRUISE C7001C								
WIND DIRECTION	11 VEL 14 KTS	BAR 16	SWELL DIRECTION	11 H 02 T 02	CLOUD 6	AMT 7	WEATHER 01									
0	7.68	30.732	5.68		0	7.69	30.74	24.00	392.2	0						
10	7.66	30.741	5.66		10	7.67	30.75	24.01	391.3	.039						
20	7.77	30.850	5.60		20	7.78	30.85	24.03	384.8	.078						
30	7.80	30.894	5.49		30	7.81	30.90	24.11	382.0	.116						
50	7.82	31.076	5.49		50	7.82	31.08	24.25	369.0	.191						
77	7.82	31.368	5.26		75	7.82	31.34	24.46	349.9	.281						
102	31.949	4.91														
HS 1	48 29.3 N	123 10.3 W	DATE 20 JAN 70	2053 GCT	WIRE 00	DRY 52.0	WET 49.0	CRUISE C7001C								
WIND DIRECTION	09 VEL 18 KTS	BAR	SWELL DIRECTION	H T	CLOUD 6	AMT 7	WEATHER 02									
0	7.70	30.678	5.74		0	7.70	30.68	23.96	396.5	0						
10	7.68	30.699	4.80		10	7.69	30.70	23.98	394.7	.040						
20	7.69	30.721	5.66		20	7.69	30.73	23.99	393.4	.079						
30	7.73	30.743	5.63		30	7.73	30.75	24.01	392.4	.118						
62	7.80	30.816	5.54		50	7.80	30.79	24.03	390.4	.197						
82	7.69	30.867	5.34		75	7.73	30.85	24.08	385.4	.293						
107	7.70	30.973	5.18		100	7.70	30.94	24.16	378.1	.389						
132	7.74	31.031	5.30		150	7.77	31.08	24.26	369.6	.576						
158	7.78	31.101	4.64													
HS 2	48 39.5 N	123 15.2 W	DATE 20 JAN 70	2237 GCT	WIRE 00	DRY 49.7	WET 47.8	CRUISE C7001C								
WIND DIRECTION	VEL 00 KTS	BAR 15	SWELL DIRECTION	H T	CLOUD 6	AMT 7	WEATHER 01									
0	7.63	30.067	5.66	7.86 2.19	0	7.64	30.09	23.51	439.7	0						
10	7.59	30.194	5.70	7.87 2.17	10	7.59	30.20	23.59	431.3	.044						
20	7.63	30.251	5.63	7.87 2.17	20	7.64	30.26	23.63	427.7	.086						
30	7.67	30.359	5.60		30	7.68	30.36	23.71	420.2	.129						
48	7.70	30.418	5.57		50	7.69	30.42	23.76	416.3	.213						
74	7.62	30.499	5.52		75	7.62	30.51	23.83	409.4	.316						
102	7.63	30.691	5.48		100	7.63	30.68	23.97	396.9	.416						
127	7.73	30.699	5.36		150	7.79	30.93	24.14	381.0	.611						
153	7.79	30.961	5.36		200											
180	7.77	31.050	5.35													
205	31.046	5.36														

OBSERVED

INTERPOLATED

COMPUTED

[illegible]

GS	1	48	49.2	N	122	57.2	W	DATE 21	JAN 70	0136	GCT	WIRE	00	DRY	44.0	WET	35.8	CRUISE	C7001C
WIND	DIRECTION	08	VEL	13	KTS	BAR	13	SWELL	DIRECTION			H	T	CLOUD	8	AMT	8	WEATHER	02
0	7.14	29.155	6.18		7.90	2.14						1.90	0	7.15	29.16		22.84	503.3	0
10		29.693	5.86		7.88	2.15							10	7.46	29.70		23.22	467.0	.049
20	7.53	29.818	5.78		7.87	2.15							20	7.54	29.82		23.31	458.7	.095
30	7.60	29.910	5.72		7.87	2.15						1.94	30	7.60	29.92		23.37	452.9	.140
40	7.58	29.960	5.66		7.86	2.17						1.95	50	7.57	30.00		23.44	446.4	.230
50	7.57		5.64		7.87	2.17						1.93	75	7.60	30.06		23.48	442.7	.341
75	7.60	30.052	5.63		7.87	2.17						1.93	100	7.65	30.04		23.46	445.0	.452
102	7.66	30.039	5.63		7.86	2.15						1.93	150	7.73	30.23		23.60	432.0	.672
127	7.72	30.140	5.50		7.87	2.17						1.95	200	7.77	30.36		23.70	423.7	.886
152	7.73	30.241	5.66		7.88	2.17						1.95							
179	7.77	30.315	5.53		7.87	2.17						2.01							
204		30.366	5.48		7.87	2.17						1.98							

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BB      2  48 42.3 N 122 33.9 W  DATE 21 JAN 70 1532 GCT  WIRE 00  DRY      WET      CRUISE C7001C
WIND DIRECTION 18  VEL 16 KTS  BAR 04  SWELL DIRECTION 18 H 02 T 02 CLOUD 7 AMT 8  WEATHER 02

      0      6.10
      5      7.06
      10     7.15

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BB	3	48	38.4 N	122	34.2 W	DATE 21 JAN 70	1630 GCT	WIRE 00	DRY 48.5	MET 47.0	CUISE C7001C
WIND DIRECTION	12	VEL	15 KTS	BAR 05	SNELL DIRECTION	12 M 02 T 02	CLOUD 7 AMT	8 WEATHER 02			
0	7.27		6.03	7.87	2.09		0	7.28		22.82	504.9 0
10	7.35	29.784	5.91	7.87	2.11		10	7.35	29.79	23.31	458.9 .048
20	7.42	29.942	5.81	7.87	2.11		20	7.43	29.95	23.42	448.1 .094
30	7.41	29.964	5.78	7.87	2.14		30	7.42	29.97	23.44	446.4 .138
40	7.43	29.971	5.86	7.88	2.14		50	7.42	30.00	23.46	444.2 .227
50	7.41	29.996	5.88	7.88	2.14		75	7.45	29.99	23.45	445.6 .339
62	7.41	30.002	5.78	7.88	2.11						
72	7.45	29.989	5.76	7.88	2.09						
92	7.44	30.004	5.76	7.88	2.09						

GS	4	48	54.6 N	122	55.8 W	DATE 21 JAN 70	2020 GCT	WIRE 00	DRY 52.5	WET 49.0	CRUISE C7001C
WIND DIRECTION	12	VEL	10 KTS	BAR 18	SWELL	DIRECTION	12 H 02 T 03	CLOUD 8	AMT 7	WEATHER 01	
0	7.64	29.792	5.89					0	7.65	29.80	23.27 461.9 0
10	7.59	29.803	5.81					10	7.59	29.81	23.29 460.5 .046
20	7.55	29.833	5.77					20	7.56	29.84	23.32 457.9 .092
30	7.56	29.857	5.89					30	7.57	29.86	23.34 456.3 .138
40	7.56	29.925	5.64					50	7.57	29.95	23.40 449.9 .228
50	7.56	29.946	5.64								
61	7.54	29.954	5.66								
71			5.68								

[illegible]

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

GS 6 48 54.4 N 123 07.8 W DATE 21 JAN 70 2138 GCT WIRE 00 DRY 51.5 WET 48.1 CRUISE C7001C
WIND DIRECTION 22 VEL 05 KTS BAR 19 SWELL DIRECTION H T CLOUD 6 AMT 6 WEATHER 02

0	6.73	28.032	6.70	7.90	2.09	0	6.73	28.04	22.01	582.7	0
10	7.57		5.76	7.83	2.14	10	7.57	29.47	23.03	485.2	.053
20	7.32		5.85	7.87	2.17	20	7.32	29.60	23.16	472.8	.101
30	7.32	29.724	5.86			30	7.32	29.73	23.26	463.2	.148
40	7.49	29.849	5.73			50	7.51	29.91	23.38	452.5	.240
62	7.53	29.942	5.74			75	7.57	30.00	23.44	446.5	.352
82	7.59	30.033	5.72			100	7.66	30.13	23.53	438.3	.463
101	7.66	30.134	5.54								
112	7.66	30.153	5.48								

RS 7 48 22.5 N 122 44.2 W DATE 22 JAN 70 0250 GCT WIRE 00 DRY 49.0 WET 47.2 CRUISE C7001C
WIND DIRECTION 13 VEL 03 KTS BAR 14 SWELL DIRECTION H T CLOUD 6 AMT 3 WEATHER 01

0	7.61	30.185	0	7.61	30.19	23.59	432.1	0
10	7.61	30.339	10	7.61	30.34	23.71	420.7	.043
20	7.58	30.350	20	7.58	30.35	23.72	419.6	.085
30	7.60	30.376	30	7.60	30.38	23.74	418.0	.127
40	7.57	30.409	40	7.58	30.48	23.81	410.8	.209
50	7.58	30.472						

PG 7A 47 57.6 N 122 28.4 W DATE 22 JAN 70 1500 GCT WIRE 00 DRY 49.5 WET 48.0 CRUISE C70010
WIND DIRECTION VEL KTS BAR 07 SWELL DIRECTION H T CLOUD 7 AMT 8 WEATHER

0	8.33	29.189	5.60
10	8.38	29.893	5.39
20	8.26	29.981	5.40

PG 8 47 51.5 N 122 27.8 W DATE 22 JAN 70 1611 GCT WIRE 00 DRY 50.0 WET 45.0 CRUISE C70010
WIND DIRECTION VEL 00 KTS BAR 07 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02

0	9.27	29.745	5.40	0	9.27	29.75	23.03	487.7	0
10	8.49	29.755	5.36	10	8.49	29.76	23.13	476.0	.048
20	8.50	29.792	5.28	20	8.50	29.80	23.15	473.5	.096
41	8.51	29.858	5.31	30	8.50	29.82	23.17	471.7	.143
67	8.38	29.961	5.32	50	8.46	29.90	23.24	465.8	.237
91	8.41	29.953	5.29	75	8.39	29.96	23.30	460.5	.352
118	8.37	29.981	5.33	100	8.40	29.96	23.30	460.9	.468
144	8.28	29.985	5.39	150	8.26	29.99	23.34	457.6	.697
195	8.23	30.016	5.35	200	8.25	30.02	23.37	455.3	.925
229	8.45	30.079	5.32						

PG	9	47	41.6	N	122	28.0	W	DATE	22	JAN	70	1800	GCT	WIRE	10	DRY	WET	CRUISE	C7001C
WIND	DIRECTION	09	VEL	05	KTS	BAR	07	SWELL	DIRECTION	H	T	CLOUD	7	AMT	8	WEATHER	05		

0	8.31	26.729	5.78	0	8.31	26.73	20.79	699.6	0
10	8.72	29.596	5.38	10	8.72	29.60	22.97	491.1	0.060
20	8.74	29.653	5.32	20	8.74	29.66	23.01	487.2	.108
30	8.73	29.674	5.32	30	8.73	29.68	23.03	485.7	.157
51	8.68	29.915	5.24	50	8.68	29.90	23.21	468.5	.252
76	8.57	29.994	5.25	75	8.57	29.99	23.30	460.6	.369
102	8.49	30.027	5.21	100	8.50	30.03	23.33	457.4	.483
128	8.39	30.078	5.28	150	8.32	30.10	23.42	449.7	.710
153	8.31	30.106	5.28	200	8.25	30.13	23.45	447.7	.934
179	8.31	30.121	5.35						
205		30.126	5.25						

PG 10 47 32.9 N 122 26.9 W DATE 22 JAN 70 1927 GCT WIRE DRY 46.0 WET 45.8 CRUISE C70010
WIND DIRECTION 12 VEL 06 KTS BAR 04 SWELL DIRECTION H T CLOUD 7 AMT 8 WEATHER 06

0	8.60	28.680	5.77	0	8.60	28.69	22.27	557.6	0
10	8.72	29.598	5.36	10	8.72	29.60	22.97	490.9	.052
20	8.75	29.614	5.34	20	8.75	29.62	22.98	490.3	.101
30	8.74	29.635	5.33	30	8.74	29.64	23.00	488.7	.150
52	8.65	29.799	5.30	50	8.66	29.78	23.12	477.0	.247
63	8.65	29.833	5.29	75	8.60	29.98	23.29	461.6	.364
78	8.58	30.024	5.16	100	8.49	30.06	23.36	455.1	.479
103	8.48	30.060	5.17	150	8.38	30.11	23.42	450.2	.705
127	8.41	30.094	5.24						
151	8.38	30.109	5.26						
185		30.135	5.24						

OBSERVED										INTERPOLATED					COMPUTED				
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD				
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)				
PG 11 47 23.5 N 122 21.2 W DATE 22 JAN 70 2057 GCT WIRE DRY 47.0 WET 46.9 CRUISE C7001C																			
WIND DIRECTION 32 VEL 06 KTS BAR 13 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 06																			
0	8.41	27.040								0	8.41	27.04	21.02	677.6	0				
10	8.76	29.184								10	8.76	29.19	22.64	522.3	.060				
20	8.76	29.645								20	8.76	29.65	23.00	488.1	.111				
30	8.72	29.704								30	8.72	29.71	23.05	483.3	.159				
50	8.75	29.820								50	8.75	29.82	23.14	475.3	.255				
77	8.68	29.368								75	8.69	29.87	23.18	471.7	.373				
102	8.59	29.985								100	8.60	29.97	23.28	462.6	.490				
127	8.43	30.375								150	8.40	30.10	23.41	451.1	.718				
152	8.40	30.102																	
184		30.135																	
PG 12 47 19.2 N 122 28.0 W DATE 22 JAN 70 2220 GCT WIRE 00 DRY 46.5 WET 46.5 CRUISE C7001C																			
WIND DIRECTION VEL 00 KTS BAR 14 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 06																			
0	8.15	18.209	6.64		7.75					0	8.15	18.21	14.17	1339.4	0				
10	8.47	29.466	5.29		7.76	2.19				10	8.47	29.47	22.90	497.3	.092				
30	8.76	29.782	5.21		7.76	2.21				20	8.66	29.62	23.00	488.6	.141				
57	8.69	29.958	5.14		7.76	2.23				30	8.76	29.79	23.11	478.0	.189				
82	8.53	30.066	5.09		7.77	2.22				50	8.74	29.93	23.22	467.3	.284				
107	8.44	30.080	5.14		7.77	2.21				75	8.58	30.04	23.34	456.9	.399				
132	8.42	30.095	5.19		7.80	2.21				100	8.46	30.08	23.38	453.1	.513				
163		30.130	5.19		7.81	2.21				150	8.40	30.11	23.42	450.2	.739				
PG 13 47 10.7 N 122 38.7 W DATE 22 JAN 70 2200 GCT WIRE DRY 48.5 WET 47.5 CRUISE C7001C																			
WIND DIRECTION VEL 00 KTS BAR 14 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 06																			
0	8.60	29.073	5.46		7.74	2.14			1.96	0	8.60	29.08	22.58	528.3	0				
10	8.62	29.314	5.33		7.76	2.19			2.00	10	8.63	29.32	22.76	510.7	.052				
20	8.25	29.354			7.77	2.21				20	8.25	29.36	22.85	502.8	.103				
30	8.65	29.382	5.29		7.77	2.23			2.01	30	8.65	29.39	22.81	506.3	.153				
40	8.67	29.440	5.31		7.78	2.23				50	8.66	29.45	22.86	501.9	.254				
50	8.66	29.446	5.29		7.78	2.23			1.98	75	8.64	29.46	22.87	501.4	.379				
75	8.64	29.453	5.28		7.78	2.23			2.02	100	8.62	29.50	22.91	497.9	.504				
101	8.62	29.506	5.37		7.78	2.21			2.00										
124	8.63	29.521	5.30		7.77	2.25			2.02										
139	8.66	29.559	5.31		7.79	2.23			2.00										
PG 14 47 16.5 N 122 25.9 W DATE 23 JAN 70 1700 GCT WIRE 00 DRY 50.7 WET 50.0 CRUISE C7001C																			
WIND DIRECTION 18 VEL 03 KTS BAR 03 SWELL DIRECTION H T CLOUD 7 AMT 8 WEATHER 02																			
0	7.11	7.247								0	7.11	7.25	5.68	2171.2	0				
10	8.70	29.529								10	8.70	29.53	22.92	495.8	.133				
20	8.72	29.648								20	8.72	29.65	23.01	487.3	.182				
30	8.78	29.692								30	8.78	29.70	23.04	485.0	.231				
40	8.80	30.056																	
SK 15 47 59.0 N 122 19.7 W DATE 24 JAN 70 1919 GCT WIRE 00 DRY 47.1 WET 45.4 CRUISE C7001C																			
WIND DIRECTION VEL 00 KTS BAR 00 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 03																			
0	7.22	17.400								0	7.22	17.40	13.63	1391.5	0				
1	8.01	24.248								10	8.47	28.08	21.82	600.8	.100				
5	8.36	27.476								20	8.69	28.87	22.40	545.2	.157				
10	8.47	28.080								30	8.87	29.45	22.83	504.9	.209				
50	9.16	29.962								50	9.16	29.97	23.19	470.6	.307				
100	9.22	30.110								75	9.19	30.04	23.24	466.2	.424				
										100	9.22	30.11	23.30	461.2	.540				
SK 16 48 17.6 N 122 29.2 W DATE 24 JAN 70 2205 GCT WIRE 00 DRY 45.0 WET 45.0 CRUISE C7001C																			
WIND DIRECTION VEL 00 KTS BAR 02 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 03																			
0	6.67	12.610								0	6.68	12.61	9.93	1753.4	0				
1	6.99	14.000								10	8.33	24.65	19.16	856.1	.130				
5	7.88	21.850																	
10	8.33	24.646																	
15	9.16	27.249																	
UOW 1 48 27.9 N 122 46.0 W DATE 25 JAN 70 0915 GCT WIRE 00 DRY 45.0 WET 44.5 CRUISE C7001C																			
WIND DIRECTION 13 VEL 25 KTS BAR 16 SWELL DIRECTION 19 H 06 T 10 CLOUD 6 AMT 8 WEATHER 03																			
0		28.442								0	6.68	28.45	22.34	551.2	0				
10		28.994								10	8.33	29.00	22.56	530.6	.054				
25		29.425								20	8.69	29.30	22.74	513.0	.106				
50		30.427								30	8.87	29.62	22.96	492.1	.157				
76		31.269								50	9.16	30.43	23.55	436.1	.249				
100		29.475								75	9.19	31.27	24.20	374.9	.351				
150		30.776								100	9.22	29.48	22.80	508.4	.461				
200		32.565								150	8.40	30.78	23.94	400.5	.688				
										200	8.25	32.56	25.35	266.6	.855				

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NH 15 44 39.1 N 124 24.7 W DATE 26 JAN 70 0200 GCT WIRE 01 DRY 50.0 WET 46.5 CRUISE Y7001C
WIND DIRECTION 22 VEL 12 KTS BAR 19 SWELL DIRECTION 26 H 07 T 10 CLOUD 8 AMT 8 WEATHER 02

0	11.06	32.423	6.22	.76		2.15	5.0	9	0	11.06	32.43	24.79	317.2	0
5	11.06		6.21	.73	8.20	2.17	5.0	9	10	11.17	32.43	24.77	319.2	.032
10	11.17	32.425	6.21	.94	8.21	2.14	5.1	9	20	11.07	32.43	24.79	317.9	.064
15	11.07	32.422	6.20	.81	8.17	2.11	5.1	9	30	11.08	32.43	24.79	318.1	.095
20	11.07	32.422	6.21	.79	8.21	2.11	5.0	8	50	11.10	32.44	24.79	318.3	.159
25	11.07	32.424	6.20	.78	8.21	2.19	5.0	8						
30	11.08	32.424	6.22	.68	8.21	2.17	5.1	18						
35	11.06	32.425	6.22	.73	8.11	2.17	5.1	9						
40	11.07	32.427	6.22	.76	8.14	2.15	4.9	9						
45	11.11	32.427	6.19	.80	8.22	2.17	5.0	9						
50		32.431	6.20	.76		2.17	5.0	9						
55	11.09	32.428	6.20	.74	8.21	2.19	4.9	9						
60		32.435	6.17	.99		2.14	5.0	9						
65		32.436	6.18	.80		2.14	5.0	8						
70		32.446	6.17	.92		2.14	5.0	8						

NH 25 44 39.1 N 124 38.8 W DATE 26 JAN 70 0411 GCT WIRE 00 DRY 50.3 WET 47.6 CRUISE Y7001C
WIND DIRECTION 18 VEL 16 KTS BAR 19 SWELL DIRECTION 26 H 08 T 07 CLOUD 8 AMT 8 WEATHER 02

0	10.82	32.590	6.17	.84		2.11	6.0	10	0	10.82	32.59	24.96	300.9	0
5	10.79	32.584	6.28	.93	8.16	2.19	6.0	9	10	10.80	32.59	24.96	301.0	.030
10	10.80	32.586	6.18	.81	8.16	2.15	6.1	9	20	10.83	32.59	24.96	301.7	.060
20	10.83	32.586	6.16	.91	8.17	2.14	6.1	9	30	10.80	32.60	24.97	300.9	.099
30	10.80	32.594	6.17	.85	8.17	2.14	6.2	9	50	10.83	32.62	24.98	300.4	.150
40	10.77	32.602	6.19	.81	8.17	2.14	6.2	9	75	10.86	32.71	25.05	294.3	.225
50	10.83	32.613	6.17	.80	8.15	2.14	6.4	9	100	10.75	33.02	25.31	270.0	.295
62	10.82	32.634	6.09	.82	8.15	2.11	6.7	10	150	9.30	33.73	26.10	195.4	.412
75	10.86	32.708	5.87	.86	8.14	2.11	7.4	11						
100	10.75	33.020	5.23	1.17	8.08	2.14	11.3	15						
125	9.89	33.483	4.10	2.27	7.96	2.17	18.7	23						
150	9.30	33.725	3.39	2.11	7.89	2.17	23.6	30						
175	8.93	33.819	3.10	2.24	7.87	2.17	25.7	33						

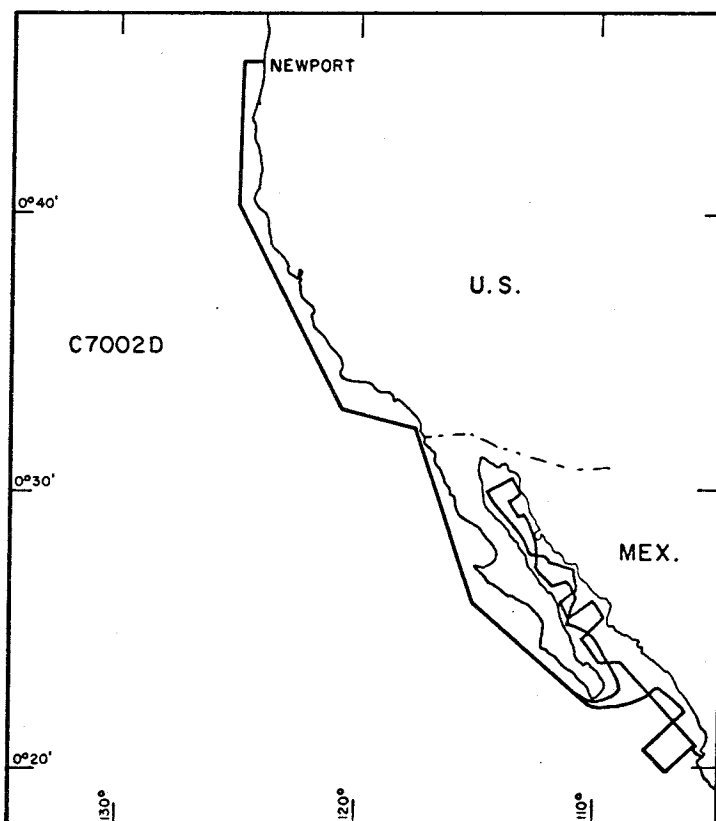
NH 35 44 39.0 N 124 52.9 W DATE 26 JAN 70 0628 GCT WIRE 02 DRY 47.9 WET 46.1 CRUISE Y7001C
WIND DIRECTION 16 VEL 10 KTS BAR 18 SWELL DIRECTION 26 H 08 T 08 CLOUD 6 AMT 8 WEATHER 02

0	10.51	32.569	6.27	.69	8.20	2.07	5.1	8	0	10.51	32.57	25.00	297.3	0
10	10.49	32.576	6.27	.88	8.19	2.07	5.2	8	10	10.49	32.58	25.01	296.7	.030
20	10.49	32.549	6.27	.77	8.19	2.05	5.2	8	20	10.49	32.55	24.99	298.9	.059
30	10.49	32.568	6.28	.62	8.20	2.05	5.2	8	30	10.49	32.57	25.00	297.7	.089
40	10.48	32.570	6.27	.52	8.20	2.05	5.4	8	40	10.49	32.58	25.01	297.4	.149
50	10.49	32.577	6.27	.51	8.19	2.09	5.4	7	50	10.49	32.58	25.01	297.4	.149
62	10.51	32.574	6.28	.49	8.20	2.07	5.5	7	75	10.22	32.90	25.30	270.3	.220
75	10.22	32.891	5.64	2.26	8.14	2.07	12.4	12	100	9.08	33.42	25.90	213.8	.280
101	9.04	33.440	4.18	2.20	7.98	2.11	20.5	25	150	8.58	33.86	26.32	174.8	.377
126	8.71	33.704	3.53	2.23	7.91	2.16	24.8	30	200	7.91	33.94	26.48	160.1	.461
151	8.57	33.862	3.05	2.48	7.89	2.17	27.0	35	250	7.26	33.97	26.60	149.0	.538
176	8.12	33.896	3.18	2.48	7.87	2.17	27.8	38	300	6.85	33.98	26.67	143.4	.611
202	7.90	33.939	2.83	2.59	7.85	2.17	28.8	40	400	5.76				
252	7.23	33.973	2.83	2.99	7.82	2.19	31.0	46						
303	6.82	33.984	2.49	2.96	7.80	2.19	32.5	52						
353	6.06	34.019	1.87	3.24	7.73	2.19	35.9	63						
404	5.75				7.97	2.15								

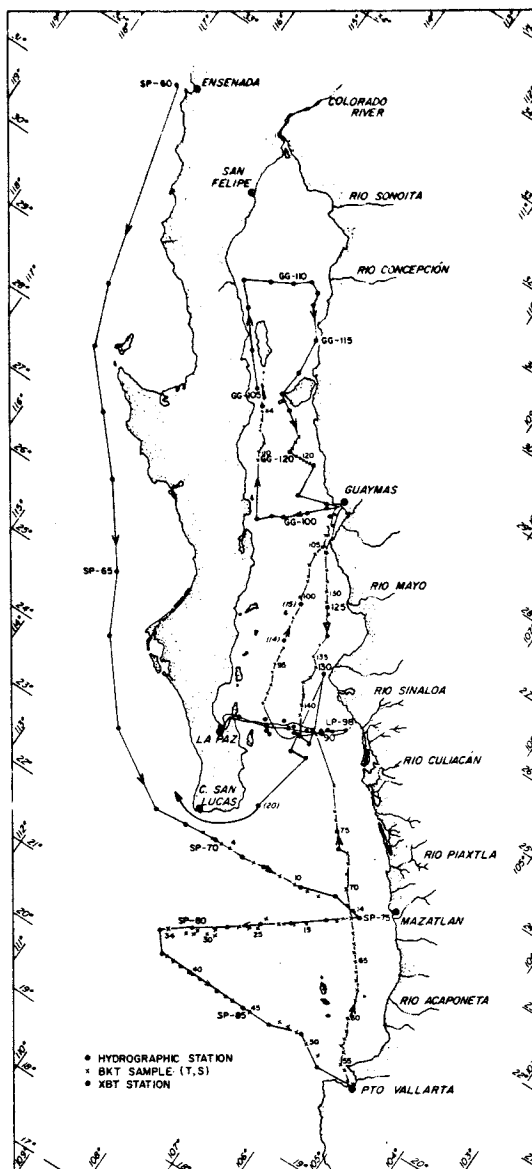
NH 45 44 39.2 N 125 07.0 W DATE 26 JAN 70 0848 GCT WIRE 04 DRY 47.5 WET 47.0 CRUISE Y70010
WIND DIRECTION 11 VEL 20 KTS BAR 15 SWELL DIRECTION 26 H 07 T 10 CLOUD 6 AMT 8 WEATHER 63

3	10.44	32.566	6.39	.74		2.07	5.5	8	0	10.44	32.57	25.01	296.4	0
10	10.46	32.580	6.33	.70	8.18	2.05	5.5	8	10	10.46	32.58	25.02	295.9	.030
23	10.45	32.589	6.29	.76	8.18	2.05	5.1	7	20	10.45	32.59	25.03	295.3	.059
30	10.47	32.587	6.30	.73	8.19	2.05	5.1	7	30	10.47	32.59	25.02	295.9	.089
40	10.45	32.592	6.33	1.20	8.17	2.11	5.1	7	50	10.45	32.59	25.02	296.0	.148
50	10.45	32.587	6.27	.79	8.18	2.05	5.6	7	75	8.83	33.21	25.77	225.3	.213
62	9.80	32.900	5.59	1.08	8.10	2.05	10.7	12	100	8.48	33.49	26.04	199.7	.266
75	8.83	33.205	4.79	1.50		2.14	16.3	19	150	8.18	33.85	26.37	169.6	.358
101	8.47	33.498		2.00	7.84	2.14	21.1	27	200	7.86	34.00	26.53	154.8	.443
126	8.30	33.708	3.79	2.07	7.91	2.19	22.2	30	250	7.23	33.98	26.61	147.7	.515
151		33.855	3.33	2.24	7.88	2.21	23.4	34	300	6.69	34.00	26.70	139.6	.587
202	7.84	33.999		2.53	7.83	2.21	26.8	42	400	5.83	34.06	26.86	126.1	.720
252	7.20	33.982	2.58	2.56	7.83	2.19	27.4	47	500	5.17	34.11	26.98	114.3	.840
303		34.007	2.21	2.95	7.74	2.19	29.1	57	600	4.64	34.18	27.09	104.7	.949
404	5.80	34.060	1.69	3.03	7.67	2.21	27.4	60						
505	5.14	34.117	0.92	3.62	7.65	2.21	27.4	67						
606	4.61	34.183	0.63	3.59	7.62	2.23	27.4	84						

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
NH 65 44 39.4 N 125 35.0 W DATE 26 JAN 70 1211 GCT WIRE 04 DRY 52.3 WET 51.2 CRUISE Y7001C																
WIND DIRECTION 18 VEL 24 KTS BAR 09 SWELL DIRECTION 26 H 07 T 10 CLOUD 6 AMT 8 WEATHER 62																
0	10.24	32.558	6.29	.72		2.07	4.6	9		0	10.24	32.56	25.04	293.8	0	
10	10.24	32.556	6.32	.74	8.18	2.05	4.4	8		10	10.24	32.56	25.04	294.1	.029	
20	10.25	32.556	6.48	.63	8.19	2.17	3.8	7		20	10.25	32.56	25.03	294.5	.059	
30	10.24	32.559	6.34	.63	8.18	2.25	3.8	7		30	10.24	32.56	25.04	294.3	.088	
40	10.24	32.567	6.34	.70	8.17	2.25	4.2	7		50	10.26	32.58	25.05	293.5	.147	
50	10.26	32.579	6.37	.80	8.18	2.17	3.8	8		75	8.89	33.34	25.86	216.6	.211	
62	10.28	32.617	6.28	.71	8.16	2.17	4.9	7		100	8.38	33.65	26.18	186.3	.261	
75	8.89	33.335	4.53	1.74	7.99	2.19	19.2	22		150	7.95	33.84	26.40	166.6	.349	
101	8.36	33.664	3.66	1.84	7.91	2.19	20.5	25		200	7.52	33.96	26.55	153.1	.429	
126	8.15	33.743	3.49	2.17	7.91	2.17	26.9	34		250	6.97	33.99	26.65	143.8	.503	
151	7.94	33.849	3.26	2.25	7.88	2.19	28.1	36		300	6.43	34.00	26.73	136.9	.574	
202	7.50	33.958	2.73	2.47	7.84	2.21	31.0	43		400	5.76	34.07	26.88	124.0	.704	
303	6.40	33.998	2.28	2.90	7.76	2.21	35.8	58		500	5.24	34.15	27.00	112.8	.822	
404	5.74	34.078	1.29	3.37	7.68	2.23	40.1	72		600	4.83	34.21	27.10	104.6	.931	
606	4.81	34.215	0.50		7.63	2.26				700	4.51	34.27	27.18	97.3	1.032	
808	4.22	34.324	0.43		7.62	2.28				800	4.24	34.32	27.25	90.9	1.126	
1010	3.68	34.421	0.47		7.65	2.30				1000	3.71	34.42	27.38	79.3	1.296	
1212	3.17	34.471	0.55		7.64	2.30				1200	3.20	34.47	27.47	70.6	1.446	



C7002D



• HYDROGRAPHIC STATION
 x BKT SAMPLE (T,S)
 • XBT STATION

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NS 1 40 45.0 N 124 33.0 W
 WIND DIRECTION 00 VEL 00 KTS

DATE 26 FEB 70 2154 GCT
 BAR 14 SWELL DIRECTION 22 H 04 T 07 CLOUD

WIRE 00 DRY
 0 AMT 6

WET

CRUISE C70020
 WEATHER 02

0	12.79	31.383	6.40	8.19	2.33	0	12.79	31.39	23.67	424.4	0
10	11.72	31.435	6.56	8.21	2.33	10	11.72	31.44	23.91	401.7	.041
21	11.53	31.954	6.18	8.19	2.34	20	11.55	31.90	24.29	365.0	.080
40	11.10	32.678	5.46	8.15	2.37	30	11.34	32.36	24.69	327.4	.114
67	10.24	32.256	4.40	8.04	2.40	50	10.77	32.51	24.91	307.1	.178
91	9.86	33.440	4.00	8.01	2.44	75	10.10	32.60	25.09	289.8	.252
141	8.58	33.887	2.81	7.87	2.42	100	9.63	33.63	25.97	206.5	.314
192	8.05	33.964	2.48	7.82	2.43	150	8.45	33.92	26.38	168.7	.408
242	7.65	34.020	2.29	7.82	2.43	200	7.98	33.97	26.50	158.3	.490
303	7.16	34.052	2.09	7.78	2.43	250	7.59	34.03	26.60	149.7	.567
394	6.25	34.083	1.49	7.74	2.44	300	7.19	34.05	26.67	143.0	.640
495	5.48	34.148	1.04	7.66	2.47	400	6.20	34.09	26.83	128.8	.776
						500	5.44	34.15	26.98	114.9	.898

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
NS 4 40 44.0 N 124 30.0 W DATE 27 FEB 70 0100 GCT WIRE 00 DRY 57.0 WET 55.0 CRUISE C70020																	
WIND DIRECTION 00 VEL 00 KTS BAR 14 SWELL DIRECTION 20 H 05 T 06 CLOUD 6 AMT 6 WEATHER 02																	
0	12.57	31.226	6.56		8.24	2.30				0	12.57	31.23	23.59	431.9	0		
9	11.57	31.488	6.40		8.23	2.33				10	11.53	31.55	24.03	390.2	.041		
19	11.32	32.169	5.88		8.21	2.34				20	11.29	32.23	24.60	335.7	.077		
30	10.97	32.782	5.31		8.17	2.37				30	10.97	32.79	25.08	289.8	.109		
50	10.59	33.067	4.80		8.11	2.37				50	10.59	33.07	25.37	262.8	.164		
77	9.67	33.502	3.85		7.99	2.39				75	9.75	33.47	25.83	220.2	.224		
102	8.72	33.851	2.96		7.91	2.41				100	8.80	33.82	26.26	179.7	.274		
NS 7 40 43.2 N 124 28.0 W DATE 27 FEB 70 0424 GCT WIRE 00 DRY 55.0 WET 54.9 CRUISE C70020																	
WIND DIRECTION 00 VEL 00 KTS BAR 13 SWELL DIRECTION 20 H 04 T 05 CLOUD 7 AMT 5 WEATHER 02																	
0	12.06	31.606	6.30		8.23	2.34				0	12.06	31.61	23.98	394.8	0		
10	11.60	31.005	6.20		8.23	2.36				10	11.60	31.01	23.60	431.4	.041		
20	11.38	32.254	5.83		8.21	2.37				20	11.38	32.26	24.60	335.6	.080		
31	11.20	32.653	5.51		8.19	2.39				30	11.21	32.64	24.93	304.6	.112		
51	10.89	32.915	5.07		8.15	2.40				50	10.91	32.91	25.19	280.2	.170		
79	9.96	33.352	3.98		8.05					75	10.09	33.30	25.64	238.3	.235		
NS 12 39 09.1 N 124 09.3 W DATE 27 FEB 70 1930 GCT WIRE 04 DRY 57.0 WET 55.0 CRUISE C70020																	
WIND DIRECTION 14 VEL 10 KTS BAR 12 SWELL DIRECTION 18 H 02 T 07 CLOUD 3 AMT 5 WEATHER 02																	
0	12.25	32.516	6.48		8.35	2.29				0	12.25	32.52	24.64	331.1	0		
10	12.21	32.528	6.48		8.36	2.30				10	12.21	32.53	24.66	329.7	.033		
20	12.19	32.531	6.48		8.36	2.28				20	12.19	32.54	24.67	329.4	.066		
31	11.93	32.509	6.48		8.36	2.30				30	11.97	32.51	24.69	327.5	.099		
50	10.67	32.707	5.84		8.28	2.31				50	10.67	32.71	25.08	290.7	.161		
77	9.67	33.295	4.80		8.17	2.34				75	9.72	33.25	25.66	236.1	.226		
101	9.02	33.604	4.08		8.08	2.48				100	9.04	33.59	26.04	200.4	.281		
152	8.60	33.836	3.44		8.02	2.44				150	8.60	33.83	26.29	177.1	.375		
203	8.15	34.017	2.40		7.94	2.39				200	8.18	34.01	26.50	158.6	.459		
305	7.30	34.089	1.71		7.90	2.43				250	7.75	34.08	26.61	148.3	.536		
407	6.48	34.131	1.15		7.80	2.44				300	7.34	34.09	26.68	142.6	.609		
609	5.32	34.241	0.50		7.75	2.48				400	6.53	34.13	26.82	130.1	.745		
813	4.32	34.362	0.41		7.75	2.50				500	5.90	34.18	26.94	118.7	.869		
										600	5.36	34.24	27.05	109.4	.983		
										700	4.85	34.29	27.16	99.5	1.088		
										800	4.38	34.35	27.26	90.1	1.182		
NS 15 39 06.0 N 124 59.0 W DATE 27 FEB 70 2200 GCT WIRE 00 DRY 58.0 WET 55.9 CRUISE C70020																	
WIND DIRECTION 14 VEL 10 KTS BAR 10 SWELL DIRECTION 18 H 04 T 06 CLOUD 3 AMT 6 WEATHER 03																	
0	12.59	32.508	6.56		8.36					0	12.59	32.51	24.57	337.9	0		
10	12.53	32.507	6.36		8.36	2.42				10	12.53	32.51	24.58	337.1	.034		
19	12.43	32.547	6.61		8.35	2.37				20	12.43	32.55	24.64	332.2	.067		
30	12.39	32.654	6.36		8.32					30	12.39	32.66	24.72	324.2	.100		
49	11.32	32.922	5.74		8.25	2.43				50	11.23	32.93	25.15	283.9	.161		
74	9.38	33.207	4.96		8.15					75	9.35	33.23	25.70	231.8	.225		
98	9.13	33.736	3.43		8.01	2.43				100	9.10	33.76	26.16	189.3	.278		
147	8.60	33.943	2.64		7.93	2.40				150	8.59	33.95	26.38	168.4	.367		
197	8.47	33.977	2.56		7.92	2.43				200	8.45	33.98	26.43	164.8	.451		
296	7.17	34.097	1.60		7.82	2.45				250	7.95	34.03	26.55	154.3	.530		
										300	7.12	34.10	26.72	138.3	.603		
NS 23 39 03.0 N 123 50.0 W DATE 28 FEB 70 0227 GCT WIRE 00 DRY 57.0 WET 54.5 CRUISE C70020																	
WIND DIRECTION 17 VEL 18 KTS BAR 09 SWELL DIRECTION 17 H 04 T 05 CLOUD 6 AMT 7 WEATHER 03																	
0	12.57	32.570	6.69		8.37	2.33				0	12.57	32.57	24.63	332.9	0		
10	12.54	32.568	6.72		8.38	2.33				10	12.54	32.57	24.63	332.8	.033		
20	12.46	32.649	6.51		8.37					20	12.46	32.65	24.71	325.6	.066		
31	12.23	32.734	6.02		8.32	2.31				30	12.26	32.72	24.80	316.8	.098		
51	11.41	33.126	5.02		8.22	2.36				50	11.46	33.11	25.25	275.0	.157		
78	10.56	33.334	4.32		8.17	2.34				75	10.64	33.33	25.56	245.1	.222		
NS 34 38 09.7 N 123 09.6 W DATE 28 FEB 70 1831 GCT WIRE 20 DRY 57.3 WET 56.9 CRUISE C70020																	
WIND DIRECTION 13 VEL 12 KTS BAR 02 SWELL DIRECTION 21 H 05 T 06 CLOUD 6 AMT 8 WEATHER 03																	
0	13.09	30.843	7.01		8.48	2.33				0	13.09	30.85	23.19	469.7	0		
10	13.10	31.026	6.99		8.46	2.34				10	13.10	31.03	23.33	456.6	.046		
20	12.70	32.725	6.11		8.30	2.43				20	12.70	32.73	24.72	324.4	.085		
31	12.44	32.801	5.94		8.29	2.41				30	12.47	32.79	24.82	315.5	.117		
51	11.19	33.523	4.99		8.19	2.47				50	11.26	33.48	25.58	243.6	.173		
79	10.38	33.564	3.26		8.01					75	10.42	33.56	25.78	224.4	.232		

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
NS 41 38 10.0 N 123 28.0 W DATE 28 FEB 70 2307 GCT WIRE 08 DRY 57.1 WET 57.0 CRUISE C70020															
WIND DIRECTION 18 VEL 19 KTS BAR 00 SWELL DIRECTION 18 H 05 T 04 CLOUD 6 AMT 8 WEATHER 03															
0	13.03	32.277	6.34							0	13.03	32.28	24.31	363.0	0
10	13.00	32.272	6.40							10	13.00	32.28	24.31	363.1	.036
20	12.81	32.592	6.27							20	12.81	32.59	24.59	337.0	.071
31	12.64	32.784	6.14							30	12.66	32.77	24.76	320.8	.104
51	11.60	32.921	5.78							50	11.66	32.92	25.06	292.6	.166
78	10.33	33.378	4.55							75	10.46	33.32	25.59	242.5	.232
103	9.57	33.677	3.86							100	9.64	33.65	25.98	205.9	.288
154	8.71	33.937	2.96							150	8.76	33.93	26.34	172.3	.383
206	8.14	34.033	2.32							200	8.19	34.03	26.51	157.4	.465
310	7.40	34.111	1.73							250	7.76	34.08	26.62	147.8	.542
										300	7.45	34.11	26.68	142.3	.614
NS 45 38 01.0 N 122 37.3 W DATE 01 MAR 70 1300 GCT WIRE 05 DRY 54.0 WET 54.0 CRUISE C70020															
WIND DIRECTION 33 VEL 15 KTS BAR 00 SWELL DIRECTION 24 H 05 T 05 CLOUD 6 AMT 8 WEATHER 02															
0	13.08	32.648	6.15							0	13.08	32.65	24.59	336.7	0
10	13.08	32.604	6.17							10	13.08	32.61	24.55	340.1	.034
20	13.22	32.509	6.20							20	13.22	32.81	24.68	328.0	.067
30	13.20	33.074	6.24							30	13.20	33.08	24.89	308.4	.099
50	12.14	33.248	5.59							50	12.14	33.25	25.23	276.4	.158
76	10.12	33.448	4.43							75	10.19	33.44	25.73	229.5	.221
101	9.75	33.697	3.60							100	9.76	33.69	25.99	204.8	.275
151	9.06	33.899	2.98							150	9.07	33.90	26.27	179.4	.371
201	8.16	34.032	2.40							200	8.18	34.03	26.51	157.0	.455
303	7.33	34.099	1.68							250	7.59	34.10	26.65	144.3	.530
										300	7.34	34.10	26.69	141.7	.602
NS 52 37 05.0 N 122 26.7 W DATE 01 MAR 70 1800 GCT WIRE 00 DRY 51.5 WET 50.1 CRUISE C70020															
WIND DIRECTION 35 VEL 14 KTS BAR 03 SWELL DIRECTION 32 H 05 T 07 CLOUD 6 AMT 8 WEATHER 02															
0	13.04	32.672	6.18							0	13.04	32.68	24.61	334.2	0
10	12.99	32.669	6.18							10	12.99	32.67	24.62	333.7	.033
20	13.07	32.772	6.16							20	13.07	32.78	24.68	327.8	.066
31	12.92	32.742	6.03							30	12.94	32.75	24.69	327.9	.099
51	12.30	32.922	5.58							50	12.34	32.91	24.93	305.4	.163
78	10.68	33.434	4.09							75	10.90	33.36	25.54	247.1	.232
NS 57 34 08.8 N 119 47.5 W DATE 02 MAR 70 2147 GCT WIRE 08 DRY 58.5 WET 52.0 CRUISE C70020															
WIND DIRECTION 28 VEL 20 KTS BAR 12 SWELL DIRECTION 28 H 05 T 04 CLOUD 8 AMT 1 WEATHER															
0	13.29	33.315	6.29							0	13.29	33.32	25.06	291.6	0
10	13.26	33.310	6.27							10	13.26	33.31	25.06	291.7	.029
19	13.24	33.322	6.30							20	13.20	33.33	25.09	289.6	.058
30	12.75	33.423	5.60							30	12.75	33.43	25.25	274.2	.086
49	12.40	33.438	5.50							50	12.36	33.44	25.34	266.5	.140
75	11.22	33.538	4.24							75	11.22	33.54	25.63	239.3	.204
99	10.27	33.715	3.46							100	10.24	33.72	25.94	210.1	.260
148	9.36	33.972	2.56							150	9.33	33.98	26.29	177.4	.357
198	8.77	34.093	1.98							200	8.75	34.10	26.43	160.6	.441
298	7.83	34.132	1.22							250	8.24	34.11	26.57	152.6	.519
										300	7.81	34.13	26.64	146.0	.594
SP 60 31 44.5 N 116 53.7 W DATE 06 MAR 70 0034 GCT WIRE 00 DRY 58.9 WET 53.7 CRUISE C70020															
WIND DIRECTION 31 VEL 14 KTS BAR 14 SWELL DIRECTION 29 H 06 T 06 CLOUD 8 AMT 0 WEATHER 02															
0	14.70	33.395	5.97							0	14.70	33.40	24.83	313.6	0
10	14.71	33.387	5.99							10	14.71	33.39	24.82	314.7	.031
20	14.25	33.445	6.00							20	14.25	33.45	24.96	301.4	.062
30	13.66	33.501	5.95							30	13.66	33.51	25.13	285.9	.092
40	13.15	33.526	5.70							50	12.84	33.57	25.34	266.1	.147
50	12.84	33.564	5.45							75	11.77	33.72	25.66	236.1	.210
76	11.73	33.721	4.52							100	10.91	33.57	25.71	232.1	.268
101	10.88	33.568	3.58							150	10.18	34.04	26.19	186.9	.373
150	10.18	34.032	2.47							200	9.00	34.11	26.45	163.3	.460
201	8.98	34.115	2.40							250	8.52	34.21	26.60	150.0	.539
302	8.25	34.282	1.01							300	8.26	34.28	26.70	141.5	.611
403	6.99	34.300	0.73							400	7.03	34.30	26.89	124.1	.744
503	6.24	34.313	0.50							500	6.26	34.31	27.00	113.4	.863

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
SP 61 28 48.0 N 115 58.0 W DATE 06 MAR 70 2134 GCT WIRE 04 DRY 62.5 WET 60.8 CRUISE C70020																	
WIND DIRECTION 26 VEL 15 KTS BAR 20 SWELL DIRECTION30 H 05 T 06 CLOUD 8 AMT 1 WEATHER 02																	
0	15.83	33.362	5.76							0	15.83	33.37	24.56	339.6	0		
10	15.79	33.362	5.80							10	15.79	33.37	24.56	339.0	.034		
20	15.72	33.365	5.84							20	15.72	33.37	24.58	337.6	.068		
31	15.72	33.363	5.83							30	15.72	33.36	24.58	338.3	.102		
50	16.16	33.774	5.80							50	16.16	33.78	24.80	318.1	.167		
77	13.18	33.673	4.36							75	13.46	33.69	25.31	269.5	.241		
101	11.07	33.709	3.61							100	11.14	33.71	25.77	226.4	.303		
151	9.56	33.899	3.18							150	9.57	33.89	26.19	187.3	.406		
203	9.08	34.121	2.41							200	9.09	34.11	26.43	165.0	.494		
305	7.89	34.226	1.37							250	8.51	34.20	26.59	150.4	.573		
406	7.42	34.329	0.60							300	7.94	34.23	26.70	140.8	.646		
609	5.72	34.440	0.18							400	7.44	34.32	26.85	128.2	.780		
813	4.64	34.448	0.35							500	6.66	34.39	27.02	112.8	.901		
										600	5.80	34.44	27.16	100.0	1.007		
										700	5.16	34.44	27.24	92.2	1.103		
										800	4.69	34.45	27.30	87.0	1.193		
SP 62 27 57.5 N 115 35.0 W DATE 07 MAR 70 0400 GCT WIRE 00 DRY 63.0 WET 59.8 CRUISE C70020																	
WIND DIRECTION 34 VEL 14 KTS BAR 20 SWELL DIRECTION29 H 05 T 08 CLOUD AMT 0 WEATHER 02																	
0	15.75	33.752			8.34	2.44				0	15.75	33.76	24.87	309.4	0		
10	15.82	33.752			8.40	2.46				10	15.82	33.76	24.86	311.2	.031		
20	15.83	33.788			8.38	2.48				20	15.83	33.79	24.88	309.1	.062		
31	15.80	33.865			8.34	2.50				30	15.82	33.86	24.93	304.4	.093		
51	13.82	34.018			8.10	2.50				50	13.94	34.01	25.46	254.7	.149		
78	12.94	34.034			8.06	2.53				75	12.97	34.03	25.67	235.1	.210		
103	12.58	34.103			8.03	2.51				100	12.63	34.09	25.78	225.1	.267		
124	11.84	34.340			8.04	2.56											
SP 63 27 11.5 N 114 51.5 W DATE 07 MAR 70 1055 GCT WIRE 11 DRY 62.3 WET 60.0 CRUISE C70020																	
WIND DIRECTION 34 VEL 18 KTS BAR 14 SWELL DIRECTION31 H 05 T 08 CLOUD AMT 0 WEATHER 02																	
0	16.89	34.095			8.41	2.42				0	16.90	34.10	24.87	309.3	0		
10	16.87	34.091				2.47				10	16.88	34.11	24.87	309.5	.031		
31	16.85	34.044				2.44				20	16.86	34.07	24.86	311.5	.062		
50	13.85	33.869			8.38	2.39				30	16.85	34.05	24.85	312.8	.093		
77	12.38	34.025			8.18	2.37				50	13.85	33.67	25.22	277.8	.152		
102	11.69	34.158			8.20	2.40				75	12.42	33.98	25.75	228.2	.215		
151	11.13	34.427			8.08	2.42				100	11.73	34.15	26.01	204.0	.269		
204	10.77	34.554			8.02	2.47				150	11.14	34.42	26.33	174.7	.364		
307	9.53	34.523			7.96	2.48				200	10.80	34.55	26.49	160.6	.448		
409	8.19	34.466			7.93	2.48				250	10.27	34.54	26.57	153.3	.525		
511	6.83	34.411			7.94	2.48				300	9.63	34.53	26.67	144.4	.601		
613	6.07	34.410			7.96	2.50				400	8.31	34.47	26.84	130.1	.738		
818	4.82	34.468			7.98	2.56				500	6.96	34.42	26.99	115.5	.861		
										600	6.15	34.41	27.09	106.7	.972		
										700	5.49	34.42	27.19	97.9	1.074		
										800	4.91	34.46	27.28	88.9	1.167		
SP 64 26 25.7 N 114 08.5 W DATE 07 MAR 70 1834 GCT WIRE 10 DRY 63.7 WET 60.7 CRUISE C70020																	
WIND DIRECTION 35 VEL 10 KTS BAR 19 SWELL DIRECTION31 H 05 T 07 CLOUD AMT 0 WEATHER 02																	
0	17.20	34.191			8.26	2.49				0	17.21	34.20	24.87	309.3	0		
10	17.16	34.187			8.21	2.55				10	17.17	34.19	24.88	309.0	.031		
30	17.13	34.190			8.29	2.58				20	17.15	34.19	24.88	309.1	.062		
50	16.18	34.021			8.28	2.54				30	17.13	34.20	24.89	308.7	.093		
76	12.72	33.951			8.16	2.55				50	16.18	34.03	24.98	300.5	.154		
101	11.98	34.102			8.14	2.56				75	12.85	33.95	25.64	238.5	.221		
157	11.56	34.545				2.57				100	11.98	34.09	25.91	212.8	.277		
201	10.95	34.591			8.16	2.56				150	11.56	34.55	26.35	172.9	.374		
303	9.27	34.494			8.15	2.60				200	10.96	34.59	26.49	160.4	.457		
403	8.04	34.475			8.15	2.55				250	10.15	34.56	26.60	150.3	.535		
504	7.10	34.460			8.11	2.56				300	9.32	34.50	26.70	141.9	.608		
604	6.28	34.444			8.10	2.54				400	8.07	34.48	26.88	126.2	.742		
806	4.96	34.472								500	7.13	34.46	27.00	114.6	.862		
1006	4.19	34.517								600	6.31	34.44	27.10	106.3	.973		
										700	5.59	34.45	27.20	97.2	1.074		
										800	4.99	34.47	27.28	89.0	1.167		
										1000	4.21	34.52	27.41	78.0	1.334		

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
SP 65 25 20.0 N 113 12.6 W										DATE 08 MAR 70 0353 GCT WIRE 10 DRY 66.2 WET 63.1 CRUISE C70020						
WIND DIRECTION 29 VEL 14 KTS										BAR 16 SWELL DIRECTION31 H 04 T 08 CLOUD AMT 0 WEATHER 02						
0	19.02	34.352			8.28					0	19.02	34.36	24.55	340.3	0	
10	19.01	34.348			8.28					10	19.01	34.35	24.55	340.7	.034	
31	18.95	34.352			8.36					20	19.00	34.35	24.55	340.7	.068	
50	18.71	34.329			8.41					30	18.96	34.35	24.56	340.0	.102	
77	15.69	34.201			8.25					50	18.71	34.33	24.61	336.1	.170	
101	13.13	34.164			8.05					75	15.97	34.21	25.17	283.0	.247	
152	12.00	34.513			8.00					100	13.22	34.17	25.73	230.7	.311	
203	11.20	34.621			7.96					150	12.04	34.50	26.21	185.5	.415	
305	9.78	34.588			7.96					200	11.24	34.62	26.46	163.2	.503	
407	8.01	34.429			7.95					250	10.55	34.61	26.57	153.3	.582	
508	6.92	34.426			7.96					300	9.85	34.59	26.69	143.4	.656	
609	6.16	34.447			7.98					400	8.13	34.44	26.84	129.7	.792	
813	4.85	34.482			7.96					500	6.99	34.43	26.99	115.1	.915	
										600	6.22	34.44	27.11	105.1	1.025	
										700	5.54	34.46	27.21	95.6	1.125	
										800	4.92	34.48	27.30	87.5	1.216	
SP 66 24 26.9 N 112 42.5 W										DATE 08 MAR 70 1106 GCT WIRE 15 DRY 67.0 WET 62.0 CRUISE C70020						
WIND DIRECTION 31 VEL 10 KTS										BAR 14 SWELL DIRECTION31 H 04 T 08 CLOUD AMT 0 WEATHER 02						
0	19.61	34.296			8.19					0	19.61	34.30	24.35	358.8	0	
10	19.60	34.296			8.06					10	19.60	34.30	24.36	358.9	.036	
30	19.50	34.283			8.20					20	19.55	34.29	24.36	358.7	.072	
50	17.13	34.043			8.27					30	19.50	34.29	24.37	358.0	.108	
77	14.22	33.849			8.26					50	17.13	34.05	24.78	320.1	.175	
101	13.24	34.025			8.07					75	14.40	33.85	25.24	276.2	.250	
151	12.10	34.471			7.97					100	13.26	34.01	25.60	242.6	.315	
202	11.34	34.630			7.92					150	12.11	34.46	26.17	189.3	.423	
304	10.00	34.609			7.88					200	11.37	34.63	26.44	164.8	.511	
405	8.53	34.532			7.88					250	10.70	34.62	26.56	154.8	.591	
506	7.15	34.483			7.84					300	10.05	34.61	26.67	145.3	.666	
607	6.25	34.479			7.84					400	8.60	34.54	26.84	129.9	.804	
810	5.20	34.496			7.79					500	7.22	34.48	27.01	114.1	.926	
1012	4.54	34.516			7.78					600	6.30	34.48	27.13	103.6	1.034	
										700	5.68	34.48	27.21	95.9	1.134	
										800	5.24	34.49	27.27	90.3	1.227	
										1000	4.57	34.51	27.37	82.6	1.400	
SP 67 23 19.6 N 111 45.0 W										DATE 08 MAR 70 0100 GCT WIRE 15 DRY 70.8 WET 65.5 CRUISE C70020						
WIND DIRECTION 30 VEL 10 KTS										BAR 14 SWELL DIRECTION32 H 03 T 10 CLOUD 8 AMT 2 WEATHER 02						
0	19.91	34.352								0	19.92	34.36	24.32	362.1	0	
10	19.40	34.344								10	19.40	34.35	24.45	350.4	.036	
30	19.02	34.321								20	19.17	34.34	24.50	346.0	.070	
49	18.42	34.243								30	19.02	34.33	24.52	343.5	.105	
76	14.85	33.794								50	18.31	34.22	24.63	334.3	.173	
100	12.65	33.924								75	15.00	33.81	25.08	291.9	.251	
149	12.66	34.560								100	12.65	33.93	25.66	237.3	.317	
200	11.54	34.584								150	12.64	34.56	26.15	191.7	.424	
300	10.00	34.593								200	11.54	34.59	26.38	170.8	.515	
400	8.66	34.540								250	10.70	34.59	26.53	157.2	.597	
500	7.21	34.494								300	10.00	34.60	26.66	145.7	.673	
600	6.50	34.498								400	8.66	34.54	26.84	130.2	.811	
800	5.22	34.568								500	7.21	34.50	27.02	112.9	.932	
999	4.21	34.529								600	6.51	34.50	27.12	104.7	1.041	
										700	5.83	34.53	27.23	94.2	1.140	
										800	5.22	34.57	27.34	84.4	1.229	
										1000	4.20	34.53	27.42	77.0	1.391	
SP 68 22 33.0 N 110 30.0 W										DATE 09 MAR 70 0832 GCT WIRE 05 DRY 70.0 WET 66.5 CRUISE C70020						
WIND DIRECTION 32 VEL 12 KTS										BAR 13 SWELL DIRECTION31 H 03 T 08 CLOUD 0 AMT 2 WEATHER 02						
0	21.26	34.522								0	21.26	34.53	24.09	384.2	0	
10	21.25	34.519								10	21.25	34.52	24.09	384.6	.034	
20	21.23	34.520								20	21.28	34.52	24.08	385.6	.077	
31	19.43	34.290								30	19.62	34.31	24.36	359.0	.114	
51	18.56	34.250								50	18.58	34.25	24.58	338.9	.184	
73	15.16	34.088								75	15.56	34.10	25.18	282.4	.262	
103	13.47	34.250								100	13.60	34.22	25.69	234.3	.326	
129	13.07	34.585								150	12.69	34.69	26.24	183.2	.439	
154	12.61	34.701								200	11.45	34.68	26.47	162.4	.517	
180	11.90	34.690								250	10.57	34.64	26.60	151.0	.595	
205	11.35	34.679								300	9.85	34.60	26.69	143.2	.669	
309	9.74	34.591								400	8.54	34.57	26.88	126.2	.803	
412	8.39	34.569								500	7.38	34.45	26.96	118.9	.926	
617	6.27	34.314								600	6.41	34.33	27.00	116.0	1.043	
824	5.09	34.513								700	5.73	34.38	27.12	104.6	1.154	
1024	4.12	34.556								800	5.20	34.48	27.27	90.8	1.251	
										1000	4.24	34.55	27.43	75.9	1.414	

