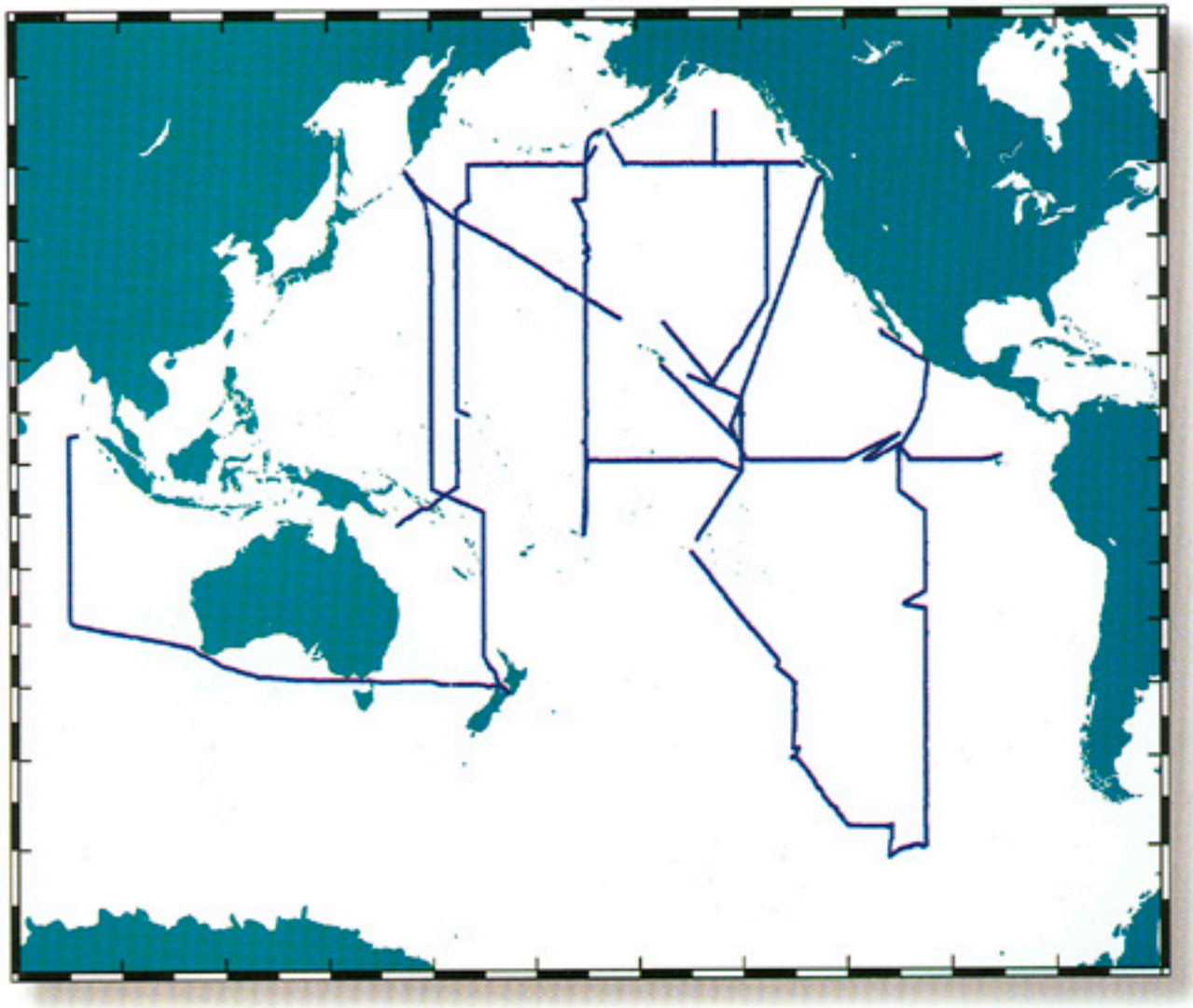
ORNL/CDIAC-75
NDP-047

Carbon Dioxide Concentrations in Surface Water and the Atmosphere During 1986–1989 PMEL Cruises in the Pacific and Indian Oceans



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NDP-047

CARBON DIOXIDE CONCENTRATIONS IN SURFACE WATER AND THE ATMOSPHERE DURING 1986–1989 NOAA/PMEL CRUISES IN THE PACIFIC AND INDIAN OCEANS

Contributed by

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Environmental Sciences Division
Publication No. 4349

Date Published: January 1995

Prepared for the
Global Change Research Program
Environmental Sciences Division
Office of Health and Environmental Research
U.S. Department of Energy
Budget Activity Number KP 05 05 00 0

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managed by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

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ABSTRACT

Murphy P. P., K. C. Kelly, R. A. Feely, and R. H. Gammon. 1995. *Carbon Dioxide Concentrations in Surface Water and the Atmosphere During 1986–1989 NOAA/PMEL Cruises in the Pacific and Indian Oceans.* ORNL/CDIAC-75, NDP-047. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee. 139 pp. doi: 10.3334/CDIAC/otg.ndp047

This document presents data on carbon dioxide (CO_2) concentrations in surface water and the atmosphere collected during Pacific Marine Environmental Laboratory (PMEL) expeditions during 1986–1989. CO_2 was measured quasi-continuously on 5 PMEL expeditions (12 legs) in the Pacific and Indian Oceans. These cruises were conducted under support from the National Oceanic and Atmospheric Administration (NOAA).

CO_2 measurements in the atmosphere and in surface water were made by analyzing mixing ratios of CO_2 with an automated, temperature-controlled gas chromatographic system described by Murphy et al. (1991) and Bates et al. (1993). Instrument precision was determined by the average percent standard deviation of the standard response over a 6-hour period. The precision varied between cruises but was always less than 1.2% and was more typically around 0.4%.

Air was pumped through 3/8-inch diameter, plastic-coated, aluminum tubing from the jackstaff on the bow of the ship (10 meters above the sea surface) to the oceanographic laboratory for analysis. Surface seawater entered the ship via a forward intake line located approximately 5 meters below the water level.

Fifteen files are described in this report and distributed along with it, including one descriptive file (**readme**) that provides an overview of the cruise network and describes details on the content and format of the thirteen data files; one FORTRAN 77 retrieval code (**pmeldat.for**) that may be used to read and print any of the data files; and thirteen data files, one (**pmel8689.dat**) that contains the data from all twelve legs, and separate files (12 total) for each leg. Each of the data files contains the same variables: cruise name; date (day, month, year) ; day of the year [Greenwich Mean Time (GMT)]; latitude and longitude (in decimal degrees); cumulative distance since the first sampling location on the leg; sea surface temperature (°C); warming temperature [indicates the warming (°C) of seawater as it transited from the intake line to the analysis site]; sea surface salinity; atmospheric pressure; reported atmospheric CO_2 concentration [$X(CO_2)_{air}$], which is the mole fraction of the dried air pumped from the bow line; reported surface seawater CO_2 concentration [$X(CO_2)_{sw}$], which is the mole fraction of the dried vapor drown from the equilibrator headspace; the calculated fugacity values for the air [$f(CO_2)_{air}$] and seawater [$f(CO_2)_{sw}$] given in the data tables are the *in situ* fugacities, which have been corrected for the warming of the seawater; and data quality flags.

The data set is available free of charge, as a Numeric Data Package (NDP) from CDIAC. The NDP consists of this printed documentation and machine-readable files. The data files are available on 9-track magnetic tape; IBM-formatted floppy diskettes; 8-mm tapes; 150-mB, quarter-inch tape cartridge; and from CDIAC's anonymous File Transfer Protocol (FTP) area via Internet. This document also contains an Appendix, which is a full reprint of NOAA Technical Memorandum ERL PMEL-101 authored by Murphy et al. 1994, which contains cruise information, fully describes the sampling methods and instrumentation, and defines limitations and restrictions of the data.

Keywords: carbon dioxide; Pacific Ocean; Indian Ocean; carbon cycle; fugacity; data file.

PART 1:

OVERVIEW

1. BACKGROUND INFORMATION

The carbonate system in seawater is one of the most complex and important topics in oceanography. The system has long interested many oceanographers from various fields because it plays a major role in all three subspheres of the earth (biosphere, lithosphere, and hydrosphere). Carbon dioxide (CO_2) is a soluble gas that dissolves in sea water. As a result, the oceans are a potential sink for the CO_2 produced by the burning of fossil fuels, and we seek to understand the role of the World Ocean in regulating atmospheric levels of CO_2. With refined determinations for the various dissociation constants of carbonic and boric acids in seawater and the advances in sophisticated instrumentation for measuring the carbonate parameters, our knowledge of the CO_2-carbonate system of the ocean has rapidly increased.

Extensive oceanographic investigations have been carried out in the World Ocean. Those extensive studies, especially in physical oceanography, have provided an excellent foundation for other types of study, such as that of the CO_2-carbonate system.

This document presents the results of quasi-continuously measured CO_2 concentrations in surface water and the atmosphere during 5 Pacific Marine Environmental Laboratory (PMEL) cruises (12 legs) in the Pacific and Indian Oceans (Fig. 1). These cruises were conducted from

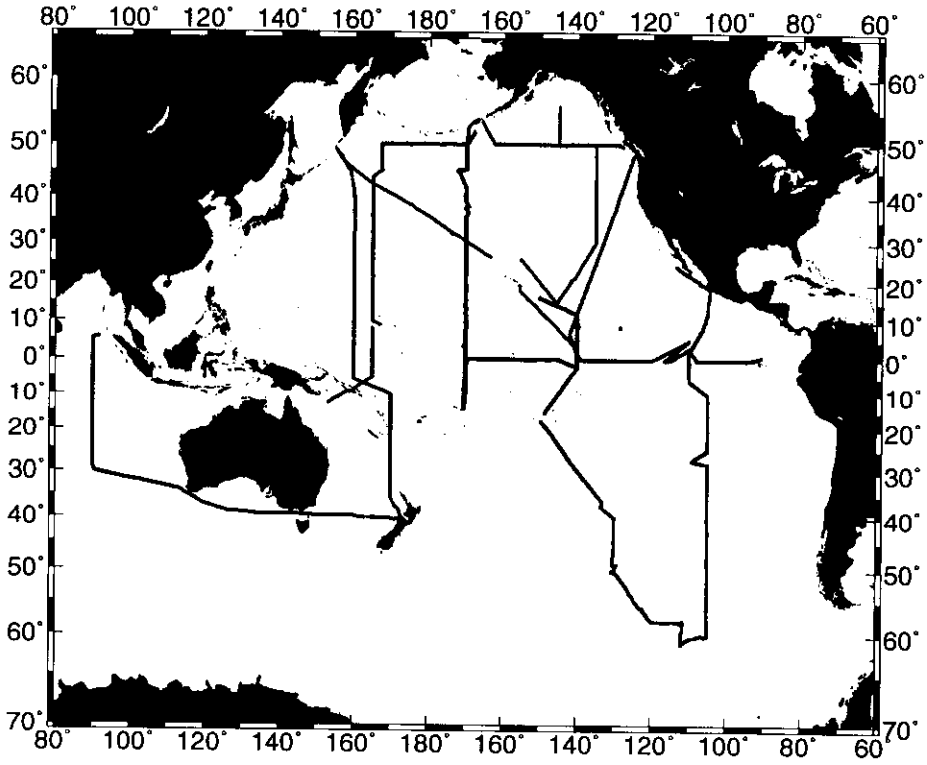

Figure 1. Cruise tracks for PMEL trace gas cruises 1986–1989.

1986–1989 aboard U.S. National Oceanographic and Atmospheric Administration (NOAA) Research Vessels (R/V) *Oceanographer* and *Discoverer* and the Russian Far East Hydrometeorological Institute R/V *Akademik Korolev*. Table 1 presents the summary of the cruises.

Table 1. Summary of PMEL cruises from 1986–1989.

Year	Cruise Section	Research Vessel	Ports	Dates	Distance (km)	Number of samples
1986	**EPOCS**	*Oceanographer*	Balboa–Honolulu	21 May–20 Jun	12,172	637
1986	**RITS/CO_2**	*Oceanographer*	Honolulu–Kodiak	1 Jul–23 Jul	7,709	461
1987	**SAGA II, Transit**	*Akademik Korolev*	Hilo–Kuril Trench	1 May–8 May	4,503	218
1987	**SAGA II, Leg 1**	*Akademik Korolev*	Kuril Trench–Wellington	8 May–9 Jun	11,441	633
1987	**SAGA II, Leg 2**	*Akademik Korolev*	Wellington–Singapore	12 Jun–6 Jul	11,912	501
1987	**TEW-3**	*Oceanographer*	Townsville–Kwajalein	13 Jul–27 Jul	3,491	297
1987	**RITS/CO_2**	*Oceanographer*	Kwajalein–Seattle	29 Jul–28 Aug	10,520	669
1988	**RITS/CO_2**	*Oceanographer*	Dutch Harb.–Am. Samoa	6 Apr–5 May	8,648	668
1988	**EPOCS**	*Oceanographer*	Am. Samoa–Honolulu	9 May–4 Jun	8,492	547
1989	**RITS/CO_2, Leg 1**	*Discoverer*	Seattle–Easter Island	5 Feb–1 Mar	7,097	398
1989	**RITS/CO_2, Leg 2**	*Discoverer*	Easter Island–Papeete	4 Mar–2 Apr	11,365	686
1989	**RITS/CO_2, Leg 3**	*Discoverer*	Papeete–Seattle	7 Apr–20 Apr	7,773	298
				Total	105,123	6,013

Details on cruise descriptions, sampling methods, data analysis procedures and results, calculation methods, data plots, and cruise track figures are provided in Appendix, which is full reprint of Murphy et al. (1994). The data tables in Murphy et al. (1994) provide a listing of the calculated fugacities, the warming-corrected mole fraction CO_2 concentrations, and the data required to convert between *in situ* mole fraction and fugacity.

Table 2 presents statistics on the fugacity of CO_2 in the atmosphere [$f(CO_2)_{air}$] and in surface seawater [$f(CO_2)_{sw}$] for each leg of the PMEL 1986–1989 cruises. All maximums and minimums for $f(CO_2)_{air}$ and $f(CO_2)_{sw}$, their sample locations and dates are given. Highlighted values indicate maximum of maximums and minimum of minimums for fugacities of CO_2 calculated for the twelve PMEL legs.

Table 2. Statistics on the fugacity of CO_2 in the atmosphere [$f(CO_2)_{air}$] and in surface seawater [$f(CO_2)_{sw}$] for each leg of the PMEL cruises from 1986–1989.

Section / Data	EPOCS 1986	RITS/CO_2 1986	SAGA II 1987 Transit	SAGA II 1987, Leg 1	SAGA II 1987, Leg 2	TEW-3 1987	RITS/CO_2 1987	RITS/CO_2 1988	EPOCS 1988	RITS/CO_2 1989, Leg 1	RITS/CO_2 1989, Leg 2	RITS/CO_2 1989, Leg 3
$f(CO_2)_{air}$ maximum	337.26	350.90	357.25	353.06	349.87	338.28	343.21	**357.39**	345.71	351.82	352.80	349.93
Distance (km)	12,171.9	1,466.1	2,460.2	358.0	2,927.2	2,204.0	7,050.4	276.8	8,246.7	5,133.6	7,521.8	7,752.9
Latitude (dec.deg.)	18.312	16.010	38.373	45.772	-39.250	-1.448	51.263	50.050	15.433	-11.878	-45.027	48.193
Longitude (dec.deg.)	-155.435	-146.308	175.059	158.333	142.383	165.123	-169.747	-170.040	-148.083	-104.997	-129.985	-124.939
Day (GMT)	170.333	186.375	128.417	138.208	168.250	203.208	232.875	99.708	154.375	56.375	85.250	110.250
$f(CO_2)_{air}$ minimum	330.95	336.60	345.42	**329.10**	331.99	331.35	329.70	332.22	333.19	335.74	329.44	334.12
Distance (km)	9,099.7	965.0	2,305.0	3,961.8	10,284.0	2,748.5	3,636.6	8,269.4	113.1	3,608.1	4,142.9	1,814.5
Latitude (dec.deg.)	-2.067	19.500	37.556	-8.333	-7.783	1.993	38.022	-11.033	-12.583	-1.012	-60.065	-1.835
Longitude (dec.deg.)	-139.983	-149.300	176.444	166.433	90.000	165.008	165.000	-170.097	-170.500	-109.973	-105.585	-140.017
Day (GMT)	164.042	185.542	128.042	151.167	181.375	205.708	223.417	126.125	132.208	53.083	74.167	101.125
$f(CO_2)_{sw}$ maximum	434.59	377.72	409.09	411.98	407.93	352.77	415.96	448.00	450.52	**480.93**	392.98	440.37
Distance (km)	138.0	4,195.0	4,314.9	318.0	10,284.0	1,895.2	7,248.2	6,901.8	5,817.5	3,956.6	553.8	1,806.2
Latitude (dec.deg.)	0.520	34.057	47.600	45.500	-7.783	-3.563	53.015	0.420	2.617	-4.003	-29.157	-1.825
Longitude (dec.deg.)	-91.772	-135.007	156.367	158.317	90.000	164.987	169.292	-169.930	-140.033	-110.008	-105.012	-139.993
Day (GMT)	144.042	192.833	131.500	137.750	181.375	201.833	233.167	122.000	147.542	53.792	65.167	101.000
$f(CO_2)_{sw}$ minimum	338.08	286.03	**214.77**	267.61	292.73	310.55	247.56	291.60	321.86	337.96	234.10	252.53
Distance (km)	11,303.9	7,545.7	4,368.6	1,098.6	5,675.8	0.0	7,592.4	2,914.7	397.8	1,648.0	4,618.3	7,692.9
Latitude (dec.deg.)	12.842	54.530	47.983	34.734	-33.866	-12.533	53.200	32.000	-10.050	14.362	76.833	47.927
Longitude (dec.deg.)	-149.895	-145.002	155.945	160.066	112.542	153.215	-165.330	-170.100	-170.300	-104.932	-60.562	-125.097
Day (GMT)	168.917	202.750	131.958	140.833	173.292	195.833	235.000	108.917	132.625	47.833	76.833	110.125
Mean % stand. dev. for the standard gases	<1%	<0.7%	0.24%	0.24%	0.24%	0.32%	0.32%	0.60%	0.21%	0.37%	0.37%	0.37%

2. RESEARCH VESSEL INFORMATION AND TECHNICAL DETAILS

The following offers general information and technical details for the U.S. NOAA Research Vessels (R/V) *Oceanographer* and *Discoverer* and the Russian Far East Hydrometeorological Institute R/V *Akademik Korolev*.

Ship Name:	*Oceanographer* (USA)		
Operator:	Department of Commerce, NOAA		
U.S. NODC Code:	31OC	Cruise speed (kt):	11.0
Length (m):	92.40	Max. speed (kt):	13.0
Beam (m):	15.80	Aux.power (hp):	5,000
Draft (m):	6.00	Crew:	49
Gross tons:	3,701	Officers:	14
Power (hp):	6,240	Scientists:	24
Range (n. mi.):	9,200	Air cond.:	yes
Endurance (days):	31	Comments:	out of service

Ship Name:	*Discoverer* (USA)		
Operator:	Department of Commerce, NOAA		
U.S. NODC Code:	31DS	Cruise speed (kt):	15.0
Length (m):	92.40	Max. speed (kt):	16.0
Beam (m):	15.80	Aux. power (HP):	5,000
Draft (m):	6.50	Crew:	46
Gross tons:	3805	Officers:	15
Power (hp):	6,000	Scientists:	24
Range (n. mi.):	13,000	Air cond.:	yes
Endurance (days):	31		
Operating areas:	Pacific Ocean		
Navig. equipment:	Radar Loran SatNav Gyro DopLog		
A-Frames:	Stern, Midships		
Cranes:	Stern		

Ship Name:	*Akademik Korolev* (Russia)		
Operator:	Far East Hydrometeorological Institute (Vladivostok)		
U.S. NODC Code:	90AM	Cruise speed (kt):	15.5
Length (m):	123.94	Max. speed (kt):	18.2
Beam (m):	17.06	Aux. power (hp):	5,860
Draft (m):	6.00	Crew:	70
Gross tons:	6,934	Officers:	30
Power (hp):	8,000	Scientists:	56
Range (n. mi.):	21,000	Air Cond:	yes
Endurance (days):	57		
Operating areas:	Pacific Ocean; Indian Ocean		
Navig. equipment:	Radar Decca Gyro EMLog		
Cranes:	Midships		

3. DATA CHECKS AND PROCESSING PERFORMED BY CDIAC

An important part of the numeric data package (NDP) preparation process at the Carbon Dioxide Information Analysis Center (CDIAC) involves the quality assurance (QA) of data before distribution. Data received at CDIAC are rarely in a condition that would permit immediate distribution, regardless of the source. To guarantee data of the highest possible quality, CDIAC conducts extensive QA reviews. Reviews involve examining the data for completeness, reasonableness, and accuracy. Although they have common objectives, these reviews are tailored to each data set, often requiring extensive programming efforts. In short, the QA process is a critical component in the value-added concept of supplying accurate, usable data for researchers.

The following summarizes the data processing and QA checks performed by CDIAC on the data obtained during the 1986–1989 PMEL cruises in Pacific and Indian Oceans.

1. These data were provided to CDIAC as twelve ASCII-formatted files with accompanying printed documentation (NOAA Technical Memorandum ERL PMEL-101). A FORTRAN 77 retrieval program was written and used to reformat the original twelve files into twelve files with identical formats and to merge all data into a single file that was sorted and arranged chronologically.

2. All data were plotted to check for obvious outliers.

3. Dates, times, and coordinates were checked for bogus values (e.g., values of DAY <1 or >31; YEAR <1986 or >1989; DAYGMT <1.000 or >365.999; LAT <-90.000 or >90.000; and LONG <-180.000 or >180.000).

4. All cruise tracks were plotted and compared with the maps and cruise information supplied by Murphy et al. (1994).

5. The data quality flags for missing values, given as "-99" in the original data files, were changed to "5". The data accuracy quality flags, also given as "-99" in the original data files, were changed to "2". These changes reflect the quality flag definitions specified by the WOCE Hydrographic Program (WHP) Data Reporting Requirements (1991). Under these guidelines, "5" and "2" denote "data not reported" and "acceptable measurements", respectively.

6. The designation for missing values, given as "-99.00" in the original files, was changed to "-999.9".

4. HOW TO OBTAIN THE DATA AND DOCUMENTATION

This data base is available upon request in machine-readable form, free-of-charge from CDIAC. CDIAC will also distribute subsets of the data base as needed. It can be acquired on 9-track magnetic tape; 8-mm tape; 150-mB, quarter-inch tape cartridge; IBM-formatted floppy diskettes; or from CDIAC's anonymous File Transfer Protocol (FTP) area via Internet (see FTP address below). Requests should include any specific media instructions (i.e., 1600 or 6250 BPI, labeled or nonlabeled, ASCII or EBCDIC characters, and variable- or fixed-length records; 3.5- or 5.25-inch floppy diskettes, high or low density; and 8200 or 8500 format 8-mm tape) required by the user to access the data. Magnetic tape requests not accompanied by specific instructions will be filled on 9-track, 6250 BPI, standard-labeled tapes with EBCDIC characters. Requests should be addressed to:

Carbon Dioxide Information Analysis Center
Oak Ridge National Laboratory
Post Office Box 2008
Oak Ridge, Tennessee 37831-6335
U.S.A.

Telephone: +1 (615) 574-0390 or 1 (615) 574-3645
Fax: +1 (615) 574-2232

Electronic Mail: INTERNET: CDP@ORNL.GOV
OMNET: CDIAC

The data files can be also acquired from CDIAC's anonymous FTP account via Internet:

- FTP to cdiac.esd.ornl.gov (128.219.24.36)
- Enter "ftp" or "anonymous" as the user ID
- Enter your electronic mail address as the password (e.g.,"alex@alex.esd.ornl.gov")[1]
- Change to the directory "pub/ndp047"
- Acquire the files using the FTP "get" or "mget" command

[1]Please enter your correct address. This address is used by CDIAC to inform data recipients of data revisions and updates.

5. REFERENCES

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Murphy, P. P., K. C. Kelly, R. A. Feely, and R. H. Gammon. 1994. Carbon dioxide concentrations in surface water and the atmosphere: PMEL Cruises 1986–1989. NOAA Technical Memorandum ERL PMEL-101. Pacific Marine Environmental Laboratory, Seattle, Washington.

WOCE Operations Manual, Rev. 1. 1991. WHP Office Report WHPO 90-1. WOCE Report No. 67/91. Vol. 3, Sect. 3.1, Part 3.2.1, Woods Hole, Massachusetts.

PART 2

CONTENT AND FORMAT OF DATA FILES

6. FILE DESCRIPTIONS

This section describes the content and format of each of the 15 files that comprise this NDP (see Table 1). Because CDIAC distributes the data set in a variety of media (e.g., via anonymous FTP and 9-track magnetic tape), each of the 15 files is referenced by both an ASCII filename, which is given in lower-case, bold-faced type (e.g., **readme**), and a file number. The remainder of this section describes (or lists, where appropriate) the contents of each of the 15 files. The files are discussed in the order in which they appear on the magnetic tapes.

Table 3. Content, size, and format of data files

File number, name, and description	Logical records	FTP file size in bytes	Block size	Record length
1. **readme**: a detailed description of the cruise network and data files	890	54,347	8,000	80
2. **pmeldat.for**: a FORTRAN 77 data retrieval routine that may be used to read and print all data files (Files 3–15)	48	1,894	8,000	80
3. **pmel8689.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for all PMEL cruises during 1986–89	6,013	829,797	6,850	137
4. **ep86.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the EPOCS 1986 cruise	637	87,906	6,850	137

Table 3 (continued)

File number, name, and description	Logical records	FTP file size in bytes	Block size	Record length
5. **rt86.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1986 cruise	461	63,618	6,850	137
6. **sa0_87.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the SAGA II 1987 cruise, Transit	218	30,084	6,850	137
7. **sa1_87.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the SAGA II 1987 cruise, Leg 1	633	87,354	6,850	137
8. **sa2_87.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the SAGA II 1987 cruise, Leg 2	501	69,138	6,850	137
9. **tw87.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the TEW-3 1987 cruise	297	40,986	6,850	137

Table 3 (continued)

File number, name, and description	Logical records	FTP file size in bytes	Block size	Record length
10. **rt87.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1987 cruise	669	92,322	6,850	137
11. **rt88.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1988 cruise	668	92,184	6,850	137
12. **ep88.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the EPOCS 1988 cruise	547	75,486	6,850	137
13. **rt1_89.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1989 cruise, Leg 1	398	54,924	6,850	137
14. **rt2_89.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1989 cruise, Leg 2	686	94,668	6,850	137

Table 3 (continued)

File number, name, and description	Logical records	FTP file size in bytes	Block size	Record length
15. **rt3_89.dat:** data file containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for the RITS/CO_2 1989 cruise, Leg 3	298	41,124	6,850	137
Total	12,964	1,715,832		

readme (File 1)

This file provides an overview of the dataset and a detailed description of the thirteen oceanographic data files. It exists primarily for the benefit of individuals who do not have copies of this documentation or acquire the data files from CDIAC's anonymous FTP area.

pmeldat.for (File 2)

This file contains a FORTRAN 77 data retrieval routine that may be used to read and print any of the 13 data files (Files 3–15). The following is a listing of this program. For additional information regarding variable definitions and format statements, please see the description for **pmel8689.dat–rt3_89.dat** files on pages 16–18.

```
c*****************************************************************
c* This is a FORTRAN 77 retrieval code to read and print the    *
c* Carbon Dioxide concentrations data in surface water and      *
c* atmosphere: PMEL cruises 1986-1989                           *
c*****************************************************************


c*Defines variables*

      INTEGER DAY, YEAR
      CHARACTER CRUISE*19, MONTH*3, FLAG*1
      REAL DAYGMT, LAT, LONG, DIST, TEMP, WARM, SAL, APRE
      REAL XCO2A, XCO2SW, FCO2A, FCO2SW
      OPEN (unit=1, file='file.in')
      OPEN (unit=2, file='file.out')
      WRITE (2, 5)
```

```
c*Writes out column labels*

 5      FORMAT (8x,'CRUISE NAME',2X,'CRUISE DATE',2X,'DAY GMT',3X,
     1 'LATIT',5X,'LONGIT',2X,'DISTAN',4X,'TEMP',1X,'WARMING',2X,
     2 'SALINITY',1X,'ATM.PRE',1X,'X(CO2)a',1X,'X(CO2)w',1X,
     3 'f(CO2)a',1x,'f(CO2)w',1X,'QF',/,20X,'day mon year',10X,
     4 'dec.deg',4X,'dec.deg',6X,'km',3X,'deg.C',3X,'deg.C',7X,
     5 'ppt',4X,'mbar',5X,'ppm',5X,'ppm',4X,'uatm',4X,'uatm',//)

c*Sets up a loop to read and format all the data in the file*

 7      CONTINUE
        READ (1, 10, end=999) CRUISE, DAY, MONTH, YEAR, DAYGMT, LAT,
     1 LONG, DIST, TEMP, WARM, SAL, APRE, XCO2A, XCO2SW, FCO2A,
     2 FCO2SW, FLAG
 10     FORMAT (A19, 2X, I2, 1X, A3, 1X, I4, 2X, F7.3, 1X, F7.3, 3X,
     1 F8.3, 1X, F7.1, 1X, F7.2, 1X, F7.2, 2X, F8.3, 2X, F6.1, 1X,
     2 F7.2, 1X, F7.2, 1X, F7.2, 1X, F7.2, 2X, A1)

        WRITE (2, 20) CRUISE, DAY, MONTH, YEAR, DAYGMT, LAT,
     1 LONG, DIST, TEMP, WARM, SAL, APRE, XCO2A, XCO2SW, FCO2A,
     2 FCO2SW, FLAG
 20     FORMAT (A19, 2X, I2, 1X, A3, 1X, I4, 2X, F7.3, 1X, F7.3, 3X,
     1 F8.3, 1X, F7.1, 1X, F7.2, 1X, F7.2, 2X, F8.3, 2X, F6.1, 1X,
     2 F7.2, 1X, F7.2, 1X, F7.2, 1X, F7.2, 2X, A1)

        GOTO 7
 999    CLOSE(unit=1)
        CLOSE(unit=2)
        STOP
        END
```

pmel8689.dat–rt3_89.dat (Files 3–15)

These 13 data files containing CO_2 measurements, hydrographic measurements, and the calculations of *in situ* fugacities of CO_2 for PMEL cruises conducted from 1986–1989. All 13 data files have the same format and can be read by using the following FORTRAN 77 code [contained in **pmeldat.for** (File 2)]:

```
        INTEGER DAY, YEAR
        CHARACTER CRUISE*19, MONTH*3, FLAG*1
        REAL DAYGMT, LAT, LONG, DIST, TEMP, WARM, SAL, APRE
        REAL XCO2A, XCO2SW, FCO2A, FCO2SW

 7      READ (1, 10, end=999) CRUISE, DAY, MONTH, YEAR, DAYGMT, LAT,
     1 LONG, DIST, TEMP, WARM, SAL, APRE, XCO2A, XCO2SW, FCO2A,
     2 FCO2SW, FLAG
 10     FORMAT (A19, 2X, I2, 1X, A3, 1X, I4, 2X, F7.3, 1X, F7.3, 3X,
     1 F8.3, 1X, F7.1, 1X, F7.2, 1X, F7.2, 2X, F8.3, 2X, F6.1, 1X,
     2 F7.2, 1X, F7.2, 1X, F7.2, 1X, F7.2, 2X, A1)

        GOTO 7
 999    CLOSE 1
        STOP
```

The contents of these data files are listed in Table 4.

Table 4. Description of contents of pmel8689.dat–rt3_89.dat (Files 3–15)

Variable name	Variable type	Variable width	Starting column	Ending column
CRUISE	Character	19	1	19
DAY	Numeric	2	22	23
MONTH	Character	3	25	27
YEAR	Numeric	4	29	32
DAYGMT	Numeric	7	35	41
LAT	Numeric	7	43	49
LONG	Numeric	8	53	60
DIST	Numeric	7	62	68
TEMP	Numeric	7	70	76
WARM	Numeric	7	78	84
SAL	Numeric	8	87	94
APRE	Numeric	6	97	102
XCO2A	Numeric	7	104	110
XCO2SW	Numeric	7	112	118
FCO2A	Numeric	7	120	126
FCO2SW	Numeric	7	128	134
FLAG	Character	1	137	137

Where:

CRUISE is the cruise name;

DAY is the day of sampling (GMT);

MONTH is the month of sampling;

YEAR is the year of sampling;

DAYGMT is the day of the year [expressed in decimal time (GMT)];

LAT is the latitude of the sampling location (decimal degrees; negative values indicate the Southern Hemisphere);

LONG is the longitude of the sampling location (decimal degrees; negative values indicate the Western Hemisphere);

DIST is the cumulative distance since the first sampling location on the leg (km);

TEMP is the sea-surface temperature (°C);

WARM is the warming temperature [indicates the degrees of warming (°C) for seawater as it transited from the intake line to analysis site];

SAL is the sea-surface salinity [Practical Salinity Scale (PSS)];

APRE is the atmospheric pressure (mbar);

XCO2A is the observed mole fraction of CO_2 in air [ppm (dry air)];

XCO2SW is the observed mole fraction of CO_2 in surface water [corrected for warming, ppm (dry air)];

FCO2A is the calculated *in situ* fugacity of CO_2 in air [µatm (moist air)];

FCO2SW is the calculated *in situ* fugacity of CO_2 in surface water (corrected for warming, µatm (moist air)];

FLAG is the data quality flag:

2 = Acceptable measurements of $X(CO_2)_{sw}$;
3 = Questionable measurements of $X(CO_2)_{sw}$;
5 = Data were not reported;
P = Questionable latitude and/or longitude;

Missing values for variables are represented by -999.9.

7. VERIFICATION OF DATA TRANSPORT

The data files contained in this NDP can be read by using the FORTRAN 77 data retrieval program provided. Users should verify that the data have been correctly transported to their systems by visually examining each data file. To facilitate the visual inspection process, partial listings of each data file are provided in Tables 5-17. Each of these tables contains the first five and last five lines of a data file.

Table 5. Partial listing of "pmel8689.dat"
(File 3)

First five lines of the file:

```
           EPOCS-86  23 May 1986  143.833   0.967    -90.615     0.0   23.65
0.65    34.136  1010.6 -999.90  445.48 -999.90  430.32  2
           EPOCS-86  23 May 1986  143.875   0.867    -90.850    28.4   23.83
0.65    34.181  1010.0  345.43  435.93  333.37  420.70  2
           EPOCS-86  23 May 1986  143.917   0.767    -91.067    54.9   23.75
0.65    34.227  1010.1  345.41 -999.90  333.43 -999.90  5
           EPOCS-86  23 May 1986  143.958   0.650    -91.383    92.4   24.11
0.65    34.272  1010.5  345.39  436.51  333.34  421.27  2
           EPOCS-86  24 May 1986  144.000   0.583    -91.550   112.4   23.85
0.65    34.318  1011.0  345.38  412.14  333.64  398.14  3
```

Last five lines of the file:

```
 RITS/CO2-89, Leg 3  20 Apr 1989  110.125  47.927   -125.097  7692.9    9.79
   0.67    32.000  1009.7  348.07  257.43  341.45  252.53  2
 RITS/CO2-89, Leg 3  20 Apr 1989  110.167  48.016   -124.861  7713.0    9.37
-999.90    32.000  1009.4  346.94 -999.90  340.35 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.208  48.103   -124.630  7732.7    8.95
-999.90    32.000  1009.1  355.32 -999.90  348.56 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.250  48.193   -124.393  7752.9    8.53
-999.90    32.000  1008.7  356.75 -999.90  349.93 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.292  48.282   -124.157  7773.0    8.10
-999.90    32.000  1008.4  354.05 -999.90  347.28 -999.90  5
```

Table 6. Partial listing of "ep86.dat"
(File 4)

First five lines of the file:

```
          EPOCS-86  23 May 1986  143.833   0.967    -90.615     0.0    23.65
0.65    34.136  1010.6 -999.90  445.48 -999.90  430.32  2
          EPOCS-86  23 May 1986  143.875   0.867    -90.850    28.4    23.83
0.65    34.181  1010.0  345.43  435.93  333.37  420.70  2
          EPOCS-86  23 May 1986  143.917   0.767    -91.067    54.9    23.75
0.65    34.227  1010.1  345.41 -999.90  333.43 -999.90  5
          EPOCS-86  23 May 1986  143.958   0.650    -91.383    92.4    24.11
0.65    34.272  1010.5  345.39  436.51  333.34  421.27  2
          EPOCS-86  24 May 1986  144.000   0.583    -91.550   112.4    23.85
0.65    34.318  1011.0  345.38  412.14  333.64  398.14  3
```

Last five lines of the file:

```
          EPOCS-86  19 Jun 1986  170.167  17.667   -154.850 12077.0    25.97
0.65    34.443  1015.0  348.08  356.88  336.31  344.81  2
          EPOCS-86  19 Jun 1986  170.208  17.817   -155.000 12100.0    25.81
0.66    34.445  1015.7  348.06 -999.90  336.63 -999.90  5
          EPOCS-86  19 Jun 1986  170.250  17.952   -155.138 12121.0    25.69
0.66    34.447  1016.5  348.04  353.69  336.96  342.43  2
          EPOCS-86  19 Jun 1986  170.292  18.105   -155.278 12143.5    25.68
0.66    34.449  1017.0  348.02  354.82  337.12  343.70  2
          EPOCS-86  19 Jun 1986  170.333  18.312   -155.435 12171.9    25.69
0.66    34.451  1017.5  348.00  353.07  337.26  342.18  2
```

Table 7. Partial listing of "rt86.dat"
(File 5)

First five lines of the file:

```
        RITS/CO2-86   2 Jul 1986  183.833  26.015   -154.988     0.0   24.20
0.67    35.223  1022.9  346.25  330.64  338.33  323.07  2
        RITS/CO2-86   2 Jul 1986  183.875  26.012   -155.150    16.2   24.22
0.67    35.220  1022.6  345.11  331.42  337.10  323.73  2
        RITS/CO2-86   2 Jul 1986  183.917  26.018   -154.977    33.5   24.28
0.67    35.212  1021.9  346.76  335.78  338.44  327.72  2
        RITS/CO2-86   2 Jul 1986  183.958  26.023   -154.978    34.0   24.32
0.67    35.204  1021.4  347.17  334.36  338.64  326.15  2
        RITS/CO2-86   3 Jul 1986  184.000  25.953   -154.910    44.4   24.36
0.67    35.195  1020.9 -999.90  335.70 -999.90  327.27  2
```

Last five lines of the file:

```
        RITS/CO2-86  21 Jul 1986  202.833  55.023   -144.985  7600.5    9.69
0.77    32.503  1027.9  346.57  291.35  346.18  291.02  2
        RITS/CO2-86  21 Jul 1986  202.875  55.267   -144.977  7627.6    9.82
0.77    32.507  1026.9  346.26  293.38  345.50  292.74  2
        RITS/CO2-86  21 Jul 1986  202.917  55.512   -145.002  7654.9    9.76
0.77    32.510  1026.4  345.90  300.43  344.99  299.63  2
        RITS/CO2-86  21 Jul 1986  202.958  55.755   -145.047  7682.0   10.05
0.77    32.514  1025.9  346.82  296.38  345.66  295.39  2
        RITS/CO2-86  22 Jul 1986  203.000  56.000   -145.017  7709.3   10.31
0.77    32.518  1025.5 -999.90  302.76 -999.90  301.57  2
```

Table 8. Partial listing of "sa0_87.dat"
(File 6)

First five lines of the file:

```
   SAGA II, Transit   3 May 1987  123.833  26.749   -163.332     0.0    21.00
0.35    35.100  1022.4  357.59  325.10  351.02  319.13  2
   SAGA II, Transit   3 May 1987  123.875  26.900   -163.550    27.4    20.30
0.36    35.112  1022.8 -999.90  328.05 -999.90  322.48  2
   SAGA II, Transit   3 May 1987  123.917  26.889   -163.567    29.4    20.40
0.36    35.125  1022.2 -999.90  328.66 -999.90  322.84  2
   SAGA II, Transit   3 May 1987  123.958  26.878   -163.583    31.4    20.50
0.36    35.137  1021.7  357.87  328.64  351.31  322.61  2
   SAGA II, Transit   4 May 1987  124.000  26.867   -163.600    33.5    20.60
0.35    35.150  1021.1 -999.90  329.95 -999.90  323.65  2
```

Last five lines of the file:

```
   SAGA II, Transit  12 May 1987  132.708  48.817    155.217  4477.4    1.20
0.66    32.892  1017.6 -999.90 -999.90 -999.90 -999.90  5
   SAGA II, Transit  12 May 1987  132.750  48.817    155.217  4477.4    1.20
0.66    32.892  1017.3 -999.90 -999.90 -999.90 -999.90  5
   SAGA II, Transit  12 May 1987  132.792  48.878    155.144  4486.0    1.20
0.66    32.891  1016.9 -999.90 -999.90 -999.90 -999.90  5
   SAGA II, Transit  12 May 1987  132.833  48.938    155.073  4494.4    1.20
0.66    32.891  1016.6 -999.90 -999.90 -999.90 -999.90  5
   SAGA II, Transit  12 May 1987  132.875  49.000    155.000  4503.2    1.20
0.66    32.891  1016.2 -999.90 -999.90 -999.90 -999.90  5
```

Table 9. Partial listing of "sa1_87.dat"
(File 7)

First five lines of the file:

```
     SAGA II, Leg 1  12 May 1987  132.917  48.950    155.073     0.0    1.20
0.66    32.891  1016.0 -999.90 -999.90 -999.90 -999.90  5
     SAGA II, Leg 1  12 May 1987  132.958  48.900    155.144     4.1    1.20
0.66    32.885  1015.7 -999.90 -999.90 -999.90 -999.90  5
     SAGA II, Leg 1  13 May 1987  133.000  48.850    155.217     8.3    1.20
0.66    32.879  1015.5 -999.90 -999.90 -999.90 -999.90  5
     SAGA II, Leg 1  13 May 1987  133.042  48.777    155.306    13.9    1.40
0.66    32.873  1015.1 -999.90 -999.90 -999.90 -999.90  5
     SAGA II, Leg 1  13 May 1987  133.083  48.706    155.394    19.4    1.60
0.65    32.921  1014.7 -999.90 -999.90 -999.90 -999.90  5
```

Last five lines of the file:

```
     SAGA II, Leg 1   8 Jun 1987  159.083 -40.660    174.131  6122.3   14.20
0.45    35.698  1020.2  349.44  343.57  345.09  339.30  2
     SAGA II, Leg 1   8 Jun 1987  159.125 -40.833    174.417  6138.9   14.10
0.46    35.695  1019.7  348.30  343.14  343.83  338.74  2
     SAGA II, Leg 1   8 Jun 1987  159.167 -41.046    174.467  6151.9   13.80
0.46    35.693  1019.8  349.39 -999.90  345.04 -999.90  5
     SAGA II, Leg 1   8 Jun 1987  159.208 -41.254    174.516  6164.6   13.40
0.47    35.691  1019.8  347.99 -999.90  343.79 -999.90  5
     SAGA II, Leg 1   8 Jun 1987  159.250 -41.467    174.567  6177.6   13.00
0.47    35.688  1019.9  347.75 -999.90  343.71 -999.90  5
```

Table 10. Partial listing of "sa2_87.dat"
(File 8)

First five lines of the file:

```
     SAGA II, Leg 2  12 Jun 1987  163.500 -40.667    173.817      0.0    14.10
0.46    35.444  1025.5  347.18 -999.90  344.70 -999.90  5
     SAGA II, Leg 2  12 Jun 1987  163.542 -40.538    173.425     36.0    14.20
0.45    35.442  1025.8  347.41 -999.90  344.99 -999.90  5
     SAGA II, Leg 2  12 Jun 1987  163.583 -40.412    173.042     71.3    14.30
0.45    35.440  1026.1  347.17 -999.90  344.82 -999.90  5
     SAGA II, Leg 2  12 Jun 1987  163.625 -40.283    172.650    107.5    14.30
0.45    35.437  1026.4  346.12 -999.90  343.88 -999.90  5
     SAGA II, Leg 2  12 Jun 1987  163.667 -40.261    172.348    133.2    14.40
0.45    35.435  1026.3  347.39 -999.90  345.08 -999.90  5
```

Last five lines of the file:

```
     SAGA II, Leg 2   3 Jul 1987  184.167   5.339     90.536 11789.4    28.90
0.22    34.486  1011.6 -999.90  399.95 -999.90  382.71  2
     SAGA II, Leg 2   3 Jul 1987  184.208   5.394     90.814 11820.8    28.90
0.22    34.528  1011.3 -999.90  366.27 -999.90  350.38  2
     SAGA II, Leg 2   3 Jul 1987  184.250   5.450     91.100 11853.0    28.90
0.22    34.572  1011.0 -999.90  368.17 -999.90  352.08  2
     SAGA II, Leg 2   3 Jul 1987  184.292   5.512     91.363 11882.9    28.90
0.22    34.615  1010.7 -999.90 -999.90 -999.90 -999.90  2
     SAGA II, Leg 2   3 Jul 1987  184.333   5.572     91.620 11912.1    28.90
0.22    34.657  1010.5 -999.90  362.16 -999.90  346.16  2
```

Table 11. Partial listing of "tw87.dat"
(File 9)

First five lines of the file:

```
             TEW-3  14 Jul 1987  195.833 -12.533    153.215     0.0   26.09
0.32    35.102  1013.3 -999.90  322.05 -999.90  310.55  2
             TEW-3  14 Jul 1987  195.875 -12.373    153.415    28.1   26.13
0.32    35.096  1014.6  347.14  325.09  335.16  313.88  2
             TEW-3  14 Jul 1987  195.917 -12.370    153.438    30.6   26.14
0.32    35.090  1015.6 -999.90 -999.90 -999.90 -999.90  5
             TEW-3  14 Jul 1987  195.958 -12.367    153.442    31.1   26.15
0.32    35.089  1015.8  347.56  326.76  335.97  315.86  2
             TEW-3  15 Jul 1987  196.000 -12.368    153.442    31.2   26.15
0.32    35.088  1015.5  346.09  326.18  334.44  315.20  2
```

Last five lines of the file:

```
             TEW-3  27 Jul 1987  208.000   8.005    164.990  3483.8   29.10
0.29    33.867  1013.8  348.71  344.57  334.27  330.30  2
             TEW-3  27 Jul 1987  208.042   8.020    164.998  3485.7   29.02
0.29    33.867  1013.0  349.43  346.75  334.75  332.19  2
             TEW-3  27 Jul 1987  208.083   8.028    164.972  3488.7   29.12
0.28    33.867  1012.6  349.70  348.59  334.80  333.73  2
             TEW-3  27 Jul 1987  208.125   8.038    164.970  3489.8   29.22
0.28    33.868  1012.2  350.01  350.81  334.88  335.64  2
             TEW-3  27 Jul 1987  208.167   8.042    164.963  3490.7   29.25
0.28    33.868  1011.9  348.49  350.99  333.30  335.69  2
```

Table 12. Partial listing of "rt87.dat"
(File 10)

First five lines of the file:

```
      RITS/CO2-87  30 Jul 1987  211.292   9.083    166.945     0.0   29.20
0.28  34.229  1010.5  348.85 -999.90  333.20 -999.90  5
      RITS/CO2-87  30 Jul 1987  211.333   9.212    166.690    31.4   29.17
0.28  34.234  1010.8  348.28 -999.90  332.79 -999.90  5
      RITS/CO2-87  30 Jul 1987  211.375   9.338    166.450    61.2   29.00
0.29  34.239  1011.2  349.31 -999.90  334.04 -999.90  5
      RITS/CO2-87  30 Jul 1987  211.417   9.457    166.192    92.5   28.86
0.29  34.244  1012.0  348.88 -999.90  334.01 -999.90  5
      RITS/CO2-87  30 Jul 1987  211.458   9.583    165.907   126.7   28.85
0.29  34.249  1012.3  348.53 -999.90  333.78 -999.90  5
```

Last five lines of the file:

```
      RITS/CO2-87  28 Aug 1987  240.333  50.013   -128.985 10440.2   15.29
0.44  32.039  1021.3  338.82  328.51  334.59  324.41  2
      RITS/CO2-87  28 Aug 1987  240.375  50.030   -128.978 10442.2   15.35
0.44  32.037  1021.3  338.90  329.59  334.65  325.45  2
      RITS/CO2-87  28 Aug 1987  240.417  49.913   -128.715 10465.0   15.51
0.44  32.035  1021.0  339.25  331.20  334.84  326.89  2
      RITS/CO2-87  28 Aug 1987  240.458  49.777   -128.388 10492.9   15.45
0.44  32.033  1020.9  339.04  327.59  334.62  323.32  2
      RITS/CO2-87  28 Aug 1987  240.500  49.638   -128.072 10520.4   15.25
0.44  32.032  1020.8  340.60  327.23  336.20  323.00  2
```

Table 13. Partial listing of "rt88.dat"
(File 11)

First five lines of the file:

```
        RITS/CO2-88    8 Apr 1988    99.042   52.000    -168.000      0.0     3.06
0.39    32.676  1020.2  356.89  327.51  355.19  325.95  2
        RITS/CO2-88    8 Apr 1988    99.083   52.020    -167.970      3.0     3.00
0.39    32.655  1020.1  358.34  326.12  356.61  324.55  2
        RITS/CO2-88    8 Apr 1988    99.125   51.910    -168.080     17.4     3.03
0.39    32.642  1020.7 -999.90  365.91 -999.90  364.35  2
        RITS/CO2-88    8 Apr 1988    99.167   51.680    -168.290     46.7     3.00
0.39    32.629  1020.8  358.08  337.38  356.60  335.98  2
        RITS/CO2-88    8 Apr 1988    99.208   51.490    -168.480     71.6     3.02
0.39    32.616  1021.6  356.98  325.97  355.78  324.87  2
```

Last five lines of the file:

```
        RITS/CO2-88    5 May 1988   126.667 -13.927    -170.443  8595.7    29.56
 0.20    34.828  1010.8  351.23  341.78  335.30  326.28  2
        RITS/CO2-88    5 May 1988   126.708 -14.188    -170.495  8625.2  -999.90
-999.90    34.871  1011.2  349.39 -999.90 -999.90 -999.90  5
        RITS/CO2-88    5 May 1988   126.750 -14.280    -170.683  8647.9  -999.90
-999.90    34.914  1011.0  349.20 -999.90 -999.90 -999.90  5
        RITS/CO2-88    5 May 1988   126.792 -14.280    -170.683  8647.9  -999.90
-999.90    34.958  1011.0  348.95 -999.90 -999.90 -999.90  5
        RITS/CO2-88    5 May 1988   126.833 -14.280    -170.683  8647.9  -999.90
-999.90    35.000  1011.0 -999.90 -999.90 -999.90 -999.90  5
```

Table 14. Partial listing of "ep88.dat"
(File 12)

First five lines of the file:

```
          EPOCS-88  11 May 1988  132.042 -13.600   -170.517     0.0   29.19
0.20    35.000  1009.6 -999.90 -999.90 -999.90 -999.90  5
          EPOCS-88  11 May 1988  132.083 -13.350   -170.500    27.8   29.26
0.20    35.005  1008.9 -999.90 -999.90 -999.90 -999.90  5
          EPOCS-88  11 May 1988  132.125 -13.083   -170.500    57.5   29.20
0.20    35.010  1009.0 -999.90 -999.90 -999.90 -999.90  5
          EPOCS-88  11 May 1988  132.167 -12.833   -170.500    85.3   29.20
0.20    35.016  1009.5  349.25  345.04  333.25  329.23  2
          EPOCS-88  11 May 1988  132.208 -12.583   -170.500   113.1   29.18
0.20    35.021  1010.0  348.99  347.30  333.19  331.58  2
```

Last five lines of the file:

```
          EPOCS-88   2 Jun 1988  154.625  15.973   -149.318  8391.9   24.88
0.24    34.400  1015.0  355.37  338.29  344.06  327.52  2
          EPOCS-88   2 Jun 1988  154.667  16.063   -149.542  8417.8   24.88
0.24    34.400  1015.6  355.25  336.81  344.15  326.28  2
          EPOCS-88   2 Jun 1988  154.708  16.162   -149.738  8441.5   24.87
0.24    34.400  1016.0  355.24  337.01  344.29  326.62  2
          EPOCS-88   2 Jun 1988  154.750  16.258   -149.937  8465.2   24.87
0.24    34.400  1016.5  354.60  336.07  343.84  325.88  2
          EPOCS-88   2 Jun 1988  154.792  16.360   -150.163  8491.9   24.86
0.24    34.400  1016.8 -999.90  336.77 -999.90  326.66  2
```

Table 15. Partial listing of "rt1_89.dat"
(File 13)

First five lines of the file:

```
 RITS/CO2-89, Leg 1  13 Feb 1989   44.042  24.458   -113.325     0.0   18.30
0.65     34.000  1016.2 -999.90 -999.90 -999.90 -999.90  5
 RITS/CO2-89, Leg 1  13 Feb 1989   44.083  24.253   -113.177    27.3   18.30
0.65     34.021  1016.5 -999.90 -999.90 -999.90 -999.90  5
 RITS/CO2-89, Leg 1  13 Feb 1989   44.125  24.043   -113.095    52.0   18.30
0.65     34.043  1017.0 -999.90 -999.90 -999.90 -999.90  5
 RITS/CO2-89, Leg 1  13 Feb 1989   44.167  23.907   -112.768    88.5   18.23
0.65     34.065  1017.1 -999.90 -999.90 -999.90 -999.90  5
 RITS/CO2-89, Leg 1  13 Feb 1989   44.208  23.742   -112.525   119.3   18.17
0.65     34.087  1017.1 -999.90 -999.90 -999.90 -999.90  5
```

Last five lines of the file:

```
 RITS/CO2-89, Leg 1   1 Mar 1989   60.417 -26.437   -107.855  6978.0   26.61
0.62     36.375  1018.5  351.34  405.12  340.25  392.33  2
 RITS/CO2-89, Leg 1   1 Mar 1989   60.458 -26.545   -108.083  7003.7   26.58
0.62     36.372  1018.5  351.37  402.12  340.30  389.45  2
 RITS/CO2-89, Leg 1   1 Mar 1989   60.500 -26.692   -108.137  7020.9   26.54
0.62     36.369  1018.1  351.41  403.42  340.22  390.58  2
 RITS/CO2-89, Leg 1   1 Mar 1989   60.542 -26.820   -108.502  7059.8   26.65
0.62     36.366  1019.9  349.82  406.07  339.23  393.77  2
 RITS/CO2-89, Leg 1   1 Mar 1989   60.583 -26.945   -108.845  7096.5   26.75
0.62     36.363  1020.1  351.11  390.80  340.48  378.97  2
```

Table 16. Partial listing of "rt2_89.dat"
(File 14)

First five lines of the file:

```
 RITS/CO2-89, Leg 2   5 Mar 1989   64.042 -27.245   -109.067      0.0   26.29
0.62     36.122  1020.5 -999.90  387.07 -999.90  375.84  2
 RITS/CO2-89, Leg 2   5 Mar 1989   64.083 -27.353   -108.845     25.0   26.18
0.62     36.119  1021.2  351.50  377.08  341.62  366.49  2
 RITS/CO2-89, Leg 2   5 Mar 1989   64.125 -27.395   -108.572     52.3   26.24
0.62     36.117  1021.5  350.65  400.13  340.86  388.96  2
 RITS/CO2-89, Leg 2   5 Mar 1989   64.167 -27.445   -108.305     79.2   26.25
0.62     36.114  1022.0  350.74  400.63  341.11  389.63  2
 RITS/CO2-89, Leg 2   5 Mar 1989   64.208 -27.495   -108.047    105.3   26.07
0.62     36.111  1021.9  350.40  398.47  340.87  387.63  2
```

Last five lines of the file:

```
 RITS/CO2-89, Leg 2   2 Apr 1989   92.417 -18.225   -149.270 11295.9   28.61
0.62     34.786  1015.1  354.05  350.95  340.23  337.25  2
 RITS/CO2-89, Leg 2   2 Apr 1989   92.458 -18.052   -149.388 11318.8   28.67
0.62     34.791  1014.4  353.26  354.47  339.18  340.34  2
 RITS/CO2-89, Leg 2   2 Apr 1989   92.500 -17.940   -149.482 11334.7   28.64
0.62     34.795  1013.8  354.08  353.82  339.78  339.53  2
 RITS/CO2-89, Leg 2   2 Apr 1989   92.542 -17.820   -149.600 11353.0   28.64
0.62     34.800  1013.2 -999.90  355.29 -999.90  340.74  2
 RITS/CO2-89, Leg 2   2 Apr 1989   92.583 -17.742   -149.683 11365.3   28.74
0.62     34.805  1013.0  355.05  355.11  340.36  340.42  2
```

Table 17. Partial listing of "rt3_89.dat"
(File 15)

First five lines of the file:

```
 RITS/CO2-89, Leg 3   7 Apr 1989   97.917 -15.353   -148.600     0.0   28.44
0.62    35.405  1011.1  350.95  356.16  336.00  340.99  2
 RITS/CO2-89, Leg 3   7 Apr 1989   97.958 -15.133   -148.497    26.8   28.49
0.62    35.410  1010.4  353.03  359.65  337.71  344.06  2
 RITS/CO2-89, Leg 3   8 Apr 1989   98.000 -14.907   -148.352    56.4   28.54
0.62    35.415  1009.8  351.86  360.42  336.35  344.54  2
 RITS/CO2-89, Leg 3   8 Apr 1989   98.042 -14.688   -148.323    80.9   28.58
0.62    35.419  1008.9  352.68  360.80  336.80  344.55  2
 RITS/CO2-89, Leg 3   8 Apr 1989   98.083 -14.482   -148.242   105.4   28.56
0.62    35.424  1009.4 -999.90 -999.90 -999.90 -999.90  5
```

Last five lines of the file:

```
 RITS/CO2-89, Leg 3  20 Apr 1989  110.125  47.927   -125.097  7692.9    9.79
 0.67    32.000  1009.7  348.07  257.43  341.45  252.53  2
 RITS/CO2-89, Leg 3  20 Apr 1989  110.167  48.016   -124.861  7713.0    9.37
-999.90    32.000  1009.4  346.94 -999.90  340.35 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.208  48.103   -124.630  7732.7    8.95
-999.90    32.000  1009.1  355.32 -999.90  348.56 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.250  48.193   -124.393  7752.9    8.53
-999.90    32.000  1008.7  356.75 -999.90  349.93 -999.90  5
 RITS/CO2-89, Leg 3  20 Apr 1989  110.292  48.282   -124.157  7773.0    8.10
-999.90    32.000  1008.4  354.05 -999.90  347.28 -999.90  5
```

APPENDIX

REPRINT OF PERTINENT LITERATURE

NOAA Technical Memorandum ERL PMEL-101

CARBON DIOXIDE CONCENTRATIONS IN SURFACE WATER AND THE ATMOSPHERE: PMEL CRUISES 1986-1989

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February 1994

UNITED STATES DEPARTMENT OF COMMERCE

Ronald H. Brown
Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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Carbon Dioxide Concentrations in Surface Water and the Atmosphere: PMEL Cruises 1986–1989

Paulette P. Murphy[1], Kimberly C. Kelly[1], Richard A. Feely[1], and Richard H. Gammon[2]

ABSTRACT. Carbon dioxide was measured quasi-continuously in the atmosphere and in surface seawater on 5 PMEL expeditions over the years 1986 to 1989 in the Pacific and Indian Oceans. The results of those observations are presented here, along with the calculations for converting from the measured CO_2 mole fraction in dry air to the *in situ* fugacities in units of microatmospheres. The data are given in an accompanying diskette in ASCII format.

1. INTRODUCTION

A dramatic increase in the atmospheric concentration of carbon dioxide (CO_2) has been directly observed over the past 30 years (Keeling et al., 1989). Although the present growth rate of CO_2 in the atmosphere is about 3.4 gigatons (10^{15} g) of carbon per year (GtC/yr), the present estimate of anthropogenic CO_2 sources to the atmosphere is much larger (approximately 6 GtC/yr; IPCC, 1990). Most of the CO_2 (77%) released to the atmosphere originates from the combustion of fossil fuels (Marland and Rotty, 1989). The remainder is estimated to originate from deforestation and changing land use patterns (IPCC, 1990). Since the growth rate of CO_2 in the atmosphere is less than the rate of carbon release, some of the anthropogenic carbon released to the atmosphere must be absorbed by either the terrestrial biosphere or the oceans.

The oceans have been suggested as a repository for carbon dioxide from the atmosphere through a chemical and a biological pathway. Carbon dioxide dissolves readily in the surface oceans. The dissolved gas reacts with water to form carbonic acid which rapidly dissociates to bicarbonate and carbonate ions. Ocean plants can also draw down CO_2, some of which is converted to particulate matter which sinks out of surface waters.

The uncertain role of the ocean in absorbing anthropogenic carbon from the atmosphere has stimulated interest in the cycling and fate of carbon in the sea. PMEL has made measurements on 12 cruise legs (5 expeditions) between 1986 and 1989 (Figure 1) to determine the concentrations of trace gases in the atmosphere and in surface seawater. The purpose of this report is to present the CO_2 results and to show the calculations which have been used to convert the raw values to fugacities in units of microatmospheres (μatm).

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1.1 General Discussion of CO_2 Measurements and Fugacity

Field measurements of carbon dioxide gas concentrations are often observed as the mole fraction of CO_2 in an aliquot of dried vapor. The concentration of CO_2 expressed as the mole fraction in dry air is an absolute and observable quantity, but is not necessarily the quantity which geochemists need to evaluate air-sea fluxes or to examine the relationship of dissolved CO_2 with other carbonate parameters. Geochemical assessments generally require the correction of CO_2 concentrations from the measurement units and conditions to units of microatmospheres at the *in situ* sea surface conditions. Partial pressures of CO_2 in units of μatm have been historically reported, but in recent years, fugacities have also been reported. We here offer a brief discussion of the distinction between fugacity and partial pressure, and the motivation for using fugacity in this report.

Fugacity is an expression for the concentration of a real gas in a mixture of real gases, wheras partial pressure is an expression for the concentration of an ideal gas in a mixture of ideal gases. Ideal gases are conceptualized as comprising molecules which occupy no volume and between which no forces exist. The concept of fugacity is introduced in order to use for real gases the thermodynamic relationships established for ideal gases. Fugacity cannot be measured directly, as pressure is, yet the basis for discussion of equilibrium, solubility, etc. is based on the thermodynamic quantity of fugacity, not on the observable quantity of pressure.

The thermodynamic equation of state for ideal gases is PV = nRT, where P is pressure, V is volume, n is number of moles of gas, R is the gas constant, and T is absolute temperature. This equation can be used to convert the number of moles of pure, ideal gas to the pressure of the gas. A plot of pressure vs. PV/nRT for pure nitrogen (N_2), pure carbon dioxide (CO_2), and a pure ideal gas is shown in Figure 2. An ideal gas is described in this graph by a line with zero slope and y-intercept = 1. Nitrogen approximates an ideal gas at low pressures, but becomes less ideal at higher pressures as the volume of the molecules becomes significant relative to the total volume. CO_2 is a highly non-ideal gas, even at low pressures. The negative deviation from ideality at low pressures suggests attractive forces between CO_2 molecules. The significance of this factor becomes less important at higher pressures. The approximation of ideality for CO_2 may be acceptable at ambient pressures when high accuracy is not required.

Figure 3 shows that the difference between pressure and fugacity for a typical ambient CO_2 concentration is 1 to 1.5 μatm (~0.3%) over the temperature range 0 to 30°C. These calculations assume a binary gas mixture of CO_2 and air, where air is treated as a homogeneous gas. For this report, fugacities rather than partial pressures are reported.

1.2 Summary of Data Presented

The data presented in this report are from PMEL cruises conducted in the Pacific and Indian Oceans during 1986 to 1989 (Figure 1, Table 1). Maps of the individual cruise tracks and

scatter plots of distance vs. temperature, salinity, $f(CO_2)$ in the atmosphere and $f(CO_2)$ in surface seawater are provided for each cruise leg.

The data tables provide a complete listing of the calculated fugacities, the warming-corrected mole fraction CO_2 concentrations, and the data required to convert between *in situ* mole fraction and fugacity.

Table 1. Summary of PMEL Cruises 1986 to 1989. The distance given is the distance over which data were collected along the cruise track.

Year	Cruise Section	Imports	Dates	Distance (km)
1986	EPOCS	Balboa–Honolulu	21 May–20 June	12172
1986	RITS/CO_2	Honolulu–Kodiak	1 July–23 July	7709
1987	SAGA II, Transit	Hilo–Kuril Trench	1 May–8 May	4503
1987	SAGA II, Leg 1	Kuril Trench–Wellington	8 May–9 June	11441
1987	SAGA II, Leg 2	Wellington–Singapore	12 June–6 July	11912
1987	TEW-3	Townsville–Kwajalein	13 July–27 July	3491
1987	RITS/CO_2	Kwajalein–Seattle	29 July–28 August	10520
1988	RITS/CO_2	Dutch Harbor–Am. Samoa	6 April–5 May	8648
1988	EPOCS	Am. Samoa–Honolulu	9 May–4 June	8492
1989	RITS/CO_2, Leg 1	Seattle–Easter Island	5 February–1 March	7097
1989	RITS/CO_2, Leg 2	Easter Island–Papeete	4 March–2 April	11365
1989	RITS/CO_2, Leg 3	Papeete–Seattle	7 April–20 April	7773

The fugacities were calculated according to equations given in Section 3 and in the example provided in Appendix 1. The fugacity calculations use observations of dry gas concentrations in units of parts per million, sea surface temperature, equilibrator temperature, sea surface salinity, and atmospheric pressure. The relative humidity is assumed to be 100% at the sea surface. The vapor pressure of seawater is calculated from temperature and salinity, and the functional relationship between gas solubility and temperature used is from Weiss et al. (1982). The fugacity values given in the data tables are the *in situ* fugacities which have been corrected for the warming of the seawater in transiting to the equilbrator.

The mole fraction values given in the data tables are the dry gas concentrations at the *in situ* temperature. For the air values, the reported concentration, $X(CO_2)_{air}$, is the mole fraction of the dried air pumped from the bow line. For the water values, the reported concentration, $X(CO_2)_{sw}$, is the mole fraction of the dried vapor drawn from the equilibrator headspace which has been converted to fugacity, corrected for warming, and converted back to mole fraction as shown schematically in Figure 4.

The warming values provided in the data tables indicate the degrees of warming (°C) for seawater as it transited from the intake line to the analysis site. The warming values were derived from the regression of hourly warming on hourly sea surface temperature. Detailed information on the temperatures data and analyses for each of these cruises are provided in Murphy et al. (1993).

2. METHODS

2.1 Measurement of CO_2 in the Atmosphere and in Surface Seawater

Carbon dioxide measurements in the atmosphere and in surface water were made on these cruises by Ms. Kimberly Kelly. Mixing ratios of CO_2 mixing ratios were analyzed with an automated, temperature-controlled gas chromatographic system similar to that described by Weiss (1981) and Bates et al. (1993). Every 12 minutes one of four gases (atmospheric sample, standard 1, equilibrator vapor sample, or standard 2) was injected for analysis. Details of sample collection, gas standard calibration, and data reduction follow.

Air was pumped through 3/8-inch O.D. plastic-coated aluminum tubing (Dekoron) from the jackstaff on the bow of the ship, 10 meters above the sea surface, to the oceanographic laboratory for analysis. This line was continuously flushed at 8–10 L/min. Aliquots from this air stream were dried using phosphorous pentoxide and 2 milliliters were injected into a gas chromatograph (GC) where CO_2 was separated from the other gases, catalytically reduced to methane, and routed to the flame ionization detector. The instrument response was compared with the response of standard gases for quantification. The standard gases were dried and treated in exactly the same manner as the air and equilibrator samples.

Surface seawater entered the ship's seachest via a forward intake line located approximately 5 meters below the water level. From the seachest, the water was pumped up to a showerhead-

type Plexiglas equilibrator designed by R. Weiss (Butler et al., 1988). Water rains through the equilibrator at 15–20 L/min and the gases dissolved in the seawater partition between the aqueous and vapor phases according to their solubilities at the temperature and salinity of the seawater in the equilibrator. Aliquots of the equilibrator vapor phase were sampled, dried, and analyzed as described above for atmospheric samples.

The gas standards were dried, whole-air mixtures contained in aluminum cylinders. The working standards were calibrated against the primary standards before and after the 1987, 1988, and 1989 cruises. The primary standards (CC48232 – 352.47 ppm, CC48302 – 355.97 ppm, CC48314 – 353.39 ppm) were filled and calibrated by the National Oceanic and Atmospheric Administration/Climate Monitoring and Diagnostics Laboratory (NOAA/CMDL) in February 1987. Subsequent calibrations of these primary standards by CMDL in November 1987, June 1990 and August 1990 have shown that the CO_2 mixing ratios have remained constant during this 3.5 year period. The CO_2 mixing ratios in the working standards ranged from 228.15 ppm to 460.43 ppm. The working standards were calibrated by CMDL in 1990. These calibrations agreed to within 0.5% of the values assigned to each tank by PMEL based on the primary standards and a linear FID detector response. The data reported here have been reduced using the CMDL calibrations of the working standards. The mixing ratios reported here are in the World Meteorological Organization (WMO) X85 scale (Thoning et al., 1987). The accuracies of the CO_2 standards are given by CMDL as ±0.6% by comparison with the manometric analyses of C.D. Keeling at the Scripps Institution of Oceanography. Instrument precision was determined by the average percent standard deviation of the standard response over a 6-hour period. The precision varied between cruises but was always less than 1.2% and was more typically around 0.4% (Table 2).

Table 2. Instrument precision in percent standard deviation from the standard value.

Year	Cruise	% Std.Dev.
1986	EPOCS	.94
1986	RITS/CO_2	.71
1987	SAGA II	.24
1987	TEW-3, RITS/CO_2	.32
1988	RITS/CO_2	.60
1988	EPOCS	.21
1989	RITS/CO_2	.37

The CO_2 mixing ratios in the air and equilibrator samples were calculated as follows. The data were first visually filtered to eliminate any episodes of ship contamination. These episodes were quite evident from the extremely high carbon monoxide values that were measured simultaneously. The mixing ratios of CO_2 in both the air and equilibrator samples were then computed based on peak area and either a 4-hour or 6-hour running mean single-point standard. These dry-air mixing ratios were then binned into hourly values based on the measurements made 30 minutes before and after the hour.

2.2 Ancillary measurements

The ancillary measurements used to calculate *in situ* CO_2 concentrations in the atmospheric and surface seawater samples are sea surface temperature, temperature of seawater in the equilibrator, salinity, and atmospheric pressure. Suface seawater temperature was measured near the bow intake line on most cruises with a thermosalinograph provided by the ship. The temperature of water in the equilibrator was measured by mercury thermometer and thermistors. Temperature analyses are reported independently by Murphy et al. (1993). Salinity was taken from the thermosalinograph located near the bow intake line, and atmospheric pressure was recorded hourly from a barometer located on the bridge deck of the ships.

3. DATA ANALYSIS

3.1 Data Requirements

A number of ancillary measurements are required to calculate *in situ* fugacity from the observed mole fraction of CO_2 in dry air. Calculation of fugacities in the atmosphere is simpler since the dried air is directly injected into the analyzer (see methods section). Determination of the CO_2 fugacity in surface seawater is not as straightforward. Firstly, the gas concentration is not measured *in situ*, since the water must be pumped up from the surface to the analysis site. Secondly, the gas concentration is not determined in the aqueous phase, but is determined in the vapor phase of the equilibrator. And thirdly, the measured quantity is in dried air rather than in the moist conditions of the seawater-air interface. Determining the *in situ* fugacity of CO_2 in surface seawater requires 8 pieces of information:

1. concentration of the gas in the dried vapor phase from the seawater equilibrator
2. *in situ* surface seawater temperature
3. temperature of seawater in the equilibrator
4. sea surface salinity
5. atmospheric pressure
6. relative humidity
7. vapor pressure of seawater
8. the functional relationship between gas solubility and temperature

Some simplifying assumptions are generally made so that only 3 or 4 of these quantities are usually determined at sea. Each of the 8 data requirements is discussed in more detail below.

1) The concentration of CO_2 is measured in vapor drawn from the equilibrator. The vapor is dried by passing through a chemical trap and then injected into an analyzer. The gas concentration is evaluated by comparison of the instrument response for an unknown concentration to the response for known concentrations of calibrated gas standards. Concentrations for CO_2 gas standards are commonly expressed as mole fractions (the ratio of moles of gas of interest to the total moles of gas) in the dimensionless units of parts per million (ppm).

2) and 3) *In situ* surface seawater temperature t_{ss} and the temperature of seawater in the equilibrator t_{eq} are measured directly. The analysis temperature, i.e., the temperature of seawater in the equilibrator t_{eq}, is generally higher than the *in situ* seawater temperature t_{ss} by about 0.5–1°C. At least three reasons can account for the warming of water in the equilibrator: (1) Frictional warming occurs as the water travels from the seawater intake port to the equilibrator. The extent of this warming will depend on the distance traveled, flow rate, and on the inside diameter of the pipe, as well as on the type of pump used. (2) Conductive warming may occur if a thermal gradient exists between the water traveling in the pipe and the pipe exterior. This effect is expected to be larger in cases where the pipe line runs mainly inside the ship. (3) Warming resultant from insolation will be a factor in cases where the pipe runs outside the ship.

Gas solubility generally decreases with increasing temperature, as will be discussed later in more detail. If the seawater in the equilibrator is warmer than the *in situ* seawater, the apparent gas fugacity in the equilibrator will be higher than the fugacity *in situ*. The difference between *in situ* gas fugacity and that measured in the equilibrator is ≈4% per °C for CO_2 (Figure 5).

4) Salinity is either measured directly or assumed to be a constant value. Salinity is used for 7) the evaluation of vapor pressure of seawater and 8) the temperature and salinity dependence of gas solubility. For evaluation of the vapor pressure of seawater, the error resultant if salinity is ignored altogether is ≈2%, and even smaller (≈0.05%) if salinity is in error by 1 salinity unit. The error in neglecting salinity when calculating gas solubility is <0.1% for CO_2.

5) Atmospheric pressure is either measured directly or assumed to be 1 atmosphere. If the atmospheric pressure at which the measurements had been made were 950 mbar instead of 1000 mbar, the fugacity of CO_2 $f(CO_2)$ would be 5% lower. Only rarely does the atmospheric pressure deviate by this amount, and so more commonly the error in $f(CO_2)$ of assuming 1 atmosphere barometric pressure is smaller, perhaps 1–2%.

6) The relative humidity at the air-sea interface is assumed to be 100%, i.e., saturated in water vapor at the temperature of the measurement. The gas concentration measured in dry air is adjusted to reflect the moist *in situ* condition. This assumption is a reasonable one since the vapor immediately above the sea surface is not likely to be far from saturated with water, but the

error would be small in any event. If, for example, the humidity were 90% instead of 100%, the error in the *in situ* fugacity would be 0.3% for a mole fraction of 350 ppm gas in dry air.

7) The vapor pressure of seawater is generally calculated from temperature and salinity data. One method of calculation is given by Weiss and Price (1980) in which one equation is used to assess the saturation vapor pressure over seawater. They combined the vapor pressure algorithm for pure water of Goff and Gratch (1946) with equations for vapor pressure lowering by sea salt given by Robinson (1954) and fit a polynomial in temperature and salinity over the range 273 to 313K and 0 to 40 ppt salinity:

$$\ln p_{sw} = 24.4543 - 67.4509\ (100/T) - 4.8489\ \ln\ (T/100) - 0.000544S \qquad (1)$$

where p_{sw} is the vapor pressure of seawater
T is the temperature in Kelvin
S is the salinity in ppt

For natural seawater systems, the salinity correction is a small one. If, for example, salinity were assumed to be 0 instead of 33 psu (at 25°C), the error in vapor pressure would be 1.8%, giving rise to a 0.06% error in calculating *in situ* gas fugacity for a measured mole fraction of 350 ppm.

8) The dependence of gas solubility on temperature is generally determined experimentally from laboratory studies. A functional relationship between gas solubility and temperature is established empirically from the data. As long as there is no chemical reaction between the solute gas and the solvent, that relationship can be used to infer gas solubility at a temperature other than the measured temperature. Since gas concentrations at sea are measured in equilibrator vapor at temperature t_{eq}, and t_{eq} is higher than *in situ* t_{ss}, the functional dependence of gas solubility on temperature might be used to calculate the gas solubility at the *in situ* temperature t_{ss}.

However, at normal seawater pH (≈8), CO_2 can react as follows:

$$CO_{2(g)} + H_2O \rightleftharpoons H_2CO_3 \rightleftharpoons HCO_3^- + H^+ \rightleftharpoons CO_3^{=} + H^+ \qquad (2)$$

For this reacting system a temperature change also induces changes in the chemical equilibria. The solubility of CO_2 measured at normal seawater pH would include the effects of both solubility *and* reactivity of CO_2, and would be too high. In order to determine only the solubility of CO_2 gas, the experimental work on CO_2 solubilities has been done with acidified solutions of seawater (pH ≈2) to suppress ionization of CO_2 according to equation (2). In order to determine a functional relationship between temperature and the solubility of CO_2 in a real seawater system, the reactivity of carbon dioxide in seawater must be also be taken into account.

Weiss *et al.* (1982) evaluated the temperature dependence of $f(CO_2)$ in a gas phase equilibrated with seawater by calculating $f(CO_2)$ from equations describing carbonate system equilibria. For a given combination of salinity S, total titration alkalinity A_t, and dissolved inorganic carbon (DIC), the fugacity of CO_2 was calculated over a temperature range of 0 to 36°C. The fugacity $f(CO_2)$ as a function of temperature was calculated over a range of S, A_t, and DIC values. These data may be thought of as comprising a family of temperature vs. $f(CO_2)$ curves where each curve represents the fugacity dependence on temperature under slightly different chemical (S, A_t, and TIC) circumstances. The ideal situation, however, is one in which the temperature dependence of CO_2 fugacity can be described independently of the chemical state. By considering the family of curves temperature vs. ln $f(CO_2)$, Weiss *et al.* (1982) fitted the natural logarithm of $f(CO_2)$ to a power series in temperature. Those expressions were differentiated, and again fitted to the following equation:

$$\partial \ln f(CO_2) / \partial t = 0.03107 - 2.785 \cdot 10^{-4}\, t - 1.839 \cdot 10^{-3} \ln f(CO_2) \qquad (3)$$

This equation indicates that, for a given $f(CO_2)$ and temperature, the increase in $f(CO_2)$ with temperature (i.e., the slope of the t vs. ln $f(CO_2)$ curve) for all these curves can be described by a power series in temperature. In this way, the temperature dependence of $f(CO_2)$ can be described without reference to the chemical state of the system. As shown in Figure 5, $f(CO_2)$ changes by ≈4% for every °C change in temperature.

3.2 Calculation of $f(CO_2)$ for Moist Air Conditions

The first step in evaluating the *in situ* gas concentration, either in the atmosphere or in vapor equilibrated with surface seawater, is calculation of the gas fugacity in moist air from the measured mole fraction in dry air. Weiss and Price (1980) give the theoretical basis for this calculation based on equations given by Guggenheim (1967, pp. 175–177) for calculating fugacities in binary mixtures:

$$f_1 = x_1 P \exp[(B_{11} + 2(x_2)^2 \cdot \delta_{12})P / RT] \qquad (18)$$

where x_1 = the mole fraction of pure gas 1, x_2 is the mole fraction of pure gas 2, P is the total pressure, R is the gas constant, T is absolute temperature, and δ_{12} is defined by:

$$B_{12} = 1/2(B_{11} + B_{22}) + \delta_{12} \qquad (19)$$

where B_{11} is the virial coefficient for interaction between pure gas 1 molecules; B_{22} is the virial coefficient for interaction between pure gas 2 molecules, and B_{12} is the virial coefficient for interaction between molecules of gas 1 and 2.

For calculating *in situ* gas fugacities, gas 1 is here considered as the analyte gas and gas 2 as dry air. The x_1 in the above equation is the mole fraction of analyte gas in the analyte gas-dry air mixture. For an analyte like CO_2, the atmospheric value of x_1 is approximately $350 \cdot 10^{-6}$ moles of CO_2 per mole of dry gas mixture. The x_2 is the mole fraction of dry air in that same mixture, and is approximately equal to 1:

$$x_2 = (1 - 350 \cdot 10^{-6}) / 1.0 = 0.99965 \text{ moles of air per mole of dry gas mixture.} \quad (20)$$

To calculate CO_2 fugacity for the moist air conditions at the air-sea interface, the measured mole fraction of CO_2 in dry air, x_1 in equation (18), must be corrected to the mole fraction of the CO_2 in moist air. If the air-sea interface is regarded as saturated in water vapor at the *in situ* temperature, the mole fraction of the CO_2 in dry air, x_1, can be corrected to the mole fraction in moist air x_1' as follows:

$$x_1' = x_1(1 - p_{sw}/p_{atm}) \quad (21)$$

where p_{sw} is the saturated vapor pressure of seawater at the temperature of the measurement. For atmospheric $f(CO_2)$, the temperature of calculation is the *in situ* air temperature; for $f(CO_2)$ in surface seawater, this corresponds to the equilibrator temperature. The total barometric pressure is represented by p_{atm}.

Substituting x_1' from equation (21) for x_1 in equation (18) gives:

$$f_1 = x_1(1 - p_{sw}/p_{atm})\, p_{atm} \exp[(B_{11} + 2(x_2)^2 \cdot \delta_{12})p_{atm} / RT] \quad (22)$$

Since x_2 is approximately equal to 1 for the analyte gases considered here (equation 20), equation (22) reduces to:

$$f = x_1(p_{atm} - p_{sw}) \exp[p_{atm}(B + 2\delta) / RT] \quad (23)$$

where:

f is the fugacity of the analyte gas in moist air in units of atmospheres

x_1 is the measured mole fraction of the analyte gas in dry air in units of parts per million (ppm)

p_{atm} is the total barometric pressure in units of atmospheres

p_{sw} is the saturated vapor pressure of seawater (in atmospheres) at the temperature of the measurements and is calculated from equation (3) in the main text from Weiss and Price (1980):

$$\ln p_{sw} = 24.4543 - 67.4509\ (100/T) - 4.8489\ \ln\ (T/100) - 0.000544S \qquad (24)$$

B is the virial coefficient for CO_2 and can be calculated using a power series given by Weiss (1974):

$$B = -1636.75 + 12.0408T - 3.27957 \cdot 10^{-2}\ T^2 + 3.16528 \cdot 10^{-5} T^3 \qquad (25)$$

δ is the cross virial coefficient B_{12} for interaction between gases 1 and 2 minus the mean of B_{11} and B_{22} for two pure gases (See equation 19). Weiss (1974) gives this for CO_2 and air as a function of temperature.

$$\delta = 57.7 - 0.118T\ cm^3/mole \qquad (26)$$

R is the gas constant

T is the temperature of water in the equilibrator in Kelvin at the time the gas aliquot was removed.

The fugacity obtained is the fugacity of CO_2 in the moist equilibrator vapor. Since the temperature in the equilibrator is higher than the sea surface temperature, another calculation is required to correct this value to obtain the fugacity of CO_2 at the *in situ* sea surface conditions.

3.3 Correction of $f(CO_2)$ for Warming of the Surface Seawater

The next calculation is the correction of the fugacity in the moist equilibrator vapor to the *in situ* fugacity of CO_2 in equilibrium with surface seawater. Since the water in the equilibrator has warmed in transiting from the bow inlet line of the ship up to the equilibrator, a correction must be applied for this warming. The equation which simultaneously describes the temperature dependence of CO_2 solubility and carbonate equilibria is given by equation (16) in the main text from Weiss *et al.* (1982):

$$\partial \ln f(CO_2) / \partial t\ = 0.03107 - 2.785 \cdot 10^{-4}\ t - 1.839 \cdot 10^{-3}\ \ln f(CO_2) \qquad (27)$$

In the case of evaluating the warming correction of seawater in transiting to the equilibrator, $\partial \ln f(CO_2)/\partial t$ is the change in the logarithm of the measured fugacity in moist air for an incremental change in the equilibrator temperature.

This calculation gives the fugacity reported in the data table for $f(CO_2)$ in surface seawater, i.e., the fugacity of CO_2 in moist air at the sea surface conditions.

4. CRUISE DESCRIPTIONS AND DATA RESULTS

All dates and times given in the text and the data tables are Greenwich Mean Time (GMT). North latitudes and east longitudes are listed as postive values. South latitudes and west longitudes are given as negative values. The data flags used in the tables follow the WOCE water sample quality flag definitions. The value 3 in the flag column indicates questionable $f(CO_2)_{sw}$ data. The letter P in the flag column indicates questionable latitude and/or longitude. The $f(CO_2)$ water data were flagged (and indicated by a circle in the graphs) if the values showed unusually high deviations from the trend which could not be explained.

Positional data were checked against the available ship log records using two methods. First, plots of time vs. latitude and of time vs. longitude were made for each cruise. A given point was checked against the marine operations abstracts (moas) if it was judged to be sufficiently far from the trend. A second check was made by plotting time vs. the distance travelled in an hour. Most of the data show the ship speeds between 0 and 20 knots, but a few points suggested much higher speeds. The positions were checked against the moas if the speeds exceeded 25 knots. Since the original ship log records for the 1987 SAGA II expedition were not available for this comparison, the data were compared against the 3-hour positional data provided. No obvious problems were found with this record, and so the hourly positions, interpolated from the 3-hour record were used without corrections. These errors could decrease the cumulative distance totals for the SAGA II expeditions by several hundred kilometers.

4.1 EPOCS 1986

The EPOCS cruise designated EP2-86-OC began on 21 May (Day 141) 1986 aboard the NOAA research vessel *Oceanographer*. The ship departed from Balboa, Panama and headed southwest to the equator at 97°W. The cruise track continued west along the equator (Figure 6), diverting for mooring work along 110°W and 140°W. The cruise continued northwest from the equator at 143°W, ending in Honolulu, Hawaii on 20 June (Day 171). CTD and oxygen measurements for this track are reported in Lynch et al. (1988). Chlorofluorocarbon (CFC) measurements are reported by Wisegarver et al. (1993).

The mean atmospheric fugacity, $f(CO_2)_{air}$, for this equatorial track was 334.7 ± 1.1 µatm (Figure 7). Surface seawater values, $f(CO_2)_{sw}$, ranged between ~410 µatm and 430 µatm along the equator from 90°W to 112°W. Concentrations dropped sharply (to ~370 µatm) when the ship diverted north into fresher, warmer waters to the north of 3°N. $f(CO_2)_{sw}$ rose to ~420 µatm as the cruise track returned to the equator, but dropped to ~360 µatm as the ship moved away from the equator near 143°W, 6°N. Concentrations continued low (~350 µatm) into Hawaii. The mean percent standard deviation of the standard gases on this leg was <1%.

Seven points were anomalously low on this track. They are flagged in the data tables and are circled in Figure 7.

4.2 RITS/CO_2 1986

The RITS/CO_2 cruise was a continuation of the EPOCS 1986 cruise. The NOAA Ship *Oceanographer* sailed from Hawaii on 1 July (Day 182) and headed northeast, southeast, northeast, north along 135/145°W, and into Kodiak, Alaska on 23 July (Day 204). The cruise track is indicated in Figure 8. CFC measurements made on this cruise are reported by Wisegarver et al. (1993).

Mean atmospheric f(CO_2) along this section was 342.41 µatm with values ranging from 337 near 20°N to 350 µatm near 52°N (Figure 9). Surface seawater concentrations were near equilibrium or slightly undersaturated north of Hawaii to 30°N. Supersaturations of ~15 µatm persisted from 30° north but the waters became undersaturated by ~34 µatm near 45°N. $f(CO_2)_{sw}$ remained slightly undersaturated along 50°N, but dropped to ~290 µatm as the ship continued north and into the Gulf of Alaska. The mean percent standard deviation of the standard gases on this leg was <0.7%.

4.3 SAGA II 1987, Kamchatka Transit

This expedition aboard the Soviet vessel *Akademik Korolev* began in Hilo, Hawaii (Figure 10). The portion from Hilo to the Kuril Trench off Kamchatka, Alaska began 1 May (Day 121) 1987, and is termed the Kamchatka transit.

Data were collected sporadically along this transit, so the record is not continuous. The available surface seawater concentrations indicate general undersaturation by up to 50 µatm relative to atmospheric values (Figure 11). Surface water values were high approaching the Kuril Trench, but dropped sharply (from 412 to 256 µatm) over an hour near 48°N. This steep gradient was also found by Butler et al. (1988) and attributed to high primary productivity. The mean percent standard deviation of the standard gases on this leg was 0.24%.

4.4 SAGA II 1987, Leg 1

Leg 1 began on 8 May (Day 128) from the Kuril Trench region (Figure 12) and followed the 160°E meridian south to 5°S. After a jog to the east, the track continued south along the 170°E meridian into Wellington, New Zealand on 9 June (Day 160).

Atmospheric values were near 350 µatm in the north, dropping to 330 µatm just south of the equator and increasing to 345 µatm near 45°S (Figure 13). Surface seawater values were high leaving the Kuril Trench area, but dropped to ~260 µatm near 40°N. To the south $f(CO_2)_{sw}$ increased to near saturation but dropped to ~300 µatm near 10°S. Surface water values remained near 300 µatm as the ship continued south, but increased sharply as the ship approached New Zealand. The mean percent standard deviation of the standard gases on this leg was 0.24%.

4.5 SAGA II 1987, Leg 2

Leg 2 began out of Wellington on 12 June (Day 163) heading west into the Indian Ocean and concluding in Singapore on 6 July (Day 187). The cruise track is shown in Figure 14.

Atmospheric $f(CO_2)$ ranged from a low of 332 µatm near the end of the track to 349 µatm off the west coast of New Zealand. Surface seawater values were highly variable along this track, ranging from 290 to 410 µatm (Figure 15). The mean percent standard deviation of the standard gases on this leg was 0.32%.

4.6 TEW-3 1987

The NOAA Ship *Oceanographer* departed Townsville, Australia on 13 July (Day 194) for the TW3-87-OC cruise and steamed northeast to 5°S, 165°E for station work in the Samoan Passage (Figure 16). The ship then continued north along 165°E and into Kwajalein, Micronesia on 27 July (Day 208). Details of the CTD temperature, salinity, and oxygen data are given by Mangum et al. (1991). Results of the freon measurements made on this cruise are provided by Wisegarver et al. (1993).

The mean atmospheric value for this section was 334.01 ± 1.11 µatm (Figure 17). Surface seawater CO_2 was largely undersaturated through the Coral Sea but increased rapidly to 353 µatm near 5°S. Water values remained near saturation or supersaturated north to 1°S. Across the equator surface seawater was undersaturated as far north as 2°N but dropped again quickly to undersaturation from 2° and north into Kwajalein. The mean percent standard deviation of the standard gases on this leg was 0.24%.

4.7 RITS/CO_2 1987

The RITS/CO_2 cruise was an continuation of the TEW-3 cruise, beginning on 29 July (Day 210) from Kwajalein (Figure 18). The cruise track continued north along 165°E to 50°N and then east into Dutch Harbor, Alaska. After a brief stop in Dutch Harbor on Days 233/234, the ship continued east along 50°N and then into Seattle, Washington on 28 August (Day 240). CFC results for this cruise are given in Wisegarver et al. (1993).

Atmospheric $f(CO_2)$ values were steady at 334 µatm out of Kwajalein, but ranged from 330 to 343 µatm along the cruise track (Figure 19). Surface seawater CO_2 was supersaturated from Kwajalein north to 36°N. $f(CO_2)_{sw}$ dropped sharply to 264 µatm near 40°N and remained undersaturated until the ship diverted from its eastward track north into Dutch Harbor. Seawater $f(CO_2)$ was variable north of 50°N, especially in the coastal waters of the Aleutian Islands. After the ship returned to 50°N $f(CO_2)_{sw}$ returned to undersaturation. Values climbed to 375 µatm near 50°N, 152°W and then decreased to near- or undersaturation as the ship moved east and into Seattle. The mean percent standard deviation of the standard gases on this leg was 0.32%.

4.8 RITS/CO_2 1988

The RITS/CO_2 1988 cruise began on 6 April (Day 97) aboard the NOAA Ship *Oceanographer* (Figure 20). They sailed from Dutch Harbor to the south along 170°W to American Samoa, arriving on 5 May (Day 126). CFC data from this cruise are given in Wisegarver et al. (1993).

Atmospheric f(CO_2) was highest near to the north (357 µatm) and generally decreased to ~335 µatm to the south along this track (Figure 21). Seawater f(CO_2) values were low out of Dutch Harbor, but rose to 384 µatm near 48°N and then dropped gradually to <300 µatm near 34°N. This undersaturation persisted as far south as 10°N. The surface waters across the equator from 10°N to 6°S were supersaturated by as much as 96 µatm relative to the atmosphere. Near 6°S the f(CO_2) values dropped sharply to undersaturation which persisted into Samoa. The mean percent standard deviation of the standard gases on this leg was 0.60%.

4.9 EPOCS 1988

The EPOCS 1988 cruise was a continuation of RITS/CO_2. *Oceanographer* sailed out of Samoa on 9 May (Day 130) north to the equator (Figure 22). They then continued east along the equator to 140°W and then north to Honolulu, Hawaii on 4 June (Day 156). The temperature, salinity and oxygen data from CTD measurements made on this cruise are given in Mangum et al. (1993).

Atmospheric f(CO_2) was lowest near Samoa (333 µatm) and increased to the north, reaching 345 µatm near 15°N (Figure 23). Surface seawater values were also lowest near Samoa, but increased toward the equator. Supersaturation persisted along the equator (~430 µatm), but CO_2 concentrations dropped to near-saturation north of 5°N and into Hawaii. The mean percent standard deviation of the standard gases on this leg was 0.21%.

Two values were anomalously high on this track. They are flagged in the data tables and are circled in Figure 23.

4.10 RITS/CO_2 1989, Leg 1

The NOAA Ship *Discoverer* left Seattle on 5 February (Day 37) 1989. After two brief stops in San Diego and then Manzanillo, Mexico, the ship continued southward along 105°W/110°W and into Easter Island on 1 March (Figure 24). CFC measurements made on this leg are given by Wisegarver et al. (1993).

Atmospheric values were high off Baja, California, but dropped to a relatively stable value of ~339 µatm between 10°N and Easter Island (Figure 25). Surface seawater values were supersaturated off Baja, but dropped to near-saturation to the south. The pattern of f(CO_2) across the equator is complex, rising to 423 µatm near 2°S, dropping to saturation and then increasing to a maximum of 481 µatm at 4°S. From there the values dropped slowly reaching 354 µatm

near 16°S. From 16°S to Easter Island, surface seawater was supersaturated by up to 60 µatm. The mean percent standard deviation of the standard gases on this leg was 0.37%.

4.11 RITS/CO_2 1989, Leg 2

Leg 2 began on 4 March (Day 63), with *Discoverer* continuing south along 105°W to 60°S (Figure 26). The cruise track then turned northwest and the ship arrived in Tahiti on 2 April (Day 92). Wisegarver et al. (1993) report the CFC measurements made on this track.

Atmospheric values were quite variable along this section, ranging from 328 µatm near 60°S to 353 µatm near 45°S (Figure 27). Surface seawater values were ~380 µatm south from Easter Island to 40°S where they dropped to near-saturation. Surface seawater f(CO_2) dropped suddenly near 61°S from 332 to 266 µatm within 1 hour and stayed low for several hours. The system was shut down to remove krill from the equilibrator and to check instrument performance. When the system was started again near 58°S, seawater f(CO_2) had returned to equilibrium values. Seawater values close to saturation persisted into Tahiti. One anomalously high value (near 58°S) is flagged in data table and indicated withan open circle on the scatter plot of distance vs. f(CO_2). The mean percent standard deviation of the standard gases on this leg was 0.37%.

One value was anomalously high on this track. It is flagged in the data tables and is circled in Figure 27.

4.12 RITS/CO_2 1989, Leg 3

The final leg of the 1989 cruise began 7 April (Day 97) from Tahiti and ended 20 April (Day 110) in Seattle (Figure 28).

Atmospheric f(CO_2) values were 334 µatm in the southern hemisphere and rose to a high of 350 µatm approaching Seattle (Figure 29). Surface seawater values were oversaturated from Tahiti, and peaked at 440 µatm just south of the equator (2°S), dropping to saturation near 14°N. Seawater remained near- or under-saturated from 14°N and dropped sharply on the approach to coastal waters. The mean percent standard deviation of the standard gases on this leg was 0.37%.

5. ACKNOWLEDGMENTS

The officers and crew of the NOAA Ships *Oceanographer*, NOAA Ship *Discoverer*, and the Soviet Ship *Akademik Korolev* are gratefully acknowledged for their assistance in data collection. The advice and assistance of Dr. Bruce Taft was invaluable in bringing this manuscript to publication. Dr. Tim Bates offered many helpful suggestions for analyzing the data and preparing the manuscript. Discussions with Dr. Ray Weiss significantly improved our discussion of the calculations, and of dissolved gas behavior in general. PPM benefited from the support and guidance of Dr. D.E. Harrison during this project. Steve Hankin and Ed Flinchem

are thanked for software wizardry and assistance in preparing the cruise track graphics. Ryan Whitney prepared the final document for publication and copied the accompanying disks.

These data were collected with support from the Atmospheric Chemistry component of the NOAA Climate and Global Change Program. The Office of Global Programs supported data analysis and report publication. We appreciate the assistance of the National Climate Program Office staff in coordinating Working Group VIII of the US-Soviet Environmental Bilateral Agreement. We thank P. Tans, P. Steele, T. Conway and K. Thoning for filling and calibrating the standards cylinders.

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Appendix 1: Sample Calculation of Gas Concentration in Seawater

Assume that a sample of seawater has been pumped up from the bow inlet line of the ship to the equilibrator. The water temperature is 20°C in the equilibrator and the water warmed by 0.5°C in transiting. The salinity is 34 psu. Vapor from the equilibrator has been sampled, dried and injected into a gas chromatograph. The CO_2 concentration measured in the dried air is 337.00 ppm based on the response of calibration gases. The atmospheric pressure at the time the CO_2 concentration was measured was 1023.3 mbar (× .000987 atm/mbar = 1.010 atm).