OBSERVED										INTERPOLATED				COMPUTED			
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)		
SP 69 22 36.0 N 109 56.0 W DATE 09 MAR 70 1345 GCT WIRE 12 DRY 67.2 WET 64.0 CRUISE C70020										WIND DIRECTION 29 VEL 18 KTS BAR 11 SWELL DIRECTION31 H 04 T 09 CLOUD 6 AMT 3 WEATHER 02							
0	21.10	34.468								0	21.10	34.47	24.09	384.0	0		
10	21.11	34.469								10	21.11	34.47	24.09	384.5	.038		
20	21.15	34.467								20	21.15	34.47	24.08	386.1	.077		
31	21.12	34.468								30	21.13	34.47	24.08	386.1	.116		
50	20.18	34.671								50	20.19	34.68	24.49	347.5	.189		
77	14.99	33.944								75	15.39	34.03	25.14	285.9	.268		
102	13.27	34.082								100	13.33	34.06	25.62	240.9	.334		
127	12.86	34.303								150	12.88	34.52	26.07	199.6	.444		
152	12.88	34.533								200	11.93	34.64	26.35	174.0	.537		
179	12.35	34.593								250	11.08	34.62	26.49	161.0	.621		
203	11.87	34.647								300	10.31	34.61	26.62	150.1	.699		
305	10.22	34.598								400	8.68	34.52	26.82	131.9	.840		
409	8.56	34.519								500	7.46	34.49	26.98	117.1	.964		
611	6.45	34.486								600	6.53	34.49	27.10	106.2	1.076		
816	5.08	34.501								700	5.77	34.49	27.20	96.7	1.177		
1019	4.34	34.524								800	5.16	34.50	27.29	89.1	1.270		
										1000	4.38	34.52	27.39	79.7	1.439		
SP 70 22 38.7 N 109 25.6 W DATE 09 MAR 70 1754 GCT WIRE 12 DRY 71.2 WET 64.8 CRUISE C70020										WIND DIRECTION 29 VEL 15 KTS BAR 12 SWELL DIRECTION31 H 03 T 06 CLOUD 0 AMT 4 WEATHER 02							
0	21.77	34.705								0	21.77	34.71	24.09	384.4	0		
10	21.75	34.705								10	21.75	34.71	24.09	384.2	.038		
20	21.77	34.706								20	21.77	34.71	24.09	385.0	.077		
31	21.74	34.708								30	21.74	34.71	24.09	384.8	.115		
50	21.64	34.653								50	21.65	34.66	24.08	386.5	.192		
77	17.89	34.653								75	18.23	34.65	24.97	302.2	.279		
101	15.20	34.740								100	15.29	34.74	25.73	231.0	.345		
127	13.59	34.729								150	12.91	34.76	26.25	182.3	.449		
152	12.87	34.764								200	11.94	34.76	26.44	165.7	.535		
178	12.43	34.762								250	11.07	34.71	26.56	154.4	.615		
203	11.87	34.756								300	10.34	34.65	26.65	147.4	.691		
305	10.27	34.645								400	8.76	34.56	26.83	130.8	.830		
407	8.65	34.550								500	7.52	34.52	26.99	115.9	.953		
609	6.50	34.513								600	6.57	34.51	27.12	104.7	1.064		
813	5.22	34.519								700	5.84	34.52	27.22	95.8	1.164		
1015	4.43	34.538								800	5.28	34.52	27.29	89.2	1.256		
										1000	4.47	34.54	27.39	79.8	1.425		
SP 71 22 40.0 N 108 53.8 W DATE 09 MAR 70 2223 GCT WIRE 15 DRY 72.3 WET 70.2 CRUISE C70020										WIND DIRECTION 24 VEL 05 KTS BAR 10 SWELL DIRECTION27 H 02 T 06 CLOUD 0 AMT 4 WEATHER 02							
0	21.88	34.625				2.58				0	21.88	34.63	23.99	393.1	0		
10	21.43	34.641				2.69				10	21.44	34.65	24.13	380.4	.039		
19	21.30	34.609				2.71				20	21.30	34.62	24.15	379.4	.077		
30	21.25	34.703				2.72				30	21.25	34.71	24.23	372.0	.114		
49	20.38	34.665				2.74				50	20.30	34.66	24.45	351.2	.187		
76		34.658				2.40				75	18.22	34.66	24.98	301.5	.268		
100		34.552				2.70				100	16.13	34.56	25.41	262.1	.339		
125	14.04	34.791				2.55				150	12.95	34.85	26.31	176.3	.448		
149	12.97	34.855				2.61				200	12.13	34.84	26.46	163.2	.533		
176	12.66	34.854				2.63				250	11.22	34.79	26.59	151.8	.612		
200	12.13	34.935				2.65				300	10.45	34.73	26.69	143.3	.685		
301	10.44	34.733								400	9.05	34.66	26.87	128.1	.821		
400	9.05	34.652				2.51				500	7.74	34.61	27.03	112.7	.941		
600	6.63	34.586				2.59				600	6.64	34.59	27.17	100.0	1.048		
801	5.21	34.571				2.69				700	5.83	34.57	27.26	91.3	1.143		
1000	4.33	34.602				2.64				800	5.22	34.57	27.34	84.4	1.231		
										1000	4.33	34.60	27.46	73.1	1.389		
SP 72 22 42.0 N 104 30.5 W DATE 10 MAR 70 0229 GCT WIRE 00 DRY 71.0 WET 65.0 CRUISE C70020										WIND DIRECTION 25 VEL 11 KTS BAR 10 SWELL DIRECTION25 H 03 T 03 CLOUD 6 AMT 7 WEATHER 02							
0	21.74	34.635								0	21.75	34.64	24.04	388.7	0		
10	21.50	34.649								10	21.50	34.65	24.12	381.7	.039		
20	21.49	34.742								20	21.50	34.75	24.19	375.1	.076		
31	21.43	34.744								30	21.45	34.74	24.20	374.5	.114		
51	19.39	34.862								50	19.52	34.86	24.80	317.9	.183		
78	16.70	34.855								75	16.97	34.86	25.43	258.4	.255		
103	15.09	34.692								100	15.24	34.71	25.72	231.9	.316		
128	14.17	34.768								150	13.39	34.74	26.16	190.6	.422		
153	13.29	34.777								200	12.05	34.74	26.40	168.9	.512		
180	12.51	34.758								250	11.03	34.68	26.54	156.3	.593		
205	11.94	34.736								300	10.16	34.62	26.65	146.9	.669		
308	10.03	34.607								400	8.77	34.56	26.84	130.5	.808		
411	8.64	34.560								500	7.54	34.53	27.00	115.6	.931		
616	6.35	34.499								600	6.50	34.50	27.12	104.7	1.041		
822	5.15	34.511								700	5.77	34.50	27.22	95.7	1.141		
1026	4.30	34.680								800	5.24	34.50	27.28	89.8	1.233		
										1000	4.39	34.65	27.49	70.3	1.393		

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
SP 73 22 45.0 N 107 49.0 W DATE 10 MAR 70 0649 GCT WIRE 00 DRY 69.8 WET 63.5 CRUISE C70020																	
WIND DIRECTION 25 VEL 10 KTS BAR 10 SWELL DIRECTION 27 H 03 T 08 CLOUD 3 AMT 2 WEATHER 02																	
0	21.79	34.645								0	21.79	34.65	24.03	389.3	0		
10	21.78	34.645								10	21.78	34.65	24.04	389.4	.039		
20	21.81	34.647								20	21.81	34.65	24.03	390.4	.078		
31	20.37	34.374								30	20.53	34.40	24.19	375.3	.116		
51	18.66	34.173								50	18.73	34.18	24.48	348.0	.189		
78	16.10	34.258								75	16.37	34.23	25.10	290.5	.268		
103	14.46	34.629								100	14.63	34.59	25.76	228.0	.333		
129	12.99	34.598								150	12.77	34.65	26.19	167.9	.437		
154	12.77	34.663								200	12.01	34.73	26.40	168.6	.526		
181	12.29	34.722								250	11.22	34.71	26.53	157.3	.608		
206	11.92	34.734								300	10.40	34.66	26.64	148.0	.684		
319	10.23	34.644								400	8.69	34.55	26.84	130.4	.823		
413	8.48	34.534								500	7.47	34.52	27.00	115.1	.946		
614	6.48	34.501								600	6.60	34.50	27.11	106.0	1.056		
825	5.12	34.540								700	5.87	34.52	27.21	96.1	1.157		
1030	4.25	34.504								800	5.25	34.54	27.30	87.6	1.249		
										1000	4.35	34.51	27.39	79.8	1.416		
SP 74 22 54.0 N 107 17.0 W DATE 10 MAR 70 1420 GCT WIRE 00 DRY 69.8 WET 68.0 CRUISE C70020																	
WIND DIRECTION 27 VEL 06 KTS BAR 11 SWELL DIRECTION 25 H 03 T 08 CLOUD 0 AMT 6 WEATHER 02																	
0	21.75	34.670			8.25	2.30				0	21.75	34.67	24.06	386.4	0		
10	21.79	34.673			8.23	2.31				10	21.79	34.68	24.06	387.6	.039		
20	21.80	34.673			8.34	2.53				20	21.80	34.68	24.05	388.2	.077		
31	20.70	34.579			8.24	2.43				30	20.83	34.59	24.25	369.3	.115		
51	18.39	34.238				2.40				50	18.50	34.25	24.60	337.0	.186		
77	16.83	34.616			7.84	2.42				75	16.94	34.58	25.23	277.7	.263		
102	14.58	34.539			7.79	2.42				100	14.75	34.55	25.70	233.3	.327		
128	13.37	34.644			7.77	2.46				150	12.91	34.73	26.22	184.8	.431		
153	12.87	34.737			7.74	2.44				200	11.96	34.73	26.41	168.3	.519		
180	12.40	34.739			7.74	2.47				250	11.15	34.69	26.53	157.6	.601		
205	11.85	34.713			7.79	2.55				300	10.53	34.64	26.60	151.6	.678		
308	10.45	34.631			7.72	2.44				400	9.18	34.58	26.79	135.8	.822		
410	9.04	34.574			7.73	2.44				500	7.87	34.53	26.95	120.0	.950		
615	6.58	34.501			7.74	2.44				600	6.74	34.50	27.09	107.8	1.064		
820	5.08	34.509			7.74	2.48				700	5.86	34.50	27.21	96.8	1.166		
1024	4.31	34.528			7.75	2.55				800	5.19	34.51	27.29	88.9	1.259		
										1000	4.36	34.53	27.40	79.2	1.427		
SP 75 22 49.5 N 106 44.8 W DATE 10 MAR 70 1938 GCT WIRE 00 DRY 74.0 WET 69.1 CRUISE C70020																	
WIND DIRECTION 28 VEL 04 KTS BAR 12 SWELL DIRECTION 25 H 03 T 05 CLOUD 8 AMT 1 WEATHER 02																	
0	21.89	34.784	.53		8.26	2.43	.1	2		0	21.90	34.79	24.11	381.9	0		
10	21.22	34.783	.61		8.30	2.46	.3	2		10	21.23	34.79	24.30	364.7	.037		
20	21.09	34.759	.84		7.94	2.46	.4	3		20	21.09	34.76	24.31	363.4	.074		
31	21.02	34.740	.37		8.17	2.44	.5	2		30	21.05	34.74	24.31	364.2	.110		
50	18.08	34.933	2.33		7.92	2.43	20.9	15		50	18.08	34.94	25.23	277.3	.174		
77	15.47	34.673	2.12		7.82	2.43	25.3	24		75	15.61	34.70	25.63	240.0	.239		
101	14.10	34.762	1.57		7.81	2.46	18.9	20		100	14.15	34.76	25.99	205.7	.295		
127	12.93	34.685	2.25		7.82	2.47	22.9			150	12.36	34.71	26.31	176.0	.390		
152	12.33	34.709	2.21		7.78	2.47	24.0	27		200	11.90	34.73	26.42	167.0	.476		
173	12.11	34.709	2.39		7.78	2.46	23.6	27		250	11.30	34.72	26.52	158.2	.557		
203	11.88	34.733	2.56		7.79	2.46	27.8	32		300	10.56	34.67	26.62	149.9	.634		
305	10.48	34.663	1.95		7.49	2.44	17.7	27		400	9.13	34.59	26.80	134.3	.776		
406	9.04	34.583	2.40		7.66	2.46	23.9	39		500	7.71	34.54	26.98	117.4	.902		
609	6.41	34.509	2.59		7.70	2.48	27.6	41		600	6.51	34.51	27.13	104.2	1.013		
813	5.21	34.513	2.93		7.70	2.48	37.2	56		700	5.70	34.51	27.23	94.2	1.112		
										800	5.24	34.51	27.29	89.3	1.203		
SP 76 22 31.5 N 107 10.5 W DATE 10 MAR 70 2334 GCT WIRE 10 DRY 72.9 WET 64.0 CRUISE C70020																	
WIND DIRECTION 00 VEL 00 KTS BAR 10 SWELL DIRECTION 27 H 03 T 09 CLOUD 6 AMT 2 WEATHER 02																	
0	22.85	34.635	5.10							0	22.85	34.64	23.73	418.5	0		
10	21.67	34.620	5.15							10	21.67	34.63	24.05	388.3	.040		
20	21.67	34.630	5.15							20	21.67	34.63	24.06	387.9	.079		
30	21.39	34.627	5.22							30	21.40	34.63	24.13	381.1	.118		
50	18.51	34.442	3.62							50	18.51	34.45	24.75	323.1	.188		
76	15.66									75	15.74	34.52	25.46	255.8	.260		
101	14.87	34.705	0.31							100	14.89	34.70	25.79	225.4	.320		
126	13.76	34.760	0.16							150	13.18	34.78	26.21	186.5	.423		
151	13.16	34.776	0.11							200	11.98	34.75	26.42	166.9	.512		
177	12.52	34.781	0.08							250	11.14	34.70	26.54	156.8	.593		
202	11.94	34.748	0.19							300	10.48	34.65	26.62	149.9	.669		
304	10.44	34.648	0.08							400	9.13	34.56	26.77	136.9	.813		
405	9.07	34.551	0.13							500	7.87	34.51	26.93	121.7	.942		
607	6.72	34.498	0.11							600	6.79	34.50	27.08	108.9	1.057		
810	5.39	34.512	0.18							700	6.03	34.50	27.18	99.6	1.161		
1011	4.26	34.546	0.43							800	5.44	34.51	27.26	91.9	1.257		
										1000	4.32	34.54	27.42	77.3	1.426		

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
SP 85 20 40.0 N 107 29.9 W DATE 13 MAR 70 0500 GCT WIRE 00 DRY 71.8 WET 66.0 CRUISE C70020																
WIND DIRECTION 03 VEL 12 KTS BAR 14 SWELL DIRECTION31 H 04 T 07 CLOUD 4 AMT 2 WEATHER 02																
0	22.63	34.594	5.02							0	22.63	34.60	23.76	415.5	0	
10	22.61	34.590	5.30							10	22.61	34.59	23.76	415.6	.042	
20	22.65	34.592	5.04							20	22.65	34.60	23.75	416.9	.083	
31	22.62	34.593	5.06							30	22.63	34.59	23.76	417.0	.125	
51	21.31	34.833	5.07							50	21.40	34.82	24.27	368.2	.203	
78	18.96	34.520	5.32							75	19.29	34.56	24.64	334.3	.291	
103	15.03	34.614	0.81							100	15.47	34.59	25.54	245.3	.364	
129	13.99	34.713	0.64							150	13.18	34.74	26.18	189.2	.472	
154	13.07	34.740	0.37							200	12.17	34.72	26.36	172.8	.563	
180	12.59	34.720	0.72							250	11.34	34.70	26.53	160.5	.646	
205	12.07	34.719	0.32							300	10.61	34.65	26.60	151.8	.724	
309	10.48	34.644	0.09							400	8.83	34.53	26.81	133.6	.867	
412	8.62	34.520	0.15							500	7.47	34.50	26.99	116.2	.992	
617	6.33	34.484	0.13							600	6.47	34.49	27.11	105.3	1.102	
823	4.95	34.512	0.23							700	5.68	34.49	27.22	95.4	1.203	
1028	4.19	34.540	0.48							800	5.07	34.51	27.30	87.2	1.294	
										1000	4.26	34.54	27.42	77.1	1.458	
SP 86 20 40.3 N 106 58.8 W DATE 13 MAR 70 1335 GCT WIRE 00 DRY 69.7 WET 66.0 CRUISE C70020																
WIND DIRECTION 00 VEL 13 KTS BAR 13 SWELL DIRECTION30 H 05 T 07 CLOUD 8 AMT 2 WEATHER 01																
0	23.34	34.394	4.82			2.31				0	23.34	34.40	23.41	449.4	0	
10	23.33	34.395	4.83			2.54				10	23.33	34.40	23.41	449.4	.045	
20	22.50	34.515	3.62			2.52				20	22.50	34.52	23.74	418.4	.088	
31	19.29	34.516	2.34			2.49				30	19.60	34.52	24.52	343.9	.126	
50	17.17	34.572	0.64			2.52				50	17.17	34.58	25.17	282.5	.189	
77	15.43	34.683	0.16			2.53				75	15.53	34.67	25.63	239.8	.254	
102	13.98	34.782	0.08			2.57				100	14.08	34.78	26.02	203.0	.310	
127	13.36	34.793	0.08			2.57				150	12.99	34.86	26.31	176.8	.405	
152	12.96	34.862	0.09			2.57				200	12.19	34.79	26.41	168.1	.491	
178	12.65	34.801	0.11			2.58				250	11.37	34.75	26.54	156.9	.572	
203	12.12	34.786	0.11			2.59				300	10.68	34.71	26.63	149.3	.649	
306	10.61	34.702	0.09			2.57				400	9.14	34.60	26.81	133.5	.790	
407	9.03	34.595	0.08							500	7.75	34.54	26.97	117.9	.915	
610	6.53	34.506	0.10							600	6.63	34.51	27.11	106.0	1.027	
814	5.30	34.513	0.16							700	5.90	34.51	27.20	97.0	1.129	
1017	4.22	34.546	0.47							800	5.36	34.51	27.27	90.8	1.223	
										1000	4.30	34.54	27.42	77.2	1.391	
SP 87 20 49.4 N 106 28.6 W DATE 13 MAR 70 2055 GCT WIRE 00 DRY 79.6 WET 71.2 CRUISE C70020																
WIND DIRECTION VEL KTS BAR 14 SWELL DIRECTION34 H 03 T 06 CLOUD 0 AMT 5 WEATHER 02																
0	24.27	34.441	4.83			2.44				0	24.27	34.45	23.17	472.0	0	
10	23.70	34.429	4.83		8.31	2.48				10	23.71	34.43	23.33	457.2	.046	
31	23.59	34.427	4.75							20	23.65	34.43	23.34	456.4	.092	
51	19.10	34.502	0.97		8.00	2.39				30	23.63	34.43	23.34	456.4	.138	
78	15.44	34.697	0.26		7.88	2.43				50	19.36	34.50	24.57	339.9	.217	
103	14.56	34.748	0.13		7.92	2.49				75	15.71	34.68	25.59	243.5	.290	
154	12.80	34.792	0.10		7.98	2.47				100	14.60	34.75	25.89	215.8	.348	
206	12.39	34.780	0.08		7.85	2.47				150	12.91	34.79	26.27	180.2	.447	
412	8.49	34.548	0.15		7.78	2.47				200	12.41	34.78	26.37	172.5	.535	
618	6.16	34.489	0.10		7.77					250	11.64	34.74	26.48	163.1	.619	
824	5.00	34.507	0.19		7.71	2.50				300	10.74	34.68	26.60	152.1	.698	
1029	4.23	34.536	0.48		7.71	2.50				400	8.75	34.56	26.84	130.1	.839	
1236	3.63	34.556	0.81		7.73	2.51				500	7.33	34.51	27.01	113.9	.961	
1441	3.18	34.581	1.13		7.79	2.50				600	6.31	34.49	27.14	103.0	1.069	
1648	2.75	34.597	1.39		7.80	2.49				700	5.60	34.49	27.23	94.4	1.168	
1853	2.40	34.615	1.77		7.78	2.48				800	5.10	34.50	27.30	88.0	1.259	
2060	2.12	34.631	2.13		7.91	2.46				1000	4.32	34.53	27.41	78.2	1.425	
2225	1.97	34.639	2.34		7.83	2.64				1200	3.72	34.55	27.49	70.7	1.574	
2470	1.89	34.640	2.43		7.80	2.61				1500	3.05	34.59	27.58	62.3	1.773	
3354*	1.88	34.645	2.50	2.87	8.08	2.59	39.7	153		2000	2.19	34.63	27.68	51.8	2.058	
3675*	1.90	34.646	2.50	2.84	8.13	2.59	39.9	142		2500	1.89	34.64	27.72	49.5	2.311	
3997*	1.95	34.646	2.51	2.65	8.08	2.63	39.4	139		3000	1.88	34.64	27.72	51.0	2.562	
4246*	1.99	34.646	2.50	2.47	7.98	2.57	40.0	155		4000	1.95	34.65	27.72	54.4	3.088	
4416*	2.02	34.646	2.50				38.9									

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
SP 89 20 30.0 N 105 57.8 W DATE 14 MAR 70 0525 GCT WIRE 00 DRY 75.0 WET 68.0 CRUISE C70020															
WIND DIRECTION 04 VEL 04 KTS BAR 15 SWELL DIRECTION 31 H 03 T 06 CLOUD 0 AMT 2 WEATHER 02															
0	23.64	34.557	5.15	.29				.1	2	0	23.65	34.56	23.44	445.9	0
10	22.62	34.551	4.98	.58				.3	1	10	22.63	34.56	23.73	418.7	.043
16	20.94	34.538	1.93	1.53				13.9	9	20	20.17	34.53	24.35	356.8	.082
20	20.16	34.521	1.21	1.68				18.5	12	30	18.26	34.53	24.87	310.3	.115
25	18.09	34.512	.87	2.05				22.0	13	50	16.65	34.63	25.34	266.9	.173
31	18.34	34.541	.83	2.55				25.4	25	75	14.78	34.72	25.83	220.3	.234
35	17.40	34.592	.56	2.14				23.1	17	100	13.57	34.80	26.14	191.1	.285
45	16.84	34.625	.45	2.28				25.3	19	150	12.40	34.81	26.39	169.1	.375
51	16.61	34.629	.45	2.26				25.9	20	200	11.96	34.80	26.46	163.0	.458
78	14.53	34.740	.11	2.01				22.6	14	250	11.41	34.75	26.53	157.9	.539
103	13.48	34.805	.11	2.47				28.2	26	300	10.66	34.68	26.62	150.5	.616
129	12.76	34.795	.15	2.63				28.3	30	400	8.64	34.57	26.87	127.7	.755
154	12.35	34.814	.08	2.62				26.5	28						
206	11.92	34.793	.15	2.66				29.1	33						
310		34.671	.11	2.87				26.6	43						
413	8.33	34.561	.10	3.08				32.8	57						
PL 90 24 53.6 N 108 55.5 W DATE 19 MAR 70 1723 GCT WIRE 18 DRY 70.5 WET 69.7 CRUISE C70020															
WIND DIRECTION 31 VEL 09 KTS BAR 15 SWELL DIRECTION H T CLOUD 3 AMT 5 WEATHER 02															
0	20.21	35.295	5.80		8.34	2.56				0	20.21	35.30	24.96	301.3	0
10	19.89	35.291	5.88	.89	8.33	2.58	.1	2		10	19.90	35.30	25.04	293.9	.030
19	19.25	35.287	5.55		8.30					20	19.17	35.28	25.22	277.2	.058
30	18.34	35.234	4.59		8.23	2.58				30	18.34	35.24	25.39	260.9	.085
49	17.26	35.191	3.79		8.15	2.60				50	17.20	35.19	25.63	238.7	.135
100	14.46	34.938	1.29		7.92	2.60				75	15.72	35.06	25.88	215.7	.192
125	13.67	34.884	.97	2.80	7.85	2.59	27.3	41		100	14.46	34.94	26.07	198.6	.244
149	13.16	34.859	.82		7.89	2.60				150	13.14	34.86	26.28	179.8	.338
176	12.75	34.852	.72	2.97	7.85	2.60	29.5	44		200	12.29	34.83	26.42	167.3	.425
200	12.29	34.820	.57		7.82	2.60				250	11.46	34.76	26.53	158.2	.506
301	10.69	34.696	.31	2.63	7.77	2.58	29.8	44		300	10.70	34.70	26.62	150.4	.584
401	9.17	34.601	.11	2.76	7.77	2.60	29.3	49		400	9.19	34.60	26.80	134.3	.726
450	8.20	34.560	.24	2.83	7.77	2.60	34.9	55							
PL 91 24 51.5 N 109 05.6 W DATE 20 MAR 70 0456 GCT WIRE 02 DRY 71.3 WET 68.6 CRUISE C70020															
WIND DIRECTION 35 VEL 18 KTS BAR 14 SWELL DIRECTION 34 H 03 T 04 CLOUD 6 AMT 8 WEATHER 20															
0	20.77	34.588								0	20.77	34.59	24.27	366.8	0
10	20.76	34.590								10	20.76	34.59	24.27	366.7	.037
20	20.30	34.551								20	20.30	34.56	24.37	358.2	.073
31	19.93	34.717								30	19.05	34.70	24.80	317.3	.107
50	19.12	35.223								50	19.13	35.23	25.19	281.2	.167
77	15.87	34.870								75	16.14	34.91	25.67	236.0	.231
102	14.82	34.958								100	14.87	34.95	25.98	206.8	.286
152	13.09	34.850								150	13.15	34.86	26.28	179.9	.383
204	11.64	34.729								200	11.74	34.74	26.46	163.4	.469
306	10.18	34.630								250	10.84	34.67	26.57	153.7	.548
408	9.12	34.593								300	10.23	34.63	26.65	147.1	.623
612	6.87	34.524								400	9.20	34.59	26.79	134.9	.764
714	5.81	34.512								500	8.11	34.56	26.94	121.8	.893
										600	7.00	34.53	27.07	109.9	1.008
										700	5.95	34.51	27.20	97.4	1.112
LG 92 24 24.2 N 110 14.9 W DATE 22 MAR 70 0240 GCT WIRE 00 DRY 69.0 WET 59.0 CRUISE C70020															
WIND DIRECTION 32 VEL 16 KTS BAR 13 SWELL DIRECTION 32 H 04 T 03 CLOUD 6 AMT 4 WEATHER 02															
0	20.56	34.625	5.35	.54	8.32	2.52	.1	3		0	20.56	34.63	24.35	358.7	0
10	20.57	34.626	5.38	.47	8.33	2.52	.2	4		10	20.57	34.63	24.35	359.3	.036
20	20.59	34.631	5.35	.45	8.33	2.52	.2	3		20	20.59	34.64	24.35	359.8	.072
31	20.38	34.790	5.31	.37	8.32	2.53	.4	4		30	20.42	34.77	24.50	345.8	.107
51	17.78	35.034	3.45	1.70	8.15	2.54	13.7	17		50	17.94	35.03	25.33	267.5	.168
78	14.82	34.932	1.13	2.04	7.91	2.54	16.3	23		75	15.08	34.95	25.94	209.8	.228
103	14.13	34.910	.87	2.95	7.88	2.55	27.4	40		100	14.15	34.91	26.11	194.6	.279
129	13.65	34.878	.81	2.65	7.87	2.55	27.9	43		150	13.18	34.86	26.27	180.3	.372
154	13.09	34.858	.63	2.79	7.73	2.55	27.7	44		200	12.31	34.81	26.40	169.0	.460
181	12.64	34.833	.55	2.68	7.72	2.54	27.9	45							
206	12.21	34.797	.43	2.90	7.72	2.57	28.2	45							

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
LG 93 24 32.5 N 109 46.1 W DATE 22 MAR 70 1338 GCT WIRE 05 DRY 67.5 WET 62.4 CRUISE C70020																	
WIND DIRECTION 31 VEL 16 KTS BAR 13 SWELL DIRECTION00 H 05 T 05 CLOUD 8 AMT 3 WEATHER 02																	
0	20.09	34.542	5.27		8.36	2.54				0	20.09	34.55	24.42	352.9	0		
10	20.09	34.541	5.30		8.37	2.55				10	20.09	34.55	24.42	353.3	.035		
31	15.99	34.289	3.30	1.37	8.16	2.54	12.1	14		20	18.30	34.41	24.77	319.6	.069		
51	14.79	34.488	1.93	1.47	8.02	2.54	21.4	22		30	16.22	34.30	25.18	280.7	.099		
79	13.47	34.604	1.89	2.35	7.91	2.54	24.5	27		50	14.82	34.47	25.63	238.7	.151		
103	12.62	34.684	1.48	2.62	7.88	2.55	26.5	31		75	13.60	34.60	25.98	205.9	.206		
154	12.32	34.759	.32	2.99	7.85	2.55	28.1	38		100	12.70	34.68	26.23	183.3	.255		
206	11.26	34.794	.31	2.66	7.83	2.57	31.0	37		150	12.32	34.76	26.36	171.5	.344		
309	10.29	34.670	.40	2.87	7.79	2.57	27.1	45		200	11.39	34.71	26.50	159.0	.426		
412	9.07	34.597	.16	2.98	7.79	2.57	30.7	48		250	10.76	34.69	26.60	151.1	.504		
515	7.00	34.538	.15	3.25	7.79	2.58	41.9	53		300	10.34	34.67	26.66	146.0	.578		
618	6.27	34.522	.16	3.21	7.78	2.58	35.1	71		400	9.24	34.61	26.80	134.8	.718		
824	5.01	34.536	.32		7.78	2.59				500	7.29	34.54	27.05	110.6	.841		
										600	6.35	34.52	27.16	101.0	.947		
										700	5.74	34.53	27.24	93.5	1.044		
										800	5.14	34.53	27.31	86.5	1.134		

LG 94 24 41.5 N 109 27.5 W DATE 22 MAR 70 1826 GCT WIRE 05 DRY 74.5 WET 67.5 CRUISE C70020										WIND DIRECTION 32 VEL 18 KTS BAR 14 SWELL DIRECTION34 H 06 T 05 CLOUD 0 AMT 6 WEATHER 02							
0	20.98	34.642	5.23		8.34	2.49				0	20.98	34.65	24.25	368.3	0		
10	20.96	34.643	5.23		8.35	2.52				10	20.96	34.65	24.26	368.1	.037		
20	20.97	34.640	5.23		8.35	2.50				20	20.98	34.64	24.26	368.9	.074		
31	20.93	34.639	5.23		8.36	2.50				30	20.94	34.64	24.26	368.7	.111		
51	20.41	34.689	5.15		8.33	2.53				50	20.47	34.69	24.42	353.9	.183		
78	16.06	34.495	2.48		8.07	2.50				75	16.58	34.51	25.26	274.4	.261		
103	14.50	34.670	1.22		7.93	2.50				100	14.61	34.64	25.80	223.6	.324		
128	13.57	34.820	.71		7.87	2.50				150	13.00	34.80	26.26	181.0	.425		
153	12.94	34.798	.55		7.86	2.53				200	12.28	34.81	26.41	168.2	.512		
180	12.55	34.829	.64		7.84	2.53				250	11.43	34.74	26.52	158.7	.594		
205	12.21	34.800	.55		7.84	2.53				300	10.51	34.68	26.64	148.1	.670		
309	10.34	34.673	.24		7.78	2.54				400	8.91	34.60	26.84	130.0	.809		
411	8.75	34.593	.11			2.53				500	7.61	34.56	27.01	114.5	.931		
616	6.44	34.534	.12		7.78	2.53				600	6.58	34.54	27.14	103.3	1.040		
823	5.17	34.529	.16		7.75	2.55				700	5.84	34.53	27.23	94.5	1.139		
1027	4.31	34.546	.40		7.78	2.58				800	5.27	34.53	27.30	88.3	1.231		
										1000	4.40	34.54	27.41	78.4	1.397		

LG 95 24 51.8 N 109 08.2 W DATE 22 MAR 70 2312 GCT WIRE 05 DRY 72.0 WET 65.3 CRUISE C70020										WIND DIRECTION 31 VEL 18 KTS BAR 12 SWELL DIRECTION34 H 05 T 06 CLOUD 1 AMT 8 WEATHER 03							
0	19.67	35.305	5.71	.89	8.32	2.55	1.1	3		0	19.67	35.31	25.11	287.1	0		
10	19.53	35.297	5.67	1.07	8.34	2.58	1.4	3		10	19.53	35.30	25.14	284.5	.029		
20	19.37	35.283	5.55	.18	9.34	2.61	2.0	4		20	19.38	35.29	25.17	281.9	.057		
31	19.17	35.283	5.31	.95	8.32	2.61	3.4	6		30	19.19	35.28	25.21	278.2	.085		
50	14.20	35.236	4.51	1.53			10.1	12		50	18.21	35.24	25.43	258.1	.139		
77	17.01	35.190	3.77	1.82	8.15	2.59	16.7	25		75	17.12	35.20	25.66	236.8	.200		
102	14.39	34.829	1.29	2.69	7.89	2.56	27.1	34		100	14.60	34.86	25.97	207.6	.256		
127	13.44	34.798	1.21	2.79	7.87	2.56	28.4	36		150	12.92	34.81	26.28	179.3	.353		
152	12.89	34.808	.97		7.86	2.56				200	12.18	34.78	26.41	168.3	.439		
179	12.50	34.794	.90		7.84	2.55				250	11.27	34.73	26.54	157.0	.521		
203	12.13	34.779	.39	2.86	7.84	2.54	28.8	40		300	10.36	34.67	26.66	146.6	.597		
306	10.25	34.661	.39	3.06	7.79	2.54	29.2	48		400	8.98	34.61	26.84	130.6	.735		
408	8.88	34.603	.11	3.10	7.78	2.54	32.9	55		500	7.80	34.56	26.98	117.0	.859		
611	6.68	34.526	.13	3.26	7.77	2.53	38.4	49		600	6.78	34.53	27.10	106.7	.971		
815	5.06	34.526	.81	3.52	7.78	2.59	44.2	54		700	5.88	34.53	27.22	95.5	1.072		
1018	4.29	34.552	.76	3.50	7.80	2.57	44.8	56		800	5.15	34.53	27.31	87.0	1.163		
										1000	4.32	34.55	27.42	77.0	1.327		

LG 96 24 54.0 N 108 56.0 W DATE 23 MAR 70 0254 GCT WIRE 06 DRY 70.0 WET 64.0 CRUISE C70020										WIND DIRECTION 32 VEL 13 KTS BAR 12 SWELL DIRECTION34 H 04 T 04 CLOUD 6 AMT 6 WEATHER 03							
0	19.57	35.286	5.70	.94	8.34	2.54	.6	3		0	19.57	35.29	25.12	286.0	0		
10	19.55	35.285	5.67		8.34	2.56				10	19.55	35.29	25.12	285.9	.029		
20	19.41	35.279	5.57	.89	8.34	2.56	.8	3		20	19.42	35.28	25.15	283.2	.057		
30	18.13	35.244	4.72	1.43	8.24	2.57	8.8	10		30	18.13	35.24	25.48	252.8	.084		
50	16.72	35.173	3.61	2.00	8.12	2.55	16.9	23		50	16.73	35.18	25.74	228.6	.132		
100	13.98	34.907	1.05	2.29	7.90	2.54	26.9	41		75	15.15	35.02	25.98	206.3	.186		
125	13.41	34.882	.89	2.66	7.89	2.54	26.8	42		100	13.98	34.91	26.15	191.1	.236		
150	12.74	34.827	.64	2.61	7.85	2.54	29.6	42		150	12.74	34.83	26.34	174.0	.327		
176	12.28	34.796	.52	2.83	7.84	2.51	28.3	41		200	11.81	34.76	26.47	162.8	.411		
200	11.81	34.760	.34	2.87	7.82	2.51	29.1	42		250	10.99	34.71	26.57	153.5	.490		
301	10.23	34.666	.14	2.82	7.79	2.54	28.1	47		300	10.24	34.67	26.67	144.7	.565		
401	8.62	34.588	.13	2.83	7.78	2.51	31.1	50		400	8.64	34.59	26.88	126.5	.701		
450	7.88	34.554	.08	3.20	7.78	2.51	34.0	53									

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
LG 97 25 01.6 N 10A 50.1 W DATE 23 MAR 70 0607 GCT WIRE 00 DRY 66.6 WET 61.8 CRUISE C70020										WIND DIRECTION 33 VEL 10 KTS BAR 12 SWELL DIRECTION33 H 03 T 04 CLOUD 3 AMT 7 WEATHER 02							
0	17.78	35.116	4.75	1.30	8.20			5.6	14		0	17.78	35.12	25.44	255.3	0	
10	17.38	35.106	4.11	1.33	8.19	2.54		6.2	18		10	17.38	35.11	25.53	247.1	.025	
20	17.28	35.110	3.86	1.39	8.18	2.54		7.3	15		20	17.28	35.12	25.56	244.9	.050	
31	15.46	35.020	2.01	2.10	7.99	2.54		17.6	32		30	15.65	35.03	25.87	215.1	.073	
41	14.30	34.926	1.11		7.90	2.54		15.9	37		50	13.83	34.88	26.15	189.0	.113	
51	13.80	34.876	1.08	2.29	7.86	2.53		20.3	37								
62	13.58	34.849	.79	2.36	7.85	2.49		20.8	35								
LG 98 25 07.6 N 108 39.9 W DATE 23 MAR 70 0758 GCT WIRE 00 DRY 68.2 WET 63.8 CRUISE C70020										WIND DIRECTION 33 VEL 04 KTS BAR 12 SWELL DIRECTION33 H 03 T 06 CLOUD 3 AMT 6 WEATHER 03							
0	18.22	35.163	4.90	1.35	8.20	2.53		5.7	13		0	18.23	35.17	25.37	262.2	0	
5	18.21	35.164	4.83	1.40	8.23	2.54		6.2	13		10	18.25	35.17	25.36	263.0	.026	
10	18.24	35.164	4.88		8.22	2.53					20	16.09	35.04	25.78	223.4	.051	
20	16.09	35.039	2.13	2.27	7.98	2.51	19.7		27								
23	15.39	34.957	1.48	2.46	7.90	2.50	21.3		32								
GG 99 27 44.9 N 110 59.5 W DATE 28 MAR 70 1931 GCT WIRE 00 DRY 68.0 WET 58.8 CRUISE C70020										WIND DIRECTION 26 VEL 05 KTS BAR 16 SWELL DIRECTION28 H 01 T 04 CLOUD 4 AMT 2 WEATHER 02							
0	18.81	35.265	7.00	.79		2.56		.2	4		0	18.81	35.27	25.30	268.9	0	
10	17.86	35.251	6.60	.91	8.42	2.56		.3	5		10	17.86	35.26	25.52	247.7	.026	
20	16.39	35.191	3.83	1.95	8.18	2.55	15.0		23		20	16.40	35.20	25.83	219.0	.049	
31	16.17	35.173	3.55	2.08	8.15	2.58	22.4		26		30	16.19	35.17	25.86	216.3	.071	
51	15.22	35.083	2.46	2.20	8.05	2.56	20.6		29		50	15.28	35.09	26.00	203.5	.113	
78	14.06	34.980	1.43	2.15	7.97	2.55	24.3		45		75	14.17	34.99	26.17	188.6	.162	
103	13.47	34.951	1.34	2.26	7.94	2.55	26.3		44		100	13.52	34.95	26.27	178.9	.208	
128	13.04	34.904	.91	2.81	7.91	2.55	25.3		45		150	12.67	34.88	26.39	169.0	.295	
153	12.63	34.880	.91	2.81	7.91	2.54	27.2		45		200	12.13	34.88	26.50	159.9	.377	
180	12.45	34.881	1.08	2.47	7.91	2.54	27.0		45		250	11.47	34.80	26.56	154.9	.456	
205	12.04	34.885	.95	2.87	7.90	2.53	25.6		48		300	10.71	34.74	26.65	147.4	.531	
257	11.39	34.789	.56	2.95	7.86	2.52	29.8		48		400	9.01	34.64	26.86	128.6	.669	
309	10.56	34.731	.40	2.99	7.80	2.49	30.2		51								
411	8.82	34.631	.32	3.05	7.77	2.49	33.8		51								
GG 100 27 34.6 N 111 12.1 W DATE 28 MAR 70 2207 GCT WIRE 00 DRY 68.0 WET 61.0 CRUISE C70020										WIND DIRECTION 28 VEL 38 KTS BAR 14 SWELL DIRECTION27 H 01 T 04 CLOUD 4 AMT 2 WEATHER 02							
0	18.69	35.292	6.73			2.55					0	18.69	35.30	25.35	264.1	0	
10	18.03	35.279	6.84			2.56					10	18.08	35.28	25.49	250.8	.026	
20	17.99	35.274	6.22		8.41	2.55					20	18.00	35.28	25.51	249.4	.051	
41	16.85	35.232	4.69		8.23	2.55					30	17.53	35.26	25.61	240.3	.075	
61	15.67	35.127	3.17		8.09	2.53					50	16.29	35.19	25.85	218.3	.121	
78	15.06	35.055	2.25		8.02	2.53					75	15.15	35.07	26.01	203.2	.174	
102	14.26	34.987	1.51		7.96	2.50					100	14.32	34.99	26.14	192.2	.223	
128	13.46	34.931	1.11		7.91	2.55					150	12.80	34.98	26.44	164.0	.312	
153	12.72	34.989	.72		7.88	2.54					200	11.91	34.80	26.48	161.8	.394	
180		34.848	.80		7.88	2.53					250	11.02	34.74	26.60	151.4	.472	
205	11.84	34.795	.51		7.84	2.52					300	10.26	34.69	26.69	143.6	.546	
257	10.90	34.737	.33		7.82	2.54					400	8.94	34.62	26.86	128.7	.682	
308	10.15	34.677	.16		7.79	2.52					500	7.76	34.58	27.00	115.2	.804	
410	8.82	34.621	.16		7.78	2.50					600	6.74	34.56	27.13	104.0	.913	
513		34.570	.16		7.78	2.52					700	5.94	34.54	27.23	94.9	1.013	
615	6.60	34.555	.16		7.77	2.50					800	5.30	34.54	27.30	88.0	1.104	
821	5.19	34.539	.16		7.77	2.54					1000	4.32	34.56	27.43	76.2	1.268	
1024	4.23	34.564	.40		7.76	2.54											
GG 101 27 20.0 N 111 30.0 W DATE 29 MAR 70 0222 GCT WIRE 05 DRY 67.5 WET 60.7 CRUISE C70020										WIND DIRECTION 32 VEL 03 KTS BAR 11 SWELL DIRECTION32 H 01 T 01 CLOUD 6 AMT 1 WEATHER							
0	18.55	35.307	5.72	1.26	8.29	2.56		5.5	6		0	18.55	35.31	25.40	259.6	0	
10	18.38	35.301	5.72	1.13	8.29	2.56		5.1	7		10	18.38	35.31	25.43	256.3	.026	
20	17.99	35.290	5.82	1.27	8.30	2.56		5.2	5		20	18.00	35.29	25.52	248.2	.051	
31	17.47	35.274	5.34	1.39	8.27	2.48		6.6	7		30	17.52	35.28	25.62	238.8	.075	
51	17.04	35.244	4.71	1.13	8.22	2.55		12.1	16		50	17.06	35.25	25.71	231.2	.122	
78	15.10	35.057	2.46	1.86	7.89	2.54		22.9	37		75	15.34	35.08	25.98	206.1	.177	
103	13.96	34.949	1.51		8.03	2.54					100	14.07	34.96	26.16	189.4	.226	
154	12.98	34.897	1.08	2.29	7.94	2.55		25.5	45		150	13.03	34.90	26.33	174.6	.317	
205	11.93	34.810	.64	2.26	7.86	2.53		28.7	49		200	12.03	34.82	26.47	162.9	.402	
412	8.69	34.619	.57	3.06	7.80	2.53		32.6	62		250	11.11	34.75	26.59	152.2	.480	
618	6.62	34.550	.57	3.04	7.78	2.54		38.2	84		300	10.27	34.70	26.69	142.8	.554	
823	5.15	34.540	.57	3.38	7.78	2.55		42.5	127		400	8.84	34.62	26.88	127.0	.689	
1029	4.31	34.562	.81	3.29	7.78	2.55		41.2	105		500	7.70	34.58	27.01	114.1	.810	
1234	3.75	34.576	.54		7.82	2.56					600	6.77	34.55	27.12	104.7	.919	
1429	3.19	34.597	.72		7.82	2.59					700	5.96	34.54	27.22	95.5	1.019	
1646	2.97	34.613	.70	3.25	7.83	2.60		41.0	175		800	5.28	34.54	27.30	87.6	1.110	
1851	2.91	34.620	.78		7.84	2.61					1000	4.40	34.56	27.42	77.2	1.275	
1912	2.89	34.615	.80	2.77	7.85	2.60		40.5	174		1200	3.83	34.57	27.49	70.5	1.423	
1937	2.92	34.617	.80	2.46	7.85	2.59		40.1	180		1500	3.09	34.60	27.59	61.5	1.621	

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
GG 102 27 13.7 N 111 38.0 W DATE 29 MAR 70 0645 GCT WIRE 00 DRY 65.8 WET 61.5 CRUISE C70020																
WIND DIRECTION 29 VEL 08 KTS BAR 11 SWELL DIRECTION31 H 01 T 03 CLOUD AMT 0 WEATHER 02																
0	18.73	35.335	5.49	.89	8.27	2.53	5.3	7		0	18.73	35.34	25.37	261.9	0	
10	18.72	35.331	5.52		8.29	2.55	5.2	6		10	18.73	35.34	25.37	262.3	.026	
20	18.52	35.325	5.57	.83	8.30	2.54	5.1	7		20	18.52	35.33	25.42	258.3	.052	
31	17.87	35.280	4.91	.92	8.25	2.54	9.3	11		30	17.94	35.29	25.53	248.0	.079	
50	16.50	35.166	3.42	1.37	8.10	2.54	18.0	24		50	16.50	35.17	25.79	224.2	.125	
77	15.36	35.067	2.37	2.40	8.02	2.54	23.1	35		75	15.43	35.07	25.96	208.6	.179	
102	14.41	34.991	1.61	2.05	7.95	2.53	25.8	42		100	14.48	35.00	26.11	195.0	.229	
129	13.71	34.961	1.43	2.90	7.93	2.53	23.0	41		150	13.32	34.95	26.31	176.6	.322	
152	13.29	34.947	1.73		7.93	2.52				200	12.74	34.90	26.39	170.0	.409	
179	13.01	34.929	1.49	2.16	7.91	2.50	22.6	44		250	11.83	34.83	26.51	160.0	.491	
204	12.68	34.897	1.42	2.32	7.91	2.49	24.0	47		300	10.82	34.64	26.55	156.4	.570	
255	11.73	34.814	.72	2.11	7.86	2.53	27.6	51		400	8.90	34.71	26.93	121.7	.709	
307	10.68	34.619	.48		7.80	2.53				500	7.45	34.59	27.06	109.6	.825	
409	8.74	34.727	.38	2.27	7.78	2.52	32.4	56		600	6.50	34.55	27.16	100.9	.930	
510	7.33	34.571	.19		7.78	2.52				700	5.79	34.50	27.21	96.2	1.029	
612	6.41	34.550	.08	3.28	7.78	2.53	38.4	60		800	5.21	34.46	27.25	92.9	1.123	
817	5.13	34.451	.16	3.25	7.71	2.50	40.0	56		1000	4.37	34.54	27.41	78.1	1.294	
1020	4.31	34.562	.46	2.96	7.78	2.53		106								
GG 103 27 05.0 N 111 48.1 W DATE 29 MAR 70 0926 GCT WIRE 00 DRY 67.2 WET 57.5 CRUISE C70020																
WIND DIRECTION 27 VEL 05 KTS BAR 10 SWELL DIRECTION31 H 01 T 02 CLOUD AMT 0 WEATHER 02																
0	18.81	35.334	5.56	1.40	8.27	2.53	4.7	6		0	18.81	35.34	25.35	263.9	0	
10	18.77	35.331	5.58	1.30	8.28	2.54	4.9	6		10	18.77	35.34	25.36	263.5	.026	
20	18.42	35.322	5.50		8.26	2.53				20	18.42	35.33	25.44	256.1	.052	
31	17.35	35.247	4.88	1.57	8.20	2.52	11.4	13		30	17.46	35.25	25.62	238.9	.077	
51	16.26	35.160	3.40	2.15	8.07	2.52	19.0	26		50	16.30	35.16	25.83	220.2	.123	
77	14.89	35.052	2.53	2.15	7.76	2.52	23.3	37		75	14.99	35.06	26.04	200.3	.176	
102	13.85	34.972	1.64		7.93	2.57				100	13.91	34.98	26.21	185.0		

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
GG 105 28 42.0 N 113 02.0 W DATE 30 MAR 70 0122 GCT WIRE 05 DRY 67.5 WET 58.5 CRUISE C70020															
WIND DIRECTION 16 VEL 06 KTS BAR 06 SWELL DIRECTION 16 H 01 T 02 CLOUD 4 AMT 1 WEATHER 02															
0	16.83	35.128	6.84		8.31	2.59				0	16.83	35.13	25.68	232.7	0
10	15.26	35.112	5.39		8.22	2.56				10	15.26	35.12	26.03	200.0	.022
31	14.66	35.093	3.64		8.08	2.59				20	14.73	35.10	26.13	190.1	.041
50	14.40	35.080	3.22		8.06	2.59				30	14.69	35.09	26.14	190.2	.061
77	14.14	35.069	2.98		8.04	2.58				50	14.40	35.08	26.19	185.6	.098
102	14.00	35.061	2.83		8.02	2.58				75	14.16	35.07	26.23	182.3	.144
152	13.66	35.030	2.54		8.01	2.57				100	14.01	35.06	26.26	180.7	.189
203	13.45	34.998	2.18		7.98	2.57				150	13.67	35.03	26.30	177.5	.279
306	12.72	34.954	1.87		7.96	2.56				203	13.46	35.00	26.32	177.0	.367
407	12.52	34.934	1.77		7.94	2.55				250	13.11	34.97	26.37	173.2	.455
610	12.10	34.906	1.77		7.94					300	12.76	34.96	26.43	169.2	.540
815	11.74	34.874	1.68		7.92	2.55				400	12.53	34.93	26.46	168.9	.709
1017	11.55	34.858	1.54		7.91	2.53				500	12.33	34.92	26.49	168.0	.878
1221	11.52	34.850	1.45		7.91	2.53				600	12.12	34.91	26.52	168.0	1.046
1501	11.51	34.848	1.45		7.91	2.52				700	11.93	34.89	26.54	167.5	1.213
										800	11.76	34.88	26.56	167.6	1.381
										1000	11.56	34.86	26.59	169.5	1.718
										1200	11.52	34.85	26.59	173.4	2.061
										1500	11.51	34.85	26.59	179.7	2.590
GG 106 29 08.0 N 113 25.8 W DATE 30 MAR 70 0557 GCT WIRE 10 DRY 66.0 WET 55.2 CRUISE C70020															
WIND DIRECTION 24 VEL 10 KTS BAR 08 SWELL DIRECTION 24 H 02 T 03 CLOUD AMT 0 WEATHER 02															
0	15.57	35.164	5.32		8.18	2.49				0	15.57	35.17	26.00	202.5	0
10	15.49	35.163	5.23		8.17	2.55				10	15.49	35.17	26.01	201.1	.020
31	15.10	35.147	4.12		8.08	2.55				20	15.30	35.16	26.05	198.2	.040
50	15.00	35.138	4.01		8.08	2.54				30	15.12	35.15	26.08	195.2	.060
77	14.86	35.131	3.78		8.06	2.53				50	15.00	35.14	26.10	193.8	.099
102	14.57	35.092	3.40		8.04	2.54				75	14.87	35.13	26.12	192.6	.147
152	13.87	35.047	2.80		7.99	2.53				100	14.60	35.10	26.16	190.2	.195
204	13.36	35.009	2.42		7.96	2.54				150	13.90	35.05	26.27	186.8	.288
255	12.90	34.970	2.09		7.96	2.52				200	13.39	35.01	26.35	174.8	.376
306	12.63	34.955	1.88		7.94	2.50				250	12.94	34.97	26.41	170.0	.463
408	12.22	34.909	1.54		7.92	2.52				300	12.66	34.96	26.45	167.1	.547
612	11.81	34.880	1.29		7.89	2.52				400	12.25	34.91	26.50	165.2	.713
765	11.63	34.862	1.24		7.89	2.50				500	11.99	34.89	26.53	163.8	.877
										600	11.82	34.88	26.55	164.3	1.041
										700	11.69	34.87	26.57	164.6	1.206
GG 107 29 38.3 N 113 54.0 W DATE 30 MAR 70 1427 GCT WIRE 10 DRY 63.9 WET 55.0 CRUISE C70020															
WIND DIRECTION 20 VEL 11 KTS BAR 06 SWELL DIRECTION 27 H 04 T 05 CLOUD AMT 0 WEATHER 02															
0	15.54	35.190			8.14	2.50				0	15.54	35.20	26.02	199.9	0
10	15.52	35.167			8.13	2.50				10	15.52	35.17	26.01	201.5	.020
31	14.61	35.119			8.09	2.53				20	15.13	35.14	26.08	195.4	.040
50	14.27	35.095			8.07	2.52				30	14.66	35.12	26.16	187.6	.059
77	14.01	35.068			8.05	2.50				50	14.27	35.10	26.23	181.8	.096
102	13.77	35.056			8.03	2.50				75	14.02	35.07	26.26	179.7	.141
152	13.54	35.029			8.02	2.50				100	13.79	35.06	26.30	176.6	.186
205	13.19	34.998			8.00	2.52				150	13.55	35.03	26.33	175.1	.274
307	12.69	34.959			7.93	2.50				200	13.22	35.00	26.37	172.2	.360
510	12.02	34.894			7.91	2.50				250	12.95	34.98	26.41	169.8	.446
715	11.85	34.878			7.90	2.49				300	12.72	34.96	26.44	168.0	.530
										400	12.33	34.93	26.49	165.8	.697
										500	12.04	34.90	26.52	164.4	.862
										600	11.88	34.88	26.54	165.4	1.027
										700	11.86	34.88	26.55	167.1	1.193
GG 108 29 55.2 N 114 10.3 W DATE 30 MAR 70 1746 GCT WIRE DRY 65.3 WET 58.0 CRUISE C70020															
WIND DIRECTION 24 VEL 16 KTS BAR 07 SWELL DIRECTION 26 H 03 T 04 CLOUD 8 AMT 1 WEATHER 02															
0	16.94	35.382	5.64	1.75	8.21	2.54	9.1	22		0	16.94	35.39	25.85	216.7	0
10	16.87	35.379	5.64	1.70	8.24	2.55	8.3	21		10	16.88	35.38	25.86	215.7	.022
31	16.73	35.367	5.54	1.45	8.23	2.54	8.6	19		20	16.85	35.37	25.86	216.0	.043
51	15.94	35.343	4.23	1.93	8.13	2.54	13.3	29		30	16.74	35.37	25.88	214.5	.065
78	15.07	35.230	3.30		8.07	2.50	7.0	16		50	15.99	35.34	26.04	200.0	.106
103	14.21	35.120	2.56	2.28	8.01	2.53	15.5	37		75	15.16	35.24	26.15	190.4	.155
154	13.30	35.019	1.69	2.74	7.93	2.52	25.6	62		100	14.31	35.13	26.25	181.6	.201
206	12.88	34.974	1.45	2.76	7.91	2.50	26.3	57		150	13.34	35.02	26.36	171.6	.290
										200	12.90	34.98	26.42	167.8	.375

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
GG 109 30 07.0 N 113 49.0 W DATE 30 MAR 70 2048 GCT WIRE 00 DRY 65.5 WET 59.5 CRUISE C70020																
WIND DIRECTION 18 VEL 12 KTS BAR 17 SWELL DIRECTION23 H 03 T 02 CLOUD 1 AMT 1 WEATHER 02																
0	16.81	35.340	5.59							0	16.81	35.34	25.85	216.8	0	
10	16.73	35.342	5.59							10	16.73	35.35	25.87	215.2	.022	
31	16.54	35.375	5.63							20	16.66	35.36	25.89	212.9	.043	
50	16.15	35.352	5.01							30	16.55	35.37	25.93	209.8	.064	
77	15.37	35.269	3.78							50	16.15	35.36	26.01	202.9	.105	
102	14.38	35.130	2.66							75	15.44	35.28	26.11	193.9	.155	
152	13.43	35.006	2.32							100	14.46	35.14	26.22	184.0	.202	
204	13.05	34.992	1.51							150	13.45	35.01	26.33	174.8	.292	
256	12.81	34.960	1.50							200	13.07	34.99	26.40	169.7	.378	
306	12.58	34.938	1.33							250	12.83	34.96	26.42	168.7	.463	
										300	12.61	34.94	26.45	167.4	.547	
GG 110 30 18.0 N 113 29.0 W DATE 30 MAR 70 2336 GCT WIRE 00 DRY 66.7 WET 60.0 CRUISE C70020																
WIND DIRECTION 17 VEL 10 KTS BAR 06 SWELL DIRECTION21 H 04 T 05 CLOUD 6 AMT 2 WEATHER 03																
0	17.26	35.435	6.10	1.66	8.27	2.55	6.0	13		0	17.26	35.44	25.81	220.1	0	
10	17.17	35.431	6.05	1.54	8.28	2.54	5.9	14		10	17.17	35.44	25.83	218.7	.022	
21	16.89	35.428	5.88	1.53	8.27	2.56	17.5	39		20	16.92	35.43	25.89	213.7	.044	
31	16.72	35.413	5.52	2.17	8.25	2.56	8.9	20		30	16.74	35.42	25.92	211.0	.065	
50	15.51	35.303	3.57	1.87	8.10	2.55	18.3	42		50	15.51	35.31	26.12	192.5	.105	
78	15.00	35.281	2.66	2.35	8.03	2.53	20.4	47		75	15.02	35.28	26.21	184.6	.152	
103	14.52	35.216	2.08	2.61	7.98	2.53	22.6	56		100	14.59	35.23	26.26	180.5	.198	
129	13.55	35.081	1.45	2.35	7.93	2.52	19.3	46								
GG 111 30 24.2 N 113 16.7 W DATE 31 MAR 70 0125 GCT WIRE DRY 65.1 WET 59.0 CRUISE C70020																
WIND DIRECTION 10 VEL 12 KTS BAR 06 SWELL DIRECTION18 H 04 T 05 CLOUD 6 AMT 4 WEATHER 03																
0	17.36	35.438	5.88		8.27	2.52				0	17.36	35.44	25.79	222.2	0	
10	17.31	35.437	5.94		8.27	2.54				10	17.31	35.44	25.80	221.4	.022	
21	17.27	35.435	5.88		8.28	2.53				20	17.28	35.44	25.80	221.4	.044	
31	17.04	35.426	5.57		8.25	2.54				30	17.07	35.43	25.85	217.6	.066	
52	15.44	35.298	3.06		8.04	2.52				50	15.60	35.31	26.10	194.2	.107	
78	14.96	35.272	2.42		8.01	2.52				75	14.98	35.27	26.21	184.4	.155	
103	14.31	35.152	1.64		7.93	2.50				100	14.38	35.17	26.26	180.6	.200	
129	14.22	35.154	1.69		7.94	2.50										
GG 112 30 32.0 N 113 05.0 W DATE 31 MAR 70 0309 GCT WIRE 00 DRY 66.5 WET 60.9 CRUISE C70020																
WIND DIRECTION 19 VEL 15 KTS BAR 06 SWELL DIRECTION19 H 04 T 04 CLOUD 0 AMT 4 WEATHER 02																
0	17.80	35.450	5.61	1.49	8.26	2.53	1.7	37								
7	17.74	35.455	5.64	1.15	8.27	2.55	1.1	33								
13	17.76	35.450	5.64		8.26	2.57										
GG 113 30 19.5 N 113 03.5 W DATE 31 MAR 70 0522 GCT WIRE 05 DRY 65.0 WET 58.4 CRUISE C70020																
WIND DIRECTION 20 VEL 11 KTS BAR 07 SWELL DIRECTION20 H 03 T 03 CLOUD 6 AMT 9 WEATHER 03																
0	17.52	35.416	5.64	1.40	8.28	2.56	3.0	32		0	17.52	35.42	25.73	227.5	0	
13	17.52	35.409	5.62		8.27	2.56				10	17.52	35.41	25.73	228.3	.023	
20	17.49	35.407	5.55		8.27	2.55				20	17.50	35.41	25.73	228.1	.046	
31	16.97	35.372	4.74		8.22	2.56				30	17.03	35.38	25.82	220.4	.068	
51	15.63	35.277	2.83		8.01	2.55				50	15.71	35.28	26.05	198.6	.110	
GG 114 30 07.5 N 113 03.0 W DATE 31 MAR 70 0751 GCT WIRE 00 DRY 65.0 WET 57.3 CRUISE C70020																
WIND DIRECTION 23 VEL 15 KTS BAR 18 SWELL DIRECTION H T CLOUD 6 AMT 8 WEATHER 02																
0	17.55	35.428	5.91	1.48	8.28	2.56	3.6	29		0	17.55	35.43	25.74	227.3	0	
10	17.50	35.424	5.94		8.28	2.57				10	17.50	35.43	25.74	226.8	.023	
21	17.10	35.368	5.15		8.24	2.58				20	17.15	35.37	25.79	222.9	.045	
41	15.60	35.273	3.22	2.51	8.03	2.58	20.5	48		30	16.44	35.32	25.92	211.0	.067	
68	14.66	35.162	1.84	3.00	7.94	2.57	23.9	60		50	15.17	35.23	26.13	191.0	.107	
93	14.50	35.138	1.53	2.98	7.91	2.57	22.2	59		75	14.55	35.15	26.21	184.6	.154	
GG 115 29 44.6 N 112 40.0 W DATE 31 MAR 70 1145 GCT WIRE 10 DRY 63.0 WET 56.5 CRUISE C70020																
WIND DIRECTION 24 VEL 12 KTS BAR 09 SWELL DIRECTION24 H 03 T 04 CLOUD 6 AMT 3 WEATHER 02																
0	17.32	35.322	6.30	1.95			.6	26								
26	16.71	35.276	5.49													
36	15.59	35.213	3.28	2.48			20.7	44								
46	15.23	35.191	2.74													
57	15.10	35.314	2.50	2.65			23.2	52								

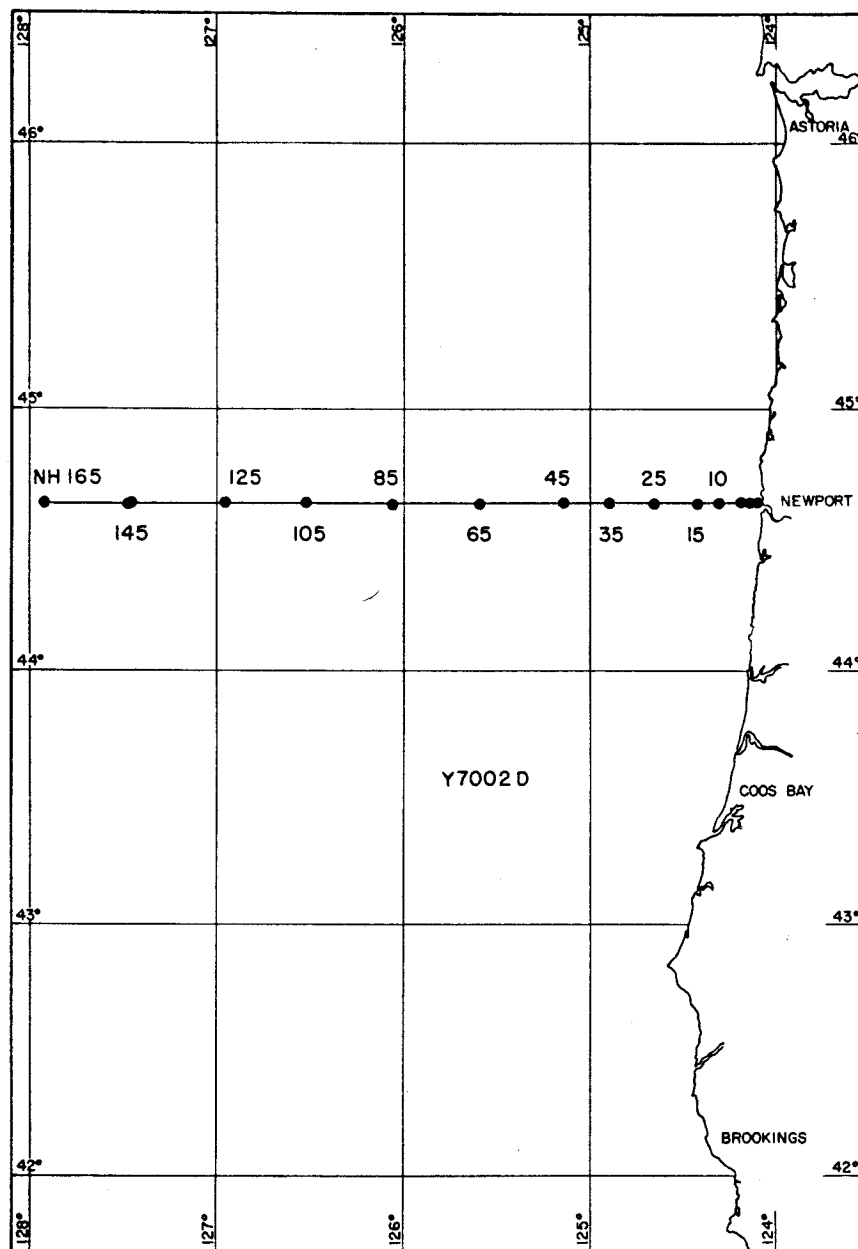
OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
GG 116 29 12.2 N 112 36.0 W DATE 31 MAR 70 1553 GCT WIRE 00 DRY 65.3 WET 57.0 CRUISE C70020																
WIND DIRECTION 33 VEL 08 KTS BAR 11 SWELL DIRECTION 31 H 04 T 05 CLOUD 7 AMT 1 WEATHER 02																
0	17.66	35.314	5.89		8.22	2.57				0	17.67	35.32	25.62	238.1		0
10	17.58	35.307	5.94		8.26	2.57				10	17.58	35.31	25.64	237.1		.024
31	16.44	35.252	4.91		8.17	2.59				20	17.10	35.28	25.73	228.3		.047
51	15.67	35.198	4.11		8.12	2.57				30	16.51	35.26	25.85	217.4		.069
78	14.85	35.140	3.30		8.05	2.55				50	15.70	35.20	25.99	204.4		.111
103	14.00	35.072	2.46		8.00	2.55				75	14.94	35.15	26.12	192.8		.161
154	13.13	34.998	2.09		7.96	2.55				100	14.10	35.08	26.25	181.1		.208
										150	13.16	35.00	26.39	169.6		.296
GG 117 28 50.5 N 112 37.1 W DATE 31 MAR 70 1803 GCT WIRE 03 DRY 66.3 WET 58.0 CRUISE C70020																
WIND DIRECTION 33 VEL 05 KTS BAR 12 SWELL DIRECTION 31 H 01 T 02 CLOUD 0 AMT 4 WEATHER 01																
0	16.83	35.185	5.22		8.17	2.50				0	16.83	35.19	25.72	228.6		0
10	16.59	35.185	5.22		8.20	2.57				10	16.59	35.19	25.78	223.5		.023
20	15.95	35.144	4.51		8.16	2.58				20	15.95	35.15	25.90	212.7		.044
31	15.82	35.133	4.28		8.14	2.57				30	15.82	35.13	25.91	211.3		.066
51	15.35	35.113	3.70		8.08	2.56				50	15.38	35.11	26.00	203.8		.107
78	14.51	35.057	3.04		8.04	2.56				75	14.60	35.06	26.13	191.9		.157
102	14.07	35.026	2.74		8.00	2.56				100	14.10	35.03	26.21	185.0		.204
129	13.59	35.004	2.66		8.00	2.56				150	13.46	35.00	26.32	175.8		.294
153	13.45	34.998	2.58		7.98	2.56				200	12.52	34.94	26.47	163.1		.378
205	12.40	34.933	2.14		7.94	2.55				250	11.59	34.88	26.60	151.6		.457
308	10.77	34.822	1.45		7.89	2.55				300	10.87	34.83	26.69	143.6		.531
411	10.15	34.782	1.16		7.86	2.55				400	10.18	34.78	26.78	137.4		.671
487	9.93	34.771	1.21		7.86	2.54				500	9.89	34.77	26.81	135.0		.808
GG 119 28 30.4 N 112 00.0 W DATE 01 APR 70 0028 GCT WIRE 00 DRY 68.0 WET 58.5 CRUISE C70020																
WIND DIRECTION 16 VEL 03 KTS BAR 10 SWELL DIRECTION H T CLOUD 6 AMT 3 WEATHER 02																
0	18.23	35.256	6.12		8.24											
5	17.17	35.231	6.28		8.25	2.54										
13	16.79	35.208	5.55		8.21	2.54										
GG 120 28 10.0 N 112 00.0 W DATE 01 APR 70 0306 GCT WIRE 00 DRY 66.0 WET 58.9 CRUISE C70020																
WIND DIRECTION VEL KTS BAR 12 SWELL DIRECTION H T CLOUD 1 AMT 4 WEATHER 04																
0	18.35	35.330	5.48		8.23	2.54				0	18.35	35.33	25.46	253.2		0
10	17.84	35.311	5.41		8.24	2.54				10	17.84	35.32	25.58	242.9		.025
20	17.48	35.275	5.06		8.22	2.54				20	17.48	35.28	25.64	237.5		.049
31	17.41	35.268	4.99		8.22	2.55				30	17.42	35.27	25.64	237.1		.073
51	16.09	35.153	3.45		8.06	2.55				50	16.17	35.16	25.85	217.6		.118
78	14.92	35.063	2.58		8.00	2.54				75	15.02	35.07	26.04	200.1		.170
103	14.31	35.016	2.11		7.96	2.52				100	14.37	35.02	26.15	191.0		.219
129	13.58	34.953	1.42		7.90	2.53				150	13.23	34.93	26.32	176.2		.311
154	13.16	34.924	1.29		7.91	2.52										
186	12.31	34.842	0.64		7.76	2.50										
GG 121 28 10.0 N 111 35.2 W DATE 01 APR 70 0638 GCT WIRE 00 DRY 66.2 WET 60.0 CRUISE C70020																
WIND DIRECTION 32 VEL 13 KTS BAR 13 SWELL DIRECTION 32 H 02 T 03 CLOUD 1 AMT 1 WEATHER 02																
0	18.20	35.257	6.89		8.36	2.53				0	18.21	35.26	25.45	254.9		0
17	17.89	35.247	6.75		8.36	2.54				10	17.90	35.25	25.51	248.7		.025
20	16.45	35.162	4.35		8.16	2.54				20	16.46	35.17	25.79	222.4		.049
31	15.34	35.080	2.42		7.98	2.52				30	15.42	35.09	25.97	206.0		.070
51	14.70		1.77		7.91	2.52				50	14.71	34.99	26.05	198.4		.111
73	14.25	34.987	1.29		7.88	2.52										
GG 122 27 41.5 N 111 29.9 W DATE 01 APR 70 1031 GCT WIRE 06 DRY 69.5 WET 59.5 CRUISE C70020																
WIND DIRECTION 31 VEL 12 KTS BAR 14 SWELL DIRECTION 31 H 01 T 02 CLOUD AMT 0 WEATHER 02																
0	18.61	35.324	5.83							0	18.61	35.33	25.39	259.8		0
10	18.59	35.319	5.88							10	18.59	35.32	25.39	260.0		.026
31	17.01	35.230	4.67							20	17.95	35.28	25.52	248.0		.051
51	15.73	35.127	3.30							30	17.11	35.24	25.69	232.3		.075
78	14.60	35.024	2.30							50	15.79	35.13	25.92	211.2		.120
103	13.89	34.960	1.75							75	14.70	35.03	26.09	196.1		.171
154	12.83	34.870	.92							100	13.96	34.97	26.19	186.7		.218
206	11.77	34.785	.79							150	12.90	34.88	26.34	173.8		.309
309	10.22	34.708	.32							200	11.89	34.79	26.47	162.0		.393
515	7.57	34.568	.16							250	11.05	34.74	26.59	151.8		.471
721		34.535	.16							300	10.34	34.71	26.69	143.0		.545
										400	8.98	34.64	26.86	128.2		.680
										500	7.74	34.58	27.00	115.0		.802
										600	11.88	34.54	26.28	190.1		.954
										700	11.86	34.54	26.28	191.9		1.145

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
GG 123 27 49.0 N 111 00.5 W DATE 01 APR 70 1505 GCT WIRE 00 DRY 66.0 WET 57.6 CRUISE C70020																
WIND DIRECTION 34 VEL 09 KTS BAR 16 SWELL DIRECTION 30 H 02 T 03 CLOUD 0 AMT 2 WEATHER 03																
0	19.07	35.345	5.68	1.38	8.29	2.56			5	0	19.07	35.35	25.29	269.4	0	
10	19.08	35.342	5.70		8.30	2.56				10	19.08	35.35	25.29	270.2	.027	
31	17.63	35.272	5.11		8.22	2.59				20	18.52	35.32	25.41	259.0	.053	
51	16.22	35.171	3.85		8.11	2.57				30	17.72	35.28	25.58	243.5	.079	
79	15.09	35.047	2.09	2.63	7.96	2.56	23.9	39		50	16.29	35.18	25.84	218.9	.125	
103	14.72	35.053	2.27	2.93	7.96	2.55	26.5	44		75	15.17	35.06	26.00	204.4	.178	
154	13.57	34.949	1.77	2.95	7.91	2.55	27.7	48		100	14.75	35.05	26.09	196.7	.228	
206	12.79	34.892	1.35		7.87	2.54				150	13.66	34.96	26.25	182.6	.323	
										200	12.86	34.90	26.36	172.8	.411	
GE 124 27 14.4 N 110 35.5 W DATE 02 APR 70 2212 GCT WIRE 17 DRY 68.2 WET 62.0 CRUISE C70020																
WIND DIRECTION 29 VEL 20 KTS BAR 11 SWELL DIRECTION 29 H 06 T 04 CLOUD 0 AMT 1 WEATHER 02																
0	18.31	35.311	5.27		8.25	2.53				0	18.31	35.32	25.46	253.6	0	
10	18.36	35.312	5.22	1.40	8.26	2.55	6.7	11		10	18.36	35.32	25.45	255.1	.025	
21	19.03	35.301	5.01	1.52	8.24	2.55	8.2	11		20	18.08	35.30	25.51	249.7	.051	
41	15.55	35.122	2.86	2.41	8.02	2.54	29.2	33		30	16.98	35.23	25.72	230.1	.075	
69	14.28	35.017	1.67	2.64	7.94	2.52	25.4	40		50	14.97	35.08	26.06	197.8	.117	
93	13.52	34.932	1.02	2.69	7.88	2.53	28.4	42		75	14.03	34.99	26.20	185.4	.165	
GE 125 26 32.0 N 110 03.7 W DATE 03 APR 70 0412 GCT WIRE 00 DRY 67.0 WET 61.0 CRUISE C70020																
WIND DIRECTION 33 VEL 08 KTS BAR 11 SWELL DIRECTION 34 H 05 T 04 CLOUD 3 AMT 1 WEATHER 02																
0	18.91	35.317	5.69		8.29	2.52				0	18.92	35.32	25.31	267.6	0	
10	18.90	35.317	5.76	1.45	8.31	2.54	6.8	10		10	18.90	35.32	25.31	267.7	.027	
20	18.85	35.324	5.64		8.29	2.53				20	18.85	35.33	25.33	266.3	.053	
31	18.05	35.292	5.01		8.24	2.49				30	18.14	35.30	25.49	252.0	.079	
51	15.92	35.103	2.85	2.19	8.05	2.44	20.8	29		50	16.02	35.11	25.85	217.8	.126	
79	14.82	35.022	1.94	2.32	8.01	2.55	24.6	38		75	14.88	35.03	26.04	200.6	.179	
103	14.11	34.989	1.61		7.93	2.43				100	14.19	34.98	26.16	190.0	.227	
129	13.22	34.910	1.10	2.54	7.88	2.38	27.8	45		150	12.70	34.86	26.37	170.8	.318	
154	12.61	34.855	.72		7.85	2.42				200	11.69	34.78	26.50	159.5	.400	
206	11.59	34.773	.40		7.82	2.39				250	10.87	34.73	26.61	150.0	.477	
310	10.11	34.679	.14		7.77	2.36				300	10.22	34.69	26.69	142.9	.551	
413		34.603	.10		7.76	2.33				400	8.98	34.61	26.84	130.2	.687	
GE 126 26 11.1 N 109 48.9 W DATE 03 APR 70 0742 GCT WIRE 00 DRY 66.6 WET 62.3 CRUISE C70020																
WIND DIRECTION 24 VEL 05 KTS BAR 11 SWELL DIRECTION 24 H 01 T 04 CLOUD AMT 0 WEATHER 01																
0	19.25	35.304			8.22	2.52				0	19.25	35.31	25.22	276.8	0	
10	19.21	35.300			8.24	2.52				10	19.21	35.30	25.22	276.4	.028	
20	19.70	35.303			8.25	2.50				20	18.71	35.31	25.35	264.2	.055	
31	16.65	35.166			8.03	2.49				30	16.85	35.19	25.71	230.5	.079	
51	15.39	35.057			7.93	2.48				50	15.41	35.06	25.95	208.4	.123	
79	14.24	34.963			7.85	2.49				75	14.33	34.97	26.12	193.3	.174	
103	13.89	34.942			7.88	2.48				100	13.93	34.98	26.21	184.9	.221	
129	13.07	34.870			7.80	2.48				150	12.71	34.84	26.35	172.8	.310	
154	12.66	34.839			7.78	2.48				200	11.85	34.84	26.52	157.8	.393	
206	11.74	34.841			7.76	2.48				250	11.09	34.83	26.65	146.3	.469	
309	10.26	34.791			7.73	2.48				300	10.38	34.80	26.75	137.4	.540	
414	8.65	34.688			7.73	2.48				400	8.86	34.70	26.93	121.6	.669	
489	7.60	34.613			7.72	2.48				500	7.45	34.60	27.07	108.7	.784	
GE 127 24 42.5 N 109 21.1 W DATE 04 APR 70 0020 GCT WIRE 00 DRY 71.0 WET 63.4 CRUISE C70020																
WIND DIRECTION VEL KTS BAR 12 SWELL DIRECTION H T CLOUD 6 AMT 2 WEATHER 02																
0	21.82	34.656								0	21.82	34.66	24.03	389.3	0	
10	20.81	34.665								10	20.81	34.67	24.32	362.6	.038	
20	20.84	34.676								20	20.84	34.68	24.32	362.9	.074	
31	19.29	34.632								30	19.46	34.64	24.65	331.7	.109	
50	17.22	34.792								50	17.23	34.80	25.33	267.6	.169	
77	14.65	34.779								75	14.80	34.78	25.87	216.5	.229	
102	13.73	34.779								100	13.77	34.78	26.09	196.5	.281	
127	13.30	34.800								150	12.83	34.78	26.28	179.1	.375	
152	12.79	34.783								200	12.00	34.76	26.42	166.9	.461	
179	12.40	34.792								250	11.26	34.73	26.52	158.5	.542	
203	11.94	34.749								300	10.62	34.68	26.62	150.5	.620	
306	10.55	34.674								400	9.07	34.60	26.82	132.3	.761	
408	8.95	34.598								500	7.74	34.56	26.99	116.2	.885	
612	6.56	34.535								600	6.67	34.54	27.12	104.5	.995	
815	5.23	34.530								700	5.89	34.53	27.22	95.2	1.095	
1018	4.32	34.557								800	5.30	34.53	27.29	88.6	1.187	
										1000	4.38	34.55	27.42	77.4	1.353	

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)	(x10 ⁵)	(dyn.m)	
GE 128 24 42.6 N 109 14.6 W DATE 04 APR 70 2215 GCT WIRE 20 DRY 70.7 WET 64.0 CRUISE C70020															
WIND DIRECTION 31 VEL 12 KTS BAR 12 SWELL DIRECTION 31 H 03 T 03 CLOUD 0 AMT 1 WEATHER 02															
0	20.96	34.630								0	20.96	34.63	24.25	368.6	0
10	20.93	34.628								10	20.94	34.63	24.26	368.4	.037
19	20.86	34.692								20	20.85	34.69	24.32	362.3	.073
30	20.78	34.690								30	20.78	34.70	24.34	360.7	.110
49	16.24	34.166								50	16.12	34.17	25.11	288.4	.174
75	14.71	34.628								75	14.71	34.63	25.77	225.7	.239
99	13.94	34.820								100	13.92	34.82	26.09	196.5	.291
124	13.40	34.816								150	12.79	34.80	26.30	177.2	.385
148	12.81	34.794								200	11.97	34.75	26.42	167.1	.471
174	12.57	34.861								250	11.17	34.71	26.55	156.2	.552
199	12.01	34.751								300	10.57	34.67	26.62	149.7	.629
299	10.58	34.675								400	9.36	34.62	26.79	135.9	.771
398	9.39	34.619								500	8.06	34.57	26.95	120.1	.899
597	6.90	34.541								600	6.87	34.54	27.10	107.0	1.012
796	5.36	34.525								700	6.01	34.53	27.20	97.2	1.114
993	4.31	34.546								800	5.33	34.53	27.29	89.4	1.208
										1000	4.27	34.55	27.42	76.5	1.373
GE 129 24 40.0 N 109 02.0 W DATE 05 APR 70 0128 GCT WIRE 05 DRY 68.9 WET 63.2 CRUISE C70020															
WIND DIRECTION 33 VEL 14 KTS BAR 11 SWELL DIRECTION 33 H 04 T 04 CLOUD 2 AMT 1 WEATHER 02															
0	20.85	34.619								0	20.85	34.62	24.27	366.6	0
10	20.79	34.607								10	20.79	34.61	24.28	366.3	.037
20	20.52	34.593								20	20.52	34.60	24.34	360.7	.073
31	19.79	34.552								30	19.87	34.55	24.48	347.7	.108
51	17.29	34.743								50	17.43	34.73	25.23	277.0	.171
79	14.65	34.659								75	14.88	34.68	25.77	226.1	.234
103	13.64	34.688								100	13.72	34.68	26.02	202.7	.287
129	12.87	34.752								150	12.34	34.77	26.37	171.0	.381
154	12.25	34.769								200	11.50	34.73	26.50	159.8	.463
181	11.85	34.746								250	10.75	34.70	26.61	149.8	.541
206	11.39	34.723								300	10.10	34.68	26.71	141.6	.614
309	9.99	34.672								400	8.70	34.60	26.88	126.8	.748
412	8.54	34.590								500	7.46	34.55	27.03	112.4	.867
618	6.28	34.536								600	6.44	34.54	27.16	101.3	.974
824	5.02	34.537								700	5.69	34.54	27.25	92.3	1.071
1029	4.16	34.562								800	5.13	34.54	27.32	85.9	1.160
										1000	4.26	34.56	27.43	75.6	1.321
GE 130 24 41.5 N 109 30.2 W DATE 05 APR 70 0830 GCT WIRE 03 DRY 68.0 WET 63.2 CRUISE C70020															
WIND DIRECTION 32 VEL 17 KTS BAR 12 SWELL DIRECTION 34 H 04 T 03 CLOUD 0 AMT 2 WEATHER 02															
0	20.85	34.678								0	20.85	34.68	24.32	362.3	0
10	20.82	34.677								10	20.82	34.68	24.32	362.0	.036
20	20.83	34.674								20	20.83	34.68	24.32	362.8	.072
31	20.80	34.676								30	20.80	34.68	24.33	362.6	.109
50	17.36	34.666								50	17.36	34.67	25.20	280.0	.173
77	15.32	34.748								75	15.40	34.74	25.71	232.2	.237
102	14.34	34.820								100	14.40	34.82	25.98	205.5	.292
127	13.68	34.800								150	13.05	34.75	26.22	185.6	.390
152	13.00	34.751								200	12.23	34.77	26.39	169.8	.479
179	12.51	34.774								250	11.38	34.72	26.51	159.2	.561
203	12.19	34.774								300	10.47	34.65	26.62	149.7	.638
306	10.36	34.642								400	8.94	34.57	26.81	132.8	.779
408	8.83	34.564								500	7.61	34.53	26.99	116.2	.904
612	6.40	34.520								600	6.52	34.52	27.13	103.4	1.013
816	5.11	34.517								700	5.75	34.52	27.23	94.3	1.112
1018	4.19	34.544								800	5.18	34.52	27.30	88.0	1.203
										1000	4.26	34.54	27.42	76.8	1.368
GE 131 24 27.0 N 109 29.0 W DATE 05 APR 70 1053 GCT WIRE 05 DRY 68.0 WET 62.8 CRUISE C70020															
WIND DIRECTION 32 VEL 18 KTS BAR 11 SWELL DIRECTION 01 H 04 T 03 CLOUD AMT 0 WEATHER 02															
0	20.92	34.638								0	20.92	34.64	24.27	367.0	0
10	20.89	34.637								10	20.90	34.64	24.27	366.7	.037
20	20.92	34.632								20	20.92	34.64	24.26	368.2	.073
31	20.89	34.631								30	20.91	34.63	24.26	368.7	.110
51	17.23	34.193								50	17.46	34.21	24.83	315.4	.179
79	13.36	34.722								75	13.66	34.65	25.01	203.4	.244
103	13.51	34.709								100	13.42	34.72	26.12	193.8	.293
129	12.84	34.762								150	12.51	34.76	26.33	174.8	.385
153	12.48	34.761								200	12.00	34.76	26.43	166.3	.471
180	12.29	34.778								250	11.19	34.72	26.54	156.3	.551
205	11.92	34.759								300	10.37	34.67	26.65	146.6	.627
309	10.22	34.661								400	8.87	34.60	26.85	129.2	.765
411	8.72	34.596								500	7.62	34.55	27.00	114.8	.887
618	6.43	34.521								600	6.59	34.52	27.13	104.3	.996
823	4.99	34.535								700	5.75	34.52	27.23	94.2	1.095
1027	4.34	34.554								800	5.10	34.53	27.32	85.9	1.185
										1000	4.38	34.55	27.42	77.5	1.349

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
GE 132 24 27.0 N 109 13.2 W DATE 05 APR 70 1323 GCT WIRE 15 DRY 66.0 WET 62.9 CRUISE C70020															
WIND DIRECTION 32 VEL 12 KTS BAR 11 SWELL DIRECTION 32 H 04 T 05 CLOUD 8 AMT 6 WEATHER 02															
0	21.14									0	21.15	34.64	24.21	372.7	0
10	21.13									10	21.13	34.64	24.21	372.9	.037
20	21.09	34.644								20	21.09	34.65	24.23	371.7	.075
31	19.76	34.426								30	19.90	34.44	24.38	357.0	.111
50	17.96	34.199								50	17.96	34.20	24.70	327.9	.179
77	15.06	34.336								75	15.24	34.31	25.41	260.0	.253
102	14.36	34.577								100	14.38	34.56	25.79	225.1	.314
127	13.85	34.773								150	13.16	34.79	26.22	184.9	.416
152	13.10	34.794								200	12.01	34.76	26.42	167.0	.504
179	12.55	34.770								250	11.13	34.72	26.56	155.1	.584
203	11.93	34.754								300	10.48	34.68	26.64	148.1	.660
306	10.42	34.671								400	8.95	34.59	26.83	131.7	.800
409	8.83	34.579								500	7.66	34.54	26.99	116.5	.924
612	6.52	34.521								600	6.63	34.52	27.12	105.0	1.035
816	5.12	34.526								700	5.82	34.52	27.22	94.9	1.135
1018	4.31	35.550								800	5.20	34.53	27.30	87.6	1.226
										1000	4.36	35.42	28.11	13.3	1.327

GE 133 24 28.0 N 109 56.8 W DATE 05 APR 70 1702 GCT WIRE 05 DRY 70.0 WET 65.5 CRUISE C70020															
WIND DIRECTION 31 VEL 10 KTS BAR 13 SWELL DIRECTION 31 H 04 T 04 CLOUD 0 AMT 3 WEATHER 02															
0	21.04	34.464								0	21.04	34.47	24.10	382.7	0
10	20.91	34.464								10	20.92	34.47	24.14	379.7	.038
20	20.95	34.464								20	20.96	34.47	24.13	381.1	.076
31	20.38	34.464								30	20.47	34.46	24.25	369.4	.114
51	16.15	34.072								50	16.37	34.09	24.99	300.1	.181
77	15.46	34.754								75	15.51	34.69	25.64	238.4	.248
102	15.03	34.781								100	15.08	34.78	25.81	223.4	.306
129	13.31	34.742								150	13.03	34.79	26.25	182.6	.407
153	13.02	34.795								200	11.98	34.73	26.41	168.3	.495
180	12.39	34.762								250	11.18	34.68	26.52	158.6	.577
205	11.89	34.726								300	10.48	34.65	26.62	149.9	.654
308	10.37	34.645								400	8.87	34.58	26.83	130.9	.794
410	8.71	34.572								500	7.58	34.53	27.00	115.6	.917
615	6.46	34.511								600	6.58	34.51	27.12	105.1	1.028
820	5.10	34.519								700	5.81	34.51	27.22	95.4	1.128
1024	4.31	34.536								800	5.20	34.52	27.30	88.3	1.219
										1000	4.37	34.53	27.40	78.7	1.386



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)
NH 5 44 39.5 N 124 10.7 W DATE 26 FEB 70 0436 GCT WIRE 04 DRY 53.0 WET 50.5 CRUISE Y70020															
WIND DIRECTION 01 VEL 10 KTS BAR 26 SWELL DIRECTION 21 H 05 T 08 CLOUD 2 AMT 2 WEATHER 02															
0	10.91	31.848									0	10.91	31.85	24.37	357.2 0
5	10.90	31.959									10	10.82	32.03	24.52	342.8 .035
10	10.82	32.025									20	10.92	32.08	24.54	341.0 .069
15	10.85	32.074									30	10.80	32.19	24.65	331.2 .103
20	10.92	32.075													
25	10.82	32.108													
30	10.80	32.183													
35		32.229													
40		32.295													

NH 10 44 39.2 N 124 17.6 W DATE 26 FEB 70 0640 GCT WIRE DRY WET CRUISE Y70020
WIND DIRECTION 01 VEL 10 KTS BAR 26 SWELL DIRECTION 21 H 04 T 08 CLOUD 6 AMT 2 WEATHER 02

0 10.97
72 10.18

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
NH 65 44 39.1 N 125 35.0 W DATE 26 FEB 70 1753 GCT WIRE 00 DRY 51.5 WET 49.4 CRUISE Y70020										WIND DIRECTION 02 VEL 12 KTS BAR 22 SWELL DIRECTION21 H 04 T 08 CLOUD 2 AMT 3 WEATHER 02						
0	9.82	32.451								0	9.82	32.46	25.02	295.0	0	
10	9.84	32.449								10	9.84	32.45	25.02	295.7	.030	
30	9.66	32.437								20	9.76	32.44	25.02	295.4	.059	
50	9.55	32.436								30	9.66	32.44	25.04	294.1	.089	
74	9.45	32.473								50	9.55	32.44	25.06	292.8	.147	
99	8.33	33.402								75	9.41	32.51	25.13	286.0	.220	
124	7.84	33.564								100	8.30	33.42	26.01	202.7	.281	
149	8.05	33.805								150	8.04	33.81	26.36	170.5	.374	
199	7.41	33.931								200	7.40	33.93	26.55	153.1	.455	
298	6.32	34.002								250	6.81	33.98	26.67	142.2	.529	
399	5.66	34.081								300	6.30	34.00	26.75	134.7	.598	
498	5.17	34.153								400	5.65	34.08	26.90	122.2	.726	
598	4.78	34.210								500	5.16	34.15	27.01	111.3	.843	
797	4.11	34.354								600	4.77	34.21	27.10	103.9	.950	
996	3.66	34.423								700	4.41	34.29	27.20	94.8	1.050	
1196	3.08	34.473								800	4.10	34.36	27.29	86.7	1.140	
										1000	3.65	34.42	27.39	78.1	1.305	
										1200	3.07	34.47	27.49	68.8	1.452	
NH 85 44 38.9 N 126 03.1 W DATE 26 FEB 70 2108 GCT WIRE 00 DRY 54.0 WET 51.0 CRUISE Y70020										WIND DIRECTION 02 VEL 18 KTS BAR 20 SWELL DIRECTION21 H 04 T 10 CLOUD 2 AMT 6 WEATHER 03						
0	10.67	32.508								0	10.67	32.51	24.92	304.5	0	
10		32.506								10	10.63	32.51	24.93	304.1	.030	
30	10.59	32.502								20	10.61	32.50	24.93	304.5	.061	
50	10.55	32.516								30	10.59	32.51	24.93	304.2	.091	
75	9.33	33.146								50	10.55	32.52	24.95	302.9	.152	
99	8.77	33.505								75	9.33	33.15	25.64	237.3	.219	
124	8.56	33.732								100	8.76	33.52	26.02	201.9	.274	
149	8.32	33.844								150	8.31	33.85	26.35	171.6	.368	
200	7.78	33.973								200	7.79	33.98	26.53	155.2	.449	
299	6.53	33.998								250	7.14	33.99	26.63	146.3	.525	
400	5.72	34.055								300	6.52	34.00	26.72	137.9	.596	
499	5.21	34.137								400	5.72	34.06	26.87	124.7	.727	
600	4.83	34.212								500	5.21	34.14	27.00	113.0	.846	
800	4.19	34.324								600	4.83	34.22	27.10	104.3	.954	
999	3.72	34.420								700	4.49	34.27	27.18	96.7	1.055	
										800	4.19	34.33	27.26	89.8	1.148	
										1000	3.72	34.42	27.38	79.1	1.317	
NH 105 44 39.1 N 126 31.0 W DATE 27 FEB 70 0015 GCT WIRE 20 DRY 52.8 WET 48.8 CRUISE Y70020										WIND DIRECTION 02 VEL 18 KTS BAR 18 SWELL DIRECTION21 H 04 T 10 CLOUD 2 AMT 3 WEATHER 01						
0	10.66	32.510								0	10.66	32.51	24.93	304.1	0	
10	10.64	32.500								10	10.64	32.50	24.92	304.8	.030	
29	10.53	32.514								20	10.58	32.50	24.93	304.0	.061	
49	10.50	32.528								30	10.53	32.51	24.95	302.5	.091	
73	9.82	33.161								50	10.48	32.55	24.99	299.4	.151	
98	8.80	33.457								75	9.73	33.19	25.61	240.4	.219	
122	8.42	33.648								100	8.75	33.48	25.99	204.9	.274	
147	8.29	33.819								150	8.27	33.84	26.35	171.9	.369	
196	7.79	33.962								200	7.73	33.97	26.53	154.8	.450	
294	6.50									250	7.06	33.99	26.64	145.3	.525	
393	5.87									300	6.45	34.00	26.73	137.0	.596	
490	5.15									400	5.81	34.06	26.86	125.8	.727	
589	4.82									500	5.11	34.14	27.01	111.8	.846	
785	4.16									600	4.78	34.22	27.11	103.6	.954	
981	3.64									700	4.44	34.27	27.19	96.1	1.053	
1178	3.46									800	4.11	34.33	27.27	88.8	1.146	
										1000	3.61	34.42	27.39	77.9	1.312	
										1200	3.46	34.47	27.45	73.4	1.464	
NH 125 44 39.2 N 126 59.9 W DATE 27 FEB 70 0428 GCT WIRE 05 DRY 50.3 WET 48.8 CRUISE Y70020										WIND DIRECTION 01 VEL 18 KTS BAR 16 SWELL DIRECTION01 H 05 T 05 CLOUD 2 AMT 2 WEATHER 02						
0	10.50	32.494								0	10.50	32.50	24.94	302.7	0	
10	10.50	32.494								10	10.50	32.50	24.94	302.9	.030	
30	10.50	32.510								20	10.50	32.50	24.95	302.7	.061	
50	10.50	32.492								30	10.50	32.51	24.96	302.1	.091	
75	9.28	32.856								50	10.50	32.50	24.94	303.8	.151	
99	8.51	33.265								75	9.28	32.86	25.43	258.0	.222	
124	8.36	33.705								100	8.50	33.29	25.88	215.2	.281	
149	7.97	33.847								150	7.96	33.85	26.40	166.3	.376	
200	7.49	33.943								200	7.49	33.95	26.55	153.3	.456	
299	6.33	33.997								250	6.89	33.98	26.66	143.5	.530	
399	5.63	34.073								300	6.32	34.00	26.75	135.4	.600	
500	5.17	34.129								400	5.62	34.07	26.89	122.4	.729	
599	4.82	34.223								500	5.18	34.13	27.00	112.9	.846	
799	4.03	34.323								600	4.82	34.22	27.11	103.5	.954	
997	3.61	34.419								700	4.41	34.28	27.20	95.0	1.054	
1198	3.16	34.475								800	4.03	34.32	27.27	88.2	1.145	
										1000	3.60	34.42	27.39	77.8	1.311	
										1200	3.16	34.48	27.48	69.7	1.459	

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NH 145 44 38.9 N 127 27.7 W DATE 27 FEB 70 0808 GCT WIRE 05 DRY 50.8 WET 47.6 CRUISE Y70020
WIND DIRECTION 01 VEL 14 KTS BAR 16 SWELL DIRECTION28 H 03 T 08 CLOUD 2 AMT 8 WEATHER 03

0	10.32	32.516								0	10.32	32.52	24.99	298.2	0
10	10.34	32.515								10	10.34	32.52	24.99	298.7	.030
30	10.33	32.511								20	10.33	32.51	24.98	299.3	.060
50	10.24	32.512								30	10.33	32.52	24.98	299.3	.090
75	9.38	33.029								50	10.24	32.52	25.01	298.1	.149
100	8.31	33.535								75	9.38	33.03	25.55	246.7	.217
125	7.96	33.752								100	8.31	33.54	26.11	193.6	.273
149	7.58	33.889								150	7.57	33.89	26.49	157.7	.360
200	7.17	33.960								200	7.18	33.96	26.61	147.6	.437
300	6.17	34.033								250	6.66	34.00	26.70	138.8	.508
401	5.51	34.112								300	6.18	34.04	26.80	130.5	.576
500	4.95	34.167								400	5.52	34.11	26.94	118.3	.700
601	4.63	34.250								500	4.95	34.17	27.05	107.5	.813
801	3.97	34.348								600	4.63	34.25	27.15	99.5	.916
1000	3.49	34.433								700	4.29	34.30	27.23	92.0	1.012
1202	3.04	34.484								800	3.97	34.35	27.30	85.8	1.101
										1000	3.49	34.44	27.42	75.3	1.262
										1200	3.04	34.48	27.50	67.8	1.404

NH 165 44 39.0 N 127 55.0 W DATE 27 FEB 70 1110 GCT WIRE 10 DRY 46.5 WET 45.3 CRUISE Y70020
WIND DIRECTION 01 VEL 20 KTS BAR 14 SWELL DIRECTION23 H 04 T 07 CLOUD 6 AMT 8 WEATHER 02

0	10.40	32.537								0	10.40	32.54	24.99	297.9	0
10	10.39	32.528								10	10.39	32.53	24.99	298.6	.030
30	10.37	32.521								20	10.38	32.53	24.98	299.1	.060
50	10.08	32.485								30	10.38	32.53	24.99	299.2	.090
75	9.03	33.086								50	10.08	32.49	25.01	297.5	.149
100	8.35	33.464								75	9.03	33.09	25.65	237.2	.216
125	7.79	33.609								100	8.35	33.47	26.05	199.5	.271
150	7.82	33.822								150	7.82	33.83	26.41	166.1	.362
200	7.37	33.976								200	7.38	33.98	26.59	149.2	.441
300	6.33	34.027								250	6.88	34.00	26.68	141.7	.514
401	4.96	33.997								300	6.33	34.03	26.77	133.0	.582
501	4.64	34.095								400	4.97	34.00	26.91	120.2	.709
601	4.63	34.224								500	4.64	34.09	27.02	109.6	.824
802	3.85	34.319								600	4.63	34.22	27.13	101.4	.929
1001	3.51	34.435								700	4.28	34.28	27.21	93.4	1.026
1202	3.00	34.485								800	3.86	34.32	27.29	86.6	1.116
										1000	3.51	34.43	27.41	75.7	1.279
										1200	3.01	34.48	27.50	67.2	1.422

NH 1 44 39.2 N 124 05.8 W DATE 26 FEB 70 0020 GCT WIRE DRY WET CRUISE Y70020
WIND DIRECTION 32 VEL 03 KTS BAR 16 SWELL DIRECTION21 H 04 T 08 CLOUD 2 AMT 4 WEATHER

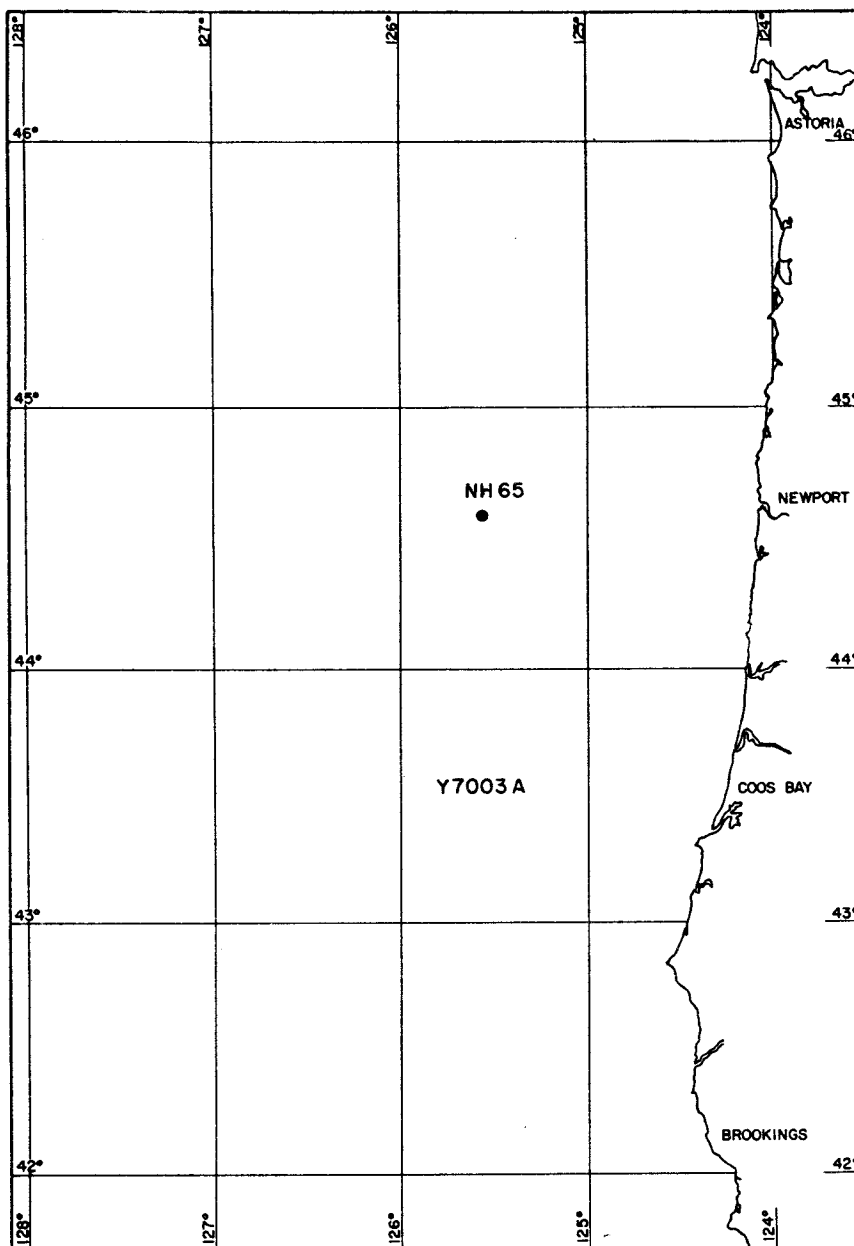
0 11.15
24 10.71

NH 3 44 39.2 N 124 08.0 W DATE 26 FEB 70 0119 GCT WIRE 05 DRY 54.2 WET 50.1 CRUISE Y70020
WIND DIRECTION 32 VEL 03 KTS BAR 16 SWELL DIRECTION21 H 04 T 08 CLOUD 2 AMT 4 WEATHER 02

0	11.18	30.448								0	11.18	30.45	23.24	465.3	0
5	10.92	31.567								10	10.84	32.05	24.53	341.8	.040
10	10.84	32.044								20	10.85	32.06	24.54	341.1	.074
15	10.80	32.063								30	10.73	32.14	24.63	333.5	.108
20	10.85	32.058													
25	10.77	32.071													
30	10.73	32.136													

NH 145 44 39.2 N 127 27.0 W DATE 04 MAR 70 0243 GCT WIRE 02 DRY 48.0 WET 45.0 CRUISE Y70020
WIND DIRECTION 12 VEL 12 KTS BAR 13 SWELL DIRECTION32 H 04 T 07 CLOUD 8 AMT 6 WEATHER

0	10.31	32.568								0	10.31	32.57	25.03	294.2	0
10	10.24	32.561								10	10.24	32.57	25.04	293.7	.029
29	10.19	32.557								20	10.20	32.56	25.04	293.8	.059
49	10.21	32.556								30	10.20	32.56	25.04	294.1	.088
74	9.11	33.022								50	10.18	32.57	25.05	293.2	.147
98	8.22	33.617								75	9.07	33.05	25.61	240.7	.214
123	7.94	33.798								100	8.18	33.64	26.21	184.2	.267
147	7.73	33.861								150	7.69	33.87	26.46	161.2	.353
198	6.97	33.954								200	6.95	33.96	26.63	145.2	.430
296	6.22	34.044								250	6.51	34.01	26.73	136.1	.500
395	5.47	34.098								300	6.19	34.05	26.80	130.0	.566
494	5.07	34.167								400	5.45	34.13	26.94	118.2	.690
593	4.59	34.237								500	5.04	34.17	27.04	108.5	.804
790	4.08	34.350								600	4.57	34.24	27.15	99.2	.908
987	3.51	34.425								700	4.28	34.30	27.23	92.0	1.003
1186		34.483								800	4.05	34.35	27.29	86.2	1.092
										1000	3.47	34.43	27.41	75.6	1.254
										1200	3.01	34.49	27.50	67.1	1.396

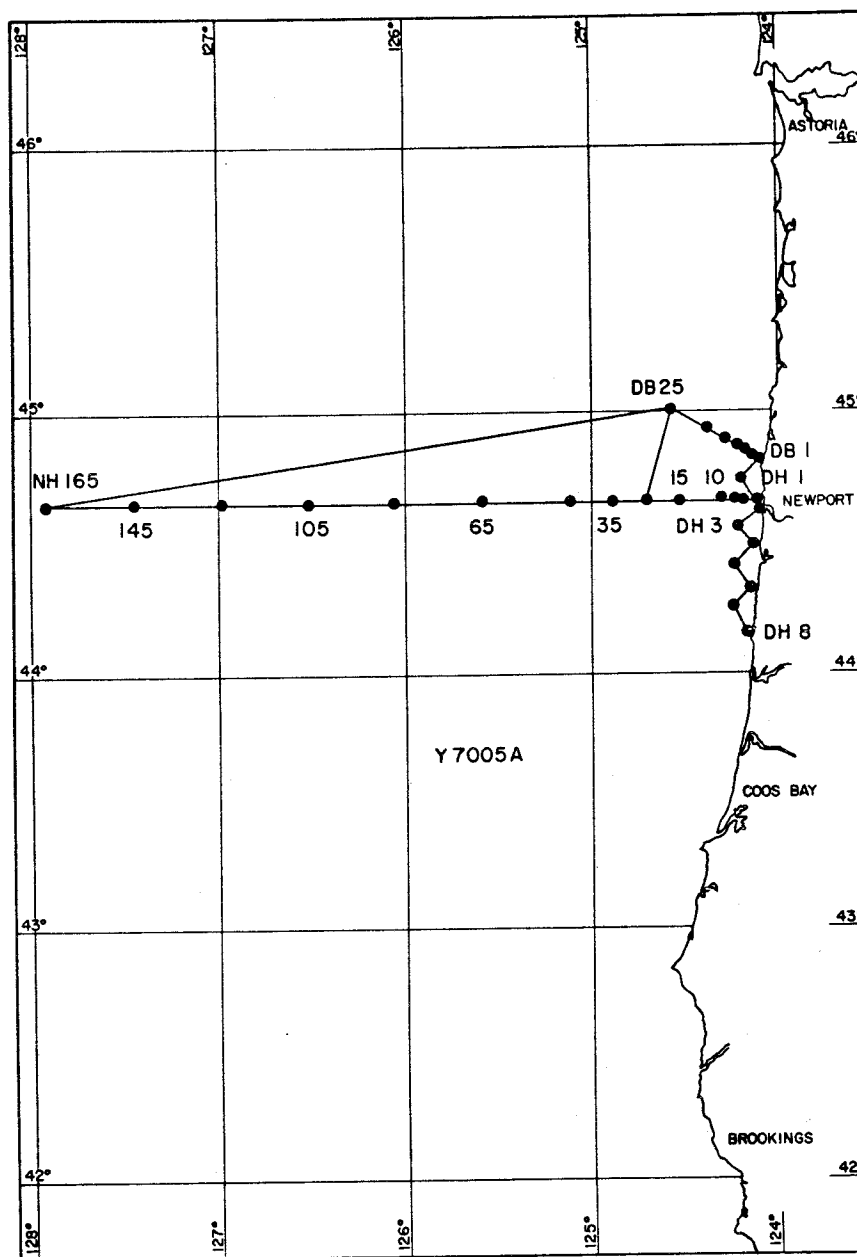


OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NH 65 44 35.6 N 125 33.5 W DATE 11 MAR 70 1716 GCT WIRE 05 DRY 51.5 WET 49.0 CRUISE Y7003A
 WIND DIRECTION 25 VEL 18 KTS BAR 10 SWELL DIRECTION 24 H 06 T 06 CLOUD 6 AMT 7 WEATHER 02

0 10.34
 20 10.34
 30 10.36
 50 10.38
 74 9.53
 100 8.68
 125 8.39
 150 8.27
 200 7.53
 300 6.26
 399 5.67
 599 4.73
 800 4.16
 999 3.63

0 10.34
 10 10.32
 20 10.34
 30 10.36
 50 10.38
 75 9.49
 100 8.68
 150 8.27
 200 7.54
 250 6.84
 300 6.27
 400 5.66
 500 5.15
 600 4.73
 700 4.42
 800 4.17
 1000 3.63



OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	θ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
DB 1 44 48.6 N 124 05.7 W DATE 04 MAY 70 2154 GCT WIRE 04 DRY 51.5 WET 50.0 CRUISE Y7005A																
WIND DIRECTION VEL 00 KTS BAR 21 SWELL DIRECTION 29 H 03 T 09 CLOUD 6 AMT 8 WEATHER																
0	9.33	33.129	5.49	1.76		2.31	18.1	29		0	9.33	33.13	25.63	237.2	0	
5	9.09		5.75	1.55			18.4	29		10	8.63	33.44	25.98	203.8	.022	
10	8.62	33.438	4.23	1.96	7.83	2.31	23.4	36		20	7.96	33.71	26.29	174.5	.041	
15	8.39	33.453	4.72	1.98	7.82	2.32	23.8	36								
20	7.96	33.707	2.63	2.22	7.75	2.31	28.3	43								
DB 3 44 49.5 N 124 08.0 W DATE 04 MAY 70 2342 GCT WIRE 00 DRY 53.5 WET 51.0 CRUISE Y7005A																
WIND DIRECTION VEL 00 KTS BAR 22 SWELL DIRECTION 25 H 02 T CLOUD AMT WEATHER																
0	9.30	32.583	5.42	1.45		2.36	15.0	25		0	9.30	32.59	25.21	277.2	0	
5	8.89	32.809	5.07	1.54	8.00	2.28	17.5	28		10	8.24	33.29	25.92	209.8	.024	
10	8.24	33.284	3.97	2.04	7.90	2.37	23.7	34		20	7.60	33.69	26.33	171.2	.043	
15	7.96	33.464	3.85	1.94	7.87	2.38	23.7	37		30	7.21	33.89	26.54	151.1	.059	
20	7.60	33.645	3.01	2.04	7.81	2.39	28.3	40								
25	7.25	33.860	2.66	2.13	7.78	2.40	30.2	44								
30	7.21	33.887	2.56	2.18	7.79	2.40	30.7	44								
35	7.19	33.849	2.20	2.26	7.79		30.8	45								
40	7.20	33.882	2.22	2.20	7.80	2.41	30.5	44								