In this example for CO_2, equation (22) above is first used to obtain a fugacity in moist air:

$$f = x_1(p_{atm} - p_{sw}) \exp[p_{atm}(B + 2\,\delta) / RT]$$

$$x_1 = 337.00 \text{ ppm}$$

$$p_{atm} = 1.010 \text{ atm}$$

p_{sw} is calculated from equation (3) in the main text from Weiss and Price (1980):

$$\begin{aligned} \ln p_{sw} &= 24.4543 - 67.4509\,(100/T) - 4.8489 \ln (T/100) - 0.000544S \\ &= 24.4543 - 67.4509\,(100/293.15) - 4.8489 \ln (293.15/100) - 0.000544 \\ &= -3.788 \\ p_{sw} &= 0.02263 \text{ atm} \end{aligned}$$

B can be calculated using a power series given by Weiss (1974):

$$\begin{aligned} &= -1636.75 + 12.0408T - 3.27957 \cdot 10^{-2}\,T^2 + 3.16528 \cdot 10^{-5}T^3 \\ &= -1636.75 + 12.0408(293.15) - 3.27957 \cdot 10^{-2}\,(293.15)^2 + 3.16528 \cdot 10^{-5}(293.15)^3 \\ &= -127.94 \text{ cm}^3\text{/mole} \end{aligned}$$

δ is the cross virial coefficient B_{12} for interaction between gases 1 and 2 minus the mean of B_{11} and B_{22} for two pure gases. Weiss (1974) gives this for CO_2 and air as a function of temperature:

$$\begin{aligned} &= 57.7 - 0.118T \text{ cm}^3\text{/mole} \\ &= 57.7 - 0.118\,(293.15) \\ &= 23.1 \text{ cm}^3\text{/mole} \end{aligned}$$

$R = 82.056 \text{ cm}^3 \cdot \text{atm/mole K}$

From this information the fugacity of CO_2 in the moist equilibrator vapor is calculated as 331.6 µatm. To correct this value for warming, equation (27) from above (main text) is used with finite increments:

$$\Delta \ln f(CO_2) / \Delta t = 0.03107 - 2.785 \cdot 10^{-4}\, t - 1.839 \cdot 10^{-3} \ln f(CO_2)$$

where Δt is the warming, in this example = 0.5°C, and t is the temperature of water in the equilibrator, in this example = 20.0°C

$$\begin{aligned} \Delta \ln f(CO2) &= [0.03107 - 2.785 \cdot 10^{-4}\,(20.0) - 1.839 \cdot 10^{-3} \ln(331.6 \cdot 10^{-6})]\ 0.5 \\ &= 0.02012 \end{aligned}$$

The natural log of $331.6 \cdot 10^{-6} = -8.012$. The *in situ* fugacity corrected for warming is calculated from exp (–8.012 – 0.02012) = –8.032, and f = 324.9 µatm.

Appendix 2: Data File Information

The electronic file data are in ASCII format. Missing data are designated by -99. Each of the files has the same format as follows.

1 Date (GMT)
2 Day of the year (GMT)
3 Latitude
4 Longitude
5 Cumulative distance (km)
6 Sea surface temperature (°C)
7 Warming (°C)
8 Salinity (ppt)
9 Atmospheric pressure (mbar)
10 $X(CO_2)$air—in units of ppm in dry air
11 $X(CO_2)$sw—warming corrected in units of ppm in dry air
12 $f(CO_2)$air—in units of µatm in moist air
13 $f(CO_2)$sw—warming corrected in units of µatm in moist air
14 Data flag
3 indicates questionable $f(CO_2)_{sw}$ data.
P indicates questionable latitude and/or longitude

FIGURES

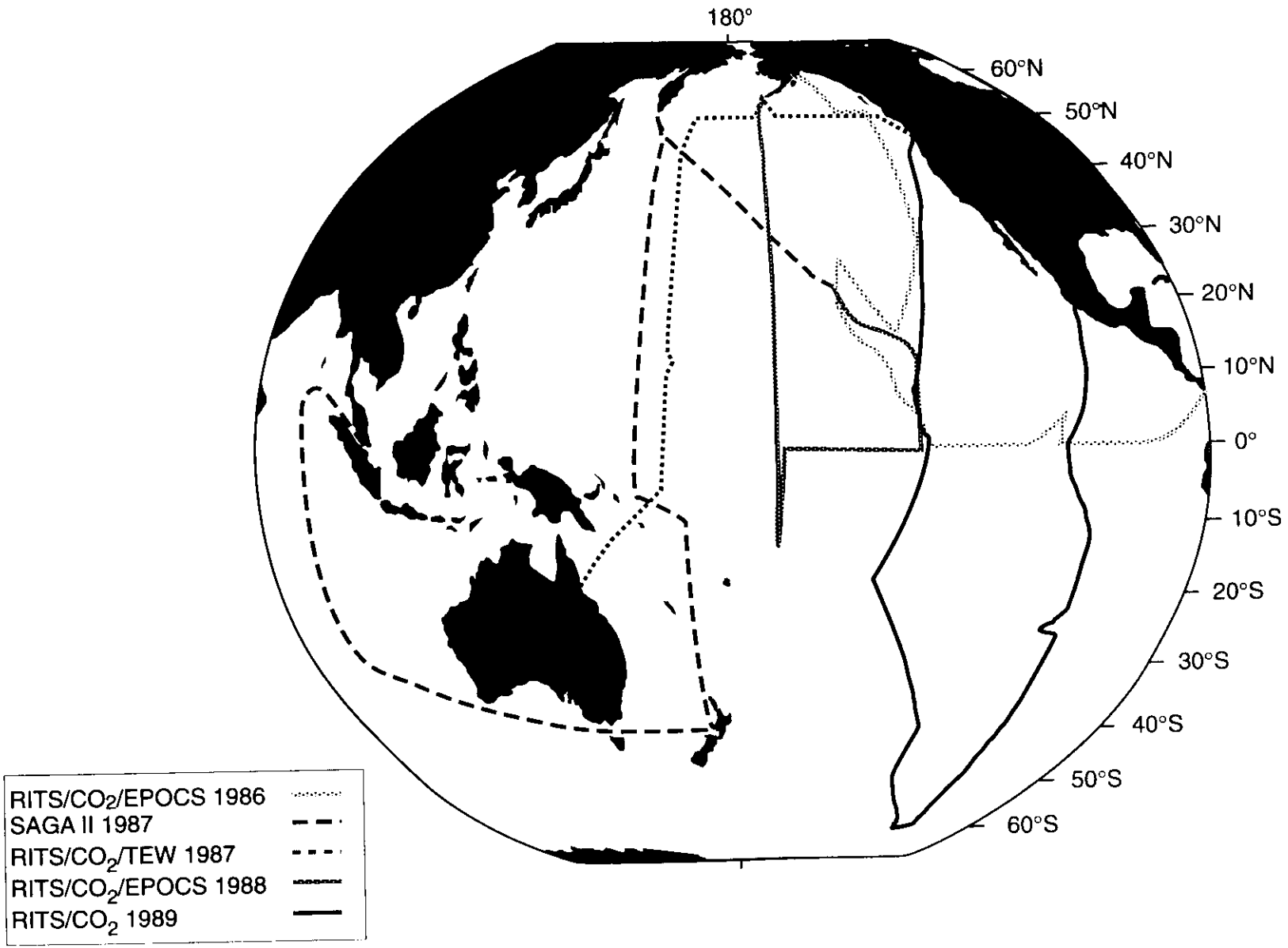

Fig. 1. Cruise tracks for PMEL trace gas cruises 1984–1989.

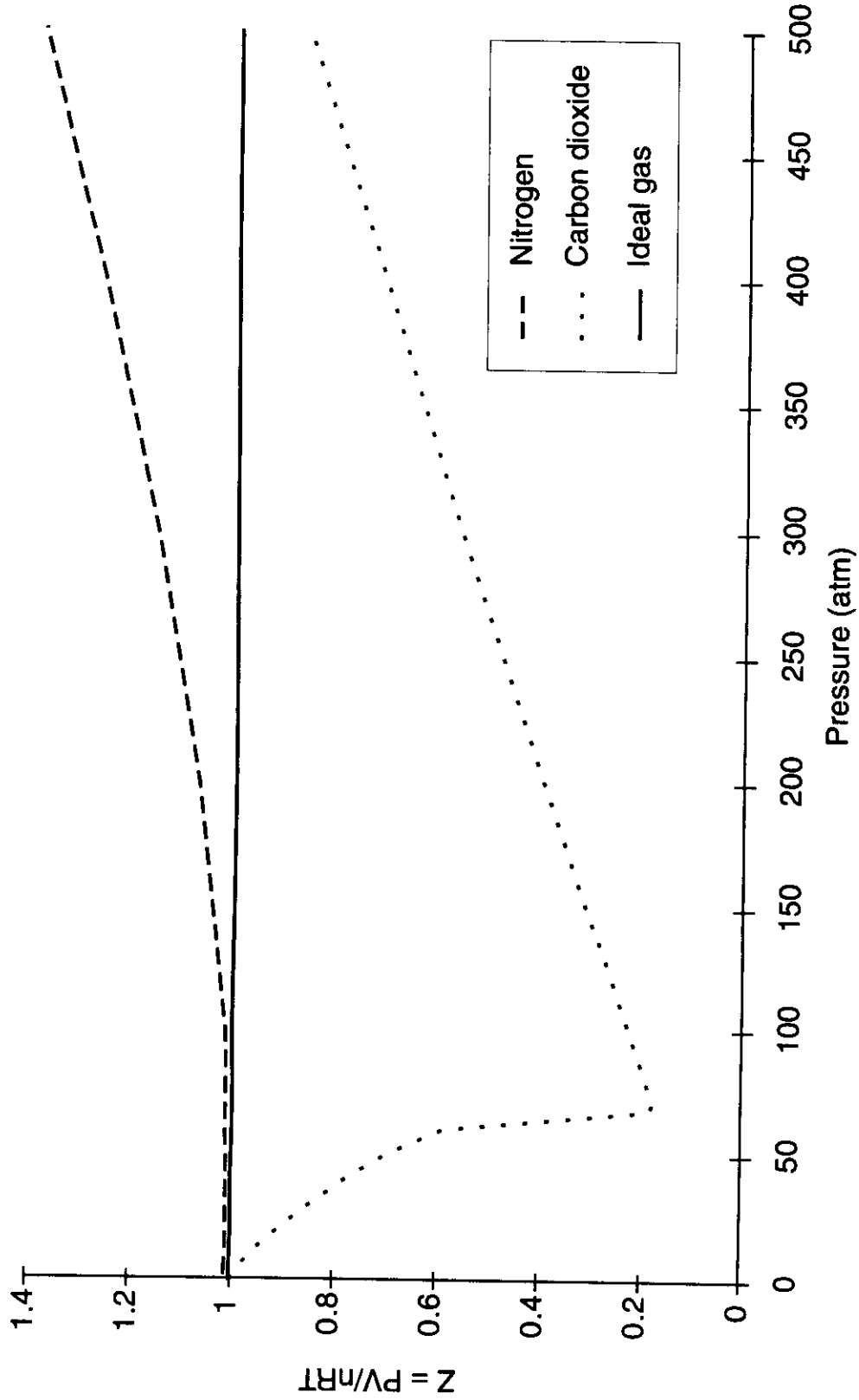

Fig. 2. Comparison of deviations from ideality for nitrogen and carbon dioxide.

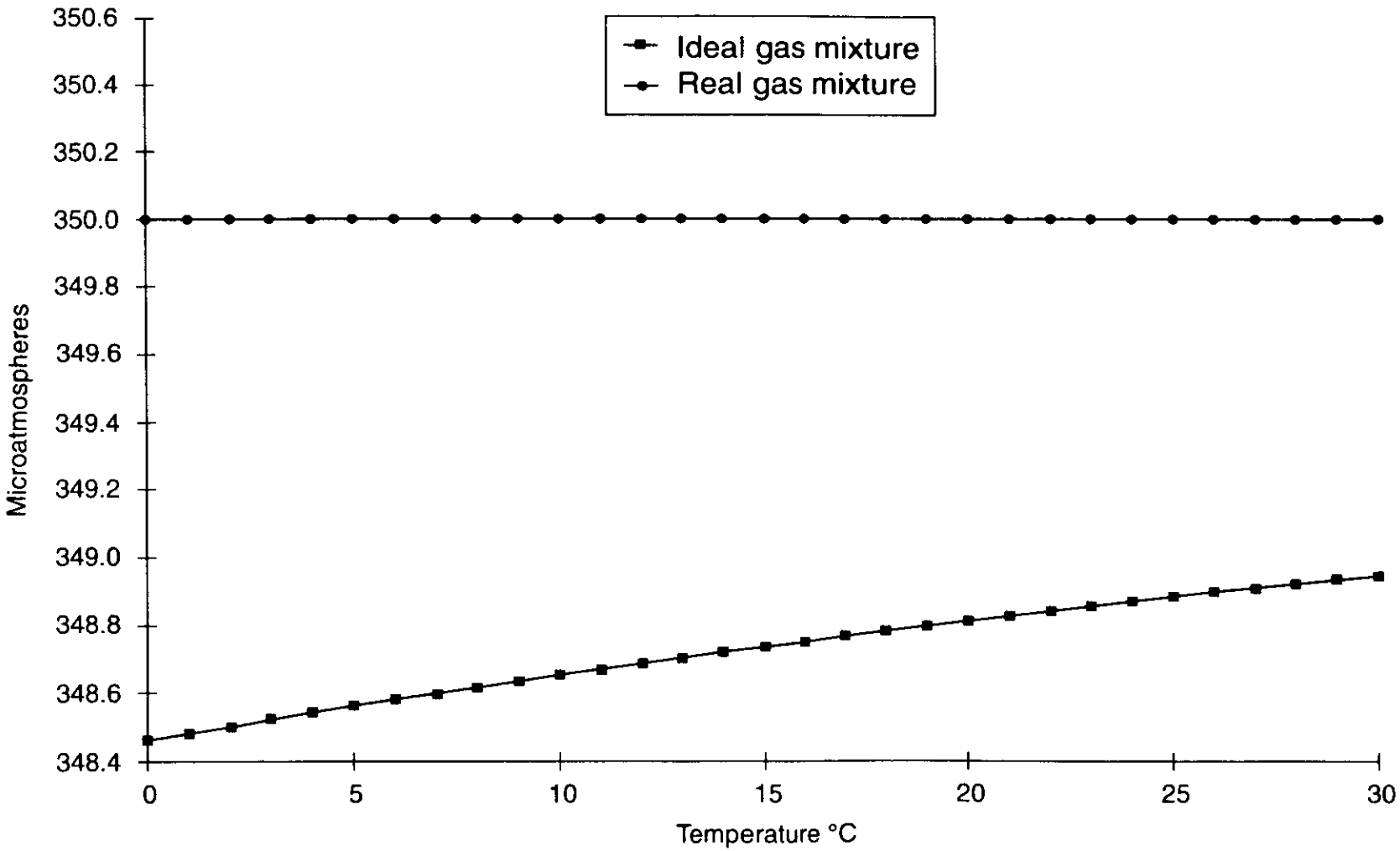

Fig 3. Comparison of calculated pressure (ideal gas) and fugacity (real gas) for a binary mixture of dry air and CO_2 using P(total) = 1 atmosphere, mole fraction of CO_2 = 350 ppm.

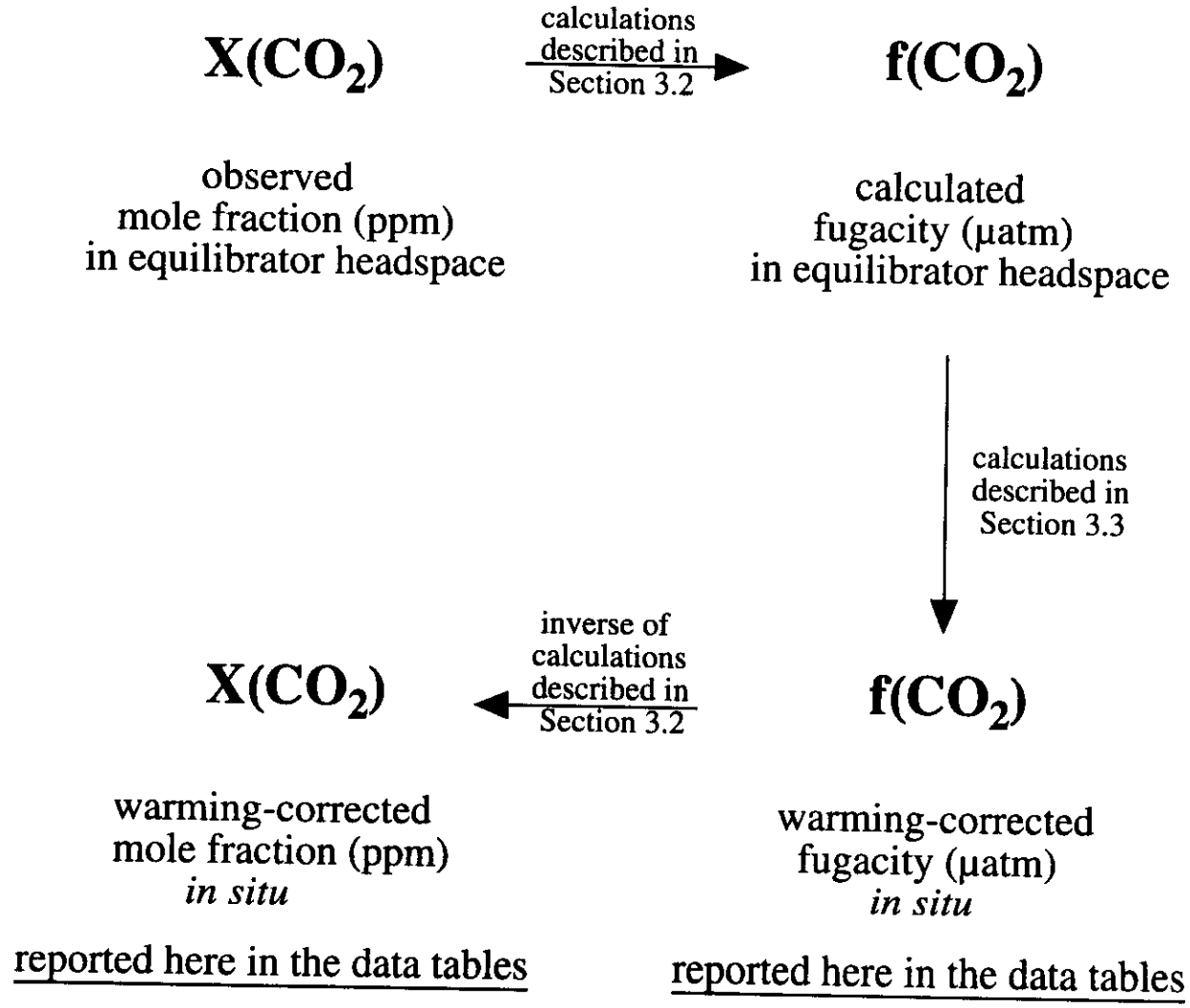

Fig. 4. Schematic representation of the conversions between the observed CO_2 concentration for surface seawater and the reported *in situ* values given in the data tables.

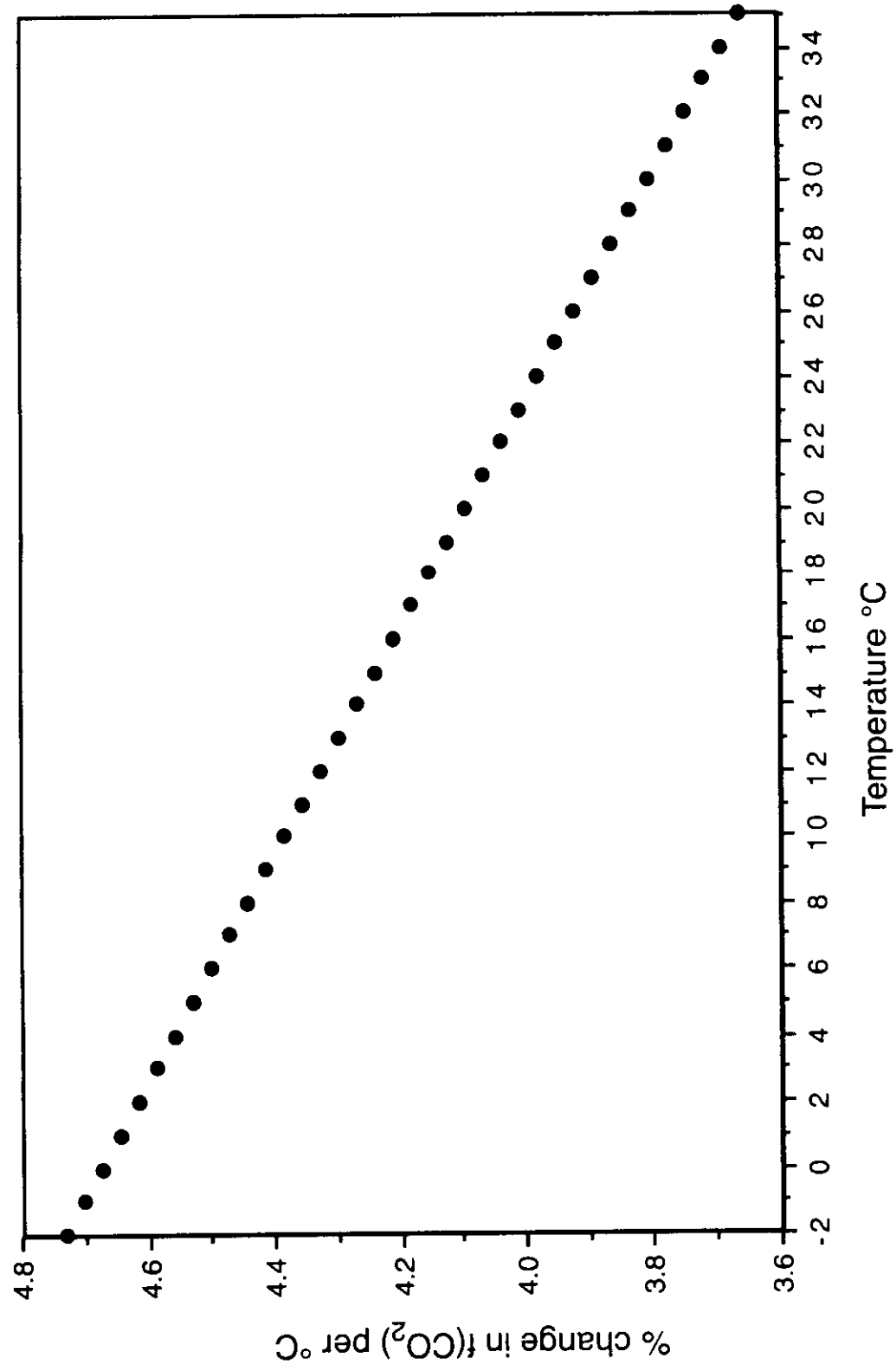

Fig. 5. Temperature dependence of CO_2 solubility in natural waters based on equations from Weiss *et al.* (1982) using $f(CO_2)$ = 350 µatm.

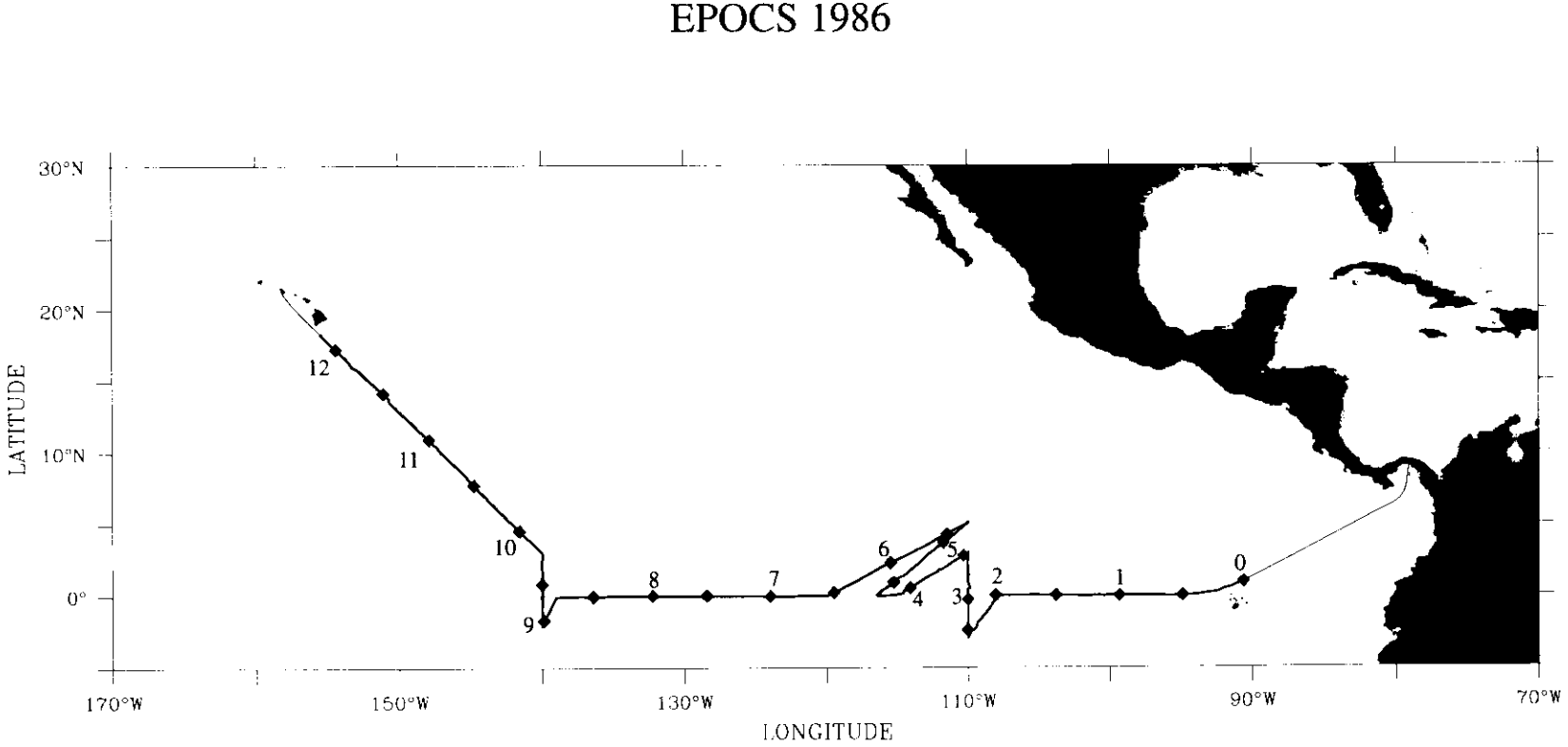

Fig. 6. Cruise track for EPOCS 1986. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

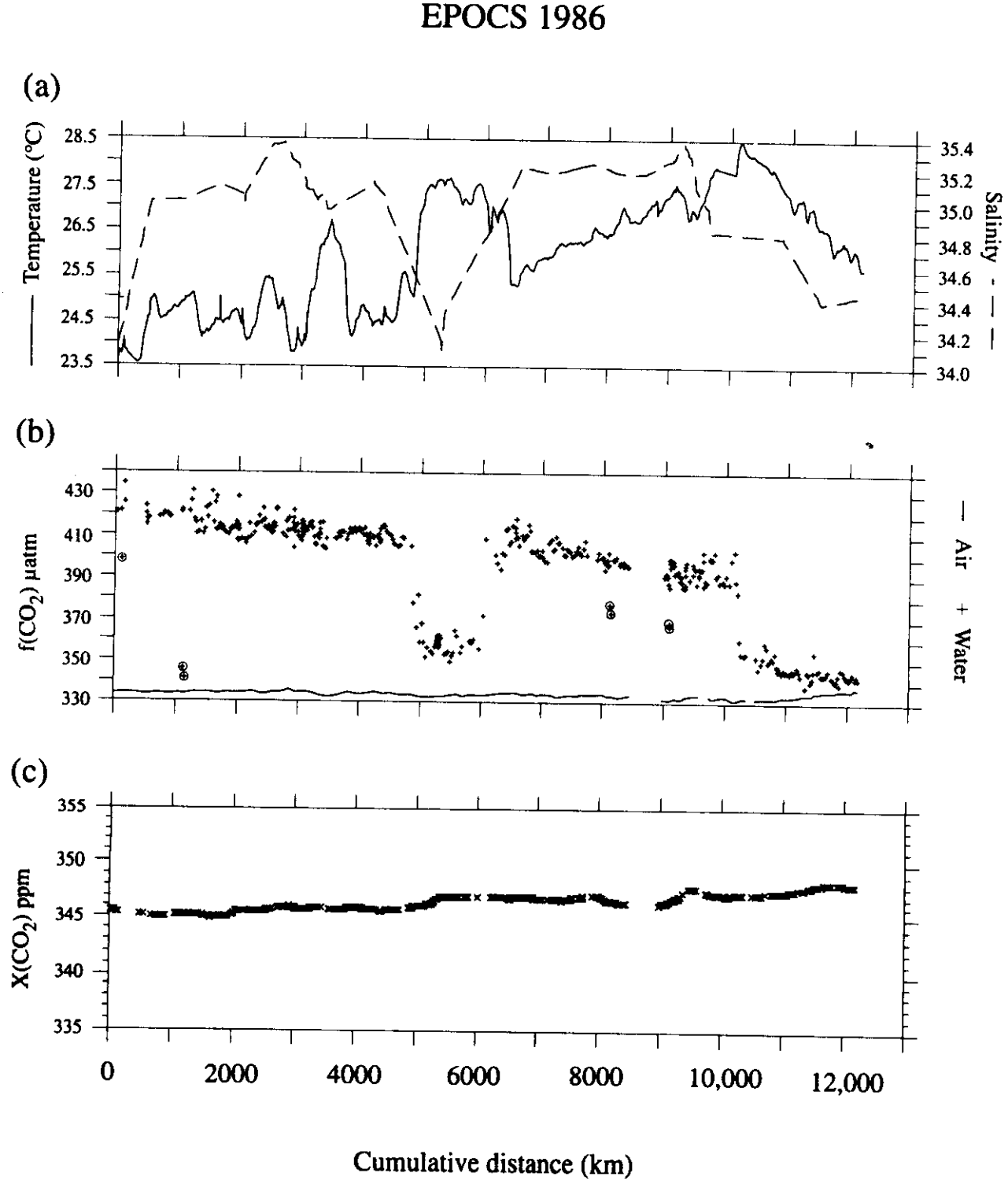

Fig. 7. (a) Temperature and salinity for EPOCS 1986. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for EPOCS 1986. Circled points are flagged in the data tables as questionable. (c) CO_2 concentration (ppm in dry air) in the atmosphere for EPOCS 1986.

RITS/CO_2 1986

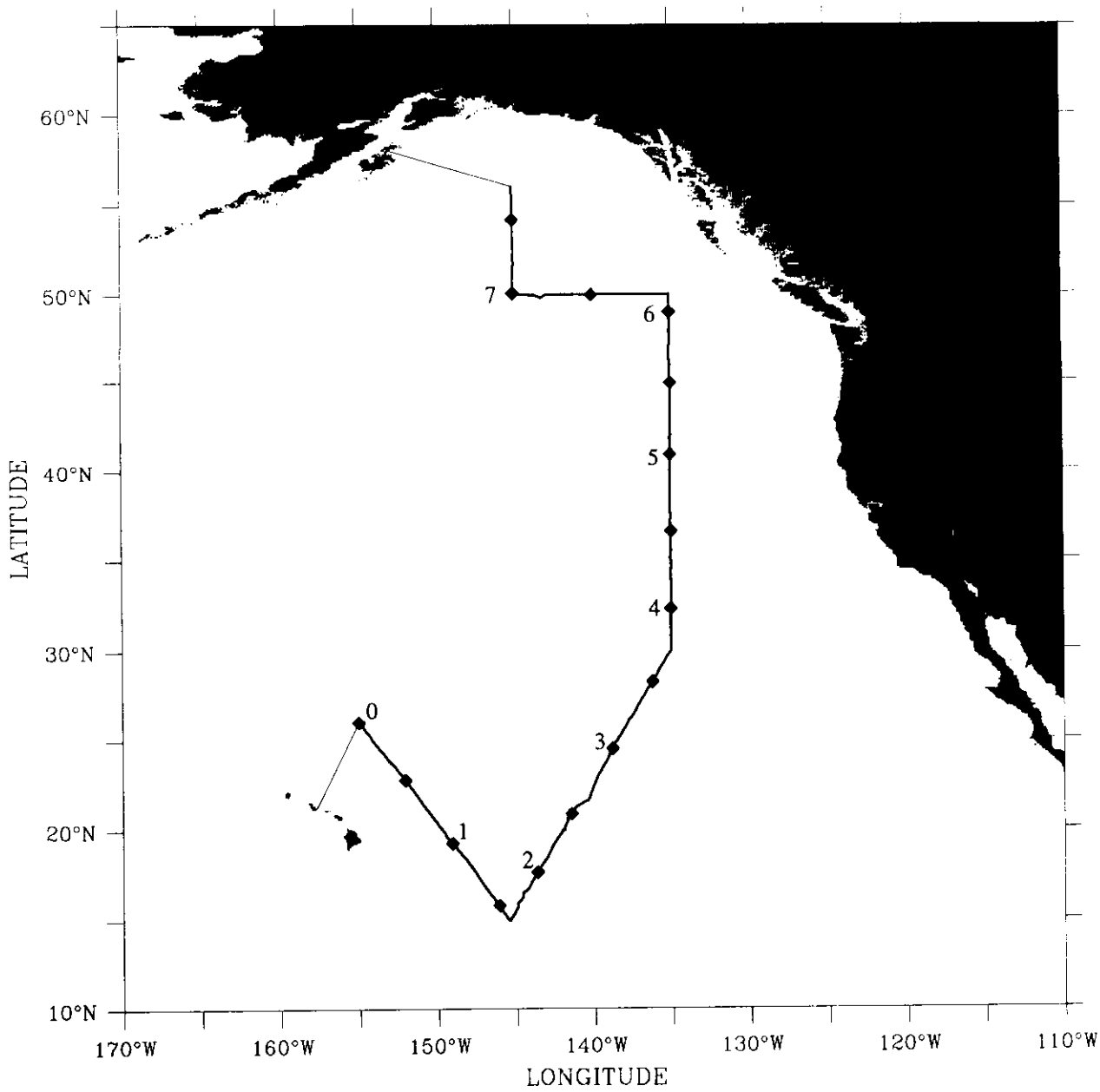

Fig. 8. Cruise track for RITS/CO_2 1986. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

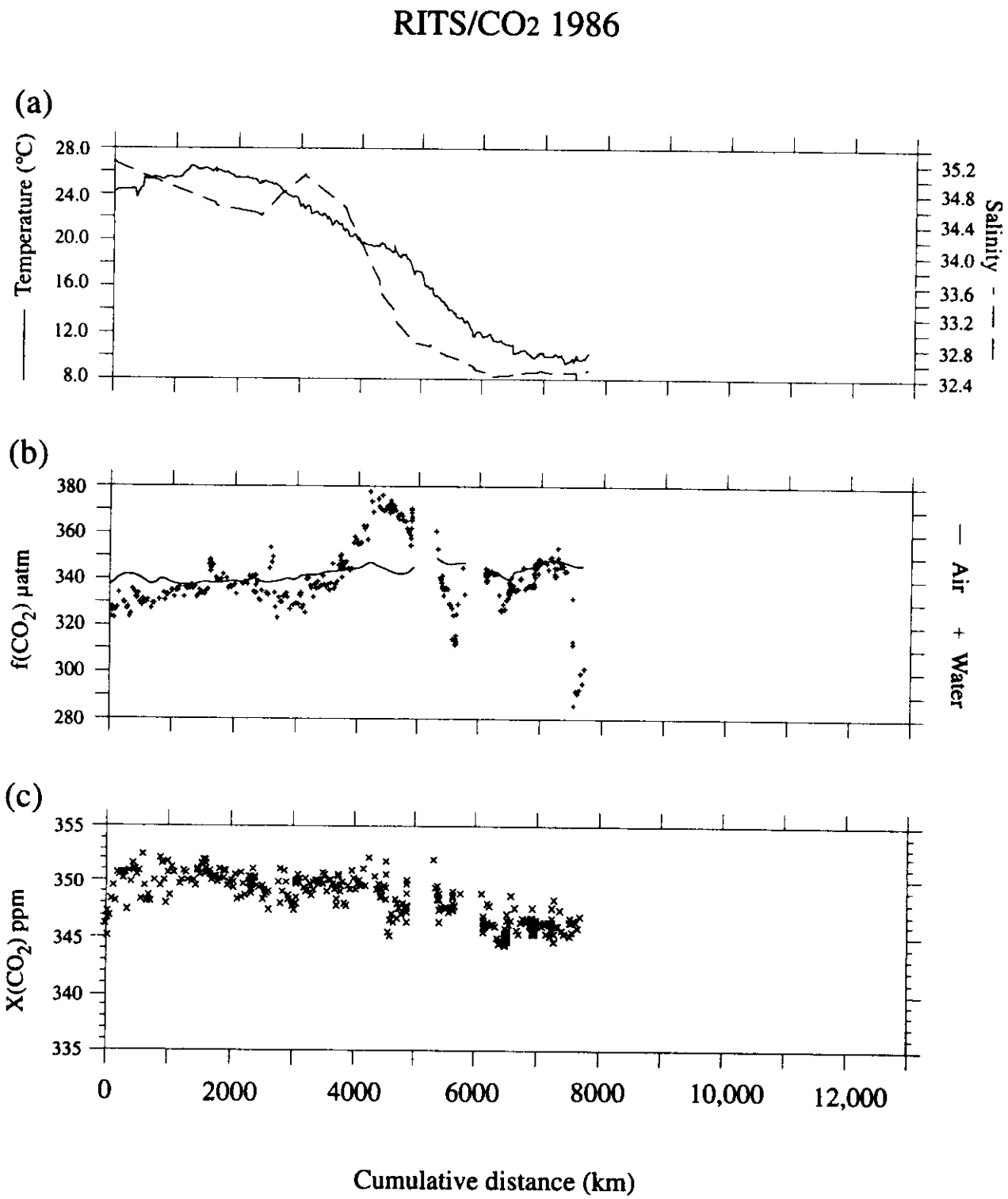

Fig. 9. (a) Temperature and salinity for RITS/CO_2 1986. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1986. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1986.

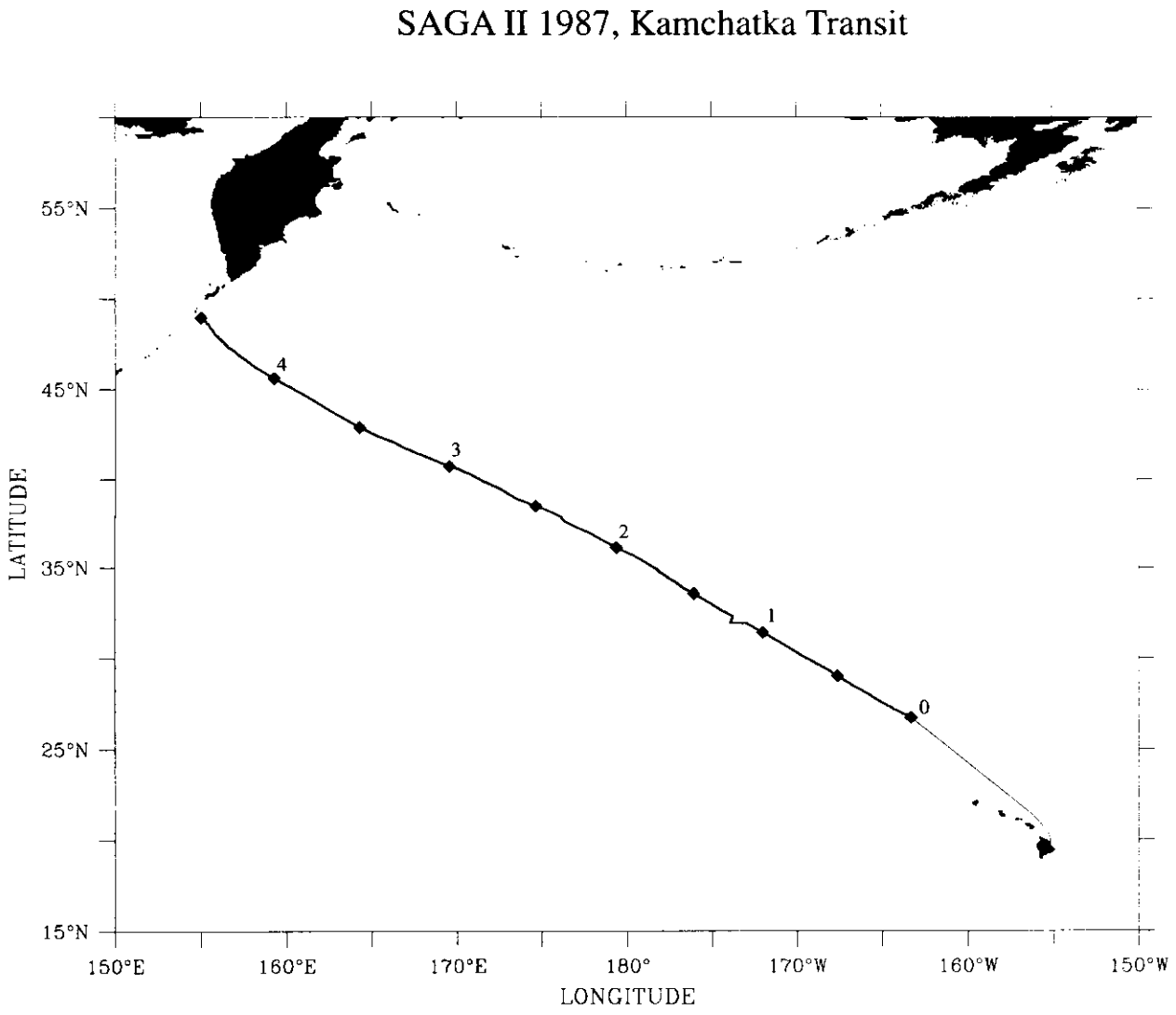

Fig. 10. Cruise track for SAGA II 1987, Kamchatka Transit. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

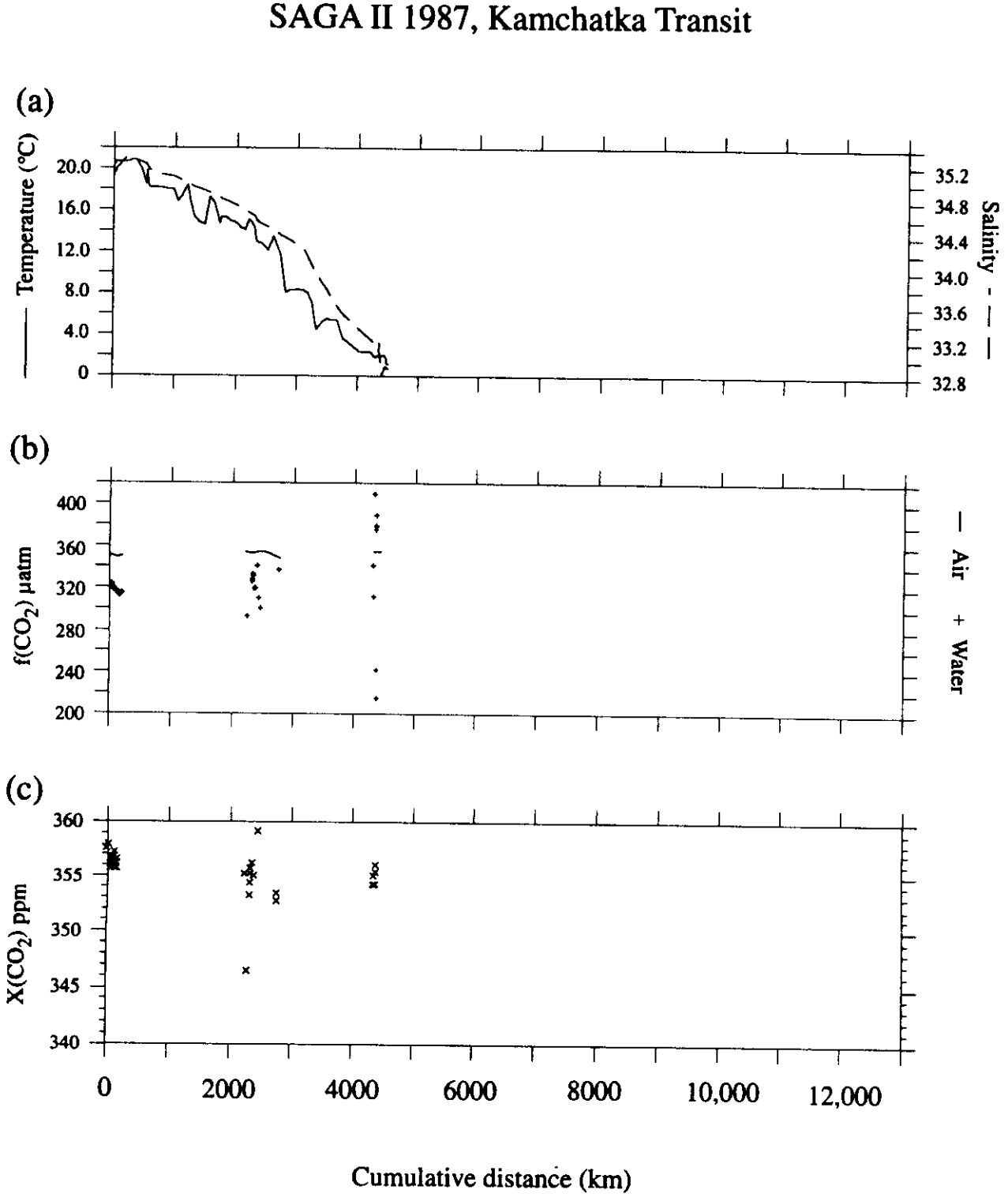

Fig. 11. (a) Temperature and salinity for SAGA II 1987, Kamchatka Transit. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for SAGA II 1987, Kamchatka Transit. (c) CO_2 concentration (ppm in dry air) in the atmosphere for SAGA II 1987, Kamchatka Transit.

SAGA II 1987, Leg 1

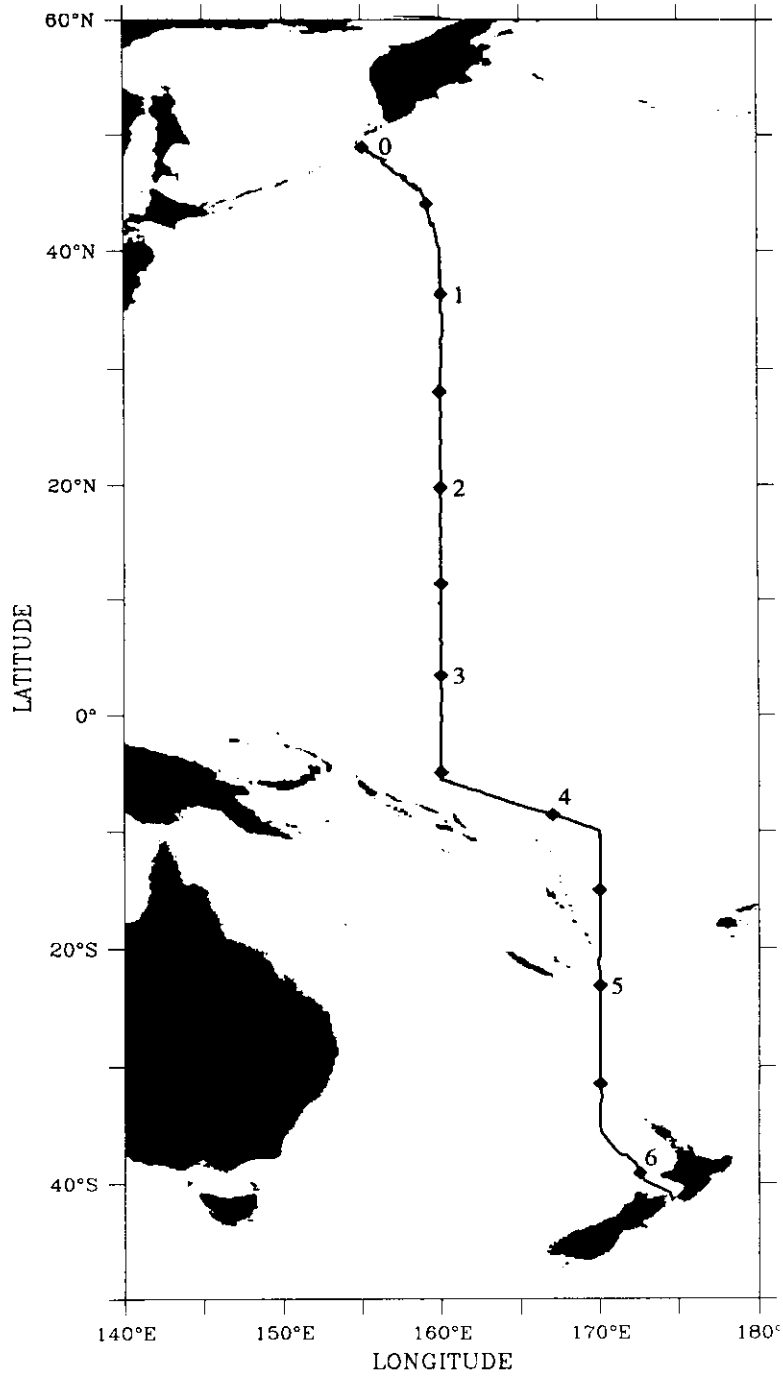

Fig. 12. Cruise track for SAGA II 1987, Leg 1. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

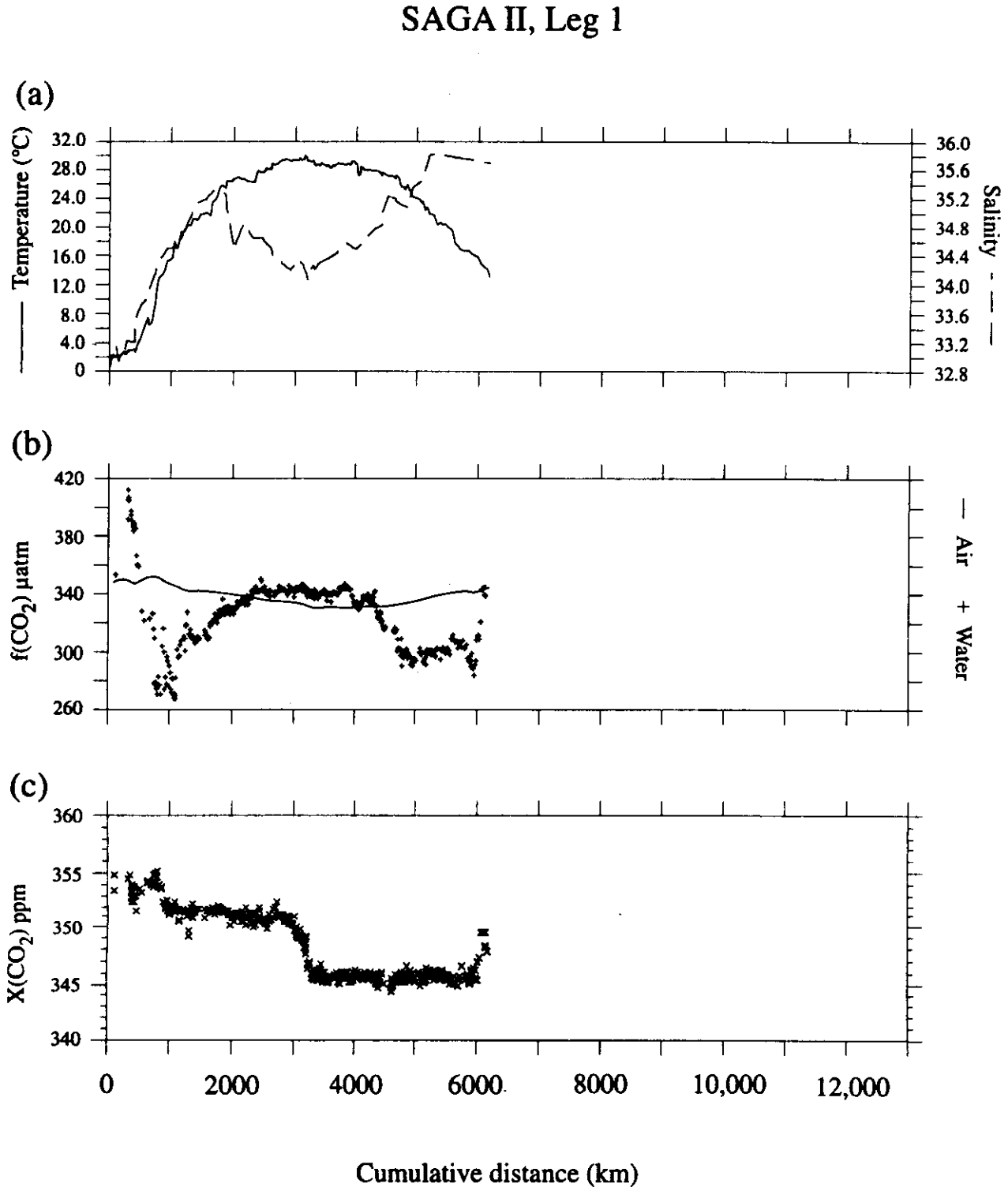

Fig. 13. (a) Temperature and salinity for SAGA II 1987, Leg 1. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for SAGA II 1987, Leg 1. (c) CO_2 concentration (ppm in dry air) in the atmosphere for SAGA II 1987, Leg 1.

SAGA II 1987, Leg 2

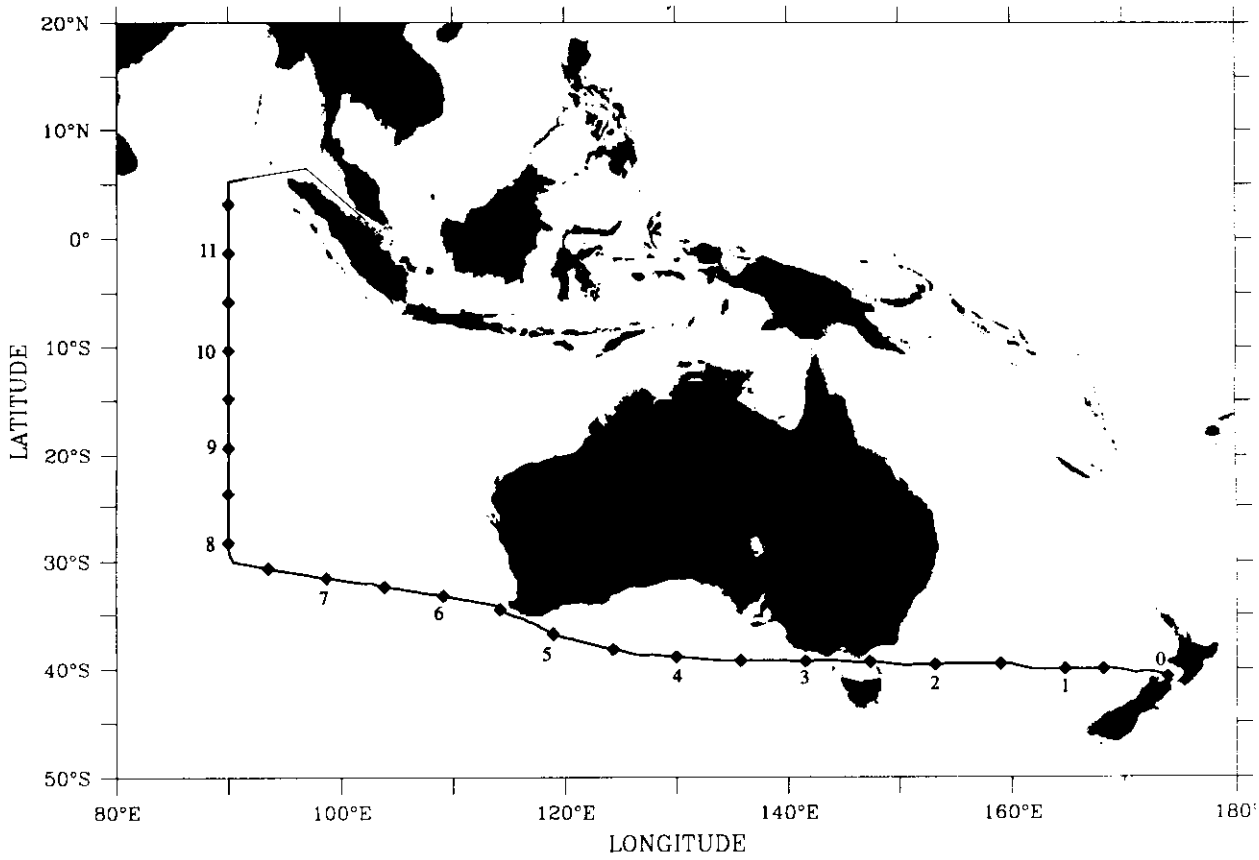

Fig. 14. Cruise track for SAGA II 1987 Leg 2. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

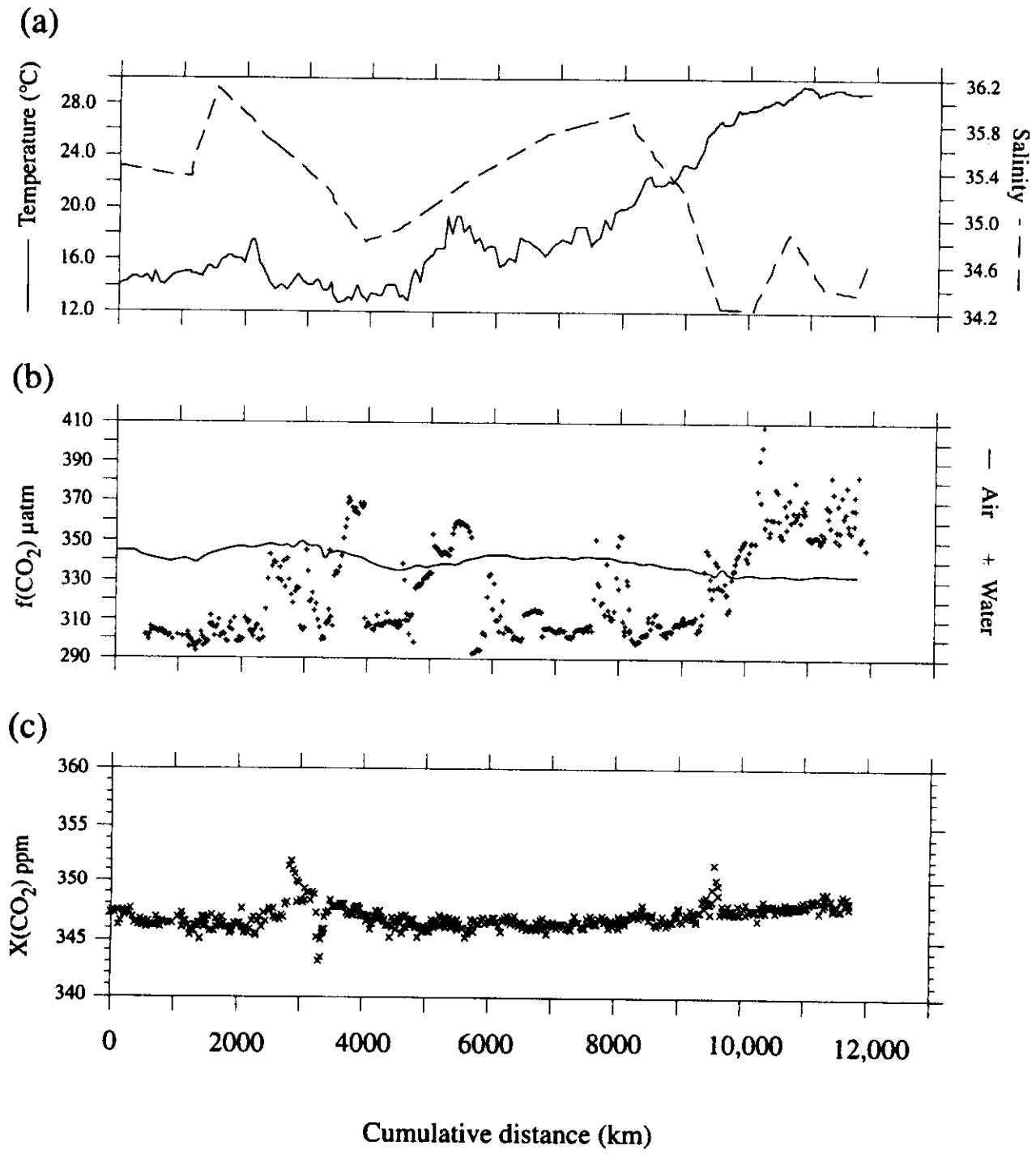

Fig. 15. (a) Temperature and salinity for SAGA II 1987, Leg 2. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for SAGA II 1987, Leg 2. (c) CO_2 concentration (ppm in dry air) in the atmosphere for SAGA II 1987, Leg 2.

TEW-3 1987

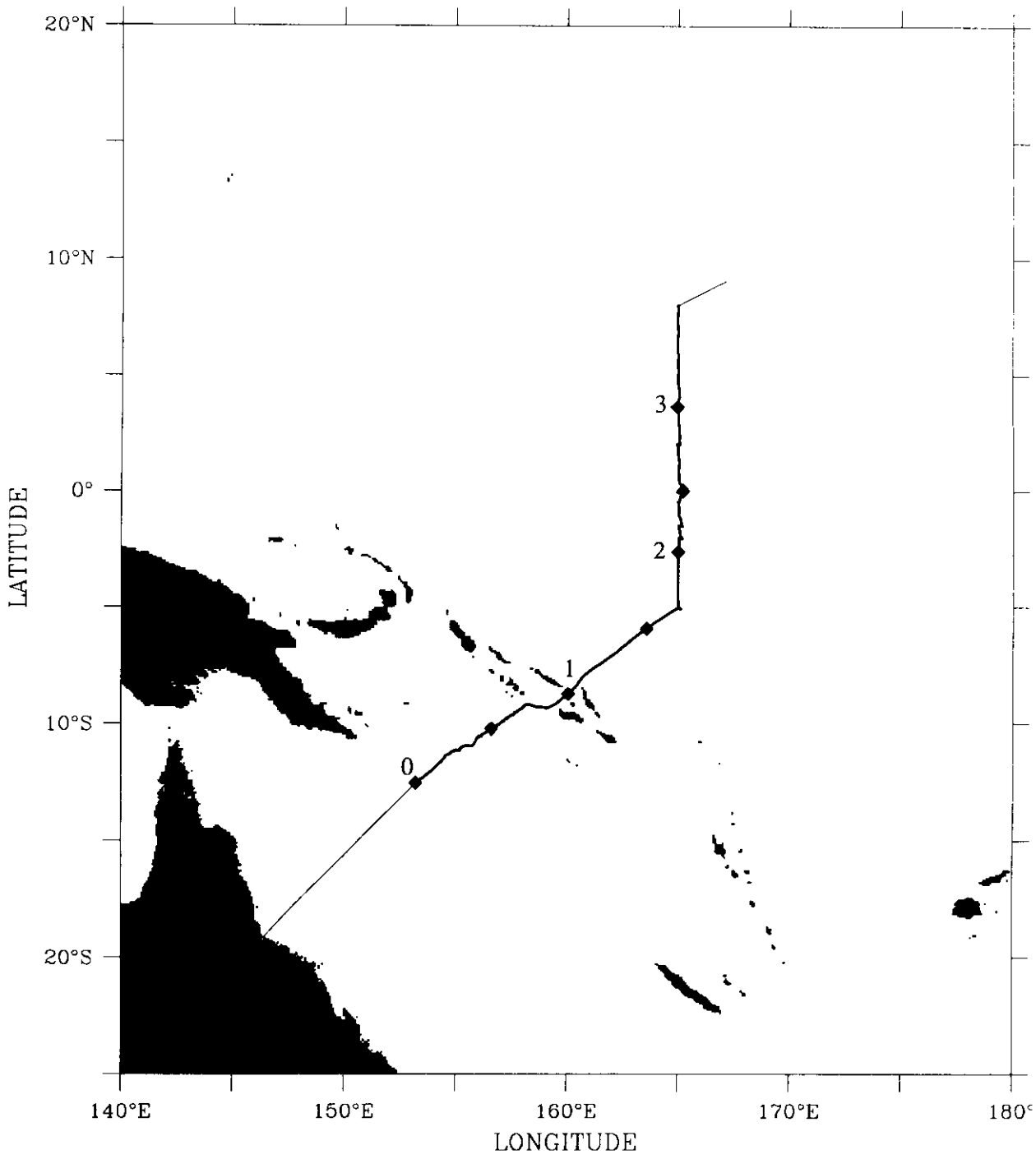

Fig. 16. Cruise track for TEW-3 1987. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

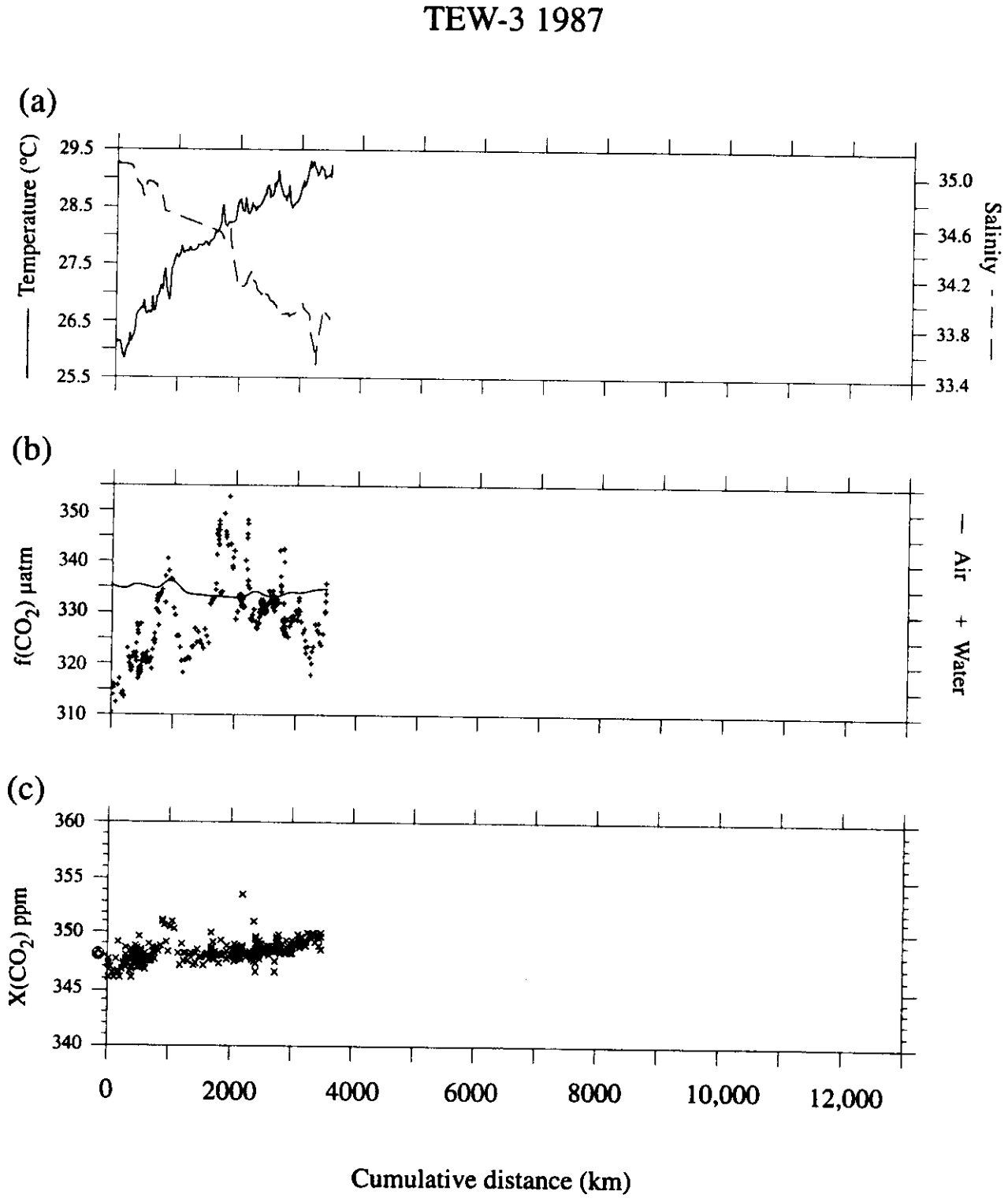

Fig. 17. (a) Temperature and salinity for TEW-3 1987. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for TEW-3 1987. (c) CO_2 concentration (ppm in dry air) in the atmosphere for TEW-3 1987. The filled circle shows the monthly mean CO_2 concentration (348.0 ppm) at American Samoa (14°S, 171°W) for July/August 1987 as given in the Summary Report, No. 16 from NOAA's Climate Monitoring and Diagnostics Laboratory.

RITS/CO_2 1987

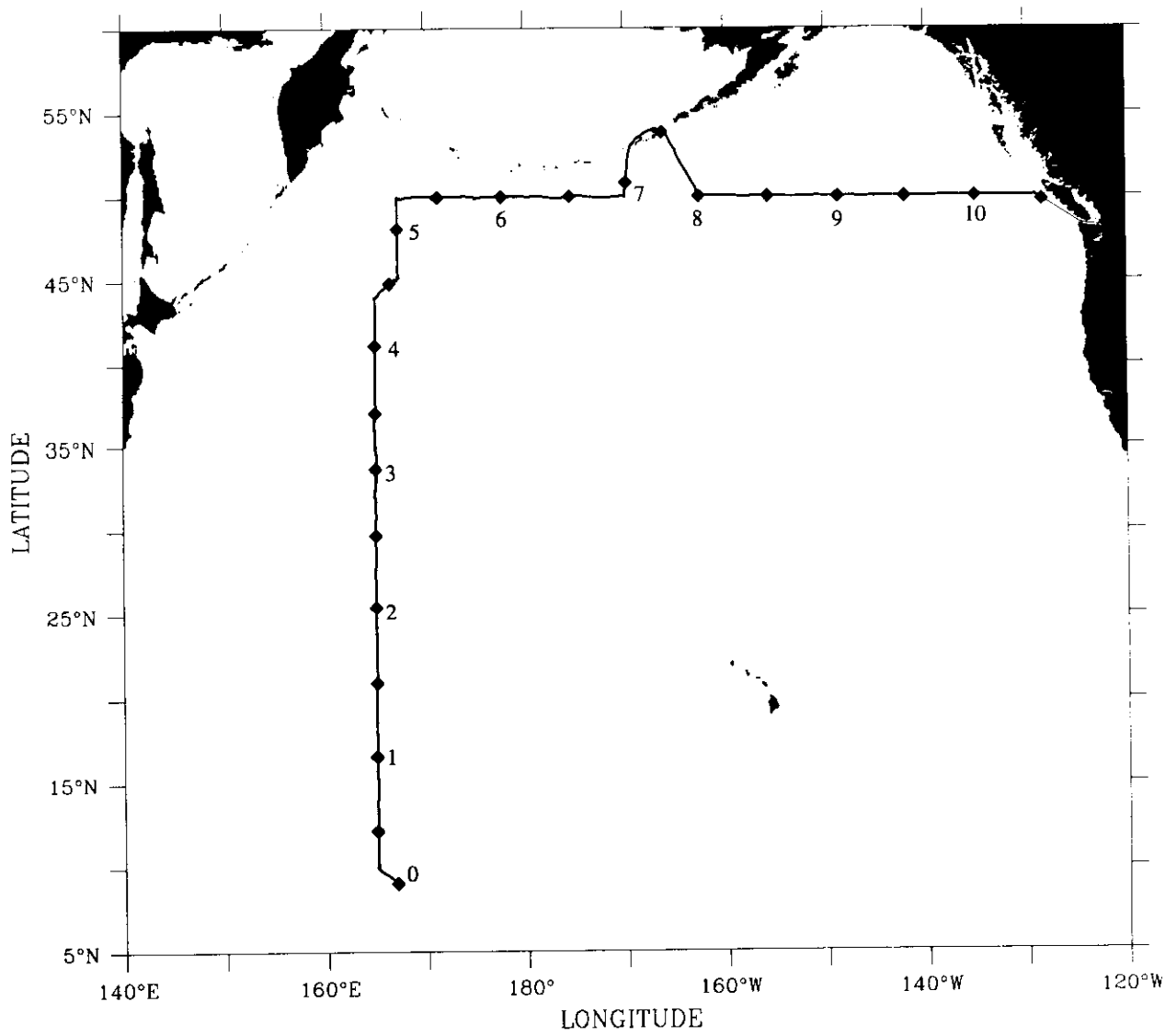

Fig. 18. Cruise track for RITS/CO_2 1987. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

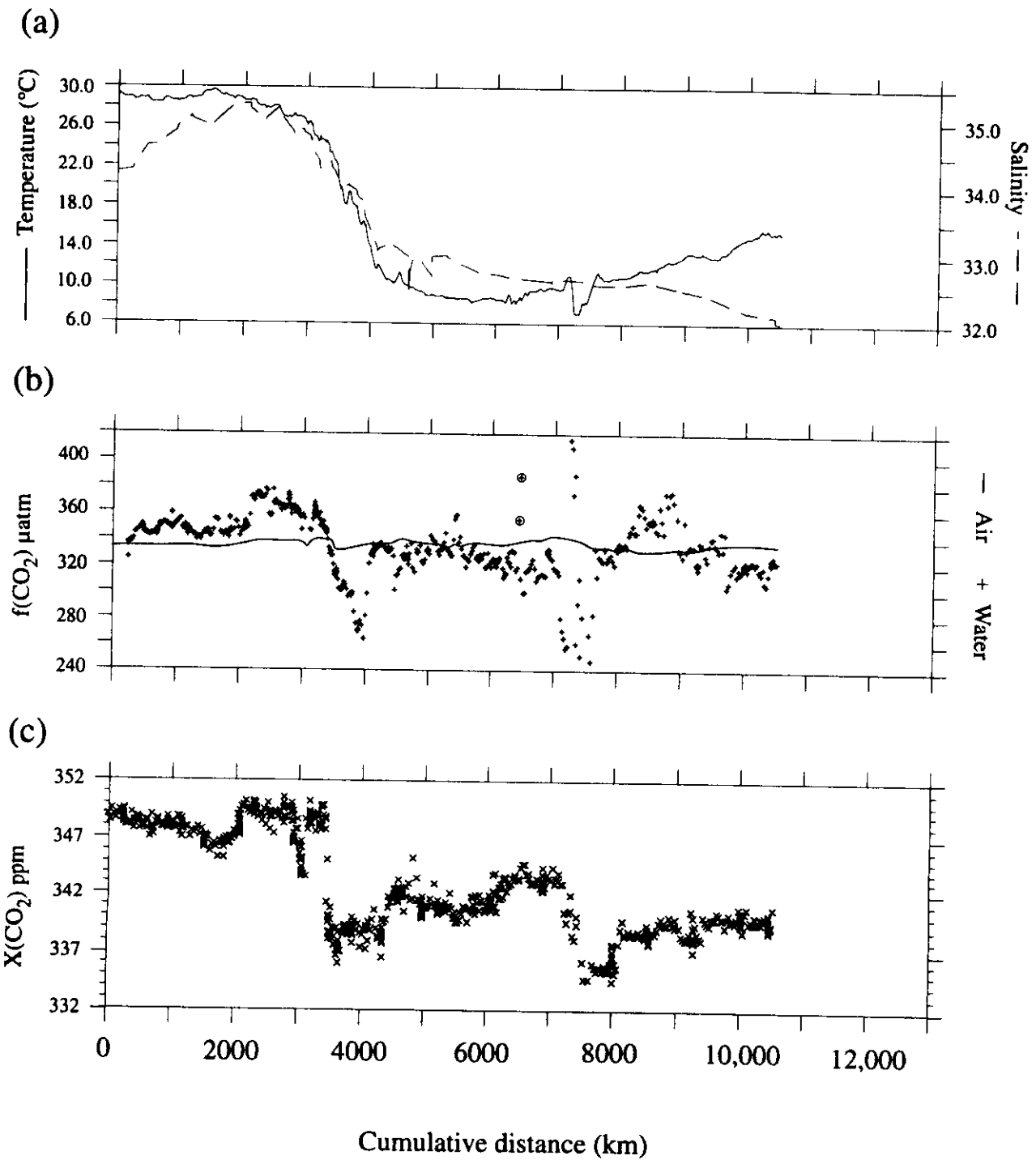

Fig. 19. (a) Temperature and salinity for RITS/CO_2 1987. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1987. Circled points are flagged in the data tables as questionable. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1987. The filled circle shows the monthly mean CO_2 concentration (348.0 ppm) at American Samoa (14°S, 171°W) for July/August 1987 as given in the Summary Report, No. 16 from NOAA's Climate Monitoring and Diagnostics Laboratory.

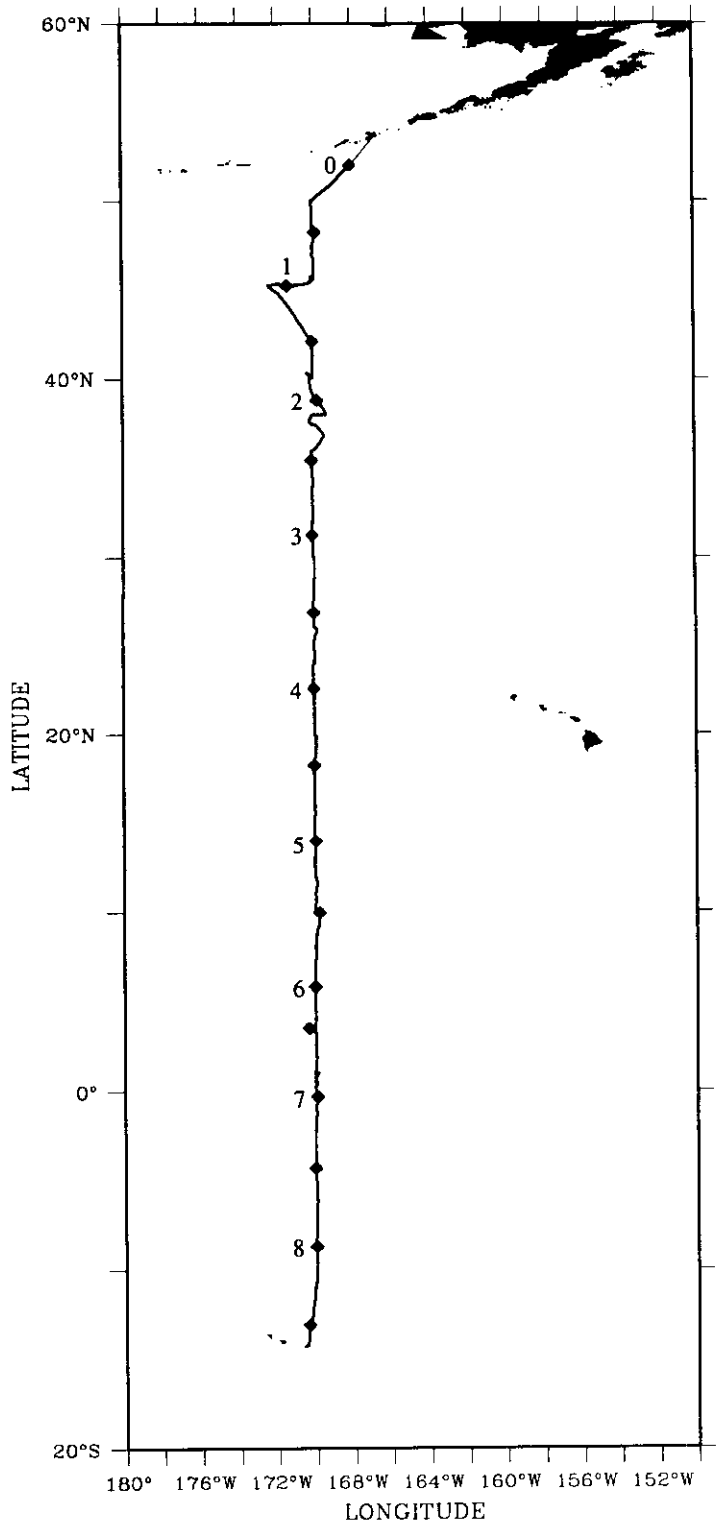

Fig. 20. Cruise track for RITS/CO_2 1988. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

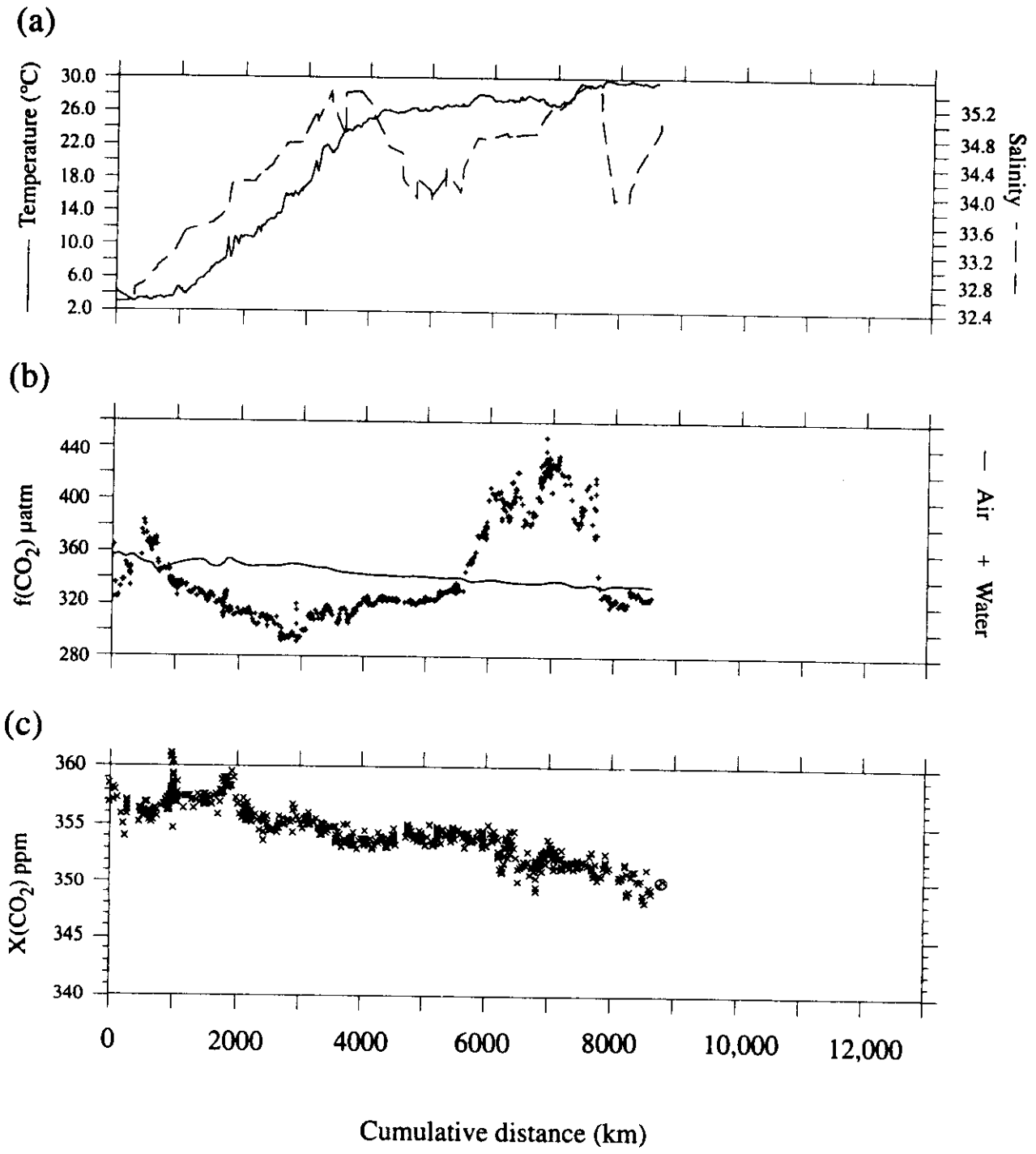

Fig. 21. (a) Temperature and salinity for RITS/CO_2 1988. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1988. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1988. The filled circle shows the monthly mean CO_2 concentration (350.0 ppm) at American Samoa (14°S, 171°W) for April/May 1988 as given in the Summary Report, No. 17 from NOAA's Climate Monitoring and Diagnostics Laboratory.

EPOCS 1988

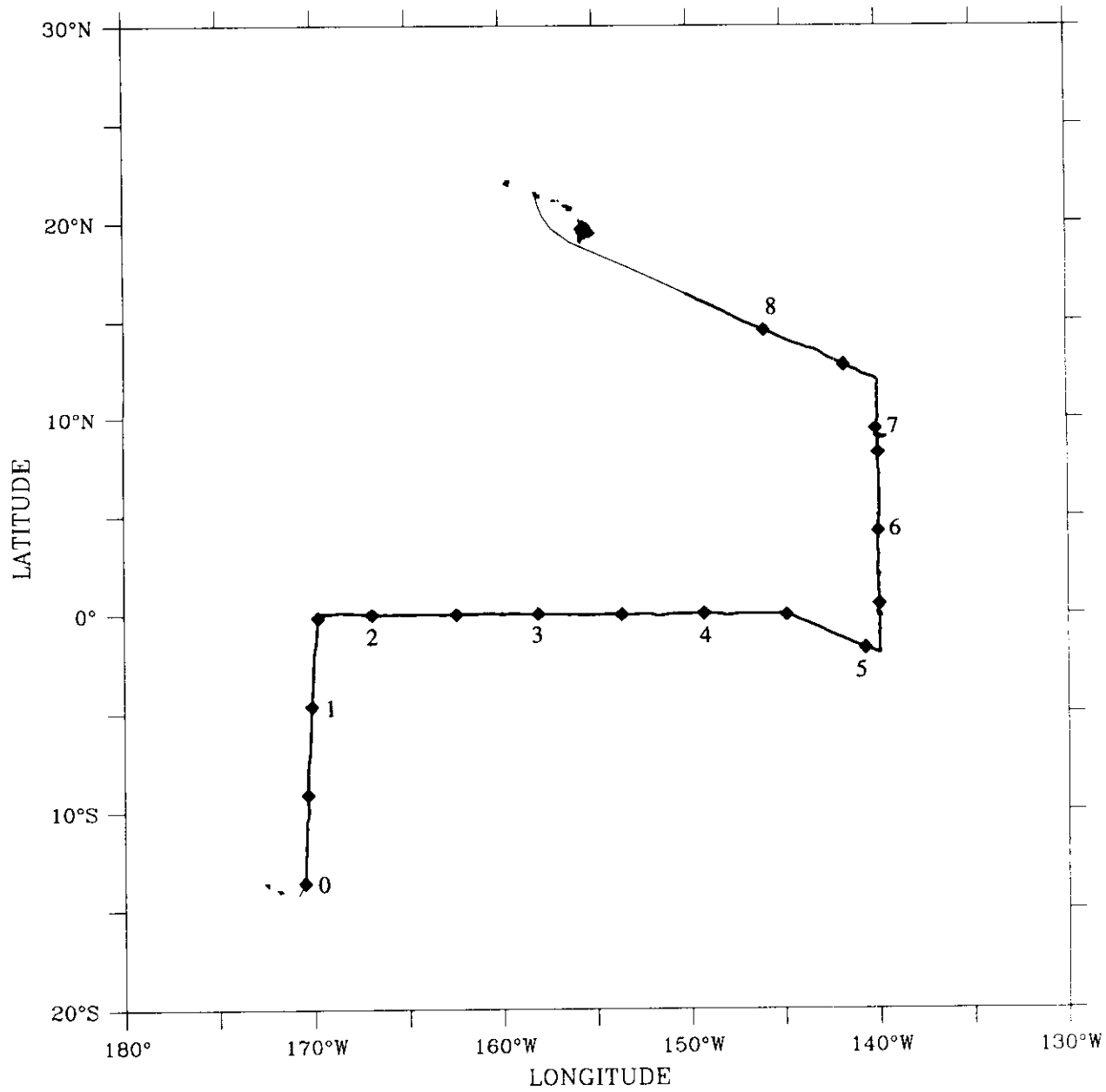

Fig. 22. Cruise track for EPOCS 1988. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

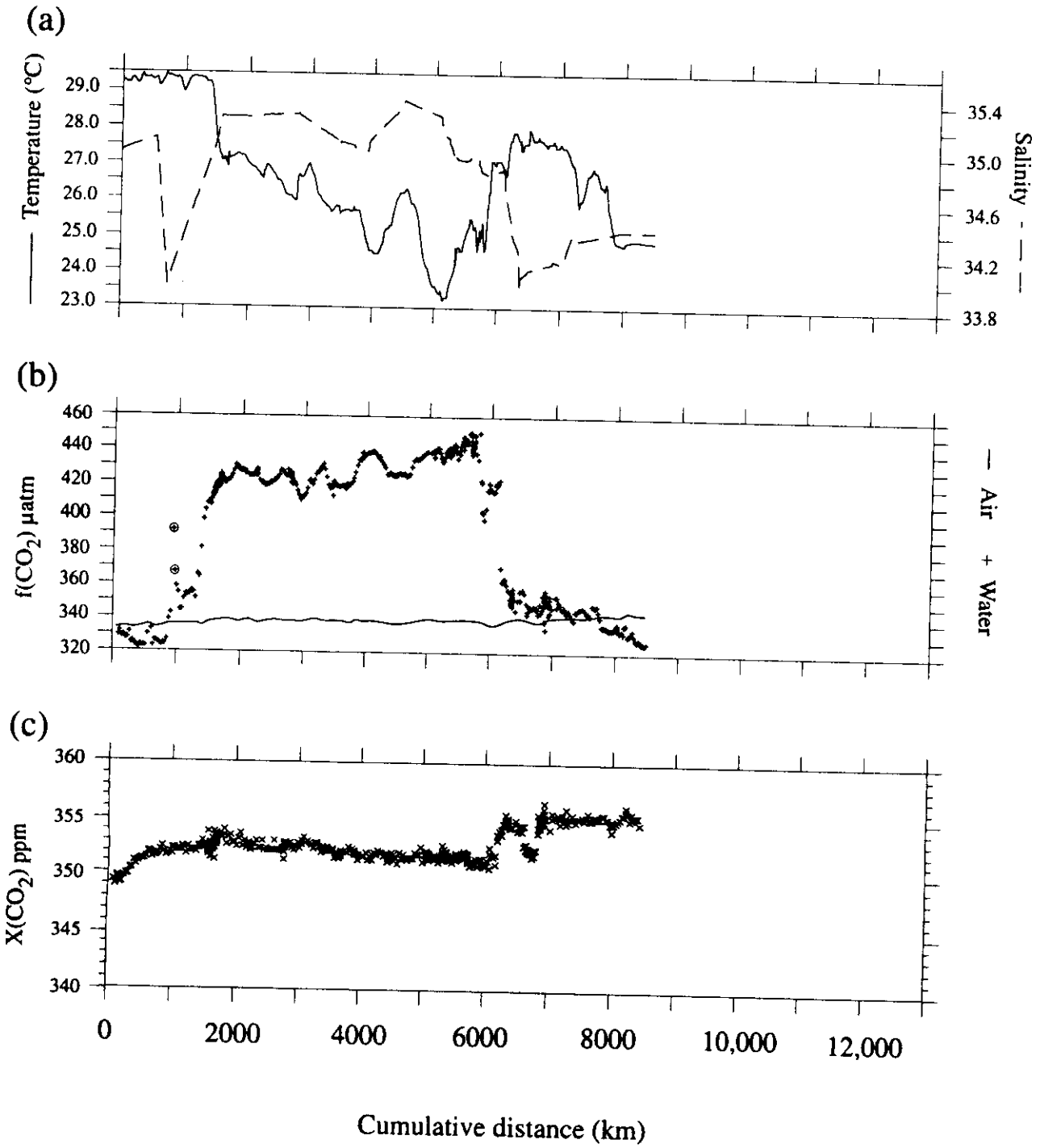

Fig. 23. (a) Temperature and salinity for EPOCS 1988. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for EPOCS 1988. Circled points are flagged in the data tables as questionable. (c) CO_2 concentration (ppm in dry air) in the atmosphere for EPOCS 1988.

RITS/CO_2 1989, Leg 1

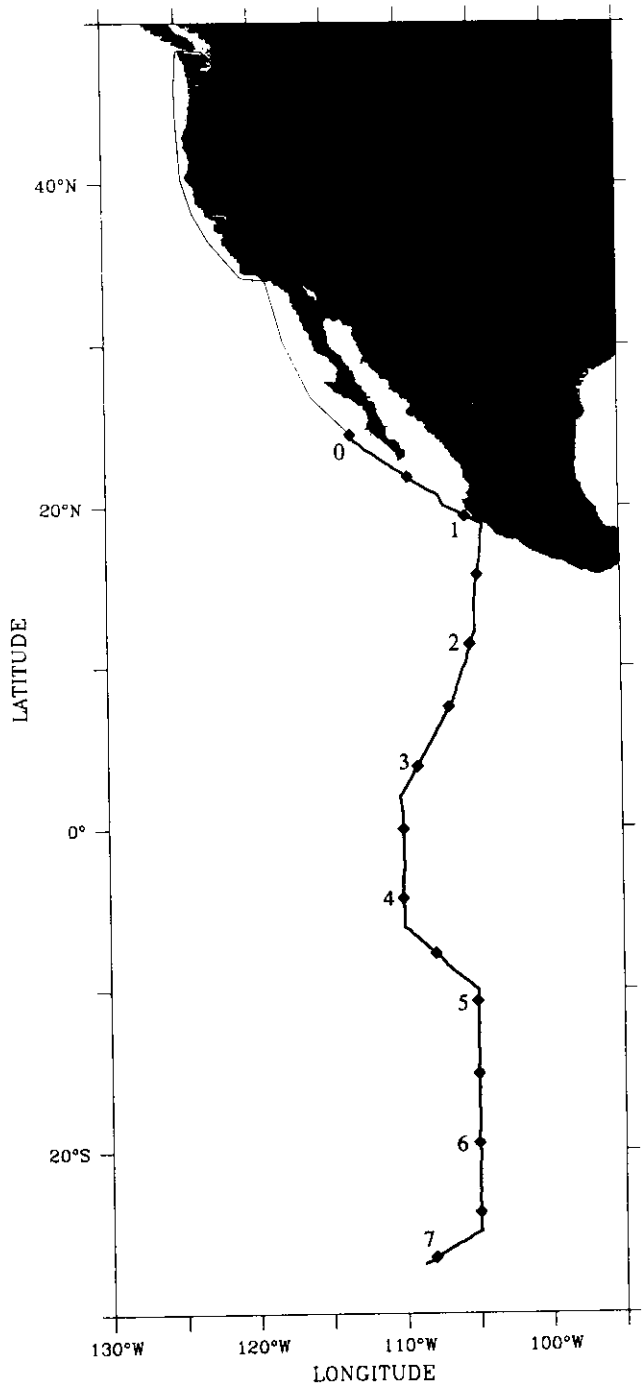

Fig. 24. Cruise track for RITS/CO_2 1989, Leg 1. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

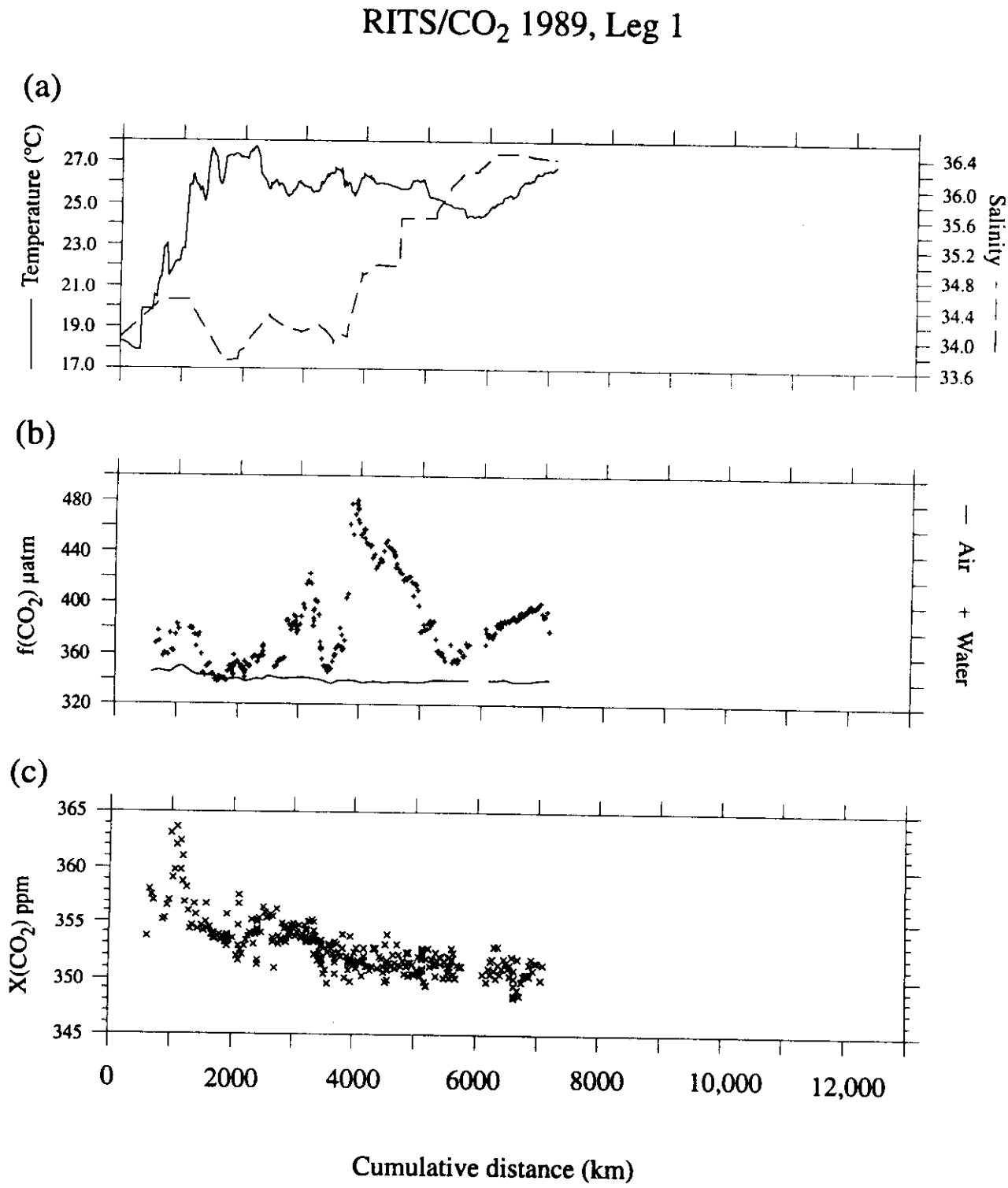

Fig. 25. (a) Temperature and salinity for RITS/CO_2 1989, Leg 1. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1989, Leg 1. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1989, Leg 1. The filled circle shows the monthly mean CO_2 concentration (351.5 ppm) at American Samoa (14°S, 171°W) for February/March1989 as given in the Summary Report, No. 18 from NOAA's Climate Monitoring and Diagnostics Laboratory.