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
DB 5 44 50.5 N 124 10.2 W DATE 05 MAY 70 0112 GCT WIRE 03 DRY 55.0 WET 53.5 CRUISE Y7005A																
WIND DIRECTION VEL 00 KTS BAR 22 SWELL DIRECTION22 H 02 T CLOUD AMT WEATHER																
0	10.10	31.464	6.90	.64		2.29	3.9	12		0	10.10	31.47	24.21	372.6	0	
5	9.75	31.533	6.91	.57	8.19	2.29	4.2	13		10	9.19	32.32	25.02	295.5	.033	
10	9.19	32.317	5.92	1.07	8.07	2.09	11.4	19		20	8.38	33.10	25.75	226.1	.059	
15	9.07	32.451	5.50	1.23	8.04	2.31	13.5	20		30	8.00	33.41	26.05	197.8	.081	
20	8.38	33.094	4.27	1.60	7.95	2.34	20.0	25		50	7.26	33.84	26.50	155.4	.116	
25	8.05	33.354	3.70	1.84	7.90	2.35	23.4	30								
30	8.00	33.404	3.66	1.76	7.88	2.35	24.0	31								
35	7.82	33.556	3.20	1.93	7.85	2.37	25.8	10								
40	7.59	33.730	2.85	2.05	7.79	2.38	29.0	41								
45	7.51	33.771	2.62	2.18	7.78	2.37	28.6	43								
50	7.25	33.840	2.39	2.02	7.76	2.39	29.2	45								
DB 7 44 51.5 N 124 12.7 W DATE 05 MAY 70 0314 GCT WIRE 03 DRY 52.2 WET 49.8 CRUISE Y7005A																
WIND DIRECTION VEL 00 KTS BAR 22 SWELL DIRECTION26 H 02 T CLOUD AMT WEATHER																
0	10.31	31.323	6.90	.60		2.21	3.6	11		0	10.31	31.33	24.06	386.3	0	
5	9.75	31.470	6.74	.73	8.19	2.21	4.6	12		10	9.38	31.84	24.62	333.8	.036	
10	9.38	31.840	6.38	.81	8.14	2.23	7.2	13		20	8.83	32.20	24.93	299.7	.068	
15	9.26	32.053	6.18	.80	8.12	2.24	8.8	15		30	8.53	32.68	25.40	259.6	.096	
20	8.83	32.191	5.91	.90	8.10	2.24	10.1	16		50	7.93	33.43	26.08	195.4	.141	
25	8.35	32.459	5.63	1.17	8.08	2.25	12.0	15		75	7.54	33.86	26.47	158.5	.185	
30	8.53	32.674	5.08	1.37	8.03	2.26	14.5	19								
35	8.27	33.147	4.15	1.77	7.94	2.29	20.3	25								
40	8.22	33.235	4.02	1.76	7.93	2.29	21.0	27								
45	8.06	33.349	3.90	1.75	7.92	2.30	21.4	27								
50	7.92	33.426	3.77	1.81	7.90	2.30	21.2	27								
60	7.58	33.653	3.43	1.94	7.87	2.31	24.4	32								
75	7.53	33.854	2.82	2.17	7.82	2.32	26.6	36								
DB 10 44 53.0 N 124 16.3 W DATE 05 MAY 70 0450 GCT WIRE 01 DRY 49.9 WET 48.9 CRUISE Y7005A																
WIND DIRECTION 30 VEL 12 KTS BAR 22 SWELL DIRECTION28 H 02 T 08 CLOUD 6 AMT 8 WEATHER 61																
0	10.11	31.361	7.06	.55		2.17	4.0	14		0	10.11	31.37	24.13	380.4	0	
5	9.99	31.509	7.10	.50	8.19	2.19	4.5	14		10	9.81	31.62	24.37	357.3	.037	
10	9.81	31.611	6.94	.60	8.16	2.20	5.6	15		20	9.40	31.68	24.49	346.3	.072	
15	9.77	31.633	6.94	.61	8.15	2.19	5.0	13		30	8.66	32.07	24.91	306.5	.105	
20	9.40	31.677	6.72	.85	8.15	2.20	7.4	16		50	8.17	32.94	25.66	235.1	.159	
25	8.89	31.913	6.26	1.03	8.09	2.20	10.0	18		75	7.76	33.58	26.22	182.6	.211	
30	8.66	32.068	5.26	.85	8.10	2.20	8.9	15		100	7.32	33.86	26.50	156.1	.253	
35	8.42	32.200	5.94	1.15	8.07	2.23	9.3	14								
40	8.26	32.475	5.63	1.09	8.11	2.21	11.7	15								
45	8.22	32.747	5.35	1.21	8.05	2.24	13.9	17								
50	8.17	32.939	4.92	1.50	8.01	2.27	17.0	21								
60	8.08	33.359	3.93	1.76	7.92	2.29	21.9	29								
75	7.75	33.571	3.54	2.00	7.88	2.29	25.3	33								
100	7.31	33.851	2.51	2.34	7.79	2.31	30.0	45								
DB 15 44 55.4 N 124 22.4 W DATE 05 MAY 70 0650 GCT WIRE 04 DRY 51.0 WET 49.0 CRUISE Y7005A																
WIND DIRECTION 35 VEL 10 KTS BAR 22 SWELL DIRECTION28 H 03 T 08 CLOUD 6 AMT 8 WEATHER 02																
0	10.62	31.094		.43		2.16	1.0	12		0	10.63	31.09	23.83	409.0	0	
5	10.63	31.092		.36	8.22	2.16	1.0	13		10	10.45	31.17	23.92	400.2	.040	
10	10.45	31.168		.36	8.25	2.14	.9	12		20	9.25	31.98	24.74	322.3	.077	
15	9.76	31.860		.42	8.24	2.17	.6	8		30	9.07	32.27	25.00	297.5	.108	
20	9.25	31.971		.43	8.21	2.21	1.9	8		50	8.08	32.69	25.48	252.8	.163	
25	9.22	32.095		.49	8.20	2.21	2.6	8		75	8.01	33.38	26.03	200.9	.219	
30	9.07	32.270		.62	8.17	2.19	5.2	8		100	7.44	33.65	26.32	172.9	.266	
35	8.63	32.379		.73	8.17	2.20	6.1	9		150	6.99	33.90	26.58	149.0	.346	
40	8.42	32.492		.92	8.14	2.20	8.9	12								
45	8.18	32.617		1.21	8.10	2.20	11.5	15								
50	8.08	32.684		1.12	8.10	2.21	12.4	16								
60	8.03	32.990		1.52	8.03		16.2	20								
75	8.01	33.374		1.69		2.24	22.3	29								
100	7.44	33.649		1.91	7.92	2.25	24.7	33								
125	7.29	33.841		2.10	7.84	2.27	27.8	41								
150	6.99	33.903		2.16		2.28	30.0	45								

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
08 25 45 00.0 N 124 33.7 W DATE 05 MAY 70 1024 GCT WIRE 00 DRY 51.0 WET 48.0 CRUISE Y7005A																
WIND DIRECTION 35 VEL 12 KTS BAR 23 SWELL DIRECTION 28 H 03 T 08 CLOUD 6 AMT 8 WEATHER 03																
0	10.54				.28		2.16	.2	8		0	10.54	31.09	23.84	407.7	0
5	10.52	31.441	6.35	.31	8.25	2.16		-.1	9		10	10.35	31.50	24.19	374.6	.039
10	10.35	31.492	6.53	.26	8.27	2.17			9		20	10.06	31.71	24.41	354.1	.076
15	10.27	31.551	6.21	.34	8.25	2.16		.0	9		30	9.66	32.03	24.72	324.8	.109
20	10.06	31.709	5.80	.60	8.24	2.17			9		50	8.94	32.33	25.07	291.8	.171
25	9.82	31.865	5.98	.48	8.24	2.19		.1	8		75	8.16	32.85	25.59	242.1	.238
35	9.52	32.163	5.59	.55	8.21	2.19		1.3	6		100	7.78	33.29	25.99	204.2	.294
45	9.08	32.261	5.98	.63	8.19	2.21		3.7	7		150	7.51	33.85	26.47	159.7	.385
55	8.81	32.413	5.03	.80	8.17	2.23		5.9	8		200	6.94	33.91	26.60	148.3	.462
70	8.30	32.759	4.62	1.10	8.09	2.24		12.2	15		250	6.42	33.92	26.67	141.7	.534
95	7.80	33.196	4.37	1.41	7.99	2.25		19.1	24		300	6.11	34.01	26.78	131.9	.602
120	7.75	33.642	3.59	1.83	7.92	2.29		24.9	31							
145	7.56	33.838	2.95	1.99	7.85	2.30		28.2	38							
195	7.01	33.906	2.41	2.33	7.78	2.32		30.1	43							
220	6.69	33.937	2.33	2.27	7.76	2.32		31.8	47							
245	6.45	33.914	2.21	2.35	7.77	2.34		32.9	50							
295	6.16	34.003	1.86	2.56	7.72	2.35		34.9	56							
320	5.87	34.018	1.85	2.62	7.72	2.37		35.5	59							

NH 25 44 39.0 N 124 38.7 W DATE 05 MAY 70 1410 GCT WIRE 01 DRY 50.2 WET 46.4 CRUISE Y7005A																
WIND DIRECTION 35 VEL 16 KTS BAR 23 SWELL DIRECTION 30 H 03 T 08 CLOUD 6 AMT 5 WEATHER 01																
0	10.41	31.487	6.77	.38		2.21			8		0	10.41	31.49	24.18	375.8	0
10	10.30	31.607	6.87	.33	8.21	2.21			8		10	10.30	31.61	24.29	365.3	.037
20	10.23	31.627	6.87	.35	8.24	2.21			8		20	10.23	31.63	24.31	362.9	.073
30	9.34	31.996	6.53	.62	8.20	2.23			7		30	9.34	32.00	24.75	321.9	.108
40	9.02	32.221	6.38		8.18	2.25			8		50	8.76	32.54	25.26	273.2	.167
50	8.76	32.540	5.94		8.14	2.25		3.7	11		75	8.01	33.11	25.82	220.7	.229
60	8.41	32.705	5.56	.98	8.10	2.27			14		100	7.48	33.47	26.17	187.5	.280
70	8.08	33.046	4.81		8.03	2.28		17.7	23		150	7.43	33.88	26.50	156.8	.366
80	7.96	33.160	4.59	1.59	8.01	2.29			25							
90	7.71	33.345	4.27		7.97	2.30			20							
100	7.48	33.461	4.08		7.95	2.30		21.6	29							
125	7.67	33.771	3.26	1.81	7.89	2.32			33							
150	7.42	33.873	2.91		7.85	2.34		27.3	39							
175	7.08	33.906	2.63	2.24	7.82	2.34			42							

NH 10 44 39.5 N 124 17.8 W DATE 05 MAY 70 1812 GCT WIRE 02 DRY 52.0 WET 49.2 CRUISE Y7005A																
WIND DIRECTION 35 VEL 15 KTS BAR 24 SWELL DIRECTION 30 H 05 T 08 CLOUD 4 AMT 3 WEATHER 01																
0	9.90	31.476	6.83			2.11		3.6	12		0	9.90	31.48	24.25	368.6	0
5	9.77	31.508	6.74	.87	8.18	2.11		3.9	12		10	9.60	31.66	24.44	351.1	.036
10	9.60	31.651	6.63		8.17	2.13					20	9.20	32.04	24.80	316.4	.069
15	9.41	31.771	6.48	.79	8.15	2.16		6.0	13		30	8.46	32.77	25.48	252.1	.098
20	9.20	32.040	6.05	.85	8.12	2.16		8.2	14		50	7.84	33.44	26.10	193.4	.142
25	8.67	32.627	4.93	1.27	8.04	2.16		14.1	19							
30	8.46	32.762	4.85		8.03	2.16										
35	8.34	33.014	4.00	1.49	7.98	2.19		18.0	24							
40	8.12	33.310	3.91	1.63	7.94	2.20		20.7	27							
45	7.97	33.378	3.88	1.68	7.93	2.21		21.7	28							
50	7.84	33.437	3.84	1.70	7.93	2.23		21.8	28							
55	7.84	33.623	3.07	1.93	7.87	2.25		25.3	36							
60	7.47	33.703	2.97	2.09	7.85	2.27		25.9	38							

NH 5 44 39.1 N 124 10.7 W DATE 05 MAY 70 2010 GCT WIRE 03 DRY 52.0 WET 49.0 CRUISE Y7005A																
WIND DIRECTION 35 VEL 18 KTS BAR 24 SWELL DIRECTION 30 H 04 T 09 CLOUD 4 AMT 5 WEATHER 03																
0	10.06	32.834	7.22					5.5	21		0	10.06	32.84	25.28	270.4	0
5	9.72	32.835	7.26	.83		2.25		6.0	22		10	8.92	32.92	25.53	246.9	.026
10	8.92	32.917	5.04	1.49	8.04	2.24		16.3	28		20	8.04	33.31	25.96	205.9	.048
15	8.39	33.179	3.72	1.85	7.97	2.24		22.0	28		30	7.71	33.74	26.35	169.1	.067
20	8.04	33.301	3.59	2.04	7.90	2.25		24.9	33							
25	7.87	33.470	3.53	2.25	7.92	2.25		28.9	43							
30	7.71	33.735	2.52	2.24	7.84	2.28		29.9	43							
35	7.41	33.812	2.73	2.47	7.83	2.28		30.8	45							
40	7.41	33.838	2.47	1.53				10.4	23							

NH 1 44 39.1 N 124 06.0 W DATE 06 MAY 70 0040 GCT WIRE 01 DRY 51.0 WET 46.0 CRUISE Y7005A																
WIND DIRECTION 35 VEL 20 KTS BAR 24 SWELL DIRECTION 30 H 06 T 09 CLOUD 4 AMT 7 WEATHER 03																
0	9.51	33.137	5.25	1.72		2.28		19.7	32		0	9.51	33.14	25.61	239.4	0
5	9.30	33.149	5.04	1.61	7.95	2.25		20.1	33		10	8.78	33.40	25.92	209.6	.022
10	8.78	33.392	3.82	2.14	7.87	2.28		23.8	37		20	8.12	33.64	26.22	182.1	.042
15	8.19	33.615	2.75	2.63	7.79	2.30		27.4	42							
20	8.12	33.636	2.69	2.23	7.80	2.29		27.8	42							

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
NH 65 44 39.2 N 125 34.8 W DATE 06 MAY 70 1743 GCT WIRE 05 DRY 50.2 WET 46.3 CRUISE Y7005A																
WIND DIRECTION 34 VEL 11 KTS BAR 25 SWELL DIRECTION 30 H 04 T 09 CLOUD 8 AMT 2 WEATHER 02																
0	10.65	31.720	6.80	.47		2.19	.1	7		0	10.65	31.73	24.32	362.4	0	
10	10.57	31.743	6.62	.47	8.24	2.19	.2	6		10	10.57	31.75	24.35	359.6	.036	
20	10.66	31.976	6.65	.47	8.23	2.19		4		20	10.66	31.98	24.51	344.0	.071	
30	9.92	32.252	6.62	.41	8.23	2.20	.0	3		30	9.92	32.26	24.85	311.9	.104	
40	9.98	32.414	6.55	.48		2.21	1.2	5		40	9.67	32.46	25.05	293.5	.165	
50	9.67		6.51	.57			2.5	6		50	8.93	32.83	25.45	255.4	.233	
62	9.05		6.31	.63			4.3	8		100	8.38	33.57	26.12	192.1	.299	
75	8.93	32.820	5.39	1.04	8.09	2.24	11.7	14		150	8.05	33.83	26.37	169.3	.379	
86	8.56	33.296	4.18	1.47	7.99	2.27	17.9	22		200	7.59	33.95	26.54	154.3	.460	
124	8.30	33.702	3.52	1.65	7.90	2.28	20.7	25		250	7.03	33.98	26.64	145.0	.535	
149	8.06	33.824	3.00	1.96	7.87	2.29	27.0	34		300	6.46	33.99	26.72	138.0	.606	
200	7.59	33.949	2.65	1.71	7.83	2.30	30.4	40		400	5.55	34.05	26.88	123.5	.737	
299	6.47	33.986	2.15	2.48	7.77	2.32	34.8	52		500	4.99	34.11	27.00	112.1	.854	
400	5.54	34.041	1.44	2.68	7.68	2.34	39.1	65		600	4.55	34.20	27.12	101.9	.961	
499	4.99	34.114	.99	3.02	7.64	2.36	42.3	77		700	4.22	34.27	27.21	93.4	1.059	
599	4.55	34.202	.58	2.86	7.62	2.37	43.3	84		800	3.96	34.33	27.28	87.0	1.149	
799	3.96	34.329	.26	2.82	7.62	2.40	39.2	82		1000	3.55	34.41	27.39	77.8	1.314	
1002	3.55	34.413	.26	2.67	7.64	2.42	37.4	81		1200	3.09	34.46	27.47	70.1	1.462	
1199	3.09	34.458	.40	3.12	7.65	2.43	44.9	103								

NH 85 44 39.1 N 126 03.4 W DATE 06 MAY 70 2125 GCT WIRE 01 DRY 50.5 WET 47.0 CRUISE Y7005A															
WIND DIRECTION 31 VEL 09 KTS BAR 26 SWELL DIRECTION 30 H 04 T 08 CLOUD 8 AMT 4 WEATHER 03															
0	11.29	32.007		.48		2.20	.3	4		0	11.29	32.01	24.43	351.9	0
10	11.01	32.029		.56	8.22	2.19	.2	3		10	11.01	32.03	24.49	345.7	.035
20	10.79	32.243		.39	8.24	2.21	.3	2		20	10.79	32.25	24.70	326.4	.068
30	10.24	32.366		.51	8.24	2.23	.3	2		30	10.24	32.37	24.89	308.5	.100
40	10.05	32.431		.51	8.23	2.23	.3	3		40	9.98	32.48	25.02	296.7	.161
49	10.00	32.479		.44	8.22	2.25	.5	3		50	9.12	32.65	25.28	271.5	.232
61	9.68	32.486	6.59	.70	8.21	2.23	1.0	6		75	7.99	33.12	25.83	220.1	.293
74	9.19	32.629	5.67	.81	8.15	2.24	5.0	9		100	7.70	33.82	26.42	164.9	.389
86	8.40	32.858	5.92	1.11	8.10	2.24	11.0	15		150	7.10	33.94	26.59	148.7	.468
124	7.82	33.515	4.31	1.69	8.00	2.28	20.6	26		200	6.44	33.93	26.68	141.3	.540
148	7.72	33.808	3.44	1.84	7.93	2.30	25.2	34		250	5.85	33.92	26.75	135.2	.609
199	7.11	33.937	2.96	2.16	7.86	2.31	29.9	42		300	5.23	33.99	26.88	123.5	.739
297	5.88	33.920	2.12	2.20	7.80	2.32	29.6	47		400	4.86	34.10	27.01	111.4	.856
397	5.24	33.990	1.91	2.73	7.70	2.35	38.9	66		500	4.50	34.19	27.12	102.3	.963
496	4.89	34.101	1.02	3.17	7.64	2.36	40.5	77		600	4.24	34.26	27.20	94.6	1.061
596	4.51	34.197	.32	2.93	7.63	2.38	43.5	85		700	4.03	34.32	27.27	88.5	1.153
795	4.04	34.317	.40	3.32	7.62	2.41	47.8	94		800	3.57	34.41	27.39	78.2	1.319
993	3.59	34.409	.41	3.16	7.64	2.42	44.3	70		1000	3.11	34.45	27.46	70.9	1.468
1192	3.13	34.450	.80	2.71	7.66	2.43	44.7	65		1200					

NH 105 44 39.0 N 126 31.0 W DATE 07 MAY 70 0049 GCT WIRE 04 DRY 52.0 WET 47.5 CRUISE Y7005A															
WIND DIRECTION 27 VEL 06 KTS BAR SWELL DIRECTION 30 H 04 T 05 CLOUD 8 AMT 4 WEATHER 02															
0	11.44	32.082	6.53	.61		2.21	-.1	3		0	11.48	32.09	24.45	349.6	0
10	11.05	32.088	6.51	.45	8.23	2.20	-.1	3		10	11.05	32.09	24.53	342.0	.035
20	10.93	32.161	6.55	.66	8.23	2.21	-.1	2		20	10.93	32.17	24.61	334.8	.068
30	10.46	32.294	6.64	.41	8.24	2.20	-.1	2		30	10.46	32.21	24.72	324.1	.101
40	10.18	32.352	6.71	.48	8.24	2.21	.0	2		40	10.08	32.44	24.97	301.0	.164
45	10.13	32.407	6.68	.46	8.24	2.21	.0	2		50	9.49	32.62	25.21	278.7	.236
61	9.90	32.506	6.46	.63	8.19	2.21	2.1	5		75	9.03	32.96	25.54	247.2	.302
74	9.51	32.519	6.02	.99	8.17	2.23	5.9	9		100	7.43	33.54	26.24	181.9	.409
86	9.32	32.698	5.81	1.52	8.14	2.24	8.0	11		150	6.89	33.89	26.58	149.6	.492
124	8.37	33.421	4.19	1.58	7.97	2.28	18.5	22		200	6.54	34.00	26.72	137.2	.564
149	7.45	33.533	4.32	1.75	7.88	2.28	21.6	29		250	6.22	34.01	26.77	133.2	.631
199	6.90	33.844	3.35	2.01	7.76	2.34	27.1	41		300	5.34	34.05	26.91	121.0	.758
298	6.24	34.009	1.90	2.60			35.1	55		400	4.88	34.12	27.02	110.7	.874
399	5.35	34.046	1.33	2.83	7.69	2.35	38.5	67		500	4.70	34.21	27.11	103.3	.981
498	4.88	34.113	.89	3.07	7.64	2.35	40.7	76		600	4.36	34.12	27.07	106.7	1.086
598	4.71	34.210	.51	3.22	7.63	2.38	42.1	82		700	4.00	34.04	27.05	108.9	1.194
797	4.01	34.036	.36	3.27	7.62	2.41	42.2	90		800	3.59	34.41	27.39	78.4	1.381
996	3.60	34.407	.29	3.35	7.64	2.42	43.0	92		1000	3.15	34.47	27.48	70.0	1.529
1196	3.16	34.472	.62	3.04	7.66	2.44	36.9	92		1200					

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
NH 125 44 39.3 N 126 59.0 W DATE 07 MAY 70 0446 GCT WIRE 07 DRY 51.8 WET 47.4 CRUISE Y7005A										WIND DIRECTION 24 VEL 07 KTS BAR 25 SWELL DIRECTION29 H 03 T 08 CLOUD 0 AMT 4 WEATHER 03						
0	11.45	32.163	6.54			2.23				0	11.45	32.17	24.52	343.1	0	
10	11.09	32.176	6.62		8.23	2.23				10	11.09	32.18	24.59	336.2	.034	
20	10.71	32.294	6.67		8.24	2.23				20	10.71	32.30	24.75	321.3	.067	
30	10.21	32.327	6.75		8.25	2.24				30	10.21	32.33	24.86	310.9	.098	
40	9.91	32.404	6.85		8.25	2.24				40	9.91	32.48	25.10	288.3	.158	
50	9.46	32.479	6.85		8.24	2.24				50	9.46	32.48	25.10	288.3	.158	
62	9.30	32.476	6.78		8.23	2.24				75	9.13	32.48	25.15	284.2	.230	
75	9.13	32.472	6.80		8.23	2.24				100	7.96	32.66	25.47	254.1	.297	
86	8.52	32.522	6.50		8.20	2.24				150	7.23	33.45	26.19	186.2	.407	
124	7.40	32.999	5.66		8.10	2.27				200	6.88	33.80	26.52	155.7	.493	
149	7.24	33.436	5.00		8.05	2.29				250	6.39	33.84	26.62	146.9	.568	
200	6.87	33.797	4.04		7.97	2.31				300	5.87	33.89	26.72	137.6	.639	
299	5.88	33.890			7.83	2.34				400	4.93	33.96	26.89	122.6	.769	
399	4.93	33.958	1.86		7.71	2.35				500	5.06	34.12	27.00	112.8	.887	
499	5.06	34.116	0.95		7.66	2.37				600	4.66	34.19	27.10	104.0	.995	
599	4.66	34.191	0.42		7.63	2.39				700	4.33	34.26	27.19	96.1	1.095	
799	4.04	34.310	0.16		7.63	2.42				800	4.04	34.31	27.26	89.3	1.188	
999	3.48	34.406	0.25		7.65	2.43				1000	3.48	34.41	27.39	77.4	1.355	
1198	3.08	34.456	0.40		7.66	2.45				1200	3.08	34.46	27.47	70.1	1.502	
NH 145 44 39.2 N 127 26.8 W DATE 07 MAY 70 0830 GCT WIRE 10 DRY 51.5 WET 50.0 CRUISE Y7005A										WIND DIRECTION 18 VEL 14 KTS BAR 23 SWELL DIRECTION29 H 04 T 10 CLOUD 6 AMT 8 WEATHER 02						
0	11.15	32.343	6.13	.55		2.21	-1	3		0	11.15	32.35	24.71	324.7	0	
10	11.13	32.341	6.51	.49	8.25	2.21	-1	2		10	11.13	32.35	24.71	324.7	.032	
20	10.48	32.462	6.75	.54	8.26	2.21	-1	2		20	10.48	32.47	24.92	305.1	.064	
30	9.91	32.459	6.90	.56	8.26	2.21	-1	1		30	9.91	32.46	25.01	296.4	.094	
39	9.76	32.512	6.60	.55	8.25	2.21	0	3		40	9.60	32.50	25.09	289.1	.153	
49	9.61	32.501	6.70	.49	8.25	2.21	.2	4		50	9.26	32.50	25.15	284.7	.224	
61	9.45	32.488	6.86	.53	8.25	2.23	.6	4		75	9.26	32.50	25.15	284.7	.224	
74	9.31	32.496	6.48	.59	8.24	2.23	1.1	5		100	8.04	32.65	25.45	255.9	.292	
86	8.63	32.517	6.01		8.22	2.23				150	7.39	33.43	26.15	189.8	.403	
123	7.48	32.986	5.25	1.15	8.13	2.24	13.3	18		200	6.78	33.84	26.56	151.4	.489	
148	7.41	33.402	5.00	1.52	8.07	2.27	18.9	24		250	6.17	33.87	26.67	142.0	.562	
198	6.81	33.837	3.95	1.85	7.98	2.30	25.9	37		300	5.62	33.91	26.76	133.2	.631	
297	5.65	33.906	2.53	2.53	7.81	2.31	34.9	55		400	4.87	33.98	26.91	120.5	.757	
397	4.88	33.976	1.73	2.86	7.73	2.35	37.3	64		500	4.66	34.05	26.99	113.3	.874	
495	4.67	34.041	1.21	2.85	7.68	2.36	41.5	76		600	4.36	34.15	27.10	103.3	.983	
595	4.37	34.149	.81	3.08	7.64	2.37	42.7	82		700	4.14	34.24	27.20	94.7	1.082	
793	3.95	34.310	.08	3.15	7.64	2.40	41.9	85		800	3.93	34.31	27.27	87.8	1.173	
991	3.42	34.386	.08	3.32	7.66	2.42	43.6	95		1000	3.40	34.39	27.39	77.8	1.338	
1190	3.03	34.444	.32	3.05	7.68	2.43	41.9	82		1200	3.01	34.45	27.47	70.1	1.486	
NH 165 44 39.0 N 127 55.0 W DATE 07 MAY 70 1240 GCT WIRE 08 DRY 51.5 WET 50.0 CRUISE Y7005A										WIND DIRECTION 19 VEL 18 KTS BAR 20 SWELL DIRECTION23 H 04 T CLOUD 6 AMT 8 WEATHER 02						
0	10.60	32.510	6.67	.59		2.23	.2	4		0	10.60	32.51	24.94	303.2	0	
10	10.53	32.509	6.67	.57	8.20	2.23		4		10	10.53	32.51	24.95	302.3	.030	
20	10.15	32.506	6.77	.41	8.20	2.23	.2	3		20	10.15	32.51	25.01	296.5	.060	
30	9.85	32.503	6.77	.53	8.20	2.23		3		30	9.85	32.51	25.06	292.2	.090	
40	9.80	32.503	6.78	.54	8.20	2.23		3		40	9.74	32.50	25.07	291.1	.148	
50	9.74	32.499	6.73	.44	8.21	2.23	1.4	4		50	9.43	32.49	25.12	287.5	.220	
62	9.68	32.504	6.74	.47	8.21	2.23	.3	3		75	8.42	32.58	25.34	266.4	.290	
74	9.47	32.493	6.66	.75	8.20	2.23	.8	5		100	7.57	33.19	25.94	209.9	.409	
86	8.95	32.495	6.55	.74	8.18	2.23	1.6	7		150	7.72	33.77	26.37	169.9	.503	
124	7.78	32.639	5.88	1.03	8.11	2.24	10.5	15		200	6.92	33.82	26.53	155.9	.585	
149	7.57	33.177	5.41	1.20	8.07	2.27	14.6	19		250	5.86	33.87	26.71	139.0	.659	
200	7.72	33.763	3.77	1.75	7.92	2.30	24.3	32		300	4.73	33.90	26.86	124.6	.790	
299	5.88	33.871	3.10	2.15	7.82	2.31	31.5	50		400	4.44	34.01	26.98	113.4	.909	
399	4.74	33.901	2.15	2.46	7.71	2.34	36.3	62		500	4.44	34.12	27.07	106.4	1.019	
499	4.44	34.011	1.34	2.77	7.64	2.36	39.7	76		600	4.24	34.21	27.16	98.2	1.121	
599	4.44	34.124	.73	3.02	7.61	2.38	42.7	74		700	3.97	34.28	27.25	90.6	1.216	
799	3.97	34.281	.31	2.99	7.60	2.41	41.0	80		800	3.66	34.38	27.37	79.3	1.386	
999	3.46	34.376	.35	3.00	7.61	2.42	42.8	87		1000	3.09	34.44	27.46	71.5	1.536	
1198	3.09	34.439	.46	3.00	7.62	2.43	42.2	84		1200						

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	

08 25 45 00.0 N 124 33.7 W DATE 08 MAY 70 1125 GCT WIRE 08 DRY 52.0 WET 51.7 CRUISE Y7005A
WIND DIRECTION 19 VEL 16 KTS BAR 13 SWELL DIRECTION 19 H 04 T 06 CLOUD 6 AMT 8 WEATHER

0	10.84	30.903	6.73	.40		2.19	-.1	11		0	10.84	30.91	23.65	426.0	0
10	10.72	31.372		.26	8.23	2.20		9		10	10.72	31.38	24.03	389.5	.041
20	10.39	31.668	6.65	.46	8.23	2.20	-.1	8		20	10.39	31.67	24.32	362.4	.078
29	9.49	32.165	6.15	.52	8.19	2.23	.9	6		30	9.44	32.19	24.88	309.3	.112
39	9.16	32.317	6.21	.51	8.18	2.23	2.9	6		50	8.86	32.44	25.17	282.1	.171
49	8.88	32.429	6.31	.87	8.16	2.24	4.6	8		75	8.06	32.87	25.62	239.4	.236
59	8.69	32.603	5.89	.87	8.11	2.25	8.2	12		100	7.82	33.50	26.15	189.7	.290
68	8.35	32.763	5.47	1.26	8.07	2.25	11.7	15		150	7.54	33.87	26.48	158.9	.377
78	7.96	32.928	4.96	1.45	8.04	2.25	14.6	18		200	6.80	33.93	26.63	144.9	.453
88	7.85	33.261	4.47	1.55	7.97	2.28	19.2	25		250	6.42	33.97	26.71	138.0	.524
98	7.82	33.464	7.93	1.85	7.92	2.28	22.3	28		300	6.08	34.01	26.79	131.4	.591
122	7.77	33.755	3.33	2.07	7.88	2.30	25.9	34							
147	7.59	33.864	2.98	2.21	7.83	2.31	28.0	39							
171	7.19	33.906	2.73	2.33	7.80	2.32	29.5	42							
195	6.85	33.931	2.55	2.37	7.77	2.32	30.8	46							
244	6.46	33.964	2.24	2.47	7.74	2.34	32.7	51							
293	6.13	34.005	1.36	2.74	7.68	2.35	34.9	58							

08 15 44 55.5 N 124 22.0 W DATE 08 MAY 70 1414 GCT WIRE 05 DRY 51.6 WET 51.2 CRUISE Y7005A
WIND DIRECTION 20 VEL 14 KTS BAR 13 SWELL DIRECTION 18 H 03 T 08 CLOUD 6 AMT 8 WEATHER 02

0	10.63	30.745	6.72	.38	8.25	2.14	.0	12		0	10.63	30.75	23.56	434.3	0
5	10.63	30.741	6.76	.34	8.24	2.16	.0	12		10	10.59	30.80	23.60	430.4	.043
10	10.59	30.791	6.73	.37	8.24	2.16	.0	12		20	9.29	31.92	24.69	327.2	.081
15	10.10	31.095	6.98	.37	8.26	2.16	-.2	10		30	8.96	32.01	24.81	315.8	.113
20	9.29	31.912	6.89	.49	8.23	2.20	.4	8		50	9.11	32.73	25.35	264.6	.171
25	9.03	31.954	6.69	.57	8.21	2.20	1.8	8		75	7.73	33.22	25.94	209.0	.230
30	8.96	32.002	6.56	.56	8.19	2.21	3.1	8		100	7.63	33.54	26.21	183.6	.280
35	8.77	32.123	6.37	.77	8.17	2.21	4.9	9							
40	8.97	32.328	6.38	.73	8.17	2.23	4.3	7							
45	8.74	32.481	6.12	.86	8.14	2.23	7.1	10							
50	9.11	32.727	5.61	.96	8.11	2.24	9.9	13							
60	9.03	33.069	4.78	1.32	8.02	2.25	16.3	19							
75	7.73	33.213	4.54	1.32	8.00	2.27	20.1	25							
100		33.539	3.84	1.78	7.93	2.28	24.2	30							
125	7.53	33.701	3.51	1.31		2.29	26.8	34							

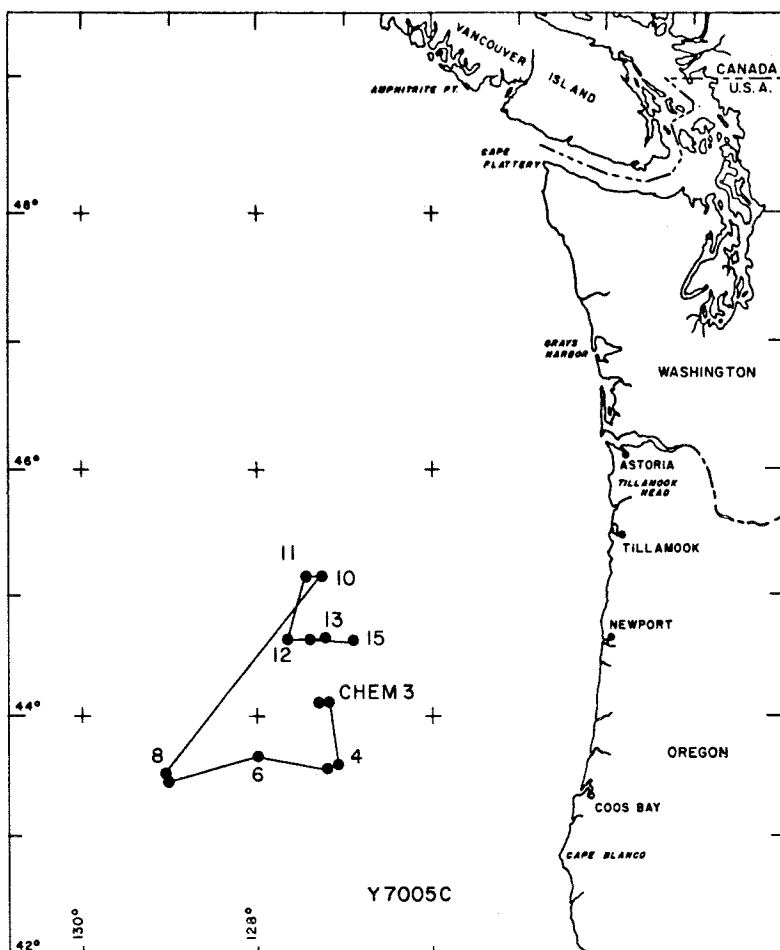
08 10 44 52.9 N 124 16.5 W DATE 08 MAY 70 1612 GCT WIRE 06 DRY 51.9 WET 51.4 CRUISE Y7005A
WIND DIRECTION 22 VEL 12 KTS BAR 14 SWELL DIRECTION 18 H 04 T 06 CLOUD 5 AMT 8 WEATHER 61

0	10.96	30.074	6.75	.34	8.27	2.14	.2	15		0	10.96	30.08	22.99	489.3	0
5	10.97	30.076	6.73	.29	8.28	2.14	.2	15		10	10.77	30.60	23.42	448.1	.047
10	10.77	30.591	6.77	.39	8.27	2.17	.1	12		20	9.91	31.60	24.34	360.2	.087
15	10.42	31.101	6.82	.33	8.28	2.19	.2	9		30	8.64	32.13	24.95	302.1	.120
20	9.91	31.595	6.93	.36	8.26	2.20	1.5	9		50	8.04	33.11	25.81	220.9	.173
25	9.04	31.930	6.82	.50	8.25	2.20	1.4	5		75	7.68	33.62	26.26	178.6	.223
30	8.64	32.124	6.42	.64	8.18	2.21	4.5	9		100	7.03	33.90	26.57	149.1	.264
35	8.35	32.329	5.89	.98	8.14	2.23	9.8	14							
40	8.23	32.527	5.45	1.20		2.23	13.3	18							
45	8.18	32.719	5.06	1.32	8.05	2.24	15.9	21							
50	8.04	33.105	4.35	1.50	7.99	2.27	18.7	24							
60	7.99	33.327	3.86	1.72	7.95	2.28	22.8	29							
70	7.82	33.528	3.52	1.87	7.92	2.29	25.4	33							
80	7.52	33.689	3.14	1.46	7.88	2.30	28.2	37							
90	7.23	33.777	3.11	1.78	7.88	2.30	29.8	40							
100	7.02	33.893	2.38	2.48	7.80	2.31	33.9	50							

08 7 44 51.5 N 124 12.9 W DATE 08 MAY 70 1806 GCT WIRE DRY 52.5 WET 51.9 CRUISE Y7005A
WIND DIRECTION 20 VEL 15 KTS BAR 15 SWELL DIRECTION 18 H 04 T 06 CLOUD 5 AMT 8 WEATHER 61

0	10.65	30.824	6.92	.39		2.19	-.2	10		0	10.65	30.83	23.62	428.8	0
5	10.58	31.002	6.92	.28	8.28	2.19	-.1	9		10	10.57	31.03	23.79	412.5	.042
10	10.57	31.028	6.92	.40	8.28	2.20	-.1	9		20	9.46	31.66	24.46	348.9	.080
15	10.26	31.130	6.92	.43	8.26	2.19	.6	10		30	8.53	32.46	25.23	275.5	.111
20	9.46	31.655	6.44	.69	8.19	2.20	4.2	10		50	7.83	33.47	26.13	190.8	.158
25	8.90	32.238	5.63	1.21	8.09	2.23	12.0	19							
30	8.53	32.460	5.45	1.39	8.05	2.24	15.5	23							
35	8.35	32.492	4.79	1.40	8.02	2.25	17.9	24							
45	7.97	33.376	3.86	1.82	7.93	2.29	23.9	31							
50	7.83	33.470		1.46	7.90	2.30	25.5	35							

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)		
OH 5 44 24.2 N 124 13.6 W DATE 09 MAY 70 0805 GCT WIRE 00 DRY 50.0 WET 46.0 CRUISE Y7005A																	
WIND DIRECTION 29 VEL 10 KTS BAR 19 SWELL DIRECTION 28 H 04 T 10 CLOUD 6 AMT 7 WEATHER 03																	
0	9.66	32.216	4.87	.89	7.87	2.23	6.9	20		0	9.66	32.22	24.87	310.0	0		
5	9.44	32.714	5.63	1.17		2.25	12.3	25		10	9.04	33.22	25.74	226.9	.027		
10	9.04	33.211	5.63	1.52			18.1	29		20	7.90	33.60	26.22	181.6	.047		
15	8.60	33.330	4.59	1.55		2.27	19.2	31		30	7.70	33.68	26.30	173.8	.065		
20	7.89	33.599	3.46	1.78	7.94	2.29	23.7	35									
25	7.72	33.637	3.32	2.00	7.86	2.30	24.6	35									
30	7.70	33.671	3.18	2.09	7.85	2.30	28.9	37									
35	7.66	33.692	3.47	1.79	7.85	2.30	27.9	35									
40	7.50	33.818	2.75	2.10	7.82	2.31	31.6	41									
OH 6 44 18.7 N 124 08.5 W DATE 09 MAY 70 0956 GCT WIRE 00 DRY 50.5 WET 47.0 CRUISE Y7005A																	
WIND DIRECTION 33 VEL 06 KTS BAR 19 SWELL DIRECTION 28 H 03 T 10 CLOUD 6 AMT 6 WEATHER 01																	
0	9.68	32.129	7.64			2.24											
5	9.73	32.317	7.96	.47	8.27	2.23	.5	15									
10	9.34	33.000	5.79	1.03	8.11	2.27	11.2	22									
15	9.23	33.115	6.28	1.49	8.09	2.27	13.1	23									
20	9.21	33.178	6.32	1.29	8.07	2.27	12.3	24									
OH 7 44 14.5 N 124 14.5 W DATE 09 MAY 70 1123 GCT WIRE 01 DRY 50.5 WET 46.0 CRUISE Y7005A																	
WIND DIRECTION VEL 00 KTS BAR 18 SWELL DIRECTION 27 H 03 T CLOUD AMT WEATHER 02																	
0	9.79	32.609	7.72	.55		2.24	.3	14		0	9.79	32.61	25.15	282.9	0		
5	9.78	32.606	7.52	.37	8.28	2.25	.6	14		10	9.63	32.69	25.24	274.9	.028		
10	9.63	32.685	7.12	.75	8.22	2.25	4.1	19		20	8.93	33.33	25.85	217.2	.052		
15	9.35	33.015	6.46	.82	8.13	2.27	9.2	22		30	8.15	33.53	26.12	191.2	.073		
20	8.93	33.322	5.53	1.57	8.01	2.28	18.8	28									
25	8.56	33.434	4.02	1.77	7.91	2.28	21.1	31									
30	8.15	33.521	3.42	1.87	7.87	2.28	26.1	31									
35	7.95	33.611	3.05	1.97	7.84	2.29	27.5	35									
40	7.92	33.704	2.82	1.91	7.83	2.30	24.5	37									
OH 8 44 08.5 N 124 09.7 W DATE 09 MAY 70 1329 GCT WIRE DRY 50.0 WET 45.0 CRUISE Y7005A																	
WIND DIRECTION 30 VEL 06 KTS BAR 18 SWELL DIRECTION 27 H 06 T 08 CLOUD 6 AMT 5 WEATHER 01																	
0	9.88	32.519	4.18	.83	8.20	2.54	39	13	2.32	0	9.88	32.52	25.07	290.9	0		
5	9.90	32.519	4.67	.65	8.22	2.56	37	12	2.33	10	9.91	32.53	25.06	291.4	.029		
10	9.91	32.521	6.48	.60	8.22	2.56	36	12	2.32	20	9.64	32.79	25.31	267.8	.057		
15	9.81	32.579	6.02	.71	8.22	2.56	35	16	2.33								
20	9.64	32.785	6.36	.94	8.20	2.57	50	15	2.35								



OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(×10 ⁻³)	(dyn.m)		

CHEM 2 44 07.0 N 127 17.0 W DATE 28 MAY 70 1555 GCT WIRE 00 DRY WET CRUISE Y7005C
WIND DIRECTION 21 VEL 04 KTS BAR 21 SWELL DIRECTION 29 H 04 T 08 CLOUD 6 AMT 7 WEATHER

1302	2.89	34.492	.53
1501	2.51	34.531	.75
1698	2.18	34.562	1.05
1896	1.98	34.591	1.37
2095	1.86	34.612	1.59
2293	1.81	34.624	1.77
2490	1.76	34.636	1.93
2589	1.75	34.640	1.97
2689	1.74	34.643	2.06
2738	1.72	34.643	2.11
2788	1.70	34.647	2.16
2813	1.70	34.647	2.18
2837	1.70	34.649	2.18
2862	1.68	34.650	2.23

CHEM 3 44 07.1 N 127 10.0 W DATE 28 MAY 70 1937 GCT WIRE 04 DRY 54.0 WET 51.5 CRUISE Y7005C
WIND DIRECTION 18 VEL 10 KTS BAR 20 SWELL DIRECTION 30 H 03 T 10 CLOUD 6 AMT 8 WEATHER 02

2649	1.74	34.639	2.02
2699	1.74	34.640	2.03
2748	1.72	34.641	2.06
2797	1.71	34.643	2.08
2847	1.70	34.645	2.14
2876	1.70	34.648	2.16
2905	1.69	34.646	2.20
2936	1.69	34.648	2.21
2964	1.68	34.650	
2994	1.68	34.651	
3024	1.69		
3053	1.68	34.653	
3083	1.66	34.654	
3112	1.65	34.655	
3142	1.65	34.655	

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)
CHEM 4 43 36.0 N 127 04.0 W DATE 29 MAY 70 0523 GCT WIRE 00 DRY WET CRUISE Y7005C															
WIND DIRECTION 22 VEL 15 KTS BAR 19 SWELL DIRECTION 26 H 03 T 08 CLOUD 8 AMT 8 WEATHER															

1536	2.44	34.537	.86
1733	2.18	34.566	1.10
1932	1.96	34.596	1.42
2130	1.85	34.614	1.69
2328	1.81	34.624	1.77
2526	1.76	34.631	1.93
2625	1.76	34.638	2.01
2725	1.73	34.643	2.06
2774	1.72	34.645	2.11
2824	1.71	34.645	2.17
2849	1.70	34.646	2.18
2873	1.70	34.646	2.17

CHEM 5 43 34.2 N 127 11.5 W				DATE 29 MAY 70 1014 GCT				WIRE 04 DRY WET				CRUISE Y7005C			
WIND DIRECTION 26 VEL 14 KTS				BAR 19 SWELL DIRECTION 24				H 03 T 10 CLOUD 6 AMT 8				WEATHER 02			

2680	1.73	34.639	1.90
2729	1.74	34.642	2.06
2779	1.73	34.645	2.11
2829	1.72	34.648	2.14
2878	1.70	34.649	2.17
2908	1.70	34.650	2.17
2938	1.70	34.652	2.20
2967	1.69	34.651	2.21
2996	1.68	34.652	2.23
3026	1.67	34.654	2.37
3056	1.64	34.655	2.37
3086	1.64	34.657	2.40
3115	1.64	34.657	2.41
3145	1.63	34.659	2.44
3175	1.63	34.661	2.48

CHEM 6 43 40.0 N 127 59.0 W				DATE 29 MAY 70 1921 GCT				WIRE 04 DRY 53.1 WET 51.9				CRUISE Y7005C			
WIND DIRECTION 32 VEL 16 KTS				BAR 23 SWELL DIRECTION 30				H 05 T 10 CLOUD 7 AMT 8				WEATHER 02			

2602	1.75	34.635	1.96
2672	1.74	34.638	2.06
2722	1.71	34.641	2.11
2761	1.70	34.644	2.17
2801	1.68	34.647	2.18
2841	1.67	34.649	2.22
2881	1.66	34.650	2.28
2921	1.65	34.653	2.32
2960	1.63	34.656	2.37
2999	1.64	34.657	2.39
3039	1.62	34.658	2.42
3079	1.60	34.662	2.49
3119	1.60	34.663	2.51
3158	1.59	34.664	2.53
3198	1.59	34.666	2.56

CHEM 7 43 28.0 N 129 00.0 W				DATE 30 MAY 70 0335 GCT				WIRE 05 DRY WET				CRUISE Y7005C			
WIND DIRECTION VEL 00 KTS				BAR 27 SWELL DIRECTION 30				H 04 T 07 CLOUD 8 AMT 8				WEATHER			

1296	3.00	34.486	.55
1594	2.48	34.543	.90
1791	2.19	34.577	1.22
1989	1.98	34.601	1.51
2187	1.86	34.618	1.69
2385	1.80	34.629	1.85
2583	1.75	34.634	2.01
2781	1.70	34.646	2.19
2880	1.70	34.645	2.27
2978	1.65	34.652	2.32
3028	1.64	34.655	2.40
3077	1.62	34.659	2.44
3102	1.61	34.659	2.49
3127	1.59	34.661	2.53
3152	1.59	34.663	2.56

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

CHEM 0 43 32.0 N 129 02.0 W DATE 30 MAY 70 0716 GCT WIRE 00 DRY WET CRUISE Y70050
WIND DIRECTION 00 VEL 05 KTS BAR 28 SWELL DIRECTION 30 H 02 T 07 CLOUD 6 AMT 6 WEATHER

2861	1.68	34.645	2.25
2911	1.66	34.647	2.29
2960	1.64	34.651	2.33
3009	1.62	34.653	2.40
3059	1.61	34.656	2.46
3088	1.60	34.658	2.49
3118	1.59	34.661	2.53
3148	1.59	34.662	2.57
3178	1.58	34.663	2.59
3207	1.58	34.664	2.63
3237	1.58	34.666	2.64
3267	1.57	34.666	2.64
3297	1.57	34.669	2.65
3326	1.56	34.668	2.66
3356	1.57	34.668	2.66

DATE 30 MAY 70 0716 GCT WIRE 00 DRY WET
BAR 28 SWELL DIRECTION 30 H 02 T 07 CLOUD 6 AMT 6

CRUISE Y7005C
WEATHER

CHE410 45 09.0 N 127 15.0 W
WIND DIRECTION 32 VEL 14 KTS

DATE 07 JUN 70 1522 GCT WIRE 04 DRY WET
BAR 18 SWELL DIRECTION 33 H 03 T 08 CLOUD 8 AMT 4

CRUISE Y7005C
WEATHER

1265	2.88	34.485	0.49
1463	2.46	34.519	0.69
1660	2.22	34.552	0.99
1858	2.03	34.582	1.26
2056	1.88	34.605	1.54
2254	1.80	34.622	1.72
2451	1.77	34.633	1.84
2550	1.75	34.637	1.89
2649	1.74	34.641	1.95
2698	1.72	34.642	2.01
2748	1.71	34.645	2.05
2777	1.71	34.646	2.05
2797	1.70	34.646	2.05
2817	1.70	34.648	2.07
2937	1.70	34.650	2.07

CHEM11 45 08.6 N 127 25.0 W
WIND DIRECTION 34 VEL 06 KTS

DATE 07 JUN 70 2207 GCT WIRE 05 DRY WET
BAR 18 SWELL DIRECTION 34 H 03 T 07 CLOUD 8 AMT 6

CRUISE Y7005C
WEATHER

2542	1.76	34.634	1.84
2592	1.76	34.637	1.87
2642	1.75	34.639	1.92
2691	1.75	34.640	1.92
2741	1.73	34.641	1.97
2771	1.73	34.643	1.99
2801	1.74	34.644	2.01
2830	1.72	34.645	2.03
2860	1.71	34.648	2.06
2890	1.70	34.649	2.08
2920	1.69	34.649	2.13
2950	1.71	34.649	2.15
2970	1.69	34.649	2.16
2989	1.70	34.650	2.18
3008	1.71	34.650	2.16

CHEM12 44 38.0 N 127 38.0 W
WIND DIRECTION VEL 00 KTS

DATE 08 JUN 70 0720 GCT WIRE 02 DRY WET
BAR 14 SWELL DIRECTION 25 H 02 T 06 CLOUD 8 AMT 3

CRUISE Y7005C
WEATHER

1262	2.80	34.474	0.29
1460	2.48	34.515	0.65
1658	2.23	34.552	0.95
1856	2.03	34.583	1.26
2054	1.89	34.607	1.52
2252	1.80	34.624	1.73
2449	1.76	34.635	1.85
2549	1.75	34.639	1.92
2647	1.73	34.643	1.98
2696	1.72	34.645	2.04
2746	1.72	34.646	2.08
2775	1.71	34.648	2.10
2795	1.70	34.648	2.10
2815	1.70	34.650	2.11
2835	1.70	34.650	2.12

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)

CHEM13 44 39.0 N 127 12.3 W DATE 08 JUN 70 1037 GCT WIRE 00 DRY WET CRUISE Y7005C
WIND DIRECTION VEL 00 KTS BAR 12 SWELL DIRECTION25 H 02 T 10 CLOUD 4 AMT 6 WEATHER

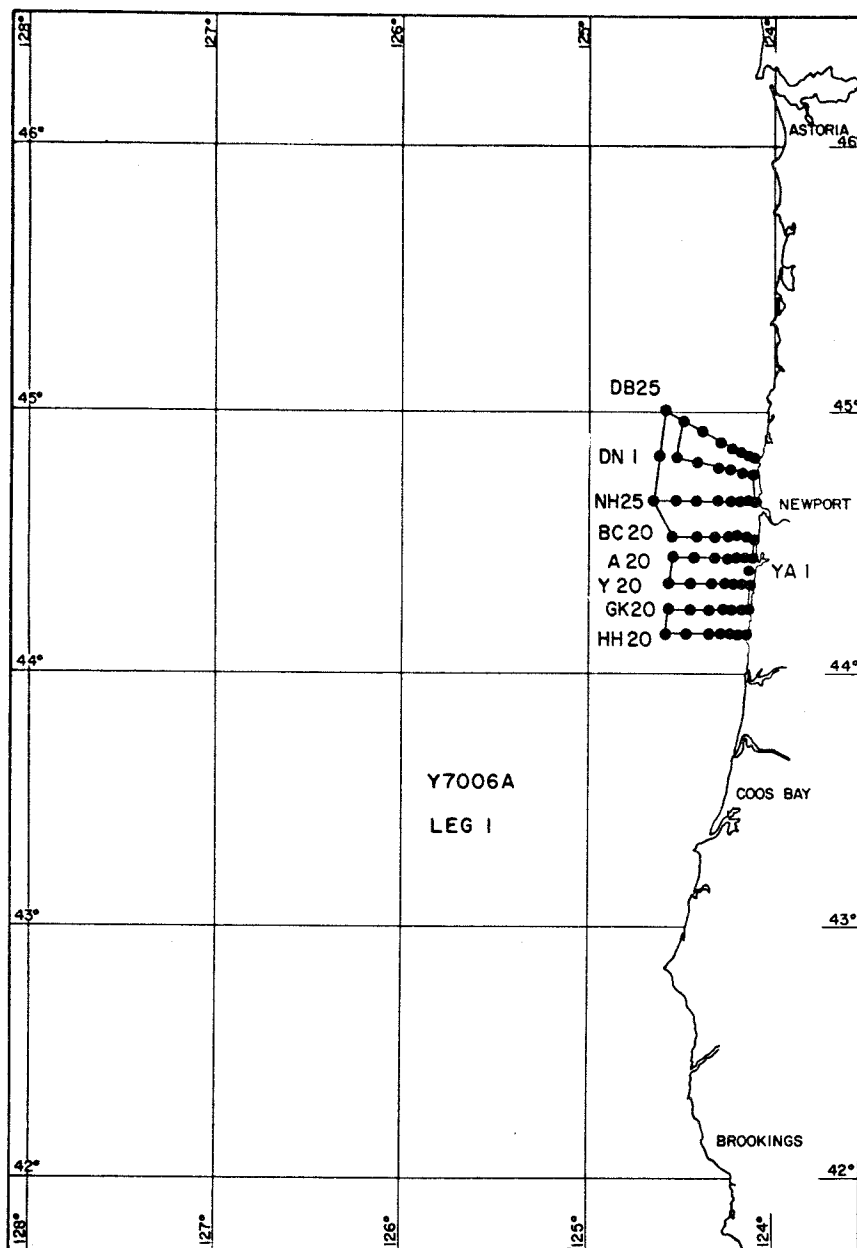
2296	1.78	34.625	1.74
2344	1.78	34.628	1.78
2394	1.77	34.632	1.82
2444	1.77	34.633	1.84
2493	1.75	34.636	1.84
2543	1.75	34.638	1.89
2593	1.74	34.641	1.92
2642	1.74	34.643	1.95
2692	1.72	34.644	1.99
2741	1.72	34.646	2.00
2791	1.70	34.645	2.04
2821	1.71	34.648	2.04
2841	1.70	34.650	2.05
2861	1.70	34.650	2.05
2880	1.71	34.649	2.05

CHEM14 44 38.0 N 127 22.9 W DATE 08 JUN 70 1410 GCT WIRE 08 DRY WET CRUISE Y7005C
WIND DIRECTION 20 VEL 06 KTS BAR 09 SWELL DIRECTION26 H 03 T 08 CLOUD 8 AMT 8 WEATHER

2593	1.73	34.638	1.90
2642	1.72	34.639	1.95
2692	1.73	34.641	2.00
2741	1.73	34.643	2.01
2791	1.72	34.645	2.04
2820	1.71	34.645	2.05
2850	1.72	34.647	2.05
2880	1.70	34.647	2.10
2909	1.70	34.649	2.14
2939	1.70	34.649	2.12
2968	1.70	34.650	2.13
2997	1.71	34.650	2.15
3027	1.70	34.651	2.17
3057	1.66	34.653	2.28
3087	1.68	34.652	2.29

CHEM15 44 38.0 N 126 53.0 W DATE 08 JUN 70 1855 GCT WIRE 07 DRY WET CRUISE Y7005C
WIND DIRECTION 16 VEL 08 KTS BAR 08 SWELL DIRECTION25 H 04 T 08 CLOUD 8 AMT 8 WEATHER

2272	1.78	34.624	1.75
2321	1.76	34.626	1.77
2370	1.77	34.629	1.79
2420	1.77	34.631	1.84
2470	1.75	34.634	1.85
2519	1.74		1.89
2569	1.75	34.639	
2619	1.74	34.639	1.89
2668	1.72	34.642	1.99
2718	1.71	34.644	1.99
2767	1.70	34.645	2.00
2797	1.71	34.649	2.02
2817	1.71	34.648	2.00
2837	1.71	34.650	2.04
2857	1.71	34.649	2.04



OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)	(x10 ⁵)	(dyn.m)			
DB1 1 44 49.5 N 124 05.6 W DATE 16 JUN 70 2020 GCT WIRE 04 DRY 55.1 WET 52.6 CRUISE Y7006A										WIND DIRECTION 34 VEL 08 KTS BAR 19 SWELL DIRECTION 31 H 04 T 07 CLOUD 7 WEATHER 01							
0	10.69	33.276	8.77			2.30			1.95	0	10.69	33.28	25.52	248.0	0		
4	10.38	33.308	8.79		8.329	2.30			1.94	10	9.27	33.57	25.98	204.4	.023		
7	9.68	33.531	6.05		8.127	2.30			2.12	20	7.84	33.78	26.37	167.7	.041		
10	9.27	33.561	5.47	1.92	8.071	2.30	9.2	11	2.12								
15	8.07	33.726	3.53	2.35	7.848	2.28	22.3	32	2.21								
20	7.84	33.777	3.17		7.813	2.28			2.24								
DB1 3 44 49.6 N 124 07.9 W DATE 16 JUN 70 2140 GCT WIRE 01 DRY 55.4 WET 52.8 CRUISE Y7006A										WIND DIRECTION 33 VEL 08 KTS BAR 19 SWELL DIRECTION 31 H 04 T 07 CLOUD 4 AMT 6 WEATHER 01							
0	11.15	32.632	8.45			2.25			2.01	0	11.15	32.64	24.94	303.3	0		
4	10.05	32.775	7.89		8.278	2.25			2.09	10	8.09	33.53	26.13	189.8	.025		
7	8.46	33.447	4.35	1.91	7.910	2.26	21.6	33	2.27	20	7.52	33.69	26.34	169.9	.043		
10	8.09	33.524	3.65		7.854	2.26			2.34	30	6.97	33.85	26.54	151.2	.059		
15	7.87	33.567	3.32		7.807	2.26											
25	7.18	33.826	2.79		7.772	2.28			2.26								
40	6.83	33.898	2.17	2.41	7.727	2.31	31.8	44	2.26								

OBSERVED

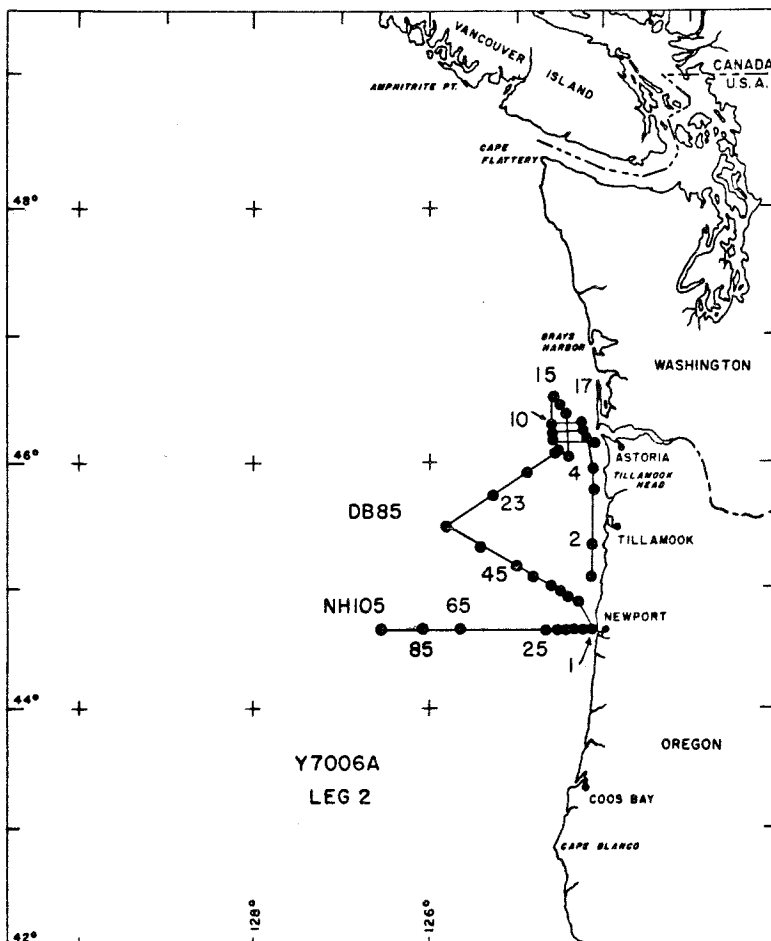
INTERPOLATED

COMPUTED

OBSERVED							INTERPOLATED								
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
OR1 20 44 49.1 N 124 31.2 W DATE 22 JUN 70 0435 GCT WIRE 09 DRY 56.0 WET 54.8 CRUISE Y7006A WIND DIRECTION 35 VEL 24 KTS BAR 18 SWELL DIRECTION 34 H 07 T 06 CLOUD 8 AMT 7 WEATHER 03																
0	11.96	31.935	6.90	.48				.2	5 1.93	0	11.96	31.94	24.25	368.8	0	
4	11.98	31.935	6.90	.46	8.265	2.17		.2	13 1.94	10	11.63	31.97	24.33	361.3	.036	
7	11.95	31.932	6.90	.47	8.280	2.17		.2	5 1.91	20	9.02	32.41	25.12	286.1	.069	
10	11.63	31.961	6.81	.45	8.263	2.17		.5	6 1.94	30	7.94	32.48	25.33	266.2	.096	
15	10.12	32.301	6.43	.86	8.166	2.19		6.7	14 2.07	50	7.59	32.76	25.60	240.9	.147	
25	8.26	32.433	5.50	1.13	8.069	2.19		13.4	23 2.02	75	7.44	33.37	26.11	193.3	.201	
40	7.79	32.578	5.51	1.21	8.076	2.19		12.5	18 2.03	100	7.60	33.75	26.38	167.8	.247	
60	7.47	32.981	4.61	1.63	7.988	2.21		19.9	26 2.09	150	6.96	33.89	26.58	149.3	.326	
80	7.43	33.496	3.86	1.98	7.929	2.23		19.0	32 2.14							
100	7.60	33.747	3.46	1.99	7.897	2.25		27.5	34 2.15							
150	6.96	33.894	2.48	2.41	7.803	2.26		32.2	44 2.19							
DB2 20 44 57.5 N 124 28.8 W DATE 22 JUN 70 0730 GCT WIRE 01 DRY 55.0 WET 54.0 CRUISE Y7006A WIND DIRECTION 00 VEL 20 KTS BAR 19 SWELL DIRECTION 35 H 04 T 07 CLOUD 6 AMT 8 WEATHER 03																
0	11.74	32.045	6.90	.47		2.21		.6	5 1.89	0	11.74	32.05	24.37	356.8	0	
4	11.76	32.046	6.90	.39	8.273	2.21		.6	5 1.91	10	11.68	32.05	24.39	355.8	.036	
7	11.71	32.043	6.90	.36	8.276	2.21		.6	5 1.96	20	8.76	32.22	25.01	296.8	.068	
10	11.63	32.047	6.90	.32	8.267	2.21		.3	6 1.98	30	8.12	32.40	25.25	274.3	.097	
15	9.66	32.137	6.57	.71	8.192	2.19		2.4	5 2.01	50	7.60	32.74	25.59	242.1	.148	
25	8.42	32.307	6.24	.86	8.150	2.19		6.5	11 2.07	75	7.45	33.29	26.03	200.0	.204	
40	7.81	32.590	5.66	1.08	8.086	2.21		12.5	18 2.03	100	7.56	33.68	26.33	172.6	.250	
60	7.50	32.912	4.95	1.22	8.013	2.28		16.6	23 2.14	150	7.15	33.89	26.55	152.0	.331	
80	7.44	33.408	3.99	1.93	7.933	2.25		23.6	31 2.20	200	6.55	33.96	26.69	139.8	.404	
100	7.55	33.674	3.62	1.99	7.906	2.26		26.9	32 2.19	250	6.19	33.99	26.76	133.2	.473	
150	7.14	33.886	3.08	2.05	7.843	2.28		30.2	30 2.28	300	5.91	34.03	26.83	127.7	.538	
200	6.54	33.953	2.31	2.51	7.773	2.30		34.1	48 2.28							
250	6.19	33.989	2.16	2.62	7.736	2.31		39.7	54 2.32							
300		34.031	1.70	2.96	7.590	2.34		42.6	59 2.32							
DB2 15 44 55.2 N 124 22.7 W DATE 22 JUN 70 0932 GCT WIRE 02 DRY 54.5 WET 53.0 CRUISE Y7006A WIND DIRECTION 35 VEL 18 KTS BAR 18 SWELL DIRECTION 34 H 06 T 07 CLOUD 6 AMT 8 WEATHER 02																
0	10.97	32.277	6.55	.80		2.21		4.9	10 2.02	0	10.97	32.28	24.69	326.5	0	
4	10.97	32.273	6.54	.69	8.206	2.21		4.2	10 2.06	10	10.38	32.35	24.84	312.3	.032	
7	10.76	32.296	6.53	.75	8.204	2.21		4.5	10 1.97	20	8.28	32.47	25.27	271.6	.061	
10	10.38	32.341	6.35	1.01	8.170	2.21		7.4	14 1.81	30	7.70	32.62	25.48	252.3	.087	
15	9.02	32.414	5.29	1.46	8.050	2.21		15.9	24 2.09	50	7.42	33.05	25.86	216.7	.134	
25	7.89	32.523	5.54	1.27	8.074	2.19		13.2	18 2.03	75	7.37	33.48	26.20	184.5	.184	
40	7.61	32.844	4.93	1.51	8.026	2.19		17.4	23 2.16	100	7.46	33.78	26.42	163.6	.228	
60	7.30	33.245	4.06	1.84	7.941	2.25		23.2	31 2.20	150	6.72	33.94	26.65	142.9	.304	
80	7.41	33.546	3.74	2.16	7.903	2.25		25.7	34 2.21							
100	7.46	33.778	3.52	2.03	7.900	2.26		26.8	34 2.22							
150	6.72	33.938	2.18	2.50	7.774	2.28		33.8	47 2.26							
DB2 10 44 52.7 N 124 16.5 W DATE 22 JUN 70 1146 GCT WIRE 03 DRY 53.9 WET 51.2 CRUISE Y7006A WIND DIRECTION 00 VEL 22 KTS BAR 19 SWELL DIRECTION 34 H 05 T 08 CLOUD 6 AMT 8 WEATHER 02																
0	10.08	32.533	6.25	1.08				8.4	14 2.09	0	10.08	32.54	25.04	293.1	0	
4	10.08	32.528	6.31	1.03	8.137	2.21		8.3	13 2.08	10	9.92	32.55	25.04	290.0	.029	
7	10.05	32.529	6.30	1.15	8.137	2.01		8.0	14 2.08	20	7.76	32.78	25.59	241.5	.056	
10	9.92	32.543	6.21	1.10	8.080	2.17		8.2	14 2.06	30	7.42	33.11	25.90	212.0	.078	
15	8.01	32.600	4.74	1.68	8.004	2.31		17.6	25 2.08	50	7.30	33.53	26.25	179.6	.118	
25	7.52	32.979	4.35	1.88	7.964	2.26		19.8	27 1.92	75	7.03	33.84	26.53	152.8	.159	
40	7.34	33.319	3.62	1.87	7.897	2.16		22.6	31	100	6.71					
60	7.26	33.700	2.82	2.21	7.829	2.25		27.9	38 2.19							
80	6.94	33.865	2.49	2.32	7.791	2.31		28.5	42 2.22							
100	6.71		2.00	2.61	7.651	1.91		32.1	48 2.28							
DB2 7 44 51.5 N 124 13.2 W DATE 22 JUN 70 1333 GCT WIRE 11 DRY 51.0 WET 49.8 CRUISE Y7006A WIND DIRECTION 00 VEL 18 KTS BAR 18 SWELL DIRECTION 34 H 06 T 08 CLOUD 6 AMT 8 WEATHER 02																
0	8.70	33.908	5.26	1.62		2.07		9.1	13 2.08	0	8.70	33.91	26.34	169.9	0	
4	8.70	33.916	5.25	1.64	7.987	2.26		15.4	22 2.10	10	8.69	33.92	26.35	169.6	.017	
7	8.67	33.958	5.23	1.54	7.992	2.25		9.4	13 2.10	20	8.11	33.99	26.49	156.2	.033	
10	8.69	33.913	5.25	1.50	7.990	2.21		13.2	19 2.08	30	7.43	34.28	26.82	125.1	.047	
15	8.60	33.913	5.26	1.66	7.983	1.69		16.5	23 2.09	50	7.28	34.81	27.26	83.8	.068	
25	7.58	34.108	4.18	1.82	7.921	2.23		21.4	30 2.12							
40	7.40	34.622	2.86	2.13	7.797	2.19		26.2	36 2.19							
60	7.16	34.876	2.59	2.14	7.768	1.86		28.4	40 2.19							

OBSERVED										INTERPOLATED					COMPUTED				
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD				
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)				
082 5 44 50.5 N 124 10.6 W DATE 22 JUN 70 1541 GCT WIRE 08 DRY 50.5 WET 50.1 CRUISE Y7006A																			
WIND DIRECTION 00 VEL 18 KTS BAR 18 SWELL DIRECTION 32 H 06 T 08 CLOUD 6 AMT 8 WEATHER 02																			
0	8.12	33.151	4.37	2.02		2.21	21.3	31	2.15	0	8.12	33.16	25.84	217.8	0				
4	8.11	33.124	4.46	1.89	7.869	2.17	21.1	31	2.13	10	8.08	33.23	25.90	211.9	.021				
7	8.11	33.109	4.56	1.20	7.921	2.30	15.4	21	2.08	20	7.66	33.40	26.09	193.6	.042				
10	8.08	33.225	4.20	2.43	7.895	2.31	24.1	33	2.12	30	7.27	33.69	26.38	166.8	.060				
15	7.94	33.240	4.16	2.07	7.883	2.31	24.4	33	2.13	50	6.95	33.89	26.57	148.3	.091				
25	7.38	33.591	2.55	2.57	7.788	2.28	26.8	38	2.20										
40	7.15	33.807	2.32	2.44	7.737	2.31	29.0	43	2.22										
60	6.71	33.912	2.01	2.50	7.714	2.30	32.1	47	2.25										
082 3 44 49.4 N 124 07.8 W DATE 22 JUN 70 1705 GCT WIRE 00 DRY 50.7 WET 49.9 CRUISE Y7006A																			
WIND DIRECTION 00 VEL 18 KTS BAR 18 SWELL DIRECTION 32 H 06 T 08 CLOUD 6 AMT 8 WEATHER 02																			
0	7.78	33.663	3.32	1.76		2.30	18.8	28	2.23	0	7.79	33.67	26.29	175.0	0				
4	7.77	33.700	3.31	2.42	7.709	1.86	29.1	42	2.20	10	7.69	33.72	26.34	170.0	.017				
7	7.73	33.710	3.23	2.58	7.784	2.14	30.9	44	2.21	20	7.36	33.76	26.42	162.8	.034				
10	7.69	33.716	3.19	2.13	7.769	2.26	26.5	39	2.20	30	7.05	33.83	26.52	153.5	.053				
15	7.56	33.726	3.04	2.35	7.770	2.31	28.7	44	2.24										
25	7.17	33.799	2.27	2.32	7.742	2.31	28.6	44	2.30										
40	6.97	33.879	1.98	1.85	7.724	2.30	20.5	31	2.17										
082 1 44 48.5 N 124 05.7 W DATE 22 JUN 70 1803 GCT WIRE DRY 51.2 WET 51.0 CRUISE Y7006A																			
WIND DIRECTION 00 VEL 20 KTS BAR 18 SWELL DIRECTION 32 H 06 T 08 CLOUD 6 AMT 7 WEATHER 01																			
0	7.39	33.834	3.46	1.78			16.8	24	2.23	0	7.40	33.84	26.48	156.9	0				
4	7.28	33.839	2.91	2.32		2.33	25.7	39		10	7.26	33.85	26.50	154.6	.016				
7	7.26	33.841	2.90	2.52	7.726	2.30	29.2	47	2.29										
10	7.25	33.842	2.91	2.60	7.735	2.30	35.9	49											
15	7.23	33.845	2.89	2.15	7.735	2.30	21.4	34	2.24										



OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

13 46 10.0 N 124 19.5 W DATE 25 JUN 70 0232 GCT WIRE 07 DRY 55.2 WET 53.0 CRUISE Y7006A
WIND DIRECTION 35 VEL 20 KTS BAR 22 SWELL DIRECTION33 H 06 T 08 CLOUD 0 AMT 2 WEATHER 02

0	11.62	28.041	6.29	1.06		2.03	9.3	35	1.73	0	11.63	28.05	21.30	650.8	0
4	11.41	32.127	6.68	.51	8.216	2.21	3.4	12	1.86	10	10.14	32.72	25.18	280.7	.047
7	11.42	32.434	6.58	.36	8.231	2.21	1.7	7	1.88	20	8.82	33.01	25.61	239.3	.073
10	10.14	32.716	5.68	1.04	8.120	2.15	10.7	19	2.01	30	7.32	33.55	26.26	178.0	.093
15	9.83	32.729	5.31	1.42	8.027	2.19	16.1	26	2.04	50	6.91	33.88	26.58	148.2	.126
25	7.73	33.351	3.19	2.23	7.838	1.86	26.2	36	2.16	75	6.48	33.94	26.68	138.3	.162
40	7.07	33.794	2.64	2.31	7.799	2.25	30.7	42	2.18						
60	6.82	33.893	2.29	2.46	7.759	2.25	32.4	43	2.19						
80	6.34	33.956	1.37	2.79	7.707	2.26	35.2	55	2.23						

12A 46 10.5 N 124 34.0 W DATE 25 JUN 70 0515 GCT WIRE 06 DRY 53.2 WET 51.9 CRUISE Y7006A
WIND DIRECTION 34 VEL 20 KTS BAR 22 SWELL DIRECTION32 H 04 T 07 CLOUD 0 AMT 2 WEATHER 02

0	11.80	32.185	6.81	.42		2.17	.8	5	2.11	0	11.80	32.19	24.47	347.5	0
4	11.78	32.183	6.83	.43	8.249	2.15	.6	5	1.93	10	10.91	32.26	24.69	327.3	.034
7	11.46	32.190	6.81	.44	8.251	2.14	1.1	6	1.94	20	9.07	32.33	25.04	293.4	.065
10	10.91	32.255	6.54	1.18	8.192	2.17	4.6	11	1.95	30	7.69	32.43	25.33	266.0	.093
15	10.16	32.328	6.44	.71	8.194	2.14	4.8	11	1.95	50	7.39	32.95	25.78	223.9	.142
25	8.06	32.327	6.06	1.10	8.128	2.14	9.7	15	1.93	75	7.27	33.43	26.17	186.8	.193
40	7.53	32.718	5.45	1.32	8.059	2.17	14.4	20	2.18	100	7.34	33.78	26.44	162.2	.237
60	7.33	33.156	4.56	1.70	7.981	2.17	20.6	26	2.26						
80	7.27	33.512	3.98	1.92	7.925	2.25	24.6	31	2.29						
100	7.34	33.775	3.17	2.17	7.882	2.26	28.6	37	2.44						

15 46 30.5 N 124 34.0 W DATE 25 JUN 70 0918 GCT WIRE 05 DRY 52.6 WET 51.0 CRUISE Y7006A
WIND DIRECTION 35 VEL 16 KTS BAR 22 SWELL DIRECTION32 H 04 T 07 CLOUD 8 AMT 1 WEATHER 02

0	12.06	32.670	7.02	.33		2.25	.2	4	1.98	0	12.06	32.67	24.80	316.4	0
4	12.07	32.697	7.03	.29	8.292	2.23	.2	4	2.03	10	12.00	32.69	24.82	314.2	.032
7	12.06	32.696	7.06	.29	8.296	2.21	.2	4	2.04	20	8.97	32.67	25.33	266.3	.061
10	12.00	32.688	7.07	.27	8.300	2.23	.2	4	2.00	30	7.61	32.90	25.71	230.2	.085
15	10.53	32.624	7.39	.47	8.284	2.23	.4	3	2.00	50	7.27	33.41	26.16	187.9	.127
25	7.70	32.779	4.31	1.77	7.981	2.19	20.4	29	2.16	75	7.07	33.75	26.45	160.1	.171
40	7.44	33.168	3.83	1.95	7.915	2.23	23.8	32	2.18	100	6.82	33.90	26.60	146.4	.209
60	7.13	33.609	3.50	2.06	7.895	2.25	26.8	37	2.23	150	6.41	33.94	26.69	138.4	.280
80	7.05	33.781	3.16	2.26	7.840	2.26	29.6	39	2.34	200	6.09	33.97	26.76	132.9	.348
100	6.81	33.893	2.70	2.40	7.805	2.26	31.5	44	2.27						
150	6.40	33.939	2.23	2.65	7.792	2.26	34.3	52	2.30						
200	6.09	33.973	1.68	2.83	7.715	2.28	35.8	58	2.33						

16 46 26.6 N 124 29.4 W DATE 25 JUN 70 1058 GCT WIRE 10 DRY 53.0 WET 51.2 CRUISE Y7006A
WIND DIRECTION 35 VEL 18 KTS BAR 21 SWELL DIRECTION32 H 04 T 07 CLOUD 8 AMT 1 WEATHER 02

0	12.08	32.608	6.84	.40		2.19	.5	6	2.00	0	12.08	32.61	24.75	321.3	0
4	12.07	32.604	6.83	.36	8.238	2.19	.5	6	2.05	10	11.98	32.62	24.77	319.5	.032
7	12.04	32.605	6.85	.36	8.238	2.15	.6	5	2.04	20	9.73	32.64	25.18	280.2	.062
10	11.98	32.611	6.79	.35	8.246	2.19	.7	6	2.04	30	7.77	32.67	25.50	249.9	.089
15	11.47	32.694	6.51	.54	8.193	2.21	2.9	9	2.03	50	7.34	33.20	25.98	204.7	.134
25	7.90	32.578	4.77	1.59	7.984	2.17	18.2	26	2.12	75	7.10	33.66	26.38	167.4	.180
40	7.52	32.950	4.56	1.74	7.936	2.14	20.9	29	2.13	100	7.14	33.88	26.55	151.7	.220
60	7.21	33.422	4.27	1.91	7.892	2.21	23.8	32	2.14						
80	7.08	33.720	3.27	2.18	7.821	2.23	28.3	39	2.16						
100	7.13	33.878	2.95	2.26	7.729		30.0	40	2.18						

17 46 22.7 N 124 24.6 W DATE 25 JUN 70 1319 GCT WIRE 00 DRY 52.0 WET 51.3 CRUISE Y7006A
WIND DIRECTION 00 VEL 20 KTS BAR 20 SWELL DIRECTION32 H 04 T 08 CLOUD 8 AMT 1 WEATHER 02

0	11.17	32.828	6.38	.73		2.19	5.0	10	1.93	0	11.17	32.83	25.08	289.2	0
4	11.17	32.830	6.35	.71	8.136	2.19	4.9	11	1.98	10	11.13	32.85	25.11	287.2	.029
7	11.12	32.843	6.37	.74	8.140	2.15	5.4	11	2.26	20	10.27	32.84	25.25	274.0	.057
10	11.12	32.846	6.36	.74	8.131	2.19	5.5	11	2.04	30	8.68	32.96	25.60	240.7	.083
15	10.91	32.874	6.29	.69	8.117	2.21	5.2	10	2.02	50	7.21	33.61	26.32	172.4	.124
25	9.46	32.827	5.11	1.43	8.000	2.19	16.1	25	2.07	75	6.86	33.88	26.58	148.0	.164
40	7.39	33.325	3.31	2.09	7.842	2.14	26.6	36	2.19	100	6.36	33.95	26.71	136.6	.199
60	7.04	33.819	2.42	2.32	7.752	2.23	31.2	42	2.23						
80	6.87	33.901	2.46	2.38	7.760	2.17	32.0	45	2.24						
100	6.36	33.947	1.79	2.61	7.669	2.21	32.9	46	2.19						

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	

DB3 15 44 51.1 N 124 22.7 W DATE 27 JUN 70 1438 GCT WIRE 06 DRY 54.5 WET 53.0 CRUISE Y7006A
WIND DIRECTION 00 VEL 08 KTS BAR 16 SWELL DIRECTION32 H 03 T 08 CLOUD 6 AMT 8 WEATHER 02

0	11.37	31.860	7.12	.36		2.19	1.0	8 2.00	0	11.38	31.86	24.31	364.1	0
4	11.25	31.992	6.66	.48	8.223	2.14	2.0	8 1.99	10	9.09	32.17	24.92	305.3	.033
7	10.03	32.024	6.51	.60	9.208	2.17	3.4	10 1.98	20	8.53	32.49	25.25	273.5	.062
13	9.09	32.165	5.72	.84	9.113	2.19	6.6	11 2.35	30	8.40	32.61	25.36	263.0	.089
15	8.51	32.375	5.45	1.14	8.981	2.21	10.3	15 2.06	50	7.62	32.86	25.68	233.3	.139
25	8.69	32.555	5.31	1.14	8.022	2.23	10.5	15 2.09	75	7.40	33.57	26.26	178.4	.190
40	7.69	32.705	5.15	1.43	7.992	2.26	15.0	21 2.08	100	7.05	33.85	26.54	152.7	.232
60	7.55	33.081	4.58	1.70	7.899	2.30	19.7	26 2.13	150	6.70	33.92	26.64	143.9	.306
80	7.34	33.714	3.44	2.13	7.910	2.21	26.8	35 2.17						
100	7.04	33.849	2.48	2.46	7.722	2.28	31.7	44 2.21						
150	6.70	33.921	1.79	2.78			34.0	52 2.25						

DB3 10 44 52.6 N 124 16.8 W DATE 27 JUN 70 1635 GCT WIRE 00 DRY 55.5 WET 54.8 CRUISE Y7006A
WIND DIRECTION 00 VEL 08 KTS BAR 16 SWELL DIRECTION31 H 05 T 10 CLOUD 6 AMT 6 WEATHER 01

0	10.20	32.220	6.80	.68		2.19	4.4	11 2.04	0	10.20	32.22	24.78	318.1	0
4	9.95	32.264	6.70	.63	8.197	2.19	4.3	11 2.05	10	8.59	32.67	25.39	260.7	.029
7	8.95	32.493	5.42	1.23	9.053	2.17	11.9	18 2.11	20	8.25	32.84	25.57	243.5	.054
10	8.59	32.666	5.44	1.18	7.958	2.17	10.9	16 2.12	30	7.34	33.05	25.86	215.5	.077
15	8.78	32.746	5.50	1.32	8.055	2.21	13.6	19 2.08	50	7.27	33.37	26.13	191.0	.118
25	7.55	32.939	4.58	1.69	7.989	2.19	19.2	26 2.14	75	7.23	33.67	26.37	168.5	.163
40	7.28	33.256	4.19	1.70	7.953	2.21	19.2	26 2.16	100	7.09	33.87	26.54	152.4	.203
60	7.25	33.460	3.52	1.74	7.883	2.21	18.3	25 2.16						
80	7.22	33.735	2.92	1.87	7.832	2.33	20.5	28 2.20						
100	7.09	33.862	2.57		7.797	2.05		2.20						

NH3 1 44 39.1 N 124 05.5 W DATE 23 JUN 70 1410 GCT WIRE 06 DRY 48.8 WET 47.8 CRUISE Y7006A
WIND DIRECTION VEL 00 KTS BAR 20 SWELL DIRECTION32 H 04 T 07 CLOUD AMT 9 WEATHER 46

0	8.47	33.879	6.02	1.89		2.26	23.4	37 2.19	0	8.47	33.88	26.35	168.7	0
4	7.73	33.893	4.09	2.20	7.819	2.19	26.0	41 2.17	10	7.51	33.91	26.51	153.6	.016
7	7.57	33.897	3.94	2.05	7.821	2.23	25.6	41 2.22						
10	7.50	33.901	3.75	2.02	7.812	2.25	24.5	38 2.25						
15	7.42	33.902	3.61	2.14	7.808	2.23	26.0	40 2.28						

NH3 3 44 39.2 N 124 07.7 W DATE 28 JUN 70 1553 GCT WIRE 00 DRY 53.5 WET 51.7 CRUISE Y7006A
WIND DIRECTION 12 VEL 02 KTS BAR 20 SWELL DIRECTION29 H 04 T 08 CLOUD 8 AMT 4 WEATHER 03

0	8.91	33.872	5.41	1.92		2.26	24.0	42 2.18	0	8.91	33.88	26.28	175.7	0
4	8.16	33.880	5.26	1.68	7.917	2.26	21.4	36 2.16	10	7.60	33.89	26.48	156.4	.017
7	7.79	33.880	4.51	1.95	7.845	2.26	23.9	38 2.20	20	7.16	33.88	26.54	151.1	.032
10	7.60	33.882	4.66	1.84	7.818	2.26	23.3	35 2.18						
15	7.37	33.878	3.37	2.54	7.792	2.26	32.5	49 2.22						
25	6.97	33.881	2.37	2.53	7.780	2.26	32.4	48 2.29						

NH3 5 44 39.1 N 124 10.6 W DATE 28 JUN 70 1743 GCT WIRE 00 DRY 51.0 WET 50.5 CRUISE Y7006A
WIND DIRECTION 27 VEL 02 KTS BAR 21 SWELL DIRECTION29 H 04 T 08 CLOUD 6 AMT 7 WEATHER 01

0	9.24	33.494	6.27	1.18		2.28	13.0	24 2.03	0	9.24	33.50	25.93	208.8	0
4	8.40	33.572	5.41	1.54	8.006	2.28	17.9	29 2.07	10	7.85	33.77	26.36	168.2	.019
7	7.86	33.714	4.17	2.09	7.884	2.30	25.7	39 2.10	20	7.73	33.84	26.43	161.9	.035
10	7.85	33.770	4.08	1.84	7.862	2.30	23.3	34 2.07	30	7.20	33.85	26.51	154.2	.051
15	7.92	33.839	4.45	1.83	7.873	2.30	22.2	36 2.22						
25	7.43	33.834	3.34	2.39	7.821	2.30	32.2	45 2.18						
40	6.76	33.903	1.94	2.55	7.739	2.30	32.8	49 2.21						

NH3 7 44 39.0 N 124 13.3 W DATE 28 JUN 70 1933 GCT WIRE 00 DRY 56.6 WET 53.0 CRUISE Y7006A
WIND DIRECTION 28 VEL 04 KTS BAR 21 SWELL DIRECTION30 H 04 T 10 CLOUD 6 AMT 5 WEATHER 02

0	9.80	33.222	6.66	1.25		2.26	13.5	24 2.08	0	9.80	33.23	25.63	237.6	0
4	8.24	33.326	6.28	1.33	8.093	2.26	14.5	25 2.09	10	7.57	33.63	26.29	174.7	.021
7	7.56	33.519	3.48	2.13	7.863	2.28	27.5	37 2.20	20	7.66	33.79	26.40	164.4	.038
10	7.57	33.630	3.31	2.30	7.818	2.26	29.3	40 2.19	30	7.62	33.87	26.47	157.8	.054
15	7.54	33.702	3.34	2.34	7.801	2.30	30.1	44 2.22						
25	7.75	33.871	3.94	2.49	7.793	2.28	31.9	49 2.23						
40	6.87	33.882	2.24	2.51	7.764	2.30	32.6	47 2.24						

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OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NH 15 44 39.0 N 124 24.7 W DATE 26 JUN 70 0755 GCT WIRE DRY 49.5 WFT 48.7 CRUISE C7006F
WIND DIRECTION 18 VEL 05 KTS BAR 16 SWELL DIRECTION 32 H 04 T 07 CLOUD 6 AMT 3 WEATHER 02

0	8.63	32.994	0	8.63	33.00	25.64	236.4	0
15	8.10	33.132	10	8.30	33.06	25.73	227.9	.023
25	7.69	33.282	20	7.86	33.20	25.91	211.3	.045
35	7.81	33.504	30	7.73	33.40	26.08	194.6	.065
45	7.80	33.541	50	7.79	33.55	26.19	184.7	.103
55	7.75	33.565						
65	7.47	33.648						

NH 25 44 40.3 N 124 39.1 W DATE 26 JUN 70 1045 GCT WIRE DRY 50.6 WET 49.8 CRUISE C7006F
WIND DIRECTION 29 VEL 03 KTS BAR 14 SWELL DIRECTION 32 H 04 T 07 CLOUD 6 AMT 3 WEATHER 02

0	8.73	32.819	0	8.73	32.81	25.48	252.0	0
100	7.31	33.681	10	8.46	32.88	25.57	243.2	.025
118	7.08	33.941	20	8.33	32.97	25.66	234.9	.049
125	6.96	33.872	30	8.20	33.06	25.75	226.7	.072
135	6.84	33.886	50	7.95	33.24	25.92	210.2	.115
149	6.69	33.900	75	7.63	33.46	26.14	189.6	.165
160	6.56	33.959	100	7.32	33.69	26.37	168.8	.210
170	6.55	33.970	150	6.68	33.91	26.63	144.7	.288
180	6.52	33.969	200	6.49	33.97	26.71	137.8	.359
190	6.50	33.971						
200	6.49	33.975						

NH 35 44 39.1 N 124 57.0 W DATE 26 JUN 70 1505 GCT WIRE DRY 56.5 WET 55.0 CRUISE C7006F
WIND DIRECTION 33 VEL 06 KTS BAR 14 SWELL DIRECTION 32 H 04 T 07 CLOUD 6 AMT 6 WEATHER 02

0	9.94	32.422	0	9.94	32.43	24.98	299.1	0
10	9.07	32.506	10	9.07	32.51	25.19	279.7	.029
20	8.16	32.409	20	8.16	32.41	25.25	273.9	.057
30	8.03	32.443	30	8.03	32.45	25.29	269.7	.084
40	7.89	32.494	50	7.57	32.85	25.68	233.7	.134
50	7.57	32.846	75	7.34	33.28	26.04	199.3	.188
65	7.43	33.017	100	7.82	33.75	26.34	171.2	.235
75	7.34	33.271	150	7.27	33.85	26.50	156.9	.317
82	7.60	33.510	200	6.35	33.95	26.71	137.5	.390
100	7.81	33.741	250	6.17	34.01	26.78	131.8	.457
199	6.35	33.953	300	6.11	34.05	26.81	129.0	.523
299	6.11	34.045	400	5.55	34.11	26.93	119.1	.647
398	5.56	34.104						

NH 45 44 39.1 N 125 06.5 W DATE 26 JUN 70 1735 GCT WIRE 07 DRY 56.0 WET 54.5 CRUISE C7006F
WIND DIRECTION 34 VEL 06 KTS BAR 14 SWELL DIRECTION 31 H 04 T 07 CLOUD 6 AMT 8 WEATHER 02

0	11.05	32.151	0	11.05	32.16	24.58	337.2	0
10	10.60	32.218	10	10.60	32.22	24.61	325.0	.033
20	10.36	32.220	20	10.36	32.22	24.75	321.1	.065
30	9.95	32.293	30	9.95	32.30	24.88	309.3	.097
40	8.07	32.425	50	7.88	32.54	25.39	260.7	.154
50	7.87	32.538	75	7.69	33.14	25.89	213.8	.213
65	7.63	32.810	100	7.48	33.42	26.13	191.2	.264
74	7.69	33.132	150	7.10	33.78	26.47	159.6	.351
81	7.65	33.180	200	6.75	33.94	26.64	144.0	.427
99	7.49	33.406	250	6.40	34.01	26.75	134.7	.497
199	6.76	33.976	300	6.05	34.02	26.80	129.9	.563
298	6.06	34.023	400	5.28	34.07	26.94	118.1	.687
397	5.30	34.073						

NH 65 44 38.9 N 125 34.0 W DATE 26 JUN 70 2300 GCT WIRE DRY 60.0 WET 57.0 CRUISE C7006F
WIND DIRECTION 32 VEL 09 KTS BAR 14 SWELL DIRECTION 31 H 03 T 07 CLOUD 6 AMT 7 WEATHER 02

0	14.23	31.455	0	14.23	31.46	23.44	446.4	0
10	13.81	31.606	10	13.81	31.61	23.64	427.4	.044
20	13.01	31.750	20	13.01	31.75	23.91	401.9	.085
30	10.38	32.097	30	10.38	32.10	24.65	330.7	.122
50	9.12	32.024	50	9.13	32.03	24.89	316.9	.167
65	8.13	32.431	75	7.95	32.45	25.31	269.2	.260
75	7.95	32.444						

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
CH 165 43 20.5 N 124 08.3 W DATE 28 JUN 70 0535 GCT WIRE 00 DRY 57.0 WET 52.8 CRUISE C7006F										BAR 20 SWELL DIRECTION31 H 06 T 10 CLOUD 6 AMT 8 WEATHER 02						
0	14.79	32.143								0	14.79	32.15	23.85	407.2	0	
10	14.75	32.160								10	14.75	32.17	23.87	405.4	.041	
20	14.72	32.177								20	14.72	32.18	23.99	403.8	.081	
30	13.90	32.584								30	13.90	32.59	24.37	357.8	.119	
49	11.61	32.578								50	11.54	32.58	24.82	315.4	.186	
64	10.94	32.591								75	10.68	32.60	24.99	299.5	.263	
74	10.71	32.598								100	10.18	32.84	25.26	274.4	.335	
81	10.48	32.627								150	9.26	33.43	25.87	217.0	.458	
99	10.20	32.824								200	8.37	33.89	26.37	170.4	.555	
198	8.40	33.876								250	7.71	33.93	26.51	158.2	.637	
297	7.24	33.985								300	7.20	33.97	26.61	149.0	.714	

CH 145 43 20.4 N 127 40.0 W DATE 28 JUN 70 1035 GCT WIRE 15 DRY 53.3 WET 52.2 CRUISE C7006F										BAR 20 SWELL DIRECTION35 H 04 T 10 CLOUD 6 AMT 5 WEATHER						
0	14.75									0	14.75		23.86	406.3	0	
10	14.75	32.059								10	14.75	32.06	23.79	412.8	.041	
20	13.53	32.062								20	13.53	32.07	24.04	388.7	.081	
29	12.32	32.313								30	12.22	32.33	24.50	345.1	.118	
49	10.84	32.537								50	10.79	32.54	24.93	305.1	.183	
64	10.12	32.581								75	9.54	32.56	25.15	284.2	.256	
73	9.65	32.549								100	8.46	32.70	25.43	258.0	.324	
80	9.26	32.596								150	8.22	33.33	25.96	208.8	.441	
98	8.50	32.677								200	7.93	33.94	26.48	159.8	.533	
196	7.97	33.929								250	7.42	33.98	26.58	150.8	.611	
294	6.91	34.018								300	6.84	34.02	26.70	140.5	.683	
392	5.84	34.059								400	5.77	34.06	26.87	125.1	.816	
588	4.56	34.161								500	5.01	34.11	27.00	112.8	.935	
783	4.13	34.334								600	4.52	34.17	27.10	103.9	1.043	
979	3.64	34.426								700	4.27	34.26	27.20	94.9	1.143	
1175	3.15	34.485								800	4.09	34.34	27.28	87.4	1.234	
										1000	3.59	34.43	27.40	76.6	1.398	
										1200	3.09	34.49	27.50	67.6	1.542	

CH 125 43 20.5 N 127 12.8 W DATE 28 JUN 70 1345 GCT WIRE 15 DRY 56.5 WET 53.4 CRUISE C7006F										BAR 20 SWELL DIRECTION31 H 06 T 09 CLOUD 8 AMT 4 WEATHER						
0	14.84	31.997								0	14.84	32.00	23.72	418.9	0	
10	14.81	31.997								10	14.81	32.00	23.73	418.5	.042	
19	14.76	31.999								20	14.66	32.02	23.78	414.2	.083	
29	13.39	32.257								30	13.22	32.28	24.27	367.4	.123	
48	10.59	32.531								50	10.46	32.53	24.98	300.6	.189	
62	9.95	32.526								75	9.50	32.54	25.14	285.5	.263	
72	9.61	32.537								100	9.07	32.59	25.25	275.2	.333	
78	9.40	32.533								150	8.16	33.17	25.85	219.2	.456	
96	9.14	32.549								200	7.27	33.78	26.45	162.6	.552	
191	7.40	33.741								250	6.62	33.84	26.59	149.9	.630	
287	6.20	33.910								300	6.04	33.92	26.72	137.9	.702	
382	5.17	33.930								400	5.07	33.95	26.86	125.1	.833	
573	4.58	34.149								500	4.68	34.06	26.99	112.9	.952	
764	4.16	34.301								600	4.52	34.17	27.10	103.7	1.060	
956	3.62	34.403								700	4.30	34.26	27.19	95.6	1.160	
1147	3.14									800	4.06	34.32	27.27	88.6	1.252	
										1000	3.50	34.43	27.41	75.7	1.416	

CH 105 43 20.5 N 126 45.8 W DATE 28 JUN 70 1732 GCT WIRE 00 DRY 58.0 WET 54.5 CRUISE C7006F										BAR 21 SWELL DIRECTION32 H 06 T 08 CLOUD 6 AMT 7 WEATHER 02						
0	14.95	31.452								0	14.95	31.46	23.28	461.0	0	
10	14.95	31.450								10	14.95	31.46	23.28	461.4	.046	
20	14.78	31.490								20	14.78	31.50	23.35	455.3	.092	
30	13.53	32.317								30	13.53	32.32	24.24	370.3	.133	
50	10.68	32.487								50	10.68	32.49	24.91	307.2	.201	
65	9.65	32.539								75	9.17	32.64	25.27	272.5	.273	
75	9.17	32.638								100	8.08	32.96	25.68	233.8	.337	
82	8.56	32.727								150	7.54	33.53	26.21	184.2	.441	
100	8.08	32.950								200	7.37	33.94	26.56	152.4	.525	
199	7.38	33.934								250	6.83	33.96	26.65	144.3	.599	
299	6.30	33.979								300	6.29	33.98	26.74	136.3	.670	
399	5.62	34.054								400	5.61	34.05	26.88	123.7	.800	
598	4.69	34.223								500	5.09	34.14	27.01	111.4	.917	
798	4.17	34.352								600	4.68	34.22	27.12	101.9	1.024	
997	3.64	34.431								700	4.40	34.29	27.21	94.0	1.121	
1197	3.16	34.482								800	4.16	34.35	27.29	87.6	1.212	
										1000	3.63	34.43	27.40	77.3	1.377	
										1200	3.15	34.48	27.49	69.1	1.523	

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
CH 85 43 20.4 N 126 18.9 W DATE 28 JUN 70 2125 GCT WIRE 27 DRY 59.0 WET 54.5 CRUISE C7006F										WIND DIRECTION 35 VEL 22 KTS BAR 21 SWELL DIRECTION 32 H 05 T 07 CLOUD 6 AMT 6 WEATHER 02					
0	13.82	31.623								0	13.82	31.63	23.65	426.1	0
10	13.64	31.619								10	13.64	31.62	23.68	423.2	.042
20	12.59	31.992								20	12.59	32.00	24.17	376.3	.082
30	12.31	32.205								30	12.31	32.21	24.39	355.8	.119
50	10.58	32.546								50	10.58	32.55	24.97	301.2	.185
CH 65 43 20.5 N 125 51.5 W DATE 29 JUN 70 0125 GCT WIRE 20 DRY 57.1 WET 53.0 CRUISE C7006F										WIND DIRECTION 34 VEL 16 KTS BAR 21 SWELL DIRECTION 31 H 05 T 07 CLOUD 6 AMT 8 WEATHER 02					
0	12.62	31.022								0	12.63	31.03	23.42	447.9	0
9	12.58	31.025								10	12.47	31.15	23.54	436.2	.044
19	11.06	32.313								20	10.84	32.35	24.77	319.9	.082
28	9.26	32.394								30	9.11	32.40	25.10	288.6	.112
47	8.91	32.604								50	8.87	32.70	25.37	263.2	.169
61	8.66	33.065								75	8.28	33.33	25.95	208.2	.227
70	8.29	33.243								100	8.04	33.65	26.24	181.3	.275
77	8.27	33.363								150	7.54	33.93	26.53	154.3	.359
94	8.10	33.601								200	7.07	33.98	26.63	145.2	.434
187	7.19	33.963								250	6.66	34.02	26.72	137.6	.505
281	6.43	34.020								300	6.32	34.04	26.78	132.3	.572
374	5.91	34.112								400	5.72	34.13	26.93	119.5	.698
562	4.64	34.216								500	5.04	34.19	27.05	107.4	.811
749	4.07	34.348								600	4.49	34.24	27.16	98.2	.914
936	3.64	34.432								700	4.18	34.31	27.25	89.9	1.008
1123	3.19	34.486								800	3.95	34.37	27.32	83.5	1.095
										1000	3.49	34.45	27.43	74.0	1.252
CH 45 43 21.0 N 125 24.8 W DATE 29 JUN 70 0500 GCT WIRE 20 DRY 56.2 WET 53.0 CRUISE C7006F										WIND DIRECTION 35 VEL 16 KTS BAR 21 SWELL DIRECTION 32 H 06 T 08 CLOUD 6 AMT 7 WEATHER 02					
0	14.07	31.589								0	14.07	31.59	23.57	433.5	0
10	14.03	31.587								10	14.03	31.59	23.58	433.1	.043
20	11.99	32.056								20	11.99	32.06	24.34	360.8	.083
30	10.62	32.503								30	10.63	32.51	24.93	304.6	.116
50	8.53	33.207								50	8.53	33.21	25.82	220.3	.169
65	8.14	33.538								75	8.08	33.68	26.25	179.6	.219
75	8.08	33.674								100	7.94	33.85	26.40	165.5	.262
82	8.15	33.785								150	7.34	33.95	26.57	150.1	.341
100	7.94	33.843								200	6.83	34.02	26.69	139.3	.413
200	6.83	34.011								250	6.57	34.04	26.75	134.8	.482
300	6.40	34.051								300	6.41	34.06	26.78	132.1	.549
400	6.03	34.104								400	6.04	34.11	26.87	125.0	.677
600	4.91	34.223								500	5.48	34.16	26.98	114.7	.797
800	4.15	34.364								600	4.92	34.23	27.10	104.4	.906
999	3.63	34.431								700	4.49	34.30	27.20	94.9	1.006
1199	3.12	34.489								800	4.16	34.37	27.30	86.3	1.096
										1000	3.63	34.43	27.40	77.3	1.260
										1200	3.12	34.49	27.49	68.2	1.405
CH 35 43 20.4 N 125 10.9 W DATE 29 JUN 70 0800 GCT WIRE 27 DRY 55.8 WET 52.6 CRUISE C7006F										WIND DIRECTION 35 VEL 12 KTS BAR 20 SWELL DIRECTION 32 H 06 T 08 CLOUD 6 AMT 6 WEATHER 02					
0	12.75	32.112								0	12.75	32.12	24.24	370.0	0
9	11.43	32.205								10	11.13	32.22	24.62	333.7	.035
18	8.92	32.380								20	8.76	32.42	25.17	281.7	.066
27	8.62	32.571								30	8.47	32.62	25.36	263.2	.093
45	7.96	32.862								50	8.09	32.99	25.71	230.8	.143
59	8.38	33.211								75	8.32	33.45	26.03	200.2	.196
68	8.37	33.388								100	8.01	33.74	26.31	174.6	.243
74	8.33	33.434								150	7.46	33.86	26.48	158.7	.327
90	8.13	33.657								200	6.99	33.91	26.65	143.8	.402
181	7.16	33.963								250	6.60	34.01	26.72	137.4	.472
271	6.47	34.011								300	6.34	34.03	26.77	133.1	.540
362	6.10	34.076								400	5.89	34.10	26.88	123.6	.668
543	5.10	34.199								500	5.34	34.17	27.01	112.2	.786
724	4.42	34.314								600	4.85	34.24	27.11	103.0	.894
										700	4.49	34.30	27.20	94.7	.993

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

CH 25 43 20.5 N 124 55.4 W DATE 29 JUN 70 1125 GCT WIRE 14 DRY 55.4 WET 53.3 CRUISE C7006F
WIND DIRECTION 35 VEL 12 KTS BAR 20 SWELL DIRECTION 32 H 06 T 06 CLOUD 6 AMT 5 WEATHER 02

0	11.33	32.709								0	11.33	32.71	24.96	300.7	0
10	11.24	32.747								10	11.24	32.75	25.01	296.6	.030
19	10.20	32.936								20	9.99	32.91	25.35	264.3	.058
29	9.37	32.776								30	8.38	32.76	25.44	251.6	.084
39	8.42	33.107								50	8.41	33.31	25.91	211.3	.130
48	8.43	33.271								75	8.13	33.61	26.19	185.2	.180
63	8.24	33.521								100	8.16	33.72	26.27	178.2	.225
73	8.14	33.605								150	7.57	33.86	26.47	159.9	.309
79	8.13	33.627								200	6.76	33.93	26.64	144.6	.386
97	8.19	33.708								250	6.38	33.95	26.70	139.0	.456
194	6.81	33.928								300	6.08	33.96	26.75	135.1	.525
291	6.14	33.951								400	5.42	34.06	26.91	120.9	.653
388	5.49	34.049								500	4.92	34.14	27.03	109.3	.768
581	4.63	34.196								600	4.55	34.21	27.13	101.3	.873

CH 15 43 20.5 N 124 43.1 W DATE 29 JUN 70 1506 GCT WIRE 00 DRY 51.0 WET 49.8 CRUISE C7006F
WIND DIRECTION 09 VEL 02 KTS BAR 21 SWELL DIRECTION 32 H 05 T 07 CLOUD 6 AMT 6 WEATHER 02

0	8.85	32.981								0	8.85	32.99	25.59	241.0	0
10	8.20	33.122								10	8.20	33.13	25.80	221.3	.023
20	8.55	33.308								20	8.55	33.31	25.89	212.6	.045
30	8.41	33.501								30	8.41	33.51	26.07	196.4	.065
50	8.29	33.634								50	8.29	33.64	26.19	185.2	.103
65	7.93	33.722								75	7.96	33.83	26.39	166.8	.147
75	7.96	33.824								100	7.48	33.91	26.52	154.8	.188
82	7.77	33.820								150	6.91	33.94	26.62	145.4	.263
100	7.48	33.930								200	6.45	33.96	26.70	138.6	.334
150	6.90	33.931								250	6.14	33.99	26.76	133.2	.401
200	6.45	33.954								300	5.97	34.03	26.82	128.6	.467
300	5.97	34.029													

CH 5 43 20.6 N 124 29.1 W DATE 29 JUN 70 1604 GCT WIRE 00 DRY 51.5 WET 50.1 CRUISE C7006F
WIND DIRECTION 15 VEL 05 KTS BAR 21 SWELL DIRECTION 31 H 05 T 07 CLOUD 6 AMT 8 WEATHER 02

0	9.44	33.666								0	9.44	33.67	26.03	199.1	0
10	9.01	33.672								10	9.01	33.68	26.11	192.2	.020
20	8.26	33.698								20	8.26	33.69	26.23	180.2	.038
30	7.91	33.761								30	7.92	33.77	26.34	170.0	.056
40	7.68	33.828								50	7.60	33.86	26.46	159.2	.089
50	7.60	33.852								75	7.39	33.93	26.55	150.9	.127
65	7.46	33.900													
75	7.38	33.929													

CH 3 43 20.5 N 124 26.6 W DATE 29 JUN 70 1650 GCT WIRE 00 DRY 51.1 WET 50.0 CRUISE C7006F
WIND DIRECTION 24 VEL 05 KTS BAR 22 SWELL DIRECTION 31 H 05 T 07 CLOUD 6 AMT 8 WEATHER 02

0	9.86	33.634								0	9.86	33.64	25.94	208.0	0
10	9.03	33.744								10	9.03	33.75	26.16	187.2	.020
20	8.41	33.741								20	8.41	33.75	26.25	178.4	.038
30	7.75	33.822								30	7.76	33.83	26.42	163.2	.055
40	7.67	33.880													

BH 3 42 00.0 N 124 18.0 W DATE 30 JUN 70 0935 GCT WIRE DRY 49.8 WET 48.1 CRUISE C7006F
WIND DIRECTION VEL KTS BAR 20 SWELL DIRECTION 35 H 02 T 07 CLOUD 8 AMT 4 WEATHER 02

0	7.81	33.923													
10	7.66	33.935													
20	7.63	33.937													

BH 5 42 00.0 N 124 19.5 W DATE 30 JUN 70 1020 GCT WIRE DRY 49.9 WET 48.0 CRUISE C7006F
WIND DIRECTION 35 VEL 03 KTS BAR 20 SWELL DIRECTION 35 H 02 T 07 CLOUD 8 AMT 4 WEATHER 02

0	8.11	33.995								0	8.11	33.91	26.43	161.6	0
10	7.53	33.953								10	7.54	33.96	26.59	150.1	.016
20	7.56	33.950								20	7.57	33.96	26.54	150.9	.031
30	7.58	33.941								30	7.58	33.95	26.53	152.0	.046

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

BH 15 42 00.0 N 124 33.0 W DATE 29 JUN 70 1205 GCT WIRE DRY 52.0 WET 50.7 CRUISE C7006F
 WIND DIRECTION 00 VEL 03 KTS BAR 20 SWELL DIRECTION 32 H 03 T 08 CLOUD 6 AMT 6 WEATHER 02

0	10.48	33.685			0	10.48	33.69	25.87	214.3	0
10	9.38	33.700			10	9.38	33.71	26.07	195.8	.021
20	9.19	33.726			20	9.19	33.73	26.12	191.2	.040
30	8.71	33.735			30	8.71	33.74	26.20	183.5	.059
40	9.56	33.740			40	8.33	33.76	26.27	177.0	.095
50	9.33	33.752			50	7.99	33.85	26.40	165.7	.137
65	8.08	33.791			100	7.68	33.94	26.52	154.5	.177
75	7.99	33.844								
82	7.94	33.860								
100	7.67	33.939								

BM 25 41 59.9 N 124 46.1 W DATE 30 JUN 70 1353 GCT WIRE 00 DRY 53.9 WET 52.9 CRUISE C7006F
WIND DIRECTION 27 VEL 08 KTS BAR 20 SWELL DIRECTION 32 H 03 T 08 CLOUD 6 AMT 6 WEATHER 02

0	11.22	33.176		0	11.22	33.18	25.35	264.4	0
10	11.19	33.175		10	11.19	33.18	25.35	264.1	.026
20	11.09	33.158		20	11.09	33.16	25.36	263.9	.053
30	9.31	33.113		30	9.31	33.12	25.62	238.6	.078
50	8.51	33.364		50	8.51	33.37	25.94	208.4	.123
65	8.37	33.623		75	8.19	33.67	26.23	181.9	.171
75	8.19	33.664		100	7.69	33.78	26.39	166.8	.215
82	8.09	33.771		150	7.12	33.89	26.56	151.7	.295
100	7.69	33.778		200	6.86	34.03	26.70	138.8	.367
200	6.86	34.023		250	6.50	34.06	26.77	132.1	.435
300	6.18	34.080		300	6.19	34.08	26.83	127.1	.500
400	5.71	34.151		400	5.71	34.15	26.94	117.7	.622

BH 35 42 00.1 N 124 59.7 W DATE 30 JUN 70 1626 GCT WIRE 00 DRY 56.9 WET 54.9 CRUISE C7006F
 WIND DIRECTION VEL 00 KTS BAR 21 SWELL DIRECTION 34 H 04 T 08 CLOUD 6 AMT 7 WEATHER 02

0	13.15	32.210	0	13.15	32.21	24.23	370.2	0
10	11.17	32.666	10	11.17	32.67	24.96	301.4	.034
20	9.67	32.868	20	9.67	32.87	25.37	262.2	.062
30	8.70	32.969	30	8.70	32.97	25.61	240.2	.087

BH 45 41 59.6 N 125 13.7 W DATE 30 JUN 70 1925 GCT WIRE DRY 58.2 WET 55.0 CRUISE C7006F
 WIND DIRECTION 00 VEL 00 KTS BAR 21 SWELL DIRECTION 32 H 03 T 07 CLOUD 3 AMT 7 WEATHER 01

0	11.96	32.883	0	11.96	32.89	24.98	298.9	0
9	9.28	33.374	10	9.19	33.40	25.86	215.4	.026
18	9.00	33.510	20	8.93	33.52	26.00	202.5	.047
28	8.68	33.559	30	8.62	33.57	26.08	195.0	.066
46	8.23	33.625	50	8.16	33.66	26.22	182.0	.104
60	8.01	33.728	75	7.87	33.77	26.36	169.5	.148
69	7.91	33.759	100	7.61	33.87	26.47	159.4	.189
76	7.86	33.776	150	7.00	33.96	26.62	145.3	.265
92	7.70	33.847	200	6.37	33.92	26.68	140.1	.337
184	6.57		250	5.82	33.96	26.78	131.1	.404
277	5.56	33.980	300	5.40	34.00	26.86	123.9	.468
369	5.06	34.054						

08H 65 42 00.0 N 125 40.0 W DATE 30 JUN 70 2240 GCT WIRE DRY 62.5 WET 58.3 CRUISE C7006F
WIND DIRECTION 20 VEL 09 KTS BAR 21 SWELL DIRECTION 32 H 04 T 07 CLOUD 3 AMT 6 WEATHER 02

0	13.99	32.175	0	13.99	32.18	24.04	388.9	0
10	12.97	32.241	10	12.97	32.25	24.29	364.8	.038
19	11.68	32.404	20	11.47	32.43	24.72	324.7	.072
29	9.69	32.644	30	9.58	32.67	25.23	275.9	.102
49	8.62	33.122	50	8.60	33.14	25.75	226.7	.152
63	8.37	33.334	75	8.19	33.52	26.11	192.6	.205
73	8.20	33.511	100	8.25	33.76	26.29	176.5	.251
90	8.18	33.549	150	7.64	33.97	26.54	153.1	.333
97	8.27	33.739	200	6.71	33.98	26.68	140.1	.407
195	6.77	33.976	250	6.17	34.03	26.79	130.2	.474
292	5.82	34.053	300	5.76	34.06	26.87	123.8	.538
389	5.37	34.105						

OBSERVED

INTERPOLATED

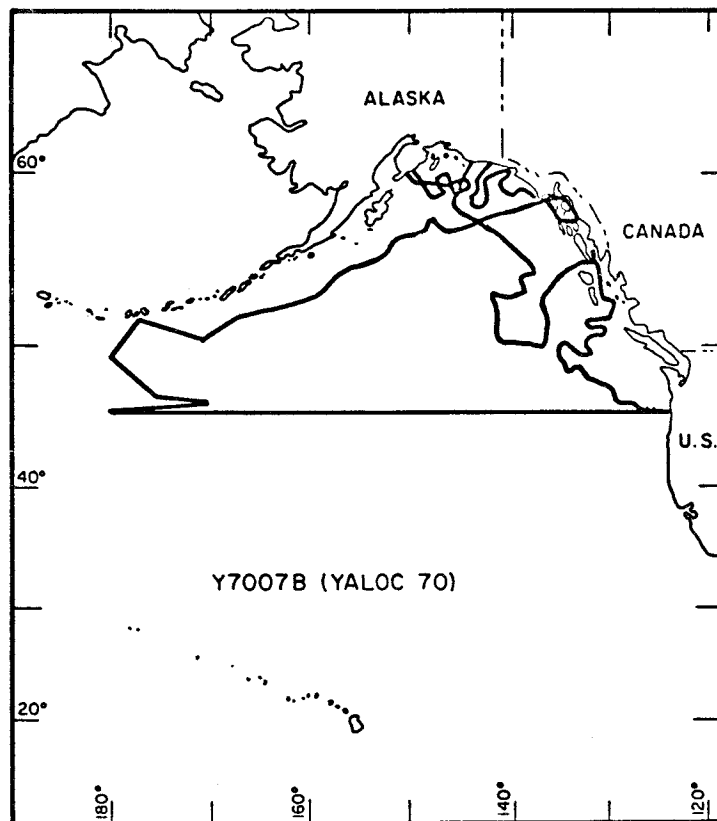
COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁻³)	(dyn.m)
BH 85 42 00.0 N 126 06.0 W DATE 01 JUL 70 0218 GCT WIRE 02 DRY 60.0 WET 59.1 CRUISE C7006F															
WIND DIRECTION 21 VEL 08 KTS BAR 20 SWELL DIRECTION 32 H 04 T 07 CLOUD 3 AMT 7 WEATHER 02															
0	14.44	31.865									0	14.44	31.87	23.71	420.5
10	13.56	31.855									10	13.56	31.86	23.88	404.3
20	11.31	32.106									20	11.31	32.11	24.50	345.3
30	9.51	32.210									30	9.51	32.21	24.89	308.6
50	9.74	32.187									50	9.74	32.19	24.83	314.2
65	8.58	32.267									75	8.38	32.43	25.23	276.7
75	8.37	32.423									100	8.23	32.91	25.63	239.0
82	8.26	32.623													
100	8.23	32.908													