RITS/CO_2 1989, Leg 2

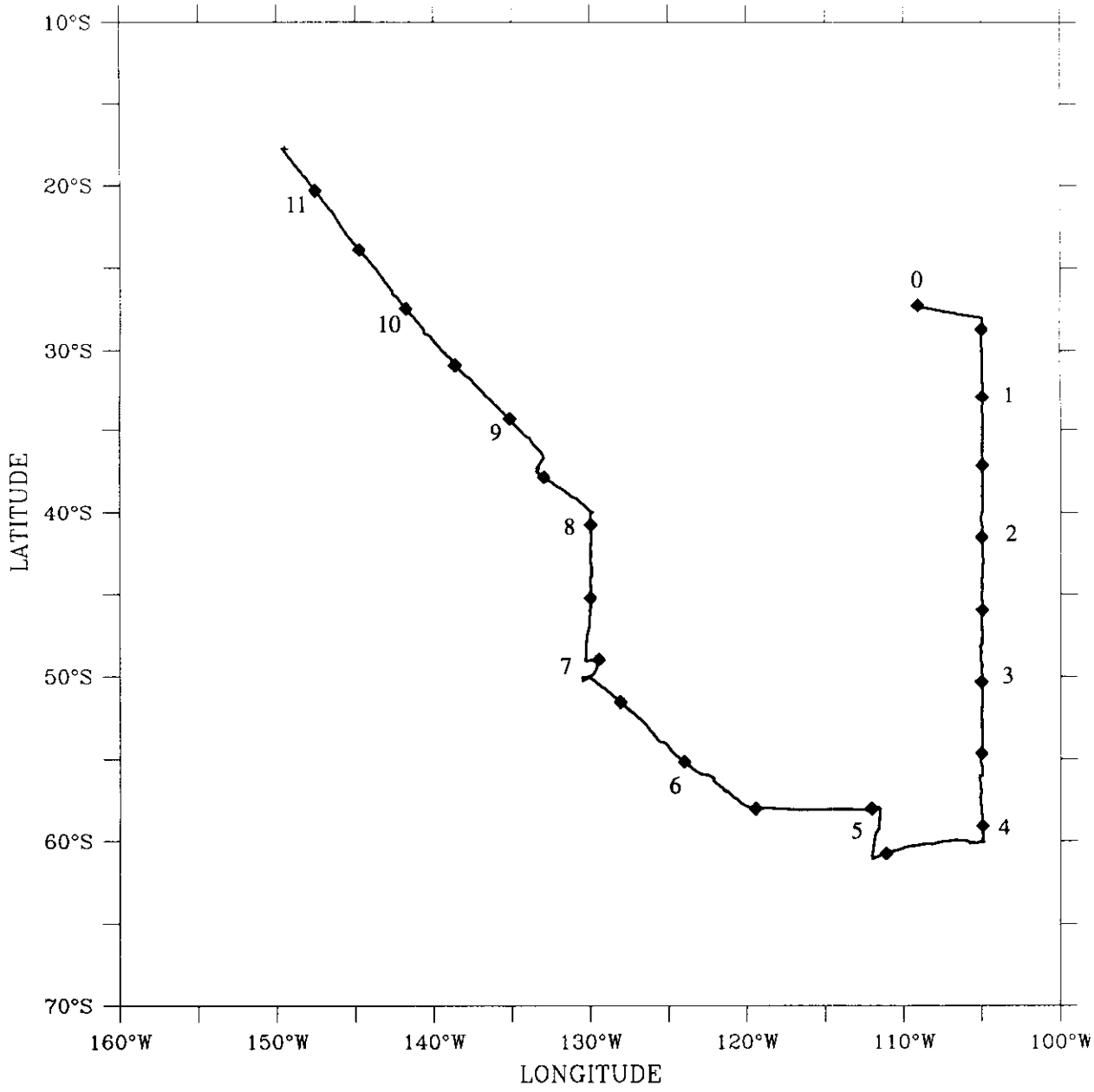

Fig. 26. Cruise track for RITS/CO_2 1989, Leg 2. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

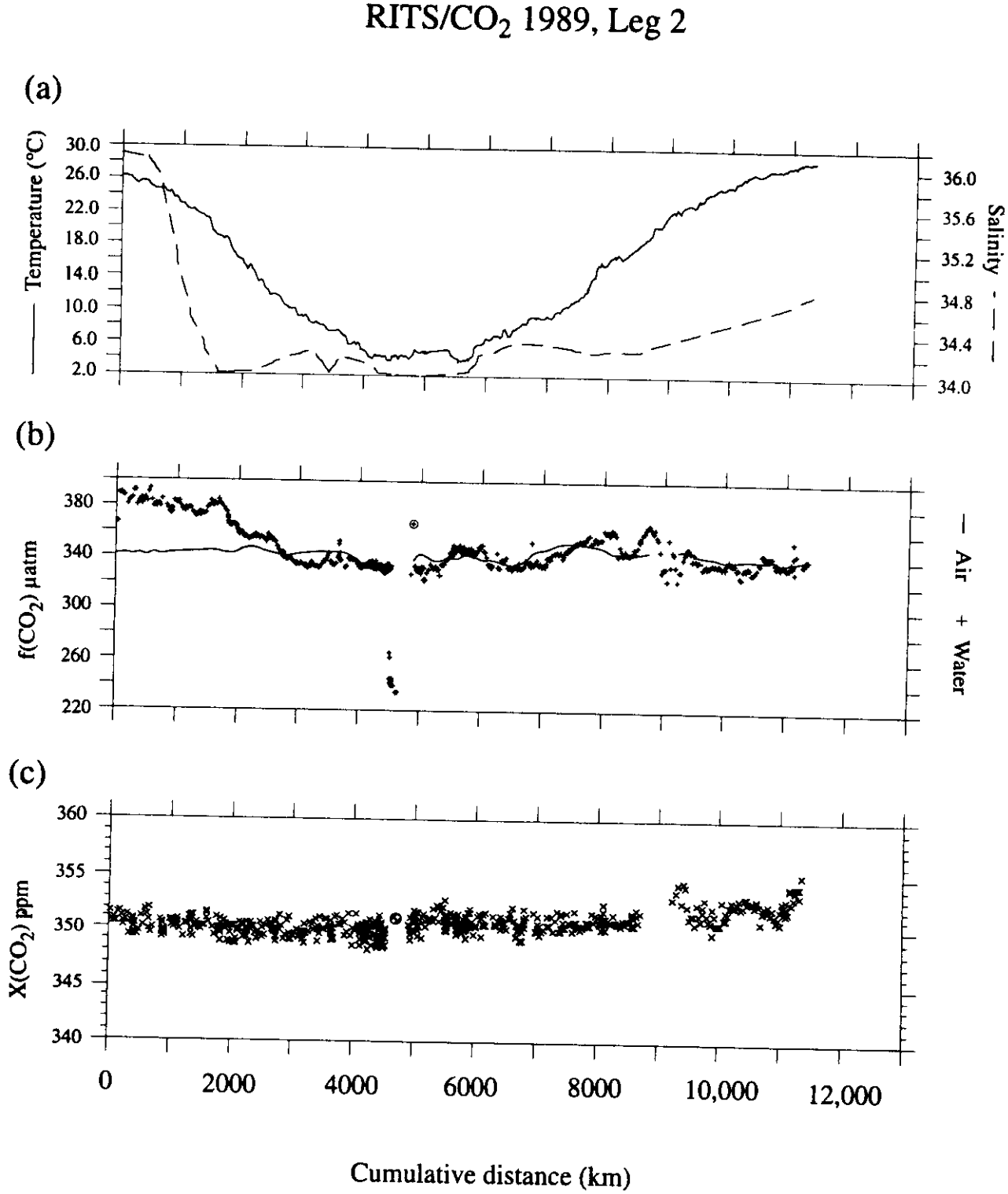

Fig. 27. (a) Temperature and salinity for RITS/CO_2 1989, Leg 2. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1989, Leg 2. The circled point is flagged in the data tables as questionable. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1989, Leg 2. The filled circle shows the annual mean CO_2 concentration (350.9 ppm) at Palmer Station (64°S, 64°W) as given in the Summary Report, No. 18 from NOAA's Climate Monitoring and Diagnostics Laboratory.

RITS/CO_2 1989, Leg 3

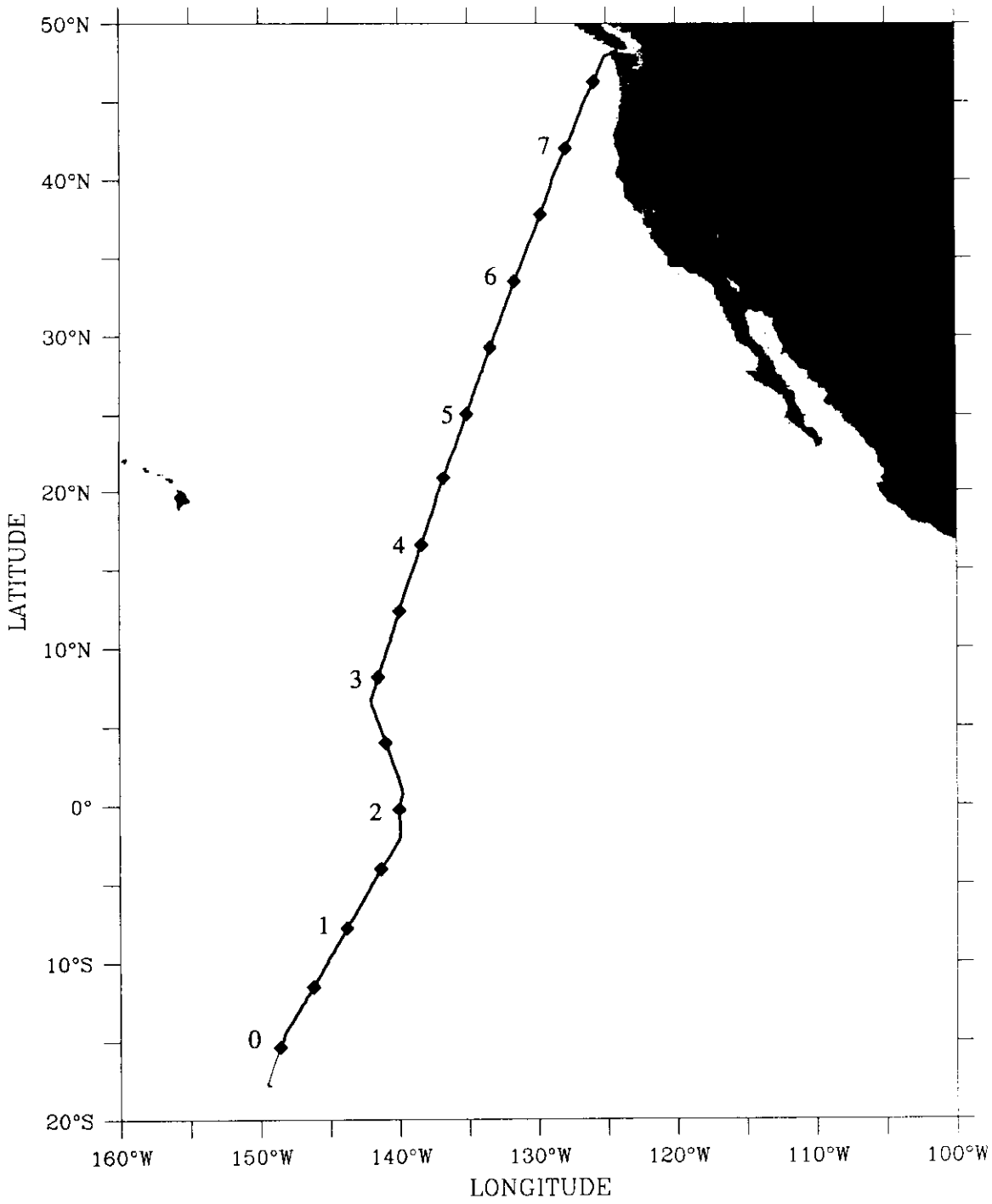

Fig. 28. Cruise track for RITS/CO_2 1989, Leg 3. The heavy line indicates the region for which measurements are reported here. Markers are given every 500 kilometers, and integers every thousand kilometers along the measurement track.

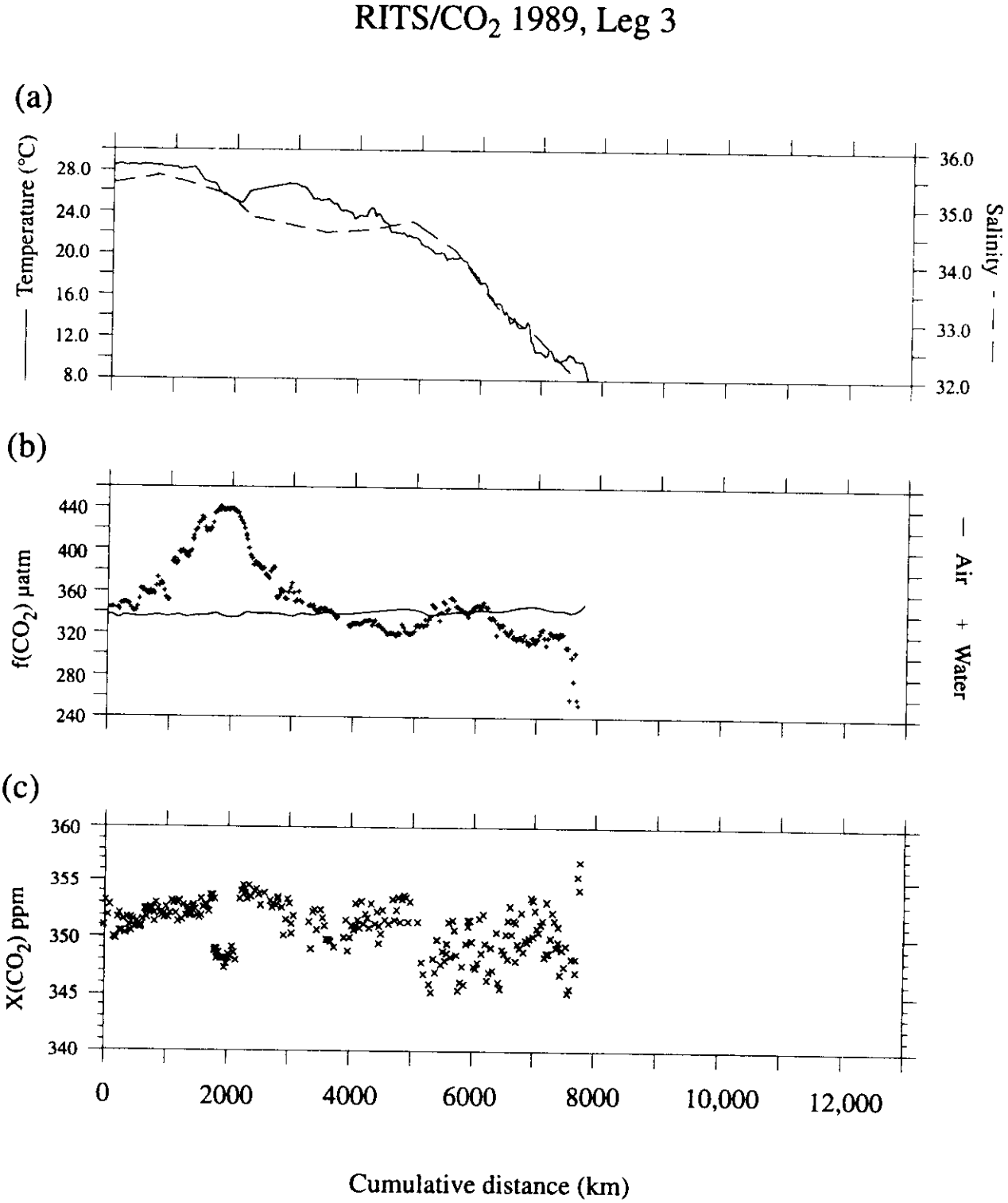

Fig. 29. (a) Temperature and salinity for RITS/CO_2 1989, Leg 3. (b) CO_2 fugacities in the atmosphere (solid line) and in surface seawater (crosses) for RITS/CO_2 1989, Leg 3. (c) CO_2 concentration (ppm in dry air) in the atmosphere for RITS/CO_2 1989, Leg 3.

DATA TABLES

EPOCS 1986

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
23 May	143.833	0.967	-90.615	0.0	23.65	0.65	34.136	1010.6		445.48		430.32	
23 May	143.875	0.867	-90.850	28.4	23.83	0.65	34.181	1010.0	345.43	435.93	333.37	420.70	
23 May	143.917	0.767	-91.067	54.9	23.75	0.65	34.227	1010.1	345.41		333.43		
23 May	143.958	0.650	-91.383	92.4	24.11	0.65	34.272	1010.5	345.39	436.51	333.34	421.27	
24 May	144.000	0.583	-91.550	112.4	23.85	0.65	34.318	1011.0	345.38	412.14	333.64	398.14	3
24 May	144.042	0.520	-91.772	138.0	23.81	0.65	34.363	1011.6		449.57		434.59	
24 May	144.083	0.498	-91.882	150.5	23.78	0.65	34.408	1011.6	345.34	439.87	333.85	425.24	
24 May	144.125	0.417	-92.083	174.5	23.74	0.65	34.454	1013.1					
24 May	144.167	0.350	-92.350	205.1	23.71	0.65	34.500	1013.1					
24 May	144.208	0.233	-92.500	226.3	23.67	0.65	34.544	1013.5					
24 May	144.250	0.205	-92.738	252.9	23.63	0.65	34.590	1013.3					
24 May	144.292	0.197	-92.990	280.9	23.60	0.65	34.636	1012.5					
24 May	144.333	0.172	-93.238	308.6	23.56	0.65	34.681	1012.2					
24 May	144.375	0.132	-93.492	337.2	23.58	0.65	34.726	1012.0					
24 May	144.417	0.100	-93.750	366.1	23.64	0.65	34.772	1012.0					
24 May	144.458	0.050	-93.867	380.2	23.82	0.65	34.817	1012.5					
24 May	144.500	0.033	-94.150	411.7	24.15	0.65	34.863	1013.0					
24 May	144.542	0.017	-94.500	450.6	24.35	0.65	34.909	1013.5					
24 May	144.583	0.003	-94.750	478.5	24.56	0.64	34.953	1013.9					
24 May	144.625	0.003	-94.968	502.7	24.61	0.66	34.999	1014.5					
24 May	144.667	-0.012	-94.973	504.5	24.66	0.66	35.003	1014.5					
24 May	144.708	-0.035	-94.962	507.3	24.72	0.66	35.008	1014.8		437.34		423.46	
24 May	144.750	-0.042	-94.960	508.1	24.80	0.66	35.012	1014.1	345.16	434.17	333.92	420.03	
24 May	144.792	-0.040	-94.952	509.0	24.89	0.66	35.012	1013.0	345.14		333.48		
24 May	144.833	-0.032	-94.930	511.6	24.92	0.66	35.013	1012.8	345.13	429.80	333.38	415.16	
24 May	144.875	-0.033	-95.023	521.9	24.93	0.66	35.013	1012.1		432.63		417.60	
24 May	144.917	-0.013	-95.282	550.8	24.97	0.66	35.013	1012.0	345.09	432.99	333.04	417.87	
24 May	144.958	-0.027	-95.517	577.0	25.03	0.66	35.013	1011.9					
25 May	145.000	-0.030	-95.763	604.3	24.94	0.66	35.014	1011.8					
25 May	145.042	-0.022	-96.035	634.5	24.77	0.66	35.014	1011.7					
25 May	145.083	-0.017	-96.267	660.3	24.59	0.66	35.014	1011.5					
25 May	145.125	0.000	-96.517	688.2	24.51	0.67	35.014	1012.6	345.00		333.44		
25 May	145.167	0.000	-96.767	716.0	24.53	0.67	35.015	1013.6		432.80		418.71	
25 May	145.208	0.010	-97.015	743.5	24.58	0.66	35.015	1014.1	344.97		333.87		
25 May	145.250	0.003	-97.258	770.6	24.57	0.66	35.015	1014.5	344.95	432.93	333.99	419.18	
25 May	145.292	0.005	-97.517	799.3	24.65	0.66	35.015	1013.9	344.93	434.61	333.72	420.49	
25 May	145.333	0.003	-97.758	826.1	24.67	0.66	35.015	1013.4	344.95		333.56		
25 May	145.375	0.002	-97.998	852.8	24.68	0.66	35.016	1013.0	344.97	434.38	333.44	419.87	
25 May	145.417	0.000	-98.250	880.8	24.77	0.66	35.016	1012.7	344.99	433.13	333.30	418.45	
25 May	145.458	0.000	-98.417	899.3	24.80	0.66	35.016	1012.8	345.01	433.38	333.33	418.71	
25 May	145.500	0.012	-98.667	927.2	24.78	0.66	35.017	1013.0					
25 May	145.542	-0.017	-98.950	958.8	24.75	0.66	35.017	1013.5					
25 May	145.583	-0.002	-99.167	982.9	24.81	0.66	35.017	1013.9					
25 May	145.625	0.000	-99.400	1008.8	24.85	0.66	35.017	1013.9					
25 May	145.667	0.000	-99.617	1032.9	24.90	0.66	35.018	1014.6					
25 May	145.708	0.000	-99.867	1060.7	24.89	0.66	35.018	1014.5					
25 May	145.750	0.000	-99.985	1073.8	24.93	0.66	35.018	1014.3	345.14		333.89		
25 May	145.792	0.000	-99.973	1075.2	24.99	0.66	35.019	1013.8	345.16		333.70		
25 May	145.833	0.022	-99.962	1077.9	24.97	0.66	35.019	1013.0	345.17	435.75	333.46	420.96	
25 May	145.875	0.032	-100.087	1091.8	24.97	0.66	35.023	1012.4	345.18	436.92	333.26	421.84	
25 May	145.917	-0.013	-100.328	1119.1	24.99	0.66	35.027	1012.3		358.05		345.64	3
25 May	145.958	-0.005	-100.527	1141.2	24.99	0.66	35.031	1012.4	345.18	353.50	333.25	341.29	3
26 May	146.000	0.005	-100.788	1170.2	25.05	0.66	35.035	1013.0	345.18		333.41		
26 May	146.042	-0.012	-101.127	1208.0	25.10	0.66	35.039	1013.5					
26 May	146.083	-0.010	-101.167	1212.4	25.11	0.66	35.043	1014.1	345.18	435.61	333.75	421.18	
26 May	146.125	-0.017	-101.333	1230.9	24.92	0.66	35.047	1014.1	345.18	440.55	333.87	426.11	
26 May	146.167	-0.017	-101.567	1256.9	24.82	0.66	35.051	1015.0		445.02		430.91	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
26 May	146.208	-0.013	-101.800	1282.8	24.52	0.67	35.055	1015.3	345.18	430.81	334.52	417.50	
26 May	146.250	-0.013	-102.013	1306.4	24.35	0.67	35.059	1015.4	345.18	429.06	334.66	415.97	
26 May	146.292	-0.015	-102.118	1318.1	24.28	0.67	35.064	1014.9	345.19	423.77	334.53	410.69	
26 May	146.333	0.005	-102.447	1354.7	24.11	0.67	35.068	1014.4	345.19	424.54	334.46	411.35	
26 May	146.375	0.007	-102.515	1362.3	24.22	0.67	35.072	1014.0	345.19		334.26		
26 May	146.417	0.000	-102.800	1394.0	24.19	0.67	35.076	1013.9	345.16	430.14	334.22	416.51	
26 May	146.458	0.000	-103.133	1431.0	24.30	0.67	35.080	1013.6	345.13	424.47	334.03	410.82	
26 May	146.500	0.000	-103.300	1449.5	24.23	0.67	35.084	1013.6	345.11	426.38	334.04	412.71	
26 May	146.542	0.000	-103.500	1471.7	24.26	0.67	35.088	1014.4		436.35		422.68	
26 May	146.583	0.000	-103.717	1495.9	24.32	0.67	35.092	1014.4	345.06	431.87	334.21	418.30	
26 May	146.625	0.003	-103.933	1519 9	24.38	0.67	35.096	1015.6	345.03	437.01	334.56	423.74	
26 May	146.667	0.010	-104.150	1544.0	24.38	0.67	35.100	1016.1	345.00		334.70		
26 May	146.708	0.025	-104.350	1566.3	24.52	0.67	35.104	1016.5		443.64		430.46	
26 May	146.750	0.025	-104.595	1593.5	24.52	0.67	35.108	1016.2	344.95	428.77	334.60	415.90	
26 May	146.792	0.013	-104.815	1618.0	24.48	0.67	35.112	1015.4	344.92	438.54	334.33	425.06	
26 May	146.833	0.002	-105.000	1638.6	24.52	0.67	35.116	1014.8		441.81		427.95	
26 May	146.875	0.018	-104.973	1642.1	25.02	0.66	35.114	1014.0	344.87	426.41	333.47	412.32	
26 May	146.917	0.033	-104.940	1646.1	24.62	0.66	35.111	1013.5	344.84		333.52		
26 May	146.958	0.017	-104.967	1649.6	24.51	0.67	35.109	1013.4	344.86	426.76	333.57	412.79	
27 May	147.000	0.017	-105.167	1671.8	24.47	0.67	35.105	1013.5	344.88	426.84	333.64	412.94	
27 May	147.042	0.033	-105.383	1695.9	24.42	0.67	35.101	1013.4		428.94		414.96	
27 May	147.083	0.017	-105.567	1716.4	24.49	0.67	35.098	1013.9	344.91	426.49	333.80	412.75	
27 May	147.125	0.017	-105.817	1744.2	24.52	0.67	35.094	1014.5	344.93	427.23	334.00	413.69	
27 May	147.167	0.000	-106.055	1770.7	24.53	0.67	35.090	1014.9	344.95	424.88	334.15	411.58	
27 May	147.208	0.002	-106.250	1792.4	24.50	0.67	35.086	1015.5	344.96	423.93	334.39	410.93	
27 May	147.250	0.007	-106.477	1817.6	24.63	0.66	35.083	1015.4	344.98		334.29		
27 May	147.292	0.002	-106.693	1841.6	24.69	0.66	35.079	1015.2	345.00	423.64	334.20	410.39	
27 May	147.333	0.002	-106.927	1867.6	24.69	0.66	35.075	1014.5	345.01	426.10	333.98	412.47	
27 May	147.375	0.003	-107.145	1891.8	24.73	0.66	35.071	1014.0	345.03	427.26	333.81	413.36	
27 May	147.417	0.000	-107.383	1918.3	24.74	0.66	35.067	1013.5	345.05	427.44	333.65	413.32	
27 May	147.458	-0.017	-107.600	1942.5	24.65	0.66	35.064	1013.5		428.32		414.23	
27 May	147.500	0.000	-107.833	1968.4	24.49	0.67	35.060	1013.5	345.07	430.30	333.82	416.27	
27 May	147.542	0.000	-108.033	1990.6	24.44	0.67	35.056	1014.0	345.08		334.03		
27 May	147.583	-0.008	-108.033	1991.5	24.42	0.67	35.052	1014.9		420.87		407.78	
27 May	147.625	-0.003	-108.017	1993.4	24.41	0.67	35.049	1015.4	345.11	425.62	334.54	412.60	
27 May	147.667	-0.007	-108.003	1995.0	24.41	0.67	35.045	1015.5		420.09		407.28	
27 May	147.708	-0.005	-107.983	1997.2	24.47	0.67	35.041	1015.5	345.13		334.56		
27 May	147.750	-0.002	-107.995	1998 6	24.56	0.66	35.037	1015.2	345.14	428.04	334.42	414.74	
27 May	147.792	0.007	-107.985	2000.1	24.61	0.66	35.033	1014.5		427.67		414.05	
27 May	147.833	-0.005	-107.988	2001.5	24.65	0.66	35.030	1013.7	345.16	442.49	333.88	428.02	
27 May	147.875	-0.033	-107.988	2004.6	24.76	0.66	35.026	1013.0					
27 May	147.917	-0.017	-108.000	2006.8	24.70	0.66	35.022	1012.7					
27 May	147.958	-0.017	-108.000	2006.8	24.66	0.66	35.018	1012.7					
28 May	148.000	0.000	-107.967	2010.9	24.64	0.66	35.015	1012.6					
28 May	148.042	0.000	-107.967	2010.9	24.51	0.67	35.011	1013.0		426.67		412.53	
28 May	148.083	-0.028	-107.945	2014.9	24.56	0.66	35.007	1013.5					
28 May	148.125	-0.042	-107.922	2017.9	24.49	0.67	35.007	1014.3	345.30		334.31		
28 May	148.167	-0.048	-107.905	2019.9	24.46	0.67	35.006	1015.0					
28 May	148.208	-0.052	-107.895	2021.1	24.49	0.67	35.023	1015.4					
28 May	148.250	-0.058	-107.888	2022.1	24.45	0.67	35.041	1015.4					
28 May	148.292	-0.105	-107.915	2028.1	24.35	0.67	35.058	1015.4					
28 May	148.333	-0.302	-108.035	2053.8	24.15	0.67	35.075	1014.8	345.39	421.20	334.78	408.25	
28 May	148.375	-0.490	-108.160	2078.9	24.06	0.67	35.093	1014.0	345.41		334.58		
28 May	148.417	-0.667	-108.300	2103.9	24.11	0.67	35.110	1013.5	345.42	421.01	334.38	407.56	
28 May	148.458	-0.867	-108.383	2128.0	24.08	0.67	35.127	1013.4		419.57		406.14	
28 May	148.500	-1.067	-108.550	2157.0	24.19	0.67	35.145	1013.6	345.42	421.81	334.37	408.32	
28 May	148.542	-1.217	-108.650	2177.0	24.32	0.67	35.163	1013.5	345.42	429.43	334.26	415.56	

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28 May	148.583	-1.433	-108.883	2212.3	24.34	0.67	35.180	1014.1	345.43	422.67	334.46	409.25	
28 May	148.625	-1.617	-109.017	2237.6	24.51	0.67	35.197	1014.9					
28 May	148.667	-1.783	-109.150	2261.2	24.77	0.66	35.215	1015.0	345.43	424.36	334.51	410.94	
28 May	148.708	-1.975	-109.302	2288.4	24.90	0.66	35.232	1015.0	345.43	428.35	334.43	414.71	
28 May	148.750	-2.168	-109.343	2310.3	25.09	0.66	35.249	1014.4	345.43	429.36	334.11	415.28	
28 May	148.792	-2.367	-109.457	2335.8	25.28	0.66	35.267	1014.0	345.44	433.59	333.86	419.06	
28 May	148.833	-2.568	-109.765	2376.7	25.45	0.66	35.284	1013.4		430.88		416.05	
28 May	148.875	-2.780	-109.893	2404.2	25.44	0.66	35.301	1012.4	345.44	438.09	333.22	422.59	
28 May	148.917	-2.967	-110.000	2428.1	25.43	0.66	35.319	1011.3	345.44	433.07	332.86	417.30	
28 May	148.958	-3.000	-110.000	2431.8	25.48	0.66	35.331	1012.0	345.45	429.13	333.07	413.76	
29 May	149.000	-2.905	-110.000	2442.3	25.42	0.66	35.344	1012.3	345.47		333.23		
29 May	149.042	-2.660	-110.000	2469.5	25.40	0.66	35.357	1013.4	345.48	427.69	333.62	413.02	
29 May	149.083	-2.500	-109.983	2487.4	25.41	0.66	35.369	1012.6	345.49	428.34	333.36	413.30	
29 May	149.125	-2.500	-110.000	2489.3	25.40	0.66	35.367	1013.5		428.98		414.30	
29 May	149.167	-2.417	-109.983	2498.7	25.31	0.66	35.366	1014.5	345.51	427.31	334.08	413.18	
29 May	149.208	-2.217	-109.983	2521.0	25.18	0.66	35.364	1014.5	345.52	426.30	334.18	412.30	
29 May	149.250	-2.043	-109.950	2540.6	25.05	0.66	35.362	1014.1	345.53	425.04	334.13	411.01	
29 May	149.292	-2.075	-109.925	2545.1	25.02	0.66	35.361	1014.0	345.55		334.13		
29 May	149.333	-2.063	-109.922	2546.5	25.02	0.66	35.359	1013.7	345.56	425.86	334.04	411.66	
29 May	149.375	-2.060	-109.905	2548.4	25.01	0.66	35.360	1013.4	345.57	427.54	333.95	413.17	
29 May	149.417	-2.067	-109.900	2549.4	24.96	0.66	35.361	1013.0	345.58	428.52	333.86	413.99	
29 May	149.458	-2.067	-109.933	2553.1	24.97	0.66	35.362	1013.1		427.83		413.35	
29 May	149.500	-2.033	-110.067	2568.4	24.90	0.66	35.363	1013.2	345.59	425.87	333.98	411.55	
29 May	149.542	-2.133	-110.000	2581.8	24.80	0.66	35.364	1013.5	345.60	429.39	334.14	415.16	
29 May	149.583	-2.133	-109.967	2585.4	24.74	0.66	35.365	1014.0	345.60	429.63	334.36	415.65	
29 May	149.625	-2.050	-109.950	2594.9	24.78	0.66	35.366	1014.5	345.61		334.51		
29 May	149.667	-1.983	-110.000	2604.1	24.74	0.66	35.367	1015.0	345.62	427.48	334.71	413.99	
29 May	149.708	-2.083	-109.917	2618.6	24.81	0.66	35.368	1015.0	345.62	436.05	334.67	422.23	
29 May	149.750	-1.988	-110.032	2635.2	24.81	0.66	35.369	1015.1	345.63	436.42	334.71	422.63	
29 May	149.792	-2.088	-109.998	2646.9	24.90	0.66	35.370	1014.5	345.64		334.46		
29 May	149.833	-2.068	-109.960	2651.7	24.92	0.66	35.371	1014.3					
29 May	149.875	-2.063	-109.957	2652.3	24.96	0.66	35.372	1013.9					
29 May	149.917	-2.050	-109.950	2653.9	24.96	0.66	35.373	1013.8					
29 May	149.958	-2.033	-109.967	2656.6	24.96	0.66	35.374	1013.0					
30 May	150.000	-2.017	-109.983	2659.1	24.97	0.66	35.375	1013.5					
30 May	150.042	-2.033	-109.950	2663.2	24.98	0.66	35.376	1013.6					
30 May	150.083	-2.040	-109.962	2664.7	24.92	0.66	35.377	1014.5					
30 May	150.125	-1.983	-109.967	2671.1	24.90	0.66	35.370	1015.0					
30 May	150.167	-1.800	-109.967	2691.4	24.81	0.66	35.363	1015.0					
30 May	150.208	-1.583	-109.983	2715.6	24.63	0.66	35.356	1015.0					
30 May	150.250	-1.508	-109.985	2724.0	24.57	0.66	35.349	1014.6					
30 May	150.292	-1.495	-109.977	2725.7	24.52	0.67	35.331	1014.9	345.81	423.87	334.99	410.61	
30 May	150.333	-1.268	-109.968	2750.9	24.27	0.67	35.313	1014.0	345.82		334.85		
30 May	150.375	-1.042	-109.993	2776.2	24.10	0.67	35.295	1013.5					
30 May	150.417	-1.000	-109.983	2781.0	24.01	0.67	35.277	1013.0	345.84	422.53	334.68	408.89	
30 May	150.458	-1.033	-109.933	2787.6	24.01	0.67	35.272	1013.4	345.84	430.37	334.82	416.65	
30 May	150.500	-0.867	-109.950	2806.2	23.82	0.67	35.267	1014.0		425.27		412.10	
30 May	150.542	-0.667	-109.983	2828.7	23.82	0.67	35.262	1014.5	345.86	431.26	335.32	418.12	
30 May	150.583	-0.500	-109.983	2847.2	23.83	0.67	35.257	1015.0	345.87	425.10	335.49	412.34	
30 May	150.625	-0.333	-109.983	2865.8	23.81	0.67	35.252	1015.6	345.87		335.71		
30 May	150.667	-0.100	-109.983	2891.7	23.90	0.67	35.247	1015.5	345.88	425.39	335.63	412.78	
30 May	150.708	-0.017	-109.917	2903.5	24.04	0.67	35.242	1015.5	345.89	428.58	335.56	415.78	
30 May	150.750	-0.017	-109.942	2906.2	24.10	0.67	35.237	1015.3		431.22		418.22	
30 May	150.792	-0.025	-110.002	2913.0	24.17	0.67	35.232	1014.0		435.53		421.78	
30 May	150.833	-0.028	-109.992	2914.1	24.20	0.67	35.227	1013.5	345.91		334.80		
30 May	150.875	-0.032	-109.980	2915.5	24.28	0.67	35.222	1013.0	345.92	417.83	334.59	404.16	
30 May	150.917	-0.033	-109.967	2917.0	24.36	0.67	35.217	1012.5	345.90	427.48	334.36	413.22	

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30 May	150.958	-0.067	-109.967	2920.8	24.29	0.67	35.212	1012.0	345.88	426.07	334.22	411.70	
31 May	151.000	-0.233	-109.967	2939.2	24.10	0.67	35.207	1012.0		428.59		414.27	
31 May	151.042	-0.500	-110.000	2969.1	24.01	0.67	35.202	1012.5	345.85	429.06	334.52	415.01	
31 May	151.083	-0.517	-109.967	2973.2	23.98	0.67	35.197	1013.5	345.83	425.04	334.86	411.55	
31 May	151.125	-0.417	-109.950	2984.5	23.92	0.67	35.177	1014.0	345.81	422.56	335.05	409.40	
31 May	151.167	-0.233	-109.967	3005.0	23.98	0.67	35.157	1014.8	345.80		335.27		
31 May	151.208	-0.050	-110.000	3025.7	24.14	0.67	35.138	1015.0	345.78	421.91	335.22	409.03	
31 May	151.250	-0.013	-109.985	3030.1	24.21	0.67	35.118	1015.0	345.76	421.75	335.17	408.83	
31 May	151.292	-0.015	-109.968	3032.0	24.20	0.67	35.098	1014.0		422.19		408.84	
31 May	151.333	-0.007	-109.953	3033.9	24.20	0.67	35.097	1014.0	345.73	423.05	334.80	409.67	
31 May	151.375	-0.007	-109.950	3034.3	24.17	0.67	35.096	1013.8	345.71	422.66	334.73	409.24	
31 May	151.417	-0.020	-109.948	3035.7	24.21	0.67	35.094	1011.5					
31 May	151.458	-0.050	-109.917	3040.5	24.20	0.67	35.093	1012.5		421.42		407.48	
31 May	151.500	-0.067	-109.917	3042.4	24.13	0.67	35.092	1013.5	345.68	426.77	334.62	413.12	
31 May	151.542	-0.083	-109.910	3044.3	24.06	0.67	35.091	1013.6	345.67	430.57	334.69	416.90	
31 May	151.583	-0.083	-109.900	3045.5	24.05	0.67	35.090	1014.1	345.66	428.93	334.85	415.52	
31 May	151.625	-0.017	-109.950	3054.7	24.11	0.67	35.089	1015.0	345.64		335.11		
31 May	151.667	0.033	-110.033	3065.4	24.19	0.67	35.088	1015.5	345.63	426.86	335.22	414.00	
31 May	151.708	0.017	-110.033	3067.2	24.25	0.67	35.088	1015.5	345.62	429.47	335.17	416.49	
31 May	151.750	0.017	-110.050	3069.1	24.37	0.67	35.087	1015.0	345.61	423.08	334.92	410.00	
31 May	151.792	0.015	-110.058	3070.0	24.49	0.67	35.086	1014.4	345.60	424.75	334.64	411.28	
31 May	151.833	-0.002	-110.057	3071.9	24.55	0.66	35.085	1013.5		428.97		414.94	
31 May	151.875	-0.018	-110.050	3073.8	24.60	0.66	35.084	1012.5	345.58		333.90		
31 May	151.917	-0.010	-110.048	3074.8	24.69	0.66	35.083	1012.5					
31 May	151.958	-0.050	-110.027	3079.8	24.61	0.66	35.083	1012.0		427.21		412.57	
1 Jun	152.000	0.033	-110.017	3089.1	24.76	0.66	35.083	1012.0					
1 Jun	152.042	0.250	-110.000	3113.3	24.95	0.66	35.082	1012.5	345.63		333.74		
1 Jun	152.083	0.457	-109.985	3136.3	25.19	0.66	35.082	1013.0		426.89		412.23	
1 Jun	152.125	0.487	-109.988	3139.7	25.15	0.66	35.082	1013.5	345.65	428.68	333.98	414.20	
1 Jun	152.167	0.483	-109.850	3155.0	25.16	0.66	35.065	1014.0	345.66		334.15		
1 Jun	152.208	0.683	-109.983	3181.7	25.19	0.66	35.048	1014.5	345.67	430.13	334.31	416.00	
1 Jun	152.250	0.933	-110.000	3209.5	25.37	0.66	35.031	1014.5	345.69	430.60	334.21	416.31	
1 Jun	152.292	0.995	-109.995	3216.5	25.43	0.66	35.014	1014.5	345.70	427.71	334.19	413.47	
1 Jun	152.333	1.040	-109.992	3221.5	25.50	0.66	35.024	1014.0		428.73		414.19	
1 Jun	152.375	1.290	-110.003	3249.3	25.87	0.66	35.035	1013.1	345.72	424.35	333.45	409.29	
1 Jun	152.417	1.487	-109.990	3271.2	26.10	0.65	35.046	1012.3	345.73	421.51	333.05	406.04	
1 Jun	152.458	1.483	-109.950	3275.7	26.08	0.65	35.048	1012.5	345.74	420.78	333.13	405.43	
1 Jun	152.500	1.583	-110.017	3289.0	26.16	0.65	35.050	1013.4	345.74		333.38		
1 Jun	152.542	1.833	-110.011	3316.8	26.17	0.65	35.051	1013.5	345.74	425.35	333.41	410.18	
1 Jun	152.583	2.000	-110.000	3335.4	26.20	0.65	35.053	1013.0	345.74	423.87	333.23	408.52	
1 Jun	152.625	2.000	-110.000	3335.4	26.17	0.65	35.055	1013.5	345.74	425.51	333.42	410.34	
1 Jun	152.667	2.000	-109.983	3337.3	26.16	0.65	35.057	1014.0		426.29		411.31	
1 Jun	152.708	2.000	-110.000	3339.2	26.18	0.65	35.058	1014.0	345.75	425.69	333.58	410.72	
1 Jun	152.750	2.000	-110.000	3339.2	26.22	0.65	35.060	1013.7	345.75	431.19	333.46	415.86	
1 Jun	152.792	2.050	-110.017	3345.1	26.27	0.65	35.026	1013.4	345.75	428.45	333.32	413.05	
1 Jun	152.833	2.300	-110.002	3372.9	26.29	0.65	34.992	1012.9					
1 Jun	152.875	2.493	-109.998	3394.4	26.34	0.65	34.958	1011.5	345.76	432.77	332.64	416.35	
1 Jun	152.917	2.488	-110.000	3395.0	26.34	0.65	34.960	1011.5	345.76	420.71	332.64	404.75	
1 Jun	152.958	2.667	-109.983	3414.9	26.49	0.65	34.961	1011.5	345.76	420.26	332.54	404.19	
2 Jun	153.000	2.917	-110.000	3442.8	26.62	0.65	34.963	1011.2		419.94		403.65	
2 Jun	153.042	3.000	-110.000	3452.0	26.72	0.65	34.965	1011.5	345.75	425.00	332.37	408.56	
2 Jun	153.083	3.000	-109.983	3453.9	26.68	0.65	34.966	1011.7					
2 Jun	153.125	2.850	-110.133	3477.4	26.61	0.65	34.972	1012.5					
2 Jun	153.167	2.833	-110.233	3488.7	26.48	0.65	34.977	1012.9					
2 Jun	153.208	2.800	-110.333	3500.4	26.36	0.65	34.983	1013.0					
2 Jun	153.250	2.567	-110.650	3544.1	26.25	0.65	34.989	1013.0					
2 Jun	153.292	2.458	-110.898	3574.2	26.20	0.65	34.994	1012.4					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
2 Jun	153.333	2.350	-111.038	3593.8	26.17	0.65	35.000	1012.1	345.70	424.42	332.90	408.70	
2 Jun	153.375	2.240	-111.243	3619.6	26.00	0.65	35.006	1011.2	345.69	424.40	332.70	408.45	
2 Jun	153.417	2.063	-111.475	3652.0	25.88	0.66	35.011	1011.0		427.39		411.33	
2 Jun	153.458	1.983	-111.683	3676.8	25.78	0.66	35.017	1011.0	345.68	425.67	332.76	409.76	
2 Jun	153.500	1.833	-111.867	3703.2	25.29	0.66	35.023	1011.0	345.67	427.79	333.07	412.19	
2 Jun	153.542	1.767	-112.133	3733.6	24.58	0.66	35.028	1011.4	345.69	426.43	333.65	411.59	
2 Jun	153.583	1.650	-112.217	3749.6	24.49	0.67	35.034	1011.7	345.70		333.81		
2 Jun	153.625	1.467	-112.467	3784.0	24.21	0.67	35.040	1012.5	345.71	422.17	334.26	408.20	
2 Jun	153.667	1.408	-112.690	3809.6	24.17	0.67	35.045	1013.5	345.72	424.25	334.64	410.65	
2 Jun	153.708	1.317	-112.883	3833.4	24.22	0.67	35.051	1013.5	345.73	427.08	334.62	413.35	
2 Jun	153.750	1.210	-113.080	3858.3	24.33	0.67	35.057	1013.6		426.21		412.47	
2 Jun	153.792	1.100	-113.252	3880.9	24.54	0.66	35.062	1013.1	345.75	425.55	334.31	411.47	
2 Jun	153.833	0.977	-113.433	3905.3	24.55	0.66	35.068	1012.4	345.76	428.10	334.08	413.64	
2 Jun	153.875	0.858	-113.603	3928.3	24.67	0.66	35.074	1011.7	345.77	426.38	333.78	411.59	
2 Jun	153.917	0.753	-113.785	3951.7	24.84	0.66	35.079	1011.0	345.78		333.45		
2 Jun	153.958	0.583	-114.033	3985.1	24.85	0.66	35.085	1010.6	345.79	429.10	333.32	413.62	
3 Jun	154.000	0.550	-114.117	3995.1	24.86	0.66	35.091	1010.8	345.80	427.68	333.39	412.33	
3 Jun	154.042	0.450	-114.283	4016.6	24.77	0.66	35.096	1011.5	345.82	427.88	333.69	412.89	
3 Jun	154.083	0.345	-114.610	4054.8	24.71	0.66	35.102	1011.6	345.80	425.32	333.75	410.50	
3 Jun	154.125	0.167	-114.683	4076.2	24.71	0.66	35.108	1013.5		427.92		413.80	
3 Jun	154.167	0.133	-114.867	4097.0	24.57	0.66	35.113	1014.0	345.78	424.39	334.63	410.70	
3 Jun	154.208	0.067	-114.875	4104.4	24.56	0.66	35.119	1013.8	345.77	423.70	334.56	409.96	
3 Jun	154.250	0.000	-114.967	4117.0	24.53	0.67	35.125	1013.5	345.76	421.14	334.46	407.38	
3 Jun	154.292	0.072	-114.905	4127.6	24.51	0.67	35.130	1013.8	345.75		334.56		
3 Jun	154.333	0.038	-114.943	4133.2	24.49	0.67	35.136	1013.4	345.73	422.60	334.43	408.78	
3 Jun	154.375	0.058	-114.937	4135.5	24.45	0.67	35.137	1013.0	345.72	421.49	334.31	407.57	
3 Jun	154.417	0.070	-114.923	4137.6	24.43	0.67	35.138	1012.5		421.59		407.48	
3 Jun	154.458	0.083	-114.933	4139.4	24.40	0.67	35.139	1012.3	345.70	420.24	334.08	406.11	
3 Jun	154.500	0.083	-114.900	4143.1	24.38	0.67	35.128	1011.6	345.69	423.15	333.84	408.65	
3 Jun	154.542	0.067	-115.050	4159.8	24.44	0.67	35.118	1013.0	345.68	425.07	334.27	411.04	
3 Jun	154.583	0.050	-115.167	4173.0	24.48	0.67	35.107	1013.4	345.66		334.37		
3 Jun	154.625	0.000	-115.483	4208.5	24.50	0.67	35.097	1014.6	345.65	422.71	334.75	409.38	
3 Jun	154.667	0.000	-115.667	4229.0	24.52	0.67	35.086	1014.6	345.64	422.68	334.73	409.34	
3 Jun	154.708	0.005	-115.890	4253.8	24.54	0.66	35.076	1014.7	345.63	418.35	334.74	405.17	
3 Jun	154.750	0.023	-116.122	4279.6	24.45	0.67	35.065	1014.7	345.62	422.81	334.79	409.56	
3 Jun	154.792	0.018	-116.323	4302.0	24.41	0.67	35.055	1014.4		424.15		410.75	
3 Jun	154.833	0.002	-116.548	4327.0	24.63	0.66	35.044	1013.8	345.60	420.61	334.35	406.92	
3 Jun	154.875	-0.008	-116.527	4329.6	24.81	0.66	35.034	1012.5	345.59	422.59	333.79	408.16	
3 Jun	154.917	0.020	-116.493	4334.5	24.83	0.66	35.023	1011.9	345.58	428.25	333.57	413.36	
3 Jun	154.958	0.067	-116.417	4344.4	24.78	0.66	34.996	1011.4	345.57		333.42		
4 Jun	155.000	0.200	-116.250	4368.2	24.62	0.66	34.968	1011.0		430.04		414.87	
4 Jun	155.042	0.367	-116.050	4397.1	24.59	0.66	34.941	1011.3	345.55	429.70	333.48	414.69	
4 Jun	155.083	0.550	-115.783	4433.1	24.53	0.67	34.914	1011.5	345.54	427.01	333.57	412.22	
4 Jun	155.125	0.727	-115.575	4463.4	24.47	0.67	34.886	1012.1		425.53		411.09	
4 Jun	155.167	0.898	-115.342	4495.5	24.53	0.67	34.859	1013.0	345.58	424.46	334.12	410.39	
4 Jun	155.208	1.067	-115.110	4527.4	24.63	0.66	34.832	1013.5	345.60	422.21	334.25	408.34	
4 Jun	155.250	1.233	-114.967	4551.8	24.87	0.66	34.804	1013.5	345.62	420.25	334.12	406.27	
4 Jun	155.292	1.400	-114.615	4595.1	25.39	0.66	34.776	1013.5	345.64		333.81		
4 Jun	155.333	1.568	-114.418	4623.8	25.54	0.66	34.749	1012.5	345.66	419.75	333.40	404.86	
4 Jun	155.375	1.722	-114.185	4654.9	25.60	0.66	34.722	1011.9	345.68	420.93	333.17	405.71	
4 Jun	155.417	1.892	-113.973	4685.0	25.52	0.66	34.694	1011.0	345.69	425.19	332.94	409.51	
4 Jun	155.458	2.074	-113.756	4716.5	25.35	0.66	34.667	1011.4	345.71	424.33	333.20	408.97	
4 Jun	155.500	2.254	-113.527	4748.8	25.16	0.66	34.640	1011.0					
4 Jun	155.542	2.427	-113.342	4777.0	25.11	0.66	34.612	1012.1					
4 Jun	155.583	2.606	-113.149	4806.2	25.04	0.66	34.585	1012.5					
4 Jun	155.625	2.790	-112.932	4837.8	25.46	0.66	34.558	1012.8		419.86		405.16	
4 Jun	155.667	2.965	-112.715	4868.8	26.43	0.65	34.530	1013.8	345.84	392.13	333.44	378.07	

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4 Jun	155.708	3.125	-112.513	4897.4	26.88	0.65	34.503	1013.7	345.87		333.12		
4 Jun	155.750	3.297	-112.298	4927.9	26.93	0.65	34.475	1013.7	345.89	380.23	333.11	366.18	
4 Jun	155.792	3.458	-112.085	4957.6	27.05	0.65	34.448	1012.8	345.92	396.85	332.75	381.74	
4 Jun	155.833	3.617	-111.865	4987.7	27.31	0.64	34.421	1012.3	345.94	373.56	332.43	358.97	
4 Jun	155.875	3.760	-111.635	5017.8	27.41	0.64	34.393	1011.7		383.35		368.07	
4 Jun	155.917	3.910	-111.417	5047.1	27.48	0.64	34.366	1011.0	345.99	374.16	331.91	358.94	
4 Jun	155.958	4.060	-111.197	5076.7	27.51	0.64	34.339	1010.6		366.81		351.71	
5 Jun	156.000	4.222	-110.987	5106.1	27.46	0.64	34.311	1010.4	346.05	371.91	331.77	356.57	
5 Jun	156.042	4.390	-110.783	5135.4	27.43	0.64	34.283	1010.9	346.07		331.99		
5 Jun	156.083	4.565	-110.580	5165.1	27.57	0.64	34.256	1011.6	346.10	369.28	332.15	354.40	
5 Jun	156.125	4.740	-110.375	5195.0	27.60	0.64	34.229	1012.4	346.12	368.05	332.43	353.48	
5 Jun	156.167	4.915	-110.168	5225.1	27.63	0.64	34.201	1012.7	346.15	371.44	332.53	356.83	
5 Jun	156.208	5.083	-109.900	5260.1	27.60	0.64	34.174	1014.0	346.17	372.37	333.02	358.22	
5 Jun	156.250	5.067	-109.983	5269.5	27.57	0.64	34.147	1013.7		375.36		361.01	
5 Jun	156.292	5.078	-109.987	5270.8	27.57	0.64	34.119	1013.0	346.23	374.66	332.75	360.08	
5 Jun	156.333	5.078	-109.985	5271.0	27.58	0.64	34.114	1012.3	346.25		332.53		
5 Jun	156.375	5.078	-109.978	5271.8	27.57	0.64	34.108	1011.5	346.28	374.87	332.29	359.73	
5 Jun	156.417	5.075	-109.962	5273.6	27.58	0.64	34.103	1011.1	346.30	377.66	332.17	362.25	
5 Jun	156.458	5.067	-109.967	5274.6	27.58	0.64	34.123	1011.5	346.33	374.18	332.33	359.06	
5 Jun	156.500	5.083	-109.967	5276.4	27.55	0.64	34.144	1012.0		376.53		361.52	
5 Jun	156.542	5.100	-109.983	5279.0	27.49	0.64	34.165	1012.5	346.38	373.90	332.79	359.23	
5 Jun	156.583	5.050	-110.017	5285.7	27.50	0.64	34.185	1012.9	346.42	373.69	332.95	359.16	
5 Jun	156.625	5.017	-110.002	5289.7	27.50	0.64	34.206	1013.2	346.45		333.09		
5 Jun	156.667	4.987	-109.987	5293.5	27.51	0.64	34.227	1013.6		370.69		356.53	
5 Jun	156.708	4.992	-110.065	5302.1	27.51	0.64	34.247	1013.9		375.44		361.20	
5 Jun	156.750	4.997	-110.065	5302.7	27.52	0.64	34.268	1013.5		375.99		361.58	
5 Jun	156.792	5.000	-110.012	5308.5	27.55	0.64	34.289	1013.2		374.72		360.22	
5 Jun	156.833	5.008	-110.042	5312.0	27.57	0.64	34.309	1012.8		377.27		362.51	
5 Jun	156.875	5.013	-110.018	5314.7	27.59	0.64	34.330	1011.6		372.80		357.76	
5 Jun	156.917	4.957	-110.145	5330.1	27.63	0.64	34.350	1011.1	346.70	376.52	332.52	361.12	
5 Jun	156.958	4.850	-110.383	5359.0	27.61	0.64	34.371	1010.6	346.74		332.40		
6 Jun	157.000	4.733	-110.617	5388.0	27.65	0.64	34.392	1010.9	346.77	368.27	332.51	353.12	
6 Jun	157.042	4.617	-110.950	5427.0	27.56	0.64	34.412	1011.4	346.81	368.48	332.77	353.57	
6 Jun	157.083	4.495	-111.085	5447.2	27.46	0.64	34.433	1011.9	346.84	369.16	333.05	354.47	
6 Jun	157.125	4.350	-111.350	5480.7	27.44	0.64	34.453	1012.5		363.75		349.51	
6 Jun	157.167	4.250	-111.550	5505.5	27.38	0.64	34.474	1013.0	346.86	366.32	333.49	352.20	
6 Jun	157.208	4.133	-111.785	5534.6	27.33	0.64	34.495	1013.0	346.86	368.17	333.53	354.02	
6 Jun	157.250	4.033	-112.017	5562.6	27.17	0.65	34.515	1013.3	346.87	379.13	333.76	364.79	
6 Jun	157.292	3.895	-112.262	5593.8	27.05	0.65	34.536	1013.2	346.88	376.31	333.81	362.13	
6 Jun	157.333	3.770	-112.498	5623.4	27.19	0.65	34.556	1012.1	346.89		333.35		
6 Jun	157.375	3.640	-112.748	5654.7	27.19	0.65	34.577	1011.5	346.89	368.68	333.15	354.08	
6 Jun	157.417	3.507	-112.977	5684.1	27.10	0.65	34.598	1011.0	346.90	372.11	333.05	357.26	
6 Jun	157.458	3.383	-113.217	5714.0	27.06	0.65	34.618	1010.8					
6 Jun	157.500	3.233	-113.517	5751.3	27.12	0.65	34.639	1011.0					
6 Jun	157.542	3.150	-113.717	5775.3	27.36	0.64	34.660	1011.5					
6 Jun	157.583	3.000	-113.900	5801.6	27.44	0.64	34.680	1012.4	346.93	374.41	333.32	359.72	
6 Jun	157.625	2.900	-114.200	5836.7	27.50	0.64	34.701	1013.0	346.93	373.15	333.48	358.69	
6 Jun	157.667	2.783	-114.450	5867.3	27.53	0.64	34.722	1013.0	346.93	375.01	333.46	360.45	
6 Jun	157.708	2.670	-114.700	5897.8	27.51	0.64	34.742	1013.5					
6 Jun	157.750	2.542	-114.857	5920.3	27.41	0.64	34.763	1013.0					
6 Jun	157.792	2.427	-115.222	5962.7	27.22	0.65	34.784	1012.5		370.33		356.01	
6 Jun	157.833	2.263	-115.572	6005.7	27.06	0.65	34.804	1011.5	346.90		333.25		
6 Jun	157.875	2.168	-115.755	6028.6	26.57	0.65	34.825	1011.1	346.89	386.91	333.44	371.90	
6 Jun	157.917	2.045	-115.993	6058.3	26.46	0.65	34.845	1010.8		425.30		408.77	
6 Jun	157.958	1.917	-116.217	6087.0	27.03	0.65	34.866	1010.5					
7 Jun	158.000	1.783	-116.467	6118.5	26.94	0.65	34.887	1010.4					
7 Jun	158.042	1.667	-116.700	6147.4	26.82	0.65	34.907	1010.9					

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7 Jun	158.083	1.538	-116.945	6178.2	26.69	0.65	34.928	1011.4					
7 Jun	158.125	1.450	-117.017	6190.8	26.82	0.65	34.948	1012.5					
7 Jun	158.167	1.333	-117.300	6224 8	26.90	0.65	34.969	1013.0	346.84	416.89	333.82	401.23	
7 Jun	158.208	1.217	-117.533	6253.7	26.95	0.65	34.990	1013.5	346.84	412.67	333.94	397.33	
7 Jun	158.250	1.083	-117.767	6283.7	26.89	0.65	35.010	1013.5	346.83		333.98		
7 Jun	158.292	0.962	-118.030	6315.8	26.73	0.65	35.031	1013.4	346.82	409.25	334.05	394.18	
7 Jun	158.333	0.845	-118.230	6341.6	26.57	0.65	35.051	1012.6	346.81	417.68	333.87	402.10	
7 Jun	158.375	0.715	-118.530	6377.9	26.00	0.65	35.072	1012.1	346.80	416.58	334.07	401.29	
7 Jun	158.417	0.640	-118.712	6399.8	25.34	0.66	35.093	1011.5	346.80	428.67	334.29	413.20	
7 Jun	158.458	0.517	-118.900	6424.8	25.32	0.66	35.113	1011.5		429.35		413.88	
7 Jun	158.500	0.400	-119.133	6453.7	25.34	0.66	35.134	1011.0	346.78	421.69	334.10	406.27	
7 Jun	158.542	0.299	-119.353	6480.6	25.32	0.66	35.155	1011.5	346.77	422.95	334.28	407.71	
7 Jun	158.583	0.200	-119.567	6506.8	25.29	0.66	35.175	1011.9	346.77	430.49	334.42	415.17	
7 Jun	158.625	0.083	-119.767	6532.6	25.31	0.66	35.196	1013.0					
7 Jun	158.667	0.000	-119.950	6554.9	25.44	0.66	35.217	1013.0	346.75	423.85	334.69	409.10	
7 Jun	158.708	0.000	-119.950	6554.9	25.47	0.66	35.237	1013.2		426.92		412.13	
7 Jun	158.750	0.000	-119.950	6554.9	25.53	0.66	35.235	1013.5		429.09		414.31	
7 Jun	158.792	0.017	-120.033	6564.3	25.58	0.66	35.233	1014.0		433.06		418.31	
7 Jun	158.833	0.000	-120.250	6588.5	25.60	0.66	35.231	1012.7	346.78	424.69	334.51	409.67	
7 Jun	158.875	0.000	-120.500	6616.3	25.69	0.66	35.229	1011.8	346.78	421.05	334.15	405.72	
7 Jun	158.917	0.013	-120.710	6639.7	25.73	0.66	35.227	1011.0	346.79		333.86		
7 Jun	158.958	0.008	-120.940	6665.2	25.78	0.66	35.225	1010.1	346.80	426.89	333.53	410.56	
8 Jun	159.000	0.000	-121.167	6690.5	25.73	0.66	35.223	1008.8	346.80	425.57	333.13	408.79	
8 Jun	159.042	0.000	-121.400	6716.4	25.68	0.66	35.221	1009.9	346.81	426.58	333.54	410.26	
8 Jun	159.083	0.000	-121.600	6738.6	25.66	0.66	35.219	1009.9	346.82	427.10	333.56	410.77	
8 Jun	159.125	0.000	-121.933	6775.6	25.63	0.66	35.217	1010.5		431.89		415.65	
8 Jun	159.167	-0.003	-122.085	6792.5	25.70	0.66	35.215	1011.1	346.83	428.86	333.95	412.94	
8 Jun	159.208	-0.012	-122.280	6814.2	25.77	0.66	35.213	1012.0	346.84	418.40	334.22	403.18	
8 Jun	159.250	-0.017	-122.500	6838.6	25.85	0.66	35.211	1012.0	346.82	418.30	334.15	403.03	
8 Jun	159.292	-0.017	-122.735	6864.7	25.87	0.66	35.209	1012.0	346.80		334.13		
8 Jun	159.333	-0.010	-122.962	6890.0	25.87	0.66	35.207	1011.5	346.79	418.30	333.94	402.80	
8 Jun	159.375	-0.012	-123.197	6916.1	25.89	0.66	35.205	1011.0	346.77	419.34	333.74	403.59	
8 Jun	159.417	-0.012	-123.427	6941.6	25.91	0.65	35.203	1010.0	346.76	417.02	333.37	400.93	
8 Jun	159.458	-0.005	-123.662	6967.8	25.92	0.65	35.201	1010.1		417.18		401.11	
8 Jun	159.500	0.000	-124.000	7005.3	25.93	0.65	35.199	1010.3	346.73	419.45	333.44	403.37	
8 Jun	159.542	-0.017	-124.117	7018.5	25.88	0.66	35.197	1010.4	346.71	416.20	333.49	400.33	
8 Jun	159.583	-0.017	-124.333	7042.5	25.94	0.65	35.195	1010.5	346.70	414.23	333.47	398.42	
8 Jun	159.625	0.000	-124.583	7070.3	25.93	0.65	35.193	1010.7	346.68		333.53		
8 Jun	159.667	0.007	-124.790	7093.3	25.95	0.65	35.191	1011.8	346.67	413.20	333.87	397.95	
8 Jun	159.708	0.008	-124.970	7113.3	25.97	0.65	35.189	1012.1		422.46		406.97	
8 Jun	159.750	0.005	-124.948	7115.8	25.98	0.65	35.192	1012.1					
8 Jun	159.792	0.002	-125.145	7137.7	26.03	0.65	35.194	1012.0					
8 Jun	159.833	0.005	-125.370	7162.7	26.13	0.65	35.197	1011.4		424.83		408.84	
8 Jun	159.875	0.010	-125.597	7187.9	26.17	0.65	35.200	1011.0	346.64	419.56	333.43	403.57	
8 Jun	159.917	0.013	-125.812	7211.8	26.21	0.65	35.202	1010.4		420.64		404.33	
8 Jun	159.958	0.003	-126.042	7237.4	26.24	0.65	35.205	1010.9	346.63	426.39	333.34	410.04	
9 Jun	160.000	0.000	-126.283	7264.2	26.23	0.65	35.207	1009.1	346.62	424.20	332.73	407.19	
9 Jun	160.042	0.000	-126.500	7288.3	26.20	0.65	35.210	1009.4	346.62	424.17	332.85	407.31	
9 Jun	160.083	0.000	-126.743	7315.3	26.18	0.65	35.213	1009.5	346.61		332.89		
9 Jun	160.125	0.000	-126.983	7342.0	26.22	0.65	35.215	1010.3	346.61	421.28	333.13	404.89	
9 Jun	160.167	0.000	-127.167	7362.4	26.24	0.65	35.218	1011.0	346.60	417.37	333.35	401.41	
9 Jun	160.208	0.000	-127.450	7393.9	26.26	0.65	35.220	1011.5	346.60	416.94	333.50	401.19	
9 Jun	160.250	0.000	-127.667	7418.0	26.23	0.65	35.223	1012.1		419.77		404.18	
9 Jun	160.292	0.000	-127.900	7443.9	26.24	0.65	35.226	1012.2	346.65	419.21	333.80	403.67	
9 Jun	160.333	0.017	-128.142	7470.8	26.26	0.65	35.228	1012.0	346.67	418.62	333.74	403.00	
9 Jun	160.375	0.022	-128.385	7497.8	26.24	0.65	35.231	1011.5	346.70	416.41	333.61	400.69	
9 Jun	160.417	0.017	-128.612	7523.1	26.26	0.65	35.234	1011.1	346.72		333.48		

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9 Jun	160.458	0.032	-128.852	7549.8	26.28	0.65	35.236	1010.4	346.75	418.01	333.26	401.75	
9 Jun	160.500	0.000	-129.000	7566.6	26.27	0.65	35.239	1010.4	346.77	419.62	333.29	403.30	
9 Jun	160.542	0.000	-129.317	7601.8	26.21	0.65	35.242	1010.5	346.80	421.60	333.39	405.30	
9 Jun	160.583	0.000	-129.550	7627.7	26.25	0.65	35.244	1010.4		419.05		402.77	
9 Jun	160.625	0.008	-129.800	7655.5	26.28	0.65	35.247	1011.0		417.33		401.34	
9 Jun	160.667	0.000	-129.500	7688.9	26.29	0.65	35.249	1011.5	346.87	420.34	333.75	404.43	
9 Jun	160.708	0.000	-129.680	7708.9	26.32	0.65	35.252	1011.6	346.90	424.12	333.78	408.09	
9 Jun	160.750	0.000	-129.950	7738.9	26.35	0.65	35.253	1012.0	346.92		333.93		
9 Jun	160.792	0.000	-129.933	7740.8	26.37	0.65	35.254	1012.0	346.93		333.92		
9 Jun	160.833	0.023	-129.918	7743.8	26.41	0.65	35.255	1011.8	346.95	417.23	333.84	401.46	
9 Jun	160.875	0.003	-129.917	7746.0	26.46	0.65	35.256	1010.9					
9 Jun	160.917	0.007	-130.097	7766.0	26.52	0.65	35.253	1010.5					
9 Jun	160.958	0.010	-130.295	7788.0	26.60	0.65	35.250	1010.0					
10 Jun	161.000	0.000	-130.517	7812.7	26.56	0.65	35.247	1009.6					
10 Jun	161.042	0.000	-130.750	7838.6	26.49	0.65	35.244	1010.0					
10 Jun	161.083	0.000	-130.983	7864.5	26.48	0.65	35.241	1010.0					
10 Jun	161.125	0.013	-131.217	7890.6	26.47	0.65	35.238	1010.5					
10 Jun	161.167	0.017	-131.417	7912.8	26.47	0.65	35.234	1011.5	347.03	415.47	333.78	399.61	
10 Jun	161.208	0.017	-131.583	7931.2	26.41	0.65	35.231	1012.0		418.09		402.38	
10 Jun	161.250	0.002	-131.807	7956.2	26.42	0.65	35.228	1012.5	347.05		334.17		
10 Jun	161.292	0.012	-132.045	7982.7	26.36	0.65	35.225	1012.5	347.06	415.68	334.22	400.31	
10 Jun	161.333	0.015	-132.277	8008.4	26.43	0.65	35.222	1012.5	347.02	416.06	334.13	400.61	
10 Jun	161.375	0.003	-132.493	8032.5	26.46	0.65	35.219	1012.1		413.50		397.97	
10 Jun	161.417	0.017	-132.458	8036.7	26.45	0.65	35.216	1011.5	346.92	409.82	333.69	394.18	
10 Jun	161.458	0.003	-132.422	8041.0	26.42	0.65	35.214	1011.3	346.88	414.53	333.60	398.66	
10 Jun	161.500	0.003	-132.532	8053.2	26.43	0.65	35.213	1011.1					
10 Jun	161.542	0.010	-132.747	8077.1	26.46	0.65	35.211	1011.0	346.79	415.28	333.38	399.22	
10 Jun	161.583	0.008	-132.827	8086.0	26.47	0.65	35.209	1011.0	346.74	412.37	333.33	396.42	
10 Jun	161.625	0.017	-132.800	8089.1	26.46	0.65	35.208	1011.5	346.70		333.47		
10 Jun	161.667	0.000	-132.750	8095.0	26.50	0.65	35.206	1012.2	346.65	412.57	333.63	397.07	
10 Jun	161.708	0.017	-132.800	8100.9	26.53	0.65	35.204	1012.6	346.61	417.97	333.71	402.41	
10 Jun	161.750	0.017	-133.000	8123.1	26.60	0.65	35.203	1013.0	346.56	392.04	333.75	377.54	3
10 Jun	161.792	0.000	-133.217	8147.3	26.66	0.65	35.201	1013.0		387.84		373.46	3
10 Jun	161.833	0.000	-133.433	8171.3	26.70	0.65	35.199	1013.0	346.47	414.76	333.60	399.35	
10 Jun	161.875	0.020	-133.683	8199.2	26.83	0.65	35.198	1012.3	346.46	414.95	333.26	399.14	
10 Jun	161.917	0.018	-133.890	8222.2	26.94	0.65	35.196	1011.5	346.45	416.79	332.91	400.49	
10 Jun	161.958	0.012	-134.118	8247.5	27.03	0.65	35.194	1010.6	346.44		332.53		
11 Jun	162.000	0.008	-134.347	8273.0	26.97	0.65	35.193	1010.2		413.67		396.94	
11 Jun	162.042	0.000	-134.550	8295.5	26.87	0.65	35.191	1010.2	346.42	414.75	332.48	398.06	
11 Jun	162.083	0.000	-134.783	8321.4	26.86	0.65	35.189	1010.3	346.41		332.51		
11 Jun	162.125	0.000	-134.983	8343.6	26.81	0.65	35.188	1010.6		414.46		397.99	
11 Jun	162.167	0.000	-134.982	8343.8	26.75	0.65	35.186	1011.5		412.08		396.12	
11 Jun	162.208	-0.015	-135.043	8350.7	26.73	0.65	35.187	1012.0	346.39	412.66	333.15	396.89	
11 Jun	162.250	-0.008	-135.250	8373.8	26.71	0.65	35.187	1012.5		412.87		397.32	
11 Jun	162.292	-0.013	-135.488	8400.2	26.72	0.65	35.188	1013.0	346.37	411.49	333.48	396.18	
11 Jun	162.333	-0.012	-135.713	8425.2	26.74	0.65	35.189	1013.0	346.36	411.22	333.46	395.91	
11 Jun	162.375	-0.035	-135.948	8451.4	26.74	0.65	35.189	1012.5					
11 Jun	162.417	-0.033	-136.170	8476.1	26.70	0.65	35.190	1012.0					
11 Jun	162.458	-0.027	-136.405	8502.2	26.70	0.65	35.191	1011.4					
11 Jun	162.500	-0.015	-136.638	8528.2	26.73	0.65	35.191	1011.0					
11 Jun	162.542	-0.017	-136.867	8553.6	26.81	0.65	35.192	1010.9					
11 Jun	162.583	-0.017	-137.083	8577.6	26.83	0.65	35.193	1011.2					
11 Jun	162.625	0.000	-137.350	8607.3	26.86	0.65	35.193	1011.5					
11 Jun	162.667	0.000	-137.500	8624.0	26.89	0.65	35.194	1012.0					
11 Jun	162.708	-0.013	-137.513	8626.0	26.93	0.65	35.199	1012.6					
11 Jun	162.750	-0.015	-137.748	8652.2	26.98	0.65	35.203	1012.6					
11 Jun	162.792	-0.015	-138.007	8680.9	27.01	0.65	35.208	1012.6					

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11 Jun	162.833	-0.028	-138.228	8705.5	27.09	0.65	35.213	1012.5					
11 Jun	162.875	-0.040	-138.467	8732.1	27.07	0.65	35.217	1011.6					
11 Jun	162.917	-0.052	-138.698	8757.8	27.13	0.65	35.222	1010.8					
11 Jun	162.958	-0.063	-138.933	8784.0	27.22	0.65	35.227	1010.0					
12 Jun	163.000	-0.062	-139.017	8793.3	27.05	0.65	35.232	1009.2					
12 Jun	163.042	-0.067	-139.010	8794.3	26.86	0.65	35.236	1008.9					
12 Jun	163.083	-0.080	-139.000	8796.1	26.85	0.65	35.241	1008.8					
12 Jun	163.125	-0.083	-139.000	8796.4	26.89	0.65	35.245	1009.0					
12 Jun	163.167	-0.433	-139.167	8839.5	26.99	0.65	35.248	1010.5					
12 Jun	163.208	-0.562	-139.260	8857.2	26.97	0.65	35.251	1009.0					
12 Jun	163.250	-0.810	-139.355	8886.7	27.11	0.65	35.255	1010.0					
12 Jun	163.292	-1.038	-139.495	8916.4	27.20	0.65	35.258	1010.5					
12 Jun	163.333	-1.220	-139.648	8942.8	27.24	0.65	35.262	1010.5					
12 Jun	163.375	-1.448	-139.772	8971.7	27.25	0.65	35.265	1009.8	346.25		331.92		
12 Jun	163.417	-1.723	-139.867	9004.0	27.29	0.64	35.269	1009.0	346.26	408.34	331.62	391.08	
12 Jun	163.458	-1.968	-139.973	9033.7	27.36	0.64	35.272	1008.8	346.26	410.11	331.51	392.65	
12 Jun	163.500	-1.913	-139.983	9039.9	27.40	0.64	35.276	1008.5	346.27	410.01	331.39	392.39	
12 Jun	163.542	-1.917	-139.983	9040.3	27.39	0.64	35.279	1008.0		409.10		391.33	
12 Jun	163.583	-2.083	-140.000	9058.9	27.46	0.64	35.283	1008.0	346.28	409.21	331.19	391.38	
12 Jun	163.625	-2.083	-140.017	9060.8	27.46	0.64	35.286	1008.5	346.29	408.84	331.37	391.22	
12 Jun	163.667	-2.017	-139.950	9071.2	27.43	0.64	35.290	1009.0		405.13		387.90	
12 Jun	163.708	-2.088	-139.972	9079.5	27.44	0.64	35.293	1010.0					
12 Jun	163.750	-2.070	-139.955	9082.2	27.40	0.64	35.297	1010.1	346.31	402.86	331.98	386.19	
12 Jun	163.792	-2.075	-139.978	9084.8	27.43	0.64	35.300	1010.4		382.92		367.16	3
12 Jun	163.833	-2.082	-139.995	9086.9	27.46	0.64	35.304	1009.5	346.33	385.09	331.74	368.87	3
12 Jun	163.875	-2.092	-140.007	9088.6	27.49	0.64	35.307	1009.5		417.27		399.67	
12 Jun	163.917	-2.110	-140.032	9092.0	27.52	0.64	35.311	1008.9	346.34	417.76	331.51	399.87	
12 Jun	163.958	-2.100	-140.032	9093.1	27.53	0.64	35.314	1008.0	346.37	416.29	331.23	398.09	
13 Jun	164.000	-2.080	-140.008	9096.6	27.53	0.64	35.317	1007.2	346.41	414.10	330.99	395.67	
13 Jun	164.042	-2.067	-139.983	9099.7	27.53	0.64	35.321	1007.0	346.44		330.95		
13 Jun	164.083	-2.067	-139.983	9099.7	27.51	0.64	35.326	1007.0		417.73		399.07	
13 Jun	164.125	-2.033	-139.983	9103.5	27.49	0.64	35.331	1007.1	346.51	418.12	331.08	399.51	
13 Jun	164.167	-1.818	-139.985	9127.4	27.42	0.64	35.335	1007.5	346.54	417.28	331.30	398.92	
13 Jun	164.208	-1.587	-139.995	9153.1	27.40	0.64	35.340	1008.0		416.71		398.60	
13 Jun	164.250	-1.508	-139.993	9161.9	27.39	0.64	35.345	1009.0	346.61	414.55	331.89	396.95	
13 Jun	164.292	-1.432	-139.968	9170.8	27.36	0.64	35.354	1009.0	346.64	409.88	331.94	392.50	
13 Jun	164.333	-1.200	-139.993	9196.7	27.33	0.64	35.363	1009.0	346.67		332.00		
13 Jun	164.375	-1.007	-140.005	9218.2	27.28	0.65	35.372	1008.8	346.71	409.57	332.00	392.19	
13 Jun	164.417	-1.015	-140.012	9219.4	27.28	0.65	35.381	1008.9		411.30		393.89	
13 Jun	164.458	-1.020	-140.052	9223.9	27.28	0.65	35.367	1008.0	346.77	411.17	331.79	393.40	
13 Jun	164.500	-0.807	-140.005	9248.1	27.12	0.65	35.353	1007.5	346.82	406.89	331.77	389.23	
13 Jun	164.542	-0.583	-139.967	9273.3	26.94	0.65	35.338	1007.5	346.86	408.92	331.93	391.32	
13 Jun	164.583	-0.517	-139.967	9280.7	26.93	0.65	35.324	1007.6	346.90	406.08	332.02	388.66	
13 Jun	164.625	-0.483	-139.967	9284.4	26.88	0.65	35.315	1008.5					
13 Jun	164.667	-0.383	-140.027	9297.4	26.76	0.65	35.306	1008.9	346.99	402.81	332.66	386.17	
13 Jun	164.708	-0.033	-140.015	9336.3	26.79	0.65	35.297	1009.7	347.03	403.41	332.95	387.04	
13 Jun	164.750	-0.033	-140.012	9336.7	26.79	0.65	35.288	1010.5		411.56		395.18	
13 Jun	164.792	-0.040	-140.010	9337.5	26.80	0.65	35.279	1010.5		401.93		385.93	
13 Jun	164.833	-0.050	-140.003	9338.8	26.82	0.65	35.270	1010.5		408.44		392.16	
13 Jun	164.875	-0.060	-139.995	9340.2	26.85	0.65	35.260	1009.9		403.62		387.27	
13 Jun	164.917	-0.068	-139.983	9341.8	26.90	0.65	35.251	1009.8		413.34		396.52	
13 Jun	164.958	-0.008	-140.002	9348.8	26.93	0.65	35.242	1008.9	347.30		332.84		
14 Jun	165.000	-0.035	-140.035	9353.6	26.94	0.65	35.233	1008.6	347.34	415.44	332.77	398.02	
14 Jun	165.042	-0.033	-140.033	9353.9	26.97	0.65	35.224	1008.5					
14 Jun	165.083	-0.017	-140.033	9355.7	26.98	0.65	35.215	1008.5					
14 Jun	165.125	-0.133	-140.050	9368.7	26.96	0.65	35.206	1009.0					
14 Jun	165.167	0.002	-140.038	9383.8	26.94	0.65	35.197	1009.5					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
14 Jun	165.208	-0.027	-140.047	9387.1	26.93	0.65	35.188	1010.1					
14 Jun	165.250	-0.032	-139.972	9395.5	26.93	0.65	35.178	1010.5					
14 Jun	165.292	0.022	-140.020	9403.5	26.91	0.65	35.169	1010.7					
14 Jun	165.333	0.023	-140.002	9405.5	26.89	0.65	35.159	1010.9					
14 Jun	165.375	0.018	-139.997	9406.3	26.89	0.65	35.141	1010.5					
14 Jun	165.417	0.028	-139.992	9407.5	26.91	0.65	35.123	1010.1					
14 Jun	165.458	0.058	-139.958	9412.6	26.87	0.65	35.106	1009.4		406.27		389.60	
14 Jun	165.500	0.247	-139.962	9433.6	26.81	0.65	35.088	1008.8	347.76		333.32		
14 Jun	165.542	0.500	-140.000	9462.0	26.91	0.65	35.070	1009.4	347.79	409.31	333.49	392.48	
14 Jun	165.583	0.500	-140.000	9462.0	26.95	0.65	35.059	1009.4	347.79	414.49	333.46	397.42	
14 Jun	165.625	0.617	-139.967	9475.5	27.01	0.65	35.047	1010.0	347.79	412.65	333.63	395.85	
14 Jun	165.667	0.817	-139.983	9497.8	27.07	0.65	35.035	1010.5		411.23		394.64	
14 Jun	165.708	1.063	-140.000	9525.2	27.13	0.65	35.024	1010.9	347.79	403.66	333.85	387.49	
14 Jun	165.750	1.325	-140.013	9554.4	27.19	0.65	35.013	1011.4		411.42		395.08	
14 Jun	165.792	1.367	-140.003	9559.2	27.25	0.65	35.001	1011.5	347.78	407.58	333.97	391.39	
14 Jun	165.833	1.365	-139.992	9560.4	27.26	0.65	35.001	1011.2	347.78		333.86		
14 Jun	165.875	1.358	-139.980	9562.0	27.29	0.64	35.002	1010.7	347.78	408.84	333.66	392.24	
14 Jun	165.917	1.527	-139.990	9580.8	27.38	0.64	34.992	1010.2		411.75		394.76	
14 Jun	165.958	1.830	-139.998	9614.4	27.47	0.64	34.982	1009.5		412.11		394.75	
15 Jun	166.000	2.000	-140.000	9633.3	27.56	0.64	34.972	1009.0		417.11		399.26	
15 Jun	166.042	2.000	-140.000	9633.3	27.64	0.64	34.962	1008.9		421.10		402.96	
15 Jun	166.083	2.033	-140.000	9637.0	27.69	0.64	34.918	1009.1		404.05		386.68	
15 Jun	166.125	2.267	-140.000	9663.0	27.74	0.64	34.874	1009.6		406.58		389.27	
15 Jun	166.167	2.468	-140.010	9685.4	27.78	0.64	34.829	1010.0					
15 Jun	166.208	2.505	-140.013	9689.5	27.83	0.64	34.830	1010.5		405.35		388.36	
15 Jun	166.250	2.652	-139.983	9706.2	27.88	0.64	34.830	1011.1					
15 Jun	166.292	2.953	-139.992	9739.6	27.92	0.64	34.831	1011.2					
15 Jun	166.333	3.007	-139.987	9745.7	27.93	0.64	34.832	1011.5	347.40	417.43	333.12	400.27	
15 Jun	166.375	3.022	-139.972	9748.0	27.92	0.64	34.833	1011.0		417.52		400.15	
15 Jun	166.417	3.020	-139.973	9748.3	27.91	0.64	34.834	1010.3	347.33		332.66		
15 Jun	166.458	2.995	-139.963	9751.2	27.90	0.64	34.833	1010.0	347.31	417.55	332.54	399.79	
15 Jun	166.500	3.048	-140.010	9759.1	27.89	0.64	34.832	1009.8	347.29	417.18	332.46	399.36	
15 Jun	166.542	3.233	-140.200	9788.6	27.88	0.64	34.832	1009.0	347.27	417.66	332.18	399.50	
15 Jun	166.583	3.417	-140.383	9817.4	27.87	0.64	34.831	1009.0		421.06		402.76	
15 Jun	166.625	3.583	-140.550	9843.5	27.86	0.64	34.830	1009.5	347.23	408.55	332.32	391.01	
15 Jun	166.667	3.767	-140.767	9875.1	27.85	0.64	34.829	1010.5	347.22	409.44	332.65	392.27	
15 Jun	166.708	3.907	-140.898	9896.4	27.84	0.64	34.828	1011.1	347.20	404.93	332.85	388.20	
15 Jun	166.750	4.072	-141.098	9925.1	27.83	0.64	34.828	1011.5	347.18		332.97		
15 Jun	166.792	4.238	-141.277	9952.2	27.82	0.64	34.827	1011.9	347.16	405.40	333.09	388.98	
15 Jun	166.833	4.417	-141.452	9980.0	27.81	0.64	34.826	1011.5		404.21		387.69	
15 Jun	166.875	4.600	-141.623	10007.8	27.80	0.64	34.825	1010.6	347.12	408.51	332.63	391.46	
15 Jun	166.917	4.785	-141.797	10036.0	27.79	0.64	34.824	1009.8	347.10		332.34		
15 Jun	166.958	4.958	-141.973	10063.3	27.78	0.64	34.823	1009.4	347.08	405.14	332.20	387.77	
16 Jun	167.000	5.128	-142.147	10090.3	28.22	0.64	34.823	1008.5	347.09	417.87	331.58	399.20	
16 Jun	167.042	5.300	-142.333	10118.4	28.40	0.64	34.822	1008.3	347.10		331.39		
16 Jun	167.083	5.500	-142.517	10148.6	28.49	0.64	34.821	1008.5	347.11	422.16	331.41	403.06	
16 Jun	167.125	5.633	-142.650	10169.4	28.47	0.64	34.820	1009.0		407.08		388.88	
16 Jun	167.167	5.800	-142.833	10196.9	28.37	0.64	34.819	1009.4	347.14	401.23	331.83	383.53	
16 Jun	167.208	5.960	-143.037	10225.6	28.27	0.64	34.819	1010.0	347.15	376.76	332.12	360.45	
16 Jun	167.250	6.142	-143.195	10252.3	28.24	0.64	34.818	1010.5	347.16	369.78	332.32	353.97	
16 Jun	167.292	6.315	-143.382	10280.5	28.17	0.64	34.817	1011.0	347.18		332.55		
16 Jun	167.333	6.497	-143.555	10308.3	28.16	0.64	34.816	1010.5	347.19	368.97	332.40	353.25	
16 Jun	167.375	6.673	-143.735	10336.2	28.18	0.64	34.815	1009.9	347.20	370.02	332.20	354.03	
16 Jun	167.417	6.840	-143.907	10362.8	28.17	0.64	34.815	1009.0					
16 Jun	167.458	7.028	-144.078	10390.9	28.12	0.64	34.814	1008.4					
16 Jun	167.500	7.208	-144.252	10418.6	28.08	0.64	34.813	1008.0					
16 Jun	167.542	7.400	-144.417	10446.6	28.08	0.64	34.812	1007.5					

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16 Jun	167.583	7.567	-144.583	10472.7	28.05	0.64	34.811	1008.0					
16 Jun	167.625	7.733	-144.750	10498.8	28.01	0.64	34.811	1008.0	347.24	368.63	331.71	352.14	
16 Jun	167.667	8.000	-145.000	10539.2	28.00	0.64	34.810	1008.6	347.25	362.70	331.93	346.70	
16 Jun	167.708	8.143	-145.130	10560.6	27.97	0.64	34.809	1009.5	347.26		332.26		
16 Jun	167.750	8.330	-145.292	10588.0	27.94	0.64	34.808	1009.5	347.26	365.21	332.29	349.47	
16 Jun	167.792	8.520	-145.463	10616.2	27.86	0.64	34.807	1009.4	347.27	367.76	332.32	351.93	
16 Jun	167.833	8.700	-145.643	10644.4	27.82	0.64	34.806	1009.5	347.28	375.18	332.39	359.10	
16 Jun	167.875	8.892	-145.827	10673.7	27.89	0.64	34.806	1008.9		373.45		357.17	
16 Jun	167.917	9.070	-146.008	10701.8	27.84	0.64	34.805	1008.5	347.29	366.10	332.05	350.03	
16 Jun	167.958	9.243	-146.192	10729.7	27.76	0.64	34.804	1008.4		367.02		350.94	
17 Jun	168.000	9.415	-146.375	10757.4	27.69	0.64	34.803	1007.6		368.62		352.24	
17 Jun	168.042	9.567	-146.550	10782.9	27.62	0.64	34.802	1007.3		367.62		351.23	
17 Jun	168.083	9.750	-146.733	10811.5	27.53	0.64	34.802	1006.9	347.31	370.85	331.75	354.24	
17 Jun	168.125	9.925	-146.925	10840.1	27.47	0.64	34.801	1007.6	347.32	364.55	332.04	348.51	
17 Jun	168.167	10.000	-147.000	10851.8	27.44	0.64	34.800	1008.6	347.33		332.40		
17 Jun	168.208	9.983	-146.983	10854.5	27.42	0.64	34.805	1008.7	347.33	361.69	332.46	346.21	
17 Jun	168.250	10.025	-147.027	10861.2	27.43	0.64	34.788	1009.2	347.34	363.23	332.63	347.84	
17 Jun	168.292	10.220	-147.212	10890.8	27.37	0.64	34.771	1009.5	347.35	361.17	332.78	346.02	
17 Jun	168.333	10.402	-147.392	10919.0	27.33	0.64	34.754	1010.0		360.07		345.18	
17 Jun	168.375	10.575	-147.565	10946.0	27.30	0.64	34.737	1010.0	347.36	361.23	333.01	346.31	
17 Jun	168.417	10.747	-147.747	10973.6	27.14	0.65	34.720	1009.4	347.36	360.63	332.92	345.64	
17 Jun	168.458	10.930	-147.907	11000.4	27.00	0.65	34.704	1008.7	347.37	360.98	332.79	345.83	
17 Jun	168.500	11.103	-148.078	11027.2	26.94	0.65	34.687	1008.4	347.40		332.76		
17 Jun	168.542	11.272	-148.282	11056.3	27.03	0.65	34.670	1008.3	347.44	359.94	332.69	344.67	
17 Jun	168.583	11.450	-148.467	11084.5	27.17	0.65	34.653	1008.4	347.47	361.58	332.66	346.17	
17 Jun	168.625	11.600	-148.650	11110.5	27.20	0.65	34.636	1008.8	347.50	360.89	332.81	345.63	
17 Jun	168.667	11.792	-148.833	11139.7	27.17	0.65	34.619	1009.4		360.82		345.80	
17 Jun	168.708	11.967	-148.983	11165.0	27.25	0.65	34.603	1010.4	347.56	362.60	333.38	347.80	
17 Jun	168.750	12.148	-149.187	11195.0	27.09	0.65	34.585	1010.5	347.60	360.61	333.56	346.04	
17 Jun	168.792	12.307	-149.345	11219.6	26.81	0.65	34.568	1010.9		357.74		343.62	
17 Jun	168.833	12.473	-149.535	11247.3	26.78	0.65	34.552	1011.0	347.66		334.00		
17 Jun	168.875	12.662	-149.713	11275.8	26.99	0.65	34.535	1010.9					
17 Jun	168.917	12.842	-149.895	11303.9	27.00	0.65	34.518	1010.5	347.73	352.24	333.74	338.08	
17 Jun	168.958	13.035	-150.083	11333.5	27.03	0.65	34.501	1010.5	347.76	359.95	333.75	345.45	
18 Jun	169.000	13.213	-150.257	11360.8	26.94	0.65	34.484	1010.5		359.21		344.80	
18 Jun	169.042	13.393	-150.437	11388.7	26.70	0.65	34.467	1010.5		354.70		340.65	
18 Jun	169.083	13.567	-150.617	11416.1	26.64	0.65	34.451	1010.5	347.86	356.40	334.11	342.32	
18 Jun	169.125	13.717	-150.667	11433.6	26.58	0.65	34.434	1010.5	347.89	359.84	334.18	345.67	
18 Jun	169.167	13.850	-150.700	11448.8	26.58	0.65	34.417	1011.5	347.92	368.60	334.56	354.44	
18 Jun	169.208	14.017	-150.883	11475.9	26.60	0.65	34.400	1012.1	347.95		334.78		
18 Jun	169.250	14.193	-151.078	11504.6	26.55	0.65	34.402	1012.8	347.99	359.34	335.08	346.02	
18 Jun	169.292	14.375	-151.273	11533.8	26.54	0.65	34.404	1013.5	348.02	359.80	335.36	346.72	
18 Jun	169.333	14.548	-151.470	11562.4	26.54	0.65	34.406	1014.0	348.05	356.75	335.56	343.95	
18 Jun	169.375	14.715	-151.658	11589.8	26.49	0.65	34.408	1014.0		356.52		343.76	
18 Jun	169.417	14.882	-151.852	11617.7	26.38	0.65	34.409	1013.5	348.12	356.76	335.56	343.89	
18 Jun	169.458	15.047	-152.033	11644.5	26.16	0.65	34.411	1013.3	348.15	357.25	335.67	344.45	
18 Jun	169.500	15.225	-152.228	11673.3	25.99	0.65	34.413	1012.5	348.18	359.17	335.54	346.13	
18 Jun	169.542	15.398	-152.408	11700.5	26.04	0.65	34.415	1012.9	348.18		335.64		
18 Jun	169.583	15.583	-152.600	11729.6	26.17	0.65	34.417	1013.0	348.18	355.96	335.59	343.09	
18 Jun	169.625	15.767	-152.767	11756.7	26.13	0.65	34.419	1013.0	348.18	355.21	335.61	342.40	
18 Jun	169.667	15.933	-152.983	11786.3	26.19	0.65	34.421	1014.0	348.17	353.58	335.91	341.13	
18 Jun	169.708	16.007	-153.233	11814.2	26.21	0.65	34.423	1014.5		353.67		341.38	
18 Jun	169.750	16.152	-153.380	11836.7	26.30	0.65	34.425	1014.7		356.27		343.90	
18 Jun	169.792	16.355	-153.428	11859.8	26.20	0.65	34.426	1015.5	348.17	351.34	336.41	339.47	
18 Jun	169.833	16.497	-153.582	11882.6	26.22	0.65	34.428	1015.8	348.17	358.75	336.50	346.73	
18 Jun	169.875	16.648	-153.738	11906.2	26.13	0.65	34.430	1016.1	348.17		336.66		
18 Jun	169.917	16.792	-153.890	11929.0	26.05	0.65	34.432	1015.6	348.16	358.15	336.54	346.19	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
18 Jun	169.958	16.935	-154.042	11951.6	25.91	0.65	34.434	1015.5	348.16	356.04	336.60	344.21	
19 Jun	170.000	17.077	-154.198	11974.5	25.94	0.65	34.436	1015.3	348.16	355.43	336.51	343.53	
19 Jun	170.042	17.223	-154.362	11998.3	26.04	0.65	34.438	1014.7		354.85		342.70	
19 Jun	170.083	17.375	-154.362	12015.2	26.10	0.65	34.440	1014.5	348.12	354.17	336.09	341.93	
19 Jun	170.125	17.517	-154.683	12052.7	26.05	0.65	34.442	1014.7	348.10	356.03	336.17	343.83	
19 Jun	170.167	17.667	-154.850	12077.0	25.97	0.65	34.443	1015.0	348.08	356.88	336.31	344.81	
19 Jun	170.208	17.817	-155.000	12100.0	25.81	0.66	34.445	1015.7	348.06		336.63		
19 Jun	170.250	17.952	-155.138	12121.0	25.69	0.66	34.447	1016.5	348.04	353.69	336.96	342.43	
19 Jun	170.292	18.105	-155.278	12143.5	25.68	0.66	34.449	1017.0	348.02	354.82	337.12	343.70	
19 Jun	170.333	18.312	-155.435	12171.9	25.69	0.66	34.451	1017.5	348.00	353.07	337.26	342.18	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
2 Jul	183.833	26.015	-154.988	0.0	24.20	0.67	35.223	1022.9	346.25	330.64	338.33	323.07	
2 Jul	183.875	26.012	-155.150	16.2	24.22	0.67	35.220	1022.6	345.11	331.42	337.10	323.73	
2 Jul	183.917	26.018	-154.977	33.5	24.28	0.67	35.212	1021.9	346.76	335.78	338.44	327.72	
2 Jul	183.958	26.023	-154.978	34.0	24.32	0.67	35.204	1021.4	347.17	334.36	338.64	326.15	
3 Jul	184.000	25.953	-154.910	44.4	24.36	0.67	35.195	1020.9		335.70		327.27	
3 Jul	184.042	25.805	-154.787	64.9	24.38	0.65	35.187	1020.4	346.81	331.51	337.92	323.00	
3 Jul	184.083	25.627	-154.632	90.0	24.39	0.65	35.179	1020.3	348.25	334.88	339.28	326.25	
3 Jul	184.125	25.438	-154.472	116.5	24.40	0.65	35.171	1019.4	349.37	336.45	340.06	327.48	
3 Jul	184.167	25.250	-154.308	143.1	24.40	0.65	35.163	1019.5	348.12	343.22	338.87	334.10	
3 Jul	184.208	25.065	-154.197	166.5	24.41	0.65	35.155	1020.0					
3 Jul	184.250	24.880	-154.030	193.0	24.42	0.65	35.146	1020.0	350.63		341.48		
3 Jul	184.292	24.693	-153.880	218.7	24.42	0.65	35.138	1020.4	350.48	338.50	341.47	329.80	
3 Jul	184.333	24.555	-153.710	241.8	24.43	0.65	35.130	1020.4	350.62	338.32	341.60	329.61	
3 Jul	184.375	24.375	-153.553	267.3	24.44	0.65	35.122	1020.4	350.11	335.64	341.09	326.99	
3 Jul	184.417	24.217	-153.400	290.7	24.44	0.65	35.114	1019.9	350.71	336.68	341.51	327.84	
3 Jul	184.458	24.067	-153.250	313.3	24.45	0.65	35.106	1019.3	350.59	332.60	341.18	323.67	
3 Jul	184.500	23.883	-153.083	339.8	24.45	0.65	35.097	1018.8	347.37	334.08	337.87	324.94	
3 Jul	184.542	23.725	-152.927	363.5	23.66	0.65	35.089	1018.5	350.74	344.68	341.52	335.62	
3 Jul	184.583	23.565	-152.753	388.6	24.15	0.65	35.081	1018.1	350.81	343.86	341.16	334.40	
3 Jul	184.625	23.397	-152.580	414.3	24.35	0.65	35.073	1018.4	349.79	341.50	340.15	332.09	
3 Jul	184.667	23.222	-152.472	436.6	24.56	0.64	35.064	1018.5	351.45	341.13	341.67	331.64	
3 Jul	184.708	23.062	-152.302	461.5	24.57	0.64	35.056	1018.9	350.92	343.15	341.29	333.73	
3 Jul	184.750	22.898	-152.152	485.3	25.46	0.64	35.048	1017.9	350.53	340.00	340.01	329.80	
3 Jul	184.792	22.722	-152.005	510.0	25.36	0.64	35.040	1018.9		338.40		328.63	
3 Jul	184.833	22.535	-151.843	536.6	25.36	0.64	35.032	1018.9	350.75	340.99	340.63	331.15	
3 Jul	184.875	22.345	-151.673	564.0	25.36	0.64	35.024	1018.9	348.15	340.06	338.10	330.25	
3 Jul	184.917	22.200	-151.550	584.5	25.36	0.64	35.015	1018.4	352.34	339.76	342.00	329.79	
3 Jul	184.958	22.017	-151.400	610.0	25.36	0.64	35.007	1017.9		341.15		330.98	
4 Jul	185.000	21.817	-151.250	637.1	25.49	0.66	34.999	1017.4	349.46		338.78		
4 Jul	185.042	21.633	-151.100	662.7	25.48	0.66	34.991	1016.9	348.09	337.53	337.29	327.06	
4 Jul	185.083	21.453	-150.953	687.8	25.47	0.66	34.983	1016.9	348.56	339.99	337.75	329.45	
4 Jul	185.125	21.272	-150.793	713.9	25.47	0.66	34.975	1017.0	348.08	339.88	337.32	329.37	
4 Jul	185.167	21.083	-150.633	740.6	25.40	0.66	34.966	1016.9					
4 Jul	185.208	20.933	-150.518	761.1	25.30	0.66	34.958	1017.0					
4 Jul	185.250	20.730	-150.347	789.9	25.34	0.66	34.950	1017.5	349.97	341.29	339.40	330.99	
4 Jul	185.292	20.557	-150.200	814.4	25.36	0.66	34.942	1017.5					
4 Jul	185.333	20.377	-150.040	840.4	25.51	0.66	34.934	1017.9					
4 Jul	185.375	20.198	-149.885	866.1	25.52	0.66	34.925	1017.4	351.94	344.36	341.16	333.82	
4 Jul	185.417	20.000	-149.733	893.2	25.50	0.66	34.917	1016.9	349.41	341.50	338.55	330.89	
4 Jul	185.458	19.850	-149.583	916.1	25.55	0.66	34.909	1016.4	351.43	343.87	340.31	332.98	
4 Jul	185.500	19.667	-149.450	940.7	25.51	0.66	34.901	1015.6	349.97	344.29	338.64	333.15	
4 Jul	185.542	19.500	-149.300	965.0	25.40	0.66	34.893	1015.3	347.89	351.43	336.60	340.02	
4 Jul	185.583	19.333	-149.140	990.0	25.43	0.66	34.885	1014.9	351.62	346.30	340.05	334.90	
4 Jul	185.625	19.160	-148.982	1015.4	25.45	0.66	34.876	1014.8	350.60	346.39	339.02	334.94	
4 Jul	185.667	18.987	-148.822	1040.9	25.48	0.66	34.868	1014.7	348.64	343.67	337.07	332.26	
4 Jul	185.708	18.820	-148.658	1066.3	25.46	0.66	34.860	1015.3	351.09	346.29	339.65	335.01	
4 Jul	185.750	18.647	-148.487	1092.6	25.60	0.66	34.852	1015.4	350.66	346.21	339.18	334.88	
4 Jul	185.792	18.473	-148.332	1117.9	25.78	0.66	34.844	1015.3		348.01		336.47	
4 Jul	185.833	18.313	-148.167	1142.8	25.87	0.66	34.836	1015.0					
4 Jul	185.875	18.135	-148.023	1167.7	26.00	0.65	34.827	1014.9					
4 Jul	185.917	17.955	-147.872	1193.3	26.14	0.65	34.819	1014.2	349.64	344.23	337.43	332.21	
4 Jul	185.958	17.792	-147.725	1217.2	26.36	0.65	34.811	1013.9	349.94	348.95	337.47	336.52	
5 Jul	186.000	17.617	-147.583	1241.8	26.44	0.65	34.803	1013.4		348.41		335.77	
5 Jul	186.042	17.450	-147.450	1265.1	26.44	0.65	34.794	1013.4	350.84	348.74	338.11	336.09	
5 Jul	186.083	17.257	-147.298	1291.9	26.38	0.65	34.786	1013.7	350.65	348.70	338.07	336.20	
5 Jul	186.125	17.077	-147.165	1316.4	26.28	0.65	34.778	1012.9	349.93	350.39	337.17	337.62	
5 Jul	186.167	16.893	-147.037	1340.9	26.15	0.65	34.770	1013.3		348.12		335.65	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
5 Jul	186.208	16.715	-146.893	1366.0	26.17	0.65	34.762	1013.6		349.04		336.63	
5 Jul	186.250	16.543	-146.748	1390.5	26.18	0.65	34.754	1014.2	349.82	344.02	337.58	331.98	
5 Jul	186.292	16.363	-146.598	1416.1	26.17	0.65	34.745	1014.5	349.93	344.86	337.79	332.90	
5 Jul	186.333	16.195	-146.458	1440.0	26.23	0.65	34.737	1015.0	349.40	347.21	337.41	335.30	
5 Jul	186.375	16.010	-146.308	1466.1	26.28	0.65	34.729	1014.5	350.90	346.43	338.66	334.35	
5 Jul	186.417	15.967	-146.167	1481.9	26.25	0.65	34.721	1013.9	350.73	345.93	338.31	333.67	
5 Jul	186.458	15.650	-146.017	1520.6	26.18	0.65	34.713	1013.1	350.49	345.78	337.85	333.30	
5 Jul	186.500	15.467	-145.883	1545.5	26.10	0.65	34.705	1012.3	351.48	347.73	338.58	334.97	
5 Jul	186.542	15.283	-145.700	1573.8	25.98	0.65	34.696	1012.4	351.77	348.07	338.97	335.41	
5 Jul	186.583	15.118	-145.597	1595.2	26.09	0.65	34.688	1012.0	350.71	359.45	337.74	346.16	
5 Jul	186.625	15.003	-145.495	1612.0	26.13	0.65	34.680	1012.5	351.86	361.50	338.99	348.28	
5 Jul	186.667	15.012	-145.478	1614.1	26.14	0.65	34.686	1013.2	350.94	360.55	338.34	347.61	
5 Jul	186.708	15.005	-145.482	1615.0	26.16	0.65	34.692	1013.5	350.72	355.94	338.22	343.26	
5 Jul	186.750	15.002	-145.505	1617.5	26.14	0.65	34.687	1014.2	351.52	359.29	339.25	346.75	
5 Jul	186.792	14.980	-145.517	1620.3	26.12	0.65	34.682	1014.4	350.56	357.04	338.40	344.66	
5 Jul	186.833	14.997	-145.503	1622.7	26.23	0.65	34.677	1014.4					
5 Jul	186.875	14.998	-145.497	1623.3	26.19	0.65	34.673	1013.9					
5 Jul	186.917	15.003	-145.490	1624.3	26.24	0.65	34.669	1013.7					
5 Jul	186.958	15.000	-145.483	1625.1	26.24	0.65	34.666	1013.4					
6 Jul	187.000	15.000	-145.483	1625.1	26.26	0.65	34.662	1013.4					
6 Jul	187.042	15.000	-145.467	1626.8	26.26	0.65	34.658	1012.9					
6 Jul	187.083	15.035	-145.443	1631.5	26.27	0.65	34.654	1013.0					
6 Jul	187.125	15.052	-145.418	1634.8	26.07	0.65	34.650	1013.0					
6 Jul	187.167	15.042	-145.397	1637.3	25.92	0.65	34.647	1013.6					
6 Jul	187.208	15.168	-145.305	1654.4	26.13	0.65	34.643	1014.2	350.51	358.35	338.28	345.84	
6 Jul	187.250	15.327	-145.180	1676.6	26.12	0.65	34.639	1014.9	350.79		338.79		
6 Jul	187.292	15.530	-145.047	1703.3	26.03	0.65	34.635	1015.0	350.01	352.56	338.14	340.60	
6 Jul	187.333	15.727	-144.920	1729.0	25.97	0.65	34.632	1015.8	350.25	350.89	338.68	339.30	
6 Jul	187.375	15.955	-144.955	1754.6	25.92	0.65	34.628	1015.3	350.37		338.66		
6 Jul	187.417	16.142	-144.705	1788.5	25.88	0.66	34.624	1014.9	349.84	351.65	338.04	339.78	
6 Jul	187.458	16.350	-144.583	1815.0	25.96	0.65	34.620	1014.4	350.13	354.15	338.09	341.97	
6 Jul	187.500	16.533	-144.600	1835.4	25.80	0.66	34.616	1014.2	350.90		338.87		
6 Jul	187.542	16.733	-144.300	1874.3	25.72	0.66	34.613	1013.9	350.07	352.27	338.02	340.14	
6 Jul	187.583	16.923	-144.163	1900.0	25.73	0.66	34.609	1013.9	350.82	347.95	338.74	335.97	
6 Jul	187.625	17.123	-144.028	1926.4	25.52	0.66	34.605	1014.3	350.75	348.73	338.94	336.99	
6 Jul	187.667	17.318	-143.895	1952.3	25.44	0.66	34.601	1014.7	349.47	347.79	337.89	336.27	
6 Jul	187.708	17.522	-143.750	1979.7	25.47	0.66	34.597	1015.5	349.72		338.39		
6 Jul	187.750	17.698	-143.618	2003.7	25.46	0.66	34.594	1016.3	349.95	348.45	338.89	337.44	
6 Jul	187.792	17.893	-143.480	2029.8	25.42	0.66	34.590	1016.9	349.70	344.17	338.88	333.53	
6 Jul	187.833	18.085	-143.342	2055.7	25.43	0.66	34.586	1016.9	349.22		338.41		
6 Jul	187.875	18.267	-143.197	2081.0	25.42	0.66	34.582	1016.9	350.43		339.59		
6 Jul	187.917	18.467	-143.033	2109.2	25.49	0.66	34.579	1016.8	348.28		337.43		
6 Jul	187.958	18.667	-142.900	2135.5	25.54	0.66	34.575	1016.4		348.71		337.68	
7 Jul	188.000	18.867	-142.810	2159.6	25.35	0.66	34.571	1015.9	350.69	349.69	339.54	338.57	
7 Jul	188.042	19.072	-142.692	2185.6	25.40	0.66	34.567	1015.5	348.37	350.08	337.13	338.78	
7 Jul	188.083	19.268	-142.550	2212.0	25.37	0.66	34.563	1015.5	349.64	349.02	338.38	337.78	
7 Jul	188.125	19.465	-142.408	2238.4	25.37	0.66	34.560	1015.7	348.59	352.38	337.43	341.09	
7 Jul	188.167	19.650	-142.265	2263.9	25.37	0.66	34.556	1016.0					
7 Jul	188.208	19.827	-142.122	2288.6	25.18	0.66	34.552	1017.0	349.60	351.68	338.97	340.99	
7 Jul	188.250	19.997	-141.993	2311.8	25.01	0.66	34.548	1017.5	350.35	344.60	339.98	334.39	
7 Jul	188.292	20.018	-141.978	2314.6	24.96	0.66	34.544	1018.5	350.26	350.98	340.27	340.96	
7 Jul	188.333	20.002	-141.933	2319.6	24.97	0.66	34.541	1018.9	349.43		339.59		
7 Jul	188.375	19.990	-141.990	2325.7	24.89	0.66	34.537	1018.5	348.77	343.88	338.86	334.11	
7 Jul	188.417	19.978	-141.950	2330.1	24.89	0.66	34.533	1017.9	349.76	351.72	339.62	341.52	
7 Jul	188.458	19.962	-141.967	2332.6	24.89	0.66	34.529	1017.5	349.10		338.84		
7 Jul	188.500	20.005	-141.988	2337.9	24.88	0.66	34.526	1017.1	349.68	347.63	339.27	337.28	
7 Jul	188.542	20.007	-142.005	2339.7	24.96	0.66	34.522	1017.2	349.42		339.00		