BH 105 42 00.1 N 126 32.0 W DATE 01 JUL 70 0536 GCT WIRE 10 DRY 60.2 WET 59.0 CRUISE C7006F															
WIND DIRECTION 22 VEL 10 KTS BAR 19 SWELL DIRECTION 31 H 04 T 08 CLOUD 6 AMT 8 WEATHER 02															
0	14.96	31.615									0	14.96	31.62	23.41	449.3
10	14.38	31.646									10	14.38	31.65	23.55	435.6
20	12.92	32.370									20	12.92	32.38	24.40	354.6
29	11.74	32.448									30	11.62	32.49	24.74	322.4
49	9.83	32.530									50	9.78	32.53	25.09	289.9
64	9.36	32.522									75	9.12	32.59	25.24	275.4
74	9.10	32.564									100	8.64	33.17	25.77	225.7
80	9.25	32.763									150	8.42	33.72	26.23	182.4
98	8.67	33.143									200	8.16	33.91	26.42	165.6
196	8.20	33.899									250	7.60	34.00	26.57	152.1
294	7.05	33.996									300	6.98	34.00	26.66	143.9
393	5.95	34.051									400	5.90	34.06	26.85	127.1
589	4.88	34.188									500	5.25	34.12	26.98	114.6
785	4.22	34.319									600	4.84	34.20	27.03	105.9
982	3.59	34.423									700	4.48	34.26	27.18	97.2
1178	3.11	34.479									800	4.17	34.33	27.26	89.5
											1000	3.54	34.43	27.41	76.4
											1200	3.06	34.49	27.50	67.8

BH 125 42 00.0 N 127 00.0 W DATE 01 JUL 70 0945 GCT WIRE DRY 59.5 WET 59.0 CRUISE C7006F															
WIND DIRECTION 22 VEL 10 KTS BAR 18 SWELL DIRECTION 31 H 04 T 06 CLOUD 6 AMT 8 WEATHER 02															
0	14.87	31.844									0	14.88	31.85	23.60	430.7
10	14.81	31.839									10	14.81	31.84	23.61	430.1
20	14.66	31.841									20	14.66	31.85	23.64	427.2
30	14.50	31.910									30	14.50	31.92	23.73	419.1
50	11.74	32.552									50	11.74	32.56	24.77	320.5
65	10.73	32.607									75	9.99	32.84	25.29	271.0
75	9.99	32.831									100	9.15	33.27	25.77	225.8
82	9.69	32.981									150	8.45	33.75	26.25	181.0
99	9.17	33.262									200	8.14	33.94	26.44	163.4
199	8.15	33.934									250	7.50	33.97	26.56	152.6
298	6.90	34.000									300	6.88	34.00	26.68	142.5
398	6.05	34.052									400	6.04	34.05	26.83	129.1
597	4.94	34.168									500	5.41	34.11	26.95	117.6
796	4.27	34.303									600	4.93	34.17	27.05	108.9
995	3.70	34.407									700	4.56	34.24	27.15	100.0
1194	3.20	34.474									800	4.26	34.31	27.23	92.2
											1000	3.69	34.41	27.38	79.6
											1200	3.18	34.48	27.48	70.0

BH 145 42 00.0 N 127 26.0 W DATE 01 JUL 70 1442 GCT WIRE DRY 59.9 WET 58.9 CRUISE C7006F															
WIND DIRECTION 22 VEL 09 KTS BAR 18 SWELL DIRECTION 30 H 05 T 07 CLOUD 5 AMT 8 WEATHER 02															
0	14.89	32.186									0	14.89	32.19	23.86	406.0
10	14.80	32.228									10	14.80	32.23	23.91	401.4
20	14.75	32.287									20	14.75	32.29	23.97	396.3
30	13.89	32.418									30	13.89	32.42	24.25	369.8
50	11.11	32.615									50	11.11	32.62	24.93	304.9
65	10.42	32.627									75	10.06	32.61	25.11	288.5
75	10.06	32.609									100	9.19	32.71	25.32	268.2
82	9.82	32.627									150	8.38	33.29	25.90	214.2
100	9.19	32.706									200	8.05	33.88	26.42	165.8
199	8.06	33.881									250	7.38	33.94	26.56	153.0
299	6.76	34.001									300	6.75	34.00	26.69	140.7
399	5.82	34.062									400	5.81	34.06	26.86	125.6
598	4.81	34.201									500	5.22	34.13	26.99	113.7
798	4.06	34.336									600	4.80	34.20	27.09	104.9
997	3.57	34.422									700	4.39	34.27	27.19	95.5
1196	3.13	34.485									800	4.05	34.34	27.28	87.5
											1000	3.56	34.42	27.40	77.2
											1200	3.12	34.49	27.49	68.5



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

1 01 45 00.0 N 132 00.0 W DATE 19 JUL 70 1317 GCT WIRE 02 DRY 58.5 WET 54.0 CRUISE Y7007B
 WIND DIRECTION 00 VEL 10 KTS BAR 22 SWELL DIRECTION 28 H 04 T 08 CLOUD 3 AMT 7 WEATHER 03

0	15.83	32.497	5.80	.40	8.14	2.21	9.8	2		0	15.83	32.50	23.89	402.8	0
10	15.84	32.495	5.78	.40	8.15	2.20	4.4	2		10	15.84	32.50	23.89	403.5	.040
20	14.28	32.584	6.10	.41	8.16	2.20	14.5	1		20	14.28	32.59	24.29	365.1	.079
30	13.14	32.588	6.35	.37	8.17	2.23	18.5	2		30	13.14	32.59	24.53	342.9	.114
50	11.11	32.559	6.75	.37	8.19	2.25	9.3	3		50	11.11	32.56	24.69	309.1	.179
74	9.68	32.620	6.67	.45	8.19	2.22	10.6	4		75	9.65	32.62	25.18	281.5	.253
99	9.16	32.639	6.57	.56	8.16	2.25		7		100	9.13	32.65	25.29	271.8	.322
149	7.69	33.264	5.44	1.14	8.08	2.24		19		150	7.68	33.28	26.00	204.9	.441
198	7.57	33.847	3.59	1.43	7.88	2.30		34		200	7.55	33.86	26.47	160.9	.533
250	6.93	33.944	2.78	2.16	7.77	2.29		38		250	6.94	33.95	26.63	146.3	.610
299	6.30	33.946	2.65	2.28	7.76	2.30		48		300	6.29	33.95	26.71	138.8	.681
398	5.14	33.972	1.86	2.61	7.67	2.32		61		400	5.13	33.97	26.67	123.8	.812
596	4.34	34.158	.62	3.12	7.56	2.36		88		500	4.58	34.06	27.00	111.4	.930
794	3.94	34.297	.30	3.26	7.59	2.39		100		600	4.33	34.16	27.11	102.5	1.037
993	3.49	34.395	.44	3.09	7.56	2.41		110		700	4.11	34.24	27.20	94.9	1.135
1191	3.04	34.462	.63		7.58	2.43		113		800	3.93	34.30	27.26	88.7	1.227
										1000	3.47	34.40	27.39	78.0	1.394
										1200	3.02	34.47	27.48	68.9	1.540

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
1 05 45 00.0 N 140 00.0 W DATE 22 JUL 70 1042 GCT WIRE 10 DRY 58.7 WET 56.4 CRUISE Y7007B																
WIND DIRECTION 27 VEL 10 KTS BAR 29 SWELL DIRECTION 29 H 02 T 08 CLOUD 6 AMT 8 WEATHER 01																
0	13.96	32.656	6.08	.50	8.18	2.14	1.7	9		0	13.96	32.66	24.41	353.0	0	
10	13.59	32.651	6.16	.44	8.20	2.15	1.2	9		10	13.59	32.66	24.49	346.4	.035	
20	13.49	32.661	6.1	.44	8.20	2.18	1.5	9		20	13.49	32.67	24.51	344.0	.069	
30	12.17	32.709	6.54	.50	8.21	2.18	1.5	9		30	12.17	32.71	24.81	316.1	.102	
50	9.16	32.790	6.75	.60	8.19	2.20	3.0	9		50	9.16	32.79	25.39	260.6	.160	
75	8.14	32.801	6.57	.75	8.18	2.19	5.5	10		75	8.14	32.81	25.56	245.3	.223	
100	7.55	32.883	6.32	.88	8.16	2.17	8.5	12		100	7.56	32.89	25.71	231.4	.283	
150	7.39	33.687	5.23	1.22	8.06	2.19	18.4	24		150	7.40	33.69	26.36	170.2	.393	
200	7.24	33.896	4.71	1.46	8.01	2.23	23.0	31		200	7.24	33.90	26.55	153.4	.464	
252	6.52	33.920	4.22	1.90	7.95	2.29	26.2	45		250	6.55	33.92	26.65	143.5	.538	
302	5.83	33.920	3.40	2.13	7.87	2.29	30.5	56		300	5.86	33.92	26.74	135.3	.608	
401	4.76	33.963	2.29	2.58	7.74	2.36	37.0	76		400	4.77	33.96	26.91	120.5	.736	
600	3.89	34.116	1.37	2.97	7.63	2.35	41.9	105		500	4.19	34.03	27.02	109.1	.851	
800	3.49	34.286	.63	3.12	7.60	2.37	43.6	127		600	3.90	34.12	27.13	100.6	.955	
1000	3.11	34.394	.52	3.31	7.61	2.41	45.3	91		700	3.66	34.20	27.21	92.3	1.052	
1200	2.85	34.466	.60	3.17	7.61	2.42	48.8	105		800	3.49	34.29	27.30	84.6	1.140	
										1000	3.11	34.40	27.42	73.9	1.299	
										1200	2.85	34.47	27.50	66.9	1.439	
1 06 44 59.6 N 142 34.0 W DATE 23 JUL 70 0302 GCT WIRE 04 DRY 58.1 WET 57.0 CRUISE Y7007B																
WIND DIRECTION 26 VEL 16 KTS BAR 27 SWELL DIRECTION 28 H 03 T 08 CLOUD 7 AMT 8 WEATHER 01																
0	13.52	32.698	6.16	.71	8.09	2.21	3.4	10		0	13.52	32.70	24.54	341.4	0	
10	12.92	32.703	6.26	.52	8.19	2.22	2.2	10		10	12.92	32.71	24.66	329.9	.034	
20	12.58	32.700	6.35	.57	8.17	2.22	3.2	10		20	12.58	32.71	24.72	324.0	.066	
30	11.81	32.702	6.48	.51	8.20	2.21	2.0	10		30	11.81	32.71	24.87	310.2	.098	
50	9.91	32.740	6.72	.62	8.20	2.22	3.5	11		50	9.91	32.75	25.23	276.0	.157	
75	7.96	32.854	6.67	.77	8.17	2.23	6.5	10		75	7.96	32.86	25.63	238.8	.221	
100	7.56	32.898	6.54	.82	8.16	2.22	8.0	11		100	7.57	32.90	25.72	230.4	.290	
150	7.21	33.561	5.50	1.18	8.07	2.25	14.9	19		150	7.21	33.57	26.29	177.1	.391	
200	6.86	33.826	4.72	1.52	8.00	2.27	22.9	33		200	6.86	33.83	26.54	153.4	.464	
249	6.16	33.865	3.95	1.92	7.92	2.28	27.7	44		250	6.15	33.87	26.66	142.3	.538	
299	5.69	33.881	3.32	2.18	7.85	2.29	31.0	54		300	5.68	33.88	26.74	136.0	.607	
398	4.65	33.936	2.18	2.60	7.72	2.31	37.8	67		400	4.64	33.94	26.90	120.8	.736	
599	3.82	34.093	1.20	2.91	7.63	2.34	42.2	79		500	4.09	34.01	27.02	109.5	.851	
799	3.46	34.257	.71	3.13	7.61	2.37	44.0	95		600	3.82	34.09	27.11	101.8	.957	
998	3.05	34.363	.47	3.13	7.60	2.39	44.9	87		700	3.61	34.18	27.20	93.6	1.054	
1198	2.75	34.434	.57	3.43	7.61	2.40	47.8	109		800	3.46	34.26	27.28	86.7	1.144	
1398	2.50	34.489	.68	3.13	7.63	2.41	44.5	101		1000	3.05	34.36	27.40	75.7	1.307	
										1200	2.75	34.43	27.48	68.0	1.450	
1 07 45 00.1 N 145 24.0 W DATE 23 JUL 70 1725 GCT WIRE 01 DRY 57.8 WET 57.0 CRUISE Y7007B																
WIND DIRECTION 21 VEL 12 KTS BAR 25 SWELL DIRECTION 28 H 03 T 07 CLOUD 7 AMT 8 WEATHER 20																
0	13.73	32.810	6.20	.39	8.22	2.22	.7	4		0	13.73	32.81	24.58	337.2	0	
10	13.71	32.813	6.22	.38	8.22	2.23	.6	4		10	13.71	32.82	24.59	336.8	.034	
20	12.95	32.823	6.33	.38	8.23	2.23	1.0	3		20	12.95	32.83	24.75	321.8	.067	
30	11.35	32.829	6.79	.40	8.25	2.23	.8	1		30	11.35	32.83	25.05	292.8	.097	
50	9.24	32.945	6.73	.67	8.20	2.22	4.0	6		50	9.24	32.95	25.50	250.4	.152	
75	7.85	33.005	6.61	.82	8.17	2.22	7.2	10		75	7.85	33.01	25.76	226.1	.211	
100	7.27	33.025	6.53	.92	8.16	2.23	10.0	12		100	7.28	33.03	25.86	217.1	.267	
149	7.40	33.754	5.33	1.26	8.08	2.27	18.5	26		150	7.39	33.76	26.41	165.1	.352	
199	6.84	33.856	4.88	1.45			22.0	33		200	6.83	33.86	26.57	151.0	.441	
249	6.29	33.882	4.05	1.71	8.15	2.29	27.1	43		250	6.28	33.88	26.66	142.7	.515	
299	5.75	33.899	3.31	2.17	7.87	2.30	31.9	53		300	5.74	33.90	26.74	135.3	.584	
397	4.59	33.936	2.19	2.64	7.72	2.31	37.4	79		400	4.57	33.94	26.91	120.0	.712	
597	3.83	34.110	1.57	3.00	7.62	2.35	42.3	108		500	4.04	34.02	27.03	108.4	.826	
797	3.46	34.261	.72	3.11	7.60	2.38	44.0	127		600	3.82	34.11	27.13	100.4	.933	
995	3.02	34.367	.43	3.20	7.62	2.41	45.0	144		700	3.62	34.19	27.21	92.7	1.027	
1195	2.69	34.433	.54	3.13	7.58	2.44	46.3	153		800	3.45	34.26	27.28	86.2	1.116	
1394	2.45	34.484	.54	3.07	7.64	2.42	45.4	157		1000	3.01	34.37	27.41	74.9	1.277	
										1200	2.68	34.43	27.49	67.3	1.419	

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
1 09 45 01.0 N 149 58.0 W DATE 25 JUL 70 0617 GCT WIRE 01 DRY 56.0 WET 55.3 CRUISE Y70078																
WIND DIRECTION 24 VEL 16 KTS BAR 25 SWELL DIRECTION 26 H 06 T 08 CLOUD AMT 9 WEATHER 45																
0	12.58	32.862	6.38	.76	8.18	2.22	6.0	16		0	12.58	32.87	24.85	311.6	0	
10	12.54	32.861	6.39	.70	8.17	2.22	6.0	16		10	12.54	32.87	24.86	311.2	.031	
20	12.53	32.879	6.39	.70	8.17	2.22	5.9	16		20	12.53	32.88	24.87	309.9	.062	
30	11.82	32.868	6.52	.61	8.19	2.22	4.3	10		30	11.82	32.87	25.00	298.2	.093	
50	8.72	32.958	6.69	.87	8.16	2.22	6.6	8		50	8.72	32.96	25.59	241.6	.147	
100	7.05	33.106	6.57	.99	8.13	2.23	11.6	14		75	7.27	33.03	25.86	216.8	.204	
200	6.94	33.874	4.91	1.43	8.02	2.27	21.6	33		100	7.06	33.11	25.95	208.1	.257	
400	4.61	33.939	2.31	2.63	7.70	2.28	38.2	75		150	6.99	33.48	26.25	180.5	.354	
599	3.82	34.118	1.08	3.00	7.63	2.34	43.0	108		200	6.94	33.88	26.57	150.9	.437	
997	3.03	34.363	.48	3.22	7.61	2.38	45.2	141		250	6.42	33.89	26.65	143.9	.511	
1498	2.36	34.507	.68	3.20	7.63	2.40	45.6	163		300	5.85	33.91	26.73	136.3	.581	
1997	1.96	34.591	1.29	2.59	7.70	2.43	31.9	141		400	4.61	33.94	26.91	120.1	.709	
2495	1.71	34.637	1.99	2.89	7.76	2.47	41.9	174		500	4.10	34.02	27.03	108.7	.823	
2994	1.57	34.663	2.62	2.79	7.83	2.45	40.1	169		600	3.82	34.12	27.13	99.9	.927	
3990	1.49	34.684	3.34	2.65	7.91	2.45	38.7	159		700	3.56	34.19	27.22	92.0	1.023	
4589	1.52	34.690	3.43	2.58	7.69	2.46	38.6	167		800	3.34	34.26	27.29	85.3	1.112	
5018	1.59	34.649	3.42	2.69	7.91	2.45	38.6	171		1000	3.03	34.36	27.40	75.5	1.273	
5118	1.52	34.689	3.47	2.48	7.91	2.44	37.6	168		1200	2.72	34.44	27.49	67.6	1.416	
										1500	2.36	34.51	27.58	59.9	1.607	
										2000	1.96	34.59	27.67	51.5	1.885	
										2500	1.71	34.64	27.73	47.4	2.132	
										3000	1.57	34.66	27.76	45.1	2.363	
										4000	1.49	34.68	27.78	44.5	2.811	
										5000	1.59	34.69	27.78	48.5	3.275	
1 10 44 59.2 N 152 31.3 W DATE 26 JUL 70 0932 GCT WIRE 00 DRY 56.8 WET 56.0 CRUISE Y70078																
WIND DIRECTION 26 VEL 17 KTS BAR 29 SWELL DIRECTION 27 H 04 T 07 CLOUD AMT 9 WEATHER 45																
0	12.49	32.896	6.33	.74	8.17	2.33	7.0	19		0	12.49	32.90	24.89	307.5	0	
10	12.50	32.890	6.33	.71	8.19	2.29	7.0	19		10	12.50	32.89	24.89	308.3	.031	
20	12.26	32.890	6.36	.74	8.19	2.22	7.3	19		20	12.26	32.89	24.93	304.2	.061	
30	11.38	32.895	6.53	.79	8.20	2.28	7.2	20		30	11.38	32.90	25.10	288.5	.091	
50	8.84	32.977	6.96	1.25	8.21	2.29	7.9	15		50	8.84	32.98	25.59	242.0	.144	
75	7.25	33.038	6.79	1.04	8.18	2.28	10.4	17		75	7.26	33.04	25.87	215.5	.201	
99	7.01	33.165	6.60	1.04	8.15	2.27	12.2	16		100	7.01	33.17	26.01	202.9	.254	
199	7.13	33.891	5.50	1.43	8.04	2.28	12.5	34		150	7.10	33.58	26.31	174.7	.348	
248	6.34	33.876	4.49	1.73	7.97	2.31	24.6	46		200	7.12	33.89	26.56	152.4	.430	
298	5.87	33.904	3.56	2.06	7.88	2.32	29.2	58		250	6.32	33.88	26.65	143.6	.504	
396	4.76	33.938	2.24	2.49	7.73	2.32	36.9	80		300	5.85	33.90	26.73	136.3	.574	
596	3.89	34.105	1.32	2.88	7.63	2.35	41.8	108		400	4.73	33.94	26.89	121.7	.702	
796	3.43	34.246	1.03	2.96	7.61	2.36	42.7	129		500	4.17	34.02	27.02	109.8	.818	
994	3.06	34.345	.64	3.24	7.59	2.39	44.7	141		600	3.88	34.11	27.12	101.4	.924	
1193	2.74	34.419	.68	3.25	7.61	2.41	45.4	153		700	3.62	34.18	27.20	93.5	1.021	
1392	2.48	34.479	.52	3.27	7.62	2.41	45.5	159		800	3.42	34.25	27.27	87.0	1.111	
										1000	3.05	34.35	27.39	77.0	1.275	
										1200	2.73	34.42	27.47	68.8	1.421	
1 11 44 59.5 N 154 58.0 W DATE 27 JUL 70 0637 GCT WIRE 00 DRY 57.0 WET 57.0 CRUISE Y70078																
WIND DIRECTION 25 VEL 10 KTS BAR 32 SWELL DIRECTION 28 H 04 T 07 CLOUD AMT 9 WEATHER 45																
0	13.04	33.056	6.32	.66	8.18	2.21	5.5	11		0	13.04	33.06	24.91	305.9	0	
10	12.65	33.057	6.38	.78	8.19	2.21	5.1	11		10	12.65	33.06	24.99	298.8	.030	
20	12.13	33.057	6.47	.68	8.19	2.21	5.2	12		20	12.13	33.06	25.09	289.6	.060	
30	11.01	33.051	6.60	.68	8.19	2.20	6.2	13		30	11.01	33.06	25.29	270.6	.089	
50	8.51	33.158	6.59	.91	8.18	2.22	7.9	14		50	8.51	33.16	25.78	223.7	.137	
100	7.09	33.412	6.40	.98	8.15	2.22	12.3	17		75	7.31	33.29	26.05	198.1	.199	
200	7.11	33.907		1.43	8.04	2.27	20.8	30		100	7.09	33.42	26.19	185.9	.238	
398	4.84	33.954	2.45	2.44	7.75	2.29	37.0	78		150	7.10	33.68	26.39	167.1	.326	
597	3.89	34.114	1.26	2.99	7.65	2.32	42.1	108		200	7.11	33.91	26.57	150.8	.405	
995	3.06	34.351	.65	3.05	7.62	2.37	44.5	139		250	6.62	33.92	26.65	144.4	.479	
1493	2.40	34.493	.78	3.33	7.63	2.41	45.2	163		300	6.07	33.93	26.73	137.2	.550	
1989	2.00	34.579	1.22	3.08	7.70	2.42	43.7	171		400	4.83	33.96	26.89	121.7	.679	
2487	1.74	34.627	1.86		7.76	2.43				500	4.25	34.03	27.02	109.8	.795	
2984	1.58	34.660	2.61	2.65	7.84	2.43	39.8	165		600	3.88	34.12	27.12	100.8	.900	
3979	1.48	34.686	3.38	2.47	7.90	2.49	37.6	160		700	3.59	34.19	27.21	92.9	.997	
4576	1.53	34.690	3.38	2.61	7.95	2.45	43.1	167		800	3.36	34.25	27.28	86.3	1.086	
4974	1.58	34.693	3.38	2.60	7.92	2.45	43.0	165		1000	3.05	34.35	27.39	76.6	1.249	
										1200	2.75	34.42	27.47	68.9	1.394	
										1500	2.39	34.49	27.56	61.3	1.589	
										2000	1.99	34.58	27.66	52.7	1.874	
										2500	1.73	34.63	27.72	48.4	2.127	
										3000	1.58	34.66	27.76	45.4	2.361	
										4000	1.48	34.69	27.79	44.2	2.808	
										5000	1.58	34.69	27.78	48.2	3.270	

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
1 13 44 58.0 N 159 58.1 W DATE 28 JUL 70 2259 GCT WIRE 01 DRY 57.0 WET 56.7 CRUISE Y70078																
WIND DIRECTION 24 VEL 10 KTS BAR 26 SWELL DIRECTION 23 H 03 T 07 CLOUD AMT 9 WEATHER 43																
0	12.22	33.018	6.33	.95	8.13	2.22	11.1	22		0	12.22	33.02	25.04	293.6	0	
10	11.77	33.052	6.42	.98	8.15	2.26	10.7	22		10	11.77	33.06	25.15	283.3	.029	
20	10.28	33.107	6.61	.97	8.17	2.24	11.0	22		20	10.28	33.11	25.46	254.2	.056	
30	9.61	33.111	6.74	.99	8.17	2.23	11.0	23		30	9.61	33.12	25.57	243.4	.081	
50	7.83	33.174	6.92	1.06	8.17	2.23	12.3	23		50	7.83	33.18	25.90	212.9	.125	
100	5.85	33.337	6.77	1.18	8.15	2.23	15.5	25		75	6.45	33.24	26.13	190.8	.177	
149	6.49	33.802	5.50	1.34	8.07	2.26	13.7	29		100	5.85	33.34	26.29	175.9	.222	
199	5.86	33.847	4.38	1.80	7.98	2.27	25.6	42		150	6.48	33.81	26.57	149.7	.304	
597	3.72	34.150	1.05	2.97	7.65	2.33	42.6	103		200	5.85	33.85	26.69	139.3	.376	
797	3.32	34.275	.80	3.09	7.63	2.36	43.7	116		250	5.39	33.89	26.78	131.2	.444	
1195	2.69	34.426	.57	3.04	7.65	2.38	44.5	125		300	4.99	33.93	26.86	124.0	.507	
1692	2.15	34.542	.70	3.10	7.68	2.39	44.4	140		400	4.35	34.01	26.99	112.1	.625	
1992	1.93	34.588	1.51	2.98	7.71	2.40	43.1	141		500	3.92	34.08	27.09	102.3	.733	
2988	1.56	34.654	2.46	2.71	7.85	2.41	39.0	138		600	3.71	34.15	27.17	96.3	.832	
3985	1.47	34.679	3.50	2.48	7.93	2.45	36.9	146		700	3.48	34.22	27.24	89.4	.925	
4483	1.52		3.56	2.99			36.7	141		800	3.31	34.28	27.31	83.7	1.011	
4982	1.57	34.685	3.58	3.16			31.5	129		1000	2.97	34.36	27.41	75.0	1.170	
5300	1.72		3.58	2.99			36.7	149		1200	2.68	34.43	27.48	67.9	1.312	
										1500	2.33	34.50	27.58	59.8	1.504	
										2000	1.93	34.59	27.68	51.3	1.781	
										2500	1.69	34.63	27.73	47.5	2.028	
										3000	1.56	34.65	27.76	45.6	2.260	
										4000	1.47	34.68	27.78	44.5	2.710	
										5000	1.58	34.68	27.78	48.6	3.176	

1	15	44	56.0	N	164	59.6	W	DATE 30	JUL 70	0747	GCT	WIRE 01	DRY 56.0	WET 55.0	CRUISE Y70078	
WIND DIRECTION 23 VEL 08 KTS				BAR 28		SWELL		DIRECTION26		H 03 T 08		CLOUD 7		AMT 8 WEATHER 01		
0	12.86	33.073	6.28	1.02				11.9	23		0	12.86	33.08	24.96	301.3	0
10	12.08	33.077	6.38	.98	8.15	2.26		11.4	23		10	12.08	33.08	25.11	297.0	.029
20	11.87		6.42	1.08				11.3	22		20	11.88	33.10	25.16	282.2	.058
30	10.58	33.121	6.93	1.06	8.17	2.25		11.8	22		30	10.58	33.13	25.42	258.3	.085
50	7.92	33.564	6.68	.91	8.19	2.27		10.5	17		50	7.93	33.57	26.19	185.1	.129
99	6.81	33.669	6.57	1.00	8.14	2.26		11.3	17		75	6.82	33.62	26.38	167.0	.173
199	7.03	33.867	5.57	1.13	8.09	2.29		14.4	22		100	6.81	33.67	26.42	163.2	.214
398	4.91	33.966	2.35	2.51	7.80	2.32		35.5	76		150	6.92	33.78	26.49	157.5	.295
597	3.98	34.117	1.43	2.79	7.67	2.35		40.6	105		200	7.02	33.87	26.55	152.8	.372
994	3.07	34.346	.75	2.96	7.63	2.40		43.1	131		250	6.59	33.91	26.64	144.8	.447
1493	2.37	34.498	.99	3.13	7.66	2.43		43.7	159		300	6.09	33.94	26.73	136.9	.517
1990	1.96	34.584	1.64	2.95	7.73	2.44		39.7	163		400	4.90	33.97	26.90	121.6	.646
2487	1.74	34.631	2.32	2.85	7.80	2.41		41.1	129		500	4.34	34.04	27.02	110.0	.762
2984	1.59	34.653	2.77	2.77	7.83	2.47		39.4	119		600	3.97	34.12	27.12	101.5	.868
3981	1.48	34.678	3.47	2.08	7.92	2.44		26.8	96		700	3.67	34.19	27.20	93.8	.965
4478	1.51	34.682	3.77	2.03	7.94	2.46		26.9	100		800	3.42	34.25	27.27	87.1	1.056
4975	1.57	34.683	3.50	2.68	7.93	2.45		37.1	127		1000	3.06	34.35	27.39	77.0	1.219
5354	1.60		3.58								1200	2.73	34.42	27.47	68.8	1.365
											1500	2.36	34.50	27.57	60.6	1.559
											2000	1.95	34.59	27.67	51.9	1.840
											2500	1.74	34.63	27.72	48.2	2.090
											3000	1.59	34.65	27.75	46.1	2.325
											4000	1.48	34.68	27.78	44.7	2.779
											5000	1.57	34.68	27.78	48.7	3.245

1	17	44	58.4	N	170	55.0	W	DATE 01	AUG 70	0039	GCT	WIRE 06	DRY 54.2	WET 52.0	CRUISE	Y70078
WIND DIRECTION 09 VEL 04 KTS					BAR 28		SWELL DIRECTION 32		H 02 T 05		CLOUD	6	AMT	8	WEATHER 02	
0	12.55	33.151	6.32	.98	8.15	2.30	11.3	23		0	12.55	33.16	25.08	289.8	0	
10	12.31	33.149	6.32	.97	8.17	2.28	10.9	23		10	12.31	33.15	25.12	285.8	.029	
20	11.83		6.40	.97			10.9	23		20	11.83	33.23	25.27	271.7	.057	
30	10.15	33.354	6.69	1.02	8.18	2.33	10.9	22		30	10.15	33.36	25.67	234.0	.082	
50	7.90	33.588	6.96	.98	8.17	2.33	12.3	21		50	7.91	33.59	26.21	183.0	.124	
100	6.43	33.645	6.72	1.08	8.15	2.33	15.9	24		75	6.72	33.62	26.39	165.8	.167	
200	7.01	33.818	6.42	1.06	8.15	2.33	15.8	23		100	6.44	33.65	26.46	160.0	.208	
398	4.82	33.912	3.01	2.48	7.81	2.36	35.0	65		150	6.50	33.73	26.51	155.3	.287	
599	3.96	34.096	1.47	3.02	7.67	2.39	41.4	104		200	7.02	33.82	26.52	156.0	.365	
999	3.02		.83	3.13			41.6	140		250	6.60	33.85	26.60	149.0	.441	
1499	2.37	34.479	.90	3.24	7.66	2.46	44.3	129		300	6.10	33.88	26.68	141.2	.513	
2007	1.99	34.565	1.60	2.84	7.72	2.47	42.9	128		400	4.81	33.91	26.86	124.5	.646	
2496	1.75		2.08	2.99			41.2	159		500	4.28	34.00	26.99	112.3	.765	
2996	1.59	34.638	2.72	2.76	7.85	2.47	39.0	168		600	3.96	34.10	27.10	103.1	.872	
4995	1.56	34.664	3.58	2.66	7.93	2.47	36.6	163		700	3.66	34.16	27.18	95.2	.971	
5994	1.70	34.666	3.60	2.83	7.93	2.47	30.0	108		800	3.40	34.23	27.26	88.4	1.063	
6488	1.77	34.666	3.60	2.36	7.94	2.45	30.4	130		1000	3.02	34.33	27.38	77.9	1.229	
6903	1.57									1200	2.71	34.41	27.47	69.5	1.377	
										1500	2.37	34.48	27.55	62.1	1.574	
										2000	1.99	34.56	27.65	53.9	1.864	
										2500	1.75	34.61	27.71	49.8	2.123	
										3000	1.59	34.64	27.74	47.2	2.365	
										4000	1.57	34.66	27.76	47.3	2.837	
										5000	1.56	34.66	27.76	49.8	3.322	
										6000	1.70	34.67	27.75	55.3	3.847	

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
1 19 45 00.0 N 175 08.0 W DATE 02 AUG 70 0656 GCT WIRE 00 DRY 56.1 MET 56.0 CRUISE Y7007B																
WIND DIRECTION 26 VEL 10 KTS BAR 27 SWELL DIRECTION 25 H 02 T 07 CLOUD AMT 9 WEATHER 45																
0	13.12	33.496	6.19	.91	8.15	2.27	7.9	21		0	13.13	33.50	25.23	275.1	0	
10	12.93	33.499	6.20	.91	8.16	2.27	7.6	20		10	12.93	33.50	25.27	271.5	.027	
20	12.13	33.479	6.31	.95	8.18	2.27	7.4	17		20	12.13	33.48	25.41	258.5	.054	
30	11.74	33.503	6.36	.89	8.19	2.28	7.2	16		30	11.74	33.51	25.50	250.0	.079	
50	8.60	33.674	6.92	.91	8.19	2.28	7.4	15		50	8.60	33.68	26.17	186.7	.123	
100	6.92	33.753	6.65	1.20	8.13	2.29	14.5	24		75	7.14	33.75	26.44	161.6	.166	
199	6.68	33.818	6.38	1.29			15.9	26		100	6.93	33.76	26.48	158.2	.206	
399	4.78	33.927	2.97	2.52	7.81	2.32	35.3			150	6.80	33.79	26.52	154.6	.285	
598	3.99	34.112	1.43	2.95	7.68	2.35	41.8			200	6.67	33.82	26.56	151.8	.361	
998	2.96	34.355	.70	3.21	7.64	2.41	44.8			250	6.23	33.84	26.64	145.0	.435	
1497	2.36	34.492	.95	2.35	7.66	2.44	25.7			300	5.77	33.87	26.72	137.9	.506	
1997	1.98	34.578	.99	3.09	7.72	2.44	43.5			400	4.77	33.93	26.88	123.1	.637	
2495	1.72	34.628	2.08	2.78	7.80	2.45	41.6			500	4.30	34.02	27.00	111.3	.754	
2994	1.58	34.648	2.77	2.84	7.86	2.46	39.9			600	3.98	34.11	27.11	102.1	.860	
3993	1.48	34.674	3.50	2.39	7.93	2.47	34.6			700	3.67	34.19	27.20	93.6	.958	
4990	1.56	34.680	3.66	2.60	7.93	2.46	37.3			800	3.39	34.25	27.28	86.3	1.048	
5489	1.63	34.679	3.66	2.88	7.93	2.49	34.9			1000	2.96	34.36	27.40	75.3	1.210	
5757	1.64	34.682	3.82	2.56	7.94	2.45	35.8			1200	2.66	34.42	27.48	67.8	1.353	
										1500	2.36	34.49	27.56	61.0	1.546	
										2000	1.98	34.58	27.66	52.7	1.830	
										2500	1.72	34.63	27.72	48.2	2.081	
										3000	1.58	34.65	27.75	46.3	2.318	
										4000	1.48	34.67	27.78	45.0	2.774	
										5000	1.56	34.68	27.78	48.7	3.242	

1 23 45 00.0 N 174 02.6 E DATE 05 AUG 70 0559 GCT WIRE 08 DRY 59.9 MET 59.9 CRUISE Y7007B															
WIND DIRECTION 17 VEL 14 KTS BAR 25 SWELL DIRECTION 22 H 04 T 08 CLOUD AMT 9 WEATHER 45															
0	13.21	33.311	6.32	1.00	8.13	2.25	12.5	27		0	13.21	33.32	25.07	290.4	.3
10	13.15	33.318	6.29	1.02	8.15	2.25	11.9	27		10	13.15	33.32	25.09	289.0	.029
20	11.52	33.551	6.51	.87	8.17	2.27	8.8	18		20	11.52	33.56	25.58	242.3	.056
30	9.62	33.735	6.78	1.02	8.17	2.27	12.0	26		30	9.63	33.74	26.06	197.4	.078
49	8.94	34.002	6.59	.90	8.17	2.28	11.7	20		50	8.92	34.01	26.38	166.9	.114
99	8.12	34.074	5.71	.86	8.13	2.28	10.9	17		75	8.43	34.04	26.48	157.8	.155
199	6.40	33.906	5.84	1.42	8.09	2.28	19.5	33		100	8.10	34.07	26.56	151.0	.193
396	4.72	34.000	2.69	2.47	7.80	2.32	35.8	82		150	7.21	34.01	26.63	144.4	.267
594	3.84	34.139	1.49	2.75	7.69	2.35	40.9	108		200	6.39	33.91	26.67	141.6	.338
989	2.98	34.352	1.20	2.54	7.66	2.38	32.6	127		250	5.82	33.93	26.76	133.3	.407
1485	2.34	34.486	1.17	2.95	7.69	2.41	43.2	158		300	5.35	33.92	26.80	129.4	.473
1978	1.99	34.573	1.62	2.84	7.74	2.42	42.0	165		400	4.70	34.00	26.95	116.6	.596
2966	1.60	34.649	2.96	2.73	7.85	2.44	38.7	162		500	4.19	34.07	27.06	106.1	.707
3956	1.48	34.676	3.52	2.54	7.93	2.44	36.9	149		600	3.82	34.14	27.15	98.1	.809
5440	1.60	34.684	3.66	2.05	7.94	2.45	26.2	131		700	3.54	34.20	27.23	90.9	.904
5933	1.67	34.685	3.81	1.84	7.94	2.44	22.3	127		800	3.30	34.26	27.30	84.6	.991
6428	1.74	34.683	3.78	2.51	7.95	2.45	36.4	151		1000	2.96	34.36	27.40	75.4	1.151
										1200	2.66	34.42	27.48	68.1	1.295
										1500	2.33	34.49	27.56	60.9	1.488
										2000	1.98	34.58	27.66	52.9	1.772
										2500	1.74	34.62	27.72	48.8	2.026
										3000	1.59	34.65	27.75	46.4	2.264
										4000	1.48	34.68	27.78	44.9	2.719
										5000	1.54	34.69	27.78	48.2	3.184
										6000	1.68	34.68	27.77	53.6	3.693

1 25 45 00.0 N 169 37.1 E DATE 05 AUG 70 1538 GCT WIRE 10 DRY 53.3 MET 53.3 CRUISE Y7007B															
WIND DIRECTION 20 VEL 12 KTS BAR 13 SWELL DIRECTION 22 H 04 T 08 CLOUD AMT 9 WEATHER 45															
0	10.83	32.921	6.60	1.20	8.16	2.27	14.8	27		0	10.83	32.93	25.22	276.6	0
10	10.76	32.919	6.55	1.21	8.16	2.27	15.0	27		10	10.76	32.92	25.23	275.8	.028
20	10.00	33.066	6.71	1.28	8.17	2.28	15.1	28		20	10.00	33.07	25.47	252.7	.054
30	9.26	33.093	6.84	1.25	8.17	2.28	15.6	28		30	9.26	33.10	25.61	239.3	.079
50	5.31	33.219	7.33	1.44	8.16	2.29	18.2	34		50	5.32	33.22	26.26	178.0	.120
75	3.22	33.314	6.76	1.67	8.12	2.29	21.3	38		75	3.22	33.32	26.55	150.2	.161
99	2.92	33.390	6.95	1.70	8.09	2.29	23.0	41		100	2.93	33.39	26.64	142.0	.198
149	3.46	33.597	5.82	1.88	8.02	2.31	25.5	47		150	3.46	33.60	26.75	131.6	.266
199	3.54	33.715	3.78	2.43	7.84	2.33	17.0	12		200	3.54	33.72	26.84	123.9	.330
298	3.42	33.908	1.83	2.96	7.65	2.34	21.3	15		250	3.49	33.82	26.93	115.9	.390
397	3.42	34.031	1.27	3.24	7.61	2.37	22.4	16		300	3.42	33.91	27.00	108.9	.446
597	3.29	34.214	.95	3.03	7.63	2.41	22.1	20		400	3.42	34.03	27.10	100.6	.551
795	3.06	34.321	.99	2.68	7.66	2.41	16.5	17		500	3.37	34.14	27.19	92.7	.648
993	2.74	34.391	.91	3.07	7.65	2.43	22.1	21		600	3.29	34.22	27.26	87.0	.737
										700	3.18	34.28	27.32	81.8	.822
										800	3.05	34.32	27.37	77.4	.901
										1000	2.73	34.39	27.45	70.1	1.049

OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)
1 26 46 00.0 N 176 12.4 E DATE 07 AUG 70 2105 GCT WIRE 07 DRY 56.5 WET 56.5 CRUISE Y70078															
WIND DIRECTION 21 VEL 09 KTS BAR 18 SWELL DIRECTION20 H 03 T 05 CLOUD AMT 9 WEATHER 45															
0	11.67	33.241	6.45	.98	8.15	2.31	10.6	22		0	11.67	33.25	25.31	267.4	0
10	11.63	33.238	6.48	1.14	8.15	2.28	13.3	29		10	11.63	33.24	25.32	267.1	.027
20	10.84	33.223	6.64	1.11	8.15	2.28	11.6	23		20	10.84	33.23	25.45	254.9	.053
30	9.41	33.259	6.74	1.25	8.14	2.28	14.5	28		30	9.41	33.26	25.72	229.3	.077
50	8.64	33.882	6.78	.93	8.15	2.30	11.8	23		50	8.64	33.89	26.33	171.9	.117
75	6.35	33.730	6.86	1.14	8.12	2.30	16.5	29		75	6.35	33.74	26.54	152.3	.158
100	6.06	33.778	6.64	1.26	8.12	2.30	17.9	30		100	6.07	33.78	26.61	145.5	.195
125	5.73	33.753	6.64	1.28	8.10	2.30	18.4	31		150	5.78	33.76	26.63	143.9	.267
150	5.77	33.760	6.62	1.31	8.11	2.30	18.6	31		200	5.59	33.79	26.67	140.9	.338
175	5.75	33.791	6.48	1.21	8.09	2.30	19.2	32		250	5.36	33.84	26.74	134.9	.407
200	5.59	33.780	6.42	1.42	8.09	2.31	19.7	33		300	5.15	33.92	26.83	126.4	.473
300	5.14	33.919	3.58	2.02	8.15	2.31	15.6	11		400	4.40	33.99	26.97	114.4	.593
400	4.39	33.983	2.42	2.69	7.73	2.34	18.6	14		500	3.70	34.02	27.07	104.3	.702
500	3.69	34.020	1.79	2.99	7.62	2.36	19.8	14		600	3.56	34.09	27.14	99.0	.804
700	3.43	34.205	1.17	2.51	7.62	2.39	17.1	13		700	3.43	34.21	27.24	89.7	.898
1 27 47 00.0 N 177 22.0 E DATE 08 AUG 70 1032 GCT WIRE 03 DRY 57.2 WET 57.0 CRUISE Y70078															
WIND DIRECTION 20 VEL 24 KTS BAR 16 SWELL DIRECTION19 H 03 T 06 CLOUD AMT 9 WEATHER 45															
0	11.17	33.040	6.48	1.04	8.16	2.26	8.9	18		0	11.17	33.04	25.25	273.5	0
10	11.11	33.041	6.50	1.08	8.16	2.26	11.3	22		10	11.11	33.05	25.26	272.7	.027
20	10.74	33.052	6.56	1.27	8.17	2.25	14.4	28		20	10.74	33.06	25.33	265.8	.054
30	9.57	33.268	6.69	1.15	8.16	2.26	12.9	24		30	9.57	33.27	25.70	231.2	.079
50	6.64	33.379	7.22	1.27	8.18	2.28	14.8	28		50	6.65	33.38	26.22	191.8	.120
75	5.10	33.450	7.20	1.12	8.15	2.28	8.8	20		75	5.10	33.46	26.47	158.6	.163
100	4.62	33.522	6.99	1.40	8.24	2.29	18.1	30		100	4.63	33.53	26.58	148.3	.201
125	4.77	33.577	6.91	1.22	8.13	2.28	14.0	23		150	4.82	33.61	26.62	144.8	.274
150	4.82	33.603	6.83	1.12	8.13	2.28	12.8	21		200	4.61	33.67	26.69	138.7	.345
174	4.78	33.634	6.66	1.32	8.12	2.28	19.0	33		250	4.34	33.75	26.79	129.6	.412
200	4.61	33.661	6.24	1.71	8.08	2.29	23.9	38		300	4.14	33.86	26.89	120.1	.475
300	4.13	33.854	3.12	2.87	7.81	2.31	19.9	16		400	3.83	33.96	27.01	110.3	.590
399	3.83	33.960	2.03	2.25	7.70	2.33	13.0	13		500	3.70	34.08	27.11	100.3	.695
498	3.70	34.076	1.49	2.95	7.65	2.35	16.7	16		600	3.56	34.16	27.19	93.8	.792
698	3.42	34.228	1.22	2.62	7.64	2.38	15.7	20		700	3.42	34.23	27.26	87.8	.883
997	2.85	34.362	.88	2.63	7.64	2.41	15.1	22		800	3.23	34.28	27.32	82.3	.968
1296	2.47	34.458	0.88		7.66	2.42				1000	2.85	34.36	27.42	73.6	1.124
										1200	2.57	34.43	27.50	66.3	1.264
1 28 48 00.0 N 178 33.4 E DATE 08 AUG 70 2129 GCT WIRE 02 DRY 53.2 WET 53.0 CRUISE Y70078															
WIND DIRECTION 24 VEL 19 KTS BAR 15 SWELL DIRECTION24 H 04 T 06 CLOUD AMT 9 WEATHER 45															
0	10.45	32.864	6.78	1.58	8.20	2.23	14.2	24		0	10.45	32.87	25.24	274.5	0
10	10.43	32.864	6.78	1.40	8.20	2.23	14.2	24		10	10.43	32.87	25.24	274.4	.027
20	10.22	32.893	6.85	1.47	8.20	2.23	14.2	24		20	10.22	32.90	25.30	269.0	.055
30	8.11	33.192	7.02	1.41			14.9	21		30	8.11	33.20	25.87	215.1	.079
50	5.70	33.441	7.15	1.52			16.9	31		50	5.70	33.45	26.39	165.8	.117
75	4.42	33.462	7.02	1.48	8.14	2.28	19.4	34		75	4.43	33.47	26.55	150.5	.156
100	4.80	33.589	6.86	1.54	8.14	2.25	19.5	33		100	4.81	33.59	26.61	145.2	.193
125	4.74	33.624	6.78	1.49	8.12	2.27	19.8	34		150	4.48	33.65	26.69	138.2	.264
150	4.48	33.642	6.54	1.62	8.11	2.28	20.8	36		200	4.08	33.72	26.79	129.3	.331
175	4.28	33.667	6.14	1.39	8.08	2.28	16.9	31		250	3.83	33.79	26.87	121.8	.394
200	4.08	33.712	4.82	2.20	7.97	2.28	28.2	53		300	3.72	33.86	26.94	115.6	.453
300	3.72	33.857	2.71	2.68	7.74	2.30	33.0			400	3.76	34.01	27.05	105.6	.564
400	3.75	34.008	1.82	2.84	7.68	2.33	34.2			500	3.52	34.09	27.14	97.4	.665
500	3.51	34.087	1.23	3.08	7.65	2.33	42.1			600	3.36	34.17	27.21	91.6	.760
699	3.24	34.236	.96	3.10	7.65	2.19	43.0			700	3.24	34.24	27.28	85.3	.848
999	2.77	34.382	.80	3.31	7.65	2.47	44.1	151		800	3.08	34.29	27.34	79.9	.931
1299	2.42	34.469	1.07	3.31	7.68	2.41	43.9	162		1000	2.77	34.38	27.44	71.3	1.082
										1200	2.52	34.45	27.51	64.7	1.218

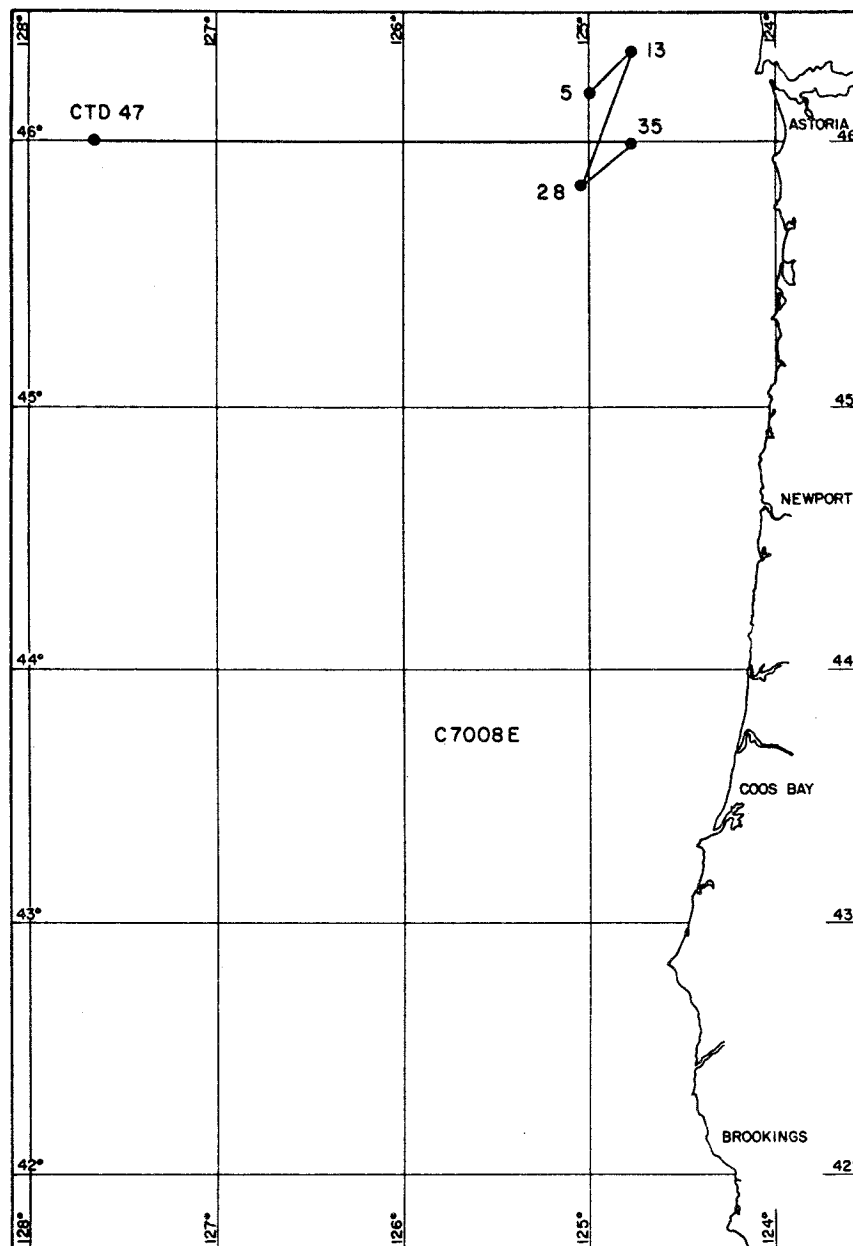
OBSERVED										INTERPOLATED										COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD							
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)							
2 29 51 23.6 N 174 25.5 W DATE 13 AUG 70 1145 GCT WIRE 01 DRY 47.8 WET 45.9 CRUISE Y70078																						
WIND DIRECTION 29 VEL 16 KTS BAR 19 SWELL DIRECTION 27 H 03 T 06 CLOUD 8 AMT 7 WEATHER 01																						
0	8.79		6.90	.79				3.9	15		0	8.79		25.27	271.5	.3						
10	9.72	32.164	6.88							10	8.72	32.17		24.97	299.9	.329						
20	7.84	32.349	6.80		8.18	2.24				20	7.84	32.35		25.25	274.0	.057						
30	7.43	32.416	6.72	1.10	8.14	2.24	9.6	18		30	7.44	32.42		25.36	263.6	.384						
50	5.28	32.798	6.19	1.65	8.04	2.27	19.7	29		50	5.29	32.80		25.93	209.2	.131						
99	4.61	33.413	3.76	2.37	7.82	2.29	31.2	50		75	4.94	33.16		26.25	179.2	.180						
198	3.90	33.868	1.60	2.81	7.61	2.33	35.9	66		100	4.60	33.42		26.50	156.0	.222						
396	3.50	34.084	1.20							150	4.17	33.73		26.78	128.9	.293						
595	3.32	34.239	.69	3.21	7.60	2.38	44.7	132		200	3.89	33.87		26.93	115.7	.354						
991	2.76	34.403	.64	3.21	7.63	2.42	45.0	153		250	3.72	33.97		27.02	106.8	.410						
1488	2.21	34.533	1.12	2.75	7.69	2.44	34.4	143		300	3.60	34.04		27.09	100.9	.462						
1984	1.86	34.598	1.76	2.88	7.76	2.44	42.2	170		400	3.50	34.09		27.14	97.4	.561						
2479	1.67	34.638	2.37	2.99	7.82	2.46	40.8	171		500	3.40	34.17		27.21	90.2	.655						
2976	1.57	34.663	2.82	2.69	7.86	2.46	39.5	168		600	3.31	34.24		27.28	85.4	.742						
3472	1.50	34.667	3.36	2.75	7.89	2.46	38.4	165		700	3.18	34.29		27.33	80.4	.825						
3969	1.48	34.684	3.46	5.41	7.92	2.45	31.1	142		800	3.04	34.34		27.38	76.1	.903						
4484	1.51	34.689	3.58	2.81	7.94	2.47	37.3	161		1000	2.75	34.41		27.46	69.4	1.049						
												1200	2.51	34.47	27.53	63.0	1.181					
												1500	2.20	34.54	27.61	56.1	1.359					
												2000	1.85	34.60	27.69	49.6	1.624					
												2500	1.66	34.64	27.74	46.7	1.864					
												3000	1.57	34.66	27.76	45.1	2.093					
												4000	1.48	34.68	27.79	44.3	2.540					
2 31 52 00.0 N 166 55.8 W DATE 15 AUG 70 0845 GCT WIRE 00 DRY 51.0 WET 51.0 CRUISE Y70078																						
WIND DIRECTION 23 VEL 20 KTS BAR 13 SWELL DIRECTION 23 H 03 T 05 CLOUD 6 AMT 8 WEATHER 45																						
0	10.25	32.139	6.56	.58	8.25	2.23	1.1	5		0	10.25	32.14		24.71	324.9	.3						
10	10.24	32.129	6.54	.57	8.25	2.22	1.1	5		10	10.24	32.13		24.70	325.7	.033						
20	10.21	32.138	6.56	.63	8.25	2.21	1.2	5		20	10.21	32.14		24.72	324.8	.065						
30	10.15	32.160	6.53	.59	8.25	2.21	1.5	5		30	10.15	32.17		24.74	322.3	.097						
50	6.20	32.619	6.96	1.19	8.16	2.23	10.3	15		50	6.20	32.62		25.68	233.2	.153						
101	3.81	33.310	5.06	2.20	7.93	2.28	28.6	47		75	4.24	33.02		26.21	182.3	.205						
202	3.83	33.870	1.58	3.01	7.63	2.33	39.9	73		100	3.86	33.30		26.48	157.5	.247						
400	3.60	34.096	.98	3.22	7.58	2.36	44.6	115		150	3.82	33.67		26.77	130.0	.319						
999	2.73	34.408	.61	3.21	7.61	2.42	41.9	125		200	3.83	33.87		26.93	115.6	.381						
1500	2.19	34.535	1.07	3.33	7.69	2.44	42.8	152		250	3.79	33.98		27.02	106.9	.436						
1998	1.88	34.549	1.92	3.15	7.75	2.45	43.8	169		300	3.74	34.06		27.09	101.1	.488						
2996	1.57	34.660	2.05	2.92	7.87	2.45	37.3	159		400	3.60	34.10		27.14	97.5	.587						
3995	1.47	34.684	3.46	2.87	7.93	2.46	39.1	168		500	3.46	34.17		27.21	90.7	.681						
4994	1.53	34.692	3.76	2.64	7.95	2.45	37.3	158		600	3.31	34.24		27.28	85.4	.769						
5993	1.65	34.692	3.76	2.59	7.95	2.44	36.7	154		700	3.17	34.30		27.34	80.0	.852						
6493	1.73	34.692	3.78	2.60	7.94	2.44	36.5	153		800	3.02	34.35		27.39	75.5	.930						
7042	1.79	34.689	3.84	2.61	7.95	2.44	36.7	152		1000	2.73	34.41		27.46	69.0	1.074						
												1200	2.49	34.47	27.54	62.4	1.205					
												1500	2.20	34.54	27.61	55.7	1.382					
												2000	1.88	34.60	27.65	52.9	1.654					
												2500	1.68	34.61	27.71	49.1	1.908					
												3000	1.57	34.66	27.76	45.4	2.144					
												4000	1.47	34.68	27.79	44.2	2.591					
												5000	1.53	34.69	27.79	47.3	3.348					
												6000	1.65	34.69	27.78	52.6	3.547					
												7000	1.79	34.69	27.77	57.1	4.095					
2 33 53 44.4 N 159 20.9 W DATE 17 AUG 70 0022 GCT WIRE 00 DRY 53.0 WET 52.5 CRUISE Y70078																						
WIND DIRECTION 21 VEL 10 KTS BAR 13 SWELL DIRECTION 22 H 02 T 07 CLOUD 7 AMT 8 WEATHER 10																						
0	11.13	32.411	6.46	.81	8.23	2.18	3.2	3		0	11.13	32.42		24.77	319.3	.0						
10	11.06	32.422	6.42	.61	8.24	2.18	2.5	3		10	11.06	32.43		24.79	317.5	.032						
20	11.00	32.464	6.40	.81	8.22	2.19	5.2	6		20	11.00	32.47		24.83	313.6	.063						
30	10.64	32.474	6.48	.80	8.22	2.20	4.5	5		30	10.64	32.48		24.90	307.1	.094						
50	5.07	32.699	6.80	1.55	8.12	2.21	15.3	20		50	5.07	32.70		25.88	214.4	.147						
100	4.28	33.512	3.07	2.61	7.75	2.26	34.6	53		75	4.67	33.11		26.24	180.0	.196						
199	3.96	33.937	.88	3.26	7.56	2.27	41.2	75		100	4.29	33.52		26.61	145.5	.237						
399	3.65	34.147	.66	3.33	7.58	2.33	46.4	120		150	4.01	33.84		26.89	119.0	.303						
599	3.32	34.265	.51	3.36	7.59	2.35	46.6	134		200	3.96	33.94		26.97	111.3	.360						
998	2.71	34.413	.64	3.03	7.62	2.38	38.1	139		250	3.86	34.04		27.06	103.5	.414						
1494	2.12	34.534	1.12	3.22	7.70	2.41	45.1	169		300	3.78	34.10		27.12	98.1	.464						
1996	1.81	34.596	1.74	3.11	7.77	2.42	43.0	174		400	3.65	34.15		27.17	94.5	.506						
2495	1.65	34.625	2.16	2.96	7.84	2.43	40.7	175		500	3.48	34.21		27.24	87.9	.552						
2993	1.56	34.648	2.72	2.81	7.84	2.43	39.6	171		600	3.32	34.27		27.30	83.7	.737						
3991	1.48	34.671	3.42	2.64	7.91	2.43	37.7	162		700	3.16	34.31		27.35	79.0	.819						
4990	1.54	34.677	3.70	2.64	7.93	2.43	37.0	156		800	3.00	34.35		27.39	74.9	.896						
5988	1.64	34.680	3.76	2.58	7.93	2.42	36.6	151		1000	2.71	34.41		27.47	68.4	1.039						
6557	1.71	34.691	3.78	2.34	7.93	2.42	29.8	142		1200	2.44	34.47		27.54	62.1	1.169						
												1500	2.12	34.53	27.62	55.3	1.345					
												2000	1.81	34.60	27.69	49.3	1.606					
												2500	1.66	34.63	27.72	47.7	1.848					
												3000	1.56	34.65	27.75	46.1	2.342					
												4000	1.48	34.67	27.77	45.2	2.538					
												5000	1.54	34.68	27.77	48.6	3.007					
												6000	1.64	34.68	27.77	53.2	3.513					