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
7 Jul	188.583	20.002	-141.985	2341.8	24.94	0.66	34.518	1017.0	349.61	347.80	339.13	337.37	
7 Jul	188.625	19.997	-141.977	2342.8	24.95	0.66	34.520	1017.1	350.34	351.87	339.87	341.36	
7 Jul	188.667	20.002	-141.963	2344.4	24.97	0.66	34.521	1017.5					
7 Jul	188.708	20.015	-141.938	2347.4	24.99	0.66	34.522	1017.9	351.04	344.01	340.80	333.98	
7 Jul	188.750	20.030	-141.922	2349.7	24.99	0.66	34.524	1018.3					
7 Jul	188.792	20.037	-141.905	2351.7	24.99	0.66	34.526	1018.3	350.17		340.09		
7 Jul	188.833	20.027	-141.895	2353.2	25.06	0.66	34.527	1018.4					
7 Jul	188.875	20.028	-141.907	2354.4	25.05	0.66	34.528	1017.9					
7 Jul	188.917	20.017	-141.900	2355.9	25.11	0.66	34.530	1017.4					
7 Jul	188.958	20.017	-141.917	2357.6	25.13	0.66	34.524	1017.5					
8 Jul	189.000	20.000	-141.967	2363.2	25.11	0.66	34.517	1017.0					
8 Jul	189.042	20.000	-142.000	2366.6	25.10	0.66	34.517	1016.5					
8 Jul	189.083	20.010	-141.997	2367.8	25.09	0.66	34.517	1016.4					
8 Jul	189.125	20.013	-141.973	2370.3	25.06	0.66	34.517	1016.4					
8 Jul	189.167	20.033	-141.967	2372.6	25.02	0.66	34.517	1016.5					
8 Jul	189.208	20.008	-141.950	2375.9	25.03	0.66	34.518	1016.9					
8 Jul	189.250	19.998	-141.907	2380.6	25.00	0.66	34.518	1017.1	350.38	349.42	339.88	338.95	
8 Jul	189.292	20.023	-141.908	2383.3	25.00	0.66	34.536	1017.4	350.07		339.68		
8 Jul	189.333	20.123	-141.903	2394.5	25.11	0.66	34.553	1017.4	350.32	341.51	339.85	331.30	
8 Jul	189.375	20.308	-141.823	2416.6	25.17	0.66	34.571	1017.4	349.48	340.55	339.00	330.33	
8 Jul	189.417	20.500	-141.717	2440.7	25.13	0.66	34.588	1016.8	349.27	345.52	338.62	334.98	
8 Jul	189.458	20.663	-141.713	2458.8	25.03	0.66	34.605	1016.0					
8 Jul	189.500	20.737	-141.510	2481.4	25.05	0.66	34.623	1016.4					
8 Jul	189.542	20.967	-141.417	2508.8	25.00	0.66	34.641	1016.4	348.16	344.48	337.48	333.92	
8 Jul	189.583	21.097	-141.307	2527.2	24.99	0.66	34.658	1016.4	349.43	344.18	338.72	333.63	
8 Jul	189.625	21.223	-141.190	2545.7	24.85	0.66	34.676	1016.7	349.07	343.48	338.56	333.14	
8 Jul	189.667	21.337	-141.072	2563.3	24.88	0.66	34.693	1017.3	348.58	354.92	338.27	344.43	
8 Jul	189.708	21.412	-140.917	2581.4	24.93	0.66	34.710	1017.8	348.68	364.18	338.51	353.56	
8 Jul	189.750	21.497	-140.747	2601.3	24.86	0.66	34.728	1018.0	347.45	357.50	337.43	347.19	
8 Jul	189.792	21.582	-140.573	2621.6	24.75	0.66	34.746	1018.4	348.97	359.82	339.11	349.65	
8 Jul	189.833	21.650	-140.390	2642.0	24.71	0.66	34.763	1018.4		343.71		334.02	
8 Jul	189.875	21.788	-140.297	2660.1	24.63	0.66	34.781	1018.2		337.25		327.73	
8 Jul	189.917	22.027	-140.225	2687.7	24.39	0.67	34.798	1017.8		332.75		323.36	
8 Jul	189.958	22.223	-140.127	2711.7	24.25	0.67	34.816	1017.4		341.64		331.94	
9 Jul	190.000	22.440	-140.038	2737.4	24.16	0.67	34.833	1017.4		339.63		330.04	
9 Jul	190.042	22.638	-139.942	2761.6	24.09	0.67	34.851	1017.3	349.80	339.63	339.94	330.06	
9 Jul	190.083	22.853	-139.833	2787.9	23.94	0.67	34.868	1017.5	347.91	341.82	338.26	332.34	
9 Jul	190.125	23.063	-139.697	2815.1	23.88	0.67	34.886	1017.3	351.04	342.88	341.27	333.33	
9 Jul	190.167	23.255	-139.558	2840.7	23.75	0.67	34.903	1018.3	348.88	343.16	339.59	334.02	
9 Jul	190.208	23.350	-139.507	2852.5	23.74	0.67	34.921	1018.5	350.88	341.04	341.61	332.03	
9 Jul	190.250	23.653	-139.312	2891.6	23.72	0.67	34.938	1019.4	349.80	335.59	340.88	327.03	
9 Jul	190.292	23.840	-139.182	2916.2	23.82	0.67	34.956	1019.5	348.51		339.60		
9 Jul	190.333	24.040	-139.052	2942.1	23.67	0.67	34.973	1020.2	348.23	337.15	339.65	328.85	
9 Jul	190.375	24.318	-138.943	2974.9	23.19	0.67	34.991	1019.9	347.79		339.39		
9 Jul	190.417	24.425	-138.830	2991.4	22.89	0.68	35.008	1019.9	348.00	337.35	339.76	329.36	
9 Jul	190.458	24.733	-138.683	3028.7	23.11	0.68	35.026	1019.9	347.39	337.35	339.05	329.24	
9 Jul	190.500	24.930	-138.562	3053.8	22.79	0.68	35.043	1018.4	347.90	341.39	339.21	332.86	
9 Jul	190.542	24.995	-138.488	3064.1	22.69	0.68	35.061	1019.9	348.35		340.22		
9 Jul	190.583	24.998	-138.502	3065.6	22.68	0.68	35.062	1019.8	349.53	340.94	341.34	332.95	
9 Jul	190.625	24.987	-138.503	3066.8	22.69	0.68	35.063	1020.2	349.91	340.63	341.84	332.77	
9 Jul	190.667	24.998	-138.500	3068.1	22.68	0.68	35.063	1020.7	349.74	341.69	341.85	333.98	
9 Jul	190.708	24.990	-138.492	3069.3	22.66	0.68	35.063	1021.1	349.83	340.56	342.09	333.03	
9 Jul	190.750	25.008	-138.467	3072.5	22.76	0.68	35.046	1021.0	349.97	341.59	342.14	333.95	
9 Jul	190.792	25.113	-138.402	3085.9	22.92	0.68	35.030	1020.9	350.41	335.11	342.44	327.49	
9 Jul	190.833	25.288	-138.270	3109.4	23.03	0.68	35.014	1021.3	350.06	336.06	342.18	328.50	
9 Jul	190.875	25.518	-138.122	3139.0	22.94	0.68	34.997	1021.4		332.99		325.58	
9 Jul	190.917	25.722	-137.982	3165.6	22.29	0.68	34.981	1021.3	349.18	347.47	341.72	340.05	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
9 Jul	190.958	25.983	-137.833	3198.2	22.34	0.68	34.964	1020.9	348.99	348.05	341.37	340.45	
10 Jul	191.000	26.173	-137.708	3222.7	22.39	0.68	34.948	1020.5	350.10	344.72	342.29	337.04	
10 Jul	191.042	26.283	-137.568	3241.3	22.44	0.68	34.931	1020.2	349.12	343.81	341.21	336.02	
10 Jul	191.083	26.500	-137.417	3269.7	22.45	0.68	34.915	1020.2	349.59	339.96	341.66	332.25	
10 Jul	191.125	26.718	-137.295	3296.8	22.20	0.68	34.899	1020.6	348.66	345.23	341.02	337.66	
10 Jul	191.167	26.930	-137.173	3323.3	22.16	0.68	34.882	1020.9	349.71	343.32	342.17	335.92	
10 Jul	191.208	27.117	-137.033	3348.3	22.09	0.68	34.866	1021.4	349.06	346.28	341.75	339.02	
10 Jul	191.250	27.322	-136.920	3373.6	22.32	0.68	34.849	1022.3	349.87	343.50	342.72	336.49	
10 Jul	191.292	27.518	-136.783	3399.3	22.20	0.68	34.833	1022.4	350.03	344.07	342.98	337.14	
10 Jul	191.333	27.735	-136.625	3428.0	21.81	0.68	34.817	1022.4	349.66	348.02	342.82	341.22	
10 Jul	191.375	27.940	-136.475	3455.1	22.05	0.68	34.800	1022.4	349.95	344.53	342.98	337.67	
10 Jul	191.417	28.133	-136.317	3481.5	21.74	0.69	34.784	1021.9	349.67	343.57	342.70	336.72	
10 Jul	191.458	28.333	-136.167	3508.2	21.28	0.69	34.767	1021.9	350.61	344.31	343.86	337.68	
10 Jul	191.500	28.540	-136.043	3534.2	21.43	0.69	34.751	1021.9	350.53	341.87	343.70	335.21	
10 Jul	191.542	28.745	-135.907	3560.5	21.68	0.69	34.734	1021.9	348.93	345.23	342.00	338.37	
10 Jul	191.583	28.943	-135.768	3586.4	21.65	0.69	34.718	1022.1	349.89	353.48	343.03	346.55	
10 Jul	191.625	29.140	-135.637	3611.7	21.41	0.69	34.702	1022.5	349.87	342.46	343.27	336.00	
10 Jul	191.667	29.340	-135.497	3637.7	21.33	0.69	34.685	1023.1	349.63	343.89	343.28	337.65	
10 Jul	191.708	29.537	-135.360	3663.3	21.40	0.69	34.669	1023.6	349.55	345.07	343.34	338.94	
10 Jul	191.750	29.730	-135.218	3688.8	20.99	0.69	34.652	1023.9	349.07	351.88	343.18	345.94	
10 Jul	191.792	29.918	-135.068	3714.2	20.77	0.69	34.636	1024.4	349.47	355.48	343.85	349.76	
10 Jul	191.833	30.008	-134.973	3727.7	20.77	0.69	34.620	1024.7	348.17	349.86	342.67	344.34	
10 Jul	191.875	29.987	-134.970	3730.1	20.82	0.69	34.603	1025.3	347.72	353.33	342.41	347.93	
10 Jul	191.917	30.000	-135.000	3733.3	20.87	0.69	34.603	1025.2	350.28	356.03	344.87	350.53	
10 Jul	191.958	29.983	-135.000	3735.2	20.94	0.69	34.603	1025.3		351.97		346.54	
11 Jul	192.000	29.967	-135.017	3737.6	20.94	0.69	34.610	1024.9		351.32		345.75	
11 Jul	192.042	29.960	-135.008	3738.8	20.92	0.69	34.617	1024.9		346.24		340.77	
11 Jul	192.083	29.960	-135.015	3739.5	20.89	0.69	34.624	1024.6	350.49	351.55	344.86	345.91	
11 Jul	192.125	30.032	-135.015	3747.5	20.88	0.69	34.580	1024.2	350.34	351.06	344.58	345.29	
11 Jul	192.167	30.215	-135.023	3767.8	20.82	0.69	34.535	1024.1	349.41	350.14	343.66	344.38	
11 Jul	192.208	30.382	-135.022	3786.4	20.38	0.70	34.492	1024.3	348.98	352.20	343.52	346.69	
11 Jul	192.250	30.665	-135.032	3817.8	20.27	0.70	34.447	1024.5	349.70	352.99	344.35	347.59	
11 Jul	192.292	30.910	-135.020	3845.1	20.29	0.70	34.403	1025.3	347.85	349.60	342.80	344.52	
11 Jul	192.333	31.157	-135.007	3872.6	20.49	0.69	34.360	1025.5	347.65	348.98	342.57	343.88	
11 Jul	192.375	31.405	-135.023	3900.2	20.46	0.69	34.315	1025.7	349.37	349.71	344.35	344.68	
11 Jul	192.417	31.655	-135.020	3927.9	19.99	0.70	34.271	1025.2	349.08	360.77	344.12	355.64	
11 Jul	192.458	31.908	-135.013	3956.1	20.08	0.70	34.227	1024.9	350.75	363.65	345.62	358.33	
11 Jul	192.500	32.150	-134.992	3983.0	19.73	0.70	34.183	1024.5	350.04	362.46	344.94	357.19	
11 Jul	192.542	32.390	-134.998	4009.7	19.65	0.70	34.139	1024.5	350.18	360.34	345.12	355.13	
11 Jul	192.583	32.625	-134.990	4035.8	19.75	0.70	34.095	1024.9	349.10	360.55	344.15	355.43	
11 Jul	192.625	32.858	-134.990	4061.7	19.63	0.70	34.051	1025.1	349.58	360.93	344.74	355.94	
11 Jul	192.667	33.088	-134.988	4087.3	19.60	0.70	34.007	1025.5	349.99	367.98	345.30	363.05	
11 Jul	192.708	33.323	-134.987	4113.4	19.56	0.70	33.963	1025.9	349.39	366.57	344.86	361.82	
11 Jul	192.750	33.577	-134.988	4141.6	19.54	0.70	33.919	1026.1	350.98	367.75	346.51	363.06	
11 Jul	192.792	33.808	-134.997	4167.3	19.54	0.70	33.874	1026.4		361.60		357.10	
11 Jul	192.833	34.057	-135.007	4195.0	19.41	0.70	33.831	1026.5	349.51	382.38	345.25	377.72	
11 Jul	192.875	34.303	-135.007	4222.3	19.46	0.70	33.787	1026.5		378.19		373.56	
11 Jul	192.917	34.545	-135.000	4249.2	19.53	0.70	33.742	1026.3	351.93	373.67	347.52	368.99	
11 Jul	192.958	34.783	-135.000	4275.7	19.38	0.70	33.699	1025.5					
12 Jul	193.000	35.013	-134.993	4301.2	19.52	0.70	33.654	1025.4					
12 Jul	193.042	35.002	-134.995	4302.5	19.60	0.70	33.610	1024.9					
12 Jul	193.083	35.000	-134.998	4302.8	19.63	0.70	33.614	1024.4					
12 Jul	193.125	34.987	-135.028	4305.9	19.60	0.70	33.618	1024.4					
12 Jul	193.167	35.003	-135.002	4308.9	19.60	0.70	33.623	1024.4					
12 Jul	193.208	34.990	-135.008	4310.4	19.59	0.70	33.627	1024.9					
12 Jul	193.250	34.973	-135.000	4312.4	19.65	0.70	33.603	1025.2					
12 Jul	193.292	35.005	-135.022	4316.5	19.70	0.70	33.579	1024.9					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 Jul	193.333	35.033	-135.032	4319.7	19.71	0.70	33.555	1024.9					
12 Jul	193.375	35.117	-135.067	4329.6	19.75	0.70	33.531	1024.2					
12 Jul	193.417	35.117	-135.050	4331.2	19.73	0.70	33.507	1023.7		380.58		374.74	
12 Jul	193.458	35.267	-135.000	4348.4	19.73	0.70	33.483	1023.4	350.37	377.36	344.89	371.46	
12 Jul	193.500	35.500	-135.000	4374.3	19.61	0.70	33.459	1022.9	349.05	376.64	343.47	370.62	
12 Jul	193.542	35.735	-135.002	4400.4	19.26	0.70	33.435	1023.0	349.53	382.20	344.14	376.31	
12 Jul	193.583	35.970	-134.992	4426.6	19.29	0.70	33.412	1023.3	349.07	375.18	343.78	369.49	
12 Jul	193.625	36.203	-135.000	4452.5	19.24	0.70	33.387	1023.5	348.34	375.53	343.15	369.94	
12 Jul	193.667	36.445	-135.010	4479.4	19.15	0.70	33.363	1024.0	348.54	377.05	343.56	371.66	
12 Jul	193.708	36.682	-134.953	4506.2	18.93	0.71	33.340	1023.9	349.49	376.63	344.56	371.32	
12 Jul	193.750	36.917	-134.982	4532.4	18.92	0.71	33.316	1024.3		373.80		368.68	
12 Jul	193.792	37.003	-135.007	4542.2	19.08	0.70	33.292	1024.4	350.51	379.27	345.67	374.03	
12 Jul	193.833	37.000	-135.007	4542.6	19.12	0.70	33.268	1024.4	351.61	377.77	346.73	372.53	
12 Jul	193.875	37.005	-135.010	4543.2	19.23	0.70	33.260	1024.3	349.21	378.36	344.28	373.03	
12 Jul	193.917	37.017	-135.000	4544.8	19.23	0.70	33.252	1023.9		377.81		372.34	
12 Jul	193.958	37.000	-135.000	4546.7	19.19	0.70	33.234	1023.9	348.15	376.78	343.12	371.34	
13 Jul	194.000	37.000	-135.000	4546.7	19.56	0.70	33.215	1023.9		375.86		370.25	
13 Jul	194.042	37.093	-135.018	4557.1	19.23	0.70	33.192	1023.4		377.66		372.00	
13 Jul	194.083	37.262	-135.013	4575.9	19.01	0.71	33.170	1023.3	345.51	376.50	340.40	370.93	
13 Jul	194.125	37.333	-135.000	4583.9	18.97	0.71	33.147	1023.3	345.20	374.99	340.11	369.45	
13 Jul	194.167	37.500	-135.000	4602.5	18.73	0.71	33.124	1023.2	346.50	377.29	341.46	371.80	
13 Jul	194.208	37.747	-135.005	4629.9	18.60	0.71	33.102	1023.2	347.05	375.20	342.06	369.80	
13 Jul	194.250	37.997	-135.010	4657.7	18.50	0.71	33.079	1023.6	346.38	372.38	341.58	367.22	
13 Jul	194.292	38.230	-135.005	4683.6	18.80	0.71	33.056	1023.9	348.20	371.05	343.34	365.88	
13 Jul	194.333	38.475	-135.007	4710.8	18.71	0.71	33.033	1023.7	346.68	373.83	341.82	368.59	
13 Jul	194.375	38.723	-135.015	4738.4	18.77	0.71	33.010	1023.4	347.93	372.75	342.92	367.38	
13 Jul	194.417	38.900	-135.017	4758.0	18.40	0.71	32.987	1023.3	347.47	370.39	342.59	365.20	
13 Jul	194.458	39.217	-135.017	4793.3	18.32	0.71	32.965	1023.3	347.05	370.07	342.21	364.92	
13 Jul	194.500	39.467	-135.017	4821.1	18.04	0.71	32.942	1023.4	347.85	366.70	343.15	361.75	
13 Jul	194.542	39.715	-135.017	4848.6	17.58	0.72	32.919	1023.5	347.56	364.84	343.09	360.16	
13 Jul	194.583	39.955	-135.028	4875.3	17.04	0.72	32.897	1023.8	348.73	363.42	344.57	359.08	
13 Jul	194.625	39.993	-134.975	4881.5	17.11	0.72	32.874	1024.0	347.56	358.92	343.45	354.68	
13 Jul	194.667	40.002	-135.000	4883.8	17.03	0.72	32.876	1024.2	347.63	361.86	343.62	357.69	
13 Jul	194.708	40.022	-135.038	4887.8	17.05	0.72	32.878	1024.5	347.27	365.84	343.36	361.72	
13 Jul	194.750	40.020	-135.060	4889.6	17.07	0.72	32.879	1024.5	346.41	369.43	342.50	365.26	
13 Jul	194.792	40.013	-135.057	4890.5	17.13	0.72	32.881	1024.9	349.56	372.78	345.73	368.69	
13 Jul	194.833	40.003	-135.032	4892.9	17.21	0.72	32.883	1024.9	349.93	374.70	346.06	370.56	
13 Jul	194.875	39.985	-135.000	4896.2	17.26	0.72	32.878	1025.0		374.17		370.05	
13 Jul	194.917	40.003	-134.995	4898.3	17.26	0.72	32.873	1025.1		370.95		366.90	
13 Jul	194.958	40.028	-135.005	4901.2	17.35	0.72	32.869	1025.4		370.25		366.28	
14 Jul	195.000	40.147	-134.998	4914.4	17.30	0.72	32.866	1025.3					
14 Jul	195.042	40.393	-135.022	4941.8	17.37	0.72	32.862	1025.0					
14 Jul	195.083	40.617	-135.018	4966.7	17.24	0.72	32.859	1024.9					
14 Jul	195.125	40.867	-135.000	4994.5	17.29	0.72	32.855	1024.9					
14 Jul	195.167	41.100	-134.967	5020.6	16.92	0.72	32.851	1025.4					
14 Jul	195.208	41.355	-134.982	5048.9	16.06	0.73	32.848	1025.4					
14 Jul	195.250	41.572	-135.003	5073.1	16.03	0.73	32.844	1026.9					
14 Jul	195.292	41.835	-135.025	5102.4	16.02	0.73	32.840	1027.4					
14 Jul	195.333	41.997	-134.998	5120.5	15.89	0.73	32.837	1028.2					
14 Jul	195.375	41.997	-134.972	5122.7	15.80	0.73	32.833	1028.3					
14 Jul	195.417	41.987	-134.955	5124.5	15.78	0.73	32.830	1028.2					
14 Jul	195.458	41.983	-134.932	5126.4	15.81	0.73	32.826	1028.0					
14 Jul	195.500	41.988	-134.953	5128.3	15.80	0.73	32.830	1027.9					
14 Jul	195.542	41.997	-134.993	5131.7	15.84	0.73	32.834	1028.3					
14 Jul	195.583	41.933	-134.900	5142.2	15.81	0.73	32.838	1028.0					
14 Jul	195.625	41.987	-134.980	5151.1	15.82	0.73	32.842	1028.5					
14 Jul	195.667	41.990	-134.963	5152.5	15.82	0.73	32.847	1029.0					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
14 Jul	195.708	42.008	-135.003	5156.4	15.81	0.73	32.852	1029.6					
14 Jul	195.750	42.000	-134.995	5157.5	15.81	0.73	32.857	1029.8					
14 Jul	195.792	42.005	-134.988	5158.3	15.82	0.73	32.847	1030.5					
14 Jul	195.833	41.998	-134.997	5159.4	15.83	0.73	32.836	1030.5					
14 Jul	195.875	42.003	-134.997	5160.0	15.83	0.73	32.826	1030.9					
14 Jul	195.917	42.023	-134.987	5162.3	15.86	0.73	32.816	1030.9					
14 Jul	195.958	42.162	-135.000	5177.8	15.89	0.73	32.806	1030.9					
15 Jul	196.000	42.350	-134.983	5198.7	15.35	0.73	32.795	1030.4					
15 Jul	196.042	42.567	-134.983	5222.9	15.20	0.73	32.785	1030.3					
15 Jul	196.083	42.817	-135.000	5250.7	15.22	0.73	32.775	1030.2					
15 Jul	196.125	43.058	-135.003	5277.5	15.11	0.73	32.764	1030.4					
15 Jul	196.167	43.303	-135.000	5304.7	15.04	0.73	32.754	1030.5		362.00		360.83	
15 Jul	196.208	43.542	-134.998	5331.2	14.75	0.74	32.744	1030.9	351.79	353.87	350.90	352.98	
15 Jul	196.250	43.788	-135.003	5358.6	14.74	0.74	32.733	1030.0	349.23		348.04		
15 Jul	196.292	44.000	-135.000	5382.1	14.57	0.74	32.723	1031.4		341.47		340.83	
15 Jul	196.333	44.013	-134.995	5383.6	14.46	0.74	32.724	1032.3	349.52	340.66	349.22	340.37	
15 Jul	196.375	44.042	-134.985	5387.0	14.44	0.74	32.725	1031.1	348.19	340.42	347.49	339.73	
15 Jul	196.417	44.135	-134.975	5397.3	14.41	0.74	32.723	1030.9	348.92	339.38	348.16	338.64	
15 Jul	196.458	44.057	-134.962	5406.0	14.41	0.74	32.721	1030.8	348.25	337.65	347.45	336.88	
15 Jul	196.500	44.063	-134.953	5407.0	14.43	0.74	32.716	1030.8	346.38	336.88	345.58	336.10	
15 Jul	196.542	44.102	-134.960	5411.4	14.42	0.74	32.710	1030.5	348.79	342.46	347.89	341.58	
15 Jul	196.583	44.252	-134.943	5428.1	14.20	0.74	32.705	1030.2	347.41	333.82	346.48	332.93	
15 Jul	196.625	44.447	-134.947	5449.8	13.96	0.74	32.700	1030.0	347.60	336.30	346.68	335.41	
15 Jul	196.667	44.665	-134.942	5474.0	14.02	0.74	32.695	1030.0		337.32		336.41	
15 Jul	196.708	44.865	-134.952	5496.3	14.01	0.74	32.690	1030.4	347.49	336.39	346.69	335.62	
15 Jul	196.750	45.080	-134.975	5520.2	13.87	0.74	32.684	1029.9		330.25		329.38	
15 Jul	196.792	45.280	-134.993	5542.5	13.65	0.74	32.679	1030.2	347.54	329.64	346.79	328.93	
15 Jul	196.833	45.492	-135.017	5566.1	13.78	0.74	32.674	1030.0	347.25	328.27	346.39	327.46	
15 Jul	196.875	45.492	-135.017	5566.1	13.47	0.75	32.669	1029.7		314.99		314.22	
15 Jul	196.917	45.687	-135.005	5587.8	13.36	0.75	32.663	1029.6		325.35		324.55	
15 Jul	196.958	45.983	-134.967	5620.8	13.28	0.75	32.658	1029.6	347.47	312.69	346.64	311.94	
16 Jul	197.000	45.967	-135.000	5623.9	13.29	0.75	32.653	1029.9	347.39	315.25	346.66	314.59	
16 Jul	197.042	46.000	-135.000	5627.6	13.29	0.75	32.652	1028.9	348.96	316.97	347.88	315.99	
16 Jul	197.083	46.000	-135.033	5630.1	13.29	0.75	32.652	1028.7	348.63	313.27	347.49	312.24	
16 Jul	197.125	46.000	-135.000	5632.7	13.29	0.75	32.653	1028.4	348.37	313.38	347.12	312.26	
16 Jul	197.167	46.017	-135.017	5635.0	13.30	0.75	32.654	1028.4	347.84	314.32	346.59	313.19	
16 Jul	197.208	46.088	-135.025	5642.9	13.33	0.75	32.645	1027.9	347.48	326.24	346.05	324.90	
16 Jul	197.250	46.305	-135.028	5667.0	13.42	0.75	32.635	1027.9	347.77	330.65	346.31	329.27	
16 Jul	197.292	46.538	-135.042	5692.9	13.11	0.75	32.626	1028.0					
16 Jul	197.333	46.792	-135.042	5721.2	12.88	0.75	32.617	1028.0					
16 Jul	197.375	47.037	-135.015	5748.5	13.12	0.75	32.607	1026.9		346.64		344.94	
16 Jul	197.417	47.290	-135.000	5770.6	12.89	0.75	32.598	1026.3	348.69	335.22	346.85	333.46	
16 Jul	197.458	47.540	-134.985	5804.4	12.54	0.75	32.589	1025.5					
16 Jul	197.500	47.867	-134.983	5840.7	12.21	0.75	32.579	1025.5					
16 Jul	197.542	47.792	-134.978	5849.1	11.78	0.76	32.570	1024.8					
16 Jul	197.583	47.983	-135.030	5870.7	11.77	0.76	32.561	1024.0					
16 Jul	197.625	47.970	-135.063	5873.5	11.76	0.76	32.551	1023.4					
16 Jul	197.667	47.968	-135.072	5874.2	11.77	0.76	32.542	1022.9					
16 Jul	197.708	47.993	-135.000	5880.2	11.76	0.76	32.542	1022.4					
16 Jul	197.750	47.990	-134.993	5880.9	11.77	0.76	32.541	1021.9					
16 Jul	197.792	47.982	-134.977	5882.3	11.79	0.76	32.541	1021.8					
16 Jul	197.833	47.978	-134.967	5883.2	11.81	0.76	32.541	1021.4					
16 Jul	197.875	47.965	-134.955	5884.9	11.87	0.76	32.541	1021.1					
16 Jul	197.917	47.975	-134.957	5886.0	11.92	0.76	32.534	1020.6					
16 Jul	197.958	48.125	-134.958	5902.7	12.04	0.76	32.527	1019.9					
17 Jul	198.000	48.367	-134.992	5929.7	12.13	0.76	32.520	1019.8					
17 Jul	198.042	48.595	-134.995	5955.0	12.19	0.75	32.513	1019.4					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 Jul	198.083	48.848	-134.983	5983.2	12.00	0.76	32.506	1019.0					
17 Jul	198.125	49.085	-134.995	6009.5	11.69	0.76	32.499	1019.0					
17 Jul	198.167	49.337	-134.985	6037.5	11.74	0.76	32.493	1018.9					
17 Jul	198.208	49.575	-134.980	6064.0	11.78	0.76	32.486	1018.9					
17 Jul	198.250	49.832	-134.988	6092.5	11.80	0.76	32.479	1018.9					
17 Jul	198.292	50.065	-135.022	6118.5	11.92	0.76	32.472	1018.4					
17 Jul	198.333	50.017	-135.000	6124.1	11.98	0.76	32.465	1018.4	348.75	348.82	344.49	344.56	
17 Jul	198.375	50.000	-135.033	6127.1	11.94	0.76	32.458	1018.4		346.15		341.93	
17 Jul	198.417	50.000	-135.000	6129.5	11.91	0.76	32.451	1018.4	345.95		341.74		
17 Jul	198.458	50.000	-134.992	6130.1	11.92	0.76	32.448	1018.3	346.51	345.36	342.26	341.12	
17 Jul	198.500	50.002	-135.015	6131.7	11.95	0.76	32.445	1018.3	346.27	347.33	342.01	343.06	
17 Jul	198.542	50.000	-135.033	6133.0	11.94	0.76	32.436	1018.3	345.47	345.89	341.22	341.64	
17 Jul	198.583	50.002	-135.043	6133.8	11.90	0.76	32.428	1018.5	345.54	347.21	341.37	343.02	
17 Jul	198.625	50.003	-135.040	6134.0	11.93	0.76	32.430	1018.7	346.89	343.13	342.77	339.05	
17 Jul	198.667	50.003	-135.003	6136.7	12.00	0.76	32.432	1018.5	346.85	343.92	342.64	339.74	
17 Jul	198.708	50.003	-135.098	6143.4	11.82	0.76	32.434	1018.3	345.85	343.82	341.63	339.63	
17 Jul	198.750	50.002	-135.393	6164.5	11.61	0.76	32.436	1018.3	345.99	348.01	341.83	343.83	
17 Jul	198.792	50.000	-135.770	6191.4	11.36	0.76	32.438	1018.8	346.40	346.70	342.48	342.77	
17 Jul	198.833	50.000	-136.117	6216.2	11.41	0.76	32.440	1019.2	347.90	347.35	344.08	343.54	
17 Jul	198.875	50.010	-136.493	6243.1	11.29	0.76	32.442	1019.2	347.79	346.00	344.01	342.24	
17 Jul	198.917	50.012	-136.860	6269.3	11.32	0.76	32.444	1018.9	346.17	346.13	342.30	342.26	
17 Jul	198.958	50.023	-137.425	6309.7	11.43	0.76	32.446	1018.6	346.18	346.47	342.17	342.46	
18 Jul	199.000	50.022	-137.887	6342.6	11.22	0.76	32.448	1018.4	346.07	337.09	342.06	333.18	
18 Jul	199.042	50.023	-138.275	6370.3	11.10	0.70	32.450	1018.0	344.92	330.77	340.82	326.83	
18 Jul	199.083	50.023	-138.345	6375.3	11.07	0.70	32.451	1018.0	344.97	330.29	340.88	326.37	
18 Jul	199.125	50.020	-138.713	6401.6	11.05	0.70	32.453	1017.6	344.49	333.22	340.27	329.14	
18 Jul	199.167	50.015	-139.083	6428.0	11.02	0.70	32.455	1017.5	344.75	331.23	340.50	327.15	
18 Jul	199.208	50.008	-139.448	6454.1	11.00	0.70	32.457	1017.4	344.70	335.21	340.42	331.06	
18 Jul	199.250	49.998	-139.860	6483.6	10.97	0.70	32.459	1017.1	344.35	336.04	339.99	331.78	
18 Jul	199.292	49.987	-140.017	6494.9	10.95	0.70	32.461	1016.5	345.17	338.71	340.60	334.22	
18 Jul	199.333	49.972	-140.020	6496.5	10.93	0.70	32.463	1016.5	344.97	338.23	340.41	333.75	
18 Jul	199.375	49.973	-140.007	6497.5	10.90	0.70	32.465	1016.3	345.38	343.31	340.75	338.71	
18 Jul	199.417	49.978	-140.003	6498.1	11.09	0.70	32.467	1016.1	344.45	339.55	339.71	334.88	
18 Jul	199.458	49.987	-139.978	6500.1	10.50	0.70	32.469	1015.9	344.53	340.44	339.89	335.85	
18 Jul	199.500	50.003	-139.990	6502.1	10.36	0.77	32.471	1015.9	345.80	339.21	341.18	334.68	
18 Jul	199.542	49.990	-139.980	6503.7	10.34	0.77	32.473	1015.5	344.63	338.13	339.89	333.48	
18 Jul	199.583	49.995	-139.978	6504.3	10.29	0.77	32.483	1015.5	344.62	340.03	339.89	335.37	
18 Jul	199.625	50.052	-139.978	6510.6	10.27	0.77	32.484	1015.5	344.79	342.46	340.07	337.76	
18 Jul	199.667	50.002	-139.975	6516.2	10.24	0.77	32.484	1015.9	345.59	339.36	341.00	334.86	
18 Jul	199.708	49.993	-140.025	6519.9	10.23	0.77	32.485	1016.2	345.36	344.76	340.88	340.28	
18 Jul	199.750	49.988	-140.025	6520.5	10.25	0.77	32.485	1016.4	345.56	340.22	341.14	335.87	
18 Jul	199.792	49.987	-140.012	6521.4	10.26	0.77	32.486	1016.8	346.95	340.26	342.64	336.04	
18 Jul	199.833	49.998	-140.000	6522.9	10.27	0.77	32.473	1017.5	346.55	340.31	342.48	336.31	
18 Jul	199.875	49.983	-140.050	6526.8	10.28	0.77	32.475	1018.0	344.92	341.87	341.04	338.02	
18 Jul	199.917	50.000	-140.333	6547.1	10.32	0.77	32.476	1018.7	346.13	340.65	342.46	337.04	
18 Jul	199.958	50.000	-140.700	6573.3	10.37	0.77	32.478	1018.9	348.63	341.06	344.99	337.50	
19 Jul	200.000	50.013	-141.010	6595.5	10.34	0.77	32.479	1019.5	346.48	338.44	343.07	335.12	
19 Jul	200.042	50.028	-141.362	6620.7	10.56	0.77	32.481	1019.9		338.94		335.68	
19 Jul	200.083	50.023	-141.738	6647.6	10.52	0.77	32.482	1020.6	347.52	338.79	344.43	335.78	
19 Jul	200.125	50.017	-142.100	6673.4	10.57	0.77	32.484	1020.0	345.61	343.45	342.32	340.18	
19 Jul	200.167	50.010	-142.473	6700.1	10.54	0.77	32.486	1021.7	345.25	343.13	342.55	340.44	
19 Jul	200.208	50.005	-142.827	6725.4	10.36	0.77	32.487	1022.3	346.28	347.58	343.82	345.11	
19 Jul	200.250	49.830	-143.193	6758.0	10.22	0.77	32.489	1023.4	346.62	338.00	344.57	335.99	
19 Jul	200.292	49.990	-143.597	6791.9	10.05	0.77	32.490	1024.3	346.51	338.55	344.81	336.88	
19 Jul	200.333	49.994	-143.972	6818.7	9.90	0.77	32.492	1024.8	346.57	338.81	345.08	337.35	
19 Jul	200.375	49.998	-144.347	6845.5	9.87	0.77	32.494	1024.4	346.27	338.74	344.65	337.16	
19 Jul	200.417	50.002	-144.735	6873.2	10.01	0.77	32.495	1024.9	346.55	338.89	345.06	337.43	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
19 Jul	200.458	49.983	-145.017	6893.5	10.05	0.77	32.497	1024.9	346.74	343.83	345.24	342.34	
19 Jul	200.500	49.950	-145.017	6897.1	10.16	0.77	32.498	1026.2	346.60	339.09	345.51	338.03	
19 Jul	200.542	49.918	-145.000	6900.9	10.22	0.77	32.500	1026.3	346.06	337.88	344.99	336.84	
19 Jul	200.583	49.898	-145.037	6904.3	10.27	0.77	32.501	1026.2	346.67	339.51	345.55	338.42	
19 Jul	200.625	49.947	-145.018	6910.0	10.25	0.77	32.503	1026.9	346.21	337.71	345.34	336.86	
19 Jul	200.667	49.977	-145.010	6913.3	10.15	0.77	32.505	1027.2	346.63	341.64	345.89	340.91	
19 Jul	200.708	49.998	-145.003	6915.7	10.10	0.77	32.506	1028.0	346.03	342.88	345.57	342.42	
19 Jul	200.750	50.000	-145.007	6916.1	10.10	0.77	32.506	1028.4	346.34	342.66	346.02	342.34	
19 Jul	200.792	49.988	-144.993	6917.8	10.12	0.77	32.507	1028.4	346.67	345.88	346.34	345.55	
19 Jul	200.833	49.970	-144.977	6920.1	10.18	0.77	32.507	1028.6	345.55	346.93	345.27	346.65	
19 Jul	200.875	49.950	-144.975	6922.3	10.26	0.77	32.507	1028.7	346.16	346.42	345.90	346.16	
19 Jul	200.917	49.937	-144.958	6924.2	10.30	0.77	32.508	1028.6	346.50	344.68	346.19	344.37	
19 Jul	200.958	49.910	-144.973	6927.4	10.35	0.77	32.508	1027.7	347.57	346.17	346.94	345.54	
20 Jul	201.000	49.890	-144.970	6929.6	10.36	0.77	32.509	1028.9	346.67	346.40	346.45	346.18	
20 Jul	201.042	49.960	-144.990	6937.5	10.35	0.77	32.509	1029.0	345.32	345.69	345.13	345.51	
20 Jul	201.083	49.850	-144.967	6949.8	10.36	0.77	32.509	1028.7	345.46	347.37	345.17	347.08	
20 Jul	201.125	50.000	-145.000	6966.7	10.30	0.77	32.510	1029.4	345.28	345.78	345.24	345.74	
20 Jul	201.167	50.010	-144.973	6968.9	10.23	0.77	32.510	1029.5	345.72	342.54	345.74	342.56	
20 Jul	201.208	50.015	-144.960	6970.0	10.17	0.77	32.511	1029.9	346.04	348.64	346.21	348.81	
20 Jul	201.250	50.028	-144.930	6972.6	10.19	0.77	32.512	1030.4	346.45	347.14	346.78	347.47	
20 Jul	201.292	50.003	-144.950	6975.7	10.24	0.77	32.509	1031.0	346.03	347.18	346.55	347.70	
20 Jul	201.333	49.983	-144.950	6977.9	10.28	0.77	32.507	1031.4	346.07	348.08	346.72	348.73	
20 Jul	201.375	49.967	-144.967	6980.1	10.32	0.77	32.504	1031.2	346.51	346.54	347.08	347.11	
20 Jul	201.417	49.933	-144.950	6984.0	10.34	0.77	32.501	1031.4	346.17	347.87	346.80	348.50	
20 Jul	201.458	50.100	-145.000	7002.9	10.03	0.77	32.499	1031.7	346.14	347.72	346.95	348.53	
20 Jul	201.500	50.303	-145.000	7025.5	9.96	0.77	32.496	1032.0					
20 Jul	201.542	50.548	-145.003	7052.7	10.04	0.77	32.493	1032.5	346.39		347.47		
20 Jul	201.583	50.787	-145.020	7079.3	10.02	0.77	32.491	1032.8	346.03	346.47	347.22	347.66	
20 Jul	201.625	51.032	-145.005	7106.5	10.03	0.77	32.488	1033.5	346.23	345.34	347.65	346.76	
20 Jul	201.667	51.263	-144.985	7132.2	9.98	0.77	32.486	1034.2	346.34	342.51	348.01	344.16	
20 Jul	201.708	51.510	-144.970	7159.7	10.06	0.77	32.483	1034.4	345.22	347.46	346.94	349.18	
20 Jul	201.750	51.730	-144.918	7184.4	10.26	0.77	32.480	1034.4	346.28	348.00	347.95	349.68	
20 Jul	201.792	51.960	-144.977	7210.3	10.12	0.77	32.478	1035.7	345.07	345.56	347.21	347.70	
20 Jul	201.833	52.157	-144.965	7232.2	9.95	0.77	32.475	1035.1	346.34	339.49	348.33	341.43	
20 Jul	201.875	52.165	-144.985	7230.8	9.93	0.77	32.476	1035.1	345.72	343.03	347.71	345.01	
20 Jul	201.917	52.168	-144.982	7234.2	10.01	0.77	32.477	1034.9	346.68	339.55	348.59	341.41	
20 Jul	201.958	52.168	-144.982	7234.2	10.01	0.77	32.478	1034.9	347.54	340.62	349.45	342.49	
21 Jul	202.000	51.982	-145.000	7254.9	10.09	0.77	32.483	1034.5	345.96	339.87	347.71	341.59	
21 Jul	202.042	52.177	-144.997	7276.6	10.11	0.77	32.488	1034.5	344.69	343.14	346.42	344.86	
21 Jul	202.083	52.170	-144.977	7278.2	10.13	0.77	32.488	1034.5	348.25	351.77	350.00	353.54	
21 Jul	202.125	52.278	-144.967	7290.2	9.93	0.77	32.489	1034.3	345.26	347.55	346.98	349.28	
21 Jul	202.167	52.497	-144.958	7314.5	9.80	0.77	32.489	1033.8	346.03	345.75	347.61	347.34	
21 Jul	202.208	52.738	-144.950	7341.3	9.38	0.78	32.489	1033.9	346.04	343.92	347.76	345.63	
21 Jul	202.250	52.977	-144.950	7367.9	9.48	0.77	32.490	1033.9	347.44	343.95	349.14	345.63	
21 Jul	202.292	53.227	-144.973	7395.7	9.58	0.77	32.490	1033.4	345.72	342.02	347.22	343.50	
21 Jul	202.333	53.483	-144.983	7424.2	9.60	0.77	32.491	1033.4	345.33	341.95	346.82	343.43	
21 Jul	202.375	53.767	-145.000	7455.7	9.85	0.77	32.491	1032.7					
21 Jul	202.417	53.967	-145.000	7478.0	9.50	0.77	32.491	1032.0					
21 Jul	202.458	54.283	-145.000	7513.1	10.09	0.77	32.492	1031.4					
21 Jul	202.500	54.320	-145.007	7517.2	10.16	0.77	32.492	1031.0					
21 Jul	202.542	54.335	-145.027	7519.3	10.04	0.77	32.458	1030.6					
21 Jul	202.583	54.330	-145.025	7519.9	9.90	0.77	32.424	1030.4					
21 Jul	202.625	54.323	-145.002	7521.6	9.92	0.77	32.456	1030.3	345.20	311.49	345.57	311.82	
21 Jul	202.667	54.320	-145.013	7522.4	9.91	0.77	32.487	1030.1	346.66	331.47	346.96	331.76	
21 Jul	202.708	54.320	-145.013	7522.4	9.79	0.77	32.491	1029.6	346.38	313.20	346.54	313.34	
21 Jul	202.750	54.530	-145.002	7545.7	9.87	0.77	32.495	1029.0	346.37	286.08	346.31	286.03	
21 Jul	202.792	54.768	-144.985	7572.2	9.70	0.77	32.499	1028.4	345.49	292.20	345.27	292.01	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
21 Jul	202.833	55.023	-144.985	7600.5	9.69	0.77	32.503	1027.9	346.57	291.35	346.18	291.02	
21 Jul	202.875	55.267	-144.977	7627.6	9.82	0.77	32.507	1026.9	346.26	293.38	345.50	292.74	
21 Jul	202.917	55.512	-145.002	7654.9	9.76	0.77	32.510	1026.4	345.90	300.43	344.99	299.63	
21 Jul	202.958	55.755	-145.047	7682.0	10.05	0.77	32.514	1025.9	346.82	296.38	345.66	295.39	
22 Jul	203.000	56.000	-145.017	7709.3	10.31	0.77	32.518	1025.5		302.76		301.57	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
3 May	123.833	26.749	-163.332	0.0	21.00	0.35	35.100	1022.4	357.59	325.10	351.02	319.13	
3 May	123.875	26.900	-163.550	27.4	20.30	0.36	35.112	1022.8		328.05		322.48	
3 May	123.917	26.889	-163.567	29.4	20.40	0.36	35.125	1022.2		328.66		322.84	
3 May	123.958	26.878	-163.583	31.4	20.50	0.36	35.137	1021.7	357.87	328.64	351.31	322.61	
4 May	124.000	26.867	-163.600	33.5	20.60	0.35	35.150	1021.1		329.95		323.65	
4 May	124.042	26.939	-163.757	51.0	20.60	0.35	35.163	1021.1	355.62	326.67	348.84	320.44	
4 May	124.083	27.011	-163.910	68.2	20.60	0.35	35.175	1021.1	356.03	323.78	349.24	317.61	
4 May	124.125	27.083	-164.067	85.6	20.60	0.35	35.188	1021.1	356.60	323.05	349.80	316.89	
4 May	124.167	27.145	-164.190	99.6	20.60	0.35	35.200	1021.1	356.54	323.40	349.74	317.23	
4 May	124.208	27.205	-164.310	113.2	20.60	0.35	35.212	1021.2	355.61	323.00	348.86	316.88	
4 May	124.250	27.267	-164.433	127.2	20.60	0.35	35.225	1021.2	357.25	320.52	350.47	314.44	
4 May	124.292	27.334	-164.556	141.4	20.60	0.35	35.238	1021.6	355.72	319.77	349.11	313.83	
4 May	124.333	27.399	-164.677	155.4	20.60	0.35	35.250	1022.1	356.20	317.86	349.76	312.11	
4 May	124.375	27.467	-164.800	169.7	20.60	0.35	35.263	1022.5	356.58	319.61	350.27	313.96	
4 May	124.417	27.534	-164.934	184.8	20.60	0.35	35.275	1022.4		319.88		314.19	
4 May	124.458	27.599	-165.066	199.7	20.60	0.35	35.287	1022.4		320.53		314.82	
4 May	124.500	27.667	-165.200	214.9	20.60	0.35	35.300	1022.3					
4 May	124.542	27.795	-165.402	239.4	20.60	0.35	35.292	1022.3					
4 May	124.583	27.921	-165.598	263.2	20.70	0.35	35.285	1022.4					
4 May	124.625	28.050	-165.800	287.6	20.80	0.35	35.277	1022.4					
4 May	124.667	28.173	-166.046	315.3	20.80	0.35	35.269	1022.6					
4 May	124.708	28.293	-166.287	342.4	20.80	0.35	35.262	1022.7					
4 May	124.750	28.417	-166.533	370.2	20.80	0.35	35.254	1022.9					
4 May	124.792	28.540	-166.735	394.2	20.50	0.36	35.246	1023.4					
4 May	124.833	28.660	-166.931	417.5	20.20	0.36	35.239	1024.0					
4 May	124.875	28.783	-167.133	441.4	20.00	0.36	35.231	1024.5					
4 May	124.917	28.923	-167.391	471.0	19.50	0.37	35.224	1024.2					
4 May	124.958	29.060	-167.642	499.7	19.00	0.38	35.216	1023.9					
5 May	125.000	29.200	-167.900	529.2	18.50	0.39	35.208	1023.6					
5 May	125.042	29.222	-167.928	532.9	18.90	0.38	35.201	1023.3					
5 May	125.083	29.244	-167.955	536.5	19.30	0.37	35.193	1023.0					
5 May	125.125	29.267	-167.983	540.2	19.80	0.37	35.185	1022.7					
5 May	125.167	29.306	-168.056	548.5	19.30	0.37	35.178	1022.9					
5 May	125.208	29.344	-168.127	556.6	18.80	0.38	35.170	1023.0					
5 May	125.250	29.383	-168.200	564.8	18.40	0.39	35.162	1023.2					
5 May	125.292	29.411	-168.256	571.1	18.30	0.39	35.155	1024.0					
5 May	125.333	29.439	-168.311	577.3	18.20	0.39	35.147	1024.8					
5 May	125.375	29.467	-168.367	583.5	18.20	0.39	35.140	1025.6					
5 May	125.417	29.595	-168.619	611.7	18.20	0.39	35.132	1025.5					
5 May	125.458	29.721	-168.865	639.3	18.20	0.39	35.124	1025.3					
5 May	125.500	29.850	-169.117	667.5	18.20	0.39	35.117	1025.2					
5 May	125.542	29.945	-169.313	689.1	18.20	0.39	35.109	1025.2					
5 May	125.583	30.038	-169.504	710.2	18.20	0.39	35.101	1025.2					
5 May	125.625	30.133	-169.700	731.8	18.20	0.39	35.094	1025.2					
5 May	125.667	30.542	-170.400	812.9	18.10	0.39	35.086	1025.4					P
5 May	125.708	30.941	-171.083	891.8	18.00	0.39	35.079	1025.7					P
5 May	125.750	31.350	-171.783	972.4	18.00	0.40	35.071	1025.9					P
5 May	125.792	31.468	-172.007	997.3	17.60	0.40	35.063	1026.7					
5 May	125.833	31.582	-172.226	1021.6	17.20	0.41	35.056	1027.5					
5 May	125.875	31.700	-172.450	1046.6	16.80	0.41	35.048	1028.3					
5 May	125.917	31.795	-172.624	1066.1	17.00	0.41	35.040	1028.5					
5 May	125.958	31.888	-172.793	1085.1	17.20	0.41	35.033	1028.7					
6 May	126.000	31.983	-172.967	1104.6	17.30	0.40	35.025	1028.9					
6 May	126.042	31.989	-173.303	1136.3	17.70	0.40	35.017	1028.8					
6 May	126.083	31.994	-173.631	1167.2	18.00	0.39	35.010	1028.8					
6 May	126.125	32.000	-173.967	1198.9	18.40	0.39	35.002	1028.7					
6 May	126.167	32.129	-173.905	1214.4	17.80	0.40	34.994	1029.1					

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6 May	126.208	32.255	-173.845	1229.5	17.30	0.41	34.987	1029.5					
6 May	126.250	32.383	-173.783	1244.8	16.70	0.41	34.979	1029.9					
6 May	126.292	32.484	-173.985	1266.9	16.30	0.42	34.971	1030.9					
6 May	126.333	32.583	-174.181	1288.3	15.90	0.43	34.964	1031.9					
6 May	126.375	32.683	-174.383	1310.2	15.40	0.44	34.956	1032.9					
6 May	126.417	32.835	-174.641	1339.6	15.20	0.44	34.949	1032.8					
6 May	126.458	32.982	-174.892	1368.2	15.00	0.44	34.941	1032.6					
6 May	126.500	33.133	-175.150	1397.5	14.80	0.44	34.933	1032.5					
6 May	126.542	33.273	-175.402	1425.6	14.80	0.45	34.926	1032.4					
6 May	126.583	33.410	-175.648	1453.0	14.70	0.45	34.918	1032.4					
6 May	126.625	33.550	-175.900	1481.1	14.60	0.45	34.910	1032.3					
6 May	126.667	33.668	-176.141	1507.0	15.50	0.43	34.903	1032.6					
6 May	126.708	33.782	-176.376	1532.1	16.40	0.42	34.895	1032.9					
6 May	126.750	33.900	-176.617	1557.9	17.30	0.40	34.888	1033.2					
6 May	126.792	34.034	-176.835	1583.0	17.10	0.41	34.880	1033.8					
6 May	126.833	34.166	-177.049	1607.5	16.90	0.41	34.872	1034.3					
6 May	126.875	34.300	-177.267	1632.5	16.70	0.41	34.865	1034.9					
6 May	126.917	34.451	-177.541	1662.7	16.10	0.43	34.857	1035.0					
6 May	126.958	34.599	-177.809	1692.2	15.40	0.44	34.849	1035.0					
7 May	127.000	34.750	-178.083	1722.4	14.70	0.45	34.842	1035.1					
7 May	127.042	34.806	-178.145	1730.8	14.90	0.44	34.834	1034.8					
7 May	127.083	34.861	-178.205	1739.0	15.10	0.44	34.826	1034.4					
7 May	127.125	34.917	-178.267	1747.4	15.30	0.44	34.819	1034.1					
7 May	127.167	35.051	-178.508	1773.9	15.30	0.44	34.811	1034.2					
7 May	127.208	35.182	-178.742	1799.7	15.30	0.44	34.804	1034.2					
7 May	127.250	35.317	-178.983	1826.2	15.30	0.44	34.796	1034.3					
7 May	127.292	35.451	-179.235	1853.4	15.20	0.44	34.788	1034.4					
7 May	127.333	35.582	-179.481	1880.0	15.10	0.44	34.781	1034.4					
7 May	127.375	35.717	-179.733	1907.3	14.90	0.44	34.773	1034.5					
7 May	127.417	35.834	-179.983	1933.3	14.90	0.44	34.765	1034.3					
7 May	127.458	35.949	179.767	1959.2	14.90	0.44	34.758	1034.1					
7 May	127.500	36.067	179.517	1985.2	14.80	0.44	34.750	1033.9					
7 May	127.542	36.201	179.253	2013.2	14.70	0.45	34.739	1033.5					
7 May	127.583	36.332	178.997	2040.4	14.50	0.45	34.729	1033.1					
7 May	127.625	36.467	178.733	2068.3	14.30	0.45	34.719	1032.7					
7 May	127.667	36.595	178.493	2094.0	14.30	0.45	34.708	1032.6					
7 May	127.708	36.721	178.257	2119.3	14.20	0.45	34.698	1032.5					
7 May	127.750	36.850	178.017	2145.0	14.10	0.46	34.688	1032.4					
7 May	127.792	36.951	177.804	2167.0	14.50	0.45	34.677	1032.0					
7 May	127.833	37.049	177.596	2188.5	14.80	0.45	34.667	1031.6					
7 May	127.875	37.150	177.383	2210.4	15.10	0.44	34.656	1031.2					
7 May	127.917	37.268	177.098	2238.9	14.90	0.44	34.646	1031.0	355.11	293.83	354.20	293.08	
7 May	127.958	37.382	176.819	2266.6	14.70	0.45	34.636	1030.7					
8 May	128.000	37.500	176.533	2295.0	14.40	0.45	34.625	1030.5					
8 May	128.042	37.556	176.444	2305.0	14.00	0.46	34.614	1029.8	346.41		345.42		
8 May	128.083	37.611	176.356	2314.9	13.50	0.46	34.604	1029.2	355.14	326.77	354.08	325.80	
8 May	128.125	37.667	176.267	2324.9	13.10	0.47	34.594	1028.5	354.34	329.08	353.17	328.00	
8 May	128.167	37.739	176.222	2333.8	13.00	0.47	34.583	1028.3	353.00	333.79	351.80	332.65	
8 May	128.208	37.811	176.178	2342.7	13.00	0.47	34.573	1028.2	355.61	332.11	354.37	330.95	
8 May	128.250	37.883	176.133	2351.6	12.90	0.48	34.563	1028.0	356.11	319.93	354.83	318.78	
8 May	128.292	38.007	175.876	2378.0	12.80	0.48	34.552	1027.6	355.02	320.51	353.63	319.26	
8 May	128.333	38.127	175.624	2403.8	12.80	0.48	34.542	1027.2		341.94		340.47	
8 May	128.375	38.250	175.367	2430.1	12.70	0.48	34.531	1026.8		311.48		310.05	
8 May	128.417	38.373	175.059	2460.2	12.50	0.48	34.521	1026.0	359.12	302.17	357.25	300.60	
8 May	128.458	38.493	174.758	2489.6	12.30	0.48	34.511	1025.3					
8 May	128.500	38.617	174.450	2519.7	12.10	0.49	34.500	1024.5					
8 May	128.542	38.729	174.142	2549.2	12.60	0.48	34.489	1023.5					

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8 May	128.583	38.838	173.841	2577.9	13.00	0.47	34.479	1022.6					
8 May	128.625	38.950	173.533	2607.3	13.50	0.47	34.469	1021.6					
8 May	128.667	39.062	173.332	2628.7	13.20	0.47	34.458	1021.0					
8 May	128.708	39.171	173.135	2649.6	12.80	0.48	34.448	1020.5					
8 May	128.750	39.283	172.933	2670.9	12.50	0.48	34.438	1019.9					
8 May	128.792	39.384	172.749	2690.3	12.20	0.49	34.427	1019.2					
8 May	128.833	39.483	172.568	2709.4	11.90	0.49	34.417	1018.6					
8 May	128.875	39.583	172.383	2728.7	11.60	0.50	34.406	1017.9					
8 May	128.917	39.690	172.103	2755.5	10.40	0.51	34.396	1017.1	353.18	340.87	348.87	336.70	
8 May	128.958	39.794	171.830	2781.5	9.20	0.53	34.386	1016.4	352.46		348.22		
9 May	129.000	39.900	171.550	2808.1	8.10	0.55	34.375	1015.6					
9 May	129.042	40.023	171.309	2832.8	8.10	0.55	34.364	1014.7					
9 May	129.083	40.143	171.074	2856.8	8.20	0.55	34.354	1013.9					
9 May	129.125	40.267	170.833	2881.5	8.30	0.55	34.344	1013.0					
9 May	129.167	40.367	170.570	2906.4	8.30	0.55	34.333	1012.2					
9 May	129.208	40.466	170.313	2930.8	8.30	0.55	34.323	1011.5					
9 May	129.250	40.567	170.050	2955.6	8.30	0.55	34.313	1010.7					
9 May	129.292	40.645	169.815	2977.3	8.30	0.55	34.302	1011.2					
9 May	129.333	40.722	169.585	2998.5	8.30	0.55	34.292	1011.7					
9 May	129.375	40.800	169.350	3020.1	8.40	0.55	34.281	1012.2					
9 May	129.417	40.912	169.064	3047.1	8.30	0.55	34.271	1012.7					
9 May	129.458	41.021	168.786	3073.4	8.30	0.55	34.261	1013.3					
9 May	129.500	41.133	168.500	3100.4	8.30	0.55	34.250	1013.8					
9 May	129.542	41.234	168.231	3125.6	8.20	0.55	34.218	1014.1					
9 May	129.583	41.333	167.969	3150.0	8.10	0.55	34.188	1014.3					
9 May	129.625	41.433	167.700	3175.1	8.10	0.55	34.156	1014.6					
9 May	129.667	41.534	167.465	3197.6	7.70	0.56	34.125	1015.0					
9 May	129.708	41.633	167.235	3219.7	7.40	0.56	34.094	1015.5					
9 May	129.750	41.733	167.000	3242.1	7.10	0.57	34.063	1015.9					
9 May	129.792	41.845	166.754	3266.0	6.20	0.58	34.031	1017.0					
9 May	129.833	41.955	166.513	3289.4	5.30	0.59	34.000	1018.2					
9 May	129.875	42.067	166.267	3313.2	4.40	0.61	33.969	1019.3					
9 May	129.917	42.184	165.964	3341.4	4.70	0.61	33.937	1019.3					
9 May	129.958	42.299	165.669	3368.8	4.90	0.60	33.907	1019.3					
10 May	130.000	42.417	165.367	3396.8	5.10	0.60	33.875	1019.3					
10 May	130.042	42.562	165.031	3428.7	5.30	0.60	33.843	1019.5					
10 May	130.083	42.704	164.703	3459.9	5.40	0.59	33.813	1019.7					
10 May	130.125	42.850	164.367	3491.7	5.60	0.59	33.781	1019.9					
10 May	130.167	42.973	164.132	3515.2	5.50	0.59	33.750	1019.8					
10 May	130.208	43.093	163.902	3538.2	5.40	0.59	33.719	1019.6					
10 May	130.250	43.217	163.667	3561.7	5.40	0.59	33.688	1019.5					
10 May	130.292	43.390	163.342	3594.2	5.40	0.59	33.656	1019.5					
10 May	130.333	43.560	163.025	3626.0	5.40	0.59	33.625	1019.5					
10 May	130.375	43.733	162.700	3658.5	5.40	0.59	33.594	1019.5					
10 May	130.417	43.913	162.392	3690.2	4.80	0.60	33.562	1019.5					
10 May	130.458	44.087	162.091	3721.1	4.20	0.61	33.532	1019.6					
10 May	130.500	44.267	161.783	3752.8	3.60	0.62	33.500	1019.6					
10 May	130.542	44.435	161.475	3783.5	3.50	0.62	33.481	1019.3					
10 May	130.583	44.599	161.175	3813.5	3.40	0.63	33.463	1019.1					
10 May	130.625	44.767	160.867	3844.2	3.20	0.63	33.444	1018.8					
10 May	130.667	44.929	160.559	3874.4	3.10	0.63	33.426	1018.7					
10 May	130.708	45.088	160.258	3903.9	3.00	0.63	33.408	1018.6					
10 May	130.750	45.250	159.950	3934.0	2.80	0.63	33.389	1018.5					
10 May	130.792	45.401	159.664	3961.9	2.70	0.64	33.370	1018.5					
10 May	130.833	45.549	159.386	3989.1	2.60	0.64	33.352	1018.5					
10 May	130.875	45.700	159.100	4017.0	2.40	0.64	33.333	1018.5					
10 May	130.917	45.868	158.809	4046.3	2.40	0.64	33.315	1018.3					

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10 May	130.958	46.032	158.525	4074.8	2.40	0.64	33.297	1018.1					
11 May	131.000	46.200	158.233	4104.0	2.40	0.64	33.278	1017.9					
11 May	131.042	46.418	157.931	4137.5	2.40	0.64	33.259	1017.7					
11 May	131.083	46.632	157.636	4170.3	2.40	0.64	33.241	1017.4					
11 May	131.125	46.850	157.333	4203.8	2.40	0.64	33.222	1017.2					
11 May	131.167	47.024	157.087	4230.6	2.20	0.64	33.204	1017.6					
11 May	131.208	47.193	156.846	4256.8	2.00	0.65	33.186	1018.0					
11 May	131.250	47.367	156.600	4283.6	1.80	0.65	33.167	1018.4					
11 May	131.292	47.400	156.566	4288.1	1.90	0.65	33.148	1019.4					
11 May	131.333	47.433	156.534	4292.5	2.00	0.65	33.130	1020.5					
11 May	131.375	47.467	156.500	4297.0	2.00	0.65	33.137	1021.5					
11 May	131.417	47.511	156.455	4303.0	2.00	0.65	33.145	1022.0		341.69		340.83	
11 May	131.458	47.555	156.411	4308.9	2.00	0.65	33.152	1022.6		312.46		311.85	
11 May	131.500	47.600	156.367	4314.9	1.90	0.65	33.160	1023.1		409.67		409.09	
11 May	131.542	47.678	156.277	4325.8	2.00	0.65	33.167	1023.5					
11 May	131.583	47.755	156.190	4336.6	2.00	0.65	33.175	1024.0					
11 May	131.625	47.833	156.100	4347.6	2.00	0.65	33.182	1024.4					
11 May	131.667	47.833	156.100	4347.6	2.00	0.65	33.147	1024.2		378.77		378.63	
11 May	131.708	47.833	156.100	4347.6	2.00	0.65	33.113	1024.1		379.65		379.47	
11 May	131.750	47.833	156.100	4347.6	2.00	0.65	33.078	1023.9	354.93	376.08	354.69	375.83	
11 May	131.792	47.884	156.055	4354.1	2.00	0.65	33.043	1023.8	354.98	389.51	354.71	389.22	
11 May	131.833	47.933	156.011	4360.5	2.00	0.65	33.009	1023.6	354.17	242.08	353.83	241.84	
11 May	131.875	47.983	155.967	4366.9	2.00	0.65	32.974	1023.5	354.05		353.68		
11 May	131.917	47.983	155.955	4367.8	2.00	0.65	32.944	1023.6	355.36		355.02		
11 May	131.958	47.983	155.945	4368.6	2.00	0.65	32.915	1023.8	355.98	214.93	355.71	214.77	
12 May	132.000	47.983	155.933	4369.5	2.00	0.65	32.885	1023.9					
12 May	132.042	48.079	155.861	4381.4	2.00	0.65	32.855	1023.0					
12 May	132.083	48.171	155.789	4392.9	2.00	0.65	32.826	1022.2					
12 May	132.125	48.267	155.717	4404.9	2.00	0.65	32.840	1021.3					
12 May	132.167	48.334	155.650	4413.8	2.10	0.65	32.854	1021.2					
12 May	132.208	48.399	155.584	4422.5	2.10	0.65	32.868	1021.2					
12 May	132.250	48.467	155.517	4431.5	2.10	0.65	32.882	1021.1					
12 May	132.292	48.489	155.517	4434.0	2.10	0.65	32.896	1020.6					
12 May	132.333	48.511	155.517	4436.4	2.10	0.65	32.900	1020.1					
12 May	132.375	48.533	155.517	4438.9	2.00	0.65	32.904	1019.6					
12 May	132.417	48.584	155.466	4445.7	2.00	0.65	32.908	1019.4					
12 May	132.458	48.633	155.417	4452.2	1.90	0.65	32.912	1019.1					
12 May	132.500	48.683	155.367	4458.9	1.80	0.65	32.916	1018.9					
12 May	132.542	48.728	155.316	4465.1	1.60	0.65	32.908	1018.7					
12 May	132.583	48.772	155.267	4471.2	1.40	0.66	32.900	1018.5					
12 May	132.625	48.817	155.217	4477.4	1.20	0.66	32.892	1018.3					
12 May	132.667	48.817	155.217	4477.4	1.20	0.66	32.892	1018.0					
12 May	132.708	48.817	155.217	4477.4	1.20	0.66	32.892	1017.6					
12 May	132.750	48.817	155.217	4477.4	1.20	0.66	32.892	1017.3					
12 May	132.792	48.878	155.144	4486.0	1.20	0.66	32.891	1016.9					
12 May	132.833	48.938	155.073	4494.4	1.20	0.66	32.891	1016.6					
12 May	132.875	49.000	155.000	4503.2	1.20	0.66	32.891	1016.2					

SAGA II 1987, Leg 1

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 May	132.917	48.950	155.073	0.0	1.20	0.66	32.891	1016.0					
12 May	132.958	48.900	155.144	4.1	1.20	0.66	32.885	1015.7					
13 May	133.000	48.850	155.217	8.3	1.20	0.66	32.879	1015.5					
13 May	133.042	48.777	155.306	13.9	1.40	0.66	32.873	1015.1					
13 May	133.083	48.706	155.394	19.4	1.60	0.65	32.921	1014.7					
13 May	133.125	48.633	155.483	25.0	1.80	0.65	32.971	1014.3					
13 May	133.167	48.605	155.478	26.7	1.90	0.65	33.020	1014.3					
13 May	133.208	48.578	155.472	28.3	2.00	0.65	33.021	1014.2					
13 May	133.250	48.550	155.467	30.0	2.00	0.65	33.022	1014.2					
13 May	133.292	48.533	155.523	32.5	2.00	0.65	33.023	1013.8					
13 May	133.333	48.517	155.577	34.8	2.00	0.65	33.018	1013.5					
13 May	133.375	48.500	155.633	37.3	2.00	0.65	33.012	1013.1					
13 May	133.417	48.382	155.706	44.9	2.10	0.65	33.007	1013.1					
13 May	133.458	48.268	155.777	52.3	2.10	0.65	33.002	1013.2					
13 May	133.500	48.150	155.850	60.0	2.10	0.65	32.997	1013.2					
13 May	133.542	48.156	155.872	60.9	2.20	0.64	32.991	1012.5					
13 May	133.583	48.161	155.894	61.9	2.20	0.64	32.986	1011.7					
13 May	133.625	48.167	155.917	62.9	2.20	0.64	33.000	1011.0					
13 May	133.667	48.167	155.917	62.9	2.20	0.64	33.014	1010.7					
13 May	133.708	48.167	155.917	62.9	2.20	0.64	33.028	1010.3					
13 May	133.750	48.167	155.917	62.9	2.10	0.65	33.042	1010.0					
13 May	133.792	48.066	156.118	72.9	2.10	0.65	33.057	1010.1					
13 May	133.833	47.967	156.315	82.8	2.10	0.65	33.070	1010.1					
13 May	133.875	47.867	156.517	92.9	2.00	0.65	33.085	1010.2					
13 May	133.917	47.799	156.489	97.2	2.10	0.65	33.099	1009.9					
13 May	133.958	47.734	156.461	101.2	2.10	0.65	33.113	1009.7					
14 May	134.000	47.667	156.433	105.4	2.10	0.65	33.127	1009.4					
14 May	134.042	47.661	156.389	107.2	2.10	0.65	33.141	1008.2					
14 May	134.083	47.656	156.345	109.0	2.10	0.65	33.155	1007.1					
14 May	134.125	47.650	156.300	110.9	2.10	0.65	33.169	1005.9					
14 May	134.167	47.672	156.322	112.5	2.20	0.64	33.143	1006.1					
14 May	134.208	47.694	156.344	114.0	2.20	0.64	33.118	1006.4	353.45		347.13		
14 May	134.250	47.717	156.367	115.7	2.20	0.64	33.092	1006.6					
14 May	134.292	47.661	156.395	119.3	2.20	0.64	33.067	1008.4	354.83	358.91	349.18	353.20	
14 May	134.333	47.606	156.422	122.7	2.20	0.64	33.041	1010.2					
14 May	134.375	47.550	156.450	126.3	2.20	0.64	33.016	1012.0					
14 May	134.417	47.449	156.551	133.6	2.20	0.64	32.990	1009.7					
14 May	134.458	47.351	156.649	140.7	2.20	0.64	32.965	1007.4					
14 May	134.500	47.250	156.750	148.0	2.10	0.65	32.939	1005.1					
14 May	134.542	47.233	156.784	149.7	2.10	0.65	32.944	1009.0					
14 May	134.583	47.217	156.816	151.3	2.10	0.65	32.949	1012.9					
14 May	134.625	47.200	156.850	153.1	2.10	0.65	32.954	1016.8					
14 May	134.667	47.200	156.850	153.1	2.00	0.65	32.959	1017.2					
14 May	134.708	47.200	156.850	153.1	1.90	0.65	32.964	1017.6					
14 May	134.750	47.200	156.850	153.1	1.80	0.65	32.969	1018.0					
14 May	134.792	47.172	156.872	155.0	1.80	0.65	32.974	1019.1					
14 May	134.833	47.145	156.894	156.8	1.80	0.65	32.979	1020.1					
14 May	134.875	47.117	156.917	158.8	1.80	0.65	32.984	1021.2					
14 May	134.917	47.100	156.889	160.3	1.80	0.65	32.989	1021.7					
14 May	134.958	47.083	156.861	161.8	1.80	0.65	32.994	1022.3					
15 May	135.000	47.067	156.833	163.3	1.80	0.65	32.999	1022.8					
15 May	135.042	47.061	156.884	165.4	1.90	0.65	33.000	1023.1					
15 May	135.083	47.056	156.933	167.5	2.00	0.65	33.001	1023.4					
15 May	135.125	47.050	156.983	169.5	2.00	0.65	33.002	1023.7					
15 May	135.167	46.977	157.023	174.2	2.20	0.64	33.003	1023.7					
15 May	135.208	46.906	157.061	178.7	2.30	0.64	33.004	1023.7					
15 May	135.250	46.833	157.100	183.4	2.40	0.64	33.005	1023.7					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
15 May	135.292	46.833	157.100	183.4	2.40	0.64	33.006	1024.0					
15 May	135.333	46.833	157.100	183.4	2.40	0.64	33.008	1024.2					
15 May	135.375	46.833	157.100	183.4	2.30	0.64	33.009	1024.5					
15 May	135.417	46.828	157.100	183.7	2.30	0.64	33.011	1024.7					
15 May	135.458	46.822	157.100	184.1	2.30	0.64	33.013	1025.0					
15 May	135.500	46.817	157.100	184.4	2.20	0.64	33.014	1025.2					
15 May	135.542	46.811	157.106	184.8	2.20	0.64	33.016	1024.8					
15 May	135.583	46.806	157.111	185.2	2.20	0.64	33.017	1024.3					
15 May	135.625	46.800	157.117	185.6	2.20	0.64	33.019	1023.9					
15 May	135.667	46.800	157.117	185.6	2.20	0.64	33.021	1023.6					
15 May	135.708	46.800	157.117	185.6	2.20	0.64	33.022	1023.4					
15 May	135.750	46.800	157.117	185.6	2.20	0.64	33.024	1023.1					
15 May	135.792	46.744	157.189	190.1	2.30	0.64	33.026	1022.8					
15 May	135.833	46.689	157.261	194.5	2.30	0.64	33.027	1022.4					
15 May	135.875	46.633	157.333	199.0	2.30	0.64	33.029	1022.1					
15 May	135.917	46.633	157.356	199.9	2.40	0.64	33.044	1018.9					
15 May	135.958	46.633	157.378	200.8	2.40	0.64	33.059	1015.8					
16 May	136.000	46.633	157.400	201.7	2.40	0.64	33.073	1012.6					
16 May	136.042	46.555	157.557	209.7	2.60	0.64	33.088	1015.1					
16 May	136.083	46.478	157.710	217.6	2.70	0.64	33.103	1017.6					
16 May	136.125	46.400	157.867	225.6	2.80	0.63	33.118	1020.1					
16 May	136.167	46.406	157.760	230.0	2.80	0.63	33.118	1019.8					
16 May	136.208	46.411	157.656	234.3	2.80	0.63	33.118	1019.4					
16 May	136.250	46.417	157.550	238.7	2.80	0.63	33.119	1019.1					
16 May	136.292	46.377	157.589	241.6	2.70	0.64	33.119	1018.8					
16 May	136.333	46.339	157.627	244.4	2.60	0.64	33.119	1018.6					
16 May	136.375	46.300	157.667	247.3	2.40	0.64	33.119	1018.3					
16 May	136.417	46.272	157.700	249.4	2.40	0.64	33.120	1018.2					
16 May	136.458	46.245	157.733	251.5	2.40	0.64	33.120	1018.1					
16 May	136.500	46.217	157.767	253.7	2.30	0.64	33.129	1018.0					
16 May	136.542	46.239	157.778	255.1	2.50	0.64	33.138	1017.9					
16 May	136.583	46.261	157.789	256.5	2.70	0.64	33.147	1017.7					
16 May	136.625	46.283	157.800	257.9	2.80	0.63	33.156	1017.6					
16 May	136.667	46.255	157.811	259.7	2.70	0.64	33.166	1017.6					
16 May	136.708	46.228	157.822	261.3	2.60	0.64	33.174	1017.6					
16 May	136.750	46.200	157.833	263.1	2.40	0.64	33.184	1017.6					
16 May	136.792	46.133	157.856	267.2	2.50	0.64	33.193	1017.8					
16 May	136.833	46.067	157.878	271.3	2.60	0.64	33.202	1018.1					
16 May	136.875	46.000	157.900	275.4	2.60	0.64	33.211	1018.3					
16 May	136.917	46.006	157.894	275.8	2.70	0.64	33.220	1018.5					
16 May	136.958	46.011	157.889	276.2	2.80	0.64	33.229	1018.7					
17 May	137.000	46.017	157.883	276.6	2.80	0.63	33.229	1018.9					
17 May	137.042	45.938	157.962	282.4	2.80	0.63	33.229	1019.1					
17 May	137.083	45.862	158.038	288.0	2.80	0.63	33.228	1019.3					
17 May	137.125	45.783	158.117	293.8	2.80	0.63	33.228	1019.5					
17 May	137.167	45.772	158.122	294.4	2.90	0.63	33.228	1019.5					
17 May	137.208	45.761	158.128	295.2	3.00	0.63	33.228	1019.5					
17 May	137.250	45.750	158.133	295.8	3.00	0.63	33.227	1019.5					
17 May	137.292	45.716	158.173	298.5	3.00	0.63	33.227	1019.9					
17 May	137.333	45.684	158.211	301.0	2.90	0.63	33.226	1020.3					
17 May	137.375	45.650	158.250	303.6	2.80	0.63	33.226	1020.7					
17 May	137.417	45.594	158.295	307.4	2.90	0.63	33.225	1021.1					
17 May	137.458	45.539	158.339	311.2	3.00	0.63	33.225	1021.6					
17 May	137.500	45.483	158.383	315.1	3.00	0.63	33.225	1022.0					
17 May	137.542	45.489	158.361	316.1	3.00	0.63	33.224	1022.3		392.87		391.82	
17 May	137.583	45.494	158.339	317.0	2.90	0.63	33.224	1022.5					
17 May	137.625	45.500	158.317	318.0	2.80	0.63	33.223	1022.8					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 May	137.667	45.500	158.317	318.0	2.90	0.63	33.223	1022.5					
17 May	137.708	45.500	158.317	318.0	2.90	0.63	33.222	1022.2					
17 May	137.750	45.500	158.317	318.0	2.90	0.63	33.222	1021.9		413.23		411.98	
17 May	137.792	45.528	158.300	319.8	3.00	0.63	33.221	1022.8		406.16		405.28	
17 May	137.833	45.555	158.283	321.6	3.00	0.63	33.221	1023.6		405.29		404.72	
17 May	137.875	45.583	158.267	323.4	3.00	0.63	33.220	1024.5		407.22		407.01	
17 May	137.917	45.589	158.379	328.1	3.00	0.63	33.220	1024.0					
17 May	137.958	45.594	158.488	332.7	3.00	0.63	33.219	1023.4					
18 May	138.000	45.600	158.600	337.4	3.00	0.63	33.219	1022.9					
18 May	138.042	45.606	158.510	341.2	3.00	0.63	33.219	1022.6					
18 May	138.083	45.611	158.423	344.9	3.00	0.63	33.218	1022.2					
18 May	138.125	45.617	158.333	348.7	3.00	0.63	33.218	1021.9					
18 May	138.167	45.695	158.333	353.4	3.00	0.63	33.217	1021.5					
18 May	138.208	45.772	158.333	358.0	3.00	0.63	33.217	1021.1	354.42	396.26	353.06	394.73	
18 May	138.250	45.850	158.333	362.7	3.00	0.63	33.216	1020.7		399.14		397.45	
18 May	138.292	45.744	158.333	369.0	3.10	0.63	33.216	1020.1	354.71		352.98		
18 May	138.333	45.640	158.333	375.3	3.10	0.63	33.215	1019.4		393.08		390.90	
18 May	138.375	45.533	158.333	381.7	3.10	0.63	33.215	1018.8					
18 May	138.417	45.433	158.434	389.1	3.10	0.63	33.214	1018.0					
18 May	138.458	45.334	158.533	396.3	3.10	0.63	33.214	1017.2					
18 May	138.500	45.233	158.633	403.7	3.10	0.63	33.213	1016.4					
18 May	138.542	45.250	158.633	404.7	3.10	0.63	33.213	1015.3					
18 May	138.583	45.267	158.633	405.7	3.10	0.63	33.248	1014.3					
18 May	138.625	45.283	158.633	406.7	3.10	0.63	33.285	1013.2					
18 May	138.667	45.283	158.633	406.7	3.10	0.63	33.321	1012.1	353.42	388.60	348.93	383.67	
18 May	138.708	45.283	158.633	406.7	3.10	0.63	33.356	1011.1	353.95	391.94	349.11	386.58	
18 May	138.750	45.283	158.633	406.7	3.00	0.63	33.393	1010.0	352.35	394.08	347.17	388.29	
18 May	138.792	45.328	158.673	409.9	2.90	0.63	33.429	1009.0	353.71	393.94	348.18	387.78	
18 May	138.833	45.372	158.711	413.0	2.80	0.63	33.464	1008.1	352.73	395.88	346.92	389.36	
18 May	138.875	45.417	158.750	416.1	2.70	0.64	33.501	1007.1	353.20	392.31	347.05	385.48	
18 May	138.917	45.226	158.806	427.8	3.10	0.63	33.537	1008.4	352.44	391.69	346.69	385.30	
18 May	138.958	45.040	158.861	439.2	3.50	0.62	33.572	1009.7	352.88	391.68	347.50	385.71	
19 May	139.000	44.850	158.917	450.9	3.80	0.62	33.608	1011.0	353.68	371.59	348.69	366.35	
19 May	139.042	44.559	159.001	468.7	4.20	0.61	33.645	1012.4	351.56	364.78	347.01	360.06	
19 May	139.083	44.275	159.083	486.1	4.50	0.61	33.680	1013.9	352.85	363.25	348.75	359.03	
19 May	139.125	43.983	159.167	504.0	4.80	0.60	33.716	1015.3					
19 May	139.167	43.356	159.251	541.8	5.70	0.59	33.753	1016.1	353.51	331.50	349.94	328.15	P
19 May	139.208	42.744	159.333	578.7	6.60	0.57	33.788	1016.8	353.31	324.99	349.80	321.75	P
19 May	139.250	42.117	159.417	616.5	7.50	0.56	33.824	1017.6					P
19 May	139.292	42.217	159.473	623.0	7.10	0.57	33.861	1018.7					
19 May	139.333	42.316	159.527	629.4	6.70	0.57	33.896	1019.7					
19 May	139.375	42.417	159.583	635.9	6.40	0.58	33.932	1020.8					
19 May	139.417	42.120	159.628	653.9	6.50	0.58	33.968	1021.3	354.19		352.25		
19 May	139.458	41.830	159.672	671.4	6.70	0.57	34.004	1021.8	354.04	324.59	352.23	322.93	
19 May	139.500	41.533	159.717	689.3	6.90	0.57	34.040	1022.3					
19 May	139.542	41.270	159.745	705.1	7.70	0.56	34.076	1022.3					
19 May	139.583	41.013	159.772	720.6	8.50	0.54	34.112	1022.3	354.11	328.58	352.07	326.69	
19 May	139.625	40.750	159.800	736.4	9.40	0.53	34.148	1022.3	353.89	317.79	351.63	315.76	
19 May	139.667	40.576	159.839	747.0	10.20	0.52	34.184	1022.2	353.78	311.49	351.28	309.29	
19 May	139.708	40.407	159.877	757.3	10.90	0.51	34.220	1022.0	354.76	280.64	351.99	278.45	
19 May	139.750	40.233	159.917	767.9	11.70	0.49	34.256	1021.9	354.06	279.73	351.03	277.34	
19 May	139.792	40.093	159.945	776.4	12.10	0.49	34.276	1021.9	354.81	280.95	351.66	278.45	
19 May	139.833	39.957	159.972	784.7	12.40	0.48	34.296	1022.0	354.97	281.34	351.76	278.80	
19 May	139.875	39.817	160.000	793.2	12.80	0.48	34.317	1022.0	354.02	277.17	350.69	274.57	
19 May	139.917	39.542	160.000	809.7	12.90	0.47	34.337	1022.2	354.61	272.92	351.32	270.38	
19 May	139.958	39.274	160.000	825.7	13.10	0.47	34.357	1022.3	355.05	285.44	351.72	282.76	
20 May	140.000	39.000	160.000	842.2	13.20	0.47	34.378	1022.5	353.98	279.58	350.70	276.99	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
20 May	140.042	38.703	160.000	860.0	13.40	0.47	34.398	1022.1		273.07		270.39	
20 May	140.083	38.413	160.000	877.4	13.70	0.46	34.418	1021.7	353.67	306.96	349.95	303.74	
20 May	140.125	38.117	160.000	895.2	13.90	0.46	34.438	1021.3	353.59	319.71	349.67	316.17	
20 May	140.167	37.865	160.000	910.3	14.40	0.45	34.459	1021.0	352.33	303.57	348.15	299.97	
20 May	140.208	37.619	160.000	925.0	14.90	0.44	34.479	1020.6		277.76		274.22	
20 May	140.250	37.367	160.000	940.2	15.30	0.44	34.499	1020.3	351.79	286.37	347.06	282.52	
20 May	140.292	37.221	160.006	948.9	15.30	0.44	34.499	1020.2	352.13	281.34	347.36	277.52	
20 May	140.333	37.079	160.011	957.5	15.30	0.44	34.499	1020.1	351.67	300.84	346.87	296.73	
20 May	140.375	36.933	160.017	966.2	15.30	0.44	34.499	1020.0	352.49	297.78	347.65	293.68	
20 May	140.417	36.653	160.022	983.0	15.40	0.44	34.499	1019.6	351.46	280.56	346.46	276.56	
20 May	140.458	36.380	160.028	999.4	15.50	0.43	34.499	1019.3	351.21	294.59	346.07	290.27	
20 May	140.500	36.100	160.033	1016.2	15.60	0.43	34.499	1018.9	351.41	289.94	346.09	285.55	
20 May	140.542	35.926	160.022	1026.7	16.40	0.42	34.500	1018.4	351.62	278.55	345.82	273.96	
20 May	140.583	35.757	160.011	1036.8	17.20	0.41	34.500	1018.0	351.81	276.66	345.55	271.74	
20 May	140.625	35.583	160.000	1047.3	18.00	0.40	34.500	1017.5	352.02	287.22	345.26	281.70	
20 May	140.667	35.365	160.000	1060.3	17.70	0.40	34.500	1017.2	351.96	286.72	345.22	281.23	
20 May	140.708	35.152	160.000	1073.1	17.50	0.40	34.500	1017.0	351.56	273.25	344.84	268.03	
20 May	140.750	34.933	160.000	1086.3	17.30	0.40	34.500	1016.7	351.72	276.49	344.98	271.19	
20 May	140.792	34.833	160.034	1092.5	17.20	0.41	34.500	1016.7	351.80	274.59	345.10	269.36	
20 May	140.833	34.734	160.066	1098.6	17.10	0.41	34.526	1016.7	351.39	272.78	344.74	267.61	
20 May	140.875	34.633	160.100	1104.9	16.90	0.41	34.553	1016.7	352.31	287.39	345.72	282.01	
20 May	140.917	34.353	160.100	1121.7	17.70	0.40	34.579	1016.7	351.67	307.64	344.76	301.60	
20 May	140.958	34.080	160.100	1138.1	18.60	0.39	34.605	1016.7	351.68	302.23	344.39	295.96	
21 May	141.000	33.800	160.100	1154.9	19.40	0.37	34.632	1016.7	350.58	303.70	342.95	297.09	
21 May	141.042	33.610	160.122	1166.4	19.30	0.37	34.659	1016.4	351.61	311.19	343.90	304.37	
21 May	141.083	33.424	160.144	1177.6	19.20	0.38	34.685	1016.1	350.43	314.15	342.69	307.21	
21 May	141.125	33.233	160.167	1189.1	19.20	0.38	34.712	1015.8					
21 May	141.167	32.942	160.111	1206.8	19.50	0.37	34.738	1015.5	351.46		343.35		
21 May	141.208	32.658	160.056	1224.0	19.80	0.37	34.764	1015.1	351.57	318.08	343.18	310.49	
21 May	141.250	32.367	160.000	1241.7	20.20	0.36	34.791	1014.8	351.60	316.73	342.92	308.91	
21 May	141.292	32.255	160.006	1248.5	20.20	0.36	34.817	1014.9	351.39	308.10	342.75	300.52	
21 May	141.333	32.145	160.011	1255.1	20.20	0.36	34.843	1015.0	351.49	325.80	342.88	317.82	
21 May	141.375	32.033	160.017	1261.8	20.20	0.36	34.869	1015.1		327.20		319.22	
21 May	141.417	31.765	160.017	1277.9	20.20	0.36	34.896	1015.3		335.55		327.43	
21 May	141.458	31.502	160.017	1293.7	20.20	0.36	34.921	1015.4	351.03		342.57		
21 May	141.500	31.233	160.017	1309.8	20.20	0.36	34.948	1015.6	349.66	319.59	341.30	311.95	
21 May	141.542	31.060	160.022	1320.2	20.50	0.36	34.974	1015.3	349.03	320.17	340.44	312.29	
21 May	141.583	30.890	160.028	1330.4	20.80	0.35	35.000	1014.9	351.57	323.48	342.63	315.26	
21 May	141.625	30.717	160.033	1340.8	21.20	0.34	35.026	1014.6	351.82	318.22	342.57	309.86	
21 May	141.667	30.431	160.022	1357.9	21.20	0.34	35.053	1014.6	351.87	317.67	342.62	309.32	
21 May	141.708	30.152	160.011	1374.7	21.20	0.34	35.078	1014.7	352.24	318.82	343.01	310.47	
21 May	141.750	29.867	160.000	1391.8	21.20	0.34	35.105	1014.7	350.80	316.25	341.61	307.96	
21 May	141.792	29.771	160.000	1397.6	21.10	0.35	35.131	1015.0	350.88	316.95	341.84	308.78	
21 May	141.833	29.679	160.000	1403.1	21.00	0.35	35.135	1015.2	351.52	313.86	342.58	305.88	
21 May	141.875	29.583	160.000	1408.8	21.00	0.35	35.139	1015.5	351.30	314.37	342.47	306.47	
21 May	141.917	29.298	160.000	1425.9	21.20	0.34	35.144	1015.7	351.70	316.30	342.83	308.33	
21 May	141.958	29.019	160.000	1442.7	21.50	0.34	35.148	1016.0	351.68	318.62	342.76	310.54	
22 May	142.000	28.733	160.000	1459.8	21.80	0.33	35.152	1016.2		316.21		308.12	
22 May	142.042	28.537	159.983	1471.6	21.80	0.33	35.156	1015.7	351.64	317.55	342.46	309.26	
22 May	142.083	28.346	159.967	1483.1	21.80	0.33	35.160	1015.2					
22 May	142.125	28.150	159.950	1494.9	21.80	0.33	35.164	1014.7					
22 May	142.167	27.853	159.967	1512.8	21.80	0.33	35.169	1015.0					
22 May	142.208	27.563	159.983	1530.2	21.90	0.33	35.173	1015.2					
22 May	142.250	27.267	160.000	1548.0	22.00	0.33	35.177	1015.5					
22 May	142.292	27.143	160.000	1555.4	22.00	0.33	35.190	1015.8		323.24		314.74	
22 May	142.333	27.023	160.000	1562.6	22.00	0.33	35.202	1016.2	351.71	319.39	342.60	311.12	
22 May	142.375	26.900	160.000	1570.0	22.00	0.33	35.215	1016.5	350.76	321.56	341.77	313.32	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
22 May	142.417	26.620	160.006	1586.8	21.80	0.33	35.227	1016.5	350.86	319.38	341.98	311.30	
22 May	142.458	26.347	160.011	1603.2	21.70	0.34	35.240	1016.5	351.59	316.26	342.74	308.30	
22 May	142.500	26.067	160.017	1620.0	21.60	0.34	35.252	1016.5	351.52	317.92	342.73	309.96	
22 May	142.542	25.882	160.011	1631.1	22.20	0.33	35.265	1016.4	351.76	317.54	342.61	309.28	
22 May	142.583	25.701	160.006	1641.9	22.80	0.32	35.278	1016.3	351.59	326.73	342.08	317.89	
22 May	142.625	25.517	160.000	1653.0	23.40	0.31	35.290	1016.2	351.61	328.87	341.72	319.62	
22 May	142.667	25.237	159.989	1669.8	23.50	0.31	35.303	1016.1	351.48	330.56	341.51	321.18	
22 May	142.708	24.963	159.978	1686.2	23.70	0.31	35.315	1016.1	351.53	329.40	341.44	319.94	
22 May	142.750	24.683	159.967	1703.1	23.80	0.30	35.328	1016.0	351.57	332.03	341.38	322.41	
22 May	142.792	24.571	159.978	1709.8	23.90	0.30	35.322	1016.4	351.84	331.13	341.73	321.61	
22 May	142.833	24.462	159.989	1716.4	24.10	0.30	35.316	1016.7	351.27	335.94	341.16	326.27	
22 May	142.875	24.350	160.000	1723.1	24.20	0.30	35.310	1017.1	351.48	332.65	341.44	323.14	
22 May	142.917	24.076	160.006	1739.6	24.60	0.29	35.304	1017.3	351.25	333.19	341.04	323.50	
22 May	142.958	23.808	160.011	1755.6	25.10	0.28	35.298	1017.4	351.28	329.86	340.79	320.01	
23 May	143.000	23.533	160.017	1772.1	25.50	0.28	35.292	1017.6	351.35	333.86	340.68	323.72	
23 May	143.042	23.337	160.000	1783.9	25.60	0.27	35.287	1017.4	351.88	339.39	341.06	328.95	
23 May	143.083	23.146	159.984	1795.4	25.80	0.27	35.281	1017.1	351.88	337.64	340.82	327.03	
23 May	143.125	22.950	159.967	1807.2	25.90	0.27	35.275	1016.9	352.01	339.72	340.81	328.91	
23 May	143.167	22.653	159.967	1825.0	25.70	0.27	35.269	1016.6	351.73	336.74	340.57	326.05	
23 May	143.208	22.363	159.967	1842.4	25.60	0.27	35.263	1016.3	351.91	347.37	340.71	336.31	
23 May	143.250	22.067	159.967	1860.2	25.40	0.28	35.257	1016.0	351.64	340.19	340.47	329.38	
23 May	143.292	21.955	159.978	1867.0	25.70	0.27	35.192	1016.2	351.31	341.30	340.02	330.34	
23 May	143.333	21.845	159.989	1873.6	26.10	0.27	35.129	1016.3	351.53	336.72	340.01	325.69	
23 May	143.375	21.733	160.000	1880.3	26.40	0.26	35.063	1016.5	351.32	337.82	339.67	326.62	
23 May	143.417	21.476	160.006	1895.8	26.40	0.26	34.998	1016.5	351.49	342.32	339.84	330.97	
23 May	143.458	21.224	160.011	1910.9	26.40	0.26	34.935	1016.6	351.46	339.09	339.84	327.88	
23 May	143.500	20.967	160.017	1926.3	26.30	0.26	34.870	1016.6	351.54	343.04	339.99	331.76	
23 May	143.542	20.787	160.017	1937.1	26.30	0.26	34.805	1016.2	351.50	338.74	339.81	327.48	
23 May	143.583	20.613	160.017	1947.5	26.30	0.26	34.742	1015.8	351.17	340.11	339.35	328.66	
23 May	143.625	20.433	160.017	1958.3	26.30	0.26	34.677	1015.4	351.57	337.59	339.60	326.10	
23 May	143.667	20.142	160.011	1975.8	26.50	0.26	34.611	1015.3	351.24	341.15	339.11	329.37	
23 May	143.708	19.858	160.006	1992.8	26.70	0.26	34.548	1015.2	350.14	342.39	337.88	330.40	
23 May	143.750	19.567	160.000	2010.3	26.80	0.26	34.483	1015.1	350.80	341.31	338.41	329.26	
23 May	143.792	19.449	160.000	2017.4	26.80	0.26	34.515	1015.7	351.05	338.07	338.86	326.33	
23 May	143.833	19.334	160.000	2024.3	26.80	0.26	34.545	1016.2	351.38	341.57	339.35	329.88	
23 May	143.875	19.217	160.000	2031.3	26.80	0.26	34.577	1016.8	351.08	341.82	339.27	330.32	
23 May	143.917	18.965	160.006	2046.4	26.90	0.25	34.608	1016.8	350.46	341.93	338.60	330.36	
23 May	143.958	18.719	160.011	2061.2	27.00	0.25	34.639	1016.8	350.91	341.54	338.97	329.92	
24 May	144.000	18.467	160.017	2076.3	27.00	0.25	34.671	1016.8	351.27	346.44	339.31	334.65	
24 May	144.042	18.265	160.017	2088.4	26.90	0.25	34.702	1016.3	351.23	344.94	339.17	333.10	
24 May	144.083	18.068	160.017	2100.3	26.80	0.26	34.733	1015.9	350.99	343.63	338.87	331.77	
24 May	144.125	17.867	160.017	2112.3	26.70	0.26	34.764	1015.4	350.98	346.03	338.76	333.98	
24 May	144.167	17.575	160.005	2129.9	26.70	0.26	34.796	1015.2	351.26	346.10	338.96	333.98	
24 May	144.208	17.291	159.995	2146.9	26.70	0.26	34.826	1014.9	351.21	346.70	338.81	334.45	
24 May	144.250	17.000	159.983	2164.4	26.70	0.26	34.858	1014.7	351.47	349.61	338.99	337.20	
24 May	144.292	16.882	159.989	2171.5	26.70	0.26	34.840	1014.7	350.41	347.40	337.97	335.06	
24 May	144.333	16.768	159.994	2178.3	26.60	0.26	34.821	1014.7		348.98		336.65	
24 May	144.375	16.650	160.000	2185.4	26.50	0.26	34.803	1014.7	350.84	347.66	338.52	335.45	
24 May	144.417	16.404	160.006	2200.2	26.50	0.26	34.785	1015.1	351.30	344.47	339.10	332.51	
24 May	144.458	16.163	160.011	2214.6	26.40	0.26	34.766	1015.4	350.50	347.06	338.50	335.18	
24 May	144.500	15.917	160.017	2229.4	26.30	0.26	34.748	1015.8	351.06	350.57	339.25	338.78	
24 May	144.542	15.737	160.011	2240.2	26.30	0.26	34.730	1015.3	351.83	347.06	339.82	335.21	
24 May	144.583	15.563	160.006	2250.6	26.30	0.26	34.711	1014.7	350.06	344.74	337.90	332.76	
24 May	144.625	15.383	160.000	2261.4	26.30	0.26	34.693	1014.2	350.91	345.27	338.55	333.11	
24 May	144.667	15.120	160.000	2277.2	26.30	0.26	34.675	1013.9	350.83		338.37		
24 May	144.708	14.863	160.000	2292.6	26.30	0.26	34.656	1013.7	351.20	349.92	338.66	337.43	
24 May	144.750	14.600	160.000	2308.4	26.30	0.26	34.638	1013.4	351.32	354.65	338.67	341.88	

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24 May	144.792	14.477	160.000	2315.8	26.30	0.26	34.638	1013.8	350.82	355.07	338.33	342.42	
24 May	144.833	14.357	160.000	2323.0	26.30	0.26	34.638	1014.2	350.34	349.73	338.00	337.41	
24 May	144.875	14.233	160.000	2330.4	26.20	0.26	34.639	1014.6	351.41	352.46	339.24	340.25	
24 May	144.917	13.970	160.000	2346.2	26.80	0.26	34.639	1014.6	350.77	355.32	338.21	342.60	
24 May	144.958	13.713	160.000	2361.6	27.30	0.25	34.639	1014.6	350.03	354.93	337.15	341.87	
25 May	145.000	13.450	160.000	2377.4	27.80	0.24	34.639	1014.6	350.40	358.61	337.15	345.05	
25 May	145.042	13.248	160.000	2389.5	27.80	0.24	34.640	1013.9	350.14	355.39	336.66	341.71	
25 May	145.083	13.052	160.000	2401.3	27.80	0.24	34.640	1013.1	351.29	356.40	337.49	342.39	
25 May	145.125	12.850	160.000	2413.4	27.70	0.24	34.640	1012.4	350.85	356.36	336.90	342.19	
25 May	145.167	12.581	160.000	2429.6	27.70	0.24	34.641	1012.2	350.62	355.54	336.61	341.34	
25 May	145.208	12.319	160.000	2445.3	27.70	0.24	34.641	1012.0	351.47	356.82	337.36	342.49	
25 May	145.250	12.050	160.000	2461.4	27.60	0.24	34.641	1011.8	351.81	364.96	337.68	350.31	
25 May	145.292	11.960	160.000	2466.8	27.60	0.24	34.629	1012.1	351.07	363.53	337.08	349.04	
25 May	145.333	11.873	160.000	2472.0	27.60	0.24	34.618	1012.3	350.87	357.32	336.95	343.15	
25 May	145.375	11.783	160.000	2477.4	27.60	0.24	34.606	1012.6	350.73	356.98	336.92	342.93	
25 May	145.417	11.520	160.006	2493.2	27.80	0.24	34.594	1012.8	350.65	356.63	336.77	342.52	
25 May	145.458	11.263	160.011	2508.7	28.00	0.24	34.582	1013.0	350.88	357.69	336.91	343.45	
25 May	145.500	11.000	160.017	2524.4	28.20	0.23	34.571	1013.2		359.55		345.16	
25 May	145.542	10.917	160.017	2529.4	28.10	0.23	34.559	1012.8	350.55	354.99	336.46	340.72	
25 May	145.583	10.700	160.000	2542.5	28.10	0.23	34.547	1012.2	350.55	354.71	336.25	340.24	
25 May	145.625	10.467	160.000	2556.5	28.10	0.23	34.535	1011.1	350.27	355.83	335.60	340.92	
25 May	145.667	10.167	160.000	2574.5	28.00	0.24	34.523	1011.3	349.79	356.46	335.28	341.67	
25 May	145.708	9.933	160.000	2588.5	28.30	0.23	34.512	1011.4	350.26	355.42	335.55	340.49	
25 May	145.750	9.650	160.000	2605.5	28.30	0.23	34.500	1011.4	350.57	352.81	335.84	337.99	
25 May	145.792	9.617	160.000	2607.5	28.70	0.22	34.488	1010.7	350.47	358.00	335.21	342.41	
25 May	145.833	9.617	160.000	2607.5	28.00	0.24	34.477	1010.8	351.24	356.08	336.50	341.14	
25 May	145.875	9.633	160.000	2608.4	28.80	0.22	34.465	1011.6	350.63	358.05	335.59	342.70	
25 May	145.917	9.633	160.000	2608.4	28.80	0.22	34.453	1012.0					
25 May	145.958	9.633	160.000	2608.4	28.80	0.22	34.449	1012.2					
26 May	146.000	9.700	160.000	2612.4	28.80	0.22	34.444	1012.6					
26 May	146.042	9.650	159.900	2619.1	28.80	0.22	34.439	1011.9					
26 May	146.083	9.667	159.883	2620.5	28.90	0.22	34.435	1010.8					
26 May	146.125	9.667	159.867	2621.4	28.90	0.22	34.431	1010.0					
26 May	146.167	9.667	159.850	2622.5	28.90	0.22	34.426	1009.4					
26 May	146.208	9.667	159.850	2622.5	28.90	0.22	34.422	1009.5					
26 May	146.250	9.667	159.850	2622.5	28.90	0.22	34.417	1009.5					
26 May	146.292	9.667	159.850	2622.5	28.90	0.22	34.408	1009.6					
26 May	146.333	9.533	160.000	2634.4	28.80	0.22	34.400	1009.9					
26 May	146.375	9.350	160.000	2645.4	28.70	0.22	34.392	1010.6					
26 May	146.417	9.083	160.000	2661.4	28.70	0.22	34.383	1011.0	350.67		335.50		
26 May	146.458	8.833	160.000	2676.4	28.80	0.22	34.375	1011.2	350.78	353.90	335.60	338.58	
26 May	146.500	8.650	160.000	2687.4	28.80	0.22	34.366	1012.0	350.86	356.67	335.95	341.51	
26 May	146.542	8.500	160.000	2696.4	28.80	0.22	34.358	1011.0	351.71	355.60	336.42	340.14	
26 May	146.583	8.283	160.000	2709.4	28.80	0.22	34.349	1010.4	351.89	356.32	336.38	340.62	
26 May	146.625	8.050	160.000	2723.4	29.00	0.22	34.341	1009.4	351.10	357.08	335.13	340.84	
26 May	146.667	7.833	160.000	2736.4	29.10	0.22	34.332	1009.0		358.03		341.53	
26 May	146.708	7.450	160.000	2759.4	29.20	0.22	34.324	1009.0	352.32	362.29	336.00	345.51	
26 May	146.750	7.233	160.000	2772.4	29.30	0.22	34.316	1008.8		359.19		342.40	
26 May	146.792	7.217	160.000	2773.4	29.30	0.22	34.307	1009.1	350.90	361.02	334.60	344.25	
26 May	146.833	7.217	160.000	2773.4	29.40	0.21	34.297	1009.4	350.92	359.43	334.65	342.77	
26 May	146.875	7.017	160.017	2785.4	29.40	0.21	34.287	1009.9	351.20	359.26	335.09	342.78	
26 May	146.917	6.750	160.000	2801.5	29.40	0.21	34.276	1010.6	351.20	360.14	335.33	343.86	
26 May	146.958	6.517	159.917	2816.3	29.40	0.21	34.266	1010.8	351.18	359.22	335.38	343.06	
27 May	147.000	6.300	160.017	2830.6	29.50	0.21	34.256	1009.4	351.25	359.20	334.88	342.46	
27 May	147.042	6.133	160.017	2840.7	29.50	0.21	34.245	1009.2	351.04	360.37	334.61	343.51	
27 May	147.083	5.983	160.000	2849.7	29.50	0.21	34.235	1009.2	351.23	359.49	334.79	342.67	
27 May	147.125	5.583	160.000	2873.7	29.40	0.21	34.225	1008.4	350.58	358.87	333.98	341.88	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
27 May	147.167	5.400	160.000	2884.7	29.30	0.22	34.215	1008.2	350.43	356.02	333.84	339.17	
27 May	147.208	5.067	160.000	2904.7	29.20	0.22	34.205	1007.9	350.55	357.10	333.93	340.17	
27 May	147.250	4.867	160.000	2916.7	29.20	0.22	34.194	1008.0	350.94	363.09	334.34	345.92	
27 May	147.292	4.833	160.000	2918.7	29.20	0.22	34.184	1008.4	350.57	359.17	334.12	342.32	
27 May	147.333	4.833	160.000	2918.7	29.20	0.22	34.199	1009.0	351.00	358.41	334.74	341.81	
27 May	147.375	4.683	160.000	2927.7	29.20	0.22	34.215	1009.9	350.37	358.57	334.45	342.28	
27 May	147.417	4.383	160.000	2945.7	29.40	0.21	34.231	1010.2	350.75	359.65	334.76	343.25	
27 May	147.458	4.133	160.000	2960.7	29.40	0.21	34.246	1010.0	350.25	359.78	334.21	343.30	
27 May	147.500	3.883	160.000	2975.7	29.40	0.21	34.262	1010.3	350.28	359.70	334.34	343.33	
27 May	147.542	3.767	160.000	2982.7	29.30	0.22	34.277	1009.8	350.19	358.24	334.17	341.85	
27 May	147.583	3.550	160.000	2995.7	29.30	0.22	34.293	1009.5	350.24	353.96	334.11	337.66	
27 May	147.625	3.300	160.000	3010.7	29.30	0.22	34.308	1009.2	350.08	357.54	333.86	340.97	
27 May	147.667	3.050	160.000	3025.7	29.30	0.22	34.324	1008.8	349.68	361.58	333.34	344.68	
27 May	147.708	2.767	160.000	3042.7	29.30	0.22	34.339	1009.0	351.00	359.22	334.66	342.50	
27 May	147.750	2.517	160.000	3057.7	29.50	0.21	34.355	1009.0	349.94	360.89	333.50	343.93	
27 May	147.792	2.383	160.000	3065.7	29.70	0.21	34.341	1009.4	349.15	361.50	332.72	344.49	
27 May	147.833	2.367	160.017	3067.1	29.60	0.21	34.326	1010.0	349.33	359.77	333.18	343.14	
27 May	147.875	2.167	160.033	3079.1	29.40	0.21	34.312	1010.2	349.03	359.46	333.12	343.07	
27 May	147.917	1.900	160.033	3095.2	29.40	0.21	34.298	1011.0	349.01	359.51	333.37	343.40	
27 May	147.958	1.667	160.033	3109.1	29.40	0.21	34.283	1011.2	349.28	362.16	333.70	346.00	
28 May	148.000	1.417	160.033	3124.1	29.40	0.21	34.269	1011.4	349.84	357.70	334.30	341.81	
28 May	148.042	1.367	160.033	3127.1	29.50	0.21	34.246	1010.6	348.99	360.24	333.14	343.88	
28 May	148.083	1.217	160.017	3136.2	29.50	0.21	34.223	1009.6	349.05	363.20	332.85	346.34	
28 May	148.125	0.933	160.000	3153.3	30.10	0.20	34.200	1008.0	348.72	364.32	331.51	346.34	
28 May	148.167	0.917	160.000	3154.2	29.80	0.21	34.176	1008.3	349.03	360.29	332.15	342.86	
28 May	148.208	0.633	160.000	3171.3	29.80	0.21	34.154	1008.3	348.11	362.59	331.27	345.05	
28 May	148.250	0.433	160.000	3183.3	29.80	0.21	34.130	1008.0	348.11	359.03	331.17	341.56	
28 May	148.292	0.400	160.000	3185.2	29.20	0.22	34.107	1008.4	348.77	357.54	332.41	340.77	
28 May	148.333	0.400	160.000	3185.2	29.20	0.22	34.084	1008.8	348.08	360.01	331.89	343.27	
28 May	148.375	0.117	160.000	3202.2	29.40	0.21	34.061	1009.9	348.41	360.59	332.42	344.04	
28 May	148.417	0.000	160.000	3209.2	29.40	0.21	34.082	1010.6	349.13	360.65	333.35	344.35	
28 May	148.458	0.000	160.000	3209.2	29.30	0.22	34.102	1010.6	348.92	357.57	333.23	341.49	
28 May	148.500	0.000	160.000	3209.2	29.30	0.22	34.123	1010.6	348.14	356.87	332.48	340.82	
28 May	148.542	0.000	160.000	3209.2	29.30	0.22	34.144	1010.3	347.91	354.23	332.16	338.20	
28 May	148.583	-0.067	160.017	3213.4	29.20	0.22	34.165	1010.0	347.89	358.76	332.12	342.49	
28 May	148.625	-0.300	160.017	3227.4	29.20	0.22	34.186	1009.4	347.57	358.08	331.61	341.63	
28 May	148.667	-0.550	160.033	3242.4	29.10	0.22	34.207	1008.8	346.73	357.81	330.68	341.25	
28 May	148.708	-0.767	160.000	3255.6	29.10	0.22	34.227	1009.0	346.37	354.64	330.40	338.29	
28 May	148.750	-1.117	160.000	3276.6	29.20	0.22	34.248	1008.4	346.80	359.19	330.53	342.34	
28 May	148.792	-1.333	160.000	3289.5	29.30	0.22	34.269	1008.8	346.71	358.21	330.50	341.47	
28 May	148.833	-1.383	160.000	3292.5	29.20	0.22	34.248	1009.4	346.62	354.76	330.70	338.47	
28 May	148.875	-1.500	160.000	3299.6	28.80	0.22	34.227	1011.0	345.76	356.22	330.73	340.73	
28 May	148.917	-1.700	160.000	3311.6	28.60	0.23	34.205	1011.3	345.43	345.43	330.66	330.66	
28 May	148.958	-1.983	160.000	3328.5	28.60	0.23	34.216	1012.2	345.87	351.51	331.39	336.79	
29 May	149.000	-2.017	160.000	3330.6	28.70	0.22	34.228	1010.6	346.16	358.45	331.05	342.80	
29 May	149.042	-2.067	160.000	3333.6	28.80	0.22	34.240	1009.6	345.28	357.82	329.79	341.77	
29 May	149.083	-2.317	160.000	3348.6	28.70	0.22	34.251	1009.1	345.90	358.29	330.29	342.13	
29 May	149.125	-2.483	160.000	3358.5	28.80	0.22	34.263	1008.7	345.64	357.38	329.83	341.03	
29 May	149.167	-2.533	160.000	3361.5	28.60	0.23	34.275	1008.4	345.64	355.60	329.88	339.39	
29 May	149.208	-2.550	160.000	3362.6	28.60	0.23	34.286	1008.6	345.60	355.57	329.91	339.43	
29 May	149.250	-3.000	160.000	3389.6	28.70	0.22	34.298	1008.2		354.28		337.98	P
29 May	149.292	-3.000	160.000	3389.6	28.60	0.23	34.303	1008.6	345.76	353.14	330.06	337.11	
29 May	149.333	-3.200	160.000	3401.6	28.70	0.22	34.308	1009.1	345.33	355.37	329.75	339.33	
29 May	149.375	-3.383	160.000	3412.5	29.00	0.22	34.313	1010.2	346.15	354.74	330.68	338.89	
29 May	149.417	-3.683	160.000	3430.5	28.80	0.22	34.318	1011.2	346.40	356.29	331.41	340.87	
29 May	149.458	-3.933	160.000	3445.5	28.80	0.22	34.323	1011.2	345.85	355.57	330.88	340.18	
29 May	149.500	-4.150	160.000	3458.6	28.70	0.22	34.329	1011.5	346.15	355.85	331.35	340.63	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
29 May	149.542	-4.233	160.000	3463.5	28.70	0.22	34.334	1011.9	346.71	355.81	332.02	340.74	
29 May	149.583	-4.467	160.000	3477.6	28.60	0.23	34.339	1011.5		356.29		341.13	
29 May	149.625	-4.700	160.000	3491.6	28.50	0.23	34.344	1010.8	345.06	358.22	330.21	342.81	
29 May	149.667	-4.933	160.000	3505.5	28.50	0.23	34.349	1010.3	345.99	357.89	330.93	342.31	
29 May	149.708	-5.217	160.000	3522.6	28.70	0.22	34.354	1010.3	346.05	355.60	330.84	339.98	
29 May	149.750	-5.450	160.000	3536.6	28.60	0.23	34.359	1010.2	345.70	350.85	330.55	335.48	
29 May	149.792	-5.500	160.000	3539.6	28.60	0.23	34.365	1010.4	345.53	353.88	330.45	338.44	
29 May	149.833	-5.533	160.133	3547.7	28.60	0.23	34.372	1010.7	345.45	344.81	330.48	329.87	
29 May	149.875	-5.633	160.333	3561.1	28.20	0.23	34.378	1011.2	345.40	345.21	330.90	330.71	
29 May	149.917	-5.700	160.533	3573.7	28.20	0.23	34.384	1011.6	345.12	355.55	330.76	340.76	
29 May	149.958	-5.833	160.800	3591.5	28.40	0.23	34.391	1011.6	345.28	354.75	330.77	339.84	
30 May	150.000	-5.933	160.983	3604.0	28.70	0.22	34.397	1011.2	345.59	354.62	330.71	339.35	
30 May	150.042	-5.950	161.117	3612.1	28.60	0.23	34.403	1010.2	345.23	349.80	330.10	334.47	
30 May	150.083	-6.117	161.317	3627.6	28.50	0.23	34.410	1009.2	345.64	355.09	330.23	339.26	
30 May	150.125	-6.150	161.583	3643.6	28.60	0.23	34.416	1008.8	345.54	356.58	329.92	340.46	
30 May	150.167	-6.250	161.683	3652.1	28.70	0.22	34.422	1008.6		357.86		341.54	
30 May	150.208	-6.383	162.050	3675.4	28.80	0.22	34.429	1008.6					
30 May	150.250	-6.467	162.217	3686.5	28.90	0.22	34.435	1008.8					
30 May	150.292	-6.467	162.217	3686.5	28.90	0.22	34.447	1009.4	345.57	357.24	329.93	341.07	
30 May	150.333	-6.517	162.383	3696.9	29.00	0.22	34.459	1009.9	345.90	356.81	330.34	340.76	
30 May	150.375	-6.633	162.600	3711.6	28.90	0.22	34.472	1011.0	345.94	354.85	330.83	339.34	
30 May	150.417	-6.767	162.867	3729.4	28.80	0.22	34.484	1011.4	345.56	355.33	330.67	340.02	
30 May	150.458	-6.867	163.100	3744.5	28.80	0.22	34.496	1011.9	345.88	359.06	331.15	343.77	
30 May	150.500	-6.967	163.283	3757.0	28.80	0.22	34.508	1011.9	345.20	360.27	330.50	344.93	
30 May	150.542	-7.000	163.367	3762.3	28.80	0.22	34.520	1011.4	345.84	359.29	330.94	343.82	
30 May	150.583	-7.100	163.583	3776.5	28.80	0.22	34.532	1011.1	345.51	358.66	330.52	343.10	
30 May	150.625	-7.200	163.817	3791.7	28.70	0.22	34.545	1010.7	345.04	359.38	330.01	343.73	
30 May	150.667	-7.317	164.017	3805.5	28.70	0.22	34.557	1010.4	345.77	359.95	330.61	344.16	
30 May	150.708	-7.467	164.300	3824.6	28.70	0.22	34.569	1010.6	345.47	359.63	330.39	343.93	
30 May	150.750	-7.533	164.467	3835.3	28.80	0.22	34.581	1010.7	345.75	362.86	330.62	346.98	
30 May	150.792	-7.567	164.533	3839.7	28.80	0.22	34.573	1010.8	345.57	362.32	330.48	346.50	
30 May	150.833	-7.617	164.650	3847.3	28.80	0.22	34.564	1011.4	345.63	359.93	330.74	344.42	
30 May	150.875	-7.700	164.883	3862.0	28.80	0.22	34.556	1011.8	345.92	359.42	331.15	344.07	
30 May	150.917	-7.800	165.117	3877.2	28.80	0.22	34.547	1012.2	345.94	360.56	331.31	345.31	
30 May	150.958	-7.933	165.400	3895.8	28.70	0.22	34.539	1011.6	345.86	360.07	331.10	344.71	
31 May	151.000	-8.017	165.600	3908.7	28.80	0.22	34.531	1011.2	345.96	358.91	330.99	343.37	
31 May	151.042	-8.067	165.767	3919.1	29.20	0.22	34.522	1010.6	346.02	360.13	330.54	344.02	
31 May	151.083	-8.133	165.933	3929.7	29.20	0.22	34.514	1010.3	345.50	359.07	329.94	342.90	
31 May	151.125	-8.250	166.200	3947.0	29.20	0.22	34.505	1009.6	345.16	354.73	329.38	338.51	
31 May	151.167	-8.333	166.433	3961.8	29.20	0.22	34.497	1008.6	345.23	355.20	329.10	338.61	
31 May	151.208	-8.450	166.733	3980.9	28.80	0.22	34.488	1008.6	345.40	350.97	329.57	334.88	
31 May	151.250	-8.550	166.933	3994.2	28.80	0.22	34.480	1008.8	345.27	350.76	329.51	334.76	
31 May	151.292	-8.550	166.933	3994.2	28.80	0.22	34.490	1009.5	345.67	349.18	330.13	333.49	
31 May	151.333	-8.583	167.100	4004.3	28.80	0.22	34.499	1010.4	345.61	348.97	330.38	333.60	
31 May	151.375	-8.683	167.300	4017.6	27.60	0.24	34.509	1011.2	345.92	345.44	331.83	331.37	
31 May	151.417	-8.800	167.533	4033.1	27.20	0.25	34.519	1012.0	346.10	348.13	332.55	334.50	
31 May	151.458	-8.917	167.733	4046.9	27.40	0.25	34.529	1012.0	345.66	346.36	331.99	332.66	
31 May	151.500	-8.975	167.950	4060.2	27.40	0.25	34.538	1011.9	345.58	346.20	331.88	332.47	
31 May	151.542	-9.033	168.033	4066.2	28.40	0.23	34.548	1011.5	345.97	343.64	331.40	329.17	
31 May	151.583	-9.117	168.233	4079.1	28.30	0.23	34.558	1011.1	345.46	346.10	330.85	331.46	
31 May	151.625	-9.250	168.483	4095.9	28.30	0.23	34.568	1010.7	345.77	348.94	331.01	334.04	
31 May	151.667	-9.350	168.700	4110.1	28.00	0.24	34.578	1010.7	345.76	348.03	331.22	333.40	
31 May	151.708	-9.467	168.917	4124.7	28.00	0.24	34.587	1010.6	345.87	350.30	331.29	335.53	
31 May	151.750	-9.567	169.100	4137.1	28.10	0.23	34.597	1010.7	345.67	353.77	331.06	338.82	
31 May	151.792	-9.567	169.100	4137.1	28.00	0.24	34.610	1011.0	345.46	352.10	331.03	337.39	
31 May	151.833	-9.617	169.250	4146.5	28.00	0.24	34.623	1011.6	345.80	351.84	331.56	337.35	
31 May	151.875	-9.733	169.467	4161.1	28.00	0.24	34.636	1012.4	345.32	352.04	331.37	337.82	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
31 May	151.917	-9.833	169.667	4174.3	27.90	0.24	34.649	1012.7	345.25	351.05	331.48	337.04	
31 May	151.958	-9.933	169.900	4189.4	28.00	0.24	34.661	1012.6	345.95	352.86	332.05	338.68	
1 Jun	152.000	-10.000	170.017	4197.4	28.00	0.24	34.674	1012.7	345.80	350.38	331.94	336.33	
1 Jun	152.042	-10.230	170.017	4211.2	28.00	0.24	34.688	1012.0	345.96	353.96	331.85	339.53	
1 Jun	152.083	-10.454	170.017	4224.6	28.00	0.24	34.700	1011.4	345.42	353.99	331.13	339.34	
1 Jun	152.125	-10.683	170.017	4238.3	27.90	0.24	34.713	1010.7	345.44	349.03	330.98	334.42	
1 Jun	152.167	-10.935	170.028	4253.5	27.90	0.24	34.726	1010.7	345.78	351.68	331.31	336.96	
1 Jun	152.208	-11.181	170.039	4268.3	27.90	0.24	34.739	1010.8	345.31	350.18	330.89	335.56	
1 Jun	152.250	-11.433	170.050	4283.4	27.90	0.24	34.752	1010.8	346.05	353.16	331.60	338.41	
1 Jun	152.292	-11.512	170.033	4288.2	27.90	0.24	34.758	1011.4	345.49	351.26	331.27	336.80	
1 Jun	152.333	-11.588	170.017	4292.9	27.90	0.24	34.765	1012.0	345.71	349.06	331.68	334.90	
1 Jun	152.375	-11.667	170.000	4297.7	27.90	0.24	34.771	1012.6	345.88	347.33	332.05	333.44	
1 Jun	152.417	-11.913	170.006	4312.5	27.90	0.24	34.777	1012.8	345.42	351.59	331.68	337.60	
1 Jun	152.458	-12.154	170.011	4327.0	27.90	0.24	34.783	1012.9	345.67	355.36	331.95	341.26	
1 Jun	152.500	-12.400	170.017	4341.7	27.80	0.24	34.790	1013.1	345.73	356.39	332.15	342.39	
1 Jun	152.542	-12.607	170.017	4354.1	27.80	0.24	34.796	1012.9	345.37	345.94	331.73	332.29	
1 Jun	152.583	-12.809	170.017	4366.3	27.80	0.24	34.802	1012.6	345.79	341.63	332.04	328.04	
1 Jun	152.625	-13.017	170.017	4378.7	27.70	0.24	34.809	1012.4	345.04	337.00	331.32	323.60	
1 Jun	152.667	-13.257	170.011	4393.1	27.60	0.24	34.815	1012.5	345.20	338.16	331.58	324.82	
1 Jun	152.708	-13.493	170.006	4407.3	27.40	0.25	34.821	1012.5	345.88	337.32	332.37	324.14	
1 Jun	152.750	-13.733	170.000	4421.7	27.20	0.25	34.828	1012.6	345.22	340.27	331.91	327.15	
1 Jun	152.792	-13.750	170.000	4422.7	27.30	0.25	34.834	1013.0	345.05	340.86	331.81	327.78	
1 Jun	152.833	-13.767	170.000	4423.8	27.40	0.25	34.867	1013.5	345.87	340.48	332.70	327.52	
1 Jun	152.875	-13.783	170.000	4424.7	27.50	0.24	34.901	1013.9	345.11	339.73	332.04	326.87	
1 Jun	152.917	-13.772	169.994	4425.5	27.60	0.24	34.934	1013.6	345.70	340.05	332.43	327.00	
1 Jun	152.958	-13.761	169.989	4426.2	27.60	0.24	34.967	1013.3	344.62	340.27	331.29	327.11	
2 Jun	153.000	-13.750	169.983	4426.9	27.60	0.24	35.001	1013.0	345.21	339.60	331.76	326.37	
2 Jun	153.042	-13.991	169.983	4441.4	27.60	0.24	35.035	1012.7	345.07	333.59	331.52	320.49	
2 Jun	153.083	-14.226	169.983	4455.5	27.50	0.24	35.067	1012.3	345.44	334.88	331.81	321.67	
2 Jun	153.125	-14.467	169.983	4469.9	27.40	0.25	35.101	1012.0	345.90	330.79	332.22	317.71	
2 Jun	153.167	-14.730	169.989	4485.7	27.40	0.25	35.135	1012.0	345.92	328.04	332.24	315.07	
2 Jun	153.208	-14.987	169.994	4501.2	27.30	0.25	35.168	1012.0	345.01	329.11	331.44	316.16	
2 Jun	153.250	-15.250	170.000	4516.9	27.20	0.25	35.201	1012.0		330.16		317.24	
2 Jun	153.292	-15.278	169.994	4518.7	27.20	0.25	35.235	1012.2					
2 Jun	153.333	-15.305	169.989	4520.3	27.20	0.25	35.231	1012.5					
2 Jun	153.375	-15.333	169.983	4522.0	27.20	0.25	35.227	1012.7					
2 Jun	153.417	-15.591	169.989	4537.5	27.20	0.25	35.223	1012.8					
2 Jun	153.458	-15.842	169.994	4552.6	27.20	0.25	35.219	1012.9					
2 Jun	153.500	-16.100	170.000	4568.0	27.20	0.25	35.215	1013.0					
2 Jun	153.542	-16.302	170.000	4580.2	27.20	0.25	35.212	1012.7					
2 Jun	153.583	-16.498	170.000	4591.9	27.20	0.25	35.208	1012.5					
2 Jun	153.625	-16.700	170.000	4604.0	27.10	0.25	35.204	1012.2					
2 Jun	153.667	-16.946	170.000	4618.8	27.00	0.25	35.200	1012.2					
2 Jun	153.708	-17.187	170.000	4633.3	26.90	0.25	35.196	1012.2					
2 Jun	153.750	-17.433	170.000	4648.0	26.80	0.26	35.192	1012.2					
2 Jun	153.792	-17.456	170.000	4649.4	26.80	0.26	35.186	1012.5					
2 Jun	153.833	-17.478	170.000	4650.7	26.80	0.26	35.181	1012.9	345.51		332.57		
2 Jun	153.875	-17.500	170.000	4652.0	26.80	0.26	35.175	1013.2	344.90	325.52	332.08	313.42	
2 Jun	153.917	-17.489	170.000	4652.7	27.00	0.25	35.169	1012.7	344.61	326.23	331.50	313.82	
2 Jun	153.958	-17.478	170.000	4653.4	27.10	0.25	35.164	1012.1	344.29	327.49	330.92	314.77	
3 Jun	154.000	-17.467	170.000	4654.0	27.20	0.25	35.158	1011.6	345.45	327.48	331.80	314.53	
3 Jun	154.042	-17.685	170.000	4667.1	27.20	0.25	35.152	1011.0	344.84	329.88	331.01	316.65	
3 Jun	154.083	-17.898	170.000	4679.9	27.10	0.25	35.147	1010.4	345.30	327.30	331.31	314.04	
3 Jun	154.125	-18.117	170.000	4693.0	27.00	0.25	35.141	1009.8	345.28	328.88	331.16	315.43	
3 Jun	154.167	-18.273	170.000	4702.4	26.80	0.26	35.135	1010.1	345.75	313.04	331.85	300.45	
3 Jun	154.208	-18.427	170.000	4711.6	26.50	0.26	35.129	1010.4	345.27	312.72	331.69	300.42	
3 Jun	154.250	-18.583	170.000	4721.0	26.20	0.26	35.124	1010.7	345.18	320.55	331.91	308.22	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
3 Jun	154.292	-18.684	170.011	4727.1	26.00	0.27	35.118	1011.2	345.23	314.36	332.25	302.55	
3 Jun	154.333	-18.783	170.022	4733.0	25.80	0.27	35.114	1011.7	345.15		332.47		
3 Jun	154.375	-18.883	170.033	4739.1	25.60	0.27	35.111	1012.2					
3 Jun	154.417	-19.118	170.022	4753.2	25.60	0.27	35.107	1012.1	345.66	313.25	333.23	301.99	
3 Jun	154.458	-19.348	170.011	4767.0	25.60	0.27	35.104	1012.1	345.23	308.49	332.82	297.40	
3 Jun	154.500	-19.583	170.000	4781.1	25.60	0.27	35.100	1012.0	345.41	320.69	332.95	309.13	
3 Jun	154.542	-19.723	170.000	4789.5	25.50	0.28	35.096	1011.6	345.91	301.27	333.36	290.34	
3 Jun	154.583	-19.860	170.000	4797.7	25.30	0.28	35.093	1011.2	345.09	308.26	332.56	297.07	
3 Jun	154.625	-20.000	170.000	4806.1	25.20	0.28	35.089	1010.8	345.93	311.50	333.30	300.13	
3 Jun	154.667	-20.230	170.000	4819.9	25.50	0.28	35.085	1011.0	345.73	307.32	332.99	295.99	
3 Jun	154.708	-20.454	170.000	4833.4	25.70	0.27	35.082	1011.2	345.18	309.56	332.40	298.10	
3 Jun	154.750	-20.683	170.000	4847.1	26.00	0.27	35.078	1011.4	345.43	309.49	332.51	297.91	
3 Jun	154.792	-20.790	169.972	4853.7	25.70	0.27	35.075	1011.9	345.37	312.68	332.82	301.31	
3 Jun	154.833	-20.894	169.945	4860.2	25.40	0.28	35.071	1012.5	345.36	310.93	333.20	299.98	
3 Jun	154.875	-21.000	169.917	4866.7	25.10	0.28	35.097	1013.0	345.42	310.74	333.62	300.13	
3 Jun	154.917	-21.000	169.894	4868.0	25.10	0.28	35.124	1013.1	345.49	312.55	333.72	301.90	
3 Jun	154.958	-21.000	169.872	4869.2	25.10	0.28	35.150	1013.1	345.20	310.36	333.44	299.79	
4 Jun	155.000	-21.000	169.850	4870.5	25.10	0.28	35.176	1013.2	345.97	310.65	334.22	300.10	
4 Jun	155.042	-21.140	169.867	4878.9	25.10	0.28	35.202	1012.8	345.46	306.32	333.59	295.80	
4 Jun	155.083	-21.277	169.883	4887.2	25.00	0.28	35.228	1012.4	346.52	309.96	334.54	299.24	
4 Jun	155.125	-21.417	169.900	4895.6	25.00	0.28	35.254	1012.0	345.90	309.77	333.80	298.93	
4 Jun	155.167	-21.585	169.934	4905.9	24.70	0.29	35.281	1012.2	345.70	308.16	333.86	297.61	
4 Jun	155.208	-21.749	169.966	4915.9	24.50	0.29	35.307	1012.5	345.24	307.14	333.64	296.82	
4 Jun	155.250	-21.917	170.000	4926.1	24.20	0.30	35.333	1012.7	345.33	306.57	333.97	296.49	
4 Jun	155.292	-22.040	170.000	4933.5	24.20	0.30	35.343	1012.9	345.60	301.36	334.30	291.51	
4 Jun	155.333	-22.160	170.000	4940.7	24.20	0.30	35.352	1013.2	345.86	305.95	334.66	296.04	
4 Jun	155.375	-22.283	170.000	4948.1	24.20	0.30	35.362	1013.4	346.20	302.60	335.05	292.86	
4 Jun	155.417	-22.547	170.006	4964.0	24.10	0.30	35.371	1013.6	345.52	299.84	334.52	290.30	
4 Jun	155.458	-22.803	170.011	4979.3	24.10	0.30	35.381	1013.8	345.25	302.51	334.33	292.94	
4 Jun	155.500	-23.067	170.017	4995.2	24.00	0.30	35.390	1014.0	345.84	305.22	335.03	295.68	
4 Jun	155.542	-23.263	170.017	5006.9	24.00	0.30	35.400	1013.8	345.17	303.72	334.31	294.16	
4 Jun	155.583	-23.454	170.017	5018.4	23.90	0.30	35.410	1013.7	345.48	303.65	334.63	294.11	
4 Jun	155.625	-23.650	170.017	5030.1	23.90	0.30	35.419	1013.5					
4 Jun	155.667	-23.891	170.011	5044.6	23.70	0.30	35.429	1013.8					
4 Jun	155.708	-24.126	170.006	5058.7	23.60	0.31	35.438	1014.1					
4 Jun	155.750	-24.367	170.000	5073.2	23.40	0.31	35.448	1014.4					
4 Jun	155.792	-24.462	170.000	5078.9	23.50	0.31	35.458	1014.9		309.16		300.02	
4 Jun	155.833	-24.555	170.000	5084.4	23.50	0.31	35.467	1015.5	345.79	311.42	335.77	302.40	
4 Jun	155.875	-24.650	170.000	5090.1	23.60	0.31	35.501	1016.0	346.04	307.77	336.13	298.96	
4 Jun	155.917	-24.880	170.000	5103.9	23.20	0.31	35.534	1016.1	344.85	306.74	335.23	298.19	
4 Jun	155.958	-25.104	170.000	5117.4	22.80	0.32	35.567	1016.1	345.54	308.23	336.13	299.83	
5 Jun	156.000	-25.333	170.000	5131.1	22.40	0.33	35.601	1016.2	345.33	301.30	336.17	293.31	
5 Jun	156.042	-25.541	170.000	5143.6	22.50	0.32	35.635	1015.8	345.10	301.45	335.76	293.29	
5 Jun	156.083	-25.743	170.000	5155.7	22.70	0.32	35.668	1015.4	345.87	303.61	336.27	295.18	
5 Jun	156.125	-25.950	170.000	5168.1	22.80	0.32	35.702	1015.0	345.29	304.29	335.51	295.67	
5 Jun	156.167	-26.118	170.000	5178.2	22.50	0.32	35.735	1015.4	345.29	299.70	335.81	291.47	
5 Jun	156.208	-26.282	170.000	5188.1	22.20	0.33	35.768	1015.9	345.07	308.32	335.92	300.15	
5 Jun	156.250	-26.450	170.000	5198.1	21.90	0.33	35.802	1016.3	345.33	309.27	336.47	301.33	
5 Jun	156.292	-26.495	170.006	5200.9	21.90	0.33	35.804	1016.9	345.35	306.50	336.69	298.82	
5 Jun	156.333	-26.539	170.011	5203.5	21.90	0.33	35.806	1017.5	345.66	307.10	337.20	299.59	
5 Jun	156.375	-26.583	170.017	5206.2	21.90	0.33	35.807	1018.1	346.01	305.43	337.74	298.13	
5 Jun	156.417	-26.835	170.011	5221.3	21.80	0.33	35.809	1018.6	346.39	307.79	338.34	300.63	
5 Jun	156.458	-27.081	170.006	5236.1	21.80	0.33	35.811	1019.0	345.62	307.96	337.72	300.92	
5 Jun	156.500	-27.333	170.000	5251.2	21.80	0.33	35.813	1019.5	346.24	307.91	338.50	301.02	
5 Jun	156.542	-27.501	170.000	5261.3	21.70	0.34	35.815	1019.3	345.70	304.70	337.95	297.88	
5 Jun	156.583	-27.665	170.000	5271.1	21.70	0.34	35.816	1019.1	345.91	307.85	338.09	300.89	
5 Jun	156.625	-27.833	170.000	5281.2	21.70	0.34	35.818	1018.9	346.18	306.58	338.29	299.59	

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5 Jun	156.667	-28.085	170.000	5296.3	21.20	0.34	35.820	1019.2	345.78	307.17	338.25	300.48	
5 Jun	156.708	-28.331	170.000	5311.1	20.80	0.35	35.822	1019.6	346.01	305.97	338.81	299.61	
5 Jun	156.750	-28.583	170.000	5326.2	20.40	0.36	35.823	1019.9	345.37	303.72	338.48	297.66	
5 Jun	156.792	-28.684	170.006	5332.3	20.40	0.36	35.825	1020.6	346.19	302.39	339.52	296.56	
5 Jun	156.833	-28.783	170.011	5338.2	20.40	0.36	35.827	1021.3	346.19	306.68	339.76	300.98	
5 Jun	156.875	-28.883	170.017	5344.2	20.40	0.36	35.825	1022.0	345.97	306.75	339.78	301.26	
5 Jun	156.917	-29.040	170.011	5353.6	20.50	0.36	35.822	1022.0	345.70	308.08	339.46	302.52	
5 Jun	156.958	-29.193	170.006	5362.8	20.60	0.35	35.820	1022.1		307.83		302.26	
6 Jun	157.000	-29.350	170.000	5372.2	20.70	0.35	35.817	1022.1					
6 Jun	157.042	-29.568	170.000	5385.3	20.60	0.35	35.815	1021.9					
6 Jun	157.083	-29.782	170.000	5398.2	20.50	0.36	35.813	1021.8					
6 Jun	157.125	-30.000	170.000	5411.2	20.40	0.36	35.810	1021.6					
6 Jun	157.167	-30.095	170.000	5416.9	20.40	0.36	35.808	1021.9	345.26	300.37	339.05	294.97	
6 Jun	157.208	-30.188	170.000	5422.5	20.40	0.36	35.805	1022.2	345.98	306.40	339.86	300.97	
6 Jun	157.250	-30.283	170.000	5428.2	20.40	0.36	35.803	1022.5	345.54	306.21	339.52	300.88	
6 Jun	157.292	-30.524	170.006	5442.7	20.40	0.36	35.801	1023.2	345.52	307.45	339.74	302.31	
6 Jun	157.333	-30.759	170.011	5456.8	20.40	0.36	35.798	1023.8	346.23	307.65	340.64	302.69	
6 Jun	157.375	-31.000	170.017	5471.3	20.40	0.36	35.796	1024.5	345.96	305.01	340.62	300.29	
6 Jun	157.417	-31.246	170.022	5486.0	20.20	0.36	35.793	1025.0	345.80	306.12	340.72	301.63	
6 Jun	157.458	-31.487	170.028	5500.5	20.00	0.36	35.791	1025.4	345.48	303.58	340.64	299.33	
6 Jun	157.500	-31.733	170.033	5515.2	19.90	0.37	35.789	1025.9	345.79	306.12	341.16	302.02	
6 Jun	157.542	-32.013	170.067	5532.1	19.80	0.37	35.786	1025.8	345.54	306.69	340.92	302.59	
6 Jun	157.583	-32.287	170.100	5548.7	19.70	0.37	35.784	1025.6	345.87	304.98	341.23	300.89	
6 Jun	157.625	-32.567	170.133	5565.5	19.60	0.37	35.782	1025.5	345.24	302.18	340.62	298.13	
6 Jun	157.667	-32.813	170.089	5580.5	19.00	0.38	35.779	1025.0	345.01	313.01	340.49	308.92	
6 Jun	157.708	-33.054	170.045	5595.1	18.40	0.39	35.777	1024.4	345.57	313.30	341.10	309.25	
6 Jun	157.750	-33.300	170.000	5610.0	17.70	0.40	35.774	1023.9	345.47	315.46	341.13	311.49	
6 Jun	157.792	-33.558	170.006	5625.5	17.60	0.40	35.772	1025.0	345.43	311.75	341.50	308.20	
6 Jun	157.833	-33.809	170.011	5640.6	17.50	0.40	35.770	1026.0	345.66	309.96	342.11	306.77	
6 Jun	157.875	-34.067	170.017	5656.1	17.40	0.40	35.767	1027.1	344.93	310.13	341.80	307.32	
6 Jun	157.917	-34.319	170.011	5671.2	17.20	0.41	35.765	1027.1		309.83		307.09	
6 Jun	157.958	-34.565	170.006	5685.9	17.00	0.41	35.762	1027.2	344.89	305.10	341.95	302.50	
7 Jun	158.000	-34.817	170.000	5701.1	16.80	0.41	35.760	1027.2		309.36		306.79	
7 Jun	158.042	-35.063	170.017	5715.8	16.80	0.41	35.758	1026.4	344.85	308.77	341.72	305.97	
7 Jun	158.083	-35.304	170.033	5730.3	16.80	0.41	35.755	1025.7	345.26	309.30	341.89	306.28	
7 Jun	158.125	-35.550	170.050	5745.1	16.70	0.41	35.753	1024.9	345.65	306.99	342.04	303.79	
7 Jun	158.167	-36.004	170.313	5775.2	16.70	0.41	35.750	1024.9	346.60	310.83	342.98	307.58	P
7 Jun	158.208	-36.446	170.570	5804.5	16.70	0.41	35.748	1024.9		305.41		302.22	P
7 Jun	158.250	-36.900	170.833	5834.5	16.70	0.41	35.746	1024.9	345.73	307.97	342.12	304.75	P
7 Jun	158.292	-37.146	171.001	5851.3	16.60	0.42	35.743	1025.0	345.35	298.59	341.82	295.54	
7 Jun	158.333	-37.387	171.165	5867.8	16.40	0.42	35.741	1025.2	345.84	296.57	342.45	293.66	
7 Jun	158.375	-37.633	171.333	5884.6	16.20	0.42	35.739	1025.3	345.65	297.83	342.37	295.00	
7 Jun	158.417	-37.633	171.445	5889.9	16.20	0.42	35.736	1025.1	345.33	299.95	341.98	297.04	
7 Jun	158.458	-37.633	171.555	5895.1	16.20	0.42	35.734	1024.9	345.22	296.15	341.81	293.22	
7 Jun	158.500	-37.633	171.667	5900.5	16.20	0.42	35.731	1024.7	345.01	293.02	341.53	290.06	
7 Jun	158.542	-37.880	171.874	5918.2	16.10	0.42	35.729	1024.5	346.20	301.91	342.68	298.84	
7 Jun	158.583	-38.120	172.076	5935.5	16.00	0.43	35.727	1024.2	345.99	291.39	342.41	288.38	
7 Jun	158.625	-38.367	172.283	5953.3	15.90	0.43	35.724	1024.0	346.37	286.88	342.75	283.89	
7 Jun	158.667	-38.596	172.350	5967.3	15.90	0.43	35.722	1023.1	345.78	294.57	341.86	291.24	
7 Jun	158.708	-38.820	172.416	5981.1	15.80	0.43	35.719	1022.2	345.55	297.68	341.37	294.08	
7 Jun	158.750	-39.050	172.483	5995.3	15.70	0.43	35.717	1021.3	345.31	311.88	340.86	307.86	
7 Jun	158.792	-39.291	172.584	6010.5	15.40	0.44	35.715	1021.1	346.10	314.52	341.68	310.50	
7 Jun	158.833	-39.526	172.682	6025.3	15.10	0.44	35.712	1020.9	345.33	315.52	340.96	311.53	
7 Jun	158.875	-39.767	172.783	6040.5	14.80	0.44	35.710	1020.7	346.85	312.44	342.50	308.52	
7 Jun	158.917	-39.951	173.047	6056.9	14.70	0.45	35.707	1020.9	347.24	324.63	342.99	320.65	
7 Jun	158.958	-40.132	173.303	6072.9	14.50	0.45	35.705	1021.0	347.16	347.42	343.01	343.27	
8 Jun	159.000	-40.317	173.567	6089.3	14.30	0.45	35.703	1021.2	349.40	347.23	345.36	343.22	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
8 Jun	159.042	-40.490	173.852	6106.0	14.30	0.45	35.700	1020.7	349.40	348.87	345.19	344.67	
8 Jun	159.083	-40.660	174.131	6122.3	14.20	0.45	35.698	1020.2	349.44	343.57	345.09	339.30	
8 Jun	159.125	-40.833	174.417	6138.9	14.10	0.46	35.695	1019.7	348.30	343.14	343.83	338.74	
8 Jun	159.167	-41.046	174.467	6151.9	13.80	0.46	35.693	1019.8	349.39		345.04		
8 Jun	159.208	-41.254	174.516	6164.6	13.40	0.47	35.691	1019.8	347.99		343.79		
8 Jun	159.250	-41.467	174.567	6177.6	13.00	0.47	35.688	1019.9	347.75		343.71		

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 Jun	163.500	-40.667	173.817	0.0	14.10	0.46	35.444	1025.5	347.18		344.70		
12 Jun	163.542	-40.538	173.425	36.0	14.20	0.45	35.442	1025.8	347.41		344.99		
12 Jun	163.583	-40.412	173.042	71.3	14.30	0.45	35.440	1026.1	347.17		344.82		
12 Jun	163.625	-40.283	172.650	107.5	14.30	0.45	35.437	1026.4	346.12		343.88		
12 Jun	163.667	-40.261	172.348	133.2	14.40	0.45	35.435	1026.3	347.39		345.08		
12 Jun	163.708	-40.239	172.052	158.4	14.50	0.45	35.433	1026.1	346.60		344.19		
12 Jun	163.750	-40.217	171.750	184.2	14.60	0.45	35.430	1026.0	347.45		344.97		
12 Jun	163.792	-40.261	171.498	206.1	14.70	0.45	35.428	1026.0	347.03		344.51		
12 Jun	163.833	-40.305	171.252	227.5	14.70	0.45	35.425	1026.0	347.19		344.67		
12 Jun	163.875	-40.350	171.000	249.4	14.70	0.45	35.423	1026.0	347.26		344.74		
12 Jun	163.917	-40.272	170.658	279.7	14.70	0.45	35.421	1025.3	347.36		344.60		
12 Jun	163.958	-40.195	170.325	309.2	14.60	0.45	35.418	1024.6	347.50		344.54		
13 Jun	164.000	-40.117	169.983	339.5	14.50	0.45	35.416	1023.9	346.84		343.68		
13 Jun	164.042	-40.072	169.591	373.2	14.60	0.45	35.413	1023.0	346.33		342.84		
13 Jun	164.083	-40.028	169.209	406.1	14.70	0.45	35.411	1022.1	346.54		342.70		
13 Jun	164.125	-39.983	168.817	439.8	14.80	0.44	35.409	1021.2	346.10		341.93		
13 Jun	164.167	-39.983	168.492	467.5	14.60	0.45	35.406	1020.6	346.64	305.67	342.33	301.86	
13 Jun	164.208	-39.983	168.175	494.5	14.40	0.45	35.404	1019.9	346.15	305.81	341.67	301.85	
13 Jun	164.250	-39.983	167.850	522.1	14.20	0.45	35.401	1019.3	346.50	303.34	341.88	299.30	
13 Jun	164.292	-39.995	167.671	537.4	14.50	0.45	35.399	1018.7	346.14	306.10	341.22	301.75	
13 Jun	164.333	-40.005	167.496	552.4	14.80	0.44	35.397	1018.1	346.40	310.92	341.17	306.22	
13 Jun	164.375	-40.017	167.317	567.7	15.10	0.44	35.394	1017.5	346.06	309.11	340.53	304.17	
13 Jun	164.417	-40.017	166.997	594.9	14.80	0.44	35.392	1017.0	346.52	309.79	340.92	304.79	
13 Jun	164.458	-40.017	166.686	621.4	14.50	0.45	35.390	1016.4	346.19	309.72	340.49	304.62	
13 Jun	164.500	-40.017	166.367	648.5	14.20	0.45	35.387	1015.9	346.13	309.38	340.36	304.23	
13 Jun	164.542	-40.011	166.103	671.0	14.20	0.45	35.385	1015.4	346.13	308.55	340.20	303.26	
13 Jun	164.583	-40.006	165.847	692.8	14.20	0.46	35.382	1014.8	346.26	310.07	340.12	304.58	
13 Jun	164.625	-40.000	165.583	715.3	14.10	0.46	35.380	1014.3	346.84	308.77	340.55	303.18	
13 Jun	164.667	-40.000	165.281	741.0	14.30	0.45	35.378	1014.0	346.11	310.08	339.67	304.31	
13 Jun	164.708	-40.000	164.986	766.1	14.40	0.45	35.375	1013.8	346.55	308.23	340.00	302.40	
13 Jun	164.750	-40.000	164.683	791.9	14.50	0.45	35.373	1013.5	346.04	308.82	339.36	302.86	
13 Jun	164.792	-40.000	165.098	827.2	14.70	0.45	35.370	1013.8	346.44	306.93	339.79	301.03	
13 Jun	164.833	-40.000	165.502	861.6	14.80	0.45	35.368	1014.1	346.35	307.55	339.77	301.71	
13 Jun	164.875	-40.000	165.917	896.9	14.90	0.44	35.366	1014.4	346.32	305.05	339.80	299.31	
13 Jun	164.917	-40.000	164.937	980.3	15.00	0.44	35.363	1014.9	346.35	307.47	339.97	301.80	P
13 Jun	164.958	-40.000	163.980	1061.8	15.10	0.44	35.361	1015.5	346.86	306.58	340.64	301.08	P
14 Jun	165.000	-40.000	163.000	1145.2	15.10	0.44	35.358	1016.0	345.98	308.38	339.94	303.00	P
14 Jun	165.042	-40.000	163.000	1145.2	15.10	0.44	35.356	1015.5	346.81	308.88	340.59	303.34	
14 Jun	165.083	-40.000	163.000	1145.2	15.00	0.44	35.389	1015.1					
14 Jun	165.125	-40.000	163.000	1145.2	14.90	0.44	35.422	1014.6	347.16	307.23	340.70	301.51	
14 Jun	165.167	-40.006	162.888	1154.8	14.90	0.44	35.456	1014.1	346.59	305.97	339.97	300.12	
14 Jun	165.208	-40.011	162.779	1164.1	14.90	0.44	35.488	1013.7	346.43	301.55	339.67	295.67	
14 Jun	165.250	-40.017	162.667	1173.6	14.90	0.44	35.522	1013.2	346.46	305.80	339.53	299.68	
14 Jun	165.292	-40.011	162.364	1199.4	14.90	0.44	35.555	1013.3	346.50	305.64	339.61	299.56	
14 Jun	165.333	-40.006	162.069	1224.5	14.90	0.44	35.588	1013.3	346.14	303.55	339.25	297.51	
14 Jun	165.375	-40.000	161.767	1250.2	14.80	0.44	35.622	1013.4	345.78	301.73	338.97	295.79	
14 Jun	165.417	-39.944	161.526	1271.7	14.80	0.45	35.655	1013.9	345.36	299.51	338.73	293.76	
14 Jun	165.458	-39.889	161.291	1292.6	14.80	0.45	35.688	1014.5	345.60	302.75	339.17	297.11	
14 Jun	165.500	-39.833	161.050	1314.1	14.70	0.45	35.721	1015.0	346.26	303.10	340.02	297.64	
14 Jun	165.542	-39.777	160.820	1334.7	14.90	0.44	35.755	1015.9	345.72	303.50	339.72	298.24	
14 Jun	165.583	-39.723	160.596	1354.8	15.10	0.44	35.787	1016.7	346.15	308.49	340.35	303.32	
14 Jun	165.625	-39.667	160.367	1375.3	15.30	0.44	35.821	1017.6	346.39	305.76	340.82	300.84	
14 Jun	165.667	-39.611	160.165	1393.7	15.40	0.44	35.854	1018.4	345.93	300.71	340.60	296.08	
14 Jun	165.708	-39.556	159.968	1411.6	15.50	0.43	35.887	1019.1	345.03	303.75	339.92	299.25	
14 Jun	165.750	-39.500	159.767	1429.9	15.50	0.43	35.921	1019.9	346.29	301.46	341.43	297.23	
14 Jun	165.792	-39.500	159.531	1450.2	15.50	0.43	35.954	1021.4	346.87	302.09	342.51	298.30	
14 Jun	165.833	-39.500	159.302	1469.8	15.40	0.44	35.987	1022.9	346.09	301.56	342.29	298.25	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
14 Jun	165.875	-39.500	159.067	1490.0	15.30	0.44	36.020	1024.4	346.83	310.31	343.56	307.39	
14 Jun	165.917	-39.500	158.859	1507.8	15.30	0.44	36.054	1025.3	346.45	314.48	343.49	311.79	
14 Jun	165.958	-39.500	158.657	1525.1	15.30	0.44	36.087	1026.3	346.25	309.90	343.63	307.56	
15 Jun	166.000	-39.500	158.450	1542.9	15.30	0.44	36.120	1027.2	346.81	308.03	344.49	305.97	
15 Jun	166.042	-39.500	158.170	1566.9	15.50	0.43	36.107	1027.9	345.63	303.19	343.49	301.31	
15 Jun	166.083	-39.500	157.897	1590.3	15.70	0.43	36.095	1028.5	345.66	307.15	343.65	305.36	
15 Jun	166.125	-39.500	157.617	1614.3	15.90	0.43	36.082	1029.2	346.96	308.34	345.11	306.69	
15 Jun	166.167	-39.500	157.359	1636.4	16.00	0.43	36.069	1029.7	345.67	311.48	343.95	309.94	
15 Jun	166.208	-39.500	157.108	1657.9	16.10	0.43	36.056	1030.3	345.99	302.29	344.44	300.93	
15 Jun	166.250	-39.500	156.850	1680.0	16.10	0.42	36.044	1030.8	346.66	303.15	345.28	301.93	
15 Jun	166.292	-39.500	156.570	1704.1	16.20	0.42	36.031	1031.7	346.30	303.65	345.19	302.68	
15 Jun	166.333	-39.500	156.297	1727.5	16.30	0.42	36.018	1032.6	346.24	302.88	345.39	302.14	
15 Jun	166.375	-39.500	156.017	1751.5	16.30	0.42	36.005	1033.5	346.82	299.25	346.28	298.78	
15 Jun	166.417	-39.500	155.753	1774.1	16.30	0.42	35.993	1033.4	346.08	298.72	345.50	298.22	
15 Jun	166.458	-39.500	155.497	1796.1	16.20	0.42	35.980	1033.3	346.29	305.96	345.72	305.45	
15 Jun	166.500	-39.500	155.233	1818.7	16.10	0.42	35.967	1033.2	345.96	308.67	345.39	308.17	
15 Jun	166.542	-39.500	154.881	1848.9	16.10	0.42	35.955	1034.0	345.93	304.53	345.63	304.27	
15 Jun	166.583	-39.500	154.536	1878.5	16.10	0.42	35.942	1034.8	345.53	310.69	345.50	310.66	
15 Jun	166.625	-39.500	154.183	1908.7	16.10	0.42	35.929	1035.6	345.74	298.34	345.99	298.55	
15 Jun	166.667	-39.528	153.887	1934.3	16.00	0.43	35.916	1035.8	345.99	298.02	346.34	298.32	
15 Jun	166.708	-39.555	153.597	1959.3	15.90	0.43	35.904	1035.9	346.35	300.28	346.77	300.64	
15 Jun	166.750	-39.583	153.300	1985.0	15.70	0.43	35.891	1036.1	346.14	298.18	346.70	298.66	
15 Jun	166.792	-39.578	152.930	2016.6	16.30	0.42	35.878	1036.6	346.36	299.45	346.87	299.89	
15 Jun	166.833	-39.572	152.570	2047.5	16.80	0.41	35.866	1037.0	346.33	310.30	346.78	310.71	
15 Jun	166.875	-39.567	152.200	2079.2	17.30	0.40	35.853	1037.5	347.56	308.85	347.99	309.23	
15 Jun	166.917	-39.567	152.004	2096.0	17.40	0.40	35.840	1037.7	346.08	307.51	346.53	307.91	
15 Jun	166.958	-39.567	151.813	2112.3	17.50	0.40	35.827	1037.9	345.50	308.76	345.98	309.19	
16 Jun	167.000	-39.567	151.617	2129.1	17.50	0.40	35.815	1038.1	345.90	303.74	346.45	304.22	
16 Jun	167.042	-39.572	151.505	2138.7	17.50	0.40	35.802	1037.6	345.72	303.34	346.10	303.67	
16 Jun	167.083	-39.578	151.395	2148.2	17.40	0.40	35.789	1037.2	345.91	303.21	346.19	303.46	
16 Jun	167.125	-39.583	151.283	2157.8	17.30	0.40	35.776	1036.7	346.07	302.73	346.22	302.87	
16 Jun	167.167	-39.600	151.009	2181.3	16.80	0.41	35.764	1036.4	345.54	300.73	345.79	300.94	
16 Jun	167.208	-39.617	150.741	2204.3	16.30	0.42	35.751	1036.2	345.83	304.17	346.20	304.50	
16 Jun	167.250	-39.633	150.467	2227.9	15.70	0.43	35.738	1035.9	346.58	306.25	347.07	306.69	
16 Jun	167.292	-39.611	150.237	2247.7	15.60	0.43	35.726	1036.0	346.46	306.69	347.03	307.19	
16 Jun	167.333	-39.589	150.013	2267.0	15.50	0.43	35.713	1036.2	346.85	298.74	347.52	299.32	
16 Jun	167.375	-39.567	149.783	2286.9	15.30	0.44	35.700	1036.3	345.50	298.18	346.27	298.85	
16 Jun	167.417	-39.522	149.442	2316.5	15.00	0.44	35.687	1036.4	345.39	303.53	346.30	304.33	
16 Jun	167.458	-39.478	149.108	2345.6	14.70	0.45	35.675	1036.4	346.52	299.47	347.54	300.35	
16 Jun	167.500	-39.433	148.767	2375.3	14.30	0.45	35.662	1036.5	346.85	314.06	348.04	315.13	
16 Jun	167.542	-39.389	148.380	2408.8	14.10	0.46	35.649	1036.4	346.09	329.24	347.31	330.40	
16 Jun	167.583	-39.345	148.003	2441.6	13.90	0.46	35.637	1036.4	347.18	341.57	348.47	342.84	
16 Jun	167.625	-39.300	147.617	2475.2	13.70	0.46	35.624	1036.3	346.59	335.44	347.91	336.72	
16 Jun	167.667	-39.339	147.247	2507.3	13.90	0.46	35.611	1035.8	347.54	338.19	348.63	339.25	
16 Jun	167.708	-39.377	146.886	2538.6	14.00	0.46	35.598	1035.3	347.37	337.96	348.25	338.82	
16 Jun	167.750	-39.417	146.517	2570.6	14.10	0.46	35.586	1034.8	347.62	330.07	348.30	330.71	
16 Jun	167.792	-39.377	146.169	2600.8	14.00	0.46	35.573	1034.7	346.93	335.56	347.61	336.22	
16 Jun	167.833	-39.339	145.831	2630.1	13.90	0.46	35.560	1034.6	346.70	328.68	347.38	329.32	
16 Jun	167.875	-39.300	145.483	2660.3	13.70	0.46	35.547	1034.5	346.93	338.61	347.64	339.30	
16 Jun	167.917	-39.283	145.147	2689.3	13.90	0.46	35.535	1034.7	346.63	325.71	347.34	326.37	
16 Jun	167.958	-39.267	144.819	2717.6	14.10	0.46	35.522	1035.0	347.05	339.86	347.80	340.59	
17 Jun	168.000	-39.250	144.483	2746.5	14.30	0.45	35.509	1035.2	346.91	329.48	347.66	330.19	
17 Jun	168.042	-39.250	144.103	2779.2	14.50	0.45	35.497	1030.9	347.91	323.03	347.13	322.30	
17 Jun	168.083	-39.250	143.731	2811.2	14.70	0.45	35.484	1026.8	348.03	320.32	345.78	318.25	
17 Jun	168.125	-39.250	143.350	2844.0	14.90	0.44	35.471	1022.5	351.37	327.56	347.55	324.00	
17 Jun	168.167	-39.250	143.025	2872.0	14.70	0.45	35.458	1025.3	351.79	328.78	349.00	326.17	
17 Jun	168.208	-39.250	142.708	2899.3	14.50	0.45	35.446	1027.9	350.96	327.41	349.14	325.71	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 Jun	168.250	-39.250	142.383	2927.2	14.30	0.45	35.433	1030.7	350.66	307.04	349.87	306.34	
17 Jun	168.292	-39.256	142.115	2950.3	14.30	0.45	35.420	1030.6	348.15	305.87	347.33	305.15	
17 Jun	168.333	-39.261	141.852	2973.0	14.20	0.45	35.408	1030.6	350.01	305.08	349.22	304.40	
17 Jun	168.375	-39.267	141.583	2996.1	14.10	0.46	35.395	1030.5	349.71	306.10	348.92	305.41	
17 Jun	168.417	-39.267	141.253	3024.5	14.10	0.46	35.382	1030.2	348.29	345.88	347.40	345.00	
17 Jun	168.458	-39.267	140.930	3052.3	14.10	0.46	35.369	1029.8	348.10	335.33	347.08	334.35	
17 Jun	168.500	-39.267	140.600	3080.7	14.10	0.46	35.357	1029.5	348.17	319.85	347.04	318.82	
17 Jun	168.542	-39.255	140.309	3105.7	14.30	0.45	35.344	1029.2	349.19	321.03	347.89	319.84	
17 Jun	168.583	-39.245	140.025	3130.2	14.40	0.45	35.331	1029.0	348.87	324.81	347.47	323.50	
17 Jun	168.625	-39.233	139.733	3155.4	14.50	0.45	35.318	1028.7	346.91	315.96	347.37	314.57	
17 Jun	168.667	-39.233	139.392	3184.7	14.30	0.45	35.306	1028.2	348.31	319.53	346.67	318.03	
17 Jun	168.708	-39.233	139.058	3213.5	14.00	0.46	35.293	1027.8	348.91	311.25	347.23	309.75	
17 Jun	168.750	-39.233	138.717	3242.8	13.70	0.46	35.280	1027.3	348.75	307.57	347.00	306.03	
17 Jun	168.792	-39.233	138.420	3268.4	13.70	0.46	35.268	1027.0	347.23	301.21	345.39	299.62	
17 Jun	168.833	-39.233	138.130	3293.3	13.70	0.46	35.255	1026.6	345.13	302.75	343.16	301.03	
17 Jun	168.875	-39.233	137.833	3318.9	13.70	0.46	35.242	1026.3	343.06	301.63	341.00	299.82	
17 Jun	168.917	-39.233	137.609	3338.2	13.90	0.46	35.229	1026.1	343.47	309.90	341.28	307.93	
17 Jun	168.958	-39.233	137.391	3357.0	14.10	0.46	35.217	1025.8	344.93	310.12	342.56	307.99	
18 Jun	169.000	-39.233	137.167	3376.2	14.30	0.45	35.204	1025.6	345.64	311.69	343.13	309.43	
18 Jun	169.042	-39.228	137.100	3382.0	14.10	0.46	35.187	1025.1	345.47	311.05	342.86	308.70	
18 Jun	169.083	-39.222	137.034	3387.7	13.80	0.46	35.170	1024.6	345.79	317.54	343.11	315.08	
18 Jun	169.125	-39.217	136.967	3393.5	13.50	0.47	35.153	1024.1	345.89	347.61	343.14	344.84	
18 Jun	169.167	-39.217	136.675	3418.7	13.20	0.47	35.136	1023.4	346.93	313.96	344.02	311.33	
18 Jun	169.208	-39.217	136.391	3443.1	13.00	0.47	35.119	1022.7	347.15	309.42	344.07	306.67	
18 Jun	169.250	-39.217	136.100	3468.2	12.70	0.48	35.101	1022.0	347.40	335.34	344.17	332.22	
18 Jun	169.292	-39.217	135.742	3499.0	12.70	0.48	35.084	1021.8	348.28	337.51	344.97	334.30	
18 Jun	169.333	-39.217	135.392	3529.1	12.80	0.48	35.067	1021.7	347.64	337.00	344.27	333.74	
18 Jun	169.375	-39.217	135.033	3560.0	12.80	0.48	35.050	1021.5	347.68	339.79	344.25	336.43	
18 Jun	169.417	-39.217	134.680	3590.4	12.90	0.47	35.033	1021.3	347.70	345.64	344.17	342.13	
18 Jun	169.458	-39.217	134.336	3620.0	13.10	0.47	35.016	1021.0	347.80	354.96	344.10	351.19	
18 Jun	169.500	-39.217	133.983	3650.4	13.20	0.47	34.999	1020.8	347.74	360.69	343.94	356.75	
18 Jun	169.542	-39.194	133.810	3665.5	13.10	0.47	34.982	1020.3	347.84	364.86	343.90	360.73	
18 Jun	169.583	-39.172	133.640	3680.4	13.00	0.47	34.965	1019.7	347.65	373.19	343.54	368.78	
18 Jun	169.625	-39.150	133.467	3695.5	12.90	0.48	34.948	1019.2	347.96	376.03	343.71	371.43	
18 Jun	169.667	-39.133	133.114	3726.0	13.30	0.47	34.931	1018.4	347.90	375.06	343.25	370.05	
18 Jun	169.708	-39.117	132.770	3755.7	13.70	0.46	34.914	1017.7	347.18	372.32	342.17	366.95	
18 Jun	169.750	-39.100	132.417	3786.2	14.10	0.46	34.896	1016.9	347.02	370.51	341.61	364.74	
18 Jun	169.792	-39.061	132.142	3810.3	13.90	0.46	34.879	1016.1	347.33	372.46	341.71	366.44	
18 Jun	169.833	-39.023	131.874	3833.8	13.60	0.46	34.862	1015.2	347.10	370.40	341.28	364.19	
18 Jun	169.875	-38.983	131.600	3857.9	13.30	0.47	34.845	1014.4	347.10	369.73	341.10	363.34	
18 Jun	169.917	-38.966	131.342	3880.3	13.20	0.47	34.828	1013.8	347.52	375.71	341.34	369.03	
18 Jun	169.958	-38.950	131.091	3902.0	13.10	0.47	34.811	1013.2	347.59	374.47	341.24	367.63	
19 Jun	170.000	-38.933	130.833	3924.4	13.00	0.47	34.794	1012.6	347.72	373.87	341.19	366.85	
19 Jun	170.042	-38.922	130.777	3929.4	12.90	0.47	34.799	1012.0	347.25	376.22	340.56	368.97	
19 Jun	170.083	-38.911	130.723	3934.2	12.90	0.48	34.803	1011.4	347.64	376.43	340.73	368.96	
19 Jun	170.125	-38.900	130.667	3939.2	12.80	0.48	34.808	1010.8	347.56	375.63	340.48	367.99	
19 Jun	170.167	-38.883	130.387	3963.5	13.00	0.47	34.813	1009.4	347.07	317.62	339.47	310.66	
19 Jun	170.208	-38.867	130.113	3987.3	13.30	0.47	34.817	1008.0	347.54	313.58	339.35	306.20	
19 Jun	170.250	-38.850	129.833	4011.6	13.50	0.47	34.822	1006.6	346.99	316.28	338.28	308.34	
19 Jun	170.292	-38.816	129.441	4045.7	13.40	0.47	34.827	1006.0	347.12	315.41	338.23	307.33	
19 Jun	170.333	-38.784	129.059	4079.0	13.40	0.47	34.831	1005.4	346.60	313.20	337.52	305.00	
19 Jun	170.375	-38.750	128.667	4113.2	13.30	0.47	34.836	1004.8	346.97	312.77	337.71	304.42	
19 Jun	170.417	-38.722	128.409	4135.7	13.30	0.47	34.841	1004.6	345.75	315.41	336.45	306.93	
19 Jun	170.458	-38.695	128.158	4157.7	13.30	0.47	34.845	1004.4	346.32	320.71	336.94	312.03	
19 Jun	170.500	-38.667	127.900	4180.3	13.30	0.47	34.850	1004.2	346.64	316.30	337.18	307.68	
19 Jun	170.542	-38.683	127.648	4202.2	13.60	0.46	34.855	1003.7	346.80	315.99	337.07	307.13	
19 Jun	170.583	-38.700	127.402	4223.6	13.90	0.46	34.859	1003.3	347.40	316.23	337.42	307.15	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
19 Jun	170.625	-38.717	127.150	4245.6	14.10	0.46	34.864	1002.8	346.67	316.21	336.48	306.91	
19 Jun	170.667	-38.700	126.870	4269.9	14.10	0.46	34.869	1002.3	347.07	318.22	336.70	308.71	
19 Jun	170.708	-38.683	126.597	4293.7	14.10	0.46	34.873	1001.9	347.37	318.18	336.85	308.54	
19 Jun	170.750	-38.667	126.317	4318.0	14.10	0.46	34.878	1001.4	346.91	323.51	336.24	313.55	
19 Jun	170.792	-38.588	126.059	4342.1	14.10	0.46	34.883	1000.9	346.59	318.52	335.76	308.56	
19 Jun	170.833	-38.512	125.808	4365.5	14.10	0.46	34.887	1000.4	346.71	319.18	335.70	309.04	
19 Jun	170.875	-38.433	125.550	4389.6	14.10	0.46	34.892	999.9	346.20	318.38	335.04	308.12	
19 Jun	170.917	-38.377	125.281	4413.8	13.80	0.46	34.897	1000.1	346.18	317.97	335.19	307.87	
19 Jun	170.958	-38.323	125.019	4437.4	13.50	0.47	34.901	1000.4		318.92		308.98	
20 Jun	171.000	-38.267	124.750	4461.7	13.20	0.47	34.906	1000.6	345.09	318.50	334.49	308.72	
20 Jun	171.042	-38.233	124.560	4478.7	13.20	0.47	34.914	1000.8	346.01	315.98	335.45	306.34	
20 Jun	171.083	-38.200	124.374	4495.4	13.30	0.47	34.923	1001.0	346.78	315.58	336.23	305.98	
20 Jun	171.125	-38.167	124.183	4512.4	13.30	0.47	34.931	1001.2	346.50	319.13	336.03	309.49	
20 Jun	171.167	-38.099	123.903	4538.1	13.20	0.47	34.940	1001.0	345.83	316.97	335.34	307.36	
20 Jun	171.208	-38.034	123.630	4563.0	13.00	0.47	34.948	1000.9	346.45	348.83	335.97	338.28	
20 Jun	171.250	-37.967	123.350	4588.6	12.90	0.48	34.956	1000.7	346.84	340.45	336.32	330.11	
20 Jun	171.292	-37.911	123.137	4608.3	13.40	0.47	34.965	1001.3	346.32	319.57	335.86	309.91	
20 Jun	171.333	-37.856	122.929	4627.5	14.00	0.46	34.973	1002.0	346.97	322.78	336.53	313.07	
20 Jun	171.375	-37.800	122.717	4647.2	14.50	0.45	34.981	1002.6	345.47	319.15	335.11	309.58	
20 Jun	171.417	-37.733	122.487	4668.7	14.80	0.45	34.990	1003.4	346.02	311.66	335.81	302.47	
20 Jun	171.458	-37.667	122.263	4689.7	15.10	0.44	34.998	1004.3	346.09	321.03	336.08	311.74	
20 Jun	171.500	-37.600	122.033	4711.3	15.30	0.44	35.007	1005.1	346.98	321.96	337.15	312.84	
20 Jun	171.542	-37.533	121.742	4738.0	15.00	0.44	35.015	1005.5	346.58	306.95	337.00	298.47	
20 Jun	171.583	-37.467	121.458	4764.1	14.70	0.45	35.023	1006.0	346.23	335.05	336.93	326.05	
20 Jun	171.625	-37.400	121.167	4790.8	14.30	0.45	35.032	1006.4	346.52	335.40	337.49	326.66	
20 Jun	171.667	-37.344	120.976	4808.8	14.80	0.44	35.040	1006.8	346.70	336.74	337.63	327.93	
20 Jun	171.708	-37.289	120.790	4826.3	15.30	0.44	35.048	1007.2	346.61	335.89	337.50	327.06	
20 Jun	171.750	-37.233	120.600	4844.2	15.80	0.43	35.057	1007.6	346.03	336.39	336.89	327.50	
20 Jun	171.792	-37.177	120.348	4867.4	15.90	0.43	35.065	1007.4	346.22	337.72	336.97	328.69	
20 Jun	171.833	-37.123	120.102	4890.0	16.00	0.43	35.073	1007.3	345.11	339.82	335.82	330.67	
20 Jun	171.875	-37.067	119.850	4913.2	16.10	0.42	35.082	1007.1	345.95	340.64	336.53	331.36	
20 Jun	171.917	-37.011	119.626	4934.0	16.20	0.42	35.090	1007.8	345.92	340.86	336.70	331.78	
20 Jun	171.958	-36.956	119.407	4954.4	16.30	0.42	35.099	1008.5	345.68	340.32	336.67	331.44	
21 Jun	172.000	-36.900	119.183	4975.2	16.30	0.42	35.107	1009.2	345.92	342.56	337.14	333.87	
21 Jun	172.042	-36.777	118.959	4999.4	16.50	0.42	35.115	1010.1	346.24	341.97	337.68	333.51	
21 Jun	172.083	-36.657	118.741	5022.9	16.70	0.41	35.124	1011.0	345.86	341.82	337.54	333.59	
21 Jun	172.125	-36.533	118.517	5047.2	16.90	0.41	35.132	1011.9	345.66	361.82	337.57	353.35	
21 Jun	172.167	-36.438	118.332	5066.8	16.90	0.41	35.141	1011.7	345.60	355.73	337.44	347.33	
21 Jun	172.208	-36.345	118.151	5086.0	16.90	0.41	35.149	1011.6	345.96	355.16	337.76	346.75	
21 Jun	172.250	-36.250	117.967	5105.6	16.90	0.41	35.157	1011.4	346.39	355.09	338.11	346.60	
21 Jun	172.292	-36.132	117.765	5127.9	16.90	0.41	35.166	1011.8	346.74	353.70	338.59	345.39	
21 Jun	172.333	-36.018	117.568	5149.7	16.90	0.41	35.174	1012.3	346.02	352.54	338.06	344.42	
21 Jun	172.375	-35.900	117.367	5172.0	16.90	0.41	35.182	1012.7	346.27	351.11	338.44	343.17	
21 Jun	172.417	-35.827	117.182	5190.6	17.70	0.40	35.191	1013.2	346.21	351.08	338.23	342.99	
21 Jun	172.458	-35.756	117.002	5208.6	18.60	0.39	35.199	1013.7	346.47	352.55	338.27	344.20	
21 Jun	172.500	-35.683	116.817	5227.2	19.40	0.37	35.208	1014.2	346.12	352.63	337.74	344.09	
21 Jun	172.542	-35.566	116.593	5251.2	18.90	0.38	35.216	1014.3	347.04	352.21	338.90	343.95	
21 Jun	172.583	-35.451	116.374	5274.8	18.40	0.39	35.224	1014.5	346.10	351.34	338.27	343.38	
21 Jun	172.625	-35.333	116.150	5298.9	18.00	0.40	35.233	1014.6	346.74	350.17	339.09	342.45	
21 Jun	172.667	-35.277	115.937	5319.2	18.40	0.39	35.241	1014.3	346.07	353.90	338.17	345.82	
21 Jun	172.708	-35.223	115.729	5339.0	18.90	0.38	35.249	1014.1	346.87	354.11	338.66	345.74	
21 Jun	172.750	-35.167	115.517	5359.3	19.40	0.37	35.258	1013.8	346.41	362.52	337.89	353.60	
21 Jun	172.792	-35.088	115.298	5381.0	19.40	0.37	35.266	1014.0	346.93	365.74	338.46	356.81	
21 Jun	172.833	-35.012	115.085	5402.2	19.40	0.37	35.274	1014.1	346.86	367.74	338.43	358.80	
21 Jun	172.875	-34.933	114.867	5423.9	19.40	0.37	35.283	1014.3	346.06	368.17	337.72	359.29	
21 Jun	172.917	-34.833	114.699	5442.8	19.00	0.38	35.291	1015.1	346.13	367.86	338.24	359.47	
21 Jun	172.958	-34.734	114.535	5461.4	18.60	0.39	35.300	1015.9	346.73	368.08	339.27	360.16	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
22 Jun	173.000	-34.633	114.367	5480.4	18.20	0.39	35.308	1016.7	346.10	365.84	339.10	358.43	
22 Jun	173.042	-34.454	114.148	5508.6	18.30	0.39	35.316	1018.0	345.91	366.00	339.31	359.02	
22 Jun	173.083	-34.279	113.935	5536.2	18.50	0.39	35.325	1019.4	346.61	364.99	340.39	358.44	
22 Jun	173.125	-34.100	113.717	5564.4	18.70	0.38	35.333	1020.7	346.35	364.00	340.49	357.83	
22 Jun	173.167	-34.038	113.420	5592.6	18.20	0.39	35.342	1020.7	346.02	363.20	340.38	357.27	
22 Jun	173.208	-33.978	113.130	5620.1	17.80	0.40	35.350	1020.8	346.03	360.65	340.59	354.97	
22 Jun	173.250	-33.917	112.833	5648.4	17.30	0.40	35.358	1020.8	345.18	357.38	339.95	351.97	
22 Jun	173.292	-33.866	112.542	5675.8	17.50	0.40	35.367	1021.1	345.52	297.21	340.31	292.73	
22 Jun	173.333	-33.817	112.258	5702.6	17.60	0.40	35.375	1021.4	345.81	297.76	340.66	293.32	
22 Jun	173.375	-33.767	111.967	5730.0	17.70	0.40	35.383	1021.7	346.17	298.04	341.07	293.65	
22 Jun	173.417	-33.716	111.709	5754.5	17.40	0.40	35.392	1022.5	346.66	298.98	341.95	294.91	
22 Jun	173.458	-33.667	111.458	5778.3	17.10	0.41	35.400	1023.3	345.74	298.08	341.43	294.36	
22 Jun	173.500	-33.617	111.200	5802.8	16.70	0.41	35.409	1024.1	346.62	297.80	342.73	294.45	
22 Jun	173.542	-33.561	110.909	5830.5	16.90	0.41	35.417	1024.3	346.29	306.67	342.39	303.22	
22 Jun	173.583	-33.506	110.625	5857.5	17.00	0.41	35.425	1024.5	346.33	306.90	342.46	303.47	
22 Jun	173.625	-33.450	110.333	5885.3	17.10	0.41	35.434	1024.7	346.32	305.51	342.48	302.13	
22 Jun	173.667	-33.388	110.048	5912.6	17.10	0.41	35.442	1024.5	346.73	325.27	342.82	321.60	
22 Jun	173.708	-33.328	109.769	5939.3	17.10	0.41	35.450	1024.2	346.87	336.34	342.85	332.45	
22 Jun	173.750	-33.267	109.483	5966.7	17.10	0.41	35.459	1024.0	346.38	337.26	342.30	333.29	
22 Jun	173.792	-33.211	109.170	5996.5	16.60	0.42	35.467	1023.6	346.48	319.11	342.46	315.40	
22 Jun	173.833	-33.156	108.864	6025.6	16.10	0.43	35.475	1023.2	346.77	332.25	342.80	328.45	
22 Jun	173.875	-33.100	108.550	6055.5	15.50	0.43	35.484	1022.8	346.58	313.39	342.70	309.88	
22 Jun	173.917	-33.061	108.292	6079.9	15.60	0.43	35.492	1023.0	346.84	313.36	342.99	309.88	
22 Jun	173.958	-33.023	108.041	6103.6	15.70	0.43	35.501	1023.3	346.51	307.37	342.73	304.01	
23 Jun	174.000	-32.983	107.783	6128.1	15.70	0.43	35.509	1023.5	346.78	315.53	343.06	312.15	
23 Jun	174.042	-32.939	107.487	6156.1	15.90	0.43	35.517	1023.8	346.44	323.15	342.75	319.71	
23 Jun	174.083	-32.895	107.197	6183.6	16.10	0.43	35.526	1024.2	346.18	306.56	342.56	303.35	
23 Jun	174.125	-32.850	106.900	6211.8	16.20	0.42	35.534	1024.5	345.70	309.62	342.15	306.44	
23 Jun	174.167	-32.800	106.592	6241.1	16.10	0.42	35.543	1023.8	346.62	308.27	342.86	304.92	
23 Jun	174.208	-32.750	106.291	6269.7	16.00	0.43	35.551	1023.2	346.86	308.72	342.93	305.22	
23 Jun	174.250	-32.700	105.983	6299.1	15.90	0.43	35.559	1022.5	346.62	307.66	342.49	303.99	
23 Jun	174.292	-32.644	105.709	6325.4	16.50	0.42	35.568	1022.0	346.97	304.00	342.44	300.03	
23 Jun	174.333	-32.589	105.441	6351.2	17.10	0.41	35.576	1021.4	346.59	305.92	341.63	301.54	
23 Jun	174.375	-32.533	105.167	6377.6	17.70	0.40	35.584	1020.9	346.30	305.60	340.93	300.86	
23 Jun	174.417	-32.494	104.903	6402.8	17.70	0.40	35.593	1021.2	346.91	305.12	341.63	300.47	
23 Jun	174.458	-32.456	104.647	6427.1	17.60	0.40	35.601	1021.6	346.60	304.26	341.50	299.78	
23 Jun	174.500	-32.417	104.383	6452.3	17.50	0.40	35.610	1021.9	346.98	303.78	342.02	299.44	
23 Jun	174.542	-32.383	104.120	6477.2	17.50	0.40	35.618	1021.9	346.28	305.11	341.33	300.75	
23 Jun	174.583	-32.350	103.863	6501.6	17.50	0.40	35.626	1022.0	346.19	317.39	341.28	312.89	
23 Jun	174.625	-32.317	103.600	6526.6	17.40	0.40	35.635	1022.0	346.50	317.95	341.62	313.47	
23 Jun	174.667	-32.210	103.314	6556.0	17.30	0.40	35.643	1022.0	346.07	318.07	341.24	313.63	
23 Jun	174.708	-32.106	103.036	6584.6	17.20	0.41	35.651	1021.9	346.45	318.29	341.62	313.86	
23 Jun	174.750	-32.000	102.750	6614.0	17.10	0.41	35.660	1021.9	345.78	318.85	341.00	314.44	
23 Jun	174.792	-32.000	102.431	6644.0	17.00	0.41	35.668	1021.9	346.25	319.22	341.50	314.84	
23 Jun	174.833	-32.000	102.119	6673.4	16.90	0.41	35.676	1022.0	346.13	319.70	341.46	315.38	
23 Jun	174.875	-32.000	101.800	6703.5	16.70	0.41	35.685	1022.0	346.03	318.66	341.43	314.43	
23 Jun	174.917	-31.966	101.554	6727.0	16.60	0.42	35.693	1022.4	346.05	318.33	341.63	314.26	
23 Jun	174.958	-31.934	101.313	6750.0	16.50	0.42	35.702	1022.8	345.94	318.72	341.69	314.81	
24 Jun	175.000	-31.900	101.067	6773.5	16.30	0.42	35.710	1023.2	345.94	317.74	341.91	314.04	
24 Jun	175.042	-31.883	100.932	6786.4	16.40	0.42	35.714	1023.7	345.91	305.22	342.01	301.78	
24 Jun	175.083	-31.867	100.801	6798.9	16.50	0.42	35.718	1024.2	346.58	304.85	342.80	301.53	
24 Jun	175.125	-31.850	100.667	6811.6	16.50	0.42	35.722	1024.7	346.22	308.82	342.62	305.60	
24 Jun	175.167	-31.794	100.381	6839.4	16.70	0.41	35.726	1024.3	346.65	308.78	342.83	305.38	
24 Jun	175.208	-31.739	100.102	6866.4	16.90	0.41	35.729	1023.9	346.21	308.96	342.18	305.36	
24 Jun	175.250	-31.683	99.817	6894.1	17.10	0.41	35.733	1023.5	346.90	310.00	342.65	306.20	
24 Jun	175.292	-31.650	99.587	6916.1	17.20	0.41	35.737	1023.3	346.08	309.79	341.73	305.89	
24 Jun	175.333	-31.617	99.363	6937.6	17.30	0.41	35.741	1023.0	345.52	309.34	341.03	305.32	

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24 Jun	175.375	-31.583	99.133	6959.7	17.30	0.40	35.745	1022.8	346.59	308.26	342.02	304.20	
24 Jun	175.417	-31.555	98.881	6983.8	17.40	0.40	35.749	1023.0	346.14	308.24	341.61	304.20	
24 Jun	175.458	-31.528	98.635	7007.3	17.50	0.40	35.753	1023.2	346.32	307.69	341.81	303.68	
24 Jun	175.500	-31.500	98.383	7031.3	17.60	0.40	35.757	1023.4	346.59	307.97	342.10	303.98	
24 Jun	175.542	-31.461	98.182	7050.9	17.60	0.40	35.761	1023.6	346.13	309.44	341.72	305.49	
24 Jun	175.583	-31.423	97.985	7070.0	17.60	0.40	35.765	1023.8	346.38	307.93	342.03	304.07	
24 Jun	175.625	-31.383	97.783	7089.7	17.50	0.40	35.769	1024.0	346.06	309.11	341.83	305.33	
24 Jun	175.667	-31.327	97.487	7118.5	17.50	0.40	35.773	1023.9	346.23	308.37	341.96	304.57	
24 Jun	175.708	-31.273	97.197	7146.6	17.40	0.40	35.776	1023.8	346.42	308.39	342.15	304.59	
24 Jun	175.750	-31.217	96.900	7175.5	17.30	0.40	35.780	1023.7	346.32	305.25	342.06	301.49	
24 Jun	175.792	-31.172	96.637	7201.0	17.70	0.40	35.784	1023.5	346.28	305.06	341.79	301.11	
24 Jun	175.833	-31.128	96.380	7226.0	18.20	0.39	35.788	1023.3	346.24	306.03	341.48	301.82	
24 Jun	175.875	-31.083	96.117	7251.5	18.60	0.39	35.792	1023.1	346.02	304.95	341.02	300.54	
24 Jun	175.917	-31.039	95.848	7277.5	18.60	0.39	35.796	1023.2	346.01	306.18	341.04	301.79	
24 Jun	175.958	-30.995	95.585	7303.1	18.60	0.39	35.800	1023.4	346.27	308.51	341.37	304.15	
25 Jun	176.000	-30.950	95.317	7329.1	18.60	0.39	35.804	1023.5	345.81	309.22	340.95	304.87	
25 Jun	176.042	-30.900	95.031	7356.9	18.60	0.39	35.808	1023.8	346.53	309.74	341.76	305.48	
25 Jun	176.083	-30.850	94.752	7384.1	18.60	0.39	35.812	1024.2	346.97	309.54	342.33	305.40	
25 Jun	176.125	-30.800	94.467	7411.8	18.60	0.39	35.815	1024.5	346.60	309.20	342.07	305.15	
25 Jun	176.167	-30.738	94.170	7441.0	18.10	0.39	35.819	1024.3	346.52	307.82	342.13	303.93	
25 Jun	176.208	-30.678	93.880	7469.5	17.60	0.40	35.823	1024.1	346.23	310.20	341.99	306.40	
25 Jun	176.250	-30.617	93.583	7498.7	17.10	0.41	35.827	1023.9	346.19	310.65	342.08	306.96	
25 Jun	176.292	-30.583	93.399	7516.7	17.30	0.41	35.831	1023.5	346.04	308.68	341.72	304.83	
25 Jun	176.333	-30.550	93.218	7534.4	17.40	0.40	35.835	1023.1	346.02	311.50	341.52	307.45	
25 Jun	176.375	-30.517	93.033	7552.5	17.50	0.40	35.839	1022.7	346.03	311.66	341.36	307.45	
25 Jun	176.417	-30.466	92.765	7578.8	17.60	0.40	35.843	1023.0	346.89	308.70	342.27	304.59	
25 Jun	176.458	-30.417	92.502	7604.6	17.70	0.40	35.847	1023.2	346.43	325.13	341.84	320.82	
25 Jun	176.500	-30.367	92.233	7630.9	17.70	0.40	35.851	1023.5	347.01	355.53	342.51	350.92	
25 Jun	176.542	-30.316	91.953	7658.4	18.20	0.39	35.855	1023.5	346.78	333.47	342.08	328.94	
25 Jun	176.583	-30.267	91.680	7685.1	18.70	0.38	35.858	1023.6	346.52	332.22	341.64	327.54	
25 Jun	176.625	-30.217	91.400	7712.6	19.20	0.38	35.862	1023.6	346.34	323.06	341.24	318.31	
25 Jun	176.667	-30.155	91.092	7742.9	18.90	0.38	35.866	1023.6	346.30	323.80	341.33	319.15	
25 Jun	176.708	-30.095	90.791	7772.6	18.60	0.38	35.870	1023.7	346.78	317.33	341.97	312.93	
25 Jun	176.750	-30.033	90.483	7803.0	18.40	0.39	35.874	1023.7	346.62	343.19	341.90	338.51	
25 Jun	176.792	-29.854	90.383	7825.1	18.80	0.38	35.878	1023.3	346.99	319.95	341.96	315.31	
25 Jun	176.833	-29.679	90.284	7846.8	19.30	0.37	35.882	1022.9	346.82	317.37	341.43	312.44	
25 Jun	176.875	-29.500	90.183	7869.0	19.80	0.37	35.886	1022.5	346.49	315.55	340.74	310.31	
25 Jun	176.917	-29.242	90.122	7898.2	19.80	0.37	35.890	1022.3	346.74	316.13	340.92	310.83	
25 Jun	176.958	-28.991	90.062	7926.7	19.90	0.36	35.894	1022.1	345.99	320.20	340.07	314.72	
26 Jun	177.000	-28.733	90.000	7956.0	20.00	0.36	35.897	1021.9	346.61	337.87	340.56	331.97	
26 Jun	177.042	-28.565	90.000	7974.7	20.00	0.36	35.901	1022.2	346.13	354.13	340.19	348.06	
26 Jun	177.083	-28.401	90.000	7992.9	20.00	0.36	35.905	1022.6	346.57	331.49	340.76	325.93	
26 Jun	177.125	-28.233	90.000	8011.6	20.00	0.36	35.909	1022.9	346.57	358.88	340.86	352.97	
26 Jun	177.167	-28.015	90.000	8035.8	20.00	0.36	35.913	1022.4	346.44	358.85	340.57	352.77	
26 Jun	177.208	-27.802	90.000	8059.5	20.10	0.36	35.917	1022.0	346.53	315.18	340.47	309.67	
26 Jun	177.250	-27.583	90.000	8083.8	20.20	0.36	35.899	1021.5	346.99	310.32	340.71	304.70	
26 Jun	177.292	-27.539	90.000	8088.7	20.20	0.36	35.882	1021.0	346.88	310.54	340.43	304.76	
26 Jun	177.333	-27.495	90.000	8093.6	20.20	0.36	35.865	1020.4	346.09	308.56	339.45	302.64	
26 Jun	177.375	-27.450	90.000	8098.6	20.20	0.36	35.847	1019.9	346.77	313.40	339.95	307.23	
26 Jun	177.417	-27.265	90.000	8119.2	20.20	0.36	35.829	1019.9	346.28	337.11	339.46	330.47	
26 Jun	177.458	-27.085	90.000	8139.2	20.30	0.36	35.812	1019.9	346.95	334.63	340.07	328.00	
26 Jun	177.500	-26.900	90.000	8159.7	20.40	0.36	35.794	1019.9	346.55	322.52	339.63	316.09	
26 Jun	177.542	-26.850	90.000	8165.3	20.40	0.36	35.777	1019.9	346.37	310.79	339.46	304.59	
26 Jun	177.583	-26.800	90.000	8170.8	20.40	0.36	35.760	1020.0	346.61	310.08	339.73	303.92	
26 Jun	177.625	-26.750	90.000	8176.4	20.50	0.36	35.742	1020.0	346.91	311.41	339.97	305.18	
26 Jun	177.667	-26.476	90.000	8206.8	20.80	0.35	35.724	1020.0	346.83	306.56	339.75	300.30	
26 Jun	177.708	-26.208	90.000	8236.6	21.10	0.35	35.707	1019.9	346.85	305.55	339.58	299.15	