OBSERVED										INTERPOLATED					COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD		
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn/cm)		
2 35 55 47.9 N 149 12.3 W DATE 19 AUG 70 1337 GCT WIRE 05 DRY 52.2 WET 51.0 CRUISE Y70078																	
WIND DIRECTION 27 VEL 17 KTS BAR 07 SWELL DIRECTION 24 H 07 T 08 CLOUD 6 AMT 8 WEATHER 10																	
0	10.71	32.715	6.48	1.25	8.19	2.26	10.6	10		0	10.71	32.72	25.08	289.8	0		
10	10.72	32.716	6.56		8.19	2.25				10	10.72	32.72	25.04	290.1	.029		
20	10.73	32.717	6.56	1.09	8.20	2.25	10.8	10		20	10.73	32.72	25.08	290.4	.058		
30	6.46	32.880	7.20	1.56	8.12	2.27	18.3	28		30	6.46	32.88	25.85	216.6	.083		
50	4.51	32.955	6.94	1.63	8.05	2.26	16.7	26		50	4.52	32.96	26.14	189.3	.124		
100	4.11	33.645	2.32	2.54	7.68	2.32	28.7	49		75	4.31	33.28	26.41	163.5	.168		
200	3.91	33.945	.69	3.12	7.53	2.35	28.0	70		100	4.11	33.65	26.73	133.8	.205		
398	3.66	34.145	.67	3.18	7.56	2.35	45.0	111		150	3.96	33.89	26.94	114.4	.267		
598	3.34	34.266	.42	3.65	7.59	2.39	41.0			200	3.91	33.95	26.99	110.1	.323		
998	2.71	34.405	.56	3.17	7.60	2.41	45.0			250	3.84	34.02	27.05	104.2	.377		
1496	2.15	34.537	1.06	3.11	7.67	2.43	44.1			300	3.78	34.08	27.11	99.5	.428		
1994	1.84	34.602	1.70	2.92	7.73	2.46	42.3			400	3.66	34.15	27.17	94.6	.525		
2493	1.66	34.637	2.26	2.73	7.81	2.47	40.9			500	3.50	34.21	27.24	88.1	.616		
2992	1.54	34.659	2.80	2.42	7.86	2.48	30.7			600	3.34	34.27	27.30	83.7	.702		
3989	1.49	34.671	3.36	2.42	7.91	2.47	32.6			700	3.17	34.31	27.35	79.2	.783		
4288	1.50	34.685	3.44	2.30	7.91	2.48	30.5			800	3.01	34.35	27.39	75.3	.861		
4487	1.50	34.689	3.52	2.60	7.92	2.47	37.5			1000	2.71	34.41	27.46	69.0	1.005		
4737	1.50	34.688	3.55	1.96	7.94	2.43	22.5			1200	2.45	34.47	27.53	62.5	1.136		
										1500	2.15	34.54	27.62	55.3	1.313		
										2000	1.84	34.60	27.69	49.2	1.574		
										2500	1.66	34.64	27.73	46.8	1.814		
										3000	1.54	34.66	27.76	45.0	2.043		
										4000	1.49	34.67	27.77	45.4	2.494		
2 38 56 07.3 N 147 12.4 W DATE 21 AUG 70 0620 GCT WIRE 01 DRY 52.5 WET 50.9 CRUISE Y70078																	
WIND DIRECTION 24 VEL 20 KTS BAR 07 SWELL DIRECTION 24 H 06 T 09 CLOUD 6 AMT 8 WEATHER 10																	
0	11.11	32.589	6.54	.89	8.21	2.22	7.3	6		0	11.11	32.59	24.91	305.8	0		
10	11.11	32.586	6.50	.88	8.22	2.22	6.4	5		10	11.11	32.59	24.91	306.3	.031		
20	11.10	32.589	6.50	.89	8.22	2.23	6.7	6		20	11.10	32.59	24.91	306.1	.061		
30	11.08	32.590	6.50	.88	8.22	2.23	8.4	7		30	11.08	32.59	24.92	305.9	.092		
50	4.78	32.902	6.50	1.80	8.04	2.23	22.4	35		50	4.79	32.91	26.07	196.0	.142		
100	4.00	33.731	1.92	2.82	7.63	2.30	33.2	57		75	4.39	33.34	26.46	159.4	.186		
199	3.79	33.921	.82	3.28	7.55	2.33	42.4	77		100	4.01	33.74	26.81	126.2	.222		
398	3.63	34.136	.72	3.35	7.57	2.37	45.2	119		150	3.89	33.83	26.89	118.7	.283		
598	3.36	34.256	.56	3.36	7.59	2.38	45.5	132		200	3.79	33.92	26.95	110.9	.341		
997	2.74	34.411	.64	3.53	7.62	2.42	45.5	153		250	3.74	33.99	27.04	105.6	.395		
1496	2.19	34.522	1.20	2.48	7.68	2.44	27.1	125		300	3.69	34.05	27.09	101.2	.446		
1994	1.87	34.595	1.74	3.16	7.75	2.44	43.0	172		400	3.63	34.14	27.17	95.0	.545		
2491	1.67	34.627	2.32	3.00	7.82	2.46	41.6	174		500	3.50	34.20	27.23	88.8	.636		
2989	1.55	34.654	2.80	2.83	7.87	2.46	39.7	167		600	3.36	34.26	27.29	84.7	.723		
3787	1.47	34.672	3.30	2.35	7.92	2.46	28.2	144		700	3.20	34.30	27.34	79.9	.805		
3987	1.48	34.679	3.38	2.83	7.92	2.46	38.1	165		800	3.04	34.35	27.39	75.7	.883		
4087	1.47	34.681	3.58	2.31	7.93	2.46	28.4	136		1000	2.74	34.41	27.47	68.8	1.028		
4186	1.46	34.685	3.52	2.69	7.94	2.45	38.1	167		1200	2.49	34.46	27.53	63.0	1.159		
										1500	2.19	34.52	27.63	56.9	1.339		
										2000	1.87	34.60	27.68	50.1	1.606		
										2500	1.67	34.63	27.73	47.6	1.850		
										3000	1.55	34.65	27.76	45.5	2.082		
										4000	1.48	34.68	27.78	44.6	2.533		
2 40 56 30.4 N 143 50.6 W DATE 22 AUG 70 1435 GCT WIRE 00 DRY 52.0 WET 50.5 CRUISE Y70078																	
WIND DIRECTION 24 VEL 16 KTS BAR 23 SWELL DIRECTION 24 H 04 T 07 CLOUD 8 AMT 8 WEATHER 02																	
0	11.51	32.284	6.40	.75	8.21	2.20	4.6	9		0	11.51	32.29	24.60	335.2	0		
10	11.51	32.287	6.42	.83	8.20	2.20	5.1	10		10	11.51	32.29	24.60	335.2	.034		
20	11.51	32.293	6.40	.74	8.21	2.20	5.1	10		20	11.51	32.30	24.61	334.9	.067		
30	8.75	32.549	6.93	1.21	8.17	2.20	11.4	21		30	8.75	32.55	25.27	272.1	.097		
50	6.05	32.652	7.01	1.13	8.14	2.21	10.9	19		50	6.06	32.66	25.72	228.9	.147		
99	4.48	33.160	5.18	1.90	7.95	2.24	23.4	37		75	4.75	32.90	26.06	196.7	.201		
199	3.88	33.847	1.38	2.30	7.60	2.30	25.2	52		100	4.46	33.17	26.31	173.5	.247		
398	3.83	34.097	.88	3.17			43.1	108		150	3.93	33.56	26.65	138.9	.325		
596	3.54	34.243	.48	3.22	7.58	2.36	45.6	126		200	3.88	33.85	26.91	117.2	.389		
994	2.86	34.399	.51	3.22	7.63	2.40	45.3	148		250	3.87	33.99	27.02	107.2	.445		
1989	1.94	34.592	1.68	2.98	7.73	2.44	42.9	169		300	3.85	34.07	27.09	101.1	.497		
2486	1.70	34.638	2.24	2.76	7.82	2.44	41.3	174		400	3.83	34.10	27.11	100.0	.598		
2983	1.57		2.48	2.93	7.72	2.41	42.6			500	3.70	34.18	27.19	92.6	.694		
3678	1.46	34.686	3.36		7.91	2.44				600	3.53	34.25	27.26	87.4	.784		
3728	1.46	34.686	3.38	2.41	7.93	2.44	32.8			700	3.36	34.29	27.32	82.3	.869		
3758	1.48		3.44	2.09			25.8			800	3.19	34.34	27.37	77.8	.949		
3778	1.43	34.689	3.54	2.06	7.93	2.44	25.5			1000	2.85	34.40	27.45	70.9	1.097		
										1200	2.60	34.46	27.51	64.8	1.233		
										1500	2.29	34.52	27.59	58.0	1.417		
										2000	1.93	34.59	27.68	51.0	1.689		
										2500	1.70	34.64	27.73	47.1	1.934		
										3000	1.57	34.67	27.77	44.6	2.163		

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	
2 41 57 10.2 N 141 03.6 W DATE 23 AUG 70 1208 GCT WIRE 02 DRY 53.0 WET 51.2 CRUISE Y70078																
WIND DIRECTION 25 VEL 14 KTS BAR 27 SWELL DIRECTION 24 H 04 T 08 CLOUD 6 AMT 8 WEATHER 02																
0	11.71	32.210	6.37	.63	8.22	2.21	2.9	5		0	11.71	32.21	24.51	344.1	0	
10	11.72	32.210	6.39	.59	8.22	2.20	2.5	4		10	11.72	32.21	24.51	344.5	.034	
20	11.67	32.271	6.40	1.41	8.21	2.19	4.8	9		20	11.67	32.28	24.56	339.3	.069	
30	9.00	32.484	6.85	1.10	8.17	2.21	10.0	18		30	9.00	32.49	25.15	280.6	.100	
50	5.90	32.587	6.77	1.41	8.12	2.22	15.4	25		50	5.91	32.59	25.69	232.0	.151	
100	5.19	33.043	5.08	1.41	7.97	2.24	15.7	25		75	5.54	32.78	25.89	213.8	.207	
149	5.06	33.695	2.79	2.20	7.77	2.29	26.6	44		100	5.19	33.05	26.13	190.3	.257	
199	4.56	33.902	1.48		7.62	2.31	36.5	67		150	5.05	33.70	26.67	140.3	.340	
398	3.85	34.099	.72	3.02	7.58	2.35	45.0	110		200	4.55	33.90	26.88	120.2	.405	
598	3.57	34.233	.56	3.20	7.59	2.37	45.5	124		250	4.26	34.00	26.99	110.1	.462	
996	2.84	34.403	.48	3.11	7.62	2.41	45.6	148		300	4.04	34.07	27.07	103.4	.516	
1495	2.20	34.526	1.02	3.25	7.68	2.44	45.5	191		400	3.85	34.10	27.11	100.0	.617	
1993	1.87	34.596	1.62	2.99	7.73	2.46	43.0	170		500	3.68	34.17	27.19	93.1	.714	
2491	1.67	34.633	2.23	2.86	7.81	2.45	41.6	174		600	3.57	34.23	27.25	88.6	.805	
3249	1.47	34.672	3.07	3.06	7.91	2.46	38.9	170		700	3.38	34.29	27.31	83.2	.891	
3298	1.47	34.674	3.19	2.57	7.91	2.46	37.9	165		800	3.20	34.33	27.36	78.4	.971	
3328	1.45	34.682	3.17	2.66	7.92	2.46	37.9	164		1000	2.83	34.40	27.45	70.4	1.120	
3348	1.43	34.684	3.25	2.54	7.91	2.45	36.1	154		1200	2.54	34.46	27.52	63.7	1.254	
										1500	2.20	34.53	27.60	56.7	1.434	
										2000	1.87	34.60	27.69	50.0	1.701	
										2500	1.67	34.63	27.73	47.2	1.943	
										3000	1.51	34.66	27.76	44.4	2.172	

2 42 57 47.0 N 138 23.0 W DATE 24 AUG 70 0502 GCT WIRE 03 DRY 53.8 WET 51.8 CRUISE Y70078															
WIND DIRECTION 30 VEL 10 KTS BAR 27 SWELL DIRECTION 26 H 04 T 07 CLOUD 6 AMT 8 WEATHER 02															
0	12.02	31.823	6.41	.54	8.19	2.22		6		0	12.02	31.83	24.15	378.1	0
10	11.96	31.877	6.44	.64	8.18	2.20	2.2	7		10	11.96	31.88	24.20	373.3	.038
20	11.76		6.28	.69			2.3	8		20	11.76	31.93	24.27	366.7	.075
30	11.39	31.981	6.28	.65	8.19	2.20	2.9	8		30	11.39	31.99	24.39	356.1	.111
50	8.46	32.143	5.57	1.38	8.06	2.21	14.4	23		50	8.46	32.15	25.00	298.4	.176
100	6.24	32.608	5.84	1.43	8.04	2.20	15.7	23		75	6.83	32.36	25.40	260.5	.246
199	5.02	33.788	2.43	2.58	7.71	2.31	35.0	58		100	6.24	32.61	25.67	235.1	.308
399	4.02	34.043	1.11	3.18	7.60	2.35	41.1	84		150	5.33	33.23	26.26	179.0	.411
598	3.77	34.172	.72	2.79	7.59	2.37	35.5	80		200	5.01	33.79	26.74	133.5	.490
698	3.61	34.227	.72	3.27	7.58	2.39	41.9	99		250	4.64	33.99	26.95	114.8	.552
997	3.10	34.356	.48	3.22	7.60	2.41	39.8	109		300	4.35	33.92	26.92	118.0	.610
1496	2.35	34.500	.80	3.19	7.64	2.44	44.1	122		400	4.02	34.04	27.05	106.1	.722
2044	1.86	34.593	1.75	3.05	7.73	2.45	40.0	123		500	3.85	34.12	27.13	99.0	.824
2493	1.65	34.638	2.23	2.95	7.79	2.47	38.1	126		600	3.77	34.17	27.18	95.3	.921
										700	3.61	34.23	27.24	89.9	1.014
										800	3.44	34.28	27.29	85.1	1.101
										1000	3.09	34.36	27.39	76.7	1.263
										1200	2.77	34.42	27.47	69.1	1.409
										1500	2.35	34.50	27.57	60.3	1.603
										2000	1.89	34.59	27.68	50.9	1.881
										2500	1.65	34.64	27.74	46.5	2.124

2 43 58 55.4 N 136 06.0 W DATE 24 AUG 70 2339 GCT WIRE 09 DRY 51.0 WET 47.0 CRUISE Y70078															
WIND DIRECTION 34 VEL 08 KTS BAR 20 SWELL DIRECTION H T CLOUD 8 AMT 1 WEATHER 01															
0	5.45	25.845	6.52	1.27	8.10	1.83	18.1	29		0	5.45	25.85	20.43	734.1	0
10	5.48	29.006	5.72	1.47	8.04	1.99	22.2	30		10	5.48	29.01	22.92	496.0	.061
20	5.93	29.955	5.49	1.55			20.0	30		20	5.94	29.96	23.61	429.4	.108
30	6.40	30.255	5.34	1.65	8.00	2.07	20.1	32		30	6.41	30.26	23.80	412.3	.150
50	6.65	30.508	5.25	1.64	7.99	2.08	20.7	33		50	6.66	30.51	23.96	396.5	.231
75	6.53	30.600	5.25	1.53	8.00	2.09	16.3	27		75	6.54	30.60	24.05	388.4	.329
100	6.41	30.665	5.29	1.62	8.00	2.10	23.9	34		100	6.42	30.67	24.12	382.4	.425
125	6.31	30.697	5.39	1.64	8.00	2.12	24.1	34		150	6.29	30.76	24.21	374.2	.614
150	6.28		5.49	1.76			23.8	32		200	5.60	30.89	24.39	357.1	.797
175	6.01		5.66	1.70			20.7	31							
185	5.81														
200	5.60	30.888	5.72	1.70	8.00	2.12	24.8	32							
210	5.54														
225	5.49	30.907	5.72	1.48	8.00	2.11	23.0	27							



OBSERVED								INTERPOLATED			COMPUTED				
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

CTD 5 46 10.1 N 125 00.2 W DATE 28 AUG 70 1836 GCT WIRE DRY 66.5 WET 62.5 CRUISE C7008E
 WIND DIRECTION 34 VEL 05 KTS BAR 13 SWELL DIRECTION 28 H 04 T 08 CLOUD 6 AMT 8 WEATHER 01

0	15.81	32.064
5	15.63	32.079
10	15.62	32.080
20	15.37	32.090
30	12.19	32.206
40	10.06	32.351
50	9.35	32.432
60	9.00	32.475
75	8.07	32.503
100	7.90	32.973
125	7.61	33.409
150		33.709
200		33.938

0	15.81	32.07	23.56	434.1	0
10	15.63	32.08	23.62	429.2	.043
20	15.38	32.09	23.68	423.5	.096
30	12.19	32.21	24.42	353.5	.125
50	9.35	32.44	25.08	290.1	.189
75	8.07	32.51	25.34	266.5	.259
100	7.91	32.98	25.73	229.5	.321
150	6.29	33.71	26.53	154.0	.416
200	5.60	33.94	26.79	129.6	.487

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		($\times 10^5$)	(dyn.m)

CTD 13 46 19.8 N 124 47.2 W DATE 29 AUG 70 1617 GCT WIRE DRY 57.5 WET 56.1 CRUISE C7008E
WIND DIRECTION 02 VEL 16 KTS BAR 12 SWELL DIRECTION 28 H 02 T 08 CLOUD 1 AMT 2 WEATHER 01

0	13.90	31.973	0	13.90	31.98	23.90	401.9	0
5	13.86	31.974	10	12.63	32.03	24.20	374.0	.039
10	12.63	32.030	20	10.53	32.29	24.77	319.3	.073
20	10.53	32.282	30	10.17	32.55	25.04	294.3	.104
30	10.17	32.543	50	8.18	32.84	25.58	242.7	.158
40	8.62	32.612	75	7.38	33.30	26.05	198.1	.213
50	8.18	32.839	100	7.14	33.73	26.43	162.9	.258
60	7.80	33.042	150	6.29	33.96	26.72	135.5	.333
75	7.37	33.293	200	5.60	33.96	26.81	127.7	.398
100	7.13	33.727						
125	6.97	33.861						
150		33.957						
200		33.963						

CTD 28 45 50.0 N 125 03.0 W DATE 31 AUG 70 0150 GCT WIRE 00 DRY 59.9 WET 58.0 CRUISE C7008E
WIND DIRECTION 33 VEL 10 KTS BAR SWELL DIRECTION 33 H 05 T 08 CLOUD 6 AMT 7 WEATHER 01

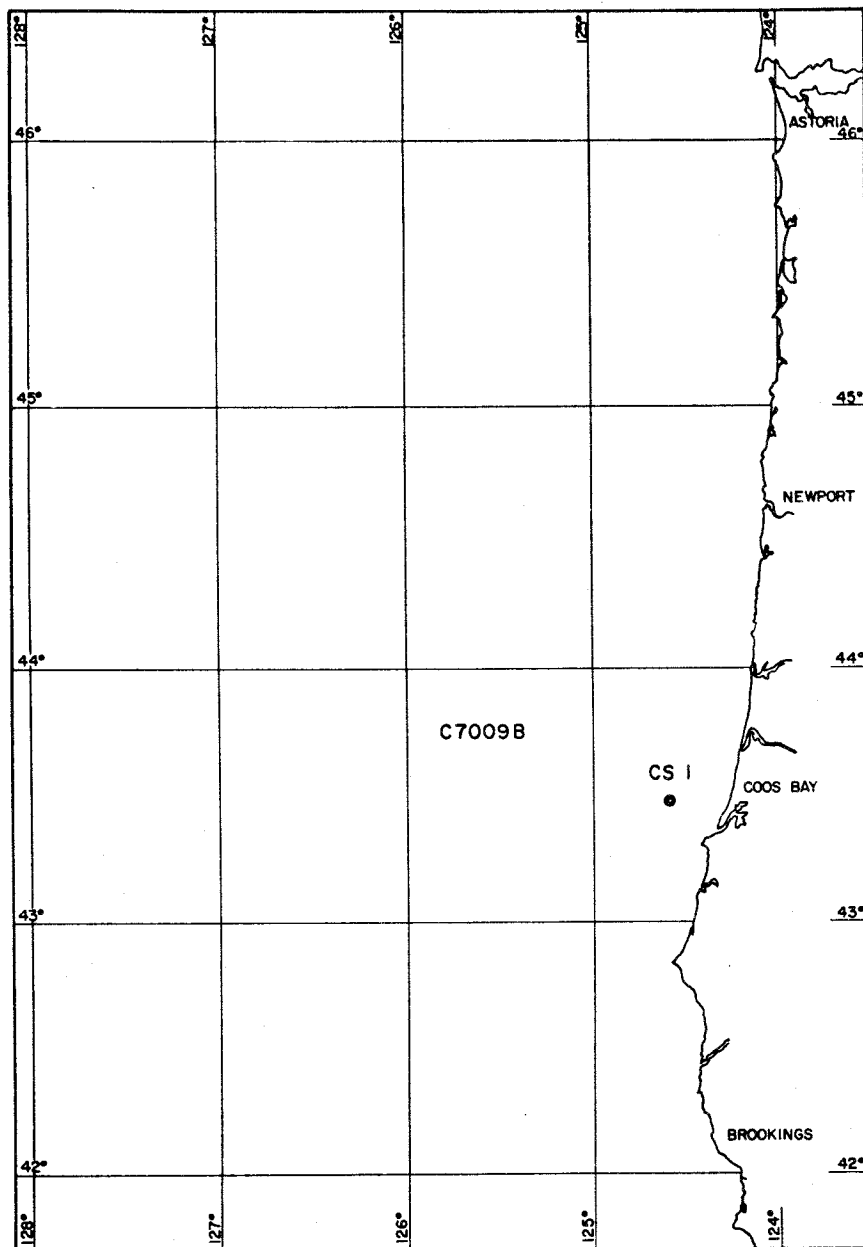
0	15.63	32.096	0	15.63	32.10	23.63	427.9	0
5	15.63	32.094	10	15.64	32.09	23.62	429.0	.043
10	15.64	32.088	20	15.63	32.10	23.63	428.8	.086
20	15.63	32.092	30	15.26	32.09	23.70	421.6	.128
30	15.26	32.088	50	10.88	32.22	24.66	330.2	.203
40	11.74	32.180	75	8.93	32.47	25.18	281.4	.280
50	10.88	32.220	100	7.99	32.80	25.58	243.7	.345
60	10.14	32.377	150	7.60	33.62	26.27	178.7	.451
75	8.93	32.469	200	6.94	33.90	26.59	149.4	.533
100	7.99	32.800						
125	7.44	33.246						
150	7.60	33.611						
200	6.94	33.899						

CTD 35 45 59.9 N 124 46.5 W DATE 31 AUG 70 2320 GCT WIRE 01 DRY 58.6 WET 57.6 CRUISE C7008E
WIND DIRECTION 27 VEL 05 KTS BAR 13 SWELL DIRECTION 31 H 04 T 09 CLOUD 6 AMT 8 WEATHER 02

0	13.82	32.009	0	13.82	32.01	23.95	397.7	0
5	13.69	32.023	10	13.35	32.06	24.08	385.3	.039
10	13.35	32.059	20	10.75	32.25	24.71	325.6	.075
20	10.75	32.245	30	9.27	32.39	25.06	292.0	.106
30	9.27	32.385	50	8.14	32.51	25.33	266.7	.161
40	8.82	32.429	75	7.74	32.74	25.56	245.0	.225
50	8.14	32.508	100	7.38	33.37	26.11	192.8	.280
60	8.03	32.562	150	7.15	33.87	26.54	153.6	.367
75	7.74	32.731	200	6.64	33.97	26.68	140.1	.440
100	7.37	33.369						
125	7.44	33.700						
150	7.14	33.865						
200	6.64	33.970						

CTD 47 46 00.2 N 127 39.0 W DATE 01 SEP 70 1435 GCT WIRE DRY 50.0 WET 56.4 CRUISE C70008
WIND DIRECTION 33 VEL 05 KTS BAR 16 SWELL DIRECTION 33 H 04 T 09 CLOUD 6 AMT 6 WEATHER 01

0	15.96	32.286	0	15.96	32.29	23.70	421.0	0
5	15.98	32.287	10	15.98	32.30	23.71	420.8	.042
10	15.98	32.299	20	15.97	32.33	23.73	419.1	.084
20	15.97	32.323	30	15.91	32.34	23.75	417.4	.126
30	15.91	32.332	50	11.09	32.44	24.81	317.5	.199
40	13.34	32.449	75	9.34	32.51	25.14	285.0	.275
50	11.09	32.440	100	9.15	32.89	25.47	254.4	.342
60	10.40	32.480	150	8.77	33.76	26.21	185.3	.452
75	9.34	32.504	200	7.99	33.88	26.43	165.0	.540
100		32.863						
125		33.600						
150	8.77	33.751						
200	7.99	33.885						



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁻³)	(dyn.m)

CS 1 43 28.2 N 124 35.5 W DATE 09 SEP 70 0338 GCT WIRE 50 DRY 55.8 WET 53.0 CRUISE C70098
 WIND DIRECTION 34 VEL 20 KTS BAR 20 SWELL DIRECTION 30 H 06 T CLOUD AMT 0 WEATHER 02

0	11.89	32.987								0	11.89	32.99	25.08	290.0	0
10	11.85	32.995								10	11.85	33.00	25.09	288.9	.029
20	11.51	33.019								20	11.51	33.02	25.17	281.4	.057
30	10.10	33.242								30	10.10	33.25	25.59	241.5	.084
50	8.87	33.575								50	8.88	33.58	26.05	198.1	.129
75	8.48	33.676								75	8.48	33.68	26.19	185.2	.175
100	8.10	33.785								100	8.10	33.79	26.33	172.1	.220

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OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

CB 3 43 17.5 N 124 35.6 W DATE 16 OCT 70 0005 GCT WIRE DRY 53.0 WET 49.8 CRUISE C7010C
WIND DIRECTION 18 VEL 12 KTS BAR 19 SWELL DIRECTION 28 H 04 T 08 CLOUD AMT 8 WEATHER 45

0	10.27	33.331								0	10.27	33.34	25.63	237.0	0
10	9.83	33.413								10	9.83	33.42	25.77	224.1	.023
20	9.60	33.508								20	9.60	33.51	25.88	213.7	.045
30	9.37	33.569								30	9.38	33.57	25.97	205.8	.066
40	8.98	33.641								50	9.05	33.68	26.10	193.5	.106
49	9.06	33.675								75	8.30	33.78	26.30	175.0	.152
60	8.97	33.694								100	7.74	33.90	26.47	158.9	.194
70	8.67	33.705													
80	7.95	33.854													
90	7.80	33.812													
100	7.74	33.894													

CB 5 43 13.3 N 124 45.2 W DATE 16 OCT 70 0155 GCT WIRE DRY 50.9 WET 49.6 CRUISE C7010C
WIND DIRECTION 18 VEL 12 KTS BAR 19 SWELL DIRECTION 31 H 04 T 08 CLOUD 6 AMT 8 WEATHER 02

0	10.69	33.250								0	10.69	33.25	25.50	249.9	0
10	9.98	33.365								10	9.98	33.37	25.71	230.1	.024
20	9.52	33.468								20	9.52	33.47	25.87	215.4	.046
30	9.37	33.507								30	9.38	33.51	25.92	210.3	.068
50	9.18	33.664								50	9.18	33.67	26.07	196.2	.108
62	8.78	33.664								75	8.18	33.74	26.28	176.5	.155
75	8.18	33.735								100	7.93	33.85	26.41	164.9	.197
87	8.08	33.790								150	7.71	33.95	26.52	155.6	.278
100	7.92	33.847								200	7.48	33.97	26.57	151.5	.354
125	7.76	33.902								250	7.26	33.99	26.61	148.0	.429
150	7.71	33.943								300	6.95	34.01	26.67	142.6	.502
175	7.55	33.956													
200	7.48	33.965													
300	6.95	34.013													

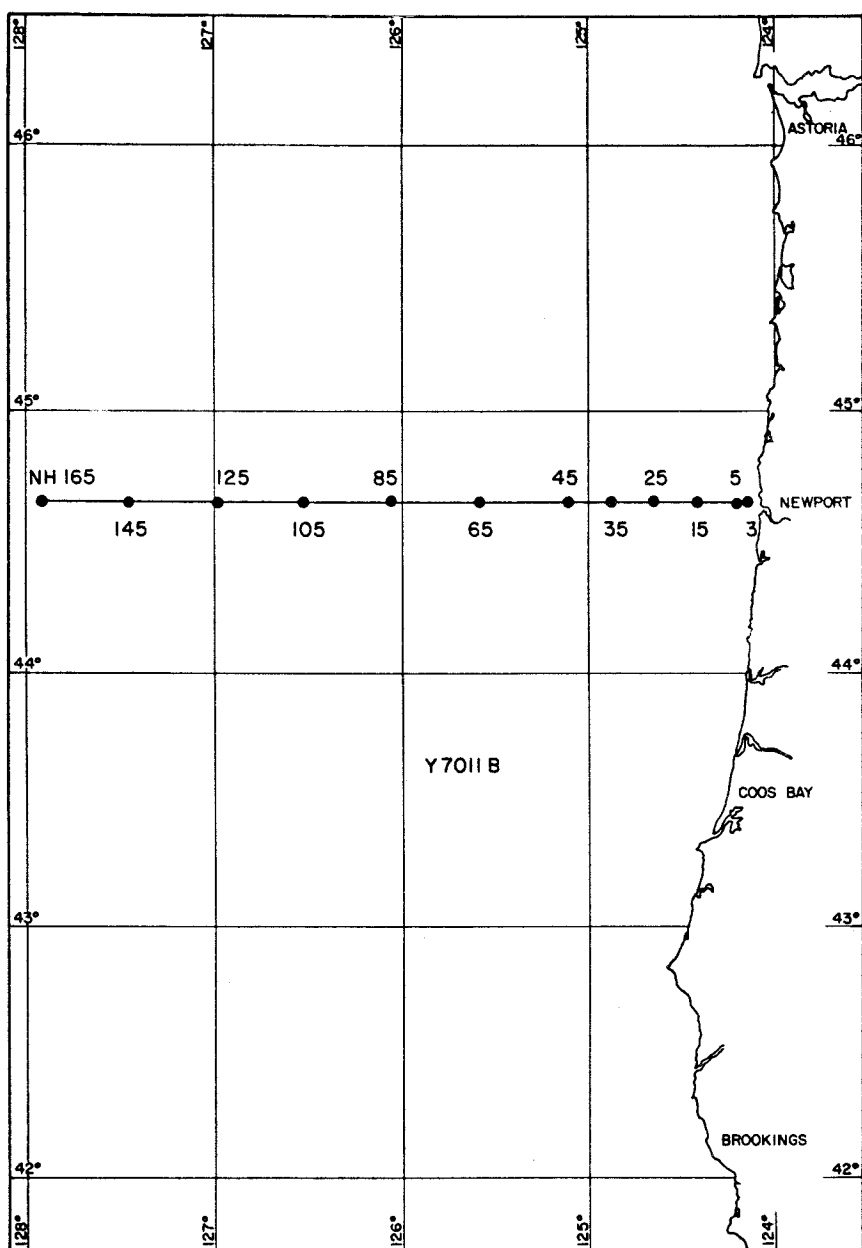
CB 6 43 10.7 N 124 54.0 W DATE 16 OCT 70 0420 GCT WIRE DRY 50.6 WET 49.1 CRUISE C7010C
WIND DIRECTION 16 VEL 13 KTS BAR 19 SWELL DIRECTION 31 H 03 T 07 CLOUD 6 AMT 8 WEATHER 02

0	10.95	33.209								0	10.95	33.21	25.42	257.3	0
10	10.25	33.349								10	10.25	33.35	25.65	235.6	.025
19	9.39	33.428								20	9.32	33.44	25.87	214.6	.047
29	8.83	33.553								30	8.79	33.56	26.05	197.7	.068
48	8.44	33.688								50	8.43	33.69	26.21	183.0	.106
60	8.37	33.715								75	8.21	33.76	26.29	175.6	.151
73	8.24	33.750								100	7.92	33.86	26.42	164.3	.193
84	8.10	33.796								150	7.35	33.91	26.54	153.2	.272
97	7.96	33.852								200	7.03	33.96	26.62	146.3	.347
145	7.39	33.905								250	6.71	33.92	26.63	145.8	.420
195	7.06	33.961								300	6.39	33.90	26.65	143.7	.493
292	6.45	33.884								400	5.78	34.08	26.88	123.9	.626
390	5.83	34.073													
438	5.64	34.091													

CB 7 43 10.1 N 124 54.6 W DATE 16 OCT 70 0618 GCT WIRE DRY 51.1 WET 49.9 CRUISE C7010C
WIND DIRECTION 16 VEL 12 KTS BAR 20 SWELL DIRECTION 31 H 03 T 07 CLOUD 6 AMT 8 WEATHER 02

0	11.34	33.117								0	11.34	33.12	25.28	270.8	0
10	9.90	33.394								10	9.90	33.40	25.74	226.6	.025
19	9.58	33.477								20	9.55	33.44	25.87	214.9	.047
29	9.33	33.534								30	9.32	33.54	25.95	207.3	.068
48	9.19	33.571								50	9.18	33.57	26.00	203.4	.109
60	9.05	33.589								75	8.36	33.70	26.23	181.6	.157
72	8.43	33.690								100	8.04	33.79	26.35	171.0	.201
84	8.23	33.739								150	7.60	33.90	26.50	157.4	.283
145	7.65	33.895								200	7.13	33.96	26.61	147.3	.360
194	7.19	33.956								250	6.66	33.99	26.70	139.2	.431
290	6.33	34.016								300	6.28	34.02	26.77	133.0	.499
387	5.95	34.091								400	5.89	34.10	26.88	123.7	.627
581	4.86	34.238								500	5.37	34.18	27.01	112.1	.745
										600	4.75	34.25	27.14	100.6	.852

OBSERVED										INTERPOLATED				COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ³)	(dyn.m)	
CB 11 42 55.2 N 125 32.0 W DATE 16 OCT 70 1345 GCT WIRE DRY 50.3 WET 50.2 CRUISE C7010C																
WIND DIRECTION VEL 00 KTS BAR 20 SWELL DIRECTION31 H 02 T 07 CLOUD 6 AMT 8 WEATHER 02																
0	13.28	32.596								0	13.28	32.60	24.51	344.3	0	
10	13.29	32.598								10	13.29	32.60	24.51	344.6	.034	
19	13.30	32.606								20	13.28	32.61	24.51	344.1	.069	
29	13.07	32.628								30	12.93	32.64	24.61	335.2	.103	
48	10.12	32.999								50	9.97	33.03	25.45	255.6	.162	
71	9.15	33.333								75	9.04	33.38	25.87	215.9	.221	
95	8.63	33.571								100	8.53	33.61	26.13	191.9	.272	
143	7.80	33.811								150	7.72	33.83	26.43	164.1	.361	
191	7.33	33.936								200	7.24	33.95	26.58	149.9	.439	
287	6.45	33.997								250	6.77	33.99	26.68	141.2	.512	
383	5.87	34.067								300	6.36	34.01	26.75	135.2	.581	
574	5.02	34.176								400	5.78	34.08	26.88	124.0	.711	
										500	5.30	34.14	26.98	114.1	.830	
CB 13 42 48.2 N 125 49.0 W DATE 16 OCT 70 1615 GCT WIRE DRY 50.5 WET 50.1 CRUISE C7010C																
WIND DIRECTION 27 VEL 09 KTS BAR 20 SWELL DIRECTION30 H 03 T 06 CLOUD 6 AMT 8 WEATHER 02																
0	13.31	32.585								0	13.31	32.59	24.49	345.6	0	
10	13.30	32.583								10	13.30	32.59	24.49	345.8	.035	
20	13.29	32.593								20	13.29	32.60	24.50	345.2	.069	
30	13.16	32.585								30	13.16	32.59	24.52	343.5	.104	
50	10.83	32.942								50	10.83	32.95	25.23	276.1	.165	
62	10.01	33.139								75	9.38	33.38	25.82	221.0	.228	
75	9.37	33.374								100	9.09	33.59	26.03	201.2	.280	
87	9.09	33.401								150	8.05	33.85	26.39	167.5	.373	
100	9.09	33.590								200	7.25	33.96	26.59	149.3	.452	
125	8.27	33.752														
150	8.05	33.848														
175	7.56	33.910														
200	7.25	33.956														
CB 15 42 41.8 N 126 07.6 W DATE 16 OCT 70 1915 GCT WIRE 03 DRY 55.4 WET 51.9 CRUISE C7010C																
WIND DIRECTION 32 VEL 06 KTS BAR 21 SWELL DIRECTION30 H 04 T 06 CLOUD 6 AMT 8 WEATHER 02																
0	12.73	32.727								0	12.73	32.73	24.72	324.3	0	
10	12.71	32.725								10	12.71	32.73	24.72	324.3	.032	
20	12.65	32.732								20	12.65	32.74	24.74	323.0	.065	
30	12.33	32.745								30	12.33	32.75	24.81	316.4	.097	
50	10.35	32.848								50	10.35	32.85	25.24	275.1	.156	
75	9.39	33.233								75	9.39	33.24	25.70	231.8	.219	
100	9.02	33.622								100	9.02	33.63	26.07	197.8	.273	
149	8.05	33.830								150	8.03	33.83	26.38	168.7	.364	
200	7.35	33.921								200	7.35	33.93	26.55	153.0	.445	
300	7.68	34.020								250	7.50	33.98	26.57	151.7	.521	
400	5.99	34.050								300	7.69	34.02	26.58	152.0	.597	
600	4.91	34.244								400	5.99	34.05	26.83	128.5	.737	
800	4.19	34.341								500	5.24	34.14	26.99	113.1	.858	
1000	3.62	34.412								600	4.92	34.25	27.12	102.8	.966	
										700	4.52	34.30	27.20	95.0	1.065	
										800	4.19	34.35	27.27	88.5	1.156	
										1000	3.62	34.41	27.38	78.6	1.323	
CB 19 42 27.0 N 126 42.6 W DATE 17 OCT 70 0114 GCT WIRE DRY 56.5 WET 52.5 CRUISE C7010C																
WIND DIRECTION VEL 00 KTS BAR 20 SWELL DIRECTION31 H 02 T 08 CLOUD 6 AMT 7 WEATHER 02																
0	11.86	32.791								0	11.86	32.80	24.93	303.9	0	
10	11.71	32.817								10	11.71	32.82	24.98	299.6	.030	
19	11.55	32.827								20	11.53	32.83	25.02	295.8	.060	
29	11.14	32.870								30	11.03	32.89	25.16	282.9	.089	
48	8.90	33.390								50	8.78	33.42	25.95	208.3	.139	
72	8.05	33.648								75	7.99	33.67	26.26	179.1	.186	
96	7.70	33.763								100	7.66	33.78	26.39	166.6	.230	
143	7.30	33.898								150	7.26	33.92	26.55	151.8	.309	
192	7.07	33.998								200	7.02	34.01	26.66	142.3	.383	
288	6.33	34.057								250	6.65	34.05	26.74	135.1	.452	
384	5.55	34.054								300	6.22	34.06	26.81	129.7	.518	
576	4.96	34.205								400	5.48	34.06	26.90	121.3	.644	
768	4.36	34.318								500	5.12	34.13	27.00	112.2	.760	
960	3.98	34.377								600	4.88	34.22	27.10	104.4	.869	
										700	4.56	34.28	27.18	96.7	.969	
										800	4.28	34.33	27.25	90.6	1.063	



OBSERVED										INTERPOLATED			COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)	(x10 ⁵)	(dyn.m)	

NH 3 44 39.1 N 124 07.8 W DATE 20 NOV 70 0520 GCT WIRE 02 DRY 51.7 WET 46.9 CRUISE Y7011B
WIND DIRECTION 30 VEL 10 KTS BAR 21 SWELL DIRECTION 32 H 03 T 06 CLOUD 6 AMT 8 WEATHER 00

0	11.58	31.798	6.32
10	11.59	32.427	6.27
20	11.52	32.591	6.19
30	11.48	32.717	6.19

0	11.58	31.80	24.21	372.3	0
10	11.59	32.43	24.70	326.2	.035
20	11.52	32.60	24.84	313.1	.067
30	11.48	32.72	24.94	303.3	.098

NH 5 44 38.8 N 124 11.4 W DATE 20 NOV 70 0800 GCT WIRE 00 DRY 48.0 WET 51.0 CRUISE Y7011B
WIND DIRECTION 28 VEL 12 KTS BAR 20 SWELL DIRECTION 32 H 04 T 07 CLOUD 6 AMT 8 WEATHER 02

0	11.46	32.359	6.24
10	11.48	32.760	6.15
20	11.51	32.779	6.13
30	11.49	32.787	6.13
40	11.45	32.798	6.08

0	11.46	32.36	24.67	328.8	0
10	11.48	32.76	24.98	299.7	.031
20	11.51	32.78	24.99	299.1	.061
30	11.49	32.79	25.00	298.4	.091

OBSERVED

INTERPOLATED

COMPUTED

OBSERVED										INTERPOLATED				COMPUTED	
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

0	11.12	32.407	6.27	0	11.13	32.41	24.77	319.4	0
10	11.09	32.412	6.30	10	11.09	32.42	24.78	318.8	.032
20	11.11	32.414	6.39	20	11.11	32.42	24.77	319.2	.064
30	11.07	32.424	6.19	30	11.07	32.43	24.79	317.9	.096
40	10.14	32.781	5.64	50	8.57	33.00	25.65	236.5	.151
50	8.57	32.997	5.05	75	7.97	33.46	26.10	194.1	.205
61	8.18	33.196	4.65	100	7.69	33.68	26.31	174.4	.251
74	7.99	33.452	4.09	150	7.25	33.85	26.50	156.7	.334
86		33.558	4.03	200	6.78	33.94	26.64	144.4	.409
99	7.69	33.673	3.94	250	6.43	33.99	26.73	136.4	.479
124	7.64	33.791	3.20	300	5.94	34.00	26.80	130.1	.546
149	7.26	33.844	3.14	400	4.79	34.02	26.95	116.2	.669
198	6.79	33.933	2.70	500	4.65	34.12	27.04	107.9	.781
248	6.45	33.993	2.07	600	4.49	34.23	27.15	99.5	.884
297	5.99	34.004	1.83	700	4.22	34.29	27.22	92.5	.980
396	4.81	34.020	1.40	800	3.92	34.34	27.29	86.1	1.070
595	4.50	34.222	1.56	1000	3.41	34.43	27.42	74.6	1.230
793	7.94	34.331	0.61	1200	3.07	34.48	27.49	68.6	1.373
991	3.43	34.431	0.52						
1189	3.09	34.474	0.55						

OBSERVED

INTERPOLATED

COMPUTED

OBSERVED										INTERPOLATED					
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mm)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

[illegible]

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)
NH 30	44	39.5	N	124	46.0	W									
WIND DIRECTION	25	VEL	25	KTS											
DATE 01 DEC 70	0901	GCT	WIRE 09	DRY 45.5	WET 43.0	CRUISE Y70110									
BAR 05	SWELL	DIRECTION	25	4 08	T 06	CLOUD 6	AMT 8	WEATHER 03							

J	10.76	32.638	6.14	0	10.76	32.64	25.01	296.3	0
10	10.76	32.635	6.10	10	10.76	32.64	25.01	296.8	.030
20	10.77	32.635	6.10	20	10.77	32.64	25.01	297.1	.059
30	10.74	32.635	6.09	30	10.74	32.64	25.01	296.8	.089
40	11.79	32.643	6.10	50	9.82	33.09	25.52	249.1	.144
50	9.82	33.084	5.10	75	8.96	33.25	25.78	224.0	.203
62	9.30	33.185	4.70	100	8.39	33.82	26.32	173.7	.252
75	8.96	33.249	4.66	150	7.72	33.91	26.48	158.8	.336
87	8.29	33.547	4.05						
100	8.39	33.820	2.98						
125	8.02	33.828	3.09						
150	7.72	33.901	2.85						
200		33.911	2.78						

NH 45 44 39.1 N 125 06.1 W DATE 01 DEC 70 1525 GCT WIRE 17 DRY 47.9 WET 42.7 CRUISE Y70110
WIND DIRECTION 20 VEL 26 KTS BAR 05 SWELL DIRECTION 25 H 08 T 08 CLOUD 6 AMT 5 WEATHER 01

0	11.06	32.590	6.09	0	11.06	32.59	24.92	304.9	0
10	11.05	32.596	6.11	10	11.05	32.60	24.93	304.5	.030
20	11.06	32.591	6.06	20	11.06	32.60	24.92	305.2	.061
29	11.05	32.595	6.07	30	11.08	32.59	24.92	305.7	.091
49	11.10	32.592	6.07	50	10.99	32.61	24.95	303.4	.152
73	8.35	33.195	4.64	75	8.26	33.23	25.87	215.4	.217
98	7.86	33.549	4.04	100	7.85	33.57	26.20	184.6	.267
122	7.77	33.769	3.44	150	7.54	33.87	26.48	158.9	.353
146	7.58	33.856	3.04	200	7.08	33.96	26.61	146.9	.429
171	7.32	33.930	2.74	250	6.60	34.00	26.71	138.2	.501
195	7.13	33.953	2.58	300	6.23	34.01	26.77	133.4	.569
244	6.65	33.997	2.16	400	5.69	34.08	26.89	122.9	.697
293	6.27	34.004	2.02	500	5.11	34.13	27.00	112.7	.815
391	5.74	34.072	1.26						
488	5.18	34.120	.90						

NH 65 44 39.5 N 125 35.0 W DATE 01 DEC 70 2228 GCT WIRE 00 DRY 48.0 WET 43.2 CRUISE Y7011D
WIND DIRECTION 24 VEL 20 KTS BAR 02 SWELL DIRECTION 30 H 08 T 05 CLOUD 6 AMT 6 WEATHER 02

0	10.50	32.378	6.30	0	10.50	32.39	24.85	311.3	0
10	10.50	32.373		10	10.50	32.38	24.85	311.9	.031
20	10.51	32.377	6.25	20	10.51	32.38	24.85	311.9	.062
30	10.51	32.393	6.22	30	10.51	32.40	24.86	310.9	.093
40	10.49	32.398	6.26	50	9.46	32.86	25.40	260.5	.151
50	9.46	32.854	5.27	75	8.66	33.55	26.06	197.5	.208
62	8.92	33.256	4.62	100	7.82	33.66	26.28	177.4	.255
75	8.66	33.547	4.30	150	7.45	33.88	26.50	156.8	.338
87	8.40	33.644	3.94	200	6.80	33.94	26.64	144.3	.413
100	7.81	33.658	3.72	250	6.29	33.96	26.72	136.9	.484
124	7.60	33.773	3.39	300	5.69	33.96	26.79	130.4	.551
149	7.46	33.879	3.08	400	5.51	34.10	26.93	119.4	.675
199	6.81	33.941	2.78	500	5.16	34.13	27.03	109.7	.790
249	6.30	33.961	2.45	600	4.75	34.23	27.12	102.5	.896
299	5.69	33.956	2.35	700	4.36	34.28	27.20	94.6	.994
399	5.52	34.094	1.14	800	4.01	34.33	27.28	87.8	1.086
597	4.76	34.225	0.88	1000	3.56	34.41	27.39	78.3	1.252
796	4.02	34.325	0.50	1200	3.07	34.46	27.48	69.4	1.399
995	3.57	34.405	0.39						
1194	3.08	34.463	0.63						

NH 85 44 39.0 N 126 03.2 W DATE 02 DEC 70 0230 GCT WIRE 03 DRY 45.2 WET 41.8 CRUISE Y70110
WIND DIRECTION 25 VEL 15 KTS BAR 02 SWELL DIRECTION 27 H 06 T 08 CLOUD 8 AMT 6 WEATHER 02

0	10.28	32.418	6.18	0	10.28	32.42	24.92	304.8	0
10	10.29	32.416	6.17	10	10.29	32.42	24.92	305.3	.030
20	10.28	32.419	6.17	20	10.28	32.42	24.92	305.1	.061
30	10.28	32.415	6.16	30	10.28	32.42	24.92	305.6	.092
40	9.79	32.591	5.69	50	8.24	33.16	25.82	220.4	.144
50	8.24	33.150	4.63	75	8.07	33.36	26.00	203.0	.197
62	8.29	33.461	4.07	100	7.76	33.79	26.39	166.7	.243
75	8.07	33.357	4.10	150	7.04	33.88	26.56	151.1	.323
87	8.19	33.712	3.65	200	6.54	33.94	26.67	141.4	.396
100	7.75	33.790	3.33	250	5.99	33.95	26.75	134.3	.465
124	7.47	33.853	3.11	300	5.99	33.99	26.78	132.1	.531
149	7.05	33.883	3.42	400	5.43	34.10	26.94	118.2	.656
199	6.55	33.935	2.58	500	5.04	34.17	27.04	108.5	.770
250	5.99	33.942	2.33	600	4.72	34.23	27.13	101.7	.875
300	5.99		1.70	700	4.38	34.29	27.21	94.0	.972
399	5.44	34.096	1.10	800	4.06	34.34	27.29	87.3	1.063
599	4.73	34.272	0.48	1000	3.52	34.41	27.40	77.3	1.228
797	4.07	34.340	0.66	1200	3.12	34.46	27.47	70.0	1.375
996	3.53	34.413							
1195	3.13								

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

NH 105 44 38.9 N 126 31.0 W
WIND DIRECTION 23 VEL 20 KTS

DATE 02 DEC 70 0707 GCT WIRE 02 DRY 45.8 WET 40.9 CRUISE Y70110
BAR 02 SWELL DIRECTION23 H 06 T 06 CLOUD 8 AMT 2 WEATHER 01

0	10.36	32.465	6.19
10	10.38	32.463	6.30
20	10.36	32.469	6.46
30	10.36	32.497	5.28
40	10.42	32.507	6.15
50	9.51	33.105	4.35
62	8.53	33.354	4.30
75	8.28	33.466	2.58
87	8.20	33.573	3.82
100	7.86	33.666	3.58
124	7.77	33.831	3.04
149	7.50	33.886	2.94
199	6.76	33.909	
250	5.98	33.972	1.94
300	5.75	33.947	2.24
398	5.21	34.034	1.47
597	4.42	34.186	0.65
796	4.02	34.326	0.24
995	3.52	34.416	0.56
1194	3.09	34.471	0.54

0	10.36	32.47	24.94	302.6	0
10	10.38	32.47	24.94	303.2	.030
20	10.36	32.47	24.95	302.7	.061
30	10.36	32.50	24.97	300.8	.091
50	9.51	33.11	25.58	242.7	.145
75	8.28	33.47	26.06	197.9	.202
100	7.86	33.67	26.28	177.5	.247
150	7.49	33.89	26.50	157.0	.331
200	6.74	33.91	26.62	145.9	.406
250	5.98	33.98	26.77	131.9	.476
300	5.76	33.95	26.78	131.6	.542
400	5.20	34.04	26.92	120.1	.667
500	4.76	34.11	27.03	109.4	.782
600	4.41	34.19	27.12	101.4	.887
700	4.19	34.26	27.21	94.0	.985
800	4.01	34.33	27.28	87.7	1.076
1000	3.51	34.42	27.40	76.9	1.240
1200	3.08	34.47	27.48	69.0	1.388

NH 125 44 39.1 N 126 59.0 W
WIND DIRECTION 26 VEL 22 KTS

DATE 02 DEC 70 1120 GCT WIRE 04 DRY 48.2 WET 42.3 CRUISE Y70110
BAR 01 SWELL DIRECTION27 H 04 T 06 CLOUD 8 AMT 2 WEATHER 02

0	11.02	32.385	5.28
10	11.02	32.386	6.12
20	11.02	32.385	5.58
30	11.02	32.385	4.22
40	11.03	32.386	6.13
50	9.10	32.548	4.42
62	8.52	32.641	3.58
74	8.20	32.767	5.42
86	8.00	33.102	4.30
99	7.91	33.342	4.02
124	7.90	33.711	3.28
149	7.42	33.807	
198	7.02	33.895	2.56
248	6.17	33.915	2.93
298	5.81	33.963	2.04
397	5.40	34.077	1.22
595	4.58	34.229	0.63
794	3.97	34.331	0.44
992	3.47	34.422	0.62
1190	3.06	34.473	1.10

0	11.02	32.39	24.77	319.4	0
10	11.02	32.39	24.77	319.5	.032
20	11.02	32.39	24.77	319.8	.064
30	11.02	32.39	24.77	320.0	.096
50	9.10	32.55	25.21	277.7	.156
75	8.18	32.79	25.54	246.8	.221
100	7.91	33.36	26.03	201.2	.277
150	7.41	33.81	26.45	161.7	.368
200	6.99	33.89	26.57	150.9	.446
250	6.15	33.92	26.70	138.5	.518
300	5.80	33.97	26.79	131.2	.586
400	5.39	34.08	26.93	119.0	.711
500	4.96	34.17	27.05	108.0	.824
600	4.56	34.23	27.14	99.9	.928
700	4.24	34.29	27.22	92.7	1.024
800	3.95	34.33	27.29	86.6	1.114
1000	3.45	34.42	27.41	75.7	1.276
1200	3.04	34.48	27.49	68.3	1.420

NH 145 44 39.0 N 127 27.0 W
WIND DIRECTION 26 VEL 20 KTS

DATE 02 DEC 70 1538 GCT WIRE 14 DRY 44.0 - WET 39.9 CRUISE Y7011D
BAR 02 SWELL DIRECTION 27 H 06 T 08 CLOUD 8 AMT 2 WEATHER 02

0	10.10	32.447	6.14
10	10.09	32.445	6.14
20	10.09	32.444	6.13
30	10.09	32.445	6.11
39	10.11	32.446	
49	7.69	33.203	3.58
61	7.53	33.360	3.38
74	7.40	33.102	4.14
86	7.29	33.667	3.10
99	7.23	33.760	3.06
123	7.07	33.900	2.89
149	6.90	33.927	2.69
197	6.44	33.949	2.38
247	6.11	33.984	2.11
296	5.87	34.037	1.82
395	4.93	34.018	1.50
592	4.41	34.194	1.50
790	4.01	34.321	0.34
987	3.53	34.411	0.60
1185	3.04		

0	10.10	32.45	24.97	299.7	0
10	10.09	32.45	24.97	299.9	.030
20	10.09	32.45	24.97	300.2	.060
30	10.09	32.45	24.97	300.3	.090
50	7.81	33.24	25.95	208.0	.141
75	7.39	33.14	25.93	209.8	.193
100	7.22	33.77	26.44	161.5	.239
150	6.88	33.93	26.62	145.7	.316
200	6.42	33.95	26.70	138.7	.387
250	6.10	33.99	26.77	132.7	.455
300	5.83	34.01	26.82	128.5	.520
400	4.90	34.02	26.94	117.6	.643
500	4.53	34.10	27.04	107.7	.756
600	4.39	34.20	27.14	100.3	.860
700	4.19	34.27	27.21	93.4	.957
800	3.99	34.33	27.28	87.5	1.047
1000	3.50	34.42	27.60	76.9	1.212
1200	3.05	34.48	27.69	68.4	1.357

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mm)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

OBSERVED

INTERPOLATED

COMPUTED

OBSERVED							INTERPOLATED							COMPUTED		
D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD	
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)	

HH 105 43 59.1 N 126 50.2 W DATE 04 DEC 70 0819 GCT WIRE 00 DRY 46.0 WET 38.2 CRUISE Y7011D
 WIND DIRECTION 30 VEL 02 KTS BAR 22 SWELL DIRECTION 29 H 03 T 08 CLOUD AMT 0 WEATHER 01

0	11.01	32.678	6.10	0	11.01	32.68	25.00	297.6	0
10	11.01	32.678	6.14	10	11.01	32.68	25.00	297.8	.030
20	11.01	32.678	6.14	20	11.01	32.68	25.00	298.0	.060
30	11.01	32.683	6.14	30	11.01	32.69	25.00	297.8	.089
40	11.01	32.685	6.14	50	9.93	32.90	25.35	264.7	.146
50	9.93	32.896	5.66	75	8.06	33.10	25.80	222.5	.206
62	8.85	32.952	5.48	100	8.43	33.54	26.09	195.4	.259
75	8.06	33.093	5.23	150	8.08	33.85	26.39	168.1	.350
87	7.99	33.294	4.86	200	7.21	33.91	26.56	152.0	.430
100	8.43	33.535	4.22	250	6.60	33.94	26.67	142.2	.503
125	8.18	33.684	3.82	300	6.35	33.99	26.73	136.6	.573
150	8.08	33.846	3.12	400	5.43	34.08	26.92	119.6	.701
200	7.21	33.909	3.06	500	5.03	34.15	27.03	109.7	.815
249	6.61	33.944	2.54	600	4.81	34.22	27.10	103.9	.922
299	6.35	33.986	1.79	700	4.46	34.28	27.19	96.0	1.022
399	5.44	34.079	1.23	800	4.10	34.33	27.27	88.7	1.114
599	4.81	34.216	0.58	1000	3.34	34.40	27.40	76.7	1.280
798	4.11	34.328	0.36	1200	2.95	34.45	27.48	69.0	1.425
998	3.35	34.395	0.58						
1197	2.96	34.452	0.68						

HH 65 43 59.1 N 125 54.0 W DATE 04 DEC 70 1801 GCT WIRE 11 DRY 46.5 WET 40.5 CRUISE Y70110
WIND DIRECTION 10 VEL 06 KTS BAR 23 SWELL DIRECTION 29 H 04 T 08 CLOUD 8 AMT 4 WEATHER 02

0	10.61	32.368	6.19	0	10.61	32.37	24.83	313.8	0
10	10.63	32.365	6.18	10	10.63	32.37	24.82	314.6	.031
20	10.63	32.372	6.21	20	10.63	32.38	24.83	314.3	.063
29	10.61	32.368	6.22	30	10.61	32.37	24.82	314.8	.094
39	10.65	32.369	6.21	50	10.57	32.38	24.84	313.5	.157
49	10.64	32.373	6.21	75	8.32	32.84	25.56	245.4	.227
61	9.49	32.512	6.06	100	8.57	33.42	25.98	205.9	.283
73	8.39	32.771	5.62	150	7.62	33.75	26.38	168.9	.377
85	8.25	33.167	4.73	200	7.01	33.88	26.57	151.4	.457
98	8.60	33.403	4.45	250	6.48	33.92	26.66	142.7	.531
122	7.92	33.581	3.82	300	5.98	33.93	26.74	135.7	.609
147	7.66	33.739	3.66	400	5.27	34.03	26.90	121.5	.729
195	7.07	33.878	3.53	500	4.93	34.11	27.01	111.5	.845
244	6.55	33.916	3.06	600	4.71	34.21	27.11	103.2	.953
293	6.04	33.929	2.73	700	4.40	34.33	27.24	91.0	1.050
391	5.31	34.020	1.55	800	4.10	34.42	27.34	82.0	1.136
586	4.75	34.191	0.54	1000	3.56	34.42	27.39	77.5	1.295
782	4.15	34.419	0.38	1200	3.12	34.47	27.48	69.6	1.442
977	3.62	34.415	0.38						
1173	3.18	34.464	0.58						

HH 45 43 58.6 N 125 26.3 W DATE 04 DEC 70 2150 GCT WIRE 05 DRY 49.4 WET 44.0 CRUISE Y7011D
WIND DIRECTION VEL 00 KTS BAR 22 SWELL DIRECTION30 H 04 T 07 CLOUD 6 AMT 6 WEATHER 02

0	10.27	32.452	6.22	0	10.27	32.46	24.95	302.1	0
10	10.24	32.448	6.22	10	10.24	32.45	24.95	302.1	.030
20	10.24	32.440	6.22	20	10.24	32.44	24.94	302.9	.060
30	10.22	32.443	6.22	30	10.22	32.45	24.95	302.5	.091
40	10.26	32.452	6.22	50	10.29	32.46	24.95	303.4	.151
50	10.29	32.452	6.19	75	9.01	33.44	25.92	211.1	.216
62	9.39	33.102	4.94	100	8.40	33.63	26.16	188.6	.266
75	9.01	33.434	4.53	150	7.74	33.88	26.46	160.7	.353
87	8.61	33.540	4.38	200	7.30	33.97	26.59	149.2	.430
100	8.40	33.621	4.00	250	6.64	34.00	26.71	138.4	.502
125	8.11	33.749	3.54	300	6.29	34.03	26.77	132.7	.573
150	7.74	33.880	3.07	400	5.54	34.08	26.91	121.1	.697
200	7.29	33.961	2.60	500	5.08	34.14	27.01	111.6	.813
250	6.63	33.997	2.08	600	4.75	34.20	27.10	104.4	.921
299	6.30	34.028	1.94	700	4.39	34.27	27.19	95.4	1.021
399	5.55	34.078	1.19	800	4.07	34.34	27.28	87.3	1.112
599	4.75	34.200	0.66	1000	3.55	34.43	27.41	76.5	1.276
799	4.08	34.342	0.49	1200	3.11	34.48	27.49	68.9	1.421
998	3.55	34.429	0.53						
1199	3.11	34.478	0.70						

OBSERVED

INTERPOLATED

COMPUTED

D	T	S	O ₂	PO ₄	pH	Alk.	NO ₃	SiO ₂	ΣCO ₂	Z	T	S	σ _t	δ	ΔD
(m)	(°C)	(‰)	(ml/l)	(μM)		(meq/l)	(μM)	(μM)	(mM)	(m)	(°C)	(‰)		(x10 ⁵)	(dyn.m)

MM 35 43 59.0 N 125 07.2 W DATE 05 DEC 70 0049 GCT WIRE 05 DRY 48.1 WET 44.5 CRUISE Y70110
WIND DIRECTION 16 VEL 12 KTS BAR 20 SWELL DIRECTION 30 H 96 T 08 CLOUD 7 AMT 8 WEATHER 03

0	11.03	32.445	6.18	0	11.03	32.45	24.81	315.1	0
10	10.97		6.18	10	10.97	32.51	24.87	309.7	.031
20	10.85	32.523	6.14	20	10.85	32.53	24.90	306.7	.062
30	10.84	32.533	6.13	30	10.84	32.54	24.91	306.0	.093
40	10.90	32.545	6.11	50	10.17	32.80	25.23	275.9	.151
50	10.17	32.797	5.52	75	8.58	33.37	25.93	209.8	.212
62	8.34	33.008	4.92	100	8.12	33.68	26.24	180.8	.260
75	8.58	33.365	4.40	150	7.67	33.86	26.45	161.8	.346
87	8.52	33.594	4.06	200	7.21	33.93	26.57	151.0	.424
99	8.14	33.669	3.76	250	6.62	33.96	26.68	141.0	.497
124	7.86	33.794	3.26	300	6.30	34.00	26.76	134.6	.566
149	7.68	33.854	3.12	400	5.62	34.08	26.90	121.7	.694
199	7.24	33.926	2.78	500	5.12	34.15	27.01	111.4	.811
248	6.64	33.963	2.41	600	4.76	34.20	27.10	104.3	.918
297	6.32		1.90	700	4.47	34.26	27.18	97.2	1.019
396	5.64	34.080	1.22	800	4.22	34.32	27.25	90.8	1.113
595	4.77	34.201	0.55	1000	3.59	34.42	27.39	77.8	1.281
793	4.24	34.315	0.56	1200	3.18	34.48	27.48	69.9	1.429
991	3.61	34.415	0.49						
1189	3.20	34.473	0.57						

YH 37 44 20.0 N 124 57.1 W DATE 05 DEC 70 0456 GCT WIRE 30 DRY 51.1 WET 48.0 CRUISE Y70110
WIND DIRECTION 16 VEL 22 KTS BAR 18 SWELL DIRECTION 30 H 04 T 08 CLOUD 8 AMT 8 WEATHER 02

0	10.87	32.547	5.86	0	10.88	32.55	24.92	304.9	0
35	10.86	32.550	6.10						.032
44	10.89	32.662	5.83						.064
55	8.19	32.914	5.02						.095
66	8.09	33.074	4.74	50	9.44	32.80	25.35	264.7	.153
77	8.80	33.363	4.50	75	8.69	33.31	25.87	215.5	.213
88	8.31	33.463	4.03	100	8.43	33.60	26.14	190.9	.263
110	8.63	33.707	3.82	150	7.93	33.89	26.44	162.7	.352
132	8.11	33.848	2.98	200	7.72	33.93	26.50	157.9	.432
176	7.83	33.912	2.94	250	7.39	33.97	26.58	151.1	.509
220	7.62	33.941	2.58	300	6.93	34.00	26.67	143.1	.583
264	7.27	33.981	2.40						
352	6.34	34.013	1.93						

NH 25 44 39.0 N 124 38.2 W DATE 05 DEC 70 1509 GCT WIRE 09 DRY 53.4 WET 52.9 CRUISE Y70110
 WIND DIRECTION 20 VEL 30 KTS BAR 13 SWELL DIRECTION 20 H 08 T CLOUD AMT WEATHER 60

0	11.16	32.564	6.11	0	11.16	32.57	24.88	308.5	0
10	11.14	32.562	6.09	10	11.14	32.57	24.88	308.5	.031
20	11.16	32.564	6.09	20	11.16	32.57	24.88	308.9	.062
30	11.15	32.564	6.10	30	11.15	32.57	24.88	309.0	.093
40	11.18	32.566	6.08	50	11.18	32.57	24.88	309.6	.154
50	11.18	32.568	6.09	75	10.66	32.87	25.20	279.4	.229
62	11.13	32.583	6.06	100	9.47	33.40	25.82	221.3	.291
75	10.66	32.865	5.50	150	8.51	33.68	26.19	186.7	.393
87	10.01	33.042	5.06						
100	9.47	33.398	4.46						
125	8.74	33.630	3.64						
150	8.51	33.683	3.42						

Table 4. Supplementary Observations of Surface Temperature and Salinity.

Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰	Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰
Y7001A						Jan 21	0115	48°49.2'	122°57.2'	7.3	29.205
Jan 6	1935	46°14.8'	123°56.2'	7.0	---	Jan 21	0200	48°48.0'	122°54.3'	7.4	29.543
Jan 6	2030	46°15.5'	124°00.2'	6.2	---	Jan 21	0300	48°41.0'	122°42.3'	7.4	29.845
Jan 6	2150	46°14.5'	124°05.7'	7.1	---	Jan 21	0320	48°38.0'	122°38.7'	7.5	29.967
Jan 7	0010	46°00.0'	124°11.0'	8.9	---	Jan 21	0340	48°37.9'	122°35.0'	7.3	29.849
Jan 7	0130	46°00.0'	124°18.2'	8.7	---	Jan 21	0400	48°40.4'	122°32.9'	7.0	29.580
Jan 7	0250	46°00.0'	124°25.5'	8.4	---	Jan 21	1523	48°42.3'	122°33.9'	---	22.161
Jan 7	0400	46°00.1'	124°39.8'	9.6	---	Jan 21	1540	48°41.7'	122°33.7'	6.3	20.600
Jan 7	0610	46°10.2'	124°47.2'	9.4	---	Jan 21	1650	48°38.2'	122°36.0'	7.5	29.920
Jan 7	0750	46°10.1'	124°32.3'	7.4	---	Jan 21	1710	48°39.7'	122°40.7'	7.6	29.969
Jan 7	0930	46°10.0'	124°25.4'	7.9	---	Jan 21	1730	48°42.0'	122°43.6'	7.3	29.990
Jan 7	1100	46°10.0'	124°18.2'	7.6	---	Jan 21	1750	48°44.2'	122°45.5'	7.6	29.952
Jan 7	1240	46°10.0'	124°11.0'	8.2	---	Jan 21	1810	48°45.9'	122°49.5'	7.6	29.998
Jan 7	1430	46°20.0'	124°11.0'	6.5	---	Jan 21	1830	48°47.8'	122°52.2'	7.6	29.977
Jan 7	1550	46°20.0'	124°18.2'	6.7	---	Jan 21	1850	48°51.1'	122°54.2'	7.5	29.541
Jan 7	1700	46°20.6'	124°25.4'	7.3	---	Jan 21	1915	48°54.6'	122°55.8'	7.6	29.801
Jan 7	1810	46°20.4'	124°40.0'	8.6	---	Jan 21	2000	48°56.3'	123°02.0'	7.6	29.278
Jan 7	2140	46°20.2'	124°50.1'	10.1	---	Jan 21	2020	48°57.7'	123°05.5'	7.1	29.072
Jan 7	2215	46°19.7'	125°08.5'	9.9	---	Jan 21	2027	48°58.7'	123°07.2'	7.0	29.983
Jan 7	2355	46°30.0'	125°08.8'	9.9	---	Jan 21	2125	48°54.4'	123°07.8'	6.65	28.034
Jan 8	0200	46°30.0'	124°54.2'	9.6	---	Jan 21	2200	48°53.3'	123°05.8'	6.5	28.189
Jan 8	0350	46°30.0'	124°39.8'	9.6	---	Jan 21	2220	48°51.1'	123°01.6'	7.7	28.725
Jan 8	0520	46°30.0'	124°25.5'	8.1	---	Jan 21	2240	48°49.1'	122°57.6'	7.3	28.762
Jan 8	0700	46°30.2'	124°11.2'	7.4	---	Jan 21	2330	48°45.6'	122°53.3'	7.4	30.003
Jan 8	0801	46°30.2'	124°07.1'	7.4	---	Jan 22	0020	48°45.3'	122°48.7'	7.5	29.481
Jan 8	0930	46°40.0'	124°11.0'	7.3	---	Jan 22	0040	48°43.0'	122°45.1'	7.6	29.989
Jan 8	1115	46°40.0'	124°25.4'	8.3	---	Jan 22	0100	48°39.9'	122°43.1'	7.6	29.995
Jan 8	1300	46°40.0'	124°39.8'	8.3	---	Jan 22	0120	48°36.4'	122°44.7'	7.6	30.029
Jan 8	1515	46°40.0'	124°54.3'	8.8	---	Jan 22	0140	48°02.2'	122°44.4'	7.5	30.016
Jan 9	1515	45°00.0'	124°34.7'	10.0	---	Jan 22	0200	48°28.8'	122°44.1'	7.5	30.031
Jan 9	1730	44°52.9'	124°16.3'	9.4	---	Jan 22	0220	48°24.5'	122°44.3'	7.6	30.126
Jan 9	1830	44°50.5'	124°10.2'	9.3	---	Jan 22	0250	48°22.5'	122°44.2'	7.6	---
Jan 9	1920	44°49.4'	124°07.3'	9.1	---	Jan 22	0320	48°18.3'	122°47.3'	7.6	30.207
C7001C						Jan 22	0340	48°14.3'	122°48.3'	8.0	30.740
Jan 17	1225	48°10.1'	123°24.1'	7.3	---	Jan 22	0400	48°12.1'	122°46.7'	8.0	30.412
Jan 17	1420	48°13.6'	123°29.2'	7.5	---	Jan 22	0420	48°10.6'	122°45.9'	8.0	30.542
Jan 17	1715	48°15.0'	123°09.9'	7.4	---	Jan 22	0440	48°09.0'	122°44.1'	8.0	30.177
Jan 17	1830	48°12.0'	122°55.3'	7.4	---	Jan 22	0500	48°07.3'	122°42.0'	8.1	30.064
Jan 17	2030	48°05.0'	122°37.8'	7.9	---	Jan 22	0520	48°05.6'	122°38.7'	8.2	30.179
Jan 18	0130	47°54.5'	122°37.3'	7.6	---	Jan 22	0540	48°04.0'	122°37.4'	8.4	29.668
Jan 18	0345	47°47.5'	122°42.6'	7.8	---	Jan 22	1540	47°53.4'	122°28.2'	8.1	29.692
Jan 18	1530	47°40.5'	122°48.2'	6.1	---	Jan 22	1600	47°51.5'	122°27.8'	8.4	29.752
Jan 18	1634	47°38.7'	122°53.3'	6.5	---	Jan 22	1630	47°51.3'	122°28.0'	8.4	29.772
Jan 18	1828	47°40.5'	122°52.1'	6.6	---	Jan 22	1720	47°44.3'	122°27.2'	8.2	27.198
Jan 18	1857	47°40.7'	122°53.7'	6.6	---	Jan 22	1750	47°41.6'	122°28.0'	8.3	26.881
Jan 18	1912	47°40.9'	122°53.1'	6.0	---	Jan 22	1850	47°35.1'	122°27.4'	---	29.436
Jan 18	1926	47°41.2'	122°52.6'	6.0	---	Jan 22	1910	47°32.9'	122°26.9'	8.5	28.399
Jan 18	2041	47°35.2'	122°58.6'	6.18	---	Jan 22	2000	47°30.0'	122°25.5'	8.5	27.112
Jan 19	0010	47°42.6'	122°52.8'	6.7	---	Jan 22	2105	47°23.5'	122°21.2'	8.4	---
Jan 19	0130	47°45.2'	122°49.2'	6.57	---	Jan 22	2151	47°19.2'	122°28.0'	7.9	18.628
Jan 19	1530	47°47.8'	122°51.8'	7.9	---	Jan 22	2236	47°19.6'	122°31.2'	8.1	28.930
Jan 19	1610	47°46.5'	122°51.4'	7.9	---	Jan 22	2300	47°17.8'	122°32.6'	8.6	22.571
Jan 19	1715	47°46.0'	122°49.3'	7.5	---	Jan 22	2320	47°13.6'	122°34.9'	8.7	29.446
Jan 19	1740	47°46.0'	122°49.3'	7.5	---	Jan 22	2340	47°11.2'	122°37.5'	8.5	28.771
Jan 19	1911	47°47.9'	122°48.3'	7.5	---	Jan 22	2347	47°10.7'	122°38.7'	8.5	---
Jan 19	2054	47°38.7'	122°54.2'	6.5	---	Jan 24	1850	47°54.5'	122°21.4'	6.9	---
Jan 19	2230	47°37.9'	122°56.1'	7.6	---	Jan 24	1914	47°59.0'	122°19.7'	7.1	---
Jan 19	2250	47°38.1'	122°55.8'	7.6	---	Jan 24	2000	48°02.3'	122°21.7'	7.6	---
Jan 19	2255	47°38.2'	122°55.3'	6.3	---	Jan 24	2020	48°04.8'	122°25.6'	7.4	---
Jan 19	2305	47°38.2'	122°55.3'	6.3	---	Jan 24	2040	48°01.2'	122°28.9'	7.6	---
Jan 19	2333	47°38.4'	122°54.4'	6.7	---	Jan 24	2100	48°08.7'	122°31.8'	7.5	---
Jan 19	2336	47°38.5'	122°54.1'	7.1	---	Jan 24	2120	48°11.4'	122°33.0'	7.4	---
Jan 20	1500	47°56.3'	122°40.2'	7.9	29.508	Jan 24	2140	48°14.9'	122°33.2'	7.4	---
Jan 20	1540	47°57.6'	122°39.6'	8.0	29.236	Jan 24	2220	48°17.6'	122°29.2'	6.6	---
Jan 20	1620	48°03.0'	122°39.4'	8.1	30.058	Jan 24	2300	48°21.5'	122°32.0'	6.9	---
Jan 20	1640	48°06.3'	122°40.5'	7.9	30.581	Jan 24	2330	48°25.0'	122°35.0'	7.4	---
Jan 20	1700	48°09.1'	122°44.6'	8.0	30.608	Jan 24	2350	48°24.9'	122°36.5'	7.6	---
Jan 20	1720	48°11.0'	122°48.5'	8.0	30.769	Jan 25	0700	47°24.1'	124°20.0'	6.9	---
Jan 20	1750	48°14.7'	122°54.1'	7.7	---	Jan 25	0720	47°24.6'	124°24.2'	8.1	---
Jan 20	1830	48°17.0'	122°58.8'	7.9	30.521	Jan 25	0740	47°25.1'	124°27.9'	8.3	---
Jan 20	1850	48°19.0'	123°03.3'	---	30.822	Jan 25	0800	48°25.4'	124°32.9'	8.4	---
Jan 20	1915	48°21.2'	123°08.2'	7.6	---	Jan 25	0820	48°26.0'	124°35.6'	8.3	---
Jan 20	2000	48°25.0'	123°08.7'	7.8	30.811	Jan 25	0914	48°27.9'	122°46.0'	8.3	---
Jan 20	2021	48°27.0'	123°09.4'	7.8	30.771	Y7001C					
Jan 20	2040	48°29.3'	123°10.3'	7.7	---	Jan 25	2230	44°39.1'	124°07.8'	11.1	---
Jan 20	2120	48°31.1'	123°11.8'	7.8	30.579	Jan 25	2340	44°39.1'	124°10.7'	11.0	---
Jan 20	2150	48°35.6'	123°13.0'	7.7	29.758	Jan 26	0135	44°39.1'	124°24.7'	11.0	---
Jan 20	2210	48°38.4'	123°14.5'	7.7	30.281	Jan 26	0340	44°39.1'	124°38.8'	10.8	---
Jan 20	2215	48°37.6'	123°14.0'	7.7	30.326	Jan 26	0750	44°39.0'	124°52.9'	9.2	---
Jan 20	2310	48°42.4'	123°13.1'	7.6	30.144	Jan 26	0815	44°39.2'	125°07.0'	10.1	---
Jan 20	2330	48°43.2'	123°09.3'	7.6	30.112	Jan 26	1255	44°39.4'	125°35.0'	10.08	---
Jan 20	2350	48°45.0'	123°05.6'	7.7	29.639	Jan 26	1432	44°39.0'	125°49.0'	10.6	---
Jan 20	2400	48°45.9'	123°03.6'	7.8	29.714						
Jan 21	0050	48°47.1'	123°00.7'	---	29.204						

TABLE Supplementary Observations of Surface Temperature and Salinity

Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰	Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰
Mar 29	0720	27°13.7'	111°38.0'	18.6	---	Feb 27	0400	44°39.2'	126°49.9'	10.5	---
Mar 29	0945	27°05.0'	111°48.1'	18.1	---	Feb 27	0620	44°40.0'	127°12.9'	10.5	---
Mar 29	1500	27°48.5'	112°20.2'	17.7	35.319	Feb 27	0740	44°38.9'	127°27.7'	10.4	---
Mar 29	1600	27°56.2'	112°24.9'	15.8	35.168	Feb 27	0940	44°38.7'	127°41.2'	10.6	---
Mar 29	1700	28°06.0'	112°26.4'	15.5	35.129	Feb 27	1038	44°39.0'	127°55.0'	10.6	---
Mar 29	1800	28°12.4'	112°33.0'	15.9	35.118	Mar 4	0215	44°39.2'	127°27.0'	10.3	---
Mar 29	1915	28°20.2'	112°39.7'	15.8	35.143	Mar 4	0425	44°39.1'	127°13.1'	10.2	---
Mar 29	2000	28°26.4'	112°43.9'	16.0	35.147						
Mar 29	2149	28°30.2'	112°45.9'	16.4	---	Y7003A					
Mar 30	0145	28°42.0'	113°02.0'	16.8	---	Mar 9	1830	44°39.1'	124°05.9'	10.9	---
Mar 30	0625	29°08.0'	113°25.8'	15.2	---	Mar 9	1957	44°39.1'	124°08.1'	10.7	---
Mar 30	1350	29°38.3'	113°54.0'	15.6	---	Mar 9	2245	44°39.1'	124°11.2'	10.9	---
Mar 30	1800	29°55.2'	114°10.3'	17.0	---	Mar 9	2345	44°39.1'	124°17.5'	10.8	---
Mar 30	2105	30°07.0'	113°49.0'	17.2	---	Mar 10	2040	44°40.9'	125°43.0'	10.5	---
Mar 30	2346	30°18.0'	113°29.0'	17.3	---	Mar 12	0350	44°24.0'	125°56.7'	10.5	---
Mar 31	0138	20°24.2'	113°16.7'	17.3	---	Mar 13	0515	44°23.1'	125°44.0'	10.8	---
Mar 31	0530	30°19.5'	113°03.5'	17.2	---	Mar 13	1520	44°27.0'	125°48.2'	10.7	---
Mar 31	0743	30°07.5'	113°08.0'	17.3	---						
Mar 31	1130	29°44.6'	112°40.0'	17.1	---	Y7005A					
Mar 31	1605	29°12.2'	112°36.0'	17.3	---	May 4	2140	44°48.6'	124°05.7'	3.9	---
Mar 31	1923	28°50.5'	112°37.1'	16.9	---	May 4	2320	44°49.5'	124°08.0'	9.7	---
Mar 31	2150	28°40.0'	112°23.1'	18.2	---	May 4	0125	44°50.5'	124°10.2'	10.4	---
Apr 1	0100	28°26.5'	112°01.0'	18.4	---	May 5	0310	44°51.5'	124°12.7'	10.5	---
Apr 1	0130	28°20.6'	112°00.6'	18.4	35.341	May 5	0455	44°53.0'	124°16.3'	10.2	---
Apr 1	0200	28°11.9'	112°00.2'	18.4	35.352	May 5	0715	44°55.4'	124°22.4'	10.6	---
Apr 1	0230	28°13.0'	111°59.3'	18.5	35.364	May 5	0810	44°57.9'	124°28.4'	10.7	---
Apr 1	0315	28°10.0'	112°00.0'	18.5	---	May 5	0915	44°59.5'	124°33.0'	10.4	---
Apr 1	0400	28°11.5'	111°52.6'	18.0	35.316	May 5	1520	44°39.0'	124°38.7'	10.5	---
Apr 1	0430	28°12.0'	111°48.8'	18.3	35.295	May 5	1733	44°39.5'	124°17.8'	10.0	---
Apr 1	0500	28°11.3'	111°45.4'	17.9	35.312	May 5	1945	44°39.1'	124°10.7'	10.2	---
Apr 1	0530	28°11.0'	111°42.5'	18.0	35.311	May 6	0050	44°39.1'	124°06.0'	9.6	---
Apr 1	0600	28°11.0'	111°37.6'	18.0	35.281	May 6	0200	44°39.0'	124°10.7'	9.8	---
Apr 1	0645	28°10.0'	111°35.2'	18.0	---	May 6	0455	44°39.2'	124°13.6'	9.2	---
Apr 1	1000	27°41.5'	111°29.9'	18.3	---	May 6	0617	44°39.1'	124°24.7'	10.2	---
Apr 1	1515	27°49.0'	111°00.5'	18.9	---	May 6	0740	44°39.0'	124°31.7'	10.1	---
Apr 2	1800	27°46.8'	110°49.0'	18.8	35.328	May 6	0820	44°39.0'	124°38.5'	10.6	---
Apr 2	1900	27°37.2'	110°45.0'	18.7	35.317	May 6	0920	44°39.4'	124°46.0'	10.6	---
Apr 2	2010	27°28.1'	110°43.0'	18.7	35.379	May 6	1020	44°39.1'	124°52.6'	10.3	---
Apr 2	2100	27°18.6'	110°39.2'	18.9	35.386	May 6	1155	44°39.0'	125°00.0'	10.3	---
Apr 2	2230	27°14.4'	110°35.5'	18.5	---	May 6	1312	44°39.1'	125°06.5'	9.8	---
Apr 2	2400	27°01.5'	110°24.1'	18.5	35.268	May 6	1500	44°39.0'	125°14.0'	10.4	---
Apr 3	0100	26°53.0'	110°17.8'	18.1	35.229	May 6	1545	44°39.5'	125°21.2'	10.4	---
Apr 3	0200	26°43.6'	110°12.5'	18.7	35.332	May 6	1620	44°39.6'	125°26.0'	10.6	---
Apr 3	0300	26°37.2'	110°08.0'	18.9	35.369	May 6	1815	44°39.2'	125°34.8'	10.6	---
Apr 3	0430	26°32.0'	110°03.7'	18.8	---	May 6	1855	44°38.6'	125°42.1'	10.5	---
Apr 3	0500	26°28.0'	109°59.0'	19.0	35.294	May 6	1943	44°39.1'	125°47.9'	10.8	---
Apr 3	0600	26°21.0'	109°55.5'	19.1	35.308	May 6	2030	44°39.1'	125°56.0'	11.1	---
Apr 3	0800	26°11.1'	109°48.9'	19.1	---	May 6	2130	44°39.1'	125°03.4'	11.1	---
Apr 3	0900	26°00.8'	109°48.0'	19.3	35.299	May 6	2238	44°38.9'	126°10.2'	11.4	---
Apr 3	1000	25°49.4'	109°47.0'	19.1	35.306	May 6	2308	44°39.0'	126°17.7'	11.4	---
Apr 3	1100	25°43.0'	109°40.4'	18.9	35.288	May 6	2340	44°39.0'	126°23.7'	11.2	---
Apr 3	1200	25°30.6'	109°36.0'	19.2	35.294	May 7	0115	44°39.0'	126°31.0'	11.7	---
Apr 3	1300	25°23.6'	109°35.7'	19.7	34.257	May 7	0215	44°39.0'	126°38.0'	11.6	---
Apr 3	1400	25°16.0'	109°33.5'	19.8	35.008	May 7	0245	44°39.0'	126°45.0'	11.5	---
Apr 3	1500	25°05.9'	109°30.4'	20.5	34.607	May 7	0320	44°39.4'	126°51.3'	11.5	---
Apr 3	1600	24°56.6'	109°27.0'	20.6	34.639	May 7	0440	44°39.3'	126°59.0'	11.5	---
Apr 3	2208	24°44.6'	109°24.5'	22.5	34.691	May 7	0615	44°39.7'	127°05.6'	11.1	---
Apr 3	2325	24°42.5'	109°21.1'	21.9	---	May 7	0647	44°39.6'	127°12.7'	11.1	---
Apr 4	1020	24°42.0'	109°17.5'	22.3	34.695	May 7	0720	44°39.5'	127°20.0'	11.3	---
Apr 4	1937	24°42.0'	109°15.3'	21.1	34.667	May 7	0755	44°39.2'	127°26.8'	11.2	---
Apr 4	2230	24°42.6'	109°14.6'	21.1	---	May 7	0955	44°39.8'	127°33.9'	11.1	---
Apr 5	0130	24°40.0'	109°02.0'	20.8	---	May 7	1030	44°39.4'	127°41.1'	11.0	---
Apr 5	0855	24°41.5'	109°30.2'	20.7	---	May 7	1103	44°39.0'	127°48.0'	10.9	---
Apr 5	1053	24°27.0'	109°29.0'	20.9	---	May 7	1145	44°39.0'	127°55.0'	10.7	---
Apr 5	1323	24°27.0'	109°13.2'	21.2	---	May 8	1040	45°00.0'	124°33.7'	10.9	---
Apr 5	1630	24°28.0'	108°56.8'	21.0	---	May 8	1247	44°58.9'	124°28.4'	10.8	---
Apr 5	2230	23°27.0'	109°09.0'	21.2	---	May 8	1400	44°55.5'	124°22.0'	10.7	---
						May 8	1600	44°52.9'	124°16.5'	11.0	---
Y7002D						May 8	1749	44°51.5'	124°12.9'	11.2	---
Feb 26	0030	44°39.2'	124°05.8'	11.3	---	May 8	1950	44°50.7'	124°10.2'	10.5	---
Feb 26	0130	44°39.2'	124°08.0'	11.4	---	May 8	2100	44°49.4'	124°07.5'	10.6	---
Feb 26	0450	44°39.5'	124°10.7'	11.1	---	May 8	2240	44°48.5'	124°05.8'	11.0	---
Feb 26	0645	44°39.2'	124°17.6'	11.0	---	May 8	2350	44°44.0'	124°11.7'	11.1	---
Feb 26	0735	44°39.4'	124°24.5'	11.0	---	May 9	0150	44°37.5'	124°05.7'	10.8	---
Feb 26	0955	44°39.0'	124°38.8'	10.9	---	May 9	0352	44°33.1'	124°12.9'	11.0	---
Feb 26	1210	44°39.2'	124°53.0'	10.2	---	May 9	0540	44°28.7'	124°07.6'	10.5	---
Feb 26	1345	44°39.2'	125°07.8'	10.6	---	May 9	0745	44°24.2'	124°13.6'	9.8	---
Feb 26	1600	44°39.2'	125°21.1'	10.3	---	May 9	0940	44°18.7'	124°08.5'	9.7	---
Feb 26	1810	44°39.1'	125°35.0'	10.2	---	May 9	1100	44°14.5'	124°14.5'	9.8	---
Feb 26	1930	44°39.1'	125°49.0'	10.7	---	May 9	1310	44°08.5'	124°09.7'	9.9	---
Feb 26	2144	44°38.9'	126°03.1'	10.4	---						
Feb 26	2235	44°39.1'	126°17.0'	10.8	---	Y7005C					
Feb 26	2350	44°39.1'	126°31.0'	10.6	---	May 28	0020	44°34.8'	125°05.9'	12.3	---
Feb 27	0230	44°39.1'	126°44.1'	10.5	---						

TABLE Supplementary Observations of Surface Temperature and Salinity

Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰	Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰
May 28	0715	44°16.1'	126°28.7'	12.5	---	Jul 2	0700	43°35.9'	125°26.0'	14.8	31.385
May 28	0900	44°08.9'	126°55.0'	12.1	---	Jul 2	0900	43°49.9'	125°07.0'	14.4	31.906
May 28	2105	44°04.6'	127°08.6'	12.4	---	Jul 2	1110	44°03.0'	124°50.0'	11.2	32.753
May 29	1519	43°32.5'	127°57.5'	12.3	---						
May 29	2010	43°38.9'	128°00.9'	12.5	---						
May 29	2210	43°38.6'	128°24.7'	12.8	---						
May 30	0010	43°39.0'	128°53.0'	12.8	---	YALOC-70					
May 30	0948	43°42.8'	129°18.5'	12.6	---	Jul 17	2215	44°37.6'	125°06.5'	13.7	---
May 30	1200	43°54.0'	129°43.6'	12.9	---	Jul 19	1320	45°00.0'	132°00.0'	14.5	---
May 30	1355	44°07.0'	130°00.0'	12.9	---	Jul 20	0355	44°59.1'	134°01.1'	13.9	---
May 30	1555	44°18.0'	130°24.0'	13.0	---	Jul 20	1858	44°59.0'	136°05.3'	14.2	---
May 30	1830	44°33.5'	130°52.5'	12.8	---	Jul 21	1603	45°00.0'	138°00.0'	14.0	---
May 31	0105	44°59.0'	131°24.0'	13.7	---	Jul 22	1042	45°00.0'	140°00.0'	13.8	---
May 31	0305	44°48.5'	131°49.0'	13.4	---	Jul 23	0302	44°59.6'	142°34.0'	14.2	---
Jun 2	2030	44°41.1'	129°30.5'	14.2	---	Jul 23	1725	45°00.1'	145°24.0'	14.0	---
Jun 3	1235	44°41.2'	132°18.0'	12.6	---	Jul 25	0517	45°01.0'	149°58.0'	12.7	---
Jun 3	1525	44°40.5'	132°47.0'	12.4	---	Jul 26	0932	44°59.2'	152°31.3'	13.3	---
Jun 3	1840	44°40.3'	133°13.0'	12.4	---	Jul 27	0739	44°59.5'	154°58.0'	13.4	---
Jun 5	0025	44°41.1'	133°41.6'	13.2	---	Jul 27	2325	45°03.0'	157°35.6'	13.7	---
Jun 5	0235	44°40.1'	134°09.5'	13.6	---	Jul 28	2259	44°58.0'	159°58.1'	12.7	---
Jun 5	0325	44°39.0'	134°36.0'	12.9	---	Jul 29	1440	44°56.3'	162°34.0'	12.7	---
Jun 6	0335	44°38.0'	134°35.5'	12.7	---	Jul 30	0747	44°56.0'	164°59.6'	13.2	---
Jun 6	1905	44°50.2'	131°06.6'	13.7	---	Jul 31	0128	44°57.9'	167°34.7'	12.6	---
Jun 8	2100	44°39.4'	126°33.0'	13.5	---	Jul 31	2227	44°58.4'	170°55.0'	13.0	---
Jun 9	0115	44°39.2'	125°35.1'	13.3	---	Aug 1	1355	44°59.2'	172°59.0'	12.8	---
C7006F						Aug 2	0728	45°00.0'	175°08.0'	13.2	---
Jun 26	0335	44°39.1'	124°07.8'	7.5	---	Aug 2	2150	45°00.3'	177°28.8'	13.2	---
Jun 26	0500	44°39.3'	124°10.8'	7.6	---	Aug 3	1321	45°02.0'	179°58.8'E	13.8	---
Jun 26	0810	44°39.0'	124°24.7'	8.6	---	Aug 4	0605	45°00.0'	177°03.0'E	13.8	---
Jun 26	1015	44°40.3'	124°39.1'	8.9	---	Aug 5	0630	45°00.0'	174°02.6'E	13.0	---
Jun 26	1530	44°39.1'	124°57.8'	10.1	---	Aug 5	2045	45°00.0'	172°04.6'E	13.0	---
Jun 26	1655	44°39.1'	125°06.5'	11.4	---	Aug 6	1535	45°00.0'	169°37.1'E	11.2	---
Jun 26	1913	44°38.9'	125°20.1'	11.5	31.904	Aug 7	2100	46°00.0'	176°12.4'E	11.9	---
Jun 26	2325	44°38.9'	125°34.0'	13.9	---	Aug 8	1032	47°00.0'	177°22.0'E	11.8	---
Jun 27	0052	44°39.5'	125°48.8'	14.7	31.340	Aug 8	2127	48°00.0'	178°33.4'E	11.4	---
Jun 27	0200	44°39.1'	126°02.8'	14.7	---	Aug 13	1140	51°23.6'	174°25.5'	9.0	---
Jun 27	0508	44°39.1'	126°16.0'	14.7	31.188	Aug 14	1010	50°22.7'	170°05.2'	9.6	---
Jun 27	0725	44°39.1'	126°30.6'	15.4	---	Aug 15	0845	52°00.0'	166°55.8'	11.3	---
Jun 27	0940	44°39.4'	126°44.5'	15.2	30.988	Aug 16	0445	52°19.2'	163°00.0'	10.4	---
Jun 27	1150	44°39.1'	126°59.0'	14.8	---	Aug 17	0030	53°44.4'	159°20.9'	11.4	---
Jun 27	1430	44°39.3'	127°11.6'	14.8	31.576	Aug 19	1337	55°47.9'	149°12.3'	11.3	---
Jun 27	1700	44°39.1'	127°26.8'	14.7	---	Aug 21	0650	56°07.3'	147°12.4'	11.6	---
Jun 27	1815	44°39.0'	127°40.0'	14.7	31.815	Aug 21	2032	55°59.5'	146°25.6'	12.2	---
Jun 27	1920	44°39.8'	127°55.0'	14.9	---	Aug 22	1445	56°30.4'	143°50.6'	12.8	---
Jun 27	2240	44°19.0'	127°57.5'	15.0	31.665	Aug 23	1207	57°10.2'	141°03.6'	11.8	---
Jun 28	0100	44°58.7'	128°01.5'	15.1	31.628	Aug 24	0500	57°47.0'	138°23.0'	12.7	---
Jun 28	0300	43°39.0'	128°05.9'	14.6	32.404	Aug 24	2130	58°55.4'	136°06.0'	8.4	---
Jun 28	0615	43°20.5'	128°08.3'	14.6	---	C7008E					
Jun 28	0805	43°20.4'	127°54.0'	14.6	32.062	Aug 28	0730	45°30.0'	125°00.0'	15.2	31.997
Jun 28	0940	43°20.4'	127°40.0'	14.3	---	Aug 28	1055	45°35.0'	125°00.0'	15.2	31.988
Jun 28	1205	43°20.0'	127°26.4'	14.6	32.974	Aug 28	1300	45°40.0'	125°00.0'	15.8	32.068
Jun 28	1430	43°20.5'	127°12.8'	14.8	---	Aug 28	1353	45°45.2'	125°00.2'	16.2	32.193
Jun 28	1555	43°20.6'	127°00.0'	14.8	31.879	Aug 28	1455	45°50.0'	125°00.3'	16.2	32.202
Jun 28	1710	43°20.5'	126°45.8'	15.0	---	Aug 28	1535	45°54.8'	125°00.1'	16.3	32.237
Jun 28	1925	43°20.4'	126°33.0'	14.9	31.570	Aug 28	1640	46°00.0'	125°00.2'	15.9	32.042
Jun 28	2045	43°20.4'	126°18.9'	14.4	---	Aug 28	1725	46°05.0'	125°00.2'	16.0	32.085
Jun 28	2305	43°20.5'	126°05.2'	12.4	32.072	Aug 28	1805	46°10.1'	125°00.2'	16.1	---
Jun 29	0150	43°20.5'	125°51.5'	12.4	---	Aug 28	2015	46°15.0'	125°00.0'	16.2	32.090
Jun 29	0310	43°21.6'	125°37.8'	13.7	32.062	Aug 28	2120	46°20.0'	125°00.2'	16.3	32.105
Jun 29	0430	43°21.0'	125°24.8'	14.0	---	Aug 28	2217	46°25.0'	125°00.0'	16.4	32.105
Jun 29	0830	43°20.4'	125°10.9'	12.6	---	Aug 28	2300	46°30.0'	124°59.9'	16.2	32.113
Jun 29	1105	43°20.5'	124°55.4'	10.7	---	Aug 29	0018	46°28.8'	125°07.0'	16.2	32.059
Jun 29	1420	43°20.5'	124°43.1'	9.3	---	Aug 29	0054	46°27.8'	125°13.8'	16.3	32.151
Jun 29	1545	43°20.6'	124°29.1'	9.6	---	Aug 29	0134	46°26.2'	125°20.9'	16.5	32.268
Jun 30	0345	42°45.7'	124°44.4'	12.8	---	Aug 29	0215	46°25.0'	125°27.8'	16.2	32.283
Jun 30	1020	42°00.0'	124°19.5'	8.2	---	Aug 29	0250	46°23.9'	125°34.6'	16.2	32.230
Jun 30	1140	42°00.0'	124°33.0'	10.6	---	Aug 29	0329	46°22.7'	125°41.6'	15.9	32.101
Jun 30	1420	41°59.9'	124°46.1'	11.3	---	Aug 29	0411	46°21.1'	125°50.4'	15.9	32.055
Jun 30	1545	42°00.1'	124°59.7'	13.1	---	Aug 29	0515	46°20.0'	125°59.1'	15.9	32.056
Jun 30	2055	42°00.0'	125°26.0'	15.4	32.178	Aug 29	0650	46°20.0'	125°44.8'	16.1	32.246
Jun 30	2305	42°00.0'	125°40.0'	14.6	---	Aug 29	0840	46°20.0'	125°38.0'	16.2	32.262
Jul 1	0015	42°00.0'	125°53.0'	14.9	32.250	Aug 29	1010	46°20.0'	125°30.0'	16.0	32.276
Jul 1	0145	42°00.0'	125°06.0'	14.9	---	Aug 29	1110	46°20.0'	125°22.8'	16.2	32.304
Jul 1	0405	42°00.0'	126°18.9'	13.3	32.022	Aug 29	1140	46°20.0'	125°16.0'	16.2	32.230
Jul 1	0615	42°00.1'	126°32.0'	15.0	---	Aug 29	1250	46°20.0'	125°08.8'	15.9	32.085
Jul 1	0745	42°00.0'	126°45.0'	15.3	31.667	Aug 29	1355	46°20.2'	125°01.7'	15.8	32.099
Jul 1	0900	42°00.0'	127°00.0'	15.0	---	Aug 29	1445	46°19.6'	124°54.6'	14.6	31.960
Jul 1	1125	42°00.0'	127°12.8'	14.8	31.941	Aug 29	1550	46°19.8'	124°47.2'	14.0	31.986
Jul 1	1530	42°00.0'	127°26.0'	14.9	---	Aug 29	1730	46°19.4'	124°40.3'	13.9	32.049
Jul 1	1900	42°18.2'	127°03.5'	15.8	31.628	Aug 29	1810	46°20.1'	124°33.1'	13.5	32.171
Jul 1	2100	42°31.8'	126°43.0'	15.8	31.568	Aug 29	1855	46°20.0'	124°26.5'	14.5	25.109
Jul 1	2300	42°45.0'	126°28.0'	15.9	31.984	Aug 29	1930	46°20.0'	124°20.0'	14.2	25.898
Jul 2	0100	42°58.0'	126°12.0'	14.6	32.020	Aug 29	2017	46°15.0'	124°20.0'	13.6	23.848
Jul 2	0500	43°24.0'	125°41.8'	15.3	31.207	Aug 29	2050	46°10.0'	124°20.0'	13.8	27.861
						Aug 30	0015	46°10.0'	124°27.2'	14.6	27.579

TABLE Supplementary Observations of Surface Temperature and Salinity

Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰	Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰
Aug 30	0100	46°10.3'	124°33.9'	14.1	31.866	Sep 1	1845	45°57.3'	127°31.5'	16.3	32.318
Aug 30	0210	46°09.7'	124°41.5'	13.9	31.974	Sep 1	1917	45°56.5'	127°24.7'	16.1	32.273
Aug 30	0300	46°10.0'	124°48.9'	14.9	31.986	Sep 1	1945	45°50.2'	127°17.0'	16.2	32.257
Aug 30	0353	46°09.7'	124°56.1'	15.6	32.044	Sep 1	2043	45°53.5'	127°10.5'	16.3	32.176
Aug 30	0440	46°09.9'	125°03.3'	15.8	32.081	Sep 1	2115	45°51.0'	127°04.9'	16.5	32.116
Aug 30	0600	46°09.9'	125°10.5'	16.0	32.115	Sep 1	2205	45°48.5'	126°58.0'	16.5	32.168
Aug 30	0652	46°10.4'	125°17.6'	16.1	32.219	Sep 1	2240	45°46.0'	126°51.8'	16.6	32.093
Aug 30	0815	46°10.0'	125°24.6'	16.2	32.307	Sep 1	2330	45°44.4'	126°45.1'	16.4	32.120
Aug 30	1045	46°10.0'	125°32.0'	16.1	32.268	Sep 2	0005	45°42.0'	126°38.9'	16.4	32.174
Aug 30	1153	46°10.0'	125°38.5'	16.1	32.299	Sep 2	0055	45°40.0'	126°32.8'	16.2	32.111
Aug 30	1245	46°10.0'	125°45.5'	16.1	32.230	Sep 2	0130	45°38.0'	126°26.2'	16.1	32.082
Aug 30	1355	46°10.4'	125°53.0'	16.1	32.230	Sep 2	0210	45°36.4'	126°20.5'	16.3	32.175
Aug 30	1505	46°10.8'	125°59.4'	15.8	32.132	Sep 2	0248	45°34.0'	126°14.0'	16.4	32.243
Aug 30	1555	46°05.2'	125°59.8'	16.1	32.179	Sep 2	0325	45°31.9'	126°07.6'	16.2	32.162
Aug 30	1630	46°00.1'	125°59.2'	16.2	32.146	Sep 2	0405	45°29.4'	126°01.0'	16.2	32.141
Aug 30	1700	45°55.0'	125°59.5'	16.2	32.199	Sep 2	0455	45°27.2'	125°54.9'	16.2	32.191
Aug 30	1750	45°50.0'	126°00.0'	16.3	32.293	Sep 2	0535	45°24.6'	125°48.0'	16.0	32.083
Aug 30	1835	45°49.7'	125°53.0'	16.3	32.289	Sep 2	0627	45°23.0'	125°42.2'	15.5	30.226
Aug 30	1930	45°50.0'	125°40.9'	16.4	32.285	Sep 2	0705	45°21.0'	125°35.0'	14.7	30.303
Aug 30	2030	45°50.0'	125°39.0'	16.2	32.254	Sep 2	0835	45°19.0'	125°29.0'	14.5	30.346
Aug 30	2125	45°50.0'	125°31.8'	16.2	32.166	Sep 2	0915	45°16.1'	125°22.0'	14.7	30.354
Aug 30	2235	45°50.0'	125°24.0'	16.2	32.169	Sep 2	1025	45°14.1'	125°16.0'	14.6	30.536
Aug 30	2325	45°50.0'	125°17.8'	16.0	32.123	Sep 2	1102	45°12.0'	125°09.0'	14.8	31.250
Aug 31	0023	45°50.1'	125°10.4'	15.9	32.091	Sep 2	1211	45°09.5'	125°02.6'	14.8	31.940
Aug 31	0120	45°50.0'	125°03.0'	15.8	32.087	Sep 2	1247	45°07.3'	124°56.5'	14.9	31.673
Aug 31	0240	45°49.9'	124°56.3'	15.3	32.011	Sep 2	1335	45°05.0'	124°50.2'	14.0	31.863
Aug 31	0320	45°50.3'	124°49.1'	14.6	29.760	Sep 2	1412	45°02.8'	124°44.2'	14.3	32.118
Aug 31	0410	45°50.0'	124°42.0'	14.3	28.126	Sep 2	1505	45°00.5'	124°37.8'	14.5	32.185
Aug 31	0445	45°49.9'	124°34.9'	13.6	29.321	Sep 2	1545	44°58.5'	124°31.5'	13.7	32.324
Aug 31	0530	45°49.8'	124°27.5'	13.2	30.971	Sep 2	1630	44°55.9'	124°25.0'	11.8	33.000
Aug 31	0615	45°49.7'	124°20.5'	13.8	30.256	Sep 2	1705	44°53.5'	124°19.1'	---	---
Aug 31	0701	45°53.5'	124°14.9'	13.6	29.983	Sep 2	1800	44°50.9'	124°10.7'	---	---
Aug 31	0750	45°56.8'	124°07.6'	13.3	32.025						
Aug 31	0820	46°00.0'	124°03.5'	12.8	31.845	C70098					
Aug 31	0925	45°59.7'	124°10.9'	12.9	31.583	Sep 9	0355	43°28.2'	124°35.5'	12.0	---
Aug 31	1000	46°00.0'	124°17.9'	12.6	31.744	Sep 9	0450	43°30.0'	124°38.3'	12.0	32.869
Aug 31	1340	46°00.0'	124°25.2'	14.2	30.677	Sep 9	1445	43°30.2'	124°42.0'	11.4	33.014
Aug 31	1415	45°59.8'	124°32.3'	13.6	32.031	Sep 9	1515	43°29.7'	124°44.1'	11.5	32.932
Aug 31	1500	45°59.6'	124°39.0'	13.4	32.089	Sep 9	1545	43°30.0'	124°48.5'	11.7	32.939
Aug 31	1600	45°59.9'	124°46.5'	14.1	32.000	Sep 9	1615	43°29.5'	124°52.8'	12.3	32.896
Aug 31	1710	45°59.7'	124°53.5'	15.1	32.060	Sep 9	1645	43°29.6'	124°54.7'	12.6	32.938
Aug 31	1750	46°00.0'	125°00.9'	15.4	32.045	Sep 9	1715	43°30.0'	124°58.5'	12.4	32.773
Aug 31	1835	46°00.1'	125°07.8'	15.8	32.073	Sep 9	1745	43°30.0'	125°02.0'	11.9	32.539
Aug 31	1915	46°00.0'	125°15.5'	16.1	32.155	Sep 9	1845	43°29.4'	125°05.3'	12.4	32.464
Aug 31	2024	46°00.0'	125°22.0'	16.2	32.208	Sep 9	1930	43°29.6'	125°09.2'	12.4	32.381
Aug 31	2105	46°00.0'	125°29.0'	16.2	32.186	Sep 9	2025	43°29.9'	125°12.5'	14.1	32.355
Aug 31	2230	46°00.0'	125°37.0'	16.3	32.298	Sep 9	2053	43°30.0'	125°16.0'	14.4	32.366
Aug 31	2302	46°00.0'	125°44.0'	16.3	32.253						
Sep 1	0005	46°00.0'	125°51.0'	16.3	32.319	C70100					
Sep 1	0043	46°00.0'	125°58.0'	16.3	32.181	Oct 15	2005	43°21.8'	124°24.2'	8.9	---
Sep 1	0155	46°00.0'	126°06.0'	16.3	32.193	Oct 15	2127	43°20.0'	124°29.2'	8.3	---
Sep 1	0300	46°00.2'	126°13.2'	15.9	32.138	Oct 15	2235	43°17.5'	124°35.6'	10.4	---
Sep 1	0331	46°00.2'	126°19.9'	15.9	32.111	Oct 16	0421	43°10.7'	124°54.0'	10.8	---
Sep 1	0407	45°59.8'	126°27.0'	15.9	32.134	Oct 16	0650	43°10.1'	124°54.6'	11.8	---
Sep 1	0620	46°00.0'	126°34.4'	16.0	32.236	Oct 16	0740	43°10.1'	124°54.6'	11.8	---
Sep 1	0650	46°00.0'	126°42.0'	16.0	32.180	Oct 16	0840	43°06.5'	125°03.5'	11.8	---
Sep 1	0900	46°00.0'	126°49.0'	15.8	32.119	Oct 16	1010	43°03.1'	125°14.0'	11.8	---
Sep 1	0940	46°00.0'	126°56.0'	15.7	32.095	Oct 16	1140	42°59.1'	125°21.6'	12.7	---
Sep 1	1028	46°00.0'	127°03.0'	15.9	32.228	Oct 16	1310	42°55.2'	125°32.0'	13.3	---
Sep 1	1105	46°00.0'	127°10.1'	16.2	32.421	Oct 16	1445	42°51.5'	125°40.5'	13.4	---
Sep 1	1154	46°00.0'	127°17.0'	15.9	32.357	Oct 16	1550	42°48.2'	125°49.0'	13.4	---
Sep 1	1230	46°00.0'	127°24.2'	16.1	32.347	Oct 16	1745	42°45.0'	125°58.8'	12.5	---
Sep 1	1325	46°00.2'	127°32.4'	16.2	32.341	Oct 16	2030	42°41.8'	126°07.6'	11.9	---
Sep 1	1415	46°00.2'	127°39.0'	16.1	32.298	Oct 16	2151	42°37.5'	126°16.0'	11.9	---
Sep 1	1520	46°00.6'	127°46.1'	16.1	32.233	Oct 16	2200	42°33.5'	126°25.0'	12.1	---
Sep 1	1555	46°00.4'	127°53.1'	16.0	32.192	Oct 16	2345	42°30.1'	126°39.0'	12.1	---
Sep 1	1725	45°59.5'	127°46.0'	16.2	32.244	Oct 17	0140	42°27.0'	126°42.6'	12.1	---
Sep 1	1800	45°58.5'	127°38.4'	16.2	32.324	Oct 17	0300	42°33.5'	126°36.8'	12.1	32.854

TABLE Supplementary Observations of Surface Temperature and Salinity

Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰	Date 1970	Time GMT	Latitude	Longitude	Temp°C	Sal ‰
Oct 17	0400	42°40.4'	126°29.0'	12.0	32.845						
Oct 17	0500	42°47.4'	126°20.1'	12.2	32.875						
Oct 17	0600	42°49.8'	126°12.5'	13.4	32.572						
Oct 17	0700	43°01.0'	126°05.0'	12.8	32.551						
Oct 17	0800	43°07.8'	125°55.0'	12.7	32.518						
Oct 17	0900	43°13.8'	125°47.2'	13.8	32.578						
Oct 17	1000	43°21.0'	125°37.8'	13.8	32.578						
Oct 17	1100	43°27.0'	125°29.5'	13.9	32.620						
Oct 17	1200	43°35.0'	125°21.0'	13.6	32.582						
Oct 17	1300	43°40.0'	125°12.2'	13.0	32.584						
Oct 17	1400	43°46.0'	125°02.0'	11.2	32.978						
Oct 17	1515	43°55.0'	124°54.6'	10.0	33.203						
Oct 17	1600	43°55.8'	124°54.1'	10.2	33.081						
Oct 17	1700	44°03.2'	124°45.0'	11.2	33.792						
Oct 17	1800	44°10.2'	124°37.3'	10.2	33.871						
Oct 17	1905	44°17.5'	124°29.0'	10.3	33.000						
Oct 17	2000	44°24.9'	124°20.5'	11.1	33.239						
Oct 17	2100	44°32.7'	124°11.5'	10.1	33.461						
Y7011B											
Nov 20	0515	44°39.1'	124°07.8'	11.6	---						
Nov 20	0755	44°38.8'	124°11.4'	11.4	---						
Nov 20	1100	44°39.1'	124°24.4'	11.3	---						
Nov 20	1335	44°39.3'	124°38.3'	11.4	---						
Nov 20	1730	44°39.0'	124°51.9'	11.4	---						
Nov 20	2250	44°39.5'	125°20.0'	12.0	32.425						
Nov 21	0200	44°39.0'	125°35.0'	10.8	---						
Nov 21	0320	44°39.0'	125°49.0'	11.6	32.516						
Nov 21	0745	44°39.2'	126°03.2'	10.2	---						
Nov 21	0900	44°39.6'	126°17.0'	10.5	32.426						
Nov 21	1115	44°39.1'	126°31.0'	10.5	---						
Nov 21	1355	44°39.0'	126°45.0'	10.7	32.452						
Nov 21	1555	44°39.0'	126°58.7'	11.0	---						
Nov 21	1735	44°38.5'	127°13.1'	11.5	32.344						
Nov 21	1920	44°39.1'	127°26.8'	11.0	---						
Nov 21	2050	44°38.8'	127°41.2'	11.4	32.354						
Nov 21	2227	44°39.4'	127°55.0'	12.1	---						
Y7011D											
Nov 30	2350	44°39.1'	124°10.5'	10.5	---						
Dec 1	0310	44°39.0'	124°24.5'	11.4	---						
Dec 1	0940	44°39.5'	124°46.0'	10.9	---						
Dec 1	1525	44°39.1'	125°06.1'	11.1	---						
Dec 1	1920	44°40.5'	125°23.5'	10.7	---						
Dec 1	2253	44°39.5'	125°35.0'	10.3	---						
Dec 2	0025	44°38.5'	125°49.0'	10.1	32.453						
Dec 2	0200	44°39.0'	126°03.2'	10.0	---						
Dec 2	0430	44°39.8'	126°16.1'	10.1	32.576						
Dec 2	0600	44°38.9'	126°31.0'	10.1	---						
Dec 2	0900	44°39.1'	126°45.0'	10.5	32.434						
Dec 2	1152	44°39.1'	126°59.0'	10.9	---						
Dec 2	1320	44°39.9'	127°12.6'	10.5	32.427						
Dec 2	1504	44°39.0'	127°27.0'	10.4	---						
Dec 2	1806	44°39.2'	127°40.9'	10.0	32.468						
Dec 2	2058	44°39.5'	127°57.6'	10.0	---						
Dec 2	2215	44°39.1'	128°09.0'	11.0	32.379						
Dec 2	2335	44°39.1'	128°23.0'	11.5	---						
Dec 3	0140	44°40.4'	128°37.0'	11.4	---						
Dec 3	0310	44°39.0'	128°50.7'	10.7	---						
Dec 3	1305	43°59.1'	129°12.4'	10.5	---						
Dec 3	1430	43°59.2'	128°58.2'	10.5	32.399						
Dec 3	1725	44°00.0'	128°45.8'	10.5	---						
Dec 3	1920	44°00.8'	128°24.0'	10.2	32.395						
Dec 3	2145	44°00.5'	128°11.5'	10.7	---						
Dec 3	2240	44°00.0'	127°59.0'	10.5	32.424						
Dec 4	0055	44°00.0'	127°45.0'	10.4	---						
Dec 4	0210	43°59.0'	127°31.0'	10.7	32.392						
Dec 4	0330	43°59.0'	127°16.6'	11.5	---						
Dec 4	0550	43°58.5'	127°01.7'	11.5	32.518						
Dec 4	0844	43°59.1'	126°50.2'	11.1	---						
Dec 4	1005	44°00.4'	126°35.1'	11.0	32.685						
Dec 4	1120	43°59.2'	126°21.4'	11.2	---						
Dec 4	1440	43°59.7'	126°07.4'	11.4	32.579						
Dec 4	1825	43°59.1'	125°54.0'	10.8	---						
Dec 4	1930	43°59.1'	125°38.6'	10.4	32.412						
Dec 4	2028	43°58.6'	125°26.3'	10.3	---						
Dec 4	2344	43°59.0'	125°07.2'	11.4	---						
Dec 5	0330	44°20.0'	124°57.1'	10.9	---						
Dec 5	1520	44°39.0'	124°38.2'	11.5	---						

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13. ABSTRACT

Salinity, temperature, oxygen, phosphate, and nitrate observations were taken by Oregon State University of 15 hydrographic cruises in the Northeastern Pacific and one cruise in the Sea of Cortez during 1970. Alkalinity, pH and silicate were taken on special occasions