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26 Jun	177.750	-25.933	90.000	8267.2	21.40	0.34	35.690	1019.9	347.28	304.49	339.85	297.98	
26 Jun	177.792	-25.665	90.000	8296.9	21.70	0.34	35.672	1019.4	347.29	305.94	339.54	299.12	
26 Jun	177.833	-25.402	90.000	8326.2	22.10	0.33	35.655	1018.8	347.10	306.32	338.94	299.11	
26 Jun	177.875	-25.133	90.000	8356.1	22.40	0.33	35.637	1018.3	346.98	309.52	338.49	301.95	
26 Jun	177.917	-24.881	90.000	8384.1	22.40	0.32	35.619	1018.1	346.93	309.99	338.38	302.35	
26 Jun	177.958	-24.635	90.000	8411.4	22.50	0.32	35.602	1017.8	347.35	310.34	338.63	302.55	
27 Jun	178.000	-24.383	90.000	8439.4	22.50	0.32	35.585	1017.6	347.09	310.09	338.31	302.25	
27 Jun	178.042	-24.288	90.000	8450.0	22.30	0.33	35.567	1018.1	347.90	311.03	339.38	303.41	
27 Jun	178.083	-24.195	90.000	8460.3	22.10	0.33	35.551	1018.7	347.49	317.07	339.29	309.59	
27 Jun	178.125	-24.100	90.000	8470.8	21.90	0.33	35.535	1019.2	347.55	319.20	339.62	311.91	
27 Jun	178.167	-23.826	90.000	8501.3	21.80	0.33	35.519	1018.8	347.26	313.04	339.25	305.82	
27 Jun	178.208	-23.558	90.000	8531.1	21.80	0.33	35.503	1018.3	347.13	316.86	338.96	309.40	
27 Jun	178.250	-23.283	90.000	8561.6	21.80	0.33	35.487	1017.9	346.65	320.52	338.35	312.85	
27 Jun	178.292	-23.087	90.000	8583.4	21.80	0.33	35.470	1017.2	347.03	321.38	338.48	313.46	
27 Jun	178.333	-22.896	90.000	8604.6	21.80	0.33	35.455	1016.5	347.02	315.76	338.24	307.76	
27 Jun	178.375	-22.700	90.000	8626.4	21.80	0.33	35.438	1015.8	347.21	316.05	338.18	307.83	
27 Jun	178.417	-22.426	90.000	8656.9	21.90	0.33	35.422	1015.7	346.43	315.68	337.34	307.39	
27 Jun	178.458	-22.158	90.000	8686.6	22.10	0.33	35.406	1015.5	346.22	311.61	336.96	303.28	
27 Jun	178.500	-21.883	90.000	8717.2	22.20	0.33	35.390	1015.4	346.43	311.82	337.08	303.40	
27 Jun	178.542	-21.727	90.000	8734.5	22.10	0.33	35.374	1015.7	346.77	311.04	337.56	302.78	
27 Jun	178.583	-21.573	90.000	8751.6	22.10	0.33	35.358	1016.0	346.69	309.74	337.59	301.61	
27 Jun	178.625	-21.417	90.000	8769.0	22.00	0.33	35.342	1016.3	346.98	312.29	338.02	304.23	
27 Jun	178.667	-21.131	90.000	8800.8	22.20	0.33	35.326	1015.9	346.55	312.83	337.36	304.53	
27 Jun	178.708	-20.852	90.000	8831.8	22.40	0.33	35.310	1015.4	346.14	312.67	336.69	304.13	
27 Jun	178.750	-20.567	90.000	8863.4	22.60	0.32	35.294	1015.0	346.37	315.81	336.67	306.97	
27 Jun	178.792	-20.348	90.000	8887.8	22.90	0.32	35.277	1014.5	346.47	317.31	336.43	308.11	
27 Jun	178.833	-20.135	90.000	8911.4	23.10	0.31	35.261	1014.0	346.76	317.26	336.43	307.81	
27 Jun	178.875	-19.917	90.000	8935.7	23.40	0.31	35.245	1013.5	346.45	317.68	335.79	307.91	
27 Jun	178.917	-19.693	90.000	8960.6	23.40	0.31	35.229	1013.3	347.10	317.59	336.35	307.75	
27 Jun	178.958	-19.474	90.000	8984.9	23.40	0.31	35.213	1013.2	347.20	318.93	336.42	309.03	
28 Jun	179.000	-19.250	90.000	9009.8	23.40	0.31	35.197	1013.0	347.07	320.58	336.22	310.56	
28 Jun	179.042	-19.172	90.000	9018.4	23.40	0.31	35.157	1013.4	347.76	321.65	337.03	311.72	
28 Jun	179.083	-19.095	90.000	9027.0	23.30	0.31	35.117	1013.7	347.73	318.07	337.16	308.40	
28 Jun	179.125	-19.017	90.000	9035.7	23.30	0.31	35.077	1014.1	347.58	318.94	337.15	309.36	
28 Jun	179.167	-18.731	90.000	9067.5	23.30	0.31	35.037	1013.9	346.61	318.39	336.14	308.78	
28 Jun	179.208	-18.452	90.000	9098.5	23.20	0.31	34.998	1013.7	346.54	319.44	336.06	309.78	
28 Jun	179.250	-18.167	90.000	9130.1	23.20	0.31	34.957	1013.5	347.02	319.63	336.46	309.90	
28 Jun	179.292	-17.999	90.000	9148.8	23.40	0.31	34.917	1012.7	346.82	320.28	335.88	310.17	
28 Jun	179.333	-17.835	90.000	9167.0	23.60	0.31	34.878	1011.8	347.19	320.20	335.81	309.71	
28 Jun	179.375	-17.667	90.000	9185.7	23.80	0.30	34.837	1011.0	347.01	320.83	335.25	309.96	
28 Jun	179.417	-17.420	90.000	9213.1	24.10	0.30	34.797	1011.1	347.59	322.56	335.67	311.50	
28 Jun	179.458	-17.180	90.000	9239.8	24.30	0.29	34.758	1011.3	347.14	314.94	335.19	304.09	
28 Jun	179.500	-16.933	90.000	9267.2	24.60	0.29	34.717	1011.4	347.39	316.76	335.28	305.71	
28 Jun	179.542	-16.782	90.000	9284.0	24.90	0.28	34.677	1011.6	346.78	316.28	334.58	305.15	
28 Jun	179.583	-16.634	90.000	9300.5	25.30	0.28	34.638	1011.7	346.63	319.89	334.22	308.43	
28 Jun	179.625	-16.483	90.000	9317.2	25.60	0.27	34.598	1011.9	346.54	325.24	334.01	313.48	
28 Jun	179.667	-16.209	90.000	9347.7	25.70	0.27	34.557	1011.5	347.40	347.87	334.64	335.09	
28 Jun	179.708	-15.941	90.000	9377.5	25.90	0.27	34.518	1011.1	347.45	359.00	334.42	345.54	
28 Jun	179.750	-15.667	90.000	9407.9	26.00	0.27	34.478	1010.7	348.29	357.47	335.02	343.85	
28 Jun	179.792	-15.471	90.000	9429.7	26.10	0.27	34.437	1010.1	347.65	339.58	334.14	326.39	
28 Jun	179.833	-15.279	90.000	9451.0	26.30	0.26	34.398	1009.4	348.43	345.25	334.52	331.46	
28 Jun	179.875	-15.083	90.000	9472.8	26.40	0.26	34.358	1008.8	348.55	335.27	334.36	321.62	
28 Jun	179.917	-14.859	90.000	9497.7	26.60	0.26	34.318	1009.0	348.00	340.29	333.76	326.37	
28 Jun	179.958	-14.641	90.000	9521.9	26.70	0.26	34.278	1009.3	348.00	354.16	333.80	339.71	
29 Jun	180.000	-14.417	90.000	9546.8	26.80	0.26	34.238	1009.5	347.27		333.10		
29 Jun	180.042	-14.299	90.000	9559.9	26.70	0.26	34.238	1009.8	348.24	352.32	334.20	338.12	
29 Jun	180.083	-14.184	90.000	9572.7	26.60	0.26	34.237	1010.0	349.20	340.76	335.26	327.15	

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29 Jun	180.125	-14.067	90.000	9585.7	26.50	0.26	34.237	1010.3	351.46	340.07	337.60	326.66	
29 Jun	180.167	-13.798	90.000	9615.6	26.50	0.26	34.237	1010.1	350.12	339.73	336.24	326.26	
29 Jun	180.208	-13.535	90.000	9644.8	26.50	0.26	34.237	1010.0	349.66	339.29	335.77	325.81	
29 Jun	180.250	-13.267	90.000	9674.6	26.50	0.26	34.236	1009.8	348.74	342.66	334.81	328.97	
29 Jun	180.292	-13.115	90.000	9691.5	26.60	0.26	34.236	1009.7	347.16	337.01	333.20	323.45	
29 Jun	180.333	-12.968	90.000	9707.8	26.60	0.26	34.236	1009.5	347.82	336.80	333.76	323.19	
29 Jun	180.375	-12.817	90.000	9724.6	26.60	0.26	34.235	1009.4	347.62	327.45	333.54	314.18	
29 Jun	180.417	-12.565	90.000	9752.6	27.00	0.25	34.235	1009.5	347.44	329.68	333.12	316.10	
29 Jun	180.458	-12.319	90.000	9780.0	27.30	0.25	34.235	1009.5	347.43	345.40	332.91	330.96	
29 Jun	180.500	-12.067	90.000	9808.0	27.60	0.24	34.234	1009.6	347.38	349.73	332.68	334.93	
29 Jun	180.542	-11.927	90.000	9823.5	27.60	0.24	34.234	1010.1	347.89	350.09	333.34	335.45	
29 Jun	180.583	-11.790	90.000	9838.7	27.50	0.24	34.234	1010.7	347.28	353.50	333.03	339.00	
29 Jun	180.625	-11.650	90.000	9854.3	27.40	0.25	34.234	1011.2	347.53	356.29	333.51	341.92	
29 Jun	180.667	-11.370	90.000	9885.4	27.50	0.25	34.233	1011.2	347.61	357.98	333.52	343.46	
29 Jun	180.708	-11.097	90.000	9915.7	27.50	0.24	34.233	1011.1	347.17	361.38	333.06	346.69	
29 Jun	180.750	-10.817	90.000	9946.9	27.50	0.24	34.233	1011.1	347.45	363.57	333.33	348.80	
29 Jun	180.792	-10.621	90.000	9968.6	27.60	0.24	34.232	1010.8	347.95	363.84	333.64	348.87	
29 Jun	180.833	-10.429	90.000	9990.0	27.60	0.24	34.232	1010.6	347.13	365.63	332.78	350.52	
29 Jun	180.875	-10.233	90.000	10011.7	27.60	0.24	34.232	1010.3	347.27	356.73	332.81	341.88	
29 Jun	180.917	-10.004	90.000	10037.2	27.60	0.24	34.232	1010.3	347.63	354.84	333.16	340.06	
29 Jun	180.958	-9.780	90.000	10062.1	27.60	0.24	34.231	1010.3	347.73	359.73	333.25	344.75	
30 Jun	181.000	-9.550	90.000	10087.6	27.60	0.24	34.231	1010.3	348.00	364.36	333.51	349.19	
30 Jun	181.042	-9.427	90.000	10101.3	27.70	0.24	34.258	1010.9	347.19	364.82	332.87	349.78	
30 Jun	181.083	-9.307	90.000	10114.6	27.70	0.24	34.285	1011.4					
30 Jun	181.125	-9.183	90.000	10128.4	27.70	0.24	34.312	1012.0					
30 Jun	181.167	-8.903	90.000	10159.5	27.80	0.24	34.339	1012.1	347.56	363.86	333.56	349.21	
30 Jun	181.208	-8.630	90.000	10189.9	27.90	0.24	34.365	1012.1	347.49	391.45	333.42	375.61	
30 Jun	181.250	-8.350	90.000	10221.0	28.00	0.24	34.392	1012.2	347.40	407.85	333.30	391.30	
30 Jun	181.292	-8.160	90.000	10242.1	28.00	0.24	34.419	1011.6	347.56	385.92	333.25	370.03	
30 Jun	181.333	-7.974	90.000	10262.8	28.00	0.24	34.446	1011.0	347.59	415.63	333.07	398.27	
30 Jun	181.375	-7.783	90.000	10284.0	28.00	0.24	34.473	1010.4	346.67	425.98	331.99	407.93	
30 Jun	181.417	-7.520	90.000	10313.2	28.10	0.24	34.500	1010.6	347.92	373.28	333.18	357.46	
30 Jun	181.458	-7.263	90.000	10341.8	28.20	0.23	34.526	1010.8	347.45	377.98	332.72	361.96	
30 Jun	181.500	-7.000	90.000	10371.0	28.20	0.23	34.553	1011.0	348.16		333.47		
30 Jun	181.542	-6.849	90.000	10387.8	28.30	0.23	34.581	1011.7	347.91	368.52	333.40	353.15	
30 Jun	181.583	-6.701	90.000	10404.2	28.40	0.23	34.607	1012.3	347.39	370.57	333.03	355.25	
30 Jun	181.625	-6.550	90.000	10421.0	28.40	0.23	34.634	1013.0	347.46	376.88	333.34	361.56	
30 Jun	181.667	-6.264	90.000	10452.8	28.30	0.23	34.661	1012.7	347.98	376.50	333.81	361.17	
30 Jun	181.708	-5.986	90.000	10483.7	28.20	0.23	34.688	1012.5	347.84	392.65	333.68	376.66	
30 Jun	181.750	-5.700	90.000	10515.5	28.10	0.23	34.715	1012.2	347.98	391.17	333.78	375.22	
30 Jun	181.792	-5.521	90.000	10535.3	28.20	0.23	34.742	1011.9	347.84	376.21	333.47	360.67	
30 Jun	181.833	-5.346	90.000	10554.8	28.30	0.23	34.768	1011.7	347.91	368.97	333.40	353.58	
30 Jun	181.875	-5.167	90.000	10574.7	28.40	0.23	34.795	1011.4	347.46	369.17	332.79	353.59	
30 Jun	181.917	-4.915	90.000	10602.7	28.50	0.23	34.822	1011.5	347.77	367.62	333.05	352.06	
30 Jun	181.958	-4.669	90.000	10630.0	28.60	0.23	34.849	1011.5	347.72	385.23	332.93	368.84	
1 Jul	182.000	-4.417	90.000	10658.0	28.60	0.23	34.876	1011.6	347.94	372.35	333.17	356.54	
1 Jul	182.042	-4.367	90.000	10663.6	28.80	0.22	34.857	1011.6	347.77	380.10	332.86	363.80	
1 Jul	182.083	-4.267	90.000	10674.7	28.80	0.22	34.839	1013.0					
1 Jul	182.125	-4.017	90.000	10702.5	28.80	0.22	34.820	1013.2	347.53	387.32	333.17	371.32	
1 Jul	182.167	-3.767	90.000	10730.3	29.00	0.22	34.802	1013.4	348.01	375.76	333.55	360.15	
1 Jul	182.208	-3.450	90.000	10765.5	29.10	0.22	34.784	1013.5	347.62	380.88	333.13	365.00	
1 Jul	182.250	-3.200	90.000	10793.3	29.20	0.22	34.765	1013.2	347.55	396.52	332.89	379.79	
1 Jul	182.292	-3.183	90.000	10795.1	29.20	0.22	34.746	1012.8	347.94	377.64	333.12	361.56	
1 Jul	182.333	-2.917	90.000	10824.7	29.40	0.21	34.728	1012.2	347.92	379.90	332.74	363.33	
1 Jul	182.375	-2.667	90.000	10852.5	29.50	0.21	34.709	1011.1	347.86	381.99	332.23	364.83	
1 Jul	182.417	-2.417	90.000	10880.3	29.40	0.21	34.691	1010.8	347.67	376.94	332.03	359.99	
1 Jul	182.458	-2.167	90.000	10908.0	29.40	0.21	34.672	1010.6	347.76	385.49	332.04	368.07	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
1 Jul	182.500	-1.917	90.000	10935.8	29.40	0.21	34.654	1010.6	347.86	383.95	332.14	366.60	
1 Jul	182.542	-1.850	90.000	10943.3	29.40	0.21	34.635	1011.2	347.73	381.15	332.22	364.15	
1 Jul	182.583	-1.850	90.000	10943.3	29.40	0.21	34.617	1012.3	347.84	381.54	332.70	364.93	
1 Jul	182.625	-1.650	90.000	10965.5	29.40	0.21	34.598	1012.7	347.79	387.42	332.79	370.71	
1 Jul	182.667	-1.417	90.000	10991.4	29.30	0.22	34.580	1013.0	348.10	367.91	333.27	352.24	
1 Jul	182.708	-1.083	90.000	11028.5	29.10	0.22	34.561	1013.2	348.23	367.83	333.61	352.39	
1 Jul	182.750	-0.850	90.000	11054.4	29.10	0.22	34.543	1013.0	347.70	366.13	333.04	350.69	
1 Jul	182.792	-0.817	90.000	11058.1	29.10	0.22	34.524	1012.6	347.82	367.00	333.02	351.38	
1 Jul	182.833	-0.600	90.000	11082.2	28.70	0.22	34.506	1012.6	347.97	367.23	333.46	351.93	
1 Jul	182.875	-0.350	90.000	11109.9	28.80	0.22	34.487	1011.8	348.06	368.51	333.20	352.78	
1 Jul	182.917	-0.100	90.000	11137.7	28.90	0.22	34.469	1011.6	348.25	368.25	333.24	352.37	
1 Jul	182.958	0.150	90.000	11165.5	28.90	0.22	34.450	1011.8	348.37	367.81	333.42	352.03	
2 Jul	183.000	0.367	90.000	11189.6	28.90	0.22	34.432	1012.0	348.17	365.68	333.30	350.06	
2 Jul	183.042	0.367	90.000	11189.6	29.00	0.22	34.413	1012.7	348.38	364.74	333.66	349.33	
2 Jul	183.083	0.531	90.000	11207.8	29.00	0.22	34.411	1012.9	348.25	370.21	333.61	354.64	
2 Jul	183.125	0.700	90.000	11226.6	29.00	0.22	34.408	1013.2	348.49	366.32	333.94	351.02	
2 Jul	183.167	0.986	90.000	11258.4	29.10	0.22	34.406	1013.1	347.30	368.38	332.69	352.88	
2 Jul	183.208	1.264	90.000	11289.3	29.10	0.22	34.404	1012.9	348.25	384.28	333.53	368.03	
2 Jul	183.250	1.550	90.000	11321.1	29.10	0.22	34.402	1012.8	348.91	378.20	334.13	362.17	
2 Jul	183.292	1.684	90.000	11336.0	29.20	0.22	34.399	1012.1	347.90	383.27	332.84	366.69	
2 Jul	183.333	1.816	90.000	11350.6	29.20	0.22	34.397	1011.3	348.08	374.02	332.74	357.54	
2 Jul	183.375	1.950	90.000	11365.5	29.20	0.22	34.395	1010.6	348.36	400.54	332.77	382.61	
2 Jul	183.417	2.213	90.000	11394.7	29.20	0.22	34.392	1010.7	348.86	391.96	333.28	374.45	
2 Jul	183.458	2.470	90.000	11423.3	29.20	0.22	34.390	1010.7	348.19	367.80	332.64	351.37	
2 Jul	183.500	2.733	90.000	11452.5	29.20	0.22	34.388	1010.8	348.39	372.07	332.87	355.50	
2 Jul	183.542	2.879	90.000	11468.8	29.20	0.22	34.386	1011.3		385.57		368.58	
2 Jul	183.583	3.021	90.000	11484.5	29.10	0.22	34.383	1011.9	347.66	365.44	332.62	349.64	
2 Jul	183.625	3.167	90.000	11500.8	29.00	0.22	34.381	1012.4	347.50	370.95	332.72	355.17	
2 Jul	183.667	3.447	90.000	11531.9	29.00	0.22	34.379	1012.3	347.83	389.60	333.00	372.99	
2 Jul	183.708	3.720	90.000	11562.2	29.00	0.22	34.376	1012.1	347.95	378.52	333.05	362.30	
2 Jul	183.750	4.000	90.000	11593.3	28.90	0.22	34.374	1012.0	347.54	380.72	332.70	364.46	
2 Jul	183.792	4.162	90.000	11611.3	28.90	0.22	34.372	1011.7	347.59	394.65	332.64	377.68	
2 Jul	183.833	4.321	90.000	11629.0	28.90	0.22	34.369	1011.3	348.40	374.74	333.28	358.48	
2 Jul	183.875	4.483	90.000	11647.0	28.90	0.22	34.367	1011.0	348.79	371.98	333.55	355.73	
2 Jul	183.917	4.730	90.000	11674.4	28.90	0.22	34.365	1010.9	348.12	370.88	332.88	354.64	
2 Jul	183.958	4.970	90.000	11701.1	28.90	0.22	34.363	1010.9	348.66	383.38	333.39	366.59	
3 Jul	184.000	5.217	90.000	11728.6	28.80	0.22	34.360	1010.8	348.10	374.91	332.90	358.54	
3 Jul	184.042	5.239	90.084	11738.2	28.90	0.22	34.358	1011.2	348.16	389.84	333.02	372.88	
3 Jul	184.083	5.261	90.166	11747.6	28.90	0.22	34.400	1011.5	347.73	382.57	332.71	366.04	
3 Jul	184.125	5.283	90.250	11757.2	28.90	0.22	34.443	1011.9					
3 Jul	184.167	5.339	90.536	11789.4	28.90	0.22	34.486	1011.6		399.95		382.71	
3 Jul	184.208	5.394	90.814	11820.8	28.90	0.22	34.528	1011.3		366.27		350.38	
3 Jul	184.250	5.450	91.100	11853.0	28.90	0.22	34.572	1011.0		368.17		352.08	
3 Jul	184.292	5.512	91.363	11882.9	28.90	0.22	34.615	1010.7					
3 Jul	184.333	5.572	91.620	11912.1	28.90	0.22	34.657	1010.5		362.16		346.16	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
14 Jul	195.833	-12.533	153.215	0.0	26.09	0.32	35.102	1013.3		322.05		310.55	
14 Jul	195.875	-12.373	153.415	28.1	26.13	0.32	35.096	1014.6	347.14	325.09	335.16	313.88	
14 Jul	195.917	-12.370	153.438	30.6	26.14	0.32	35.090	1015.6					
14 Jul	195.958	-12.367	153.442	31.1	26.15	0.32	35.089	1015.8	347.56	326.76	335.97	315.86	
15 Jul	196.000	-12.368	153.442	31.2	26.15	0.32	35.088	1015.5	346.09	326.18	334.44	315.20	
15 Jul	196.042	-12.307	153.537	43.6	26.14	0.32	35.087	1015.0	347.07	326.95	335.23	315.79	
15 Jul	196.083	-12.163	153.730	69.9	26.13	0.32	35.086	1013.9	346.90	323.80	334.69	312.41	
15 Jul	196.125	-11.975	153.955	102.1	25.93	0.32	35.086	1013.0	346.31	327.40	333.95	315.71	
15 Jul	196.167	-11.807	154.148	130.2	25.84	0.32	35.085	1012.6	345.98	328.81	333.55	317.00	
15 Jul	196.208	-11.620	154.367	161.8	25.98	0.32	35.084	1012.2	347.61	325.86	334.90	313.95	
15 Jul	196.250	-11.435	154.525	188.6	26.07	0.32	35.083	1012.0	349.17	326.57	336.27	314.51	
15 Jul	196.292	-11.387	154.532	194.0	26.06	0.32	35.082	1012.8	346.29	325.54	333.78	313.78	
15 Jul	196.333	-11.363	154.567	198.6	26.06	0.32	35.080	1012.8	346.60	325.29	334.08	313.53	
15 Jul	196.375	-11.327	154.620	205.7	26.09	0.32	35.078	1013.0	345.94		333.49		
15 Jul	196.417	-11.277	154.760	221.9	26.29	0.32	35.076	1013.0					
15 Jul	196.458	-11.255	154.765	224.4	26.26	0.32	35.075	1013.6					
15 Jul	196.500	-11.227	154.798	229.2	26.23	0.32	35.073	1013.7					
15 Jul	196.542	-11.168	154.965	248.5	26.16	0.32	35.071	1013.3					
15 Jul	196.583	-11.170	154.985	250.7	26.13	0.32	35.069	1013.2					
15 Jul	196.625	-11.140	155.023	256.0	26.17	0.32	35.046	1013.2	346.66	334.96	334.20	322.92	
15 Jul	196.667	-11.153	155.193	274.6	26.23	0.32	35.023	1012.5	347.00	333.51	334.25	321.25	
15 Jul	196.708	-11.048	155.210	286.4	26.24	0.32	35.001	1012.5	347.25	332.13	334.48	319.92	
15 Jul	196.750	-11.003	155.295	297.0	26.31	0.32	34.989	1012.7	347.59	333.15	334.83	320.92	
15 Jul	196.792	-10.952	155.435	313.3	26.41	0.32	34.976	1012.8	346.85	330.62	334.09	318.46	
15 Jul	196.833	-10.942	155.433	314.4	26.45	0.32	34.964	1013.3	347.33	331.16	334.69	319.11	
15 Jul	196.875	-10.940	155.420	315.8	26.46	0.32	34.954	1014.0	348.53	331.36	336.08	319.53	
15 Jul	196.917	-10.945	155.525	327.3	26.60	0.31	34.944	1014.3	347.85	330.86	335.43	319.05	
15 Jul	196.958	-10.965	155.703	346.8	26.63	0.31	34.934	1014.5	347.57	333.13	335.21	321.29	
16 Jul	197.000	-10.905	155.843	363.5	26.65	0.31	34.924	1014.7	348.27	333.83	335.94	322.01	
16 Jul	197.042	-10.723	155.928	385.8	26.68	0.31	34.913	1014.2	346.53	333.15	334.07	321.17	
16 Jul	197.083	-10.620	155.987	398.9	26.72	0.31	34.903	1013.2	346.09	332.72	333.28	320.40	
16 Jul	197.125	-10.635	155.970	401.4	26.73	0.31	34.893	1012.3	346.89	336.68	333.74	323.92	
16 Jul	197.167	-10.617	155.962	403.6	26.72	0.31	34.883	1011.8	347.82	334.93	334.47	322.08	
16 Jul	197.208	-10.613	155.955	404.5	26.72	0.31	34.870	1011.5	348.48	334.05	335.00	321.13	
16 Jul	197.250	-10.605	155.952	405.4	26.71	0.31	34.857	1011.4	346.75	340.94	333.31	327.72	
16 Jul	197.292	-10.558	156.098	422.2	26.71	0.31	34.844	1011.6		340.44		327.31	
16 Jul	197.333	-10.543	156.092	424.0	26.71	0.31	34.831	1012.5	347.89	339.25	334.78	326.47	
16 Jul	197.375	-10.552	156.077	425.9	26.70	0.31	34.832	1013.1	348.24	338.35	335.33	325.80	
16 Jul	197.417	-10.537	156.077	427.6	26.73	0.31	34.834	1013.5	347.94	329.06	335.16	316.97	
16 Jul	197.458	-10.492	156.207	442.6	26.79	0.31	34.835	1013.6	347.92	330.39	335.13	318.25	
16 Jul	197.500	-10.485	156.210	443.5	26.82	0.31	34.836	1013.6	348.08	330.33	335.26	318.17	
16 Jul	197.542	-10.477	156.210	444.3	26.86	0.31	34.837	1013.4	347.25	330.04	334.37	317.80	
16 Jul	197.583	-10.475	156.212	444.7	26.86	0.31	34.838	1013.5	348.25	331.22	335.37	318.97	
16 Jul	197.625	-10.423	156.320	457.8	26.83	0.31	34.838	1013.0	347.43	331.01	334.43	318.62	
16 Jul	197.667	-10.415	156.332	459.4	26.82	0.31	34.839	1013.0	347.97	331.24	334.95	318.85	
16 Jul	197.708	-10.417	156.332	459.6	26.83	0.31	34.840	1013.0	347.76	331.56	334.75	319.15	
16 Jul	197.750	-10.415	156.332	459.8	26.80	0.31	34.864	1013.0	347.66	330.06	334.67	317.73	
16 Jul	197.792	-10.337	156.445	474.9	26.66	0.31	34.887	1013.4	347.87	330.28	335.10	318.16	
16 Jul	197.833	-10.340	156.445	475.3	26.66	0.31	34.910	1013.9	348.04	331.36	335.44	319.37	
16 Jul	197.875	-10.347	156.440	476.2	26.67	0.31	34.934	1014.1	348.44	330.57	335.89	318.66	
16 Jul	197.917	-10.345	156.442	476.5	26.68	0.31	34.939	1014.9	348.83	339.76	336.53	327.78	
16 Jul	197.958	-10.313	156.485	482.4	26.62	0.31	34.943	1015.4	348.42	331.90	336.34	320.40	
17 Jul	198.000	-10.200	156.640	503.5	26.62	0.31	34.947	1015.0	348.00	332.06	335.80	320.42	
17 Jul	198.042	-10.192	156.663	506.2	26.61	0.31	34.952	1014.7	348.56	332.55	336.25	320.80	
17 Jul	198.083	-10.178	156.653	508.1	26.62	0.31	34.950	1014.4	347.77	333.69	335.38	321.80	
17 Jul	198.125	-10.198	156.663	510.5	26.65	0.31	34.949	1013.5	346.79	333.55	334.10	321.35	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 Jul	198.167	-10.120	156.808	528.6	26.66	0.31	34.947	1013.2	347.69	333.76	334.86	321.44	
17 Jul	198.208	-10.040	156.865	539.5	26.66	0.31	34.946	1013.3	349.58	333.95	336.72	321.66	
17 Jul	198.250	-10.062	156.877	542.3	26.65	0.31	34.944	1013.3	346.85	333.13	334.09	320.88	
17 Jul	198.292	-10.075	156.883	543.8	26.64	0.31	34.945	1013.5	347.98	332.89	335.26	320.72	
17 Jul	198.333	-9.980	157.008	561.1	26.63	0.31	34.945	1013.6	348.44	332.15	335.74	320.04	
17 Jul	198.375	-9.892	157.108	575.8	26.65	0.31	34.945	1014.1	348.29	333.08	335.75	321.09	
17 Jul	198.417	-9.910	157.117	578.0	26.66	0.31	34.946	1014.4	347.50	332.14	335.09	320.28	
17 Jul	198.458	-9.915	157.117	578.6	26.73	0.31	34.941	1014.6	347.54	334.10	335.15	322.19	
17 Jul	198.500	-9.922	157.142	581.4	26.89	0.31	34.936	1014.5	347.11	333.04	334.59	321.03	
17 Jul	198.542	-9.840	157.205	592.9	26.93	0.31	34.932	1014.2	347.26	332.86	334.60	320.73	
17 Jul	198.583	-9.753	157.322	608.9	26.66	0.31	34.927	1014.0	347.79	332.58	335.23	320.57	
17 Jul	198.625	-9.762	157.332	610.4	26.66	0.31	34.922	1013.6	347.73	332.83	335.04	320.68	
17 Jul	198.667	-9.765	157.332	610.7	26.66	0.31	34.922	1013.4	347.77	332.29	335.01	320.09	
17 Jul	198.708	-9.757	157.357	613.6	26.67	0.31	34.923	1013.0	348.00	332.86	335.09	320.50	
17 Jul	198.750	-9.650	157.492	632.6	26.69	0.31	34.923	1013.4	347.47	333.08	334.70	320.83	
17 Jul	198.792	-9.623	157.538	638.4	26.73	0.31	34.924	1013.5	346.63	333.36	333.90	321.12	
17 Jul	198.833	-9.628	157.547	639.6	26.73	0.31	34.924	1013.6	347.46	333.17	334.73	320.96	
17 Jul	198.875	-9.647	157.552	641.7	26.73	0.31	34.911	1014.2	347.57	333.09	335.04	321.08	
17 Jul	198.917	-9.595	157.603	649.8	26.77	0.31	34.897	1014.4	347.42	330.77	334.94	318.88	
17 Jul	198.958	-9.510	157.710	664.8	26.94	0.31	34.885	1015.0	347.75	334.61	335.34	322.67	
18 Jul	199.000	-9.510	157.603	676.6	26.95	0.31	34.871	1014.7	347.46	336.49	334.95	324.38	
18 Jul	199.042	-9.480	157.763	694.4	26.96	0.31	34.858	1014.4	347.77	336.17	335.14	323.96	
18 Jul	199.083	-9.480	157.748	696.1	26.97	0.31	34.845	1013.9	347.76	336.92	334.96	324.52	
18 Jul	199.125	-9.483	157.747	696.4	26.98	0.31	34.846	1013.2	347.79	338.48	334.74	325.78	
18 Jul	199.167	-9.497	157.748	698.0	27.00	0.31	34.847	1012.8	349.00	337.49	335.75	324.68	
18 Jul	199.208	-9.393	157.880	716.5	27.12	0.31	34.847	1012.6	347.43	343.86	334.09	330.65	
18 Jul	199.250	-9.340	157.982	729.1	27.13	0.31	34.848	1012.6	347.43	345.83	334.08	332.55	
18 Jul	199.292	-9.345	157.943	733.4	27.11	0.31	34.849	1012.6	347.69	345.36	334.35	332.11	
18 Jul	199.333	-9.360	157.952	735.4	27.09	0.31	34.818	1013.0	347.51	346.39	334.33	333.25	
18 Jul	199.375	-9.257	158.077	753.2	27.05	0.31	34.786	1013.5	347.69	340.14	334.70	327.43	
18 Jul	199.417	-9.188	158.137	763.3	27.27	0.31	34.754	1014.0	348.21	342.72	335.21	329.93	
18 Jul	199.458	-9.157	158.178	769.0	27.29	0.31	34.723	1014.6	348.59	345.78	335.77	333.06	
18 Jul	199.500	-9.155	158.202	771.6	27.32	0.31	34.718	1014.1	347.61	346.31	334.64	333.38	
18 Jul	199.542	-9.190	158.360	789.4	27.42	0.30	34.713	1013.6	348.04	346.83	334.81	333.65	
18 Jul	199.583	-9.245	158.602	816.7	27.10	0.31	34.708	1012.8	348.66	347.71	335.36	334.44	
18 Jul	199.625	-9.293	158.982	858.7	26.86	0.31	34.703	1012.4	348.20	350.40	334.94	337.06	
18 Jul	199.667	-9.325	159.097	871.8	26.88	0.31	34.698	1011.5	348.84	345.45	335.24	331.98	
18 Jul	199.708	-9.228	159.305	897.0	27.42	0.30	34.694	1011.2	351.10	354.88	336.93	340.55	
18 Jul	199.750	-9.132	159.523	923.2	27.47	0.30	34.689	1011.6	351.02	352.28	336.95	338.16	
18 Jul	199.792	-8.962	159.708	950.9	27.61	0.30	34.684	1012.0	350.57	350.42	336.56	336.41	
18 Jul	199.833	-8.825	159.880	975.2	27.67	0.30	34.679	1012.5	349.09	350.34	335.26	336.46	
18 Jul	199.875	-8.683	160.078	1002.0	27.61	0.30	34.674	1012.5	348.31	344.45	334.56	330.85	
18 Jul	199.917	-8.503	160.263	1030.6	27.66	0.30	34.669	1013.4	350.56	342.75	336.99	329.49	
18 Jul	199.958	-8.322	160.442	1058.7	27.82	0.30	34.664	1013.0	350.98	338.74	337.14	325.38	
19 Jul	200.000	-8.113	160.585	1086.7	27.68	0.30	34.659	1012.5	350.26	338.73	336.38	325.31	
19 Jul	200.042	-7.953	160.740	1111.4	27.71	0.30	34.654	1011.9		336.74		323.18	
19 Jul	200.083	-7.808	160.917	1136.7	27.74	0.30	34.650	1011.4		334.07		320.43	
19 Jul	200.125	-7.658	161.128	1165.2	27.72	0.30	34.645	1010.5	348.11	332.04	333.60	318.20	
19 Jul	200.167	-7.517	161.333	1192.7	27.80	0.30	34.640	1010.1	347.08	334.69	332.42	320.56	
19 Jul	200.208	-7.395	161.527	1218.0	27.73	0.30	34.635	1010.0	348.85	334.93	334.13	320.81	
19 Jul	200.250	-7.262	161.730	1244.9	27.73	0.30	34.630	1010.0	348.02	335.39	333.34	321.24	
19 Jul	200.292	-7.127	161.937	1272.2	27.75	0.30	34.625	1010.5	347.33	334.86	332.83	320.88	
19 Jul	200.333	-6.988	162.142	1299.5	27.76	0.30	34.620	1011.1	348.04	337.14	333.71	323.26	
19 Jul	200.375	-6.845	162.335	1326.1	27.84	0.30	34.615	1011.0	347.45	337.35	333.06	323.37	
19 Jul	200.417	-6.698	162.527	1352.9	27.84	0.30	34.610	1011.4	347.98	340.87	333.70	326.88	
19 Jul	200.458	-6.555	162.712	1378.7	27.82	0.30	34.606	1011.6	348.10	337.92	333.90	324.13	

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19 Jul	200.500	-6.415	162.903	1404.9	27.84	0.30	34.601	1011.8	347.00	340.01	332.90	326.19	
19 Jul	200.542	-6.253	163.117	1434.7	27.89	0.30	34.596	1011.5	348.04	338.39	333.76	324.51	
19 Jul	200.583	-6.102	163.300	1460.9	27.88	0.30	34.591	1010.9	347.19	337.84	332.74	323.78	
19 Jul	200.625	-5.965	163.517	1489.3	27.81	0.30	34.586	1010.2	348.38	337.21	333.69	322.99	
19 Jul	200.667	-5.827	163.718	1516.3	27.89	0.30	34.581	1010.0	347.65	341.24	332.87	326.73	
19 Jul	200.708	-5.688	163.920	1543.5	27.92	0.30	34.576	1009.6	347.71	340.03	332.77	325.42	
19 Jul	200.750	-5.548	164.123	1570.8	27.94	0.30	34.571	1010.0	346.99	338.48	332.20	324.05	
19 Jul	200.792	-5.418	164.327	1597.6	28.06	0.30	34.566	1010.5	347.97	346.32	333.22	331.65	
19 Jul	200.833	-5.292	164.532	1624.2	28.05	0.30	34.562	1010.6	347.88	347.04	333.18	332.37	
19 Jul	200.875	-5.163	164.732	1650.6	28.07	0.30	34.557	1011.5	348.10	347.05	333.68	332.68	
19 Jul	200.917	-5.035	164.933	1677.0	28.16	0.30	34.552	1011.2	347.61	349.08	333.04	334.45	
19 Jul	200.958	-4.983	165.035	1689.7	28.20	0.30	34.547	1010.2	348.20	350.66	333.24	335.59	
20 Jul	201.000	-5.003	165.047	1692.3	28.27	0.29	34.542	1010.2	348.37	356.71	333.35	341.33	
20 Jul	201.042	-4.983	165.035	1694.9	28.33	0.29	34.537	1010.0	347.81	361.16	332.70	345.47	
20 Jul	201.083	-5.067	165.145	1710.2	28.47	0.29	34.532	1009.5	348.53	362.38	333.11	346.36	
20 Jul	201.125	-5.070	165.118	1713.2	28.49	0.29	34.527	1008.7	349.98	362.59	334.21	346.25	
20 Jul	201.167	-5.055	165.100	1715.8	28.51	0.29	34.522	1008.7	348.20	361.37	332.50	345.07	
20 Jul	201.208	-5.047	165.082	1718.0	28.52	0.29	34.518	1008.7	348.09	361.36	332.38	345.06	
20 Jul	201.250	-5.042	165.072	1719.2	28.54	0.29	34.513	1009.5	347.88	360.25	332.44	344.26	
20 Jul	201.292	-5.023	165.050	1722.5	28.50	0.29	34.508	1009.0		361.21		345.03	
20 Jul	201.333	-5.002	165.027	1725.9	28.48	0.29	34.503	1010.5	347.62	358.75	332.58	343.23	
20 Jul	201.375	-5.000	164.990	1730.0	28.48	0.29	34.498	1011.0	347.92	361.62	333.04	346.15	
20 Jul	201.417	-4.985	165.015	1733.2	28.52	0.29	34.493	1011.2	349.04	362.73	334.15	347.26	
20 Jul	201.458	-4.983	165.008	1734.1	28.49	0.29	34.505	1011.1	347.61	363.49	332.77	347.97	
20 Jul	201.500	-4.985	165.023	1735.7	28.40	0.29	34.517	1010.5	347.67	358.68	332.69	343.22	
20 Jul	201.542	-4.793	165.012	1757.1	28.18	0.30	34.530	1010.4	348.23	348.67	333.35	333.77	
20 Jul	201.583	-4.548	164.995	1784.4	28.15	0.30	34.541	1010.0	347.88	349.04	332.90	334.01	
20 Jul	201.625	-4.292	164.992	1812.8	28.23	0.29	34.554	1009.5	347.22	365.34	332.04	349.37	
20 Jul	201.667	-4.040	164.993	1840.8	28.22	0.30	34.566	1009.0	348.01	361.91	332.63	345.91	
20 Jul	201.708	-4.007	164.985	1844.6	28.20	0.30	34.578	1009.0	349.35	361.21	333.93	345.26	
20 Jul	201.750	-4.008	164.975	1845.7	28.21	0.30	34.500	1009.0	347.88	360.59	332.51	344.67	
20 Jul	201.792	-3.813	164.975	1867.4	28.23	0.29	34.422	1009.0	347.91	359.00	332.53	343.13	
20 Jul	201.833	-3.563	164.987	1895.2	28.22	0.30	34.345	1009.9	347.88	368.74	332.81	352.77	
20 Jul	201.875	-3.303	164.997	1924.1	28.26	0.29	34.267	1010.6	348.09	358.74	333.22	343.41	
20 Jul	201.917	-3.052	165.000	1952.0	28.49	0.29	34.189	1011.1	348.26	353.72	333.39	338.61	
20 Jul	201.958	-3.010	165.002	1956.7	28.56	0.29	34.113	1011.1	348.74	354.26	333.79	339.07	
21 Jul	202.000	-2.980	164.990	1960.3	28.54	0.29	34.116	1010.6	347.57	356.19	332.52	340.76	
21 Jul	202.042	-2.807	164.997	1979.5	28.61	0.29	34.118	1009.5	347.64	357.94	332.16	342.00	
21 Jul	202.083	-2.542	164.998	2009.0	28.64	0.29	34.120	1009.3	347.92	344.15	332.33	328.73	
21 Jul	202.125	-2.298	165.030	2036.3	28.43	0.29	34.123	1008.6	348.45	345.78	332.76	330.21	
21 Jul	202.167	-2.007	165.027	2068.6	28.42	0.29	34.126	1008.5	348.49	349.28	332.77	333.52	
21 Jul	202.208	-1.985	165.048	2072.0	28.45	0.29	34.128	1008.5	348.08	349.12	332.35	333.35	
21 Jul	202.250	-2.003	165.032	2074.7	28.49	0.29	34.131	1009.0	348.35	348.25	332.75	332.65	
21 Jul	202.292	-2.022	165.115	2084.2	28.57	0.29	34.133	1009.9	347.40	348.24	332.09	332.90	
21 Jul	202.333	-2.010	165.140	2087.2	28.68	0.29	34.135	1011.0	348.10	348.40	333.06	333.34	
21 Jul	202.375	-2.010	165.158	2089.2	28.56	0.29	34.138	1011.3	348.29	347.88	333.43	333.04	
21 Jul	202.417	-2.012	165.157	2089.5	28.54	0.29	34.141	1011.8	348.90	346.83	334.20	332.22	
21 Jul	202.458	-2.010	165.150	2090.3	28.54	0.29	34.143	1011.8	348.33	346.01	333.65	331.43	
21 Jul	202.500	-2.010	165.150	2090.3	28.56	0.29	34.146	1011.8	348.92	348.11	334.20	333.43	
21 Jul	202.542	-2.010	165.067	2099.5	28.57	0.29	34.148	1011.1	348.77	348.26	333.81	333.33	
21 Jul	202.583	-2.007	165.193	2113.5	28.53	0.29	34.150	1011.0	347.64	347.84	332.73	332.92	
21 Jul	202.625	-2.003	165.200	2114.4	28.51	0.29	34.153	1010.3	347.81	347.84	332.67	332.69	
21 Jul	202.667	-2.000	165.210	2115.6	28.46	0.29	34.157	1010.3	348.68	347.69	333.54	332.59	
21 Jul	202.708	-2.000	165.210	2115.6	28.40	0.29	34.160	1010.3	347.53	346.27	332.48	331.27	
21 Jul	202.750	-2.038	165.167	2121.9	28.40	0.29	34.164	1010.7	348.73	346.06	333.77	331.21	
21 Jul	202.792	-2.038	165.170	2122.3	28.40	0.29	34.168	1011.0	348.05	345.99	333.22	331.24	

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21 Jul	202.833	-2.030	165.172	2123.2	28.38	0.29	34.185	1011.8	348.45	346.04	333.89	331.58	
21 Jul	202.875	-1.890	165.085	2141.5	28.37	0.29	34.202	1011.3	347.67	345.62	332.98	331.02	
21 Jul	202.917	-1.683	165.068	2164.6	28.42	0.29	34.219	1012.2	347.77	354.95	333.34	340.23	
21 Jul	202.958	-1.492	165.023	2186.4	28.52	0.29	34.236	1011.6	347.53	359.78	332.84	344.57	
22 Jul	203.000	-1.498	165.010	2188.0	28.54	0.29	34.253	1011.4	347.66	353.51	332.88	338.48	
22 Jul	203.042	-1.497	165.022	2189.3	28.51	0.29	34.241	1010.3	347.99	361.12	332.84	345.40	
22 Jul	203.083	-1.450	165.043	2195.0	28.59	0.29	34.230	1010.6	348.07	363.96	332.96	348.16	
22 Jul	203.125	-1.453	165.075	2198.6	28.56	0.29	34.218	1010.5	348.66	363.21	333.51	347.43	
22 Jul	203.167	-1.448	165.098	2201.2	28.53	0.29	34.206	1010.0	348.70	351.69	333.40	336.26	
22 Jul	203.208	-1.448	165.123	2204.0	28.52	0.29	34.195	1010.4	353.65	350.50	338.28	335.26	
22 Jul	203.250	-1.485	165.170	2210.6	28.51	0.29	34.183	1010.7	348.74	351.30	333.69	336.14	
22 Jul	203.292	-1.350	165.148	2225.8	28.51	0.29	34.171	1011.0	348.08	349.70	333.16	334.72	
22 Jul	203.333	-1.142	165.092	2249.8	28.43	0.29	34.160	1011.3	347.83	343.35	333.09	328.80	
22 Jul	203.375	-1.000	165.007	2268.2	28.46	0.29	34.148	1012.1	348.02	343.13	333.52	328.84	
22 Jul	203.417	-1.005	165.022	2269.9	28.49	0.29	34.129	1012.5	348.12	342.62	333.73	328.45	
22 Jul	203.458	-0.908	165.048	2281.1	28.51	0.29	34.111	1012.5	347.73	343.82	333.34	329.60	
22 Jul	203.500	-0.718	165.053	2302.2	28.50	0.29	34.093	1012.5	348.13	344.92	333.73	330.66	
22 Jul	203.542	-0.402	164.980	2338.2	28.56	0.29	34.074	1011.8	348.24	342.68	333.55	328.22	
22 Jul	203.583	-0.497	165.005	2349.1	28.57	0.29	34.056	1011.5	348.14	341.65	333.35	327.13	
22 Jul	203.625	-0.440	165.043	2356.8	28.60	0.29	34.061	1010.9	347.53	341.60	332.54	326.86	
22 Jul	203.667	-0.247	165.095	2379.0	28.64	0.29	34.066	1010.9	347.94	342.64	332.90	327.82	
22 Jul	203.708	-0.193	165.110	2385.2	28.67	0.29	34.071	1011.0	348.07	342.80	333.03	327.99	
22 Jul	203.750	-0.183	165.155	2390.3	28.70	0.29	34.076	1011.0	347.92	343.99	332.87	329.11	
22 Jul	203.792	-0.080	165.110	2402.8	28.71	0.29	34.081	1011.0	348.16	345.08	333.09	330.14	
22 Jul	203.833	-0.085	165.168	2409.3	28.71	0.29	34.086	1011.7	351.05	344.66	336.10	329.97	
22 Jul	203.875	-0.090	165.170	2409.9	28.72	0.29	34.083	1012.3	347.35	344.73	332.75	330.24	
22 Jul	203.917	-0.075	165.122	2415.5	28.77	0.29	34.080	1012.6	347.91	346.90	333.35	332.38	
22 Jul	203.958	-0.075	165.122	2415.5	28.78	0.29	34.077	1012.6	347.23	345.24	332.69	330.78	
23 Jul	204.000	-0.080	165.145	2418.1	28.77	0.29	34.074	1012.2	346.53	346.52	331.89	331.88	
23 Jul	204.042	-0.075	165.140	2418.9	28.74	0.29	34.071	1011.6	348.48	345.36	333.58	330.59	
23 Jul	204.083	-0.077	165.147	2419.7	28.78	0.29	34.068	1011.6	349.50	346.56	334.52	331.71	
23 Jul	204.125	-0.065	165.158	2421.5	28.82	0.29	34.065	1011.3	349.70	344.90	334.58	329.99	
23 Jul	204.167	-0.053	165.175	2423.8	28.82	0.29	34.062	1011.0	348.33	344.82	333.17	329.81	
23 Jul	204.208	-0.032	165.045	2438.4	28.85	0.29	34.059	1010.4	348.92	346.81	333.50	331.49	
23 Jul	204.250	-0.020	164.908	2453.7	28.88	0.29	34.057	1010.6	348.22	347.69	332.88	332.38	
23 Jul	204.292	-0.042	164.998	2464.0	28.87	0.29	34.054	1011.0	347.93	345.58	332.75	330.50	
23 Jul	204.333	-0.038	165.013	2465.7	28.83	0.29	34.051	1011.4	348.87	346.56	333.81	331.61	
23 Jul	204.375	-0.020	165.048	2470.1	28.82	0.29	34.048	1011.0	348.11	345.76	332.96	330.71	
23 Jul	204.417	-0.018	165.072	2472.8	28.80	0.29	34.045	1012.5	347.80	345.30	333.19	330.79	
23 Jul	204.458	-0.008	165.133	2479.7	28.79	0.29	34.042	1012.4	347.95	344.41	333.31	329.91	
23 Jul	204.500	-0.010	165.137	2480.1	28.77	0.29	34.039	1012.3	347.93	344.89	333.27	330.35	
23 Jul	204.542	0.000	165.135	2481.3	28.72	0.29	34.036	1011.4	348.84	345.42	333.87	330.59	
23 Jul	204.583	0.007	165.137	2482.1	28.72	0.29	34.033	1010.9	347.86	346.59	332.76	331.54	
23 Jul	204.625	0.010	165.137	2482.4	28.69	0.29	34.030	1010.4	348.08	346.09	332.82	330.92	
23 Jul	204.667	0.015	165.135	2483.0	28.67	0.29	34.026	1010.4	349.25	345.57	333.96	330.44	
23 Jul	204.708	0.008	165.210	2491.4	28.68	0.29	34.022	1010.0	347.54	345.50	332.18	330.23	
23 Jul	204.750	0.027	165.227	2494.2	28.68	0.29	34.018	1010.0	348.88	345.64	333.46	330.36	
23 Jul	204.792	0.007	165.210	2497.1	28.69	0.29	34.014	1010.5	348.51	345.78	333.27	330.66	
23 Jul	204.833	0.043	165.243	2502.6	28.69	0.29	34.010	1011.4	348.32	344.88	333.39	330.10	
23 Jul	204.875	0.183	165.198	2518.9	28.70	0.29	34.006	1012.2	349.01	346.12	334.32	331.55	
23 Jul	204.917	0.352	165.063	2542.9	28.75	0.29	34.002	1012.5	348.02	346.25	333.44	331.74	
23 Jul	204.958	0.500	165.012	2560.3	28.86	0.29	33.998	1012.2	348.30	348.87	333.52	334.06	
24 Jul	205.000	0.507	165.030	2562.5	28.93	0.29	33.994	1011.7	348.58	349.29	333.56	334.25	
24 Jul	205.042	0.590	165.040	2571.8	28.86	0.29	33.982	1010.9	348.10	347.50	332.88	332.31	
24 Jul	205.083	0.808	165.022	2596.1	28.96	0.29	33.970	1010.5	348.51	347.89	333.06	332.47	
24 Jul	205.125	0.977	165.020	2614.9	28.96	0.29	33.958	1009.3	348.71	346.84	332.84	331.06	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
24 Jul	205.167	0.977	165.020	2614.9	29.09	0.29	33.946	1009.2	348.27	348.20	332.29	332.22	
24 Jul	205.208	0.993	165.052	2618.8	29.15	0.28	33.934	1009.2	348.77	349.42	332.72	333.33	
24 Jul	205.250	0.993	165.052	2618.8	29.09	0.29	33.922	1009.6	348.43	350.19	332.58	334.26	
24 Jul	205.292	0.985	165.102	2624.5	29.10	0.29	33.910	1010.0	348.33	347.48	332.61	331.80	
24 Jul	205.333	0.992	165.003	2635.5	29.04	0.29	33.898	1011.0	348.84	346.64	333.49	331.39	
24 Jul	205.375	1.010	165.017	2638.0	29.02	0.29	33.899	1011.5	348.33	346.24	333.19	331.19	
24 Jul	205.417	1.063	165.037	2644.3	28.94	0.29	33.900	1012.3	348.70	345.03	333.87	330.36	
24 Jul	205.458	1.228	165.048	2662.7	28.84	0.29	33.901	1012.8	347.97	346.26	333.42	331.78	
24 Jul	205.500	1.417	165.017	2684.0	28.77	0.29	33.902	1012.6	348.30	347.16	333.72	332.63	
24 Jul	205.542	1.572	164.997	2701.3	28.69	0.29	33.903	1012.1	348.55	346.48	333.85	331.87	
24 Jul	205.583	1.593	164.995	2703.7	28.69	0.29	33.904	1011.4	348.43	346.89	333.50	332.02	
24 Jul	205.625	1.770	164.985	2723.4	28.69	0.29	33.904	1011.0	348.64	357.63	333.56	342.16	
24 Jul	205.667	1.958	164.995	2744.3	28.68	0.29	33.905	1010.5	348.29	352.49	333.06	337.08	
24 Jul	205.708	1.993	165.008	2748.5	28.63	0.29	33.905	1010.5	346.46	350.72	331.35	335.42	
24 Jul	205.750	2.003	165.018	2750.0	28.61	0.29	33.906	1010.5	347.35	349.25	332.22	334.04	
24 Jul	205.792	2.015	165.025	2751.6	28.60	0.29	33.907	1011.0	348.80	350.18	333.78	335.11	
24 Jul	205.833	1.998	164.983	2756.6	28.65	0.29	33.907	1012.0					
24 Jul	205.875	1.967	165.093	2769.3	28.72	0.29	33.908	1012.6	349.54	341.24	334.95	327.00	
24 Jul	205.917	1.968	164.937	2786.6	28.74	0.29	33.909	1012.7	349.03	340.85	334.48	326.64	
24 Jul	205.958	1.977	164.938	2787.6	28.79	0.29	33.909	1012.8	348.95	342.70	334.40	328.41	
25 Jul	206.000	1.988	164.942	2788.9	28.78	0.29	33.910	1012.5	348.56	342.57	333.93	328.19	
25 Jul	206.042	2.000	164.947	2790.4	28.73	0.29	33.910	1012.1	349.42	343.09	334.66	328.60	
25 Jul	206.083	2.017	164.967	2793.3	28.77	0.29	33.911	1011.6	349.85	346.66	334.87	331.81	
25 Jul	206.125	2.030	164.973	2794.9	28.88	0.29	33.912	1011.1	349.32	357.95	334.10	342.36	
25 Jul	206.167	2.020	165.010	2799.1	28.83	0.29	33.912	1010.5	349.23	355.55	333.85	339.89	
25 Jul	206.208	2.032	165.007	2800.5	28.79	0.29	33.913	1010.5	348.64	343.37	333.32	328.28	
25 Jul	206.250	2.028	165.055	2805.9	28.78	0.29	33.913	1010.6	348.89	343.96	333.60	328.88	
25 Jul	206.292	2.032	165.058	2806.4	28.76	0.29	33.914	1011.3	348.33	341.01	333.32	326.31	
25 Jul	206.333	2.035	165.060	2806.8	28.73	0.29	33.905	1011.9	348.59	341.99	333.79	327.47	
25 Jul	206.375	2.038	165.032	2809.9	28.72	0.29	33.896	1012.5	348.61	339.84	334.02	325.62	
25 Jul	206.417	2.043	165.043	2811.3	28.67	0.29	33.887	1013.0	348.72	340.96	334.34	326.90	
25 Jul	206.458	2.062	165.075	2815.4	28.65	0.29	33.891	1013.0	348.30	339.98	333.95	325.98	
25 Jul	206.500	2.157	165.050	2826.3	28.56	0.29	33.896	1013.1	348.00	340.01	333.76	326.10	
25 Jul	206.542	2.345	165.062	2847.3	28.49	0.29	33.900	1012.5	348.52	342.72	334.11	328.55	
25 Jul	206.583	2.562	165.048	2871.4	28.53	0.29	33.905	1012.1	348.87	339.46	334.28	325.26	
25 Jul	206.625	2.770	165.040	2894.6	28.57	0.29	33.909	1011.6	348.36	341.82	333.59	327.32	
25 Jul	206.667	2.973	165.003	2917.5	28.59	0.29	33.914	1011.6	348.13	343.70	333.35	329.12	
25 Jul	206.708	2.997	165.007	2920.2	28.60	0.29	33.918	1011.5	348.50	342.78	333.67	328.19	
25 Jul	206.750	3.030	165.007	2923.9	28.59	0.29	33.931	1011.6	349.31	342.86	334.48	328.31	
25 Jul	206.792	3.215	165.012	2944.4	28.63	0.29	33.944	1012.4	348.22	343.71	333.68	329.36	
25 Jul	206.833	3.425	165.003	2967.8	28.69	0.29	33.956	1013.1	348.78	342.83	334.42	328.71	
25 Jul	206.875	3.613	164.963	2989.1	28.79	0.29	33.969	1013.6	348.02	344.51	333.78	330.41	
25 Jul	206.917	3.832	164.995	3013.7	28.88	0.29	33.982	1013.7	348.73	342.63	334.43	328.58	
25 Jul	206.958	4.003	165.002	3032.7	28.96	0.29	33.994	1013.6	349.28	343.81	334.86	329.62	
26 Jul	207.000	4.022	165.017	3035.4	28.92	0.29	33.982	1013.4	348.13	345.04	333.72	330.76	
26 Jul	207.042	4.043	165.035	3038.5	28.85	0.29	33.970	1013.2	348.76	346.71	334.31	332.34	
26 Jul	207.083	4.065	165.055	3041.8	28.86	0.29	33.958	1012.6	348.65	347.51	333.99	332.90	
26 Jul	207.125	4.237	165.053	3060.9	28.88	0.29	33.945	1012.4	349.10	344.89	334.34	330.31	
26 Jul	207.167	4.437	165.028	3083.3	28.95	0.29	33.933	1011.5	348.77	343.15	333.66	328.28	
26 Jul	207.208	4.693	164.993	3112.0	29.14	0.28	33.921	1011.6	349.76	340.96	334.50	326.08	
26 Jul	207.250	4.960	164.995	3141.7	29.28	0.28	33.909	1011.6	348.54	341.83	333.22	326.80	
26 Jul	207.292	5.010	165.008	3147.4	29.32	0.28	33.897	1012.2	348.91	337.92	333.75	323.24	
26 Jul	207.333	5.033	164.987	3150.9	29.20	0.28	33.833	1012.5	349.02	339.15	334.05	324.61	
26 Jul	207.375	5.150	165.003	3164.0	29.20	0.28	33.767	1013.2	349.28	336.36	334.54	322.16	
26 Jul	207.417	5.422	164.985	3194.3	29.31	0.28	33.701	1013.6	349.54	337.62	334.84	323.42	
26 Jul	207.458	5.690	164.993	3224.1	29.17	0.28	33.637	1013.8	349.01	335.15	334.51	321.22	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
26 Jul	207.500	5.922	165.005	3249.9	29.14	0.28	33.572	1013.8	349.02	331.62	334.54	317.86	
26 Jul	207.542	5.995	164.972	3258.8	29.06	0.29	33.506	1013.5	348.72	333.94	334.21	320.04	
26 Jul	207.583	6.037	164.970	3263.5	29.06	0.29	33.595	1013.1	349.27	336.54	334.60	322.41	
26 Jul	207.625	6.267	164.962	3289.0	29.10	0.29	33.686	1012.1	350.03	337.89	334.95	323.34	
26 Jul	207.667	6.520	164.967	3317.2	29.23	0.28	33.777	1012.1	349.73	342.58	334.57	327.72	
26 Jul	207.708	6.778	164.987	3345.9	29.17	0.28	33.866	1012.0	349.39	341.38	334.25	326.59	
26 Jul	207.750	7.003	165.007	3371.0	29.15	0.28	33.957	1012.3	349.79	342.52	334.76	327.80	
26 Jul	207.792	7.003	164.995	3372.3	29.12	0.28	33.942	1012.6	349.94	340.64	335.03	326.12	
26 Jul	207.833	7.118	164.980	3385.2	29.01	0.29	33.927	1013.2	349.56	338.42	334.95	324.28	
26 Jul	207.875	7.395	164.973	3416.0	29.04	0.29	33.912	1013.7	349.05	337.64	334.61	323.68	
26 Jul	207.917	7.667	164.977	3446.2	29.05	0.29	33.897	1013.9	349.79	339.90	335.38	325.90	
26 Jul	207.958	7.943	164.987	3476.9	29.09	0.29	33.882	1013.9	349.47	344.29	335.04	330.08	
27 Jul	208.000	8.005	164.990	3483.8	29.10	0.29	33.867	1013.8	348.71	344.57	334.27	330.30	
27 Jul	208.042	8.020	164.998	3485.7	29.02	0.29	33.867	1013.0	349.43	346.75	334.75	332.19	
27 Jul	208.083	8.028	164.972	3488.7	29.12	0.28	33.867	1012.6	349.70	348.59	334.80	333.73	
27 Jul	208.125	8.038	164.970	3489.8	29.22	0.28	33.868	1012.2	350.01	350.81	334.88	335.64	
27 Jul	208.167	8.042	164.963	3490.7	29.25	0.28	33.868	1011.9	348.49	350.99	333.30	335.69	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
30 Jul	211.292	9.083	166.945	0.0	29.20	0.28	34.229	1010.5	348.85		333.20		
30 Jul	211.333	9.212	166.690	31.4	29.17	0.28	34.234	1010.8	348.28		332.79		
30 Jul	211.375	9.338	166.450	61.2	29.00	0.29	34.239	1011.2	349.31		334.04		
30 Jul	211.417	9.457	166.192	92.5	28.86	0.29	34.244	1012.0	348.88		334.01		
30 Jul	211.458	9.583	165.907	126.7	28.85	0.29	34.249	1012.3	348.53		333.78		
30 Jul	211.500	9.665	165.650	156.3	28.86	0.29	34.254	1012.5	348.91		334.21		
30 Jul	211.542	9.778	165.385	187.9	28.87	0.29	34.258	1012.4	349.11		334.36		
30 Jul	211.583	9.892	165.182	213.5	28.91	0.29	34.263	1011.5	348.48		333.42		
30 Jul	211.625	10.002	165.000	236.9	28.78	0.29	34.268	1011.5	349.14	339.81	334.15	325.22	
30 Jul	211.667	10.008	165.013	238.4	28.72	0.29	34.265	1011.2	348.47	339.71	333.45	325.07	
30 Jul	211.708	10.002	165.000	240.0	28.70	0.29	34.263	1011.0	349.33	350.92	334.22	335.74	
30 Jul	211.750	10.005	165.010	241.2	28.69	0.29	34.261	1011.0	348.85	351.47	333.77	336.27	
30 Jul	211.792	10.010	165.025	242.9	28.72	0.29	34.258	1011.5	348.12	350.93	333.22	335.91	
30 Jul	211.833	10.013	165.035	244.0	28.70	0.29	34.288	1012.4	348.41	351.73	333.82	337.00	
30 Jul	211.875	10.018	165.045	245.3	28.68	0.29	34.318	1012.8	348.56	351.06	334.11	336.51	
30 Jul	211.917	10.115	165.047	256.0	28.61	0.29	34.349	1012.4	348.59	350.49	334.06	335.88	
30 Jul	211.958	10.393	165.010	287.2	28.64	0.29	34.379	1013.1	347.93	352.95	333.64	338.45	
31 Jul	212.000	10.515	165.032	301.0	28.64	0.29	34.409	1013.0	348.04	351.90	333.71	337.41	
31 Jul	212.042	10.738	165.012	325.8	28.75	0.29	34.439	1012.6	348.03	354.25	333.48	339.45	
31 Jul	212.083	10.952	165.002	349.6	28.84	0.29	34.469	1012.3	348.23	359.20	333.50	344.01	
31 Jul	212.125	11.165	164.982	373.4	28.84	0.29	34.500	1011.9	349.00	360.32	334.11	344.94	
31 Jul	212.167	11.383	164.992	397.7	28.78	0.29	34.530	1011.6	347.64	362.07	332.75	346.56	
31 Jul	212.208	11.593	165.010	421.1	28.78	0.29	34.560	1011.6	348.38	362.33	333.46	346.81	
31 Jul	212.250	11.812	165.015	445.4	28.81	0.29	34.591	1011.6	348.37	364.69	333.42	349.05	
31 Jul	212.292	12.002	164.992	466.7	28.91	0.29	34.621	1012.1	348.24	365.78	333.39	350.19	
31 Jul	212.333	12.007	164.988	467.4	28.85	0.29	34.622	1012.6	348.25	363.01	333.62	347.76	
31 Jul	212.375	11.998	164.992	468.5	28.85	0.29	34.624	1013.1	348.70	363.30	334.22	348.22	
31 Jul	212.417	11.977	164.990	470.8	28.84	0.29	34.625	1013.6	348.42	363.46	334.13	348.55	
31 Jul	212.458	11.958	164.993	473.0	28.75	0.29	34.627	1014.0	348.69	360.60	334.60	346.02	
31 Jul	212.500	12.083	164.987	486.9	28.64	0.29	34.629	1014.0	347.70	358.39	333.73	343.99	
31 Jul	212.542	12.278	164.982	508.5	28.52	0.29	34.631	1013.6	348.49	359.38	334.44	344.89	
31 Jul	212.583	12.483	164.987	531.3	28.40	0.29	34.633	1013.2	347.89	357.50	333.82	343.04	
31 Jul	212.625	12.667	164.993	551.8	28.38	0.29	34.635	1013.0	347.95	357.60	333.82	343.08	
31 Jul	212.667	12.872	165.002	574.6	28.45	0.29	34.636	1012.5	347.77	356.95	333.43	342.22	
31 Jul	212.708	13.065	165.000	596.0	28.45	0.29	34.638	1012.4	348.35	357.78	333.95	342.99	
31 Jul	212.750	13.263	165.000	618.0	28.42	0.29	34.640	1012.4	348.26	357.47	333.88	342.72	
31 Jul	212.792	13.463	165.003	640.3	28.39	0.29	34.642	1012.9	347.60	358.18	333.44	343.60	
31 Jul	212.833	13.663	165.005	662.5	28.42	0.29	34.644	1013.4	346.91	358.30	332.93	343.86	
31 Jul	212.875	13.867	164.998	685.2	28.39	0.29	34.646	1013.9	348.87	356.27	335.01	342.11	
31 Jul	212.917	13.997	165.005	699.6	28.45	0.29	34.648	1014.4	347.27	357.51	333.59	343.43	
31 Jul	212.958	13.998	165.002	700.0	28.49	0.29	34.649	1014.3	347.87	360.10	334.11	345.85	
1 Aug	213.000	14.002	165.002	700.4	28.50	0.29	34.649	1014.0	347.76	359.35	333.89	345.02	
1 Aug	213.042	13.998	165.005	701.0	28.49	0.29	34.650	1013.1	347.37	360.20	333.22	345.53	
1 Aug	213.083	14.002	165.030	703.7	28.50	0.29	34.665	1012.9	347.62	361.54	333.38	346.73	
1 Aug	213.125	14.008	165.032	704.4	28.49	0.29	34.681	1012.6	347.82	361.48	333.48	346.58	
1 Aug	213.167	14.037	165.050	708.2	28.61	0.29	34.697	1012.3	347.58	362.46	333.06	347.31	
1 Aug	213.208	14.232	165.050	729.8	28.72	0.29	34.712	1012.1	347.15	366.02	332.49	350.57	
1 Aug	213.250	14.442	165.058	753.2	28.81	0.29	34.728	1012.3	348.23	365.03	333.53	349.62	
1 Aug	213.292	14.640	165.053	775.2	28.81	0.29	34.744	1012.7	348.27	365.51	333.70	350.22	
1 Aug	213.333	14.848	165.047	798.3	28.68	0.29	34.759	1013.0	348.55	366.65	334.17	351.53	
1 Aug	213.375	15.055	165.038	821.3	28.63	0.29	34.775	1013.5	347.97	366.42	333.83	351.53	
1 Aug	213.417	15.258	165.037	843.9	28.58	0.29	34.791	1014.0	347.77	364.99	333.84	350.37	
1 Aug	213.458	15.468	165.020	867.3	28.58	0.29	34.806	1014.4	347.96	364.82	334.16	350.35	
1 Aug	213.500	15.670	165.015	889.7	28.53	0.29	34.822	1014.4	347.85	363.07	334.09	348.71	
1 Aug	213.542	15.882	164.990	913.5	28.59	0.29	34.838	1014.0	347.93	362.64	333.99	348.11	
1 Aug	213.583	16.007	165.005	927.4	28.59	0.29	34.853	1013.5	348.19	374.51	334.07	359.32	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
1 Aug	213.625	16.013	165.017	928.9	28.54	0.29	34.852	1013.5	347.99	373.86	333.91	358.74	
1 Aug	213.667	16.003	165.002	930.8	28.51	0.29	34.852	1013.2	348.61	363.02	334.43	348.25	
1 Aug	213.708	16.005	165.002	931.1	28.49	0.29	34.851	1013.4	347.78	361.43	333.72	346.82	
1 Aug	213.750	16.005	165.000	931.3	28.49	0.29	34.868	1013.5		361.69		347.09	
1 Aug	213.792	16.000	164.998	931.9	28.45	0.29	34.884	1013.9	348.21	361.32	334.33	346.91	
1 Aug	213.833	16.032	165.008	935.6	28.46	0.29	34.901	1014.3	347.61	361.92	333.88	347.63	
1 Aug	213.875	16.202	165.012	954.5	28.50	0.29	34.917	1014.7	348.28	363.17	334.63	348.94	
1 Aug	213.917	16.407	164.987	977.4	28.59	0.29	34.934	1014.7	347.78	364.56	334.08	350.21	
1 Aug	213.958	16.613	164.987	1000.3	28.58	0.29	34.950	1014.5	348.15	365.81	334.38	351.34	
2 Aug	214.000	16.815	164.997	1022.8	28.61	0.29	34.967	1014.5	348.10	366.93	334.31	352.39	
2 Aug	214.042	17.028	164.992	1046.4	28.65	0.29	34.983	1014.2	347.86	368.50	333.95	353.76	
2 Aug	214.083	17.237	164.992	1069.7	28.78	0.29	35.000	1014.0	347.67	369.98	333.60	355.01	
2 Aug	214.125	17.440	164.993	1092.2	28.93	0.29	35.016	1013.6	348.64	362.73	334.28	347.79	
2 Aug	214.167	17.650	165.000	1115.6	28.94	0.29	35.033	1013.7	347.89	361.77	333.59	346.90	
2 Aug	214.208	17.848	165.007	1137.6	28.91	0.29	35.049	1013.6	347.26	365.19	332.97	350.16	
2 Aug	214.250	17.915	165.000	1145.1	28.88	0.29	35.066	1014.1	348.69	364.66	334.54	349.86	
2 Aug	214.292	18.002	164.997	1154.7	28.83	0.29	35.068	1014.3	347.92	363.75	333.90	349.09	
2 Aug	214.333	18.002	165.002	1155.3	28.79	0.29	35.069	1014.4	348.10	362.38	334.14	347.85	
2 Aug	214.375	17.993	165.010	1156.6	28.73	0.29	35.071	1015.0	348.21	361.82	334.50	347.57	
2 Aug	214.417	17.992	165.012	1156.8	28.68	0.29	35.073	1015.4	347.66	361.01	334.14	346.97	
2 Aug	214.458	17.990	165.022	1157.9	28.64	0.29	35.062	1015.4	348.43	360.54	334.91	346.56	
2 Aug	214.500	17.983	165.025	1158.7	28.64	0.29	35.052	1015.5	348.19	360.28	334.72	346.34	
2 Aug	214.542	17.988	165.027	1159.3	28.68	0.29	35.041	1015.1	347.99	359.63	334.36	345.54	
2 Aug	214.583	18.133	165.015	1175.5	28.82	0.29	35.030	1014.5	346.96	357.04	333.06	342.74	
2 Aug	214.625	18.133	164.998	1177.3	28.85	0.29	35.019	1014.1	347.91	358.58	333.81	344.05	
2 Aug	214.667	18.372	164.993	1203.8	28.80	0.29	35.008	1014.1	347.60	361.76	333.55	347.14	
2 Aug	214.708	18.633	165.000	1232.9	28.88	0.29	34.998	1014.4	347.78	359.17	333.76	344.69	
2 Aug	214.750	18.890	165.002	1261.4	28.94	0.29	34.987	1014.8	347.76	356.93	333.84	342.64	
2 Aug	214.792	19.145	165.002	1289.8	28.93	0.29	34.976	1015.4	347.00	357.05	333.32	342.97	
2 Aug	214.833	19.397	165.007	1317.8	29.10	0.29	34.966	1015.8	347.48	352.93	333.78	339.02	
2 Aug	214.875	19.650	165.012	1345.9	29.39	0.28	34.955	1016.2	347.35	354.78	333.57	340.71	
2 Aug	214.917	19.908	165.015	1374.6	29.50	0.28	34.944	1016.4	347.50	353.23	333.70	339.20	
2 Aug	214.958	20.162	165.017	1402.8	29.44	0.28	34.933	1016.4	347.79	356.06	334.02	341.96	
3 Aug	215.000	20.427	165.012	1432.2	29.49	0.28	34.922	1016.6	347.08	358.93	333.37	344.75	
3 Aug	215.042	20.688	165.000	1461.3	29.58	0.28	34.912	1016.5	347.15	359.70	333.33	345.39	
3 Aug	215.083	20.950	165.002	1490.4	29.63	0.28	34.901	1016.2	347.71	360.56	333.73	346.06	
3 Aug	215.125	20.993	165.023	1495.6	29.69	0.28	34.899	1016.0	346.18	359.95	332.14	345.36	
3 Aug	215.167	20.980	165.030	1497.2	29.74	0.28	34.897	1015.5	346.04	361.02	331.80	346.17	
3 Aug	215.208	20.985	165.035	1498.0	29.74	0.28	34.895	1015.2	346.77	361.14	332.40	346.17	
3 Aug	215.250	20.990	165.048	1499.5	29.73	0.28	34.917	1015.0	346.98	360.28	332.54	345.29	
3 Aug	215.292	20.993	165.060	1500.7	29.71	0.28	34.939	1015.4	346.90	358.52	332.62	343.76	
3 Aug	215.333	21.025	165.077	1504.7	29.68	0.28	34.960	1015.7	346.47	357.02	332.33	342.45	
3 Aug	215.375	21.232	165.073	1527.7	29.63	0.28	34.982	1016.0	347.03	356.33	333.01	341.93	
3 Aug	215.417	21.467	165.077	1553.8	29.49	0.28	35.004	1016.6	347.05	356.28	333.34	342.21	
3 Aug	215.458	21.710	165.063	1580.9	29.42	0.28	35.025	1016.6	346.93	360.12	333.28	345.95	
3 Aug	215.500	21.927	165.055	1605.0	29.17	0.28	35.047	1016.7	345.79	368.77	332.41	354.50	
3 Aug	215.542	22.165	165.027	1631.6	29.13	0.28	35.069	1016.6	346.24	368.20	332.84	353.96	
3 Aug	215.583	22.407	165.013	1658.5	29.13	0.28	35.090	1016.0	346.42	367.76	332.81	353.32	
3 Aug	215.625	22.648	165.012	1685.3	29.20	0.28	35.112	1016.0	346.02	358.26	332.37	344.13	
3 Aug	215.667	22.893	165.012	1712.5	29.07	0.29	35.134	1015.6	346.17	358.24	332.48	344.08	
3 Aug	215.708	23.140	165.012	1740.0	28.99	0.29	35.155	1016.2	345.26	355.71	331.87	341.92	
3 Aug	215.750	23.388	165.015	1767.5	28.98	0.29	35.177	1016.5	346.68	358.64	333.35	344.85	
3 Aug	215.792	23.635	165.008	1795.0	28.91	0.29	35.199	1017.1	346.42	357.17	333.36	343.70	
3 Aug	215.833	23.888	164.995	1823.2	28.72	0.29	35.220	1017.5	346.81	353.83	334.01	340.77	
3 Aug	215.875	24.003	165.003	1836.0	28.85	0.29	35.242	1018.3	346.14	356.59	333.54	343.61	
3 Aug	215.917	24.000	165.000	1836.4	28.84	0.29	35.240	1018.1	345.25	357.69	332.62	344.61	

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3 Aug	215.958	24.003	165.000	1836.7	28.84	0.29	35.238	1018.0	346.47	357.64	333.76	344.52	
4 Aug	216.000	24.017	165.002	1838.3	28.84	0.29	35.236	1018.0	346.44	359.39	333.73	346.21	
4 Aug	216.042	24.017	165.002	1838.3	28.84	0.29	35.237	1017.5	346.78	359.60	333.89	346.23	
4 Aug	216.083	24.025	165.005	1839.2	28.83	0.29	35.238	1017.1	346.66	369.75	333.65	355.87	
4 Aug	216.125	24.023	165.002	1839.6	28.84	0.29	35.239	1016.6	346.38	369.16	333.20	355.11	
4 Aug	216.167	24.157	165.000	1854.5	28.97	0.29	35.240	1016.0	346.88	361.26	333.38	347.20	
4 Aug	216.208	24.382	164.995	1879.5	29.00	0.29	35.241	1016.2	346.37	359.75	332.93	345.79	
4 Aug	216.250	24.597	164.990	1903.4	28.93	0.29	35.242	1016.1	346.41	360.72	332.99	346.75	
4 Aug	216.292	24.805	165.000	1926.6	28.92	0.29	35.244	1016.6	346.89	366.67	333.63	352.65	
4 Aug	216.333	25.020	165.002	1950.4	28.75	0.29	35.245	1017.2	346.73	365.81	333.81	352.18	
4 Aug	216.375	25.232	165.002	1974.0	28.73	0.29	35.246	1018.0	346.97	360.67	334.33	347.53	
4 Aug	216.417	25.430	164.992	1996.0	28.57	0.29	35.247	1018.1	347.46	354.62	334.95	341.86	
4 Aug	216.458	25.640	164.998	2019.4	28.57	0.29	35.248	1018.4	347.22	357.14	334.82	344.39	
4 Aug	216.500	25.845	165.007	2042.2	28.62	0.29	35.249	1018.5	348.00	359.17	335.57	346.35	
4 Aug	216.542	26.008	165.003	2060.3	28.62	0.29	35.250	1018.7	348.84	360.62	336.45	347.82	
4 Aug	216.583	26.027	165.003	2062.4	28.60	0.29	35.250	1018.6	347.56	360.01	335.20	347.20	
4 Aug	216.625	26.013	164.998	2064.0	28.57	0.29	35.250	1018.0	348.36	360.26	335.79	347.26	
4 Aug	216.667	26.002	164.985	2065.8	28.56	0.29	35.250	1017.6	348.30	359.24	335.60	346.14	
4 Aug	216.708	26.017	165.005	2068.4	28.54	0.29	35.250	1018.0	348.38	359.79	335.83	346.83	
4 Aug	216.750	26.022	165.012	2069.3	28.54	0.29	35.250	1018.6	347.70	359.99	335.38	347.23	
4 Aug	216.792	26.023	165.020	2070.1	28.52	0.29	35.249	1018.6	348.09	360.00	335.77	347.26	
4 Aug	216.833	26.035	165.037	2072.3	28.50	0.29	35.249	1019.1	347.68	361.36	335.56	348.76	
4 Aug	216.875	26.002	165.002	2077.3	28.51	0.29	35.249	1019.1	347.11	359.42	335.00	346.89	
4 Aug	216.917	26.005	165.002	2077.7	28.54	0.29	35.249	1019.9	347.33	359.37	335.46	347.10	
4 Aug	216.958	26.003	165.002	2077.9	28.55	0.29	35.249	1019.1	347.66	360.79	335.50	348.17	
5 Aug	217.000	26.007	165.000	2078.4	28.58	0.29	35.249	1018.8	347.50	362.10	335.22	349.30	
5 Aug	217.042	26.008	165.003	2078.7	28.60	0.29	35.233	1018.4	347.29	363.91	334.87	350.90	
5 Aug	217.083	26.015	165.010	2079.7	28.61	0.29	35.218	1018.4	347.76	365.41	335.31	352.33	
5 Aug	217.125	26.030	165.012	2081.4	28.63	0.29	35.202	1017.6	347.67	366.26	334.94	352.85	
5 Aug	217.167	26.022	165.000	2082.9	28.63	0.29	35.186	1017.5	348.86	366.44	336.05	352.99	
5 Aug	217.208	26.092	165.025	2091.1	28.66	0.29	35.171	1017.2	349.25	366.57	336.30	352.98	
5 Aug	217.250	26.273	165.020	2111.2	28.67	0.29	35.155	1017.4	349.55	364.43	336.65	350.98	
5 Aug	217.292	26.492	165.003	2135.6	28.64	0.29	35.139	1017.6	349.71	361.64	336.90	348.39	
5 Aug	217.333	26.703	164.997	2159.1	28.65	0.29	35.124	1018.1	350.01	370.87	337.35	357.46	
5 Aug	217.375	26.917	165.018	2182.9	28.24	0.29	35.108	1018.4	350.07	384.58	337.82	371.12	
5 Aug	217.417	27.112	164.988	2204.8	28.14	0.30	35.092	1019.1	349.16	384.87	337.25	371.74	
5 Aug	217.458	27.307	164.972	2226.5	28.02	0.30	35.077	1020.0	349.01	381.04	337.50	368.48	
5 Aug	217.500	27.510	164.955	2249.1	28.00	0.30	35.061	1019.6	349.29	384.47	337.65	371.66	
5 Aug	217.542	27.713	164.972	2271.8	28.14	0.30	35.045	1019.7	349.33	387.35	337.62	374.37	
5 Aug	217.583	27.915	164.995	2294.3	28.02	0.30	35.030	1019.3	349.94	386.72	338.16	373.70	
5 Aug	217.625	28.018	165.007	2305.8	27.97	0.30	35.014	1019.3	350.04	386.59	338.30	373.62	
5 Aug	217.667	28.035	165.002	2307.8	27.93	0.30	35.004	1019.0	348.81	386.91	337.03	373.85	
5 Aug	217.708	28.045	165.012	2309.3	27.87	0.30	34.994	1019.1	349.51	386.70	337.79	373.73	
5 Aug	217.750	28.057	165.002	2310.9	27.81	0.30	34.984	1019.5	348.92	384.72	337.40	372.02	
5 Aug	217.792	28.062	165.032	2313.9	27.77	0.30	35.001	1020.0	349.46	383.73	338.12	371.28	
5 Aug	217.833	28.065	165.048	2315.5	27.76	0.30	35.018	1020.4	349.30	384.04	338.11	371.74	
5 Aug	217.875	28.070	165.045	2316.1	27.81	0.30	35.036	1020.4	349.18	383.21	337.96	370.89	
5 Aug	217.917	28.315	165.047	2343.4	27.94	0.30	35.053	1020.8	349.91	383.11	338.71	370.85	
5 Aug	217.958	28.518	165.047	2365.9	27.86	0.30	35.070	1020.7	348.66	382.90	337.52	370.67	
6 Aug	218.000	28.720	165.043	2388.4	27.82	0.30	35.087	1021.0	348.76	384.15	337.75	372.02	
6 Aug	218.042	28.920	165.037	2410.6	27.92	0.30	35.105	1020.5	348.91	389.94	337.65	377.36	
6 Aug	218.083	29.123	165.027	2433.2	28.01	0.30	35.122	1020.2	348.37	388.36	336.96	375.64	
6 Aug	218.125	29.327	165.022	2455.9	28.07	0.30	35.139	1020.0	349.30	370.34	337.75	358.09	
6 Aug	218.167	29.528	165.005	2478.3	28.10	0.30	35.156	1019.9	349.11	369.20	337.51	356.93	
6 Aug	218.208	29.727	165.003	2500.4	28.11	0.30	35.173	1020.0	347.91	370.32	336.38	358.04	
6 Aug	218.250	29.915	164.990	2521.3	28.04	0.30	35.191	1020.0	349.92	389.82	338.37	376.95	

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6 Aug	218.292	30.008	164.985	2531.6	27.99	0.30	35.208	1020.3	349.01	378.54	337.63	366.20	
6 Aug	218.333	30.000	165.000	2533.3	27.98	0.30	35.200	1020.3	347.65	378.29	336.32	365.96	
6 Aug	218.375	30.007	165.032	2536.5	27.94	0.30	35.193	1021.0	348.64	378.73	337.55	366.68	
6 Aug	218.417	30.010	165.023	2537.4	27.88	0.30	35.185	1021.4	349.13	379.12	338.20	367.25	
6 Aug	218.458	30.010	165.027	2537.8	27.86	0.30	35.159	1021.4	348.93	378.00	338.02	366.18	
6 Aug	218.500	30.023	165.033	2539.4	27.77	0.30	35.132	1021.5	349.09	378.79	338.28	367.06	
6 Aug	218.542	30.045	165.032	2541.8	27.68	0.30	35.105	1021.0	349.15	378.22	338.23	366.39	
6 Aug	218.583	30.207	165.028	2559.8	27.48	0.30	35.079	1020.6	348.94	380.39	338.03	368.50	
6 Aug	218.625	30.402	165.028	2581.5	27.18	0.31	35.052	1020.3	348.67	378.01	337.88	366.31	
6 Aug	218.667	30.605	165.033	2604.1	26.99	0.31	35.025	1020.0	347.33	376.59	336.61	364.96	
6 Aug	218.708	30.798	165.038	2625.5	27.04	0.31	34.998	1020.0	349.02	377.77	338.21	366.07	
6 Aug	218.750	30.995	165.043	2647.4	26.89	0.31	34.971	1021.0	349.11	372.42	338.74	361.37	
6 Aug	218.792	31.170	165.003	2667.2	26.92	0.31	34.944	1020.2	348.73	373.39	338.08	361.99	
6 Aug	218.833	31.370	165.017	2689.5	27.04	0.31	34.918	1020.8	348.68	376.13	338.15	364.78	
6 Aug	218.875	31.568	165.030	2711.5	26.86	0.31	34.891	1020.9	349.15	373.07	338.77	361.98	
6 Aug	218.917	31.772	165.045	2734.2	26.99	0.31	34.864	1020.1	348.47	375.25	337.75	363.70	
6 Aug	218.958	31.975	165.008	2757.1	27.07	0.31	34.838	1020.6	348.22	380.41	337.62	368.83	
7 Aug	219.000	32.015	164.998	2761.6	27.15	0.31	34.826	1020.9	348.11	380.96	337.56	369.42	
7 Aug	219.042	32.023	164.993	2762.6	27.31	0.31	34.815	1020.3	348.70	384.03	337.81	372.04	
7 Aug	219.083	32.023	164.998	2763.1	27.38	0.30	34.804	1019.6	349.85	386.38	338.64	374.00	
7 Aug	219.125	32.082	164.942	2771.5	27.38	0.30	34.792	1019.1	349.38	384.48	338.01	371.97	
7 Aug	219.167	32.080	164.943	2771.7	27.33	0.31	34.798	1018.4	350.31	384.88	338.71	372.13	
7 Aug	219.208	32.098	164.888	2777.3	27.24	0.31	34.805	1018.1	349.45	382.34	337.84	369.64	
7 Aug	219.250	32.167	164.948	2786.8	27.14	0.31	34.811	1018.0	348.64	377.97	337.09	365.45	
7 Aug	219.292	32.370	164.943	2809.4	26.92	0.31	34.818	1018.2	349.45	373.89	338.09	361.73	
7 Aug	219.333	32.385	164.968	2812.3	26.95	0.31	34.824	1018.4	349.59	370.20	338.28	358.22	
7 Aug	219.375	32.720	165.008	2849.7	27.01	0.31	34.830	1019.0	349.52	375.88	338.37	363.89	
7 Aug	219.417	32.862	165.010	2865.4	27.03	0.31	34.837	1019.1	349.47	376.37	338.34	364.39	
7 Aug	219.458	33.003	164.993	2881.2	26.98	0.31	34.843	1019.9	349.82	372.08	338.99	360.56	
7 Aug	219.500	33.018	165.018	2884.1	26.93	0.31	34.849	1019.5	348.93	371.50	338.03	359.89	
7 Aug	219.542	33.017	165.010	2884.8	26.90	0.31	34.856	1019.7	349.47	372.31	338.64	360.77	
7 Aug	219.583	32.933	164.977	2894.6	26.91	0.31	34.862	1019.3	349.19	373.98	338.22	362.24	
7 Aug	219.625	32.997	165.065	2905.5	26.91	0.31	34.869	1019.0	348.41	373.66	337.37	361.81	
7 Aug	219.667	33.015	164.985	2913.2	26.94	0.31	34.875	1018.4	348.32	373.19	337.05	361.12	
7 Aug	219.708	33.022	164.982	2914.0	26.91	0.31	34.875	1018.6	349.12	374.04	337.92	362.03	
7 Aug	219.750	33.023	165.020	2917.6	26.89	0.31	34.875	1018.5	348.78	373.83	337.57	361.81	
7 Aug	219.792	33.017	165.017	2918.3	26.84	0.31	34.875	1019.0	347.31	371.69	336.35	359.96	
7 Aug	219.833	33.042	165.025	2921.2	26.82	0.31	34.862	1019.5	346.65	371.33	335.89	359.81	
7 Aug	219.875	33.043	165.033	2921.9	26.83	0.31	34.850	1019.8	346.48	372.09	335.82	360.64	
7 Aug	219.917	33.045	165.047	2923.3	26.82	0.31	34.837	1019.7	346.88	369.70	336.18	358.30	
7 Aug	219.958	33.155	165.048	2935.5	26.77	0.31	34.824	1019.3	346.81	369.40	336.01	357.90	
8 Aug	220.000	33.342	165.042	2956.3	26.46	0.32	34.811	1019.6	347.69	367.08	337.18	355.98	
8 Aug	220.042	33.537	165.025	2978.0	26.11	0.32	34.798	1019.6	348.54	357.61	338.24	347.04	
8 Aug	220.083	33.735	165.013	3000.0	26.37	0.32	34.786	1019.5	347.71	369.08	337.22	357.95	
8 Aug	220.125	33.932	165.008	3021.9	26.48	0.31	34.773	1019.4	346.26	366.56	335.71	355.39	
8 Aug	220.167	34.003	165.022	3029.9	26.20	0.32	34.760	1019.7	346.37	347.53	336.10	337.23	
8 Aug	220.208	34.007	165.027	3030.6	26.19	0.32	34.747	1020.0	345.11	346.33	334.99	336.17	
8 Aug	220.250	34.022	165.083	3036.0	26.20	0.32	34.734	1020.1	345.58	345.96	335.47	335.84	
8 Aug	220.292	34.015	165.072	3037.3	26.20	0.32	34.721	1020.8	346.46	344.44	336.57	334.61	
8 Aug	220.333	34.013	165.003	3043.6	26.20	0.32	34.709	1020.8	346.63	343.79	336.73	333.97	
8 Aug	220.375	34.030	165.008	3045.6	26.11	0.32	34.696	1020.9	346.03	342.97	336.24	333.27	
8 Aug	220.417	34.005	165.002	3048.4	26.16	0.32	34.701	1021.0	345.15	342.83	335.39	333.13	
8 Aug	220.458	34.025	165.032	3051.9	26.11	0.32	34.707	1021.1	345.00	342.27	335.31	332.65	
8 Aug	220.500	34.033	165.055	3054.2	26.04	0.32	34.712	1021.1	344.43	341.25	334.80	331.71	
8 Aug	220.542	34.032	165.072	3055.8	25.92	0.32	34.678	1020.5	344.09	341.68	334.34	332.00	
8 Aug	220.583	34.037	165.088	3057.4	25.85	0.32	34.645	1020.3	343.54	341.27	333.79	331.58	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
8 Aug	220.625	34.037	165.107	3059.1	25.83	0.32	34.611	1020.0	343.60	341.62	333.76	331.84	
8 Aug	220.667	34.057	165.125	3061.9	25.61	0.32	34.577	1019.3	343.87	340.66	333.92	330.81	
8 Aug	220.708	34.257	165.132	3084.1	25.13	0.33	34.544	1019.1	343.75	341.48	334.04	331.83	
8 Aug	220.750	34.470	165.130	3107.8	24.98	0.33	34.510	1019.6	343.55	356.53	334.10	346.73	
8 Aug	220.792	34.667	165.063	3130.5	24.91	0.33	34.477	1020.9	348.47	355.27	339.38	346.00	
8 Aug	220.833	34.855	164.980	3152.8	24.46	0.34	34.444	1021.0	347.60	363.77	338.84	354.60	
8 Aug	220.875	35.002	165.030	3169.7	24.51	0.34	34.410	1021.1	348.26	367.96	339.49	358.69	
8 Aug	220.917	34.990	164.992	3173.4	24.51	0.34	34.376	1021.2	349.02	366.57	340.26	357.37	
8 Aug	220.958	34.988	165.008	3174.9	24.55	0.34	34.343	1020.9	348.13	368.36	339.27	358.98	
9 Aug	221.000	34.978	165.028	3177.0	24.55	0.34	34.309	1021.0	348.75	368.51	339.90	359.17	
9 Aug	221.042	34.998	165.002	3180.3	24.61	0.34	34.275	1021.0	348.92	369.80	340.03	360.38	
9 Aug	221.083	34.998	165.002	3180.3	24.67	0.34	34.277	1020.7	348.24	373.51	339.23	363.85	
9 Aug	221.125	34.985	164.998	3181.8	24.82	0.33	34.278	1020.0	350.03	375.40	340.64	365.33	
9 Aug	221.167	34.977	164.997	3182.7	24.95	0.33	34.280	1019.5	348.31	374.55	338.72	364.23	
9 Aug	221.208	34.972	165.002	3183.4	25.02	0.33	34.281	1019.4		377.47		366.99	
9 Aug	221.250	34.972	165.002	3183.4	24.92	0.33	34.283	1019.2					
9 Aug	221.292	34.972	165.002	3183.4	24.78	0.33	34.284	1019.2	349.22	371.48	339.60	361.25	
9 Aug	221.333	34.953	165.032	3186.8	24.81	0.33	34.286	1019.4	349.27	373.74	339.70	363.51	
9 Aug	221.375	34.943	165.040	3188.2	24.83	0.33	34.287	1020.0	348.94	372.74	339.58	362.74	
9 Aug	221.417	34.928	165.060	3190.6	24.81	0.33	34.289	1020.0	348.61	370.90	339.27	360.95	
9 Aug	221.458	34.938	165.095	3194.0	24.82	0.33	34.290	1019.8	348.91	371.35	339.48	361.32	
9 Aug	221.500	34.998	164.997	3205.1	24.65	0.34	34.292	1019.6	348.78	369.87	339.39	359.92	
9 Aug	221.542	35.007	164.988	3206.4	24.61	0.34	34.293	1019.5	348.65	369.25	339.26	359.30	
9 Aug	221.583	35.013	164.982	3207.3	24.62	0.34	34.295	1019.4	348.84	369.07	339.40	359.08	
9 Aug	221.625	35.018	164.968	3208.7	24.60	0.34	34.303	1019.2	348.84	368.25	339.35	358.23	
9 Aug	221.667	35.015	164.952	3210.2	24.56	0.34	34.310	1018.9	348.71	367.95	339.14	357.85	
9 Aug	221.708	35.112	164.955	3221.0	24.63	0.34	34.318	1018.1	348.15	367.38	338.28	356.97	
9 Aug	221.750	35.313	164.957	3243.3	24.55	0.34	34.326	1018.4	348.77	365.68	339.03	355.48	
9 Aug	221.792	35.498	164.945	3263.9	24.48	0.34	34.333	1018.2	348.54	359.90	338.78	349.83	
9 Aug	221.833	35.532	165.045	3273.7	24.28	0.34	34.341	1018.5	348.85	369.32	339.31	359.22	
9 Aug	221.875	35.445	164.942	3287.1	24.50	0.34	34.349	1018.4	347.40	363.18	337.73	353.07	
9 Aug	221.917	35.525	165.005	3297.7	24.33	0.34	34.356	1018.8	348.79	359.97	339.32	350.20	
9 Aug	221.958	35.545	164.937	3304.2	24.32	0.34	34.364	1018.2	348.94	360.04	339.27	350.07	
10 Aug	222.000	35.720	164.958	3323.8	24.01	0.34	34.372	1017.7	348.05	362.97	338.42	352.93	
10 Aug	222.042	35.720	164.973	3325.1	23.46	0.35	34.379	1017.0	348.15	356.56	338.60	346.78	
10 Aug	222.083	35.883	165.000	3343.4	23.33	0.35	34.387	1016.9	347.81	358.19	338.31	348.40	
10 Aug	222.125	36.002	164.983	3356.7	23.34	0.35	34.389	1016.5	347.95	357.37	338.30	347.46	
10 Aug	222.167	35.993	164.958	3359.2	23.35	0.35	34.391	1016.0	347.66	357.64	337.84	347.54	
10 Aug	222.208	35.978	164.920	3363.0	23.40	0.35	34.392	1016.0	348.27	356.35	338.41	346.26	
10 Aug	222.250	35.973	164.910	3364.0	23.41	0.35	34.394	1016.0	348.29	356.02	338.42	345.93	
10 Aug	222.292	35.978	164.893	3365.6	23.41	0.35	34.368	1015.9	349.53	356.10	339.59	345.97	
10 Aug	222.333	35.983	164.873	3367.5	23.42	0.35	34.343	1016.1	349.70	357.48	339.82	347.37	
10 Aug	222.375	36.023	164.878	3372.0	23.34	0.35	34.317	1016.0	349.77	353.95	339.90	343.96	
10 Aug	222.417	36.158	164.868	3387.0	23.04	0.35	34.290	1015.9	348.79	349.16	339.08	339.44	
10 Aug	222.458	36.330	164.912	3406.5	22.59	0.36	34.265	1015.4	349.62	342.76	339.96	333.29	
10 Aug	222.500	36.515	164.927	3427.1	22.47	0.36	34.239	1015.5	348.55	337.58	339.02	328.35	
10 Aug	222.542	36.512	164.977	3431.6	22.43	0.36	34.213	1015.9	348.66	337.03	339.29	327.97	
10 Aug	222.583	36.457	164.945	3438.4	22.44	0.36	34.188	1016.1	347.70	339.36	338.42	330.30	
10 Aug	222.625	36.642	164.958	3458.9	22.07	0.36	34.162	1016.0	345.09	336.15	336.04	327.33	
10 Aug	222.667	36.805	164.978	3477.1	20.64	0.38	34.135	1016.0	341.10	328.52	332.87	320.59	
10 Aug	222.708	36.945	164.997	3492.8	20.07	0.39	34.110	1016.0	339.74	322.82	331.81	315.28	
10 Aug	222.750	37.022	165.022	3501.6	19.80	0.39	34.084	1017.2	339.86	319.34	332.45	312.38	
10 Aug	222.792	37.005	165.010	3503.8	19.80	0.39	34.058	1017.5	339.32	319.08	332.02	312.22	
10 Aug	222.833	37.017	165.000	3505.4	19.60	0.39	34.055	1017.6	338.45	318.69	331.29	311.95	
10 Aug	222.875	37.025	165.045	3509.5	19.52	0.39	34.053	1018.0	338.01	321.05	331.03	314.42	
10 Aug	222.917	37.043	165.065	3512.2	19.63	0.39	34.050	1018.6	338.28	319.51	331.44	313.05	

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10 Aug	222.958	37.020	165.010	3517.7	19.69	0.39	34.048	1018.5	340.59	320.12	333.65	313.60	
11 Aug	223.000	36.998	165.000	3520.3	19.79	0.39	34.045	1018.5	339.48	320.56	332.51	313.98	
11 Aug	223.042	36.998	165.000	3520.3	19.79	0.39	34.043	1018.5	338.45	320.58	331.51	314.01	
11 Aug	223.083	36.998	165.000	3520.3	19.82	0.39	34.040	1018.5	338.21	321.35	331.26	314.75	
11 Aug	223.125	37.028	165.035	3524.8	19.85	0.39	34.040	1018.5	338.28	321.91	331.31	315.28	
11 Aug	223.167	37.057	165.067	3529.1	19.69	0.39	34.040	1018.0	338.15	324.02	331.09	317.26	
11 Aug	223.208	37.237	165.058	3549.1	18.85	0.40	34.040	1018.0	338.00	315.14	331.31	308.91	
11 Aug	223.250	37.403	165.047	3567.6	18.20	0.41	34.040	1018.2	338.86	307.98	332.50	302.20	
11 Aug	223.292	37.570	165.023	3586.3	18.11	0.41	34.039	1019.0	337.44	307.10	331.41	301.60	
11 Aug	223.333	37.735	165.023	3604.6	17.94	0.41	34.039	1018.6	338.83	306.25	332.71	300.72	
11 Aug	223.375	37.897	165.008	3622.7	18.54	0.40	34.039	1019.2	336.62	308.41	330.49	302.79	
11 Aug	223.417	38.022	165.000	3636.6	19.24	0.40	34.039	1019.6	335.99	309.49	329.70	303.70	
11 Aug	223.458	37.997	164.998	3639.4	19.17	0.40	34.039	1019.8	336.98	309.62	330.77	303.91	
11 Aug	223.500	37.985	165.018	3641.6	19.15	0.40	34.045	1019.5	337.14	310.94	330.84	305.13	
11 Aug	223.542	37.982	165.022	3642.1	19.22	0.40	34.051	1019.6	337.36	310.44	331.05	304.63	
11 Aug	223.583	37.988	164.998	3644.3	19.20	0.40	34.057	1019.5	337.82	310.36	331.48	304.54	
11 Aug	223.625	37.988	164.992	3644.8	19.23	0.40	34.044	1019.3	337.51	309.97	331.10	304.08	
11 Aug	223.667	37.995	164.978	3646.2	19.31	0.40	34.032	1019.4	337.13	313.33	330.72	307.37	
11 Aug	223.708	38.137	164.990	3662.1	19.38	0.40	34.020	1018.6	338.44	311.67	331.71	305.47	
11 Aug	223.750	38.353	164.993	3686.1	18.44	0.41	34.007	1018.8	337.05	307.37	330.82	301.69	
11 Aug	223.792	38.587	164.988	3712.1	18.07	0.41	33.995	1019.1	338.47	301.41	332.47	296.07	
11 Aug	223.833	38.837	164.987	3739.8	17.98	0.41	33.982	1019.1	338.79	303.10	332.82	297.75	
11 Aug	223.875	39.005	164.998	3758.5	17.71	0.41	33.970	1020.1	338.44	303.18	332.92	298.23	
11 Aug	223.917	39.020	165.005	3760.3	17.73	0.41	33.957	1020.1	339.11	301.68	333.57	296.74	
11 Aug	223.958	39.000	165.002	3762.5	17.71	0.41	33.945	1020.1	339.02	302.62	333.49	297.68	
12 Aug	224.000	39.000	165.000	3762.7	17.76	0.41	33.922	1020.0	338.71	302.67	333.13	297.68	
12 Aug	224.042	39.055	165.010	3768.9	17.92	0.41	33.899	1020.1	338.97	303.34	333.35	298.31	
12 Aug	224.083	39.203	165.023	3785.4	17.13	0.42	33.877	1020.0	338.49	304.20	333.16	299.41	
12 Aug	224.125	39.417	165.033	3809.2	16.34	0.43	33.853	1020.2	338.31	288.60	333.35	284.37	
12 Aug	224.167	39.673	165.035	3837.6	15.93	0.43	33.830	1019.5	338.93	279.87	333.88	275.70	
12 Aug	224.208	39.923	165.010	3865.5	16.28	0.43	33.808	1019.7	338.81	273.75	333.70	269.62	
12 Aug	224.250	40.002	164.998	3874.3	16.41	0.43	33.785	1020.3	339.19	275.23	334.22	271.20	
12 Aug	224.292	40.013	164.985	3876.0	16.40	0.43	33.789	1020.3	338.32	274.03	333.37	270.03	
12 Aug	224.333	40.015	164.990	3876.4	16.38	0.43	33.792	1020.5	337.66	273.95	332.79	270.00	
12 Aug	224.375	40.017	165.008	3878.0	16.37	0.43	33.795	1021.0	339.76	273.55	335.03	269.74	
12 Aug	224.417	40.020	164.987	3879.8	16.35	0.43	33.799	1021.2	339.06	273.97	334.42	270.22	
12 Aug	224.458	40.028	164.987	3880.7	16.36	0.43	33.739	1021.2	339.06	274.81	334.41	271.04	
12 Aug	224.500	40.038	164.982	3881.9	16.36	0.43	33.678	1021.0	338.59	273.65	333.88	269.85	
12 Aug	224.542	40.120	164.982	3891.0	15.93	0.43	33.618	1020.7	338.94	279.10	334.29	275.27	
12 Aug	224.583	40.253	164.982	3905.8	15.99	0.43	33.558	1020.5	339.44	281.80	334.69	277.86	
12 Aug	224.625	40.553	164.982	3939.1	14.74	0.45	33.497	1020.0	338.71	277.90	334.24	274.23	
12 Aug	224.667	40.785	164.978	3964.9	13.94	0.46	33.436	1020.0	339.16	267.42	334.95	264.10	
12 Aug	224.708	41.012	164.967	3990.1	13.83	0.46	33.376	1020.2	338.45	285.00	334.35	281.55	
12 Aug	224.750	41.212	164.995	4012.5	12.95	0.47	33.315	1020.6	337.30	301.69	333.62	298.40	
12 Aug	224.792	41.467	164.998	4040.8	12.27	0.48	33.255	1020.9	338.31	324.93	334.92	321.68	
12 Aug	224.833	41.695	165.012	4066.2	11.62	0.48	33.195	1021.5	338.72	331.27	335.71	328.33	
12 Aug	224.875	41.928	165.007	4092.1	11.51	0.48	33.134	1022.0	339.12	331.87	336.30	329.11	
12 Aug	224.917	42.002	164.993	4100.4	11.64	0.48	33.073	1022.0	337.23	331.48	334.39	328.69	
12 Aug	224.958	41.998	165.040	4104.3	11.65	0.48	33.072	1022.5	338.88	333.69	336.19	331.05	
13 Aug	225.000	42.002	165.003	4107.4	11.74	0.48	33.070	1022.5	339.05	334.79	336.34	332.11	
13 Aug	225.042	42.003	165.003	4107.5	11.85	0.48	33.069	1022.1	339.01	339.13	336.13	336.25	
13 Aug	225.083	41.993	165.022	4109.4	11.90	0.48	33.082	1022.1	337.79	338.37	334.91	335.48	
13 Aug	225.125	42.023	165.025	4112.8	11.99	0.48	33.095	1022.3	339.34	329.31	336.49	326.54	
13 Aug	225.167	42.228	165.032	4135.5	11.87	0.48	33.108	1021.9	338.88	333.85	335.93	330.95	
13 Aug	225.208	42.488	165.005	4164.5	11.41	0.49	33.121	1022.0	338.69	336.89	335.91	334.12	
13 Aug	225.250	42.735	164.988	4192.0	11.11	0.49	33.134	1021.9	339.47	336.24	336.73	333.53	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
13 Aug	225.292	42.977	164.990	4218.9	10.78	0.49	33.148	1021.5	340.41	340.22	337.62	337.42	
13 Aug	225.333	43.232	164.992	4247.2	10.43	0.50	33.160	1021.6	338.93	339.01	336.27	336.35	
13 Aug	225.375	43.492	164.998	4276.1	10.51	0.50	33.174	1022.1	338.04	336.13	335.53	333.64	
13 Aug	225.417	43.682	165.000	4297.2	10.45	0.50	33.187	1022.0	338.20	336.18	335.68	333.67	
13 Aug	225.458	43.918	165.010	4323.5	10.31	0.50	33.200	1021.5	338.27	333.49	335.62	330.88	
13 Aug	225.500	43.995	164.982	4332.3	10.20	0.50	33.213	1022.0	338.55	334.05	336.09	331.62	
13 Aug	225.542	43.988	164.973	4333.4	10.18	0.50	33.215	1021.5	339.61	334.14	336.98	331.55	
13 Aug	225.583	43.972	164.942	4336.4	10.14	0.50	33.218	1021.3	337.64	334.19	334.97	331.55	
13 Aug	225.625	43.957	164.933	4338.2	10.14	0.50	33.220	1020.5	336.47	333.10	333.54	330.21	
13 Aug	225.667	43.953	164.928	4338.8	10.18	0.50	33.204	1020.4	337.76	335.44	334.78	332.48	
13 Aug	225.708	43.943	164.918	4340.2	10.22	0.50	33.188	1020.3	337.88	335.85	334.85	332.84	
13 Aug	225.750	43.943	164.940	4342.0	10.23	0.50	33.171	1020.0	338.25	336.19	335.12	333.07	
13 Aug	225.792	44.025	165.060	4355.2	10.09	0.50	33.155	1020.8	338.84	335.99	336.01	333.18	
13 Aug	225.833	44.082	165.278	4373.7	10.15	0.50	33.139	1021.4	339.41	333.40	336.75	330.79	
13 Aug	225.875	44.300	165.505	4404.0	10.32	0.50	33.122	1021.6	339.54	335.62	336.91	333.01	
13 Aug	225.917	44.428	165.740	4427.4	10.81	0.49	33.106	1021.6	340.67	329.81	337.90	327.13	
13 Aug	225.958	44.555	165.975	4450.8	11.23	0.49	33.090	1021.4	341.64	304.05	338.68	301.41	
14 Aug	226.000	44.677	166.198	4473.0	10.95	0.49	33.073	1021.4	341.04	315.11	338.16	312.45	
14 Aug	226.042	44.808	166.452	4497.8	10.32	0.50	33.057	1021.1	341.45	315.70	338.63	313.10	
14 Aug	226.083	44.925	166.652	4518.2	10.14	0.50	33.041	1021.5	341.72	319.11	339.08	316.65	
14 Aug	226.125	45.068	166.917	4544.4	9.96	0.50	33.024	1021.6	342.34	320.35	339.78	317.96	
14 Aug	226.167	45.027	167.155	4563.7	9.82	0.50	33.008	1022.0	342.35	329.64	339.96	327.33	
14 Aug	226.208	45.278	167.310	4594.1	9.88	0.50	32.992	1022.0	342.53	330.76	340.12	328.43	
14 Aug	226.250	45.272	167.312	4594.8	9.84	0.50	32.975	1022.1	342.41	330.09	340.04	327.81	
14 Aug	226.292	45.250	167.312	4597.2	9.84	0.50	32.959	1022.2	343.14	328.29	340.80	326.05	
14 Aug	226.333	45.275	167.295	4600.3	9.84	0.50	32.880	1022.4	341.10	328.12	338.84	325.95	
14 Aug	226.375	45.302	167.300	4603.3	9.87	0.50	32.799	1022.4	341.67	327.08	339.40	324.91	
14 Aug	226.417	45.305	167.305	4603.8	9.91	0.50	32.718	1022.7	342.07	326.86	339.89	324.78	
14 Aug	226.458	45.305	167.307	4604.0	9.83	0.50	32.638	1022.4	341.24	326.51	338.98	324.35	
14 Aug	226.500	45.285	167.298	4606.3	9.79	0.50	32.557	1022.1	342.39	329.53	340.04	327.26	
14 Aug	226.542	45.272	167.310	4608.0	9.76	0.50	32.476	1022.0	341.85	328.50	339.47	326.22	
14 Aug	226.583	45.265	167.327	4609.6	9.76	0.50	32.515	1021.6	341.93	328.63	339.42	326.22	
14 Aug	226.625	45.282	167.302	4612.3	9.81	0.50	32.556	1020.9	342.16	328.81	339.40	326.16	
14 Aug	226.667	45.285	167.290	4613.3	9.78	0.50	32.596	1020.4	341.89	328.24	338.97	325.44	
14 Aug	226.708	45.265	167.322	4616.6	9.73	0.50	32.636	1020.4	342.39	328.82	339.48	326.03	
14 Aug	226.750	45.235	167.353	4620.8	9.74	0.50	32.676	1021.2	341.61	329.29	338.97	326.75	
14 Aug	226.792	45.220	167.358	4622.5	9.72	0.50	32.717	1020.6	341.82	329.14	338.99	326.41	
14 Aug	226.833	45.207	167.353	4624.0	9.72	0.50	32.756	1020.5	342.09	329.05	339.22	326.29	
14 Aug	226.875	45.192	167.360	4625.7	9.71	0.50	32.796	1019.3	341.57	330.36	338.31	327.20	
14 Aug	226.917	45.202	167.500	4636.8	9.58	0.51	32.837	1019.0	341.81	337.84	338.48	334.55	
14 Aug	226.958	45.145	167.402	4646.7	9.66	0.50	32.876	1019.1	341.72	329.33	338.40	326.13	
15 Aug	227.000	45.263	167.320	4661.3	9.72	0.50	32.917	1018.9		327.61		324.35	
15 Aug	227.042	45.278	167.318	4663.0	9.70	0.50	32.957	1018.2	341.96	327.96	338.33	324.47	
15 Aug	227.083	45.277	167.317	4663.1	9.72	0.50	32.955	1018.0	341.67	328.43	337.97	324.87	
15 Aug	227.125	45.308	167.320	4666.6	9.76	0.50	32.953	1018.0	341.59	324.68	337.88	321.15	
15 Aug	227.167	45.463	167.360	4684.1	9.62	0.51	32.950	1017.6	340.22	332.64	336.42	328.93	
15 Aug	227.208	45.688	167.308	4709.4	9.39	0.51	32.948	1017.5	342.40	340.46	338.60	336.68	
15 Aug	227.250	45.928	167.350	4736.3	9.38	0.51	32.946	1017.4	341.70	321.66	337.88	318.07	
15 Aug	227.292	46.192	167.320	4765.7	9.31	0.51	32.943	1017.0	342.90	318.99	338.95	315.32	
15 Aug	227.333	46.453	167.317	4794.7	9.27	0.51	32.941	1016.9	341.27	336.10	337.31	332.21	
15 Aug	227.375	46.498	167.328	4799.8	9.30	0.51	32.939	1016.5	341.30	333.80	337.20	329.79	
15 Aug	227.417	46.563	167.333	4807.0	9.27	0.51	32.908	1016.5	341.39	334.63	337.30	330.62	
15 Aug	227.458	46.740	167.327	4826.7	9.26	0.51	32.878	1016.0	345.15	334.12	340.85	329.95	
15 Aug	227.500	46.967	167.307	4851.9	9.06	0.51	32.847	1015.5		339.41		335.06	
15 Aug	227.542	47.180	167.288	4875.7	8.84	0.51	32.816	1015.0	343.36	327.68	338.84	323.37	
15 Aug	227.583	47.418	167.263	4902.2	8.86	0.51	32.786	1014.9	341.30	325.94	336.77	321.62	

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15 Aug	227.625	47.670	167.298	4930.3	8.82	0.51	32.755	1014.0	341.23	329.04	336.41	324.39	
15 Aug	227.667	47.917	167.305	4957.7	8.89	0.51	32.724	1013.5	340.98	335.45	335.98	330.54	
15 Aug	227.708	47.997	167.315	4966.7	8.97	0.51	32.694	1013.8	341.32	336.37	336.40	331.52	
15 Aug	227.750	47.992	167.312	4967.3	8.98	0.51	32.842	1013.0	341.62	336.68	336.43	331.56	
15 Aug	227.792	47.965	167.337	4970.8	8.96	0.51	32.991	1013.1	340.78	337.54	335.64	332.45	
15 Aug	227.833	47.988	167.313	4973.9	8.99	0.51	32.992	1012.8	339.95	337.05	334.71	331.85	
15 Aug	227.875	47.985	167.298	4975.1	8.99	0.51	32.992	1012.8	340.19	337.42	334.95	332.22	
15 Aug	227.917	47.960	167.305	4977.9	8.99	0.51	32.993	1013.0	340.27	336.69	335.09	331.57	
15 Aug	227.958	47.953	167.308	4978.7	8.95	0.51	32.994	1013.5	339.76	336.46	334.77	331.52	
16 Aug	228.000	47.933	167.330	4981.5	8.95	0.51	32.996	1013.0	340.25	337.36	335.08	332.24	
16 Aug	228.042	47.958	167.310	4984.6	8.92	0.51	32.998	1013.1	340.10	336.59	334.98	331.52	
16 Aug	228.083	48.097	167.308	5000.1	8.92	0.51	32.999	1013.1	340.65	333.96	335.52	328.93	
16 Aug	228.125	48.298	167.310	5022.4	8.79	0.51	33.000	1013.1	340.67	348.19	335.57	342.98	
16 Aug	228.167	48.557	167.285	5051.2	8.75	0.52	33.002	1012.6	340.72	345.40	335.46	340.07	
16 Aug	228.208	48.803	167.287	5078.6	8.77	0.51	33.003	1012.5	340.72	344.65	335.42	339.29	
16 Aug	228.250	49.045	167.302	5105.5	8.79	0.51	33.005	1012.6	341.47	341.94	336.19	336.66	
16 Aug	228.292	49.285	167.312	5132.2	8.85	0.51	33.007	1012.2	340.88	335.97	335.46	330.63	
16 Aug	228.333	49.517	167.310	5158.0	8.81	0.51	33.008	1013.2	342.84	333.00	337.73	328.04	
16 Aug	228.375	49.753	167.307	5184.2	8.60	0.52	33.009	1013.5	341.01	337.86	336.08	332.97	
16 Aug	228.417	49.992	167.298	5210.7	8.64	0.52	33.011	1013.2	340.69	338.73	335.66	333.72	
16 Aug	228.458	49.990	167.308	5211.5	8.62	0.52	33.007	1012.6	341.33	338.91	336.09	333.71	
16 Aug	228.500	49.970	167.325	5214.0	8.67	0.52	33.004	1011.6	340.16	338.20	334.59	332.67	
16 Aug	228.542	49.963	167.343	5215.5	8.75	0.52	33.000	1011.6	340.01	340.01	334.43	334.43	
16 Aug	228.583	49.955	167.343	5216.4	8.73	0.52	32.991	1010.5	340.81	340.34	334.85	334.39	
16 Aug	228.625	49.937	167.370	5219.2	8.66	0.52	32.981	1008.4	340.72	340.58	334.08	333.94	
16 Aug	228.667	49.913	167.558	5232.9	8.60	0.52	32.971	1008.9	340.01	344.32	333.56	337.79	
16 Aug	228.708	49.923	167.855	5254.2	8.60	0.52	32.962	1007.5	340.35	352.07	333.43	344.91	
16 Aug	228.750	49.967	168.118	5273.6	8.63	0.52	32.952	1007.0	340.21	340.38	333.12	333.29	
16 Aug	228.792	49.992	168.477	5299.4	8.63	0.52	32.943	1007.5	340.98	338.02	334.04	331.14	
16 Aug	228.833	50.002	168.792	5321.9	8.58	0.52	32.934	1008.2	340.45	337.21	333.77	330.59	
16 Aug	228.875	50.005	169.087	5343.0	8.60	0.52	32.924	1009.5	340.28	333.76	334.03	327.63	
16 Aug	228.917	50.010	169.388	5364.5	8.54	0.52	32.914	1010.5	341.06	333.70	335.14	327.91	
16 Aug	228.958	50.008	169.682	5385.5	8.48	0.52	32.905	1011.7	340.71	345.40	335.21	339.83	
17 Aug	229.000	49.998	169.972	5406.3	8.55	0.52	32.895	1013.0	341.91	360.63	336.81	355.25	
17 Aug	229.042	49.997	170.235	5425.0	8.57	0.52	32.886	1014.0	340.80	362.77	336.05	357.71	
17 Aug	229.083	49.993	170.502	5444.1	8.56	0.52	32.876	1014.0	340.51	363.60	335.76	358.53	
17 Aug	229.125	49.992	170.827	5467.3	8.59	0.52	32.867	1014.2	340.03	342.23	335.35	337.52	
17 Aug	229.167	49.983	171.183	5492.8	8.56	0.52	32.857	1014.5	339.71	346.79	335.14	342.13	
17 Aug	229.208	49.987	171.528	5517.5	8.58	0.52	32.848	1014.5	339.45	337.53	334.88	332.99	
17 Aug	229.250	50.007	171.865	5541.6	8.59	0.52	32.838	1015.2	339.32	332.14	334.98	327.89	
17 Aug	229.292	50.008	172.190	5564.8	8.46	0.52	32.829	1016.0	339.62	331.15	335.57	327.21	
17 Aug	229.333	50.010	172.520	5588.4	8.31	0.52	32.819	1017.0	340.29	322.65	336.60	319.15	
17 Aug	229.375	50.015	172.858	5612.5	8.17	0.52	32.810	1017.6	340.11	329.07	336.66	325.73	
17 Aug	229.417	50.023	173.202	5637.1	8.24	0.52	32.800	1018.5	340.73	326.72	337.56	323.68	
17 Aug	229.458	50.025	173.545	5661.6	8.30	0.52	32.791	1018.7	340.62	331.98	337.50	328.93	
17 Aug	229.500	50.027	173.883	5685.7	8.32	0.52	32.781	1019.3	339.45	334.58	336.54	331.70	
17 Aug	229.542	50.028	173.995	5693.7	8.35	0.52	32.772	1019.4	339.36	336.88	336.47	334.02	
17 Aug	229.583	50.022	174.472	5727.8	8.37	0.52	32.762	1019.6	340.56	338.60	337.72	335.78	
17 Aug	229.625	50.005	174.912	5759.3	8.51	0.52	32.753	1019.6	341.60	328.39	338.72	325.62	
17 Aug	229.667	49.992	174.988	5764.9	8.52	0.52	32.743	1020.0	340.40	329.58	337.66	326.93	
17 Aug	229.708	49.800	175.025	5786.4	8.57	0.52	32.747	1019.6	340.27	327.00	337.39	324.23	
17 Aug	229.750	49.963	175.013	5804.5	8.57	0.52	32.751	1019.2	340.92	327.96	337.90	325.06	
17 Aug	229.792	49.940	175.018	5807.1	8.58	0.52	32.753	1018.7	341.56	329.51	338.37	326.42	
17 Aug	229.833	49.935	175.033	5808.3	8.55	0.52	32.755	1018.4	340.43	330.33	337.15	327.15	
17 Aug	229.875	49.933	175.043	5809.1	8.55	0.52	32.757	1017.6	340.32	330.03	336.78	326.59	
17 Aug	229.917	49.925	175.058	5810.5	8.55	0.52	32.755	1017.4	340.06	328.02	336.45	324.54	

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17 Aug	229.958	49.933	175.113	5814.5	8.55	0.52	32.753	1017.5	340.49	332.27	336.91	328.78	
18 Aug	230.000	49.955	175.307	5828.6	8.55	0.52	32.751	1016.1	341.80	331.67	337.74	327.73	
18 Aug	230.042	49.972	175.613	5850.5	8.56	0.52	32.748	1016.2	341.06	329.50	337.04	325.62	
18 Aug	230.083	49.992	175.953	5874.9	8.56	0.52	32.746	1015.4	341.84	333.63	337.54	329.43	
18 Aug	230.125	50.002	176.300	5899.7	8.67	0.52	32.744	1014.6	340.35	323.40	335.78	319.06	
18 Aug	230.167	50.010	176.642	5924.2	8.65	0.52	32.742	1014.6	341.20	323.70	336.62	319.35	
18 Aug	230.208	50.008	176.990	5949.0	8.59	0.52	32.740	1014.0	341.16	334.64	336.40	329.97	
18 Aug	230.250	50.010	177.308	5971.7	8.60	0.52	32.738	1014.0	340.44	326.49	335.69	321.93	
18 Aug	230.292	50.000	177.573	5990.7	8.51	0.52	32.735	1014.0	340.32	323.52	335.59	319.02	
18 Aug	230.333	49.995	177.703	6000.0	8.40	0.52	32.733	1014.1	340.38	328.66	335.71	324.14	
18 Aug	230.375	50.010	178.088	6027.5	8.40	0.52	32.731	1014.2	340.75	330.11	336.10	325.61	
18 Aug	230.417	50.017	178.308	6043.3	8.50	0.52	32.729	1014.3	341.28	327.44	336.64	322.98	
18 Aug	230.458	50.025	178.467	6054.7	8.51	0.52	32.727	1014.0	341.80	329.13	337.05	324.56	
18 Aug	230.500	50.027	178.638	6066.9	8.48	0.52	32.725	1014.0	340.80	328.77	336.07	324.20	
18 Aug	230.542	50.023	178.768	6076.2	8.45	0.52	32.723	1012.9	341.24	324.75	336.14	319.90	
18 Aug	230.583	50.017	178.897	6085.4	8.43	0.52	32.720	1012.6	340.43	324.64	335.25	319.70	
18 Aug	230.625	50.018	179.005	6093.1	8.37	0.52	32.718	1012.0	341.18	328.56	335.80	323.38	
18 Aug	230.667	50.015	179.138	6102.6	8.44	0.52	32.716	1011.6	340.84	329.24	335.32	323.91	
18 Aug	230.708	50.012	179.282	6112.9	8.49	0.52	32.714	1011.2	343.60	329.51	337.88	324.03	
18 Aug	230.750	50.007	179.412	6122.2	8.39	0.52	32.712	1011.2	342.05	331.05	336.38	325.57	
18 Aug	230.792	50.017	179.538	6131.3	8.33	0.52	32.710	1011.0	343.93	331.82	338.18	326.28	
18 Aug	230.833	50.015	179.678	6141.3	8.27	0.52	32.707	1010.5	341.96	343.45	336.09	337.55	
18 Aug	230.875	50.005	179.865	6154.7	8.17	0.52	32.705	1010.0	340.73	340.55	334.74	334.55	
18 Aug	230.917	49.993	-179.928	6169.5	8.24	0.52	32.703	1009.9	340.18	343.09	334.15	337.00	
18 Aug	230.958	49.987	-179.730	6183.7	8.59	0.52	32.701	1009.7	341.89	324.18	335.68	318.29	
19 Aug	231.000	49.988	-179.537	6197.5	8.88	0.51	32.699	1008.7	341.39	317.18	334.78	311.04	
19 Aug	231.042	50.000	-179.358	6210.3	9.04	0.51	32.697	1007.5	342.52	318.86	335.45	312.28	
19 Aug	231.083	50.018	-179.183	6223.0	8.88	0.51	32.695	1007.7	342.51	321.34	335.55	314.81	
19 Aug	231.125	50.033	-178.998	6236.3	8.88	0.51	32.692	1008.3	341.42	320.22	334.68	313.90	
19 Aug	231.167	50.040	-178.797	6250.7	8.14	0.52	32.690	1009.1	342.79	332.78	336.46	326.64	
19 Aug	231.208	50.017	-178.607	6264.5	8.19	0.52	32.688	1009.5	341.57	329.19	335.39	323.23	
19 Aug	231.250	50.012	-178.422	6277.7	8.28	0.52	32.686	1010.5	343.41	336.02	337.51	330.25	
19 Aug	231.292	49.995	-178.222	6292.1	8.46	0.52	32.684	1011.5	343.26	328.06	337.66	322.71	
19 Aug	231.333	49.982	-177.988	6308.9	8.37	0.52	32.682	1012.5	343.55	324.64	338.30	319.68	
19 Aug	231.375	49.968	-177.745	6326.3	8.03	0.52	32.679	1013.0	342.10	336.59	337.12	331.69	
19 Aug	231.417	49.960	-177.458	6346.8	8.44	0.52	32.677	1013.0	342.97	336.29	337.88	331.30	
19 Aug	231.458	49.922	-177.097	6373.0	8.54	0.52	32.675	1013.6	342.66	335.19	337.75	330.39	
19 Aug	231.500	49.922	-176.783	6395.5	8.74	0.52	32.673	1012.7	342.83	321.52	337.57	316.59	
19 Aug	231.542	49.920	-176.467	6418.1	8.42	0.52	32.671	1012.6	343.29	323.69	338.07	318.76	
19 Aug	231.583	49.933	-176.158	6440.2	8.78	0.52	32.669	1013.4	343.58	360.15	338.54	354.87	?
19 Aug	231.625	49.942	-175.862	6461.4	9.13	0.51	32.666	1014.0	343.65	393.03	338.72	387.40	?
19 Aug	231.667	49.977	-175.908	6466.5	9.28	0.51	32.664	1014.2	343.19	314.82	338.30	310.33	
19 Aug	231.708	50.013	-175.275	6511.9	8.90	0.51	32.662	1014.4	343.33	303.44	338.60	299.26	
19 Aug	231.750	50.027	-174.965	6534.1	9.34	0.51	32.660	1014.7	343.24	304.07	338.50	299.88	
19 Aug	231.792	50.030	-174.658	6556.0	9.35	0.51	32.658	1015.6	344.45	319.93	340.00	315.80	
19 Aug	231.833	50.032	-174.325	6579.8	9.36	0.51	32.656	1015.8	344.65	321.24	340.26	317.15	
19 Aug	231.875	50.018	-173.965	6605.5	9.38	0.51	32.654	1017.0	344.72	321.95	340.73	318.22	
19 Aug	231.917	49.990	-173.590	6632.5	9.37	0.51	32.651	1017.2	343.64	325.64	339.73	321.94	
19 Aug	231.958	49.968	-173.193	6661.0	9.41	0.51	32.649	1017.8	343.82	328.80	340.10	325.25	
20 Aug	232.000	49.960	-172.798	6689.2	9.54	0.51	32.647	1018.5	343.40	321.70	339.89	318.41	
20 Aug	232.042	49.943	-172.355	6720.9	9.68	0.50	32.645	1018.9	342.83	311.84	339.43	308.75	
20 Aug	232.083	49.947	-171.987	6747.3	9.47	0.51	32.643	1019.0	342.89	314.89	339.57	311.84	
20 Aug	232.125	49.955	-171.590	6775.7	9.47	0.51	32.641	1019.9	342.98	315.47	339.96	312.70	
20 Aug	232.167	49.973	-171.195	6804.0	9.53	0.51	32.638	1020.5	343.31	316.90	340.48	314.29	
20 Aug	232.208	49.988	-170.788	6833.1	9.63	0.51	32.636	1021.0	342.81	315.55	340.12	313.08	
20 Aug	232.250	50.015	-170.377	6862.6	9.72	0.50	32.634	1021.0	342.46	314.89	339.75	312.40	

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20 Aug	232.292	50.030	-169.998	6889.7	9.71	0.50	32.632	1023.0	343.74	331.46	341.70	329.49	
20 Aug	232.333	50.037	-169.973	6891.7	9.62	0.51	32.619	1023.6	344.39	333.24	342.57	331.48	
20 Aug	232.375	50.060	-169.958	6894.4	9.64	0.51	32.605	1023.5	342.21	333.31	340.36	331.51	
20 Aug	232.417	50.042	-169.923	6897.6	9.70	0.50	32.628	1023.6	343.10	333.91	341.27	332.13	
20 Aug	232.458	49.998	-169.957	6903.1	9.68	0.50	32.650	1023.6	342.62	333.35	340.80	331.58	
20 Aug	232.500	49.987	-169.952	6904.4	9.69	0.50	32.673	1023.6	342.25	333.70	340.42	331.92	
20 Aug	232.542	49.983	-169.948	6904.9	9.69	0.50	32.672	1023.5	342.58	331.73	340.72	329.93	
20 Aug	232.583	49.980	-169.943	6905.4	9.69	0.50	32.670	1023.4	342.74	331.53	340.85	329.70	
20 Aug	232.625	49.978	-169.920	6907.0	9.70	0.50	32.669	1023.2	342.99	331.43	341.02	329.53	
20 Aug	232.667	50.077	-169.912	6918.0	9.70	0.50	32.667	1023.3	342.40	334.68	340.47	332.79	
20 Aug	232.708	50.277	-169.887	6940.3	9.65	0.50	32.666	1023.5	343.05	328.23	341.20	326.46	
20 Aug	232.750	50.517	-169.862	6967.1	9.57	0.51	32.664	1024.2	343.70	326.32	342.10	324.80	
20 Aug	232.792	50.765	-169.832	6994.7	9.53	0.51	32.663	1024.8	343.32	319.73	341.93	318.44	
20 Aug	232.833	51.012	-169.793	7022.3	9.52	0.51	32.661	1025.2	343.14	318.12	341.89	316.96	
20 Aug	232.875	51.263	-169.747	7050.4	9.53	0.51	32.660	1025.6	344.33	317.30	343.21	316.26	
20 Aug	232.917	51.512	-169.705	7078.2	9.53	0.51	32.658	1026.0	342.82	314.44	341.84	313.53	
20 Aug	232.958	51.760	-169.658	7105.9	10.19	0.50	32.657	1026.0	343.33	281.54	342.18	280.59	
21 Aug	233.000	52.005	-169.615	7133.3	10.84	0.49	32.655	1026.0	343.88	271.43	342.56	270.38	
21 Aug	233.042	52.248	-169.583	7160.4	10.98	0.49	32.654	1025.9	343.09	266.18	341.70	265.10	
21 Aug	233.083	52.498	-169.522	7188.5	10.87	0.49	32.653	1026.3	342.78	257.88	341.55	256.96	
21 Aug	233.125	52.757	-169.445	7217.7	9.44	0.51	32.651	1026.2	342.81	259.45	341.92	258.77	
21 Aug	233.167	53.015	-169.292	7248.2	7.16	0.53	32.650	1026.2	340.19	416.41	339.82	415.96	
21 Aug	233.208	53.202	-169.000	7276.7	7.10	0.53	32.648	1026.2	339.34	410.23	338.98	409.80	
21 Aug	233.250	53.380	-168.742	7302.8	7.14	0.53	32.647	1025.5	340.23	374.26	339.63	373.60	
21 Aug	233.292	53.540	-168.457	7328.8	7.03	0.53	32.645	1026.7	340.42	388.91	340.24	388.71	
21 Aug	233.333	53.662	-168.142	7353.6	7.71	0.53	32.644	1027.1	341.79	260.85	341.60	260.70	
21 Aug	233.375	53.780	-167.845	7377.1	8.26	0.52	32.642	1027.6	338.28	291.41	338.14	291.28	
21 Aug	233.417	53.878	-167.528	7400.6	8.05	0.52	32.641	1027.5	338.08	310.44	337.95	310.32	
21 Aug	233.458	53.940	-167.213	7422.3	8.27	0.52	32.639	1027.2	339.25	251.23	338.97	251.02	
21 Aug	233.500	54.050	-166.883	7447.1	8.12	0.52	32.638	1027.0	339.92	281.27	339.61	281.02	
22 Aug	234.917	53.672	-165.725	7533.8	9.88	0.50	32.588	1028.8	336.13		336.00		
22 Aug	234.958	53.437	-165.525	7563.1	10.41	0.50	32.587	1028.5	334.63	267.41	334.27	267.12	
23 Aug	235.000	53.200	-165.330	7592.4	10.94	0.49	32.585	1027.8		248.10		247.56	
23 Aug	235.042	52.972	-165.115	7621.5	11.41	0.49	32.584	1027.4	334.62	283.80	333.64	282.96	
23 Aug	235.083	52.737	-164.883	7651.9	10.87	0.49	32.583	1026.9		333.85		332.85	
23 Aug	235.125	52.493	-164.742	7680.7	10.93	0.49	32.581	1026.5	335.95	313.19	334.80	312.12	
23 Aug	235.167	52.253	-164.550	7710.3	10.55	0.49	32.580	1026.4	335.53	328.04	334.44	326.98	
23 Aug	235.208	52.007	-164.315	7742.0	10.59	0.49	32.578	1026.4	335.29	325.73	334.19	324.67	
23 Aug	235.250	51.783	-164.078	7771.8	10.54	0.49	32.577	1026.0	335.53	324.75	334.32	323.57	
23 Aug	235.292	51.545	-163.848	7802.6	10.53	0.49	32.575	1025.8	335.57	333.65	334.29	332.38	
23 Aug	235.333	51.315	-163.618	7832.7	10.63	0.49	32.574	1025.5	335.18	324.89	333.78	323.53	
23 Aug	235.375	51.080	-163.383	7863.5	10.75	0.49	32.572	1024.9	335.77	328.39	334.14	326.80	
23 Aug	235.417	50.847	-163.153	7894.0	10.74	0.49	32.571	1024.3	335.32	330.32	333.50	328.52	
23 Aug	235.458	50.598	-162.915	7926.4	10.61	0.49	32.569	1023.1	335.18	326.67	333.00	324.55	
23 Aug	235.500	50.340	-162.722	7958.1	10.81	0.49	32.568	1022.0	335.89	323.33	333.29	320.83	
23 Aug	235.542	50.068	-162.537	7991.1	10.81	0.49	32.566	1021.2	335.96	335.37	333.09	332.51	
23 Aug	235.583	50.000	-162.505	7999.0	10.81	0.49	32.565	1020.5	336.39	337.34	333.29	334.23	
23 Aug	235.625	50.007	-162.517	8000.1	10.81	0.49	32.559	1020.3	336.58	337.94	333.41	334.76	
23 Aug	235.667	50.023	-162.527	8002.0	10.74	0.49	32.561	1019.4	337.47	335.42	334.01	331.98	
23 Aug	235.708	50.002	-162.500	8005.1	10.76	0.49	32.562	1019.3	337.64	338.10	334.14	334.60	
23 Aug	235.750	49.997	-162.512	8006.1	10.74	0.49	32.564	1018.5	336.92	338.32	333.17	334.55	
23 Aug	235.792	50.000	-162.517	8006.6	10.74	0.49	32.566	1018.2	335.84	337.75	332.01	333.90	
23 Aug	235.833	50.022	-162.510	8009.1	10.71	0.49	32.570	1017.9	334.42	337.01	330.51	333.08	
23 Aug	235.875	50.015	-162.418	8015.7	10.73	0.49	32.573	1017.5	335.08	338.77	331.03	334.67	
23 Aug	235.917	50.022	-162.172	8033.3	10.75	0.49	32.577	1016.0	335.87	341.89	331.31	337.25	

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23 Aug	235.958	50.027	-161.807	8059.3	10.78	0.49	32.580	1015.4	335.52	338.30	330.76	333.50	
24 Aug	236.000	50.038	-161.402	8088.3	10.85	0.49	32.584	1014.0	337.70	340.13	332.43	334.82	
24 Aug	236.042	50.052	-160.978	8118.6	10.82	0.49	32.588	1014.0	338.88	342.27	333.60	336.93	
24 Aug	236.083	50.052	-160.548	8149.2	10.99	0.49	32.591	1013.0	339.50	339.88	333.83	334.20	
24 Aug	236.125	50.050	-160.113	8180.3	11.09	0.49	32.595	1012.3	338.29	349.72	332.38	343.61	
24 Aug	236.167	50.045	-159.812	8201.8	11.15	0.49	32.598	1011.4	338.57	353.53	332.34	347.02	
24 Aug	236.208	50.030	-159.255	8241.6	11.32	0.49	32.602	1010.2	338.64	357.69	331.97	350.64	
24 Aug	236.250	50.010	-158.838	8271.4	11.48	0.48	32.606	1009.9	338.30	352.38	331.49	345.29	
24 Aug	236.292	49.992	-158.420	8301.3	11.54	0.48	32.609	1009.5	338.53	352.81	331.56	345.55	
24 Aug	236.333	49.987	-157.990	8332.1	11.46	0.48	32.613	1009.0	338.60	367.45	331.49	359.73	
24 Aug	236.375	49.988	-157.700	8352.8	11.43	0.48	32.616	1008.7	338.47	374.35	331.27	366.39	
24 Aug	236.417	49.997	-157.123	8394.0	11.46	0.48	32.620	1008.3	338.72	371.91	331.37	363.85	
24 Aug	236.458	49.993	-156.697	8424.4	11.46	0.48	32.624	1008.5	338.39	365.78	331.12	357.92	
24 Aug	236.500	49.993	-156.268	8455.1	11.60	0.48	32.627	1008.9	338.44	357.27	331.26	349.69	
24 Aug	236.542	49.990	-155.853	8484.7	11.58	0.48	32.631	1009.0	338.31	361.38	331.17	353.75	
24 Aug	236.583	49.998	-155.438	8514.4	11.68	0.48	32.634	1009.0	338.26	360.36	331.10	352.73	
24 Aug	236.625	50.008	-154.998	8545.8	11.62	0.48	32.638	1009.6	338.34	361.72	331.39	354.29	
24 Aug	236.667	50.007	-154.982	8547.0	11.63	0.48	32.628	1010.0	338.59	360.02	331.76	352.76	
24 Aug	236.708	50.012	-154.967	8548.2	11.52	0.48	32.619	1010.2	338.37	361.69	331.65	354.50	
24 Aug	236.750	50.008	-154.943	8550.0	11.57	0.48	32.609	1010.0	338.79	361.99	331.98	354.71	
24 Aug	236.792	50.007	-154.930	8550.9	11.58	0.48	32.603	1010.0	339.17	362.92	332.35	355.62	
24 Aug	236.833	50.003	-154.917	8551.9	11.58	0.48	32.597	1010.4	338.25	362.42	331.58	355.27	
24 Aug	236.875	49.998	-154.782	8561.6	11.79	0.48	32.591	1010.0	337.86	360.89	331.00	353.56	
24 Aug	236.917	49.995	-154.488	8582.6	11.90	0.48	32.584	1010.0	337.67	360.73	330.79	353.38	
24 Aug	236.958	49.995	-154.100	8610.3	11.98	0.48	32.578	1009.5	338.48	354.55	331.39	347.13	
25 Aug	237.000	49.988	-153.688	8639.8	11.99	0.48	32.572	1009.3	338.64	353.00	331.48	345.53	
25 Aug	237.042	49.985	-153.272	8669.5	12.20	0.48	32.566	1008.9	338.53	372.02	331.18	363.94	
25 Aug	237.083	49.990	-152.862	8698.8	12.28	0.48	32.560	1008.6	338.90	362.09	331.42	354.10	
25 Aug	237.125	49.995	-152.435	8729.3	12.42	0.47	32.554	1009.0	339.39	352.22	331.99	344.54	
25 Aug	237.167	50.003	-152.010	8759.7	12.36	0.47	32.547	1009.0	339.68	383.03	332.29	374.70	
25 Aug	237.208	50.002	-151.573	8790.9	12.33	0.47	32.541	1009.6	339.32	373.84	332.15	365.94	
25 Aug	237.250	50.008	-151.140	8821.8	12.38	0.47	32.535	1010.3	339.20	382.16	332.25	374.32	
25 Aug	237.292	50.028	-150.737	8850.7	12.43	0.47	32.529	1010.7	339.22	383.18	332.38	375.46	
25 Aug	237.333	50.022	-150.323	8880.2	12.54	0.47	32.523	1011.0	339.96	376.15	333.18	368.65	
25 Aug	237.375	50.018	-150.057	8899.2	12.64	0.47	32.517	1011.5	339.56	36.96	332.92		
25 Aug	237.417	50.023	-149.493	8939.5	12.73	0.47	32.511	1012.0	339.27	363.15	332.78	356.20	
25 Aug	237.458	50.000	-149.118	8966.4	12.85	0.47	32.505	1012.0	339.67	339.17	333.13	332.64	
25 Aug	237.500	49.970	-148.832	8987.1	13.04	0.47	32.498	1012.4	339.05	336.96	332.60	330.55	
25 Aug	237.542	49.983	-148.300	9025.1	13.21	0.46	32.492	1012.5	339.01	333.11	332.54	326.75	
25 Aug	237.583	49.998	-147.890	9054.5	13.28	0.46	32.486	1012.7	339.09	360.12	332.66	353.30	
25 Aug	237.625	49.997	-147.482	9083.6	13.28	0.46	32.480	1013.4	338.35	337.64	332.17	331.48	
25 Aug	237.667	49.995	-147.072	9112.9	13.22	0.46	32.474	1013.4	338.24	339.60	332.08	333.42	
25 Aug	237.708	49.967	-146.645	9143.6	13.12	0.47	32.468	1014.2	338.06	340.91	332.20	335.00	
25 Aug	237.750	49.982	-146.217	9174.2	13.08	0.47	32.461	1014.5	338.08	339.52	332.33	333.75	
25 Aug	237.792	49.990	-145.788	9204.9	13.11	0.47	32.455	1014.8	338.50	339.63	332.83	333.95	
25 Aug	237.833	49.998	-145.352	9236.0	13.08	0.47	32.449	1016.0	340.44	326.63	335.15	321.55	
25 Aug	237.875	49.998	-145.003	9261.0	13.27	0.46	32.443	1015.0	338.32	327.36	332.67	321.90	
25 Aug	237.917	49.995	-145.002	9261.3	13.28	0.46	32.474	1015.0	338.08	326.21	332.43	320.76	
25 Aug	237.958	49.998	-145.010	9262.0	13.33	0.46	32.474	1015.0	336.94	328.22	331.30	322.72	
26 Aug	238.000	49.997	-144.998	9262.8	13.33	0.46	32.474	1015.0	337.86	326.55	332.20	321.08	
26 Aug	238.042	49.990	-145.008	9263.9	13.31	0.46	32.474	1015.0	338.23	327.07	332.57	321.60	
26 Aug	238.083	49.975	-145.015	9265.6	13.24	0.46	32.474	1014.9	338.33	327.41	332.66	321.92	
26 Aug	238.125	49.973	-145.018	9265.9	13.20	0.46	32.473	1014.7	338.97	325.77	333.24	320.26	
26 Aug	238.167	50.002	-145.000	9269.4	13.27	0.46	32.473	1015.0	339.91	322.83	334.24	317.44	
26 Aug	238.208	49.980	-145.110	9277.6	13.21	0.46	32.473	1015.0					
26 Aug	238.250	49.997	-145.035	9283.3	13.18	0.47	32.461	1015.7					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
26 Aug	238.292	50.002	-144.802	9300.0	13.10	0.47	32.449	1016.2	339.14	342.82	333.93	337.56	
26 Aug	238.333	50.012	-144.447	9325.3	13.08	0.47	32.437	1016.0	338.52	340.43	333.26	335.14	
26 Aug	238.375	50.017	-144.205	9342.6	12.96	0.47	32.425	1016.8	338.23	340.01	333.28	335.03	
26 Aug	238.417	50.018	-143.590	9386.5	12.86	0.47	32.413	1016.9	338.02	332.62	333.13	327.81	
26 Aug	238.458	50.012	-143.260	9410.1	12.76	0.47	32.401	1017.3	339.92	328.59	335.17	323.99	
26 Aug	238.500	50.003	-142.723	9448.5	12.87	0.47	32.389	1018.1	339.60	340.25	335.09	335.72	
26 Aug	238.542	49.997	-142.297	9478.9	12.81	0.47	32.377	1019.0	339.30	344.96	335.11	340.69	
26 Aug	238.583	49.990	-141.868	9509.6	12.77	0.47	32.365	1019.5	339.14	345.27	335.13	341.18	
26 Aug	238.625	49.988	-141.430	9540.9	12.88	0.47	32.353	1020.4	339.75	339.89	336.00	336.14	
26 Aug	238.667	49.995	-140.997	9571.8	13.23	0.46	32.340	1020.6	339.69	338.14	335.90	334.37	
26 Aug	238.708	50.005	-140.575	9602.0	13.24	0.46	32.329	1021.1	339.65	334.59	336.02	331.01	
26 Aug	238.750	50.012	-140.125	9634.1	13.22	0.46	32.316	1021.8	340.21	349.17	336.81	345.68	
26 Aug	238.792	50.017	-139.693	9665.0	13.45	0.46	32.304	1022.2	340.05	335.01	336.72	331.73	
26 Aug	238.833	50.020	-139.250	9696.6	13.56	0.46	32.292	1022.5	339.79	347.80	336.52	344.45	
26 Aug	238.875	50.023	-138.808	9728.2	13.88	0.46	32.280	1023.0	339.71	306.32	336.51	303.44	
26 Aug	238.917	50.027	-138.368	9759.6	14.03	0.46	32.268	1023.5	338.97	309.64	335.89	306.83	
26 Aug	238.958	50.027	-137.923	9791.3	14.16	0.45	32.256	1023.9	339.64	318.51	336.65	315.70	
27 Aug	239.000	50.028	-137.467	9823.9	14.34	0.45	32.244	1024.4	340.05	322.14	337.16	319.41	
27 Aug	239.042	50.022	-136.925	9862.6	14.50	0.45	32.232	1024.5	339.55	324.49	336.65	321.71	
27 Aug	239.083	50.003	-136.587	9886.8	14.57	0.45	32.220	1024.7	339.53	315.40	336.67	312.75	
27 Aug	239.125	50.005	-136.150	9918.0	14.68	0.45	32.208	1025.0	339.40	320.01	336.60	317.37	
27 Aug	239.167	50.012	-135.703	9950.0	14.71	0.45	32.196	1025.3	339.76	317.49	337.05	314.96	
27 Aug	239.208	50.012	-135.298	9978.9	14.88	0.45	32.184	1025.6	340.54	319.27	337.87	316.77	
27 Aug	239.250	49.997	-134.998	10000.4	14.89	0.45	32.172	1025.9	340.08	324.75	337.51	322.29	
27 Aug	239.292	50.005	-134.995	10001.3	14.83	0.45	32.189	1025.9	340.27	323.82	337.72	321.39	
27 Aug	239.333	50.000	-135.018	10003.0	14.82	0.45	32.206	1025.8	339.71	321.42	337.13	318.98	
27 Aug	239.375	50.005	-135.013	10003.7	14.82	0.45	32.200	1026.0	339.70	322.23	337.19	319.85	
27 Aug	239.417	50.007	-134.993	10005.1	14.82	0.45	32.194	1025.4	339.97	322.97	337.25	320.39	
27 Aug	239.458	50.010	-134.978	10006.2	14.79	0.45	32.190	1025.0	339.19	323.34	336.36	320.64	
27 Aug	239.500	50.012	-134.947	10008.5	14.78	0.45	32.185	1025.4	339.37	323.75	336.67	321.18	
27 Aug	239.542	50.012	-134.693	10026.6	14.87	0.45	32.181	1025.4	338.75	325.48	336.03	322.86	
27 Aug	239.583	50.007	-134.313	10053.8	14.88	0.45	32.177	1025.5	339.83	319.80	337.13	317.26	
27 Aug	239.625	50.007	-133.888	10084.1	15.14	0.44	32.172	1025.2	340.20	323.70	337.31	320.95	
27 Aug	239.667	50.003	-133.470	10114.0	15.12	0.44	32.168	1025.5	340.63	326.16	337.84	323.48	
27 Aug	239.708	50.002	-133.033	10145.2	15.17	0.44	32.164	1025.4	339.33	325.86	336.50	323.14	
27 Aug	239.750	50.007	-132.602	10176.0	15.47	0.44	32.159	1025.6	339.59	323.89	336.72	321.15	
27 Aug	239.792	50.003	-132.173	10206.6	15.75	0.44	32.155	1025.5	339.31	325.48	336.31	322.60	
27 Aug	239.833	50.002	-131.747	10237.0	15.57	0.44	32.151	1025.3	339.85	319.44	336.84	316.61	
27 Aug	239.875	50.008	-131.250	10272.5	15.57	0.44	32.146	1024.8	339.39	317.24	336.22	314.27	
27 Aug	239.917	50.008	-130.763	10307.3	15.78	0.44	32.142	1024.3	339.43	321.82	336.02	318.58	
27 Aug	239.958	50.015	-130.487	10327.0	15.45	0.44	32.137	1023.9	339.76	310.23	336.33	307.09	
28 Aug	240.000	50.015	-130.072	10356.7	15.25	0.44	32.133	1023.5	339.81	309.09	336.31	305.91	
28 Aug	240.042	50.013	-129.640	10387.5	15.42	0.44	32.129	1023.0	339.96	317.29	336.24	313.82	
28 Aug	240.083	50.003	-129.205	10418.6	15.38	0.44	32.124	1022.1	339.74	328.58	335.73	324.70	
28 Aug	240.125	50.012	-129.000	10433.3	15.32	0.44	32.120	1021.8	339.86	326.83	335.77	322.90	
28 Aug	240.167	50.020	-128.987	10434.6	15.21	0.44	32.082	1021.4	339.51	325.41	335.33	321.41	
28 Aug	240.208	50.027	-128.985	10435.3	15.22	0.44	32.044	1021.4	339.40	326.37	335.22	322.35	
28 Aug	240.250	50.040	-128.998	10437.1	15.37	0.44	32.042	1021.0	340.13	329.19	335.76	324.96	
28 Aug	240.292	50.013	-128.985	10440.2	15.32	0.44	32.040	1021.4	338.69	329.33	334.48	325.25	
28 Aug	240.333	50.013	-128.985	10440.2	15.29	0.44	32.039	1021.3	338.82	328.51	334.59	324.41	
28 Aug	240.375	50.030	-128.978	10442.2	15.35	0.44	32.037	1021.3	338.90	329.59	334.65	325.45	
28 Aug	240.417	49.913	-128.715	10465.0	15.51	0.44	32.035	1021.0	339.25	331.20	334.84	326.89	
28 Aug	240.458	49.777	-128.388	10492.9	15.45	0.44	32.033	1020.9	339.04	327.59	334.62	323.32	
28 Aug	240.500	49.638	-128.072	10520.4	15.25	0.44	32.032	1020.8	340.60	327.23	336.20	323.00	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
8 Apr	99.042	52.000	-168.000	0.0	3.06	0.39	32.676	1020.2	356.89	327.51	355.19	325.95	
8 Apr	99.083	52.020	-167.970	3.0	3.00	0.39	32.655	1020.1	358.34	326.12	356.61	324.55	
8 Apr	99.125	51.910	-168.080	17.4	3.03	0.39	32.642	1020.7		365.91		364.35	
8 Apr	99.167	51.680	-168.290	46.7	3.00	0.39	32.629	1020.8	358.08	337.38	356.60	335.98	
8 Apr	99.208	51.490	-168.480	71.6	3.02	0.39	32.616	1021.6	356.98	325.97	355.78	324.87	
8 Apr	99.250	51.270	-168.650	98.7	3.03	0.39	32.603	1022.6	357.79	326.93	356.93	326.15	
8 Apr	99.292	51.070	-168.820	123.9	3.02	0.39	32.590	1023.5	357.20	333.16	356.66	332.65	
8 Apr	99.333	50.840	-169.050	154.1	3.05	0.39	32.577	1024.5		337.88		337.69	
8 Apr	99.375	50.640	-169.290	182.0	3.06	0.39	32.563	1025.0	355.83	338.01	355.81	337.99	
8 Apr	99.417	50.438	-169.523	209.9	3.16	0.39	32.550	1025.5	355.03	350.76	355.17	350.89	
8 Apr	99.458	50.240	-169.750	237.1	3.16	0.39	32.537	1026.0	354.00	347.57	354.31	347.87	
8 Apr	99.500	50.020	-169.970	266.2	3.12	0.39	32.524	1026.5					
8 Apr	99.542	50.010	-170.010	269.2	3.03	0.39	32.511	1026.5					
8 Apr	99.583	50.000	-170.020	270.5	3.02	0.39	32.498	1026.5					
8 Apr	99.625	50.030	-170.040	274.2	3.05	0.39	32.485	1026.5					
8 Apr	99.667	50.040	-170.050	275.5	3.01	0.39	32.472	1026.3	356.87	343.54	357.31	343.96	
8 Apr	99.708	50.050	-170.040	276.8	3.04	0.39	32.506	1026.3	356.95	342.81	357.39	343.23	
8 Apr	99.750	49.980	-169.990	285.4	3.07	0.39	32.540	1026.6	355.76	346.75	356.29	347.27	
8 Apr	99.792	49.980	-170.000	286.1	3.06	0.39	32.575	1026.5	356.52	347.87	357.02	348.36	
8 Apr	99.833	49.990	-170.000	287.2	3.09	0.39	32.609	1026.2	356.23	341.63	356.62	342.01	
8 Apr	99.875	50.000	-170.010	288.5	3.10	0.39	32.643	1026.1	356.95	333.27	357.31	333.60	
8 Apr	99.917	50.000	-170.010	288.5	3.12	0.39	32.678	1025.4					
8 Apr	99.958	50.000	-170.010	288.5	3.14	0.39	32.691	1024.6					
9 Apr	100.000	50.020	-170.020	290.9	3.11	0.39	32.705	1023.2					
9 Apr	100.042	49.790	-170.020	316.4	3.19	0.39	32.718	1022.6					
9 Apr	100.083	49.530	-169.990	345.4	3.38	0.39	32.731	1021.4					
9 Apr	100.125	49.290	-169.990	372.0	3.41	0.39	32.745	1020.6					
9 Apr	100.167	48.990	-169.980	405.4	3.43	0.39	32.758	1019.5					
9 Apr	100.208	48.750	-169.980	432.1	3.41	0.39	32.771	1019.2					
9 Apr	100.250	48.550	-169.990	454.3	3.36	0.39	32.785	1017.5					
9 Apr	100.292	48.500	-170.000	459.9	3.37	0.39	32.798	1016.7		360.02		357.02	
9 Apr	100.333	48.490	-169.960	463.1	3.41	0.39	32.811	1015.1	355.04		351.52		
9 Apr	100.375	48.490	-169.920	466.0	3.44	0.39	32.825	1014.0					
9 Apr	100.417	48.460	-169.900	469.6	3.48	0.39	32.838	1012.5	356.32	380.71	351.87	375.96	
9 Apr	100.458	48.310	-169.890	486.3	3.53	0.39	32.851	1011.0	356.01	377.56	351.03	372.28	
9 Apr	100.500	48.180	-169.880	500.8	3.34	0.39	32.864	1011.0	356.12	389.06	351.17	383.65	
9 Apr	100.542	48.050	-169.890	515.3	3.22	0.39	32.878	1011.0	356.31	385.71	351.38	380.37	
9 Apr	100.583	47.900	-169.900	531.9	3.17	0.39	32.891	1011.0	355.69	378.68	350.78	373.45	
9 Apr	100.625	47.750	-169.920	548.7	3.17	0.39	32.904	1011.5	355.91	371.58	351.17	366.63	
9 Apr	100.667	47.590	-169.950	566.6	3.18	0.39	32.918	1011.4	356.76	371.10	351.97	366.12	
9 Apr	100.708	47.440	-169.980	583.4	3.30	0.39	32.931	1010.6	356.03	374.09	350.95	368.75	
9 Apr	100.750	47.250	-170.000	604.6	3.43	0.39	32.944	1010.2	356.78	367.52	351.53	362.11	
9 Apr	100.792	47.120	-170.010	619.0	3.42	0.39	32.958	1009.5	355.67	365.55	350.19	359.92	
9 Apr	100.833	47.000	-170.000	632.4	3.40	0.39	32.971	1009.7	355.83	370.44	350.42	364.81	
9 Apr	100.875	46.990	-170.010	633.7	3.39	0.39	32.972	1007.8	356.14	370.64	350.07	364.32	
9 Apr	100.917	46.990	-170.010	633.7	3.37	0.39	32.972	1006.6	356.11	370.40	349.62	363.65	
9 Apr	100.958	46.990	-170.010	633.7	3.41	0.39	32.972	1005.2	355.94	372.71	348.96	365.40	
10 Apr	101.000	46.990	-170.000	634.5	3.44	0.39	32.973	1003.9	355.92	373.26	348.49	365.46	
10 Apr	101.042	46.990	-170.000	634.5	3.48	0.39	32.981	1001.5	355.83	372.69	347.56	364.02	
10 Apr	101.083	46.990	-170.000	634.5	3.49	0.39	32.989	999.6	355.94	375.23	347.00	365.80	
10 Apr	101.125	46.980	-170.010	635.8	3.50	0.39	32.997	998.0	355.32	374.12	345.84	364.14	
10 Apr	101.167	46.950	-170.020	639.3	3.49	0.39	33.005	996.3	356.13	378.13	346.03	367.41	
10 Apr	101.208	46.880	-170.000	647.2	3.52	0.39	33.012	995.1	355.17	377.15	344.68	366.01	
10 Apr	101.250	46.780	-169.960	658.7	3.51	0.39	33.020	994.5	355.74	376.78	345.02	365.43	
10 Apr	101.292	46.670	-169.930	671.1	3.53	0.39	33.028	994.0	355.71	376.69	344.82	365.16	
10 Apr	101.333	46.560	-169.900	683.6	3.55	0.39	33.036	993.8	355.90	382.28	344.93	370.50	
10 Apr	101.375	46.450	-169.900	695.8	3.54	0.39	33.044	994.0	355.35	380.35	344.47	368.70	

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10 Apr	101.417	46.360	-169.910	705.8	3.56	0.39	33.052	994.6	355.90	376.32	345.21	365.02	
10 Apr	101.458	46.260	-169.920	717.0	3.57	0.39	33.060	994.6	355.88	364.11	345.18	353.17	
10 Apr	101.500	46.160	-169.920	728.1	3.48	0.39	33.068	994.8	356.26	361.39	345.64	350.62	
10 Apr	101.542	46.060	-169.950	739.4	3.40	0.39	33.075	994.8	356.11	354.59	345.51	344.03	
10 Apr	101.583	45.960	-169.930	750.7	3.37	0.39	33.083	994.7	355.72	356.52	345.10	345.87	
10 Apr	101.625	45.890	-169.960	758.8	3.36	0.39	33.091	994.8		355.63		345.05	
10 Apr	101.667	45.700	-169.950	779.9	3.43	0.39	33.099	995.3					
10 Apr	101.708	45.700	-169.960	780.7	3.57	0.39	33.107	995.0					
10 Apr	101.750	45.610	-169.960	790.7	3.55	0.39	33.115	995.2					
10 Apr	101.792	45.540	-169.960	798.5	3.51	0.39	33.123	996.2					
10 Apr	101.833	45.510	-169.970	801.9	3.53	0.39	33.130	996.5					
10 Apr	101.875	45.500	-169.980	803.2	3.51	0.39	33.138	997.1					
10 Apr	101.917	45.470	-170.020	807.8	3.54	0.39	33.146	996.8					
10 Apr	101.958	45.430	-170.050	812.8	3.57	0.39	33.154	997.1	356.48	356.73	346.64	346.88	
11 Apr	102.000	45.730	-170.080	846.2	3.55	0.39	33.162	997.0	356.65	355.92	346.77	346.07	
11 Apr	102.042	45.380	-170.110	885.2	3.54	0.39	33.170	997.3	356.62	358.18	346.85	348.37	
11 Apr	102.083	45.370	-170.170	890.0	3.60	0.39	33.178	997.3	356.68	356.08	346.90	346.32	
11 Apr	102.125	45.340	-170.230	895.8	3.68	0.39	33.186	998.0	356.94	355.92	347.38	346.39	
11 Apr	102.167	45.320	-170.290	901.0	3.71	0.39	33.194	998.7	357.16	355.13	347.84	345.86	
11 Apr	102.208	45.300	-170.350	906.1	3.88	0.38	33.201	998.7	356.75	348.59	347.41	339.46	
11 Apr	102.250	45.280	-170.410	911.3	4.06	0.38	33.209	1000.0	356.24	345.32	347.33	336.68	
11 Apr	102.292	45.280	-170.470	916.0	4.12	0.38	33.217	1001.0	356.09	346.53	347.52	338.20	
11 Apr	102.333	45.275	-170.549	922.2	4.09	0.38	33.225	1002.2	356.18	344.64	348.03	336.76	
11 Apr	102.375	45.270	-170.630	928.6	4.26	0.38	33.233	1003.5	356.22	343.78	348.50	336.32	
11 Apr	102.417	45.270	-170.700	934.1	4.35	0.38	33.241	1003.8	356.27	342.44	348.63	335.10	
11 Apr	102.458	45.270	-170.750	938.0	4.43	0.38	33.249	1004.5	356.18	343.59	348.78	336.44	
11 Apr	102.500	45.270	-170.780	940.3	4.36	0.38	33.257	1005.0	356.23	342.07	349.01	335.14	
11 Apr	102.542	45.260	-170.810	942.9	4.36	0.38	33.264	1005.7	356.63	341.65	349.65	334.96	
11 Apr	102.583	45.260	-170.830	944.5	4.47	0.38	33.272	1006.1	356.98	345.76	350.11	339.11	
11 Apr	102.625	45.230	-170.830	947.8	4.56	0.38	33.280	1006.7	357.30	340.51	350.62	334.14	
11 Apr	102.667	45.280	-170.880	954.6	4.69	0.38	33.288	1007.2	357.25	340.12	350.72	333.90	
11 Apr	102.708	45.200	-170.900	963.6	4.69	0.38	33.296	1008.1	357.70	339.72	351.48	333.81	
11 Apr	102.750	45.190	-170.950	967.7	4.71	0.38	33.304	1009.0	357.80	339.91	351.89	334.29	
11 Apr	102.792	45.170	-170.990	971.5	4.76	0.38	33.312	1009.9	357.75	340.13	352.14	334.80	
11 Apr	102.833	45.160	-171.030	974.9	4.76	0.38	33.320	1010.6	357.52	339.81	352.16	334.71	
11 Apr	102.875	45.150	-171.080	978.9	4.80	0.38	33.327	1011.0	358.12	339.46	352.88	334.50	
11 Apr	102.917	45.150	-171.140	983.6	4.78	0.38	33.335	1011.3	360.61	340.65	355.45	335.77	
11 Apr	102.958	45.140	-171.200	988.5	4.81	0.38	33.343	1011.6	360.91	339.92	355.84	335.15	
12 Apr	103.000	45.150	-171.240	991.8	4.72	0.38	33.351	1011.2	359.21	339.76	354.04	334.87	
12 Apr	103.042	45.170	-171.300	997.0	4.55	0.38	33.359	1011.1	358.63	340.83	353.47	335.92	
12 Apr	103.083	45.190	-171.340	1000.8	4.48	0.38	33.367	1010.6	358.29	338.70	352.97	333.67	
12 Apr	103.125	45.200	-171.390	1004.9	4.37	0.38	33.375	1010.0	360.35	339.49	354.81	334.27	
12 Apr	103.167	45.210	-171.450	1009.7	4.35	0.38	33.383	1009.6	358.13	341.66	352.49	336.28	
12 Apr	103.208	45.220	-171.500	1013.8	4.38	0.38	33.390	1009.0	358.39	338.84	352.53	333.30	
12 Apr	103.250	45.240	-171.550	1018.3	4.42	0.38	33.398	1007.5	359.07	336.94	352.66	330.93	
12 Apr	103.292	45.250	-171.600	1023.4	4.41	0.38	33.406	1007.5	354.63	332.24	348.30	326.31	
12 Apr	103.333	45.270	-171.660	1027.6	4.56	0.38	33.414	1006.3					
12 Apr	103.375	45.280	-171.710	1031.6	4.53	0.38	33.422	1005.5					
12 Apr	103.417	45.300	-171.780	1037.5	4.31	0.38	33.430	1005.0		341.58		334.67	
12 Apr	103.458	45.290	-171.830	1041.6	4.14	0.38	33.438	1004.8	357.24	342.82	349.97	335.85	
12 Apr	103.500	45.310	-171.890	1046.8	4.01	0.38	33.446	1004.8	357.08	342.24	349.84	335.30	
12 Apr	103.542	45.290	-171.980	1054.2	4.04	0.38	33.454	1004.6	356.86	339.47	349.55	332.51	
12 Apr	103.583	45.260	-172.020	1058.7	4.13	0.38	33.461	1005.1	358.50	341.16	351.31	334.32	
12 Apr	103.625	45.240	-172.080	1063.9	4.15	0.38	33.469	1005.3	357.69	341.18	350.59	334.40	
12 Apr	103.667	45.230	-172.150	1069.5	4.08	0.38	33.477	1006.0	357.69	340.14	350.84	333.63	
12 Apr	103.708	45.210	-172.230	1076.2	4.00	0.38	33.485	1006.8	357.34	340.61	350.79	334.37	
12 Apr	103.750	45.210	-172.300	1081.6	3.91	0.38	33.493	1008.3	356.81	342.55	350.81	336.80	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 Apr	103.792	45.120	-172.270	1091.9	3.89	0.38	33.501	1010.0		340.16		335.02	
12 Apr	103.833	44.950	-172.050	1117.5	4.29	0.38	33.509	1011.4					
12 Apr	103.875	44.740	-171.780	1149.1	4.46	0.38	33.516	1006.8	357.39	340.15	350.76	333.84	
12 Apr	103.917	44.550	-171.630	1173.3	4.75	0.38	33.524	1008.3	356.37	340.56	350.23	334.69	
12 Apr	103.958	44.310	-171.460	1203.2	4.86	0.38	33.532	1013.0	357.41	333.14	352.87	328.91	
13 Apr	104.000	44.070	-171.300	1232.8	4.90	0.38	33.540	1012.9	357.39	332.43	352.81	328.18	
13 Apr	104.042	43.830	-171.140	1262.3	5.51	0.37	33.548	1013.1	357.44	333.50	352.81	329.19	
13 Apr	104.083	43.580	-170.980	1292.9	5.74	0.37	33.556	1013.4	357.06	335.46	352.50	331.17	
13 Apr	104.125	43.330	-170.830	1323.2	5.83	0.37	33.564	1013.3	356.40	330.17	351.79	325.90	
13 Apr	104.167	43.080	-170.670	1353.9	5.84	0.37	33.572	1013.0	357.03	335.26	352.31	330.82	
13 Apr	104.208	42.830	-170.520	1384.2	6.15	0.37	33.579	1013.3	357.57	332.54	352.88	328.18	
13 Apr	104.250	42.590	-170.370	1413.6	6.46	0.37	33.587	1013.1	356.82	333.17	352.01	328.68	
13 Apr	104.292	42.340	-170.220	1444.0	6.53	0.36	33.595	1013.9	357.00	330.55	352.45	326.33	
13 Apr	104.333	42.100	-170.070	1473.4	7.13	0.36	33.603	1013.4	356.91	329.11	352.06	324.64	
13 Apr	104.375	42.010	-169.990	1485.3	7.06	0.36	33.611	1010.4	357.09	329.54	351.20	324.11	
13 Apr	104.417	42.010	-169.990	1485.3	7.00	0.36	33.603	1011.0	356.61	330.19	350.95	324.95	
13 Apr	104.458	42.020	-170.000	1486.7	7.05	0.36	33.596	1010.9	357.27	327.33	351.56	322.09	
13 Apr	104.500	42.030	-170.010	1488.1	7.07	0.36	33.600	1009.8	356.73	328.41	350.64	322.80	
13 Apr	104.542	42.050	-170.010	1490.3	7.10	0.36	33.604	1008.8	357.61	329.78	351.14	323.82	
13 Apr	104.583	42.060	-170.050	1493.8	7.16	0.36	33.607	1007.8	357.06	330.25	350.24	323.94	
13 Apr	104.625	42.080	-170.020	1497.1	7.16	0.36	33.611	1006.4	357.19	329.92	349.88	323.17	
13 Apr	104.667	42.070	-170.010	1498.5	7.20	0.36	33.612	1005.5	356.68	331.00	349.06	323.93	
13 Apr	104.708	42.080	-170.030	1500.5	7.13	0.36	33.613	1004.8	357.02	331.65	349.16	324.34	
13 Apr	104.750	42.090	-170.040	1501.9	7.16	0.36	33.614	1004.5	356.81	332.09	348.84	324.67	
13 Apr	104.792	42.110	-170.050	1504.3	7.22	0.36	33.615	1004.9		331.39		324.11	
13 Apr	104.833	41.920	-170.040	1525.4	7.37	0.36	33.635	1004.1	357.45	335.80	349.28	328.13	
13 Apr	104.875	41.640	-170.020	1556.5	7.69	0.36	33.656	1003.5	357.41	335.98	348.96	328.03	
13 Apr	104.917	41.380	-170.010	1585.4	7.58	0.36	33.677	1003.1	357.24	333.50	348.68	325.50	
13 Apr	104.958	41.050	-169.990	1622.2	7.86	0.36	33.698	1003.1	356.64	328.43	348.03	320.51	
14 Apr	105.000	40.850	-169.980	1644.4	7.93	0.35	33.719	1003.4	357.32	328.53	348.78	320.68	
14 Apr	105.042	40.580	-169.990	1674.4	8.19	0.35	33.740	1003.7	357.57	330.47	349.07	322.62	
14 Apr	105.083	40.310	-170.000	1704.4	8.21	0.35	33.760	1004.6	355.86	328.50	347.71	320.97	
14 Apr	105.125	40.040	-170.000	1734.4	10.05	0.34	33.781	1005.6	356.82	320.05	348.53	312.61	
14 Apr	105.167	40.010	-170.010	1737.9	10.84	0.33	33.802	1006.4	357.48	316.97	349.24	309.67	
14 Apr	105.208	40.030	-170.000	1740.2	10.80	0.33	33.822	1007.6	356.85	318.84	349.06	311.87	
14 Apr	105.250	40.050	-170.010	1742.6	10.36	0.34	33.843	1008.3	357.83	320.14	350.38	313.48	
14 Apr	105.292	40.080	-170.020	1746.1	9.61	0.34	33.864	1009.5	357.84	326.54	351.01	320.31	
14 Apr	105.333	40.110	-170.030	1749.5	9.55	0.34	33.885	1011.0	357.85	323.72	351.57	318.03	
14 Apr	105.375	40.120	-170.050	1751.5	9.56	0.34	33.906	1012.0	357.54	325.75	351.61	320.35	
14 Apr	105.417	40.140	-170.080	1754.9	9.68	0.34	33.927	1011.5	357.70	322.81	351.56	317.26	
14 Apr	105.458	40.160	-170.090	1757.3	9.48	0.34	33.947	1013.0	357.59	329.12	352.03	324.00	
14 Apr	105.500	40.170	-170.110	1759.3	9.22	0.35	33.968	1013.6	357.93	327.45	352.64	322.61	
14 Apr	105.542	40.190	-170.130	1762.1	9.43	0.34	33.989	1014.0	357.93	328.85	352.73	324.07	
14 Apr	105.583	40.210	-170.170	1766.2	9.17	0.35	34.009	1014.7	357.70	331.85	352.81	327.32	
14 Apr	105.625	40.220	-170.210	1769.8	8.96	0.35	34.030	1015.0	357.78	330.96	353.05	326.59	
14 Apr	105.667	40.260	-170.230	1774.5	8.55	0.35	34.051	1015.0	357.82	330.55	353.19	326.27	
14 Apr	105.708	40.280	-170.270	1778.6	8.48	0.35	34.072	1015.6	358.65	328.90	354.24	324.86	
14 Apr	105.750	40.300	-170.300	1781.9	8.32	0.35	34.093	1015.7	358.92	332.44	354.58	328.41	
14 Apr	105.792	40.350	-170.320	1787.8	8.45	0.35	34.114	1016.2	357.72	333.38	353.53	329.48	
14 Apr	105.833	40.350	-170.330	1788.6	8.49	0.35	34.134	1017.0	358.48	333.77	354.56	330.12	
14 Apr	105.875	40.140	-170.130	1817.4	9.30	0.34	34.155	1017.0	358.21	319.71	354.09	316.03	
14 Apr	105.917	40.010	-170.020	1834.7	10.60	0.34	34.176	1017.0	358.64	317.73	354.17	313.77	
14 Apr	105.958	40.030	-170.020	1836.9	10.58	0.34	34.175	1016.3	358.94	319.02	354.22	314.83	
15 Apr	106.000	40.040	-170.030	1838.3	10.64	0.33	34.174	1015.8	358.63	319.47	353.73	315.10	
15 Apr	106.042	40.050	-170.040	1839.7	10.80	0.33	34.176	1015.1	358.96	318.00	353.76	313.39	
15 Apr	106.083	40.060	-170.080	1843.3	10.81	0.33	34.177	1014.3	358.56	319.02	353.08	314.15	
15 Apr	106.125	40.070	-170.090	1844.7	10.80	0.33	34.178	1013.5	358.24	322.29	352.49	317.12	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
15 Apr	106.167	40.060	-170.120	1847.4	10.85	0.33	34.180	1013.0	358.30	322.98	352.36	317.63	
15 Apr	106.208	40.060	-170.130	1848.3	10.84	0.33	34.180	1012.8	358.02	320.38	352.02	315.01	
15 Apr	106.250	40.030	-170.150	1852.0	10.81	0.33	34.179	1012.7	358.83	321.15	352.79	315.74	
15 Apr	106.292	40.050	-170.170	1854.8	10.77	0.33	34.179	1012.6	358.52	322.75	352.46	317.29	
15 Apr	106.333	39.830	-170.150	1879.3	10.48	0.34	34.178	1012.5	358.19	320.29	352.18	314.92	
15 Apr	106.375	39.570	-170.110	1908.4	9.80	0.34	34.178	1012.9	359.37	316.26	353.66	311.24	
15 Apr	106.417	39.310	-170.080	1937.4	10.97	0.33	34.177	1013.1	358.25	317.36	352.31	312.10	
15 Apr	106.458	39.040	-169.960	1969.2	10.64	0.34	34.177	1013.2	358.97	321.76	353.15	316.54	
15 Apr	106.500	38.810	-169.790	1998.7	10.93	0.33	34.176	1013.3	357.22	318.23	351.38	313.02	
15 Apr	106.542	38.570	-169.610	2029.6	10.93	0.33	34.176	1013.5	356.65	317.20	350.89	312.07	
15 Apr	106.583	38.340	-169.450	2058.7	10.81	0.33	34.175	1013.0	355.87	320.73	349.98	315.42	
15 Apr	106.625	38.130	-169.310	2085.0	10.83	0.33	34.175	1013.0	355.52	319.50	349.63	314.20	
15 Apr	106.667	38.000	-169.310	2099.4	10.85	0.33	34.174	1013.0	356.63	318.54	350.72	313.25	
15 Apr	106.708	37.990	-169.420	2109.1	10.69	0.33	34.174	1013.0	357.14	319.82	351.26	314.55	
15 Apr	106.750	37.990	-169.540	2119.7	10.65	0.33	34.173	1013.0	356.37	318.42	350.52	313.18	
15 Apr	106.792	38.000	-169.650	2129.3	10.71	0.33	34.173	1013.2	356.39	318.36	350.59	313.17	
15 Apr	106.833	38.010	-169.750	2138.2	10.68	0.33	34.172	1012.5	355.90	320.38	349.87	314.95	
15 Apr	106.875	38.010	-169.860	2147.8	10.78	0.33	34.172	1012.6	355.36	322.71	349.35	317.25	
15 Apr	106.917	38.000	-169.940	2154.9	11.12	0.33	34.171	1012.3	355.63	320.80	349.41	315.20	
15 Apr	106.958	38.000	-170.010	2161.0	11.26	0.33	34.171	1012.0	355.31	319.70	348.95	313.98	
16 Apr	107.000	38.010	-169.990	2163.1	11.26	0.33	34.189	1011.6	356.21	319.19	349.70	313.35	
16 Apr	107.042	37.930	-170.060	2173.9	11.02	0.33	34.206	1010.6	356.92	318.73	350.11	312.65	
16 Apr	107.083	37.770	-170.130	2192.7	11.68	0.33	34.224	1010.7	355.57	318.34	348.64	312.13	
16 Apr	107.125	37.620	-170.220	2211.2	12.02	0.33	34.241	1010.7	355.35	314.07	348.32	307.86	
16 Apr	107.167	37.490	-170.110	2228.6	12.00	0.33	34.259	1012.3	356.14	311.32	349.66	305.65	
16 Apr	107.208	37.420	-169.850	2252.8	11.31	0.33	34.276	1011.6	355.17	318.35	348.66	312.52	
16 Apr	107.250	37.260	-169.720	2273.9	12.22	0.32	34.294	1011.6	355.58	309.76	348.80	303.85	
16 Apr	107.292	37.040	-169.550	2302.7	12.20	0.32	34.312	1013.0	355.86	310.18	349.57	304.69	
16 Apr	107.333	36.820	-169.400	2330.5	12.45	0.32	34.329	1013.2	355.23	314.92	348.94	309.34	
16 Apr	107.375	36.600	-169.540	2357.9	12.83	0.32	34.346	1013.7	354.39	317.58	348.17	312.01	
16 Apr	107.417	36.400	-169.680	2383.4	12.88	0.32	34.364	1013.5	355.23	317.15	348.91	311.51	
16 Apr	107.458	36.140	-169.850	2416.1	13.10	0.32	34.381	1014.1	353.49	314.36	347.34	308.89	
16 Apr	107.500	36.000	-170.000	2436.7	12.91	0.32	34.399	1014.0	355.49	315.97	349.33	310.50	
16 Apr	107.542	35.990	-170.020	2438.8	12.98	0.32	34.400	1013.4	354.30	313.45	347.93	307.82	
16 Apr	107.583	35.980	-170.040	2440.9	13.04	0.32	34.401	1013.1	355.07	316.23	348.56	310.44	
16 Apr	107.625	35.970	-170.060	2443.0	13.05	0.32	34.406	1012.5	355.88	317.09	349.15	311.09	
16 Apr	107.667	35.960	-170.070	2444.4	13.10	0.32	34.411	1012.0	355.52	309.04	348.60	303.03	
16 Apr	107.708	35.880	-170.090	2453.5	12.99	0.32	34.444	1012.2	355.55	314.13	348.74	308.11	
16 Apr	107.750	35.630	-170.100	2481.3	13.18	0.32	34.477	1012.9	355.00	314.55	348.38	308.68	
16 Apr	107.792	35.400	-170.090	2506.9	13.68	0.31	34.510	1013.6	355.67	315.08	349.12	309.28	
16 Apr	107.833	35.130	-170.080	2536.9	13.73	0.31	34.543	1014.6	354.39	312.83	348.19	307.36	
16 Apr	107.875	34.890	-170.050	2563.7	13.68	0.31	34.576	1015.7	354.40	309.50	348.60	304.44	
16 Apr	107.917	34.600	-170.020	2596.1	14.34	0.31	34.610	1016.1	354.54	315.22	348.65	309.99	
16 Apr	107.958	34.360	-169.980	2623.0	15.44	0.30	34.642	1016.5	354.52	309.14	348.38	303.79	
17 Apr	108.000	34.130	-170.000	2648.6	16.13	0.30	34.676	1016.4	354.23	300.13	347.80	294.68	
17 Apr	108.042	34.010	-169.980	2662.1	15.88	0.30	34.709	1017.6	354.74	302.89	348.81	297.83	
17 Apr	108.083	34.020	-169.990	2663.5	15.87	0.30	34.709	1017.3					
17 Apr	108.125	34.030	-170.020	2666.5	15.86	0.30	34.708	1017.1					
17 Apr	108.167	34.050	-170.020	2668.7	15.84	0.30	34.705	1017.1		297.33		292.23	
17 Apr	108.208	34.070	-170.030	2671.1	15.88	0.30	34.702	1017.3	355.16	303.05	349.12	297.90	
17 Apr	108.250	34.070	-170.040	2672.0	15.78	0.30	34.698	1017.5	355.16	298.01	349.23	293.04	
17 Apr	108.292	34.080	-170.050	2673.5	15.75	0.30	34.695	1018.0	354.91	302.03	349.17	297.14	
17 Apr	108.333	34.080	-170.050	2673.5	15.81	0.30	34.697	1018.5	355.06	306.11	349.47	301.29	
17 Apr	108.375	34.070	-170.060	2674.9	15.82	0.30	34.699	1018.6	355.14	301.60	349.58	296.88	
17 Apr	108.417	34.050	-170.060	2677.1	15.92	0.30	34.701	1018.0	355.62	297.81	349.80	292.94	
17 Apr	108.458	33.880	-170.050	2696.0	15.81	0.30	34.703	1018.3	354.58	300.89	348.93	296.09	
17 Apr	108.500	33.580	-170.040	2729.4	16.04	0.30	34.705	1018.6	355.01	297.96	349.37	293.22	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 Apr	108.542	33.310	-170.040	2759.4	15.63	0.30	34.708	1018.6	355.50	299.54	350.00	294.91	
17 Apr	108.583	33.030	-170.030	2790.5	16.32	0.29	34.710	1018.9	354.99	298.71	349.34	293.96	
17 Apr	108.625	32.770	-170.020	2819.4	16.07	0.30	34.712	1019.8	355.24	301.03	350.00	296.59	
17 Apr	108.667	32.490	-170.010	2850.6	15.78	0.30	34.714	1020.4	355.30	302.60	350.38	298.41	
17 Apr	108.708	32.230	-170.010	2879.4	16.31	0.29	34.716	1020.9	355.13	299.70	350.18	295.53	
17 Apr	108.750	32.000	-170.010	2905.0	16.69	0.29	34.718	1021.4	354.34		349.43		
17 Apr	108.792	32.010	-170.010	2906.1	16.35	0.29	34.713	1022.0		324.66		320.47	
17 Apr	108.833	32.000	-170.070	2911.9	16.44	0.29	34.708	1022.1	356.15	319.68	351.55	315.56	
17 Apr	108.875	32.000	-170.090	2913.8	16.53	0.29	34.703	1022.2	356.73	308.60	352.13	304.62	
17 Apr	108.917	32.000	-170.100	2914.7	16.86	0.29	34.698	1022.4	356.08	295.47	351.42	291.60	
17 Apr	108.958	31.990	-170.100	2915.8	16.55	0.29	34.750	1021.6	355.36	298.74	350.56	294.70	
18 Apr	109.000	31.740	-170.060	2943.9	16.88	0.29	34.803	1021.2	356.41	298.95	351.32	294.69	
18 Apr	109.042	31.470	-170.080	2973.9	17.08	0.29	34.856	1020.7	355.59	299.38	350.26	294.89	
18 Apr	109.083	31.190	-170.060	3005.1	17.33	0.29	34.908	1020.1	355.23	304.95	349.59	300.11	
18 Apr	109.125	30.910	-170.060	3036.2	17.48	0.29	34.961	1020.0	355.03	304.82	349.30	299.90	
18 Apr	109.167	30.630	-170.050	3067.3	18.12	0.28	35.014	1020.0	354.68	305.59	348.68	300.42	
18 Apr	109.208	30.360	-170.040	3097.3	19.11	0.27	35.066	1020.0	355.49	316.60	349.04	310.86	
18 Apr	109.250	30.100	-170.020	3126.3	20.03	0.27	35.119	1021.0	355.52	315.25	348.99	309.45	
18 Apr	109.292	30.000	-170.000	3137.6	19.67	0.27	35.172	1021.5	355.69	318.80	349.50	313.25	
18 Apr	109.333	30.010	-170.000	3138.7	19.71	0.27	35.162	1021.9	355.35	317.66	349.29	312.24	
18 Apr	109.375	30.030	-170.010	3141.1	19.65	0.27	35.151	1022.0	354.95	316.88	348.96	311.52	
18 Apr	109.417	30.020	-170.000	3142.6	19.64	0.27	35.145	1021.7	355.42	317.26	349.32	311.81	
18 Apr	109.458	30.020	-170.000	3142.6	19.50	0.27	35.140	1021.4	355.30	315.34	349.16	309.89	
18 Apr	109.500	30.010	-170.000	3143.7	19.21	0.27	35.134	1020.8	355.26	317.34	349.05	311.79	
18 Apr	109.542	30.010	-169.990	3144.7	19.13	0.27	35.098	1020.2	355.56	314.88	349.17	309.22	
18 Apr	109.583	30.010	-169.980	3145.6	19.15	0.27	35.063	1020.9	355.29	316.04	349.14	310.57	
18 Apr	109.625	30.000	-169.970	3147.1	19.03	0.27	35.027	1019.5	355.95	317.22	349.35	311.34	
18 Apr	109.667	29.990	-169.960	3148.6	18.99	0.27	34.991	1019.4	355.47	318.55	348.87	312.63	
18 Apr	109.708	29.870	-169.950	3161.9	18.72	0.28	35.038	1019.1	355.13	316.40	348.55	310.54	
18 Apr	109.750	29.600	-169.940	3191.9	19.93	0.27	35.087	1019.2	354.92	314.22	347.82	307.93	
18 Apr	109.792	29.350	-169.940	3219.7	21.20	0.26	35.135	1019.0	355.31	322.52	347.50	315.43	
18 Apr	109.833	29.100	-169.950	3247.5	21.78	0.25	35.182	1018.5	355.05	320.00	346.77	312.54	
18 Apr	109.875	28.870	-169.960	3273.1	21.75	0.25	35.231	1018.8	355.44	315.91	347.27	308.65	
18 Apr	109.917	28.630	-169.980	3299.8	22.02	0.25	35.279	1018.5	354.75	320.36	346.35	312.77	
18 Apr	109.958	28.390	-169.990	3326.5	21.91	0.25	35.326	1018.8	354.62	315.68	346.38	308.35	
19 Apr	110.000	28.140	-170.010	3354.4	21.31	0.26	35.375	1018.8	354.09	318.44	346.18	311.33	
19 Apr	110.042	28.010	-170.000	3368.9	21.42	0.26	35.423	1018.8	355.14	321.95	347.15	314.71	
19 Apr	110.083	28.000	-170.000	3370.0	21.39	0.26	35.416	1018.4	354.10	321.65	346.01	314.30	
19 Apr	110.125	27.990	-170.010	3371.4	21.36	0.26	35.408	1018.3	354.85	323.02	346.72	315.62	
19 Apr	110.167	27.990	-170.010	3371.4	21.29	0.26	35.400	1018.1	354.97	322.55	346.81	315.14	
19 Apr	110.208	27.980	-170.000	3372.9	21.28	0.26	35.393	1018.3	354.63	323.16	346.55	315.79	
19 Apr	110.250	27.970	-170.000	3374.0	21.25	0.26	35.346	1018.5	354.74	322.04	346.74	314.78	
19 Apr	110.292	27.970	-170.000	3374.0	21.14	0.26	35.300	1019.0	354.68	323.96	346.92	316.87	
19 Apr	110.333	27.850	-170.010	3387.4	20.94	0.26	35.254	1019.4	354.88	325.48	347.35	318.57	
19 Apr	110.375	27.650	-170.010	3409.6	20.99	0.26	35.207	1019.5	354.88	326.11	347.36	319.20	
19 Apr	110.417	27.470	-170.020	3429.7	21.37	0.26	35.160	1019.5	354.33	324.45	346.63	317.40	
19 Apr	110.458	27.280	-170.020	3450.8	21.52	0.26	35.115	1019.2	354.74	321.04	346.85	313.89	
19 Apr	110.500	27.100	-170.010	3470.8	21.64	0.26	35.068	1018.3	354.52	322.64	346.25	315.12	
19 Apr	110.542	26.900	-170.000	3493.0	22.36	0.25	35.021	1017.8	354.74	319.73	345.91	311.77	
19 Apr	110.583	26.720	-169.990	3513.1	22.80	0.25	34.976	1017.4	354.70		345.49		
19 Apr	110.625	26.520	-169.990	3535.3	22.96	0.25	34.929	1017.5					
19 Apr	110.667	26.330	-169.990	3556.4	23.38	0.24	34.882	1017.5		314.46		306.03	
19 Apr	110.708	26.130	-170.000	3578.7	23.43	0.24	34.837	1017.3	354.73	313.56	345.12	305.07	
19 Apr	110.750	26.000	-169.990	3593.1	23.54	0.24	34.790	1017.7	354.79	315.96	345.25	307.47	
19 Apr	110.792	25.990	-170.000	3594.6	23.57	0.24	34.941	1018.4	354.15	316.27	344.86	307.97	
19 Apr	110.833	26.000	-170.000	3595.7	23.61	0.24	35.089	1018.4	353.53	315.57	344.23	307.26	
19 Apr	110.875	26.000	-169.990	3596.7	23.61	0.24	35.240	1018.1	353.57	318.31	344.17	309.85	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
19 Apr	110.917	26.010	-169.980	3590.2	23.68	0.24	35.391	1018.1	353.73	318.29	344.28	309.78	
19 Apr	110.958	26.010	-169.990	3599.2	23.64	0.24	35.393	1017.9	353.33	316.68	343.85	308.18	
20 Apr	111.000	25.980	-169.980	3602.7	23.80	0.24	35.396	1017.4	354.70	321.33	344.91	312.47	
20 Apr	111.042	25.890	-169.850	3619.1	23.61	0.24	35.398	1016.9	354.20	325.04	344.36	316.01	
20 Apr	111.083	25.630	-169.890	3648.3	23.84	0.24	35.401	1016.2	354.15	326.15	343.94	316.75	
20 Apr	111.125	25.360	-169.940	3678.7	23.72	0.24	35.403	1015.7	353.05	326.62	342.77	317.10	
20 Apr	111.167	25.110	-169.990	3706.9	23.68	0.24	35.405	1015.8	353.64	325.11	343.40	315.69	
20 Apr	111.208	24.950	-170.000	3724.7	23.81	0.24	35.408	1016.4	353.34	321.39	343.24	312.20	
20 Apr	111.250	24.910	-169.980	3729.6	24.00	0.24	35.410	1016.9	354.91	317.05	344.82	308.04	
20 Apr	111.292	24.710	-170.000	3751.9	24.02	0.24	35.413	1017.4	353.63	314.44	343.74	305.65	
20 Apr	111.333	24.480	-169.950	3778.0	24.30	0.24	35.415	1017.4	354.89	319.08	344.80	310.00	
20 Apr	111.375	24.220	-169.960	3806.9	24.23	0.24	35.418	1018.0	353.66	321.67	343.85	312.75	
20 Apr	111.417	24.000	-170.000	3831.7	24.09	0.24	35.420	1018.4	353.80	325.25	344.21	316.43	
20 Apr	111.458	23.990	-169.970	3834.9	24.04	0.24	35.413	1018.4	353.65	321.31	344.09	312.63	
20 Apr	111.500	23.980	-169.970	3836.0	24.06	0.24	35.405	1017.8	353.29	323.21	343.52	314.27	
20 Apr	111.542	23.970	-169.960	3837.5	24.13	0.24	35.398	1017.3	353.39	323.50	343.41	314.36	
20 Apr	111.583	23.960	-169.960	3838.6	24.13	0.24	35.391	1017.0	353.88	323.08	343.78	313.86	
20 Apr	111.625	23.960	-169.950	3839.7	24.10	0.24	35.396	1016.5	353.89	322.01	343.63	312.67	
20 Apr	111.667	23.950	-169.950	3840.8	24.09	0.24	35.402	1016.3	353.26	322.44	342.96	313.03	
20 Apr	111.708	23.940	-169.950	3841.9	24.08	0.24	35.407	1016.7	353.31	325.56	343.15	316.19	
20 Apr	111.750	23.900	-169.980	3847.3	24.07	0.24	35.413	1017.2	353.81	323.56	343.82	314.42	
20 Apr	111.792	23.890	-170.050	3854.5	24.14	0.24	35.418	1017.6	353.36	325.66	343.47	316.55	
20 Apr	111.833	23.720	-170.070	3873.5	24.50	0.23	35.395	1017.9	353.16	324.06	343.17	314.89	
20 Apr	111.875	23.520	-170.060	3895.7	24.59	0.23	35.371	1018.0	354.32	327.44	344.27	318.15	
20 Apr	111.917	23.320	-170.060	3917.9	24.66	0.23	35.347	1018.2	353.18	329.92	343.19	320.59	
20 Apr	111.958	23.110	-170.040	3941.4	24.75	0.23	35.324	1018.2	352.95	329.98	342.91	320.59	
21 Apr	112.000	22.910	-170.030	3963.6	25.10	0.23	35.300	1018.0	353.54	329.97	343.19	320.32	
21 Apr	112.042	22.670	-170.020	3990.3	25.17	0.23	35.276	1017.5	353.50	334.44	342.94	324.45	
21 Apr	112.083	22.500	-170.020	4009.2	25.07	0.23	35.253	1016.9	353.74	333.76	343.03	323.65	
21 Apr	112.125	22.270	-170.010	4034.8	25.10	0.23	35.229	1016.7	353.83	335.52	343.02	325.27	
21 Apr	112.167	22.070	-170.000	4057.0	25.14	0.23	35.205	1017.0	353.19	336.59	342.48	326.38	
21 Apr	112.208	22.000	-169.990	4064.9	25.27	0.23	35.182	1017.7	353.45	334.60	342.89	324.61	
21 Apr	112.250	22.000	-169.990	4064.9	25.22	0.23	35.179	1018.4	353.76	334.73	343.47	324.99	
21 Apr	112.292	22.000	-170.000	4065.9	25.12	0.23	35.177	1018.9	353.42	332.95	343.38	323.48	
21 Apr	112.333	22.010	-170.010	4067.4	25.07	0.23	35.175	1019.5	353.38	330.67	343.58	321.50	
21 Apr	112.375	22.020	-170.000	4068.9	25.07	0.23	35.172	1019.9	353.15	331.48	343.49	322.41	
21 Apr	112.417	22.020	-170.000	4068.9	25.03	0.23	35.133	1019.9	353.54	331.29	343.90	322.25	
21 Apr	112.458	22.020	-169.990	4069.9	25.07	0.23	35.095	1019.5	353.42	329.49	343.62	320.35	
21 Apr	112.500	21.890	-170.000	4084.4	25.08	0.23	35.056	1018.6	354.45	329.08	344.30	319.65	
21 Apr	112.542	21.670	-170.000	4108.9	25.33	0.23	35.017	1018.1	353.62	330.28	343.16	320.51	
21 Apr	112.583	21.440	-170.000	4134.4	25.46	0.23	34.979	1017.7	353.26	329.87	342.59	319.91	
21 Apr	112.625	21.240	-169.990	4156.7	25.82	0.23	34.940	1017.3	353.71	330.32	342.65	319.99	
21 Apr	112.667	20.990	-169.990	4184.5	26.01	0.22	34.900	1017.6	352.91	330.48	341.85	320.12	
21 Apr	112.708	20.770	-169.980	4208.9	26.17	0.22	34.862	1017.8	353.09	333.00	341.99	322.53	
21 Apr	112.750	20.510	-170.000	4237.9	26.15	0.22	34.823	1018.0	353.24	335.10	342.22	324.65	
21 Apr	112.792	20.280	-169.980	4263.5	26.10	0.22	34.784	1018.7	353.49	335.21	342.73	325.01	
21 Apr	112.833	20.070	-169.990	4286.9	26.10	0.22	34.746	1018.9	353.41	333.79	342.73	323.70	
21 Apr	112.875	19.990	-170.000	4295.8	26.17	0.22	34.707	1019.0	353.41	332.88	342.71	322.81	
21 Apr	112.917	20.000	-169.980	4298.2	26.20	0.22	34.668	1018.9	354.31	336.88	343.53	326.63	
21 Apr	112.958	19.960	-169.990	4302.8	26.24	0.22	34.670	1018.6	353.36	335.10	342.48	324.78	
22 Apr	113.000	19.950	-169.970	4305.1	26.26	0.22	34.672	1017.6		333.68		323.06	
22 Apr	113.042	19.930	-169.960	4307.6	26.23	0.22	34.674	1017.0		336.20		325.33	
22 Apr	113.083	19.920	-169.940	4310.0	26.19	0.22	34.676	1016.4		337.07		325.99	
22 Apr	113.125	19.920	-169.930	4311.0	26.12	0.22	34.668	1016.2		334.05		323.06	
22 Apr	113.167	19.910	-169.920	4312.5	26.11	0.22	34.659	1015.7	353.88	337.08	342.06	325.83	
22 Apr	113.208	19.820	-169.890	4323.0	26.08	0.22	34.651	1015.7	353.62	337.29	341.83	326.05	
22 Apr	113.250	19.620	-169.900	4345.3	26.06	0.22	34.643	1016.1	353.69	336.51	342.05	325.44	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
22 Apr	113.292	19.410	-169.910	4368.6	25.97	0.22	34.634	1016.7	353.97	333.92	342.59	323.19	
22 Apr	113.333	19.220	-169.900	4389.8	25.92	0.22	34.626	1017.0	353.71	333.93	342.48	323.32	
22 Apr	113.375	19.040	-169.920	4409.9	25.91	0.22	34.618	1017.6	353.12	335.36	342.12	324.91	
22 Apr	113.417	18.850	-169.930	4431.0	25.82	0.23	34.609	1017.4	353.29	334.44	342.27	324.01	
22 Apr	113.458	18.670	-169.960	4451.3	25.80	0.23	34.601	1016.9	353.08	333.64	341.91	323.09	
22 Apr	113.500	18.480	-169.980	4472.5	25.87	0.22	34.593	1016.4	353.52	335.51	342.12	324.69	
22 Apr	113.542	18.300	-170.010	4492.7	25.92	0.22	34.585	1015.5	353.39	334.36	341.65	323.24	
22 Apr	113.583	18.120	-170.010	4512.7	25.92	0.22	34.576	1015.0	353.82	335.60	341.89	324.29	
22 Apr	113.625	18.000	-170.000	4526.1	25.83	0.22	34.568	1014.6	354.13	334.48	342.11	323.13	
22 Apr	113.667	18.010	-170.000	4527.2	25.82	0.23	34.523	1014.9	353.82	333.83	341.92	322.60	
22 Apr	113.708	18.010	-169.990	4528.3	25.86	0.22	34.478	1015.5	353.75	333.21	342.03	322.18	
22 Apr	113.750	18.020	-169.980	4529.8	25.89	0.22	34.433	1015.7	354.06	334.06	342.38	323.04	
22 Apr	113.792	18.020	-169.970	4530.9	25.87	0.22	34.388	1016.2	353.58	333.81	342.11	322.98	
22 Apr	113.833	18.020	-169.960	4531.9	25.87	0.22	34.344	1016.4	353.57	333.96	342.16	323.19	
22 Apr	113.875	18.010	-169.990	4535.3	25.90	0.22	34.298	1016.7	353.72	333.73	342.39	323.05	
22 Apr	113.917	18.010	-170.010	4537.4	25.91	0.22	34.253	1016.4	353.97	335.22	342.52	324.38	
22 Apr	113.958	17.940	-170.020	4545.2	25.92	0.22	34.220	1016.0	354.66	333.07	343.05	322.17	
23 Apr	114.000	17.730	-170.010	4568.6	26.02	0.22	34.186	1015.2	353.31	334.81	341.40	323.52	
23 Apr	114.042	17.460	-170.000	4598.6	26.14	0.22	34.152	1014.4					
23 Apr	114.083	17.190	-169.990	4628.6	26.17	0.22	34.119	1013.3					
23 Apr	114.125	16.910	-170.000	4659.8	26.34	0.22	34.085	1012.9		333.94		321.73	
23 Apr	114.167	16.650	-170.000	4688.7	26.38	0.22	34.051	1012.9					
23 Apr	114.208	16.380	-170.000	4718.7	26.48	0.22	34.018	1013.2		334.71		322.47	
23 Apr	114.250	16.120	-170.000	4747.6	26.47	0.22	33.984	1013.7	353.85	335.70	341.09	323.60	
23 Apr	114.292	16.000	-170.000	4760.9	26.40	0.22	33.950	1014.4	354.38	333.37	341.89	321.62	
23 Apr	114.333	16.000	-170.000	4760.9	26.33	0.22	34.029	1014.5	354.58	333.40	342.17	321.73	
23 Apr	114.375	16.000	-170.000	4760.9	26.31	0.22	34.109	1015.0					
23 Apr	114.417	16.000	-170.000	4760.9	26.28	0.22	34.189	1015.0	354.76		342.55		
23 Apr	114.458	15.990	-169.980	4763.3	26.25	0.22	34.268	1014.9	354.08	333.49	341.88	322.01	
23 Apr	114.500	15.990	-169.980	4763.3	26.24	0.22	34.249	1014.4	354.41	332.61	342.03	321.00	
23 Apr	114.542	16.010	-169.970	4765.8	26.20	0.22	34.231	1013.9	354.97	334.78	342.43	322.95	
23 Apr	114.583	15.840	-169.980	4784.7	26.10	0.22	34.213	1013.1	354.19	334.47	341.46	322.45	
23 Apr	114.625	15.640	-169.960	4807.0	26.12	0.22	34.194	1013.1	354.64	333.94	341.88	321.93	
23 Apr	114.667	15.390	-170.000	4835.1	26.12	0.22	34.175	1013.3	354.51	331.81	341.83	319.94	
23 Apr	114.708	15.170	-170.000	4859.6	26.17	0.22	34.157	1013.7	353.74	332.48	341.19	320.68	
23 Apr	114.750	14.930	-170.010	4886.3	26.33	0.22	34.139	1013.9	353.98	334.20	341.38	322.31	
23 Apr	114.792	14.710	-170.010	4910.7	26.14	0.22	34.120	1014.3	353.55	334.89	341.24	323.22	
23 Apr	114.833	14.480	-170.010	4936.3	26.08	0.22	34.102	1014.3	354.03	333.71	341.74	322.13	
23 Apr	114.875	14.260	-170.010	4960.7	26.20	0.22	34.083	1014.0	354.35	335.00	341.86	323.19	
23 Apr	114.917	14.080	-170.000	4980.7	26.43	0.22	34.065	1014.0	354.28	334.31	341.64	322.38	
23 Apr	114.958	14.000	-170.000	4989.6	26.46	0.22	34.047	1013.6	354.12	335.47	341.33	323.35	
24 Apr	115.000	13.990	-169.980	4992.1	26.52	0.22	34.028	1013.6	354.08	336.83	341.25	324.62	
24 Apr	115.042	13.990	-169.980	4992.1	26.58	0.22	34.001	1012.8	353.93	338.12	340.78	325.56	
24 Apr	115.083	13.990	-169.970	4993.1	26.63	0.22	33.974	1012.1	353.85	338.75	340.43	325.90	
24 Apr	115.125	14.000	-169.960	4994.7	26.66	0.22	33.947	1012.2	353.79	338.87	340.38	326.03	
24 Apr	115.167	14.000	-169.960	4994.7	26.64	0.22	33.920	1012.2	354.07	339.22	340.67	326.38	
24 Apr	115.208	14.000	-169.950	4995.8	26.59	0.22	33.893	1013.0	353.56	337.29	340.49	324.82	
24 Apr	115.250	14.000	-169.940	4996.8	26.58	0.22	33.920	1013.5	353.77	337.46	340.87	325.15	
24 Apr	115.292	13.990	-169.930	4998.4	26.55	0.22	33.947	1014.5	354.05	337.67	341.51	325.71	
24 Apr	115.333	13.990	-169.940	4999.5	26.52	0.22	33.973	1015.0	353.90	336.00	341.56	324.28	
24 Apr	115.375	13.860	-169.940	5013.9	26.55	0.22	34.000	1014.9	353.53	335.85	341.15	324.08	
24 Apr	115.417	13.670	-169.960	5035.1	26.62	0.22	34.026	1014.8	353.21	336.06	340.75	324.21	
24 Apr	115.458	13.460	-169.970	5058.5	26.67	0.22	34.053	1014.1	353.29	335.93	340.56	323.82	
24 Apr	115.500	13.220	-169.970	5085.2	26.62	0.22	34.079	1013.5	353.86	336.69	340.93	324.39	
24 Apr	115.542	13.060	-169.990	5103.1	26.51	0.22	34.106	1013.3					
24 Apr	115.583	12.870	-170.010	5124.3	26.43	0.22	34.132	1012.7	354.88	336.67	341.77	324.23	
24 Apr	115.625	12.670	-170.010	5146.5	26.40	0.22	34.159	1012.5	353.49	335.75	340.38	323.30	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
24 Apr	115.667	12.510	-169.990	5164.4	26.54	0.22	34.186	1012.5	353.36	336.53	340.16	323.96	
24 Apr	115.708	12.310	-169.980	5186.7	26.69	0.22	34.212	1013.0	353.18	338.21	340.06	325.64	
24 Apr	115.750	12.110	-169.990	5208.9	26.77	0.22	34.239	1013.3	353.38	340.49	340.30	327.88	
24 Apr	115.792	11.990	-169.980	5222.3	26.80	0.22	34.266	1013.7	353.63	338.94	340.66	326.51	
24 Apr	115.833	12.000	-169.990	5223.9	26.85	0.22	34.292	1013.6	353.96	339.60	340.90	327.07	
24 Apr	115.875	12.000	-169.990	5223.9	26.87	0.22	34.242	1013.5	353.76	339.64	340.66	327.06	
24 Apr	115.917	12.000	-170.000	5225.0	26.88	0.22	34.191	1013.2	353.90	339.53	340.69	326.85	
24 Apr	115.958	12.010	-169.990	5226.5	26.90	0.22	34.142	1012.9	353.69	340.36	340.37	327.54	
25 Apr	116.000	12.010	-169.990	5226.5	26.92	0.22	34.092	1012.3	354.55	341.46	340.97	328.38	
25 Apr	116.042	12.010	-169.990	5226.5	26.93	0.22	34.161	1011.1	353.72	343.41	339.75	329.84	
25 Apr	116.083	12.010	-169.990	5226.5	26.93	0.22	34.228	1010.6	354.49	343.28	340.31	329.56	
25 Apr	116.125	12.020	-169.990	5227.6	26.94	0.22	34.296	1010.7	354.14	344.43	340.01	330.69	
25 Apr	116.167	12.020	-169.990	5227.6	26.92	0.22	34.365	1011.2	354.20	343.07	340.25	329.56	
25 Apr	116.208	11.990	-169.970	5231.6	26.88	0.22	34.332	1011.4	354.58	342.22	340.72	328.84	
25 Apr	116.250	11.840	-169.910	5249.5	26.75	0.22	34.298	1012.0	354.83	341.49	341.25	328.42	
25 Apr	116.292	11.590	-169.870	5277.6	26.71	0.22	34.264	1013.0	354.21	341.79	341.03	329.07	
25 Apr	116.333	11.310	-169.920	5309.2	26.69	0.22	34.231	1013.3	353.40	342.57	340.37	329.94	
25 Apr	116.375	11.050	-169.940	5338.2	26.73	0.22	34.197	1013.3	354.66	342.74	341.56	330.08	
25 Apr	116.417	10.820	-169.950	5363.8	26.85	0.22	34.163	1013.4	354.03	343.45	340.90	330.71	
25 Apr	116.458	10.510	-169.970	5398.3	26.76	0.22	34.130	1012.4	354.02	344.33	340.61	331.28	
25 Apr	116.500	10.260	-170.000	5426.3	26.69	0.22	34.096	1011.6	354.52	346.36	340.86	333.01	
25 Apr	116.542	10.010	-170.000	5454.0	26.72	0.22	34.062	1011.0	353.90	344.94	340.03	331.43	
25 Apr	116.583	10.000	-170.030	5457.5	26.75	0.22	34.029	1010.9	353.58	344.22	339.67	330.68	
25 Apr	116.625	10.020	-170.010	5460.6	26.76	0.22	34.041	1010.6	354.21	344.60	340.16	330.93	
25 Apr	116.667	10.040	-169.980	5464.6	26.72	0.22	34.052	1011.0	354.25	344.09	340.37	330.61	
25 Apr	116.708	10.070	-169.980	5467.9	26.72	0.22	34.064	1011.6	354.25	343.31	340.58	330.06	
25 Apr	116.750	10.040	-169.940	5473.4	26.79	0.22	34.075	1012.0	354.05	342.45	340.48	329.32	
25 Apr	116.792	10.040	-169.930	5474.5	26.79	0.22	34.087	1012.6	354.17	343.49	340.80	330.52	
25 Apr	116.833	10.040	-169.920	5475.6	26.87	0.22	34.098	1013.5	354.29	345.03	341.17	332.25	
25 Apr	116.875	10.040	-169.900	5477.8	26.97	0.22	34.110	1013.3	354.11	346.29	340.86	333.33	
25 Apr	116.917	10.030	-169.890	5479.4	26.99	0.22	34.122	1013.4	354.00	347.91	340.77	334.91	
25 Apr	116.958	10.020	-169.880	5480.9	27.09	0.22	34.133	1013.0	354.11	349.98	340.67	336.69	
26 Apr	117.000	10.020	-169.860	5483.1	27.04	0.22	34.145	1011.5	354.53	350.26	340.59	336.48	
26 Apr	117.042	10.010	-169.850	5484.7	26.98	0.22	34.156	1011.2	354.05	349.92	340.07	336.10	
26 Apr	117.083	10.010	-169.830	5486.8	27.01	0.22	34.168	1010.5	354.44	350.04	340.18	335.95	
26 Apr	117.125	10.000	-169.820	5488.4	26.99	0.22	34.179	1010.3	354.34	349.67	340.02	335.55	
26 Apr	117.167	10.000	-169.810	5489.5	26.96	0.22	34.191	1010.6	354.50	348.72	340.30	334.75	
26 Apr	117.208	10.000	-169.780	5492.8	26.91	0.22	34.202	1011.2	354.50	347.61	340.55	333.93	
26 Apr	117.250	10.000	-169.770	5493.9	26.86	0.22	34.214	1011.8	354.04	345.29	340.35	331.93	
26 Apr	117.292	10.000	-169.760	5495.0	26.80	0.22	34.226	1012.4	354.23	344.82	340.78	331.73	
26 Apr	117.333	10.000	-169.760	5495.0	26.80	0.22	34.237	1013.4	354.21	344.08	341.11	331.35	
26 Apr	117.375	9.990	-169.760	5496.1	26.78	0.22	34.225	1013.5	354.59	343.89	341.52	331.21	
26 Apr	117.417	9.990	-169.780	5498.3	26.75	0.22	34.214	1013.0	354.32	343.16	341.11	330.37	
26 Apr	117.458	9.980	-169.760	5500.7	26.79	0.22	34.270	1012.5	354.76	343.49	341.33	330.49	
26 Apr	117.500	9.980	-169.760	5500.7	26.67	0.22	34.327	1011.5	354.49	343.89	340.81	330.62	
26 Apr	117.542	9.840	-169.740	5516.4	26.80	0.22	34.384	1011.1	353.74	348.75	339.86	335.06	
26 Apr	117.583	9.560	-169.790	5548.0	26.75	0.22	34.440	1010.8	354.41	344.95	340.43	331.35	
26 Apr	117.625	9.290	-169.780	5578.1	26.78	0.22	34.498	1010.3	354.59		340.41		
26 Apr	117.667	9.050	-169.860	5606.1	27.13	0.22	34.555	1010.6	354.24	344.72	339.94	330.80	
26 Apr	117.708	8.790	-169.900	5635.4	27.37	0.21	34.611	1010.9	353.94	359.52	339.58	344.93	
26 Apr	117.750	8.520	-169.950	5665.9	27.68	0.21	34.668	1011.3	353.04	365.83	338.63	350.90	
26 Apr	117.792	8.230	-169.960	5698.1	27.78	0.21	34.725	1012.2	353.58	366.97	339.39	352.24	
26 Apr	117.833	7.990	-169.990	5725.0	27.99	0.21	34.781	1012.5	354.00	366.83	339.75	352.05	
26 Apr	117.875	7.990	-169.980	5726.1	28.04	0.21	34.791	1012.6	354.34	368.51	340.07	353.67	
26 Apr	117.917	8.000	-169.980	5727.2	28.01	0.21	34.801	1012.3	354.10	367.99	339.76	353.09	
26 Apr	117.958	8.010	-169.970	5728.7	28.05	0.21	34.797	1011.7	354.33	366.62	339.74	351.52	
27 Apr	118.000	7.980	-169.950	5732.7	28.08	0.21	34.793	1010.5	353.99	370.97	338.97	355.23	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
27 Apr	118.042	7.720	-169.950	5761.6	28.14	0.21	34.790	1009.5	353.62	373.15	338.23	356.91	
27 Apr	118.083	7.450	-169.970	5791.7	28.11	0.21	34.786	1008.9	353.57	376.70	338.00	360.11	
27 Apr	118.125	7.180	-169.980	5821.7	28.06	0.21	34.782	1008.4	353.82	390.41	338.10	373.06	
27 Apr	118.167	6.910	-169.990	5851.8	27.96	0.21	34.778	1008.2	353.74	388.51	338.03	371.25	
27 Apr	118.208	6.640	-170.000	5881.8	27.98	0.21	34.774	1008.4	353.87	390.15	338.20	372.88	
27 Apr	118.250	6.380	-170.000	5910.7	28.00	0.21	34.771	1009.7	354.51	393.22	339.25	376.30	
27 Apr	118.292	6.120	-170.010	5939.6	27.90	0.21	34.767	1009.1	354.23	397.25	338.85	380.00	
27 Apr	118.333	6.000	-170.000	5953.0	27.81	0.21	34.763	1009.6	353.64	387.47	338.53	370.91	
27 Apr	118.375	6.020	-170.010	5955.4	27.83	0.21	34.765	1010.2	353.48	387.70	338.57	371.34	
27 Apr	118.417	6.030	-170.020	5957.0	27.82	0.21	34.767	1010.0	354.17	387.14	339.17	370.73	
27 Apr	118.458	6.040	-170.020	5958.1	27.79	0.21	34.773	1009.5	353.95	386.91	338.80	370.35	
27 Apr	118.500	6.040	-170.030	5959.2	27.77	0.21	34.778	1008.8	354.51	387.65	339.11	370.81	
27 Apr	118.542	6.050	-170.030	5960.3	27.83	0.21	34.784	1008.5	354.30	387.64	338.76	370.64	
27 Apr	118.583	6.060	-170.030	5961.5	27.85	0.21	34.786	1008.6	354.03	391.31	338.52	374.17	
27 Apr	118.625	6.060	-170.050	5963.7	27.77	0.21	34.788	1008.2	353.13	396.90	337.58	379.43	
27 Apr	118.667	6.080	-170.010	5968.6	27.74	0.21	34.790	1008.7	353.85	395.53	338.47	378.34	
27 Apr	118.708	6.080	-170.010	5968.6	27.72	0.21	34.792	1009.2	353.46	400.80	338.28	383.59	
27 Apr	118.750	6.060	-170.000	5971.1	27.59	0.21	34.799	1009.5	353.56	397.32	338.58	380.48	
27 Apr	118.792	5.840	-170.000	5995.5	27.38	0.21	34.806	1010.3	353.57	417.31	339.01	400.13	
27 Apr	118.833	5.570	-169.990	6025.6	27.36	0.21	34.813	1010.9	353.17	426.53	338.85	409.24	
27 Apr	118.875	5.320	-169.980	6053.4	27.42	0.21	34.820	1010.6	354.93	422.42	340.39	405.12	
27 Apr	118.917	5.070	-169.980	6081.1	27.41	0.21	34.827	1010.5	354.30	421.42	339.76	404.13	
27 Apr	118.958	4.830	-169.990	6107.8	27.31	0.21	34.833	1009.8	353.60	418.42	338.92	401.05	
28 Apr	119.000	4.580	-170.000	6135.6	27.31	0.21	34.840	1008.7	353.84	424.05	338.77	405.98	
28 Apr	119.042	4.340	-170.000	6162.3	27.37	0.21	34.847	1007.6	354.46	423.35	338.94	404.81	
28 Apr	119.083	4.100	-170.000	6189.0	27.33	0.21	34.854	1007.2	353.96	425.37	338.35	406.61	
28 Apr	119.125	4.010	-170.000	6199.0	27.40	0.21	34.861	1006.9	353.99	419.65	338.22	400.95	
28 Apr	119.167	4.040	-169.990	6202.5	27.42	0.21	34.838	1007.0	353.72	420.40	337.98	401.70	
28 Apr	119.208	4.060	-169.990	6204.7	27.42	0.21	34.815	1007.9	352.29	404.09	336.93	386.47	
28 Apr	119.250	4.070	-169.970	6207.2	27.48	0.21	34.816	1008.7	352.63	401.99	337.49	384.73	
28 Apr	119.292	3.940	-169.980	6221.7	27.61	0.21	34.817	1009.5	352.12	411.75	337.18	394.28	
28 Apr	119.333	3.812	-170.000	6236.1	27.54	0.21	34.818	1009.8	352.31	416.11	337.52	398.64	
28 Apr	119.375	3.680	-170.020	6250.9	27.53	0.21	34.819	1010.0	351.22	415.03	336.55	397.69	
28 Apr	119.417	3.548	-170.040	6265.7	27.50	0.21	34.820	1010.3	351.03	408.82	336.49	391.89	
28 Apr	119.458	3.420	-170.060	6280.1	27.58	0.21	34.821	1010.6	351.27	415.33	336.77	398.19	
28 Apr	119.500	3.410	-170.180	6293.5	27.32	0.21	34.822	1008.4	350.83	415.87	335.77	398.02	
28 Apr	119.542	3.500	-170.160	6303.7	27.24	0.21	34.823	1007.8	351.64	404.95	336.40	387.40	
28 Apr	119.583	3.530	-170.100	6311.2	27.34	0.21	34.824	1007.9	352.30	406.30	336.99	388.65	
28 Apr	119.625	3.440	-170.070	6321.7	27.46	0.21	34.825	1007.9	353.04	401.75	337.62	384.20	
28 Apr	119.667	3.450	-170.250	6341.7	27.45	0.21	34.826	1008.5	353.84	412.54	338.60	394.77	
28 Apr	119.708	3.445	-170.220	6345.1	27.38	0.21	34.827	1009.2	353.72	414.79	338.78	397.27	
28 Apr	119.750	3.440	-170.190	6348.5	27.48	0.21	34.828	1009.9	352.99	404.09	338.25	387.21	
28 Apr	119.792	3.450	-170.340	6365.1	27.37	0.21	34.829	1010.0	353.29	431.27	338.65	413.39	
28 Apr	119.833	3.530	-170.390	6375.6	27.29	0.21	34.830	1010.7	352.15	431.65	337.85	414.12	
28 Apr	119.875	3.610	-170.320	6387.4	27.52	0.21	34.831	1010.3	353.72	417.59	339.06	400.27	
28 Apr	119.917	3.640	-170.260	6394.9	27.81	0.21	34.832	1010.3	353.21	417.55	338.36	399.99	
28 Apr	119.958	3.510	-170.260	6409.3	27.90	0.21	34.833	1009.6		416.97		399.07	
29 Apr	120.000	3.470	-170.260	6413.8	27.78	0.21	34.834	1008.5	354.39	421.96	338.88	403.50	
29 Apr	120.042	3.510	-170.270	6418.3	27.52	0.21	34.835	1007.7	353.50	424.58	337.94	405.90	
29 Apr	120.083	3.510	-170.270	6418.3	27.72	0.21	34.836	1006.9	353.09	422.14	337.13	403.06	
29 Apr	120.125	3.530	-170.280	6420.8	27.97	0.21	34.837	1006.7	352.61	428.47	336.42	408.80	
29 Apr	120.167	3.540	-170.350	6428.7	27.77	0.21	34.838	1007.0	353.29	427.54	337.32	408.22	
29 Apr	120.208	3.590	-170.510	6447.3	27.60	0.21	34.839	1007.2	353.72	440.84	337.92	421.15	
29 Apr	120.250	3.740	-170.520	6464.0	27.63	0.21	34.840	1008.1	354.47		338.93		
29 Apr	120.292	3.710	-170.500	6468.0	27.59	0.21	34.841	1009.0	353.04	439.89	337.90	421.03	
29 Apr	120.333	3.520	-170.390	6492.3	27.75	0.21	34.842	1009.4	352.27	420.77	337.19	402.75	
29 Apr	120.375	3.450	-170.150	6520.1	28.01	0.21	34.843	1010.0	349.99	415.38	335.02	397.62	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
29 Apr	120.417	3.300	-170.000	6543.6	28.01	0.21	34.844	1010.0	351.21	397.45	336.19	380.46	
29 Apr	120.458	3.120	-169.990	6563.7	27.95	0.21	34.845	1010.0	351.34	402.60	336.36	385.43	
29 Apr	120.500	2.800	-169.990	6599.2	27.77	0.21	34.846	1009.2	351.50	400.52	336.37	383.28	
29 Apr	120.542	2.540	-169.990	6628.1	27.65	0.21	34.847	1008.8	351.86	409.44	336.66	391.75	
29 Apr	120.583	2.280	-170.010	6657.1	27.58	0.21	34.848	1008.5	351.54	398.32	336.30	381.05	
29 Apr	120.625	2.010	-169.980	6687.3	27.46	0.21	34.849	1008.5		400.19		382.95	
29 Apr	120.667	2.040	-169.980	6690.6	27.47	0.21	34.855	1009.0					
29 Apr	120.708	2.000	-169.970	6695.2	27.48	0.21	34.861	1009.5					
29 Apr	120.750	2.000	-169.970	6695.2	27.55	0.21	34.867	1009.9	351.90	408.36	337.15	391.25	
29 Apr	120.792	1.990	-169.940	6698.7	27.60	0.21	34.900	1010.1	352.75	405.00	338.00	388.07	
29 Apr	120.833	1.930	-169.940	6705.4	27.66	0.21	34.932	1011.6	351.82	405.85	337.58	389.43	
29 Apr	120.875	1.740	-169.960	6726.6	27.67	0.21	34.965	1010.9	350.68	405.74	336.24	389.03	
29 Apr	120.917	1.630	-169.970	6738.9	27.69	0.21	34.999	1010.9	351.49	405.89	337.00	389.16	
29 Apr	120.958	1.360	-169.990	6769.0	27.64	0.21	35.031	1010.0	351.40	419.93	336.64	402.29	
30 Apr	121.000	1.180	-170.000	6789.0	27.26	0.21	35.064	1009.0	350.95	419.90	336.14	402.18	
30 Apr	121.042	1.020	-170.030	6807.1	27.10	0.22	35.097	1008.0	351.65	431.66	336.58	413.16	
30 Apr	121.083	1.010	-170.010	6809.6	27.18	0.22	35.094	1007.5	351.77	435.08	336.46	416.15	
30 Apr	121.125	1.010	-170.000	6810.7	27.28	0.21	35.091	1007.5	351.62	436.31	336.25	417.24	
30 Apr	121.167	1.000	-169.980	6813.2	27.28	0.21	35.088	1008.0	350.38	436.92	335.24	418.03	
30 Apr	121.208	1.000	-169.960	6815.4	27.32	0.21	35.086	1008.5	349.49	417.65	334.53	399.77	
30 Apr	121.250	1.000	-169.930	6818.7	27.30	0.21	35.083	1009.2	349.41	444.68	334.71	425.97	
30 Apr	121.292	1.010	-169.910	6821.2	27.30	0.21	35.080	1010.0	349.08	432.66	334.66	414.79	
30 Apr	121.333	1.010	-169.910	6821.2	27.30	0.21	35.078	1010.5	351.41	432.77	337.07	415.11	
30 Apr	121.375	1.010	-169.890	6823.4	27.20	0.22	35.090	1010.9	351.88	427.99	337.73	410.78	
30 Apr	121.417	1.000	-169.890	6824.5	27.20	0.22	35.102	1010.9	352.10	427.28	337.94	410.10	
30 Apr	121.458	0.930	-169.930	6833.5	27.15	0.22	35.114	1010.5	351.54	428.56	337.30	411.21	
30 Apr	121.500	0.840	-169.960	6844.0	27.00	0.22	35.126	1009.9	351.42	432.01	337.08	414.39	
30 Apr	121.542	0.750	-170.020	6856.1	27.00	0.22	35.138	1009.6	351.79	433.47	337.34	415.66	
30 Apr	121.583	0.670	-170.010	6865.0	26.85	0.22	35.149	1009.0	351.22	439.91	336.69	421.71	
30 Apr	121.625	0.600	-170.000	6872.9	26.87	0.22	35.161	1009.0	352.13	446.71	337.54	428.20	
30 Apr	121.667	0.550	-170.020	6878.9	26.82	0.22	35.173	1009.4	351.68	439.36	337.29	421.37	
30 Apr	121.708	0.500	-170.010	6884.5	26.79	0.22	35.185	1010.0	352.04	447.46	337.86	429.44	
30 Apr	121.750	0.500	-170.000	6885.6	26.81	0.22	35.180	1010.5	351.75		337.74		
30 Apr	121.792	0.480	-169.950	6891.6	26.83	0.22	35.176	1011.2	351.17	439.69	337.41	422.46	
30 Apr	121.833	0.480	-169.930	6893.8	26.86	0.22	35.171	1011.3	351.86	435.78	338.09	418.73	
30 Apr	121.875	0.450	-169.920	6897.3	26.90	0.22	35.174	1011.2	352.62	435.39	338.75	418.27	
30 Apr	121.917	0.420	-169.920	6900.7	26.99	0.22	35.177	1010.7		455.84		437.61	
30 Apr	121.958	0.420	-169.920	6900.7	27.07	0.22	35.180	1010.0	350.91	450.18	336.58	431.80	
1 May	122.000	0.420	-169.930	6901.8	26.99	0.22	35.183	1009.2	350.96	467.38	336.41	448.00	
1 May	122.042	0.330	-169.950	6912.0	26.93	0.22	35.186	1008.4		449.54		430.61	
1 May	122.083	0.260	-170.020	6923.0	27.01	0.22	35.189	1007.4	352.29	444.70	337.05	425.46	
1 May	122.125	0.040	-170.010	6947.5	27.00	0.22	35.192	1007.1	352.19	447.21	336.86	427.74	
1 May	122.167	0.010	-169.990	6951.5	26.95	0.22	35.184	1007.6	352.74	452.02	337.59	432.60	
1 May	122.208	0.000	-169.970	6954.0	26.90	0.22	35.177	1008.0	352.54	441.92	337.57	423.15	
1 May	122.250	0.010	-169.940	6957.5	26.85	0.22	35.176	1008.5	352.69	439.20	337.92	420.81	
1 May	122.292	-0.020	-169.910	6962.2	26.80	0.22	35.175	1009.5	352.71	442.92	338.32	424.85	
1 May	122.333	-0.030	-169.890	6964.7	26.80	0.22	35.174	1010.2	352.92	449.43	338.77	431.41	
1 May	122.375	-0.030	-169.890	6964.7	26.80	0.22	35.173	1011.0	351.76	435.25	337.93	418.13	
1 May	122.417	-0.040	-169.890	6965.8	26.80	0.22	35.170	1011.3					
1 May	122.458	-0.030	-169.890	6966.9	26.80	0.22	35.167	1010.8					
1 May	122.500	-0.020	-169.880	6968.5	26.80	0.22	35.170	1010.0	352.78		338.56		
1 May	122.542	-0.100	-169.880	6977.4	26.80	0.22	35.174	1009.7	352.25	438.00	337.95	420.22	
1 May	122.583	-0.150	-169.900	6983.4	26.77	0.22	35.177	1009.2	352.69	444.04	338.22	425.82	
1 May	122.625	-0.230	-169.900	6992.3	26.75	0.22	35.181	1009.1	352.67	443.65	338.18	425.42	
1 May	122.667	-0.270	-169.900	6996.7	26.75	0.22	35.184	1009.5		423.15		405.93	
1 May	122.708	-0.330	-169.920	7003.7	26.74	0.22	35.187	1009.7					
1 May	122.750	-0.380	-169.950	7010.2	26.74	0.22	35.191	1010.4	353.72	445.63	339.64	427.90	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
1 May	122.792	-0.510	-170.000	7025.7	26.80	0.22	35.194	1011.5	352.58	443.34	338.89	426.13	
1 May	122.833	-0.520	-169.970	7029.2	26.80	0.22	35.192	1011.6	353.13	444.04	339.45	426.84	
1 May	122.875	-0.530	-169.970	7030.3	26.81	0.22	35.191	1011.7	352.47	443.49	338.85	426.35	
1 May	122.917	-0.530	-169.950	7032.5	26.91	0.22	35.189	1011.3	353.32	442.63	339.45	425.26	
1 May	122.958	-0.650	-169.960	7045.9	27.00	0.22	35.198	1010.4	352.68	443.25	338.47	425.38	
2 May	123.000	-0.770	-169.980	7059.4	27.14	0.22	35.208	1009.8	352.19	442.05	337.69	423.85	
2 May	123.042	-0.880	-170.010	7072.1	27.21	0.21	35.217	1008.8	353.14	445.01	338.21	426.19	
2 May	123.083	-0.980	-170.030	7083.4	27.32	0.21	35.226	1008.1	352.21	447.13	336.99	427.82	
2 May	123.125	-1.030	-170.040	7089.1	27.42	0.21	35.235	1007.8	352.10	443.33	336.71	423.95	
2 May	123.167	-1.040	-170.060	7091.6	27.44	0.21	35.245	1008.0	352.30	443.87	336.96	424.54	
2 May	123.208	-1.030	-170.030	7095.1	27.37	0.21	35.254	1008.1	352.65	447.11	337.38	427.75	
2 May	123.250	-1.000	-170.010	7099.1	27.34	0.21	35.245	1008.6	351.46	450.99	336.44	431.71	
2 May	123.292	-0.900	-170.000	7110.3	27.28	0.21	35.235	1009.0	352.57	452.98	337.68	433.85	
2 May	123.333	-0.910	-169.990	7111.9	27.28	0.21	35.257	1010.0	351.25	449.05	336.76	430.52	
2 May	123.375	-1.200	-169.970	7144.2	27.31	0.21	35.279	1010.4	352.93	439.06	338.49	421.09	
2 May	123.417	-1.440	-170.000	7171.0	27.20	0.22	35.301	1010.5	352.62	436.94	338.30	419.20	
2 May	123.458	-1.670	-169.990	7196.6	27.25	0.21	35.323	1010.1	352.20	430.18	337.73	412.50	
2 May	123.500	-1.900	-170.010	7222.3	27.69	0.21	35.346	1009.5	351.58		336.61		
2 May	123.542	-2.000	-170.010	7233.4	27.94	0.21	35.368	1009.0	352.19		336.84		
2 May	123.583	-2.010	-170.010	7234.5	27.89	0.21	35.390	1008.6	351.11		335.71		
2 May	123.625	-2.010	-170.020	7235.6	27.87	0.21	35.412	1008.5					
2 May	123.667	-2.000	-170.000	7238.1	27.78	0.21	35.391	1008.8	351.40		336.13		
2 May	123.708	-2.000	-170.020	7240.3	27.70	0.21	35.371	1009.5	351.38		336.41		
2 May	123.750	-2.000	-170.000	7242.5	27.74	0.21	35.386	1010.0	352.89	437.11	338.00	418.67	
2 May	123.792	-2.100	-170.020	7253.9	28.00	0.21	35.402	1010.4	351.61	437.08	336.72	418.58	
2 May	123.833	-2.360	-170.030	7282.8	28.60	0.20	35.417	1010.4	351.63	431.57	336.30	412.75	
2 May	123.875	-2.630	-170.040	7312.8	28.84	0.20	35.432	1010.5	351.79	419.56	336.30	401.09	
2 May	123.917	-2.860	-170.050	7338.4	29.16	0.20	35.448	1010.1	351.41	405.01	335.55	386.73	
2 May	123.958	-3.130	-170.060	7368.4	29.43	0.20	35.463	1009.2	351.38	402.88	335.00	384.10	
3 May	124.000	-3.400	-170.040	7398.5	29.39	0.20	35.478	1008.6	351.93	401.64	335.35	382.72	
3 May	124.042	-3.660	-170.020	7427.5	29.30	0.20	35.494	1007.9	351.19	398.19	334.47	379.24	
3 May	124.083	-3.930	-170.000	7457.5	29.25	0.20	35.509	1007.3	351.87	403.83	334.95	384.42	
3 May	124.125	-4.010	-170.000	7466.4	29.26	0.20	35.524	1007.4	351.39	401.79	334.52	382.50	
3 May	124.167	-4.030	-170.020	7469.6	29.26	0.20	35.508	1007.5	351.98	408.47	335.12	388.90	
3 May	124.208	-4.030	-170.020	7469.6	29.27	0.20	35.493	1007.8	351.44	416.00	334.70	396.19	
3 May	124.250	-4.030	-170.030	7470.7	29.25	0.20	35.498	1008.0	351.63	412.98	334.97	393.41	
3 May	124.292	-4.040	-170.040	7472.3	29.26	0.20	35.503	1009.0		411.18		392.09	
3 May	124.333	-4.190	-170.050	7489.0	29.27	0.20	35.490	1009.4	351.41	408.51	335.22	389.69	
3 May	124.375	-4.470	-170.030	7520.1	29.30	0.20	35.477	1009.9	351.49	412.71	335.45	393.88	
3 May	124.417	-4.730	-170.030	7549.0	29.09	0.20	35.464	1010.6	351.79	427.88	336.14	408.84	
3 May	124.458	-5.020	-169.980	7581.7	29.03	0.20	35.452	1010.4	351.79	430.97	336.12	411.78	
3 May	124.500	-5.290	-169.950	7611.9	29.17	0.20	35.439	1010.0	351.66	421.95	335.75	402.86	
3 May	124.542	-5.560	-169.980	7642.1	29.40	0.20	35.426	1009.5	351.53	401.14	335.27	382.59	
3 May	124.583	-5.830	-170.010	7672.3	29.40	0.20	35.413	1009.2	352.31	414.49	335.91	395.19	
3 May	124.625	-6.000	-169.990	7691.3	29.19	0.20	35.400	1009.0	351.56	391.82	335.29	373.69	
3 May	124.667	-6.010	-169.980	7692.9	29.16	0.20	35.417	1009.0		389.42		371.42	
3 May	124.708	-6.010	-169.980	7692.9	29.15	0.20	35.418	1009.2					
3 May	124.750	-6.000	-169.980	7694.0	29.14	0.20	35.420	1009.5	351.36	412.77	335.31	393.92	
3 May	124.792	-6.000	-169.980	7694.0	29.11	0.20	35.421	1010.0	351.10	424.37	335.26	405.22	
3 May	124.833	-6.000	-169.970	7695.1	29.08	0.20	35.273	1010.3	352.69	432.79	336.90	413.42	
3 May	124.875	-6.000	-169.960	7696.2	29.11	0.20	35.121	1010.0		436.92		417.21	
3 May	124.917	-6.200	-169.970	7718.5	29.49	0.20	34.969	1010.0	350.55	391.60	334.43	373.59	
3 May	124.958	-6.460	-169.980	7747.4	29.69	0.20	34.821	1009.6	350.75	359.29	334.33	342.47	
4 May	125.000	-6.720	-169.990	7776.3	29.75	0.20	34.669	1009.2	351.72	350.11	335.06	333.53	
4 May	125.042	-6.930	-170.000	7799.6	29.77	0.20	34.518	1008.4	350.17	342.42	333.30	325.92	
4 May	125.083	-7.240	-169.990	7834.1	29.76	0.20	34.370	1008.1	350.68	344.39	333.68	327.70	
4 May	125.125	-7.500	-169.990	7863.0	29.71	0.20	34.218	1007.5	350.50	344.98	333.35	328.09	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
4 May	125.167	-7.770	-169.990	7893.0	29.65	0.20	34.066	1007.7	351.37	344.53	334.29	327.78	
4 May	125.208	-8.000	-170.000	7918.6	29.64	0.20	33.918	1008.3	351.63	340.83	334.75	324.47	
4 May	125.250	-8.000	-169.990	7919.7	29.60	0.20	33.934	1008.6	351.78	342.27	335.03	325.97	
4 May	125.292	-8.000	-169.970	7921.9	29.58	0.20	33.950	1009.9	351.55	342.59	335.27	326.72	
4 May	125.333	-8.000	-169.990	7924.1	29.56	0.20	33.947	1010.0	351.82	343.71	335.58	327.84	
4 May	125.375	-8.060	-169.990	7930.7	29.49	0.20	33.944	1010.0	352.51	334.05	336.30	318.69	
4 May	125.417	-8.290	-170.030	7956.7	29.48	0.20	33.941	1010.0	351.22	337.95	335.07	322.41	
4 May	125.458	-8.570	-169.980	7988.3	29.46	0.20	33.938	1010.1	351.29	337.01	335.19	321.56	
4 May	125.500	-8.852	-169.990	8019.6	29.50	0.20	33.936	1009.8		340.34		324.61	
4 May	125.542	-9.113	-170.015	8048.8	29.50	0.20	33.933	1009.0		339.84		323.87	
4 May	125.583	-9.388	-170.017	8079.3	29.50	0.20	33.930	1009.1		334.97		319.26	
4 May	125.625	-9.665	-170.005	8110.1	29.57	0.20	33.927	1009.3		337.12		321.32	
4 May	125.667	-9.933	-170.003	8139.9	29.58	0.20	33.924	1009.5		338.37		322.57	
4 May	125.708	-10.013	-169.992	8148.9	29.58	0.20	33.921	1010.0		335.33		319.83	
4 May	125.750	-10.000	-170.023	8152.6	29.63	0.20	33.956	1010.8		335.98		320.68	
4 May	125.792	-10.018	-170.005	8155.4	29.65	0.20	33.974	1011.5	350.21	335.44	334.49	320.38	
4 May	125.833	-10.032	-170.002	8157.0	29.70	0.20	33.992	1011.6	350.41	335.73	334.68	320.65	
4 May	125.875	-10.043	-169.990	8158.8	29.71	0.20	34.010	1011.5	350.07	333.95	334.31	318.92	
4 May	125.917	-10.067	-169.993	8161.4	29.75	0.20	34.053	1010.6	350.42	334.48	334.30	319.10	
4 May	125.958	-10.098	-169.995	8164.9	29.83	0.20	34.096	1010.6	350.22	337.43	334.05	321.85	
5 May	126.000	-10.345	-170.025	8192.5	29.66	0.20	34.139	1009.9	350.60	333.97	334.31	318.45	
5 May	126.042	-10.618	-170.052	8223.0	29.58	0.20	34.183	1009.1	351.47	336.86	334.92	321.00	
5 May	126.083	-10.892	-170.077	8253.6	29.56	0.20	34.225	1008.6	351.65	348.02	334.94	331.48	
5 May	126.125	-11.033	-170.097	8269.4	29.55	0.20	34.268	1008.8	348.71	348.08	332.22	331.62	
5 May	126.167	-11.033	-170.108	8270.6	29.57	0.20	34.312	1009.0	348.98	344.25	332.53	328.02	
5 May	126.208	-11.085	-170.117	8276.5	29.54	0.20	34.354	1009.0	350.85	345.42	334.33	329.16	
5 May	126.250	-11.265	-170.128	8296.5	29.50	0.20	34.398	1009.4	349.18	345.52	332.91	329.42	
5 May	126.292	-11.523	-170.138	8325.2	29.45	0.20	34.441	1010.2	350.49	345.19	334.47	329.41	
5 May	126.333	-11.790	-170.178	8355.2	29.44	0.20	34.483	1010.8	351.06	342.69	335.23	327.24	
5 May	126.375	-12.063	-170.203	8385.6	29.48	0.20	34.527	1011.0	351.05	345.13	335.26	329.61	
5 May	126.417	-12.317	-170.243	8414.2	29.44	0.20	34.570	1011.0	350.07	342.95	334.36	327.55	
5 May	126.458	-12.590	-170.270	8444.7	29.33	0.20	34.612	1011.1	349.88	339.44	334.30	324.32	
5 May	126.500	-12.870	-170.350	8477.0	29.27	0.20	34.656	1010.9	350.16	339.12	334.54	323.99	
5 May	126.542	-13.145	-170.403	8508.1	29.28	0.20	34.699	1010.5	348.68	339.66	332.98	324.36	
5 May	126.583	-13.397	-170.460	8536.7	29.45	0.20	34.742	1010.4	348.44	339.82	332.59	324.36	
5 May	126.625	-13.670	-170.458	8567.1	29.49	0.20	34.785	1010.7	348.05	339.36	332.29	323.99	
5 May	126.667	-13.927	-170.443	8595.7	29.56	0.20	34.828	1010.8	351.23	341.78	335.30	326.28	
5 May	126.708	-14.188	-170.495	8625.2			34.871	1011.2	349.39				
5 May	126.750	-14.280	-170.683	8647.9			34.914	1011.0	349.20				
5 May	126.792	-14.280	-170.683	8647.9			34.958	1011.0	348.95				
5 May	126.833	-14.280	-170.683	8647.9			35.000	1011.0					

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
11 May	132.042	-13.600	-170.517	0.0	29.19	0.20	35.000	1009.6					
11 May	132.083	-13.350	-170.500	27.8	29.26	0.20	35.005	1008.9					
11 May	132.125	-13.083	-170.500	57.5	29.20	0.20	35.010	1009.0					
11 May	132.167	-12.833	-170.500	85.3	29.20	0.20	35.016	1009.5	349.25	345.04	333.25	329.23	
11 May	132.208	-12.583	-170.500	113.1	29.18	0.20	35.021	1010.0	348.99	347.30	333.19	331.58	
11 May	132.250	-12.333	-170.483	140.9	29.30	0.20	35.026	1010.5	349.41	344.10	333.67	328.59	
11 May	132.292	-12.083	-170.417	169.6	29.33	0.20	35.032	1011.0	349.56	344.66	333.96	329.27	
11 May	132.333	-11.817	-170.450	199.4	29.25	0.20	35.037	1012.0	349.09	342.34	333.91	327.45	
11 May	132.375	-11.550	-170.417	229.3	29.17	0.20	35.042	1011.6	349.14	342.87	333.89	327.89	
11 May	132.417	-11.283	-170.417	258.9	29.20	0.20	35.047	1011.5	349.56	346.21	334.23	331.02	
11 May	132.458	-11.033	-170.417	286.7	29.34	0.20	35.053	1010.4	349.81	340.32	333.98	324.92	
11 May	132.500	-10.783	-170.400	314.6	29.43	0.20	35.058	1009.1	349.75	341.70	333.41	325.73	
11 May	132.542	-10.533	-170.417	342.4	29.33	0.20	35.063	1008.5	350.34	339.42	333.84	323.44	
11 May	132.583	-10.283	-170.333	371.7	29.34	0.20	35.068	1008.0	350.37	339.62	333.69	323.45	
11 May	132.625	-10.050	-170.300	397.8	29.33	0.20	35.074	1008.0	350.94	337.94	334.24	321.86	
11 May	132.667	-9.800	-170.317	425.6	29.35	0.20	35.079	1008.3	350.67	339.94	334.07	323.86	
11 May	132.708	-9.550	-170.333	453.5	29.32	0.20	35.084	1008.9	350.61	338.76	334.25	322.95	
11 May	132.750	-9.283	-170.333	483.1	29.27	0.20	35.090	1009.0	350.94	338.86	334.64	323.12	
11 May	132.792	-9.017	-170.333	512.7	29.30	0.20	35.095	1009.6	351.09	338.49	334.96	322.94	
11 May	132.833	-8.750	-170.333	542.4	29.34	0.20	35.100	1010.0	351.10	345.45	335.08	329.68	
11 May	132.875	-8.467	-170.333	573.8	29.11	0.20	34.937	1010.0	351.22		335.37		
11 May	132.917	-8.217	-170.333	601.6	29.14	0.20	34.773	1009.7	351.42	348.75	335.43	332.89	
11 May	132.958	-7.967	-170.333	629.4	29.24	0.20	34.614	1008.9	351.81	338.92	335.45	323.16	
12 May	133.000	-7.700	-170.300	659.3	29.31	0.20	34.450	1008.3	351.78	342.62	335.16	326.43	
12 May	133.042	-7.433	-170.283	689.0	29.46	0.20	34.287	1007.6	351.36	342.47	334.40	325.93	
12 May	133.083	-7.167	-170.250	718.8	29.40	0.20	34.127	1007.1	351.57	341.80	334.47	325.18	
12 May	133.125	-6.950	-170.233	743.0	29.41	0.20	33.964	1007.0	351.56	341.07	334.42	324.44	
12 May	133.167	-6.800	-170.233	759.6	29.39	0.20	34.007	1007.2	351.64	340.23	334.58	323.73	
12 May	133.208	-6.533	-170.217	789.3	29.35	0.20	34.049	1007.9	351.72	340.81	334.93	324.54	
12 May	133.250	-6.283	-170.200	817.2	29.35	0.20	34.093	1008.8	351.95	340.32	335.46	324.37	
12 May	133.292	-6.017	-170.200	846.7	29.33	0.20	34.136	1009.6	352.29	342.66	336.08	326.89	
12 May	133.333	-5.733	-170.167	878.5	29.37	0.20	34.178	1010.6	351.87	354.93	335.99	338.91	
12 May	133.375	-5.483	-170.167	906.3	29.32	0.20	34.221	1011.0	351.48	358.93	335.79	342.92	
12 May	133.417	-5.217	-170.167	935.9	29.11	0.20	34.264	1011.2	351.71	409.96	336.25	391.94	3
12 May	133.458	-4.967	-170.150	963.7	28.94	0.20	34.307	1010.9	351.79	384.13	336.35	367.27	3
12 May	133.500	-4.700	-170.117	993.6	29.02	0.20	34.350	1010.2	351.66	375.52	335.93	358.71	
12 May	133.542	-4.450	-170.100	1021.4	29.14	0.20	34.393	1009.6	352.24	371.88	336.18	354.92	
12 May	133.583	-4.183	-170.100	1051.1	29.28	0.20	34.435	1009.1	352.24	361.48	335.90	344.71	
12 May	133.625	-3.933	-170.083	1078.9	29.35	0.20	34.478	1009.0	352.10	361.77	335.67	344.89	
12 May	133.667	-3.667	-170.067	1108.6	29.37	0.20	34.522	1009.2	352.02	368.44	335.65	351.31	
12 May	133.708	-3.400	-170.033	1138.5	29.39	0.20	34.564	1009.6	352.01	371.02	335.76	353.89	
12 May	133.750	-3.133	-170.033	1168.1	29.37	0.20	34.607	1010.0	352.32	370.64	336.21	353.70	
12 May	133.792	-2.850	-170.033	1199.6	29.35	0.20	34.650	1010.5	352.25	371.03	336.34	354.26	
12 May	133.833	-2.583	-170.017	1229.3	29.35	0.20	34.692	1010.6	351.60	372.87	335.75	356.06	
12 May	133.875	-2.317	-170.000	1258.9	29.34	0.20	34.736	1010.5	352.42	371.87	336.51	355.08	
12 May	133.917	-2.033	-169.967	1290.7	29.33	0.20	34.779	1010.3	352.09	368.45	336.13	351.75	
12 May	133.958	-1.767	-169.933	1320.5	29.22	0.20	34.821	1010.2	352.10	383.17	336.19	365.86	
13 May	134.000	-1.517	-169.900	1348.5	29.23	0.20	34.864	1009.9	352.08	381.82	336.06	364.45	
13 May	134.042	-1.250	-169.867	1378.4	29.25	0.20	34.907	1009.0	351.83	399.71	335.50	381.15	
13 May	134.083	-0.983	-169.833	1408.3	29.12	0.20	34.950	1008.3	352.43	417.84	335.93	398.28	
13 May	134.125	-0.717	-169.817	1437.9	28.63	0.20	34.993	1008.2	352.39	423.23	336.24	403.83	
13 May	134.167	-0.467	-169.783	1466.0	28.02	0.21	35.036	1008.4	352.93	426.63	337.28	407.71	
13 May	134.208	-0.217	-169.767	1493.8	27.64	0.21	35.078	1008.6	352.28	426.79	337.00	408.28	
13 May	134.250	-0.067	-169.767	1510.5	27.55	0.21	35.121	1009.5	352.55	425.23	337.64	407.24	
13 May	134.292	-0.133	-169.717	1519.7	27.39	0.21	35.165	1009.6	352.22	427.83	337.47	409.91	
13 May	134.333	0.033	-169.600	1542.2	27.22	0.21	35.207	1009.6	352.51	430.44	337.87	412.57	
13 May	134.375	0.000	-169.583	1546.4	27.23	0.21	35.250	1010.9		428.37		411.12	

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13 May	134.417	-0.017	-169.650	1554.0	27.21	0.21	35.255	1011.1	352.50	430.25	338.39	413.03	
13 May	134.458	-0.017	-169.567	1563.3	27.17	0.22	35.259	1010.6	352.19	430.10	337.95	412.70	
13 May	134.500	-0.017	-169.567	1563.3	27.14	0.22	35.263	1011.0	351.90	431.04	337.83	413.80	
13 May	134.542	-0.017	-169.550	1565.2	27.14	0.22	35.268	1009.6	351.96	431.23	337.40	413.39	
13 May	134.583	-0.017	-169.550	1565.2	27.11	0.22	35.268	1009.3	351.72	432.09	337.09	414.11	
13 May	134.625	-0.017	-169.550	1565.2	27.11	0.22	35.268	1009.6	351.83	431.72	337.30	413.88	
13 May	134.667	-0.033	-169.533	1567.7	27.08	0.22	35.268	1010.0	351.96	433.87	337.58	416.14	
13 May	134.708	-0.017	-169.600	1575.4	27.09	0.22	35.268	1010.7	351.89	431.77	337.75	414.42	
13 May	134.750	0.033	-169.617	1581.3	27.12	0.22	35.268	1011.0	353.76	432.07	339.63	414.80	
13 May	134.792	0.017	-169.567	1587.1	27.07	0.22	35.268	1012.3	351.97	433.70	338.39	416.97	
13 May	134.833	0.033	-169.550	1589.7	27.06	0.22	35.268	1012.3	352.21	434.13	338.63	417.39	
13 May	134.875	0.033	-169.600	1595.3	27.07	0.22	35.268	1012.2	352.73	435.62	339.09	418.78	
13 May	134.917	0.033	-169.633	1598.9	27.07	0.22	35.268	1012.2	351.96	434.55	338.35	417.74	
13 May	134.958	0.033	-169.550	1608.1	27.11	0.22	35.267	1011.6	352.06	436.45	338.21	419.28	
14 May	135.000	0.033	-169.533	1610.0	27.13	0.22	35.267	1010.3	352.46	437.60	338.13	419.81	
14 May	135.042	0.033	-169.467	1617.4	27.13	0.22	35.267	1009.8	352.09	436.72	337.60	418.75	
14 May	135.083	0.033	-169.483	1619.1	27.13	0.22	35.267	1008.6	352.29	438.30	337.38	419.75	
14 May	135.125	0.033	-169.467	1620.9	27.15	0.22	35.267	1008.5	351.30	435.68	336.38	417.18	
14 May	135.167	0.033	-169.433	1624.7	27.13	0.22	35.267	1009.0	352.19	435.97	337.42	417.68	
14 May	135.208	0.033	-169.417	1626.5	27.10	0.22	35.267	1009.5	353.12	436.12	338.51	418.07	
14 May	135.250	0.017	-169.400	1629.1	27.07	0.22	35.267	1009.9	352.40	435.30	337.98	417.48	
14 May	135.292	0.017	-169.367	1632.7	27.06	0.22	35.267	1010.5	352.56	435.80	338.34	418.23	
14 May	135.333	0.017	-169.350	1634.6	27.02	0.22	35.267	1011.4	352.58	436.04	338.70	418.88	
14 May	135.375	0.033	-169.350	1636.4	27.02	0.22	35.267	1011.9	352.35	436.31	338.65	419.35	
14 May	135.417	0.017	-169.317	1640.5	27.03	0.22	35.267	1011.9	352.05	434.26	338.36	417.37	
14 May	135.458	0.017	-169.300	1642.4	27.01	0.22	35.267	1011.4	352.07	435.59	338.22	418.45	
14 May	135.500	0.017	-169.283	1644.3	27.01	0.22	35.267	1011.0		436.30		418.97	
14 May	135.542	0.017	-169.317	1648.0	26.98	0.22	35.267	1010.8		437.50		420.06	
14 May	135.583	0.050	-169.400	1658.0	26.95	0.22	35.267	1010.2		437.68		420.00	
14 May	135.625	0.033	-169.450	1663.8	26.94	0.22	35.267	1010.0	352.20	437.59	337.91	419.84	
14 May	135.667	0.050	-169.467	1666.5	26.89	0.22	35.267	1009.9	352.48	439.04	338.18	421.22	
14 May	135.708	0.050	-169.467	1666.5	26.88	0.22	35.266	1010.5	352.64	438.33	338.55	420.81	
14 May	135.750	0.050	-169.467	1666.5	26.87	0.22	35.266	1010.7	352.23	438.18	338.23	420.76	
14 May	135.792	0.050	-169.467	1666.5	26.87	0.22	35.266	1010.2	352.63	437.60	338.44	419.99	
14 May	135.833	0.050	-169.467	1666.5	26.88	0.22	35.266	1011.3	352.75	435.30	338.93	418.25	
14 May	135.875	0.050	-169.467	1666.5	26.92	0.22	35.266	1011.0	352.84	439.48	338.88	422.09	
14 May	135.917	0.050	-169.467	1666.5	27.02	0.22	35.266	1010.7	352.22	440.92	338.11	423.26	
14 May	135.958	0.050	-169.467	1666.5	27.08	0.22	35.266	1010.1	352.89	442.30	338.51	424.27	
15 May	136.000	0.050	-169.467	1666.5	27.23	0.21	35.266	1009.6	352.64	440.75	337.99	422.44	
15 May	136.042	0.067	-169.483	1669.1	27.26	0.21	35.266	1009.1	351.10	443.92	336.32	425.23	
15 May	136.083	0.050	-169.467	1671.7	27.29	0.21	35.266	1008.5	353.81	444.01	338.69	425.03	
15 May	136.125	0.050	-169.500	1675.4	27.30	0.21	35.266	1008.6	352.78	443.49	337.73	424.57	
15 May	136.167	0.050	-169.517	1677.2	27.29	0.21	35.266	1008.9	352.20	442.53	337.28	423.79	
15 May	136.208	0.050	-169.533	1679.0	27.26	0.21	35.266	1009.6	352.72	442.07	338.04	423.68	
15 May	136.250	0.050	-169.533	1679.0	27.25	0.21	35.266	1010.3		441.10		423.06	
15 May	136.292	0.050	-169.533	1679.0	27.21	0.21	35.266	1011.0	352.97	440.82	338.80	423.13	
15 May	136.333	0.033	-169.517	1681.6	27.17	0.22	35.266	1011.4	352.97	439.25	338.97	421.83	
15 May	136.375	0.033	-169.500	1683.5	27.13	0.22	35.266	1011.9	352.85	439.65	339.06	422.46	
15 May	136.417	0.050	-169.483	1686.2	27.13	0.22	35.265	1011.2	352.60	439.97	338.57	422.47	
15 May	136.458	0.067	-169.467	1688.8	27.12	0.22	35.265	1011.2		440.24		422.74	
15 May	136.500	0.050	-169.500	1692.9	27.13	0.22	35.265	1010.3	353.30	440.38	338.93	422.47	
15 May	136.542	0.050	-169.533	1696.6	27.13	0.22	35.265	1009.7	353.66	440.94	339.07	422.76	
15 May	136.583	0.033	-169.550	1699.2	27.12	0.22	35.265	1009.3	353.14	440.25	338.44	421.93	
15 May	136.625	0.050	-169.550	1701.1	27.12	0.22	35.265	1009.4	352.67	440.29	338.03	422.01	
15 May	136.667	0.050	-169.533	1703.0	27.14	0.22	35.265	1009.5	353.35	440.43	338.70	422.17	
15 May	136.708	0.033	-169.533	1704.9	27.15	0.22	35.265	1009.8	353.21	440.27	338.66	422.14	
15 May	136.750	0.050	-169.533	1706.8	27.13	0.22	35.265	1010.3	352.90	439.09	338.55	421.24	

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15 May	136.792	0.033	-169.533	1708.7	27.14	0.22	35.265	1011.0	353.50	439.00	339.36	421.44	
15 May	136.833	0.050	-169.333	1731.0	27.15	0.22	35.265	1011.5	353.33	437.59	339.37	420.30	
15 May	136.875	0.050	-169.083	1758.8	27.17	0.22	35.265	1011.5	353.21	437.56	339.24	420.25	
15 May	136.917	0.067	-168.817	1788.4	27.22	0.21	35.265	1011.0	353.18	439.01	339.00	421.38	
15 May	136.958	0.083	-168.567	1816.2	27.26	0.21	35.265	1010.4	353.39	440.14	338.96	422.18	
16 May	137.000	0.067	-168.317	1844.1	27.25	0.21	35.265	1009.7	353.85	443.04	339.17	424.66	
16 May	137.042	0.067	-168.050	1873.7	27.19	0.22	35.265	1008.9	352.59	446.09	337.73	427.29	
16 May	137.083	0.050	-167.800	1901.6	27.22	0.21	35.265	1008.0	353.17	449.55	337.95	430.18	
16 May	137.125	0.033	-167.550	1929.4	27.20	0.22	35.265	1007.9	353.40	448.94	338.15	429.57	
16 May	137.167	0.017	-167.283	1959.1	27.08	0.22	35.264	1007.6	352.78	446.61	337.54	427.31	
16 May	137.208	0.000	-167.033	1987.0	26.99	0.22	35.264	1008.0	352.77	446.07	337.73	427.05	
16 May	137.250	0.000	-166.767	2016.5	26.94	0.22	35.264	1008.7	352.31	446.56	337.57	427.87	
16 May	137.292	-0.017	-166.500	2046.3	26.89	0.22	35.264	1009.5	353.01	443.76	338.55	425.58	
16 May	137.333	0.000	-166.233	2076.0	26.87	0.22	35.264	1010.1	353.51	443.69	339.25	425.79	
16 May	137.375	-0.017	-165.967	2105.6	26.83	0.22	35.264	1010.5	352.35	442.07	338.30	424.44	
16 May	137.417	0.000	-165.717	2133.5	26.76	0.22	35.264	1010.5	352.81	441.67	338.79	424.13	
16 May	137.458	0.000	-165.450	2163.1	26.70	0.22	35.264	1010.2	352.17	441.82	338.12	424.18	
16 May	137.500	0.000	-165.217	2189.0	26.62	0.22	35.264	1010.0	352.46	442.62	338.38	424.94	
16 May	137.542	0.000	-165.000	2213.1	26.61	0.22	35.264	1009.8	352.58	443.03	338.43	425.25	
16 May	137.583	0.000	-164.950	2218.7	26.61	0.22	35.267	1009.2	352.45	443.90	338.10	425.83	
16 May	137.625	0.000	-164.933	2220.6	26.60	0.22	35.270	1009.3	352.46	443.13	338.15	425.14	
16 May	137.667	0.000	-164.917	2222.4	26.57	0.22	35.273	1009.5	352.65	443.42	338.42	425.53	
16 May	137.708	-0.017	-164.900	2225.0	26.55	0.22	35.274	1010.0	352.30	442.81	338.27	425.18	
16 May	137.750	-0.017	-164.900	2225.0	26.58	0.22	35.274	1010.7	352.35	442.00	338.54	424.68	
16 May	137.792	0.000	-164.883	2227.7	26.59	0.22	35.275	1011.4	352.07	442.04	338.51	425.01	
16 May	137.833	0.000	-164.867	2229.5	26.61	0.22	35.275	1011.7	352.00	442.46	338.53	425.53	
16 May	137.875	0.000	-164.850	2231.4	26.66	0.22	35.276	1011.5	352.45	443.49	338.86	426.39	
16 May	137.917	0.017	-164.817	2235.5	26.70	0.22	35.276	1011.4	352.37	444.13	338.72	426.93	
16 May	137.958	0.017	-164.817	2235.5	26.77	0.22	35.277	1011.4	352.41	444.55	338.71	427.27	
17 May	138.000	0.017	-164.800	2237.4	26.77	0.22	35.277	1009.3	352.08	446.56	337.67	428.28	
17 May	138.042	0.000	-164.700	2248.7	26.75	0.22	35.278	1009.1	352.19	442.64	337.72	424.46	
17 May	138.083	0.017	-164.433	2278.4	26.95	0.22	35.278	1008.4	352.20	439.98	337.35	421.42	
17 May	138.125	0.017	-164.183	2306.2	26.92	0.22	35.279	1008.1	352.57	438.78	337.62	420.18	
17 May	138.167	0.000	-163.933	2334.0	26.88	0.22	35.279	1008.6	352.94	438.72	338.18	420.36	
17 May	138.208	0.000	-163.667	2363.6	26.80	0.22	35.280	1009.0	352.12	436.54	337.58	418.52	
17 May	138.250	0.000	-163.417	2391.3	26.70	0.22	35.280	1010.0	352.13	436.44	338.01	418.94	
17 May	138.292	-0.017	-163.100	2426.6	26.64	0.22	35.281	1011.2	352.84	436.17	339.15	419.24	
17 May	138.333	0.000	-162.883	2450.8	26.51	0.22	35.281	1011.8	352.11	437.24	338.74	420.64	
17 May	138.375	-0.017	-162.650	2476.8	26.50	0.22	35.282	1012.1	352.18	436.40	338.92	419.97	
17 May	138.417	0.000	-162.383	2506.5	26.49	0.22	35.283	1012.3	352.23	437.62	339.04	421.24	
17 May	138.458	0.000	-162.117	2536.1	26.38	0.22	35.283	1011.9	352.07	438.34	338.82	421.85	
17 May	138.500	0.000	-161.883	2562.1	26.26	0.22	35.284	1011.1	352.11	439.56	338.67	422.78	
17 May	138.542	0.000	-161.633	2589.8	26.13	0.22	35.284	1010.7	352.02	441.57	338.53	424.65	
17 May	138.583	0.017	-161.367	2619.5	26.11	0.22	35.285	1010.0	352.88	444.66	339.13	427.33	
17 May	138.625	0.033	-161.100	2649.2	26.09	0.22	35.285	1010.0	352.05	444.22	338.34	426.92	
17 May	138.667	0.033	-160.833	2678.8	26.09	0.22	35.286	1010.0	352.10	442.48	338.39	425.26	
17 May	138.708	0.050	-160.617	2702.9	26.02	0.22	35.286	1010.4	352.02	441.22	338.50	424.27	
17 May	138.750	0.033	-160.350	2732.7	25.98	0.22	35.287	1011.3	352.25	444.22	339.06	427.58	
17 May	138.792	0.017	-160.083	2762.4	25.95	0.22	35.287	1012.3	352.46	439.61	339.63	423.60	
17 May	138.833	0.000	-160.000	2771.8	26.23	0.22	35.288	1013.0	352.24	440.42	339.47	424.45	
17 May	138.875	0.017	-160.017	2774.5	26.18	0.22	35.288	1012.8	352.26	441.29	339.45	425.24	
17 May	138.917	0.033	-160.017	2776.2	26.20	0.22	35.289	1012.6	352.26	441.88	339.37	425.71	
17 May	138.958	0.033	-160.017	2776.2	26.22	0.22	35.289	1012.6	352.63	442.43	339.71	426.22	
18 May	139.000	0.067	-160.033	2780.4	26.35	0.22	35.290	1011.0	351.90	442.67	338.37	425.65	
18 May	139.042	0.067	-160.017	2782.2	26.44	0.22	35.290	1010.0	352.50	441.36	338.54	423.88	
18 May	139.083	0.067	-160.017	2782.2	26.48	0.22	35.291	1009.6		440.49		422.84	
18 May	139.125	0.067	-160.017	2782.2	26.51	0.22	35.292	1009.2	351.22		336.99		

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
18 May	139.167	0.050	-160.017	2784.1	26.54	0.22	35.294	1009.6	352.69	437.69	338.52	420.10	
18 May	139.208	0.017	-159.983	2789.3	26.62	0.22	35.286	1010.2	352.25	437.32	338.25	419.93	
18 May	139.250	0.017	-159.833	2806.0	26.68	0.22	35.277	1010.3	352.73	437.01	338.70	419.63	
18 May	139.292	0.033	-159.583	2833.8	26.61	0.22	35.269	1010.8	352.62	438.09	338.82	420.94	
18 May	139.333	0.033	-159.350	2859.7	26.60	0.22	35.261	1011.3	352.66	435.78	339.04	418.95	
18 May	139.375	0.033	-159.117	2885.6	26.66	0.22	35.252	1011.0	352.32	432.19	338.56	415.31	
18 May	139.417	0.017	-158.900	2909.8	26.79	0.22	35.244	1011.0	352.25	429.62	338.41	412.73	
18 May	139.458	0.017	-158.633	2939.5	26.93	0.22	35.235	1010.8	352.02	427.10	338.02	410.12	
18 May	139.500	0.017	-158.400	2965.4	27.00	0.22	35.227	1010.2	352.34	428.79	338.07	411.42	
18 May	139.542	0.017	-158.150	2993.1	26.84	0.22	35.218	1009.9	352.70	429.38	338.42	412.00	
18 May	139.583	0.017	-157.917	3019.0	26.71	0.22	35.210	1009.6	352.23	431.07	337.96	413.60	
18 May	139.625	0.017	-157.667	3046.8	26.62	0.22	35.202	1009.5	352.59	434.39	338.33	416.82	
18 May	139.667	0.017	-157.433	3072.8	26.40	0.22	35.193	1010.2	352.96	438.72	339.08	421.46	
18 May	139.708	0.000	-157.183	3100.7	26.18	0.22	35.185	1010.5	353.27	438.53	339.63	421.59	
18 May	139.750	0.000	-156.917	3130.2	26.11	0.22	35.176	1011.5	352.75	435.66	339.52	419.32	
18 May	139.792	0.000	-156.683	3156.2	26.04	0.22	35.168	1011.5	352.80	438.38	339.62	422.00	
18 May	139.833	-0.017	-156.433	3184.1	25.93	0.22	35.160	1011.5	352.78	441.74	339.67	425.32	
18 May	139.875	0.000	-156.133	3217.5	25.88	0.22	35.151	1011.2	352.48	443.77	339.31	427.19	
18 May	139.917	-0.017	-155.917	3241.5	25.83	0.22	35.143	1009.9	352.20	444.55	338.62	427.41	
18 May	139.958	-0.017	-155.667	3269.3	25.79	0.23	35.135	1010.4	352.70	446.49	339.30	429.54	
19 May	140.000	-0.017	-155.400	3299.0	25.73	0.23	35.126	1009.8	352.78	448.68	339.21	431.43	
19 May	140.042	-0.017	-155.150	3326.8	25.65	0.23	35.118	1008.7	352.52	445.70	338.63	428.14	
19 May	140.083	-0.017	-154.900	3354.5	25.69	0.23	35.109	1008.5	352.36	441.17	338.39	423.67	
19 May	140.125	-0.017	-154.650	3382.3	25.76	0.23	35.101	1008.6	351.80	436.30	337.84	418.99	
19 May	140.167	0.000	-154.400	3410.2	25.83	0.23	35.092	1008.9	352.34	434.20	338.41	417.04	
19 May	140.208	0.000	-154.167	3436.1	25.79	0.23	35.084	1009.4	352.22	434.74	338.50	417.81	
19 May	140.250	0.000	-154.000	3454.6	25.82	0.23	35.076	1010.4	352.12	434.49	338.73	417.97	
19 May	140.292	0.000	-153.967	3458.3	25.74	0.23	35.067	1011.0	352.00	434.52	338.87	418.31	
19 May	140.333	0.000	-153.983	3460.1	25.69	0.23	35.059	1011.2	352.32	428.41	339.28	412.56	
19 May	140.375	0.000	-153.967	3461.8	25.68	0.23	35.069	1011.2	352.29	435.34	339.26	419.24	
19 May	140.417	0.017	-153.967	3463.7	25.67	0.23	35.080	1011.1	352.15	435.74	339.10	419.59	
19 May	140.458	0.000	-153.933	3468.0	25.61	0.23	35.077	1010.4	352.09	437.45	338.83	420.98	
19 May	140.500	0.000	-153.750	3488.3	25.64	0.23	35.074	1009.9	351.97	437.09	338.53	420.40	
19 May	140.542	-0.017	-153.483	3518.0	25.68	0.23	35.071	1009.6	352.00	435.41	338.43	418.62	
19 May	140.583	-0.017	-153.200	3549.5	25.70	0.23	35.067	1009.3	352.10	435.26	338.41	418.33	
19 May	140.625	-0.017	-152.967	3575.4	25.71	0.23	35.064	1009.3	352.17	435.18	338.47	418.25	
19 May	140.667	0.000	-152.650	3610.6	25.71	0.23	35.061	1009.5	351.34	435.58	337.74	418.71	
19 May	140.708	0.000	-152.433	3634.7	25.67	0.23	35.058	1009.5	351.92	435.16	338.32	418.34	
19 May	140.750	0.000	-152.183	3662.5	25.67	0.23	35.055	1010.1	351.42	433.27	338.05	416.78	
19 May	140.792	0.000	-152.083	3673.6	25.70	0.23	35.052	1010.1	351.47	435.28	338.08	418.70	
19 May	140.833	-0.017	-151.983	3684.9	25.70	0.23	35.048	1010.4	351.70	435.26	338.40	418.80	
19 May	140.875	-0.017	-151.967	3686.7	25.76	0.23	35.045	1009.9	351.47	435.72	337.97	418.98	
19 May	140.917	-0.017	-151.967	3686.7	25.78	0.23	35.042	1009.9	351.56	436.67	338.04	419.88	
19 May	140.958	-0.033	-151.950	3689.3	25.82	0.23	35.039	1007.4	351.87	436.96	337.45	419.05	
20 May	141.000	-0.033	-151.933	3691.2	25.80	0.23	35.036	1007.4	351.96	437.07	337.55	419.17	
20 May	141.042	-0.083	-151.817	3705.2	25.70	0.23	35.033	1006.9	351.95	436.21	337.43	418.22	
20 May	141.083	-0.067	-151.583	3731.3	25.70	0.23	35.029	1006.8	351.82	437.50	337.27	419.41	
20 May	141.125	-0.033	-151.183	3775.9	25.70	0.23	35.026	1007.4	351.89	438.92	337.55	421.03	
20 May	141.167	0.000	-151.050	3791.1	25.60	0.23	35.023	1007.9	351.90	440.70	337.80	423.04	
20 May	141.208	0.000	-150.800	3818.9	25.40	0.23	35.020	1009.1	352.39	443.54	338.81	426.44	
20 May	141.250	0.000	-150.500	3852.2	25.20	0.23	35.017	1010.5	352.03	446.99	339.07	430.54	
20 May	141.292	0.017	-150.250	3880.1	25.00	0.23	35.014	1010.5	352.12	450.00	339.29	433.60	
20 May	141.333	0.000	-149.983	3909.8	24.80	0.23	35.010	1010.7	351.79	449.70	339.16	433.55	
20 May	141.375	0.000	-149.950	3913.5	24.80	0.23	35.007	1010.9	351.88	450.44	339.32	434.36	
20 May	141.417	0.017	-149.983	3917.6	24.80	0.23	35.004	1010.5	351.96	450.58	339.26	434.32	
20 May	141.458	0.017	-149.983	3917.6	24.80	0.23	35.027	1009.5	351.74	451.07	338.70	434.35	
20 May	141.500	0.017	-149.950	3921.3	24.80	0.23	35.050	1009.3	351.65	451.51	338.55	434.68	

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20 May	141.542	0.017	-149.967	3923.1	24.70	0.23	35.073	1008.7	351.90	454.69	338.64	437.56	
20 May	141.583	0.033	-149.833	3938.1	24.60	0.23	35.087	1007.9	351.64	455.32	338.18	437.89	
20 May	141.625	0.033	-149.583	3965.9	24.60	0.23	35.101	1007.9	351.08	453.88	337.64	436.51	
20 May	141.667	0.050	-149.383	3988.2	24.60	0.23	35.115	1008.3	351.74	453.90	338.41	436.70	
20 May	141.708	0.017	-149.067	4023.5	24.50	0.23	35.129	1009.0	351.55	454.70	338.53	437.86	
20 May	141.750	0.033	-148.817	4051.4	24.50	0.23	35.143	1009.4	351.48	454.61	338.60	437.95	
20 May	141.792	0.017	-148.550	4081.1	24.50	0.23	35.157	1009.4	351.49	455.24	338.61	438.56	
20 May	141.833	0.017	-148.300	4108.9	24.60	0.23	35.171	1009.2	351.78	455.74	338.76	438.88	
20 May	141.875	-0.067	-148.150	4128.0	24.70	0.23	35.185	1008.7	351.25	455.18	338.02	438.03	
20 May	141.917	-0.050	-147.900	4155.8	24.80	0.23	35.199	1008.3	351.47	454.14	338.03	436.77	
20 May	141.958	-0.017	-147.650	4183.8	25.10	0.23	35.213	1007.4	351.12	453.11	337.19	435.14	
21 May	142.000	0.000	-147.400	4211.7	25.20	0.23	35.227	1006.4	351.74	454.03	337.38	435.50	
21 May	142.042	0.017	-147.133	4241.4	25.20	0.23	35.241	1005.9	351.88	451.44	337.34	432.79	
21 May	142.083	0.017	-146.883	4269.2	25.30	0.23	35.255	1005.7	351.60	450.10	336.94	431.34	
21 May	142.125	0.000	-146.633	4297.0	25.30	0.23	35.269	1006.3	351.98	447.92	337.51	429.52	
21 May	142.167	0.000	-146.383	4324.8	25.60	0.23	35.283	1007.1	351.79	443.51	337.42	425.39	
21 May	142.208	0.000	-146.133	4352.6	25.80	0.23	35.297	1007.9	351.85	443.36	337.62	425.43	
21 May	142.250	0.000	-145.883	4380.4	26.00	0.22	35.311	1008.5	351.48	444.56	337.34	426.67	
21 May	142.292	0.000	-145.633	4408.2	26.10	0.22	35.325	1009.0	351.67	442.98	337.63	425.29	
21 May	142.333	0.000	-145.383	4435.9	26.20	0.22	35.339	1009.1	351.36	442.55	337.30	424.83	
21 May	142.375	0.000	-145.150	4461.8	26.20	0.22	35.353	1009.0	351.06	442.85	336.98	425.09	
21 May	142.417	0.017	-145.167	4464.5	26.20	0.22	35.367	1009.0	351.74	442.60	337.63	424.84	
21 May	142.458	0.033	-145.167	4466.3	26.20	0.22	35.381	1008.7	351.18	443.00	336.99	425.10	
21 May	142.500	0.033	-145.150	4468.2	26.20	0.22	35.388	1008.2	351.46	442.88	337.08	424.76	
21 May	142.542	0.000	-144.967	4488.8	26.20	0.22	35.394	1008.0	351.66	443.53	337.21	425.30	
21 May	142.583	-0.017	-144.933	4493.0	26.20	0.22	35.401	1007.9	351.56	443.64	337.08	425.37	
21 May	142.625	-0.033	-144.883	4498.9	26.20	0.22	35.395	1008.2	351.78	443.12	337.39	425.00	
21 May	142.667	-0.117	-144.633	4528.2	26.30	0.22	35.389	1008.6	351.72	444.31	337.40	426.22	
21 May	142.708	-0.200	-144.400	4555.7	26.30	0.22	35.383	1009.2	351.21	443.54	337.12	425.74	
21 May	142.750	-0.300	-144.150	4585.6	26.10	0.22	35.377	1009.9	351.26	442.91	337.54	425.62	
21 May	142.792	-0.383	-143.917	4613.1	25.90	0.22	35.371	1009.9	350.86	443.18	337.29	426.04	
21 May	142.833	-0.483	-143.683	4641.4	25.90	0.22	35.365	1009.9	351.92	441.28	338.31	424.22	
21 May	142.875	-0.600	-143.433	4672.0	25.80	0.23	35.359	1009.5	351.37	442.28	337.71	425.09	
21 May	142.917	-0.683	-143.217	4697.7	25.70	0.23	35.353	1008.9	351.71	442.98	337.89	425.58	
21 May	142.958	-0.800	-142.950	4730.1	25.50	0.23	35.347	1008.9	351.39	447.28	337.72	429.88	
22 May	143.000	-0.917	-142.717	4759.1	25.10	0.23	35.341	1008.4	351.18	451.24	337.60	433.78	
22 May	143.042	-1.033	-142.467	4789.7	24.70	0.23	35.335	1008.0	351.27	451.99	337.80	434.65	
22 May	143.083	-1.150	-142.217	4820.4	24.40	0.24	35.330	1008.4	351.41	451.13	338.25	434.24	
22 May	143.125	-1.250	-141.967	4850.3	24.20	0.24	35.324	1008.8	351.26	451.21	338.37	434.65	
22 May	143.167	-1.367	-141.700	4882.7	24.10	0.24	35.318	1009.0	351.84	452.52	339.05	436.08	
22 May	143.208	-1.467	-141.433	4914.4	23.90	0.24	35.312	1009.9	351.68	452.72	339.33	436.82	
22 May	143.250	-1.567	-141.150	4947.7	23.70	0.24	35.306	1010.7	351.71	453.24	339.75	437.83	
22 May	143.292	-1.667	-140.917	4975.9	23.60	0.24	35.300	1011.0	352.42	454.07	340.60	438.83	
22 May	143.333	-1.767	-140.617	5011.0	23.60	0.24	35.294	1011.1	351.03		339.29		
22 May	143.375	-1.850	-140.367	5040.2	23.50	0.24	35.288	1011.0	351.75	453.48	340.01	438.34	
22 May	143.417	-1.933	-140.133	5067.8	23.40	0.24	35.282	1010.4	351.77	454.57	339.88	439.20	
22 May	143.458	-1.983	-139.950	5088.9	23.40	0.24	35.276	1010.0	351.43	454.43	339.41	438.89	
22 May	143.500	-1.983	-139.950	5088.9	23.40	0.24	35.270	1010.0	351.67	454.61	339.64	439.06	
22 May	143.542	-1.983	-139.950	5088.9	23.40	0.24	35.271	1010.0	351.58	455.24	339.56	439.67	
22 May	143.583	-1.983	-139.950	5088.9	23.40	0.24	35.273	1010.2	351.68	454.60	339.72	439.15	
22 May	143.625	-1.983	-139.950	5088.9	23.40	0.24	35.274	1010.6	351.67	453.67	339.85	438.42	
22 May	143.667	-2.000	-139.950	5090.8	23.40	0.24	35.256	1011.4	351.66	450.44	340.12	435.66	
22 May	143.708	-2.017	-139.933	5093.4	23.40	0.24	35.239	1011.7	351.41	450.21	339.98	435.57	
22 May	143.750	-2.000	-139.950	5096.1	23.40	0.24	35.221	1012.4	352.08	450.16	340.87	435.82	
22 May	143.792	-2.000	-139.933	5098.0	23.40	0.24	35.203	1012.1	351.81	453.35	340.50	438.78	
22 May	143.833	-2.017	-139.933	5099.9	23.50	0.24	35.186	1011.4	351.81	453.85	340.20	438.88	
22 May	143.875	-1.888	-139.933	5114.2	23.40	0.24	35.168	1010.4	351.14	455.74	339.27	440.33	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
22 May	143.917	-1.667	-139.983	5139.4	23.20	0.24	35.150	1010.0	351.58	456.38	339.67	440.92	
22 May	143.958	-1.500	-139.983	5158.0	23.30	0.24	35.133	1009.1	351.29	456.95	339.02	441.00	
23 May	144.000	-1.517	-139.967	5160.6	23.30	0.24	35.127	1008.6	351.33	457.09	338.89	440.91	
23 May	144.042	-1.350	-139.967	5179.1	23.30	0.24	35.120	1008.1	351.57	454.54	338.95	438.23	
23 May	144.083	-1.117	-139.983	5205.1	23.30	0.24	35.114	1008.2	351.40	451.71	338.82	435.54	
23 May	144.125	-1.000	-140.000	5218.2	23.50	0.24	35.108	1009.1	351.76	450.90	339.36	435.01	
23 May	144.167	-1.000	-139.983	5220.1	23.50	0.24	35.083	1009.8	351.56	448.83	339.41	433.32	
23 May	144.208	-0.833	-139.950	5239.0	23.70	0.24	35.058	1010.0	351.50	449.04	339.31	433.46	
23 May	144.250	-0.600	-140.000	5265.5	23.80	0.24	35.032	1010.5	351.54	451.42	339.46	435.91	
23 May	144.292	-0.500	-139.983	5276.8	23.90	0.24	35.007	1011.4	351.38	453.24	339.55	437.99	
23 May	144.333	-0.483	-139.983	5278.7	23.90	0.24	34.995	1011.1	351.05	454.49	339.13	439.06	
23 May	144.375	-0.267	-139.983	5302.7	24.00	0.24	34.983	1011.0	351.51	456.13	339.48	440.53	
23 May	144.417	-0.067	-139.983	5324.9	24.20	0.24	34.972	1010.7	351.61	456.90	339.36	440.98	
23 May	144.458	-0.067	-139.900	5334.1	24.20	0.24	34.960	1010.5	351.87	457.32	339.54	441.29	
23 May	144.500	-0.050	-139.900	5336.0	24.70	0.23	34.960	1010.5	351.96	457.62	339.32	441.19	
23 May	144.542	-0.050	-139.900	5336.0	24.30	0.24	34.961	1010.6	351.51	456.48	339.16	440.44	
23 May	144.583	-0.050	-139.900	5336.0	24.30	0.24	34.960	1010.6	352.50	455.58	340.12	439.58	
23 May	144.625	-0.033	-139.917	5338.7	24.30	0.24	34.959	1011.2	351.81	455.11	339.66	439.39	
23 May	144.667	-0.033	-139.917	5338.7	24.40	0.24	34.958	1011.2	351.13	452.01	338.94	436.32	
23 May	144.708	-0.050	-139.917	5340.6	24.40	0.24	34.957	1012.6	351.18	453.92	339.47	438.79	
23 May	144.750	-0.067	-139.900	5343.2	24.40	0.24	34.957	1012.9	351.62	454.35	340.00	439.34	
23 May	144.792	-0.100	-139.900	5346.9	24.40	0.24	34.956	1012.5	352.01	452.67	340.24	437.53	
23 May	144.833	-0.083	-139.900	5348.8	24.50	0.23	34.955	1012.4	351.24	452.69	339.40	437.43	
23 May	144.875	-0.100	-139.883	5351.4	24.50	0.23	34.954	1011.4	352.12	452.88	339.91	437.17	
23 May	144.917	-0.083	-139.867	5354.0	24.60	0.23	34.953	1010.5	351.73	453.42	339.16	437.22	
23 May	144.958	-0.083	-139.867	5354.0	24.60	0.23	34.952	1010.0	351.75	453.16	339.01	436.74	
24 May	145.000	-0.100	-139.867	5355.9	24.70	0.23	34.952	1009.0	351.78	458.09	338.63	440.96	
24 May	145.042	-0.083	-139.983	5369.0	24.70	0.23	34.951	1009.2	351.54	454.62	338.47	437.72	
24 May	145.083	-0.067	-140.017	5373.1	24.70	0.23	34.950	1009.2	351.63	456.00	338.55	439.04	
24 May	145.125	-0.033	-140.050	5378.4	24.70	0.23	34.949	1010.2	351.45	457.02	338.72	440.47	
24 May	145.167	-0.017	-140.067	5381.0	24.70	0.23	34.948	1010.2	351.90	456.45	339.16	439.93	
24 May	145.208	0.017	-139.917	5398.1	24.70	0.23	34.948	1010.8	351.50	457.14	338.98	440.86	
24 May	145.250	-0.017	-139.900	5402.3	24.60	0.23	34.947	1012.2	351.99	457.49	340.00	441.90	
24 May	145.292	0.017	-139.900	5406.1	24.60	0.23	34.946	1012.2	351.54	457.39	339.56	441.81	
24 May	145.333	0.017	-139.917	5408.0	24.60	0.23	34.945	1012.4		456.77		441.30	
24 May	145.375	0.017	-139.900	5409.9	24.60	0.23	34.944	1012.5	351.40	457.35	339.53	441.91	
24 May	145.417	-0.017	-139.933	5415.1	24.60	0.23	34.944	1012.5	351.60	459.03	339.72	443.53	
24 May	145.458	-0.033	-139.900	5419.2	24.60	0.23	34.943	1012.3		458.40		442.83	
24 May	145.500	-0.050	-139.883	5421.9	24.60	0.23	34.942	1012.1	351.63	458.29	339.61	442.63	
24 May	145.542	-0.033	-139.900	5424.5	24.60	0.23	34.941	1012.1	351.37	458.10	339.36	442.44	
24 May	145.583	-0.033	-140.000	5435.7	24.60	0.23	34.940	1012.4		454.28		438.89	
24 May	145.625	0.050	-140.067	5447.5	24.70	0.23	34.939	1012.5	351.42	454.88	339.49	439.44	
24 May	145.667	0.267	-140.067	5471.6	24.90	0.23	34.939	1013.2	351.16	449.98	339.35	434.85	
24 May	145.708	0.467	-140.017	5494.5	25.00	0.23	34.938	1013.5	351.05	454.81	339.29	439.57	
24 May	145.750	0.500	-139.983	5499.8	25.10	0.23	34.937	1014.0	351.51	452.83	339.84	437.79	
24 May	145.792	0.567	-140.000	5507.5	25.10	0.23	34.940	1013.6	351.58	457.52	339.77	442.16	
24 May	145.833	0.783	-139.983	5531.6	25.20	0.23	34.943	1013.1	351.42	459.59	339.38	443.84	
24 May	145.875	1.000	-140.000	5555.7	25.30	0.23	34.946	1012.5	351.09	461.38	338.79	445.22	
24 May	145.917	1.000	-140.000	5555.7	25.30	0.23	34.949	1011.8	351.69	462.40	339.13	445.88	
24 May	145.958	1.000	-140.000	5555.7	25.30	0.23	34.951	1011.1	351.36	464.71	338.57	447.79	
25 May	146.000	0.983	-140.000	5557.6	25.50	0.23	34.954	1010.2	351.92	460.21	338.67	442.89	
25 May	146.042	0.983	-140.000	5557.6	25.40	0.23	34.957	1010.1	351.64	457.65	338.43	440.46	
25 May	146.083	0.967	-140.000	5559.4	25.40	0.23	34.960	1010.1	351.56	464.85	338.36	447.39	
25 May	146.125	1.033	-139.983	5567.0	25.40	0.23	34.964	1010.6	351.57	464.78	338.54	447.55	
25 May	146.167	1.233	-140.017	5589.5	25.50	0.23	34.967	1011.2	351.73	462.37	338.83	445.42	
25 May	146.208	1.450	-140.000	5613.7	25.30	0.23	34.970	1012.0	351.65	461.69	339.16	445.30	
25 May	146.250	1.500	-140.000	5619.3	25.20	0.23	34.974	1012.9	351.47	461.84	339.36	445.93	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
25 May	146.292	1.583	-140.017	5628.7	25.20	0.23	34.974	1013.0	351.70	459.75	339.62	443.96	
25 May	146.333	1.783	-140.017	5650.9	25.30	0.23	34.974	1012.8	351.67	466.00	339.46	449.81	
25 May	146.375	1.917	-140.000	5665.9	25.10	0.23	34.973	1012.8	351.82	466.36	339.73	450.33	
25 May	146.417	2.017	-139.983	5677.2	24.80	0.23	34.973	1011.5	351.88	466.43	339.53	450.06	
25 May	146.458	2.017	-139.967	5679.0	24.70	0.23	34.973	1010.6	351.59	467.08	339.00	450.35	
25 May	146.500	2.033	-139.967	5680.7	24.70	0.23	34.975	1010.5	351.63	466.96	339.00	450.19	
25 May	146.542	2.033	-139.967	5680.7	24.70	0.23	34.977	1010.4	351.42	466.99	338.76	450.17	
25 May	146.583	2.017	-139.967	5682.5	24.60	0.23	34.971	1010.7	351.81	466.05	339.31	449.48	
25 May	146.625	2.000	-140.033	5690.1	24.70	0.23	34.965	1011.5	351.61	464.60	339.33	448.37	
25 May	146.667	2.000	-140.050	5692.0	24.70	0.23	34.959	1012.1	352.02	461.62	339.93	445.77	
25 May	146.708	2.000	-140.067	5693.9	24.70	0.23	34.953	1013.1	351.84	458.27	340.10	442.98	
25 May	146.750	2.017	-140.067	5695.8	24.70	0.23	34.947	1013.9	351.34	453.53	339.89	438.76	
25 May	146.792	2.000	-140.067	5697.6	24.70	0.23	34.941	1014.0	351.80	452.06	340.37	437.38	
25 May	146.833	2.000	-140.067	5697.6	24.70	0.23	34.935	1013.5	351.66	455.75	340.06	440.72	
25 May	146.875	2.000	-140.067	5697.6	24.80	0.23	34.929	1012.5	351.45	456.87	339.46	441.28	
25 May	146.917	2.000	-140.067	5697.6	25.00	0.23	34.923	1011.9	351.85	456.06	339.51	440.06	
25 May	146.958	2.000	-140.067	5697.6	25.00	0.23	34.917	1011.1	351.83	457.74	339.21	441.32	
26 May	147.000	2.000	-140.083	5699.4	24.80	0.23	34.911	1010.6	351.48	456.07	338.83	439.66	
26 May	147.042	2.033	-139.950	5714.6	25.00	0.23	34.905	1010.2					
26 May	147.083	2.000	-139.967	5718.8	25.20	0.23	34.900	1010.9					
26 May	147.125	1.983	-139.967	5720.7	24.90	0.23	34.894	1011.2					
26 May	147.167	1.967	-139.983	5723.2	24.90	0.23	34.888	1011.7					
26 May	147.208	1.950	-140.017	5727.4	24.90	0.23	34.882	1012.1		457.57		441.69	
26 May	147.250	1.933	-140.017	5729.3	24.90	0.23	34.876	1012.9	351.67	458.27	339.74	442.73	
26 May	147.292	1.950	-140.033	5731.9	25.00	0.23	34.870	1013.0	351.91	460.42	339.95	444.77	
26 May	147.333	1.933	-140.033	5733.8	25.00	0.23	34.864	1012.8	351.02	460.42	339.02	444.68	
26 May	147.375	1.950	-140.083	5739.6	25.00	0.23	34.858	1012.5	351.34	461.74	339.22	445.81	
26 May	147.417	1.950	-140.050	5743.3	25.00	0.23	34.852	1012.0	351.14	465.42	338.86	449.14	
26 May	147.458	2.133	-140.050	5763.6	25.40	0.23	34.846	1011.5	350.71	454.40	338.02	437.96	
26 May	147.500	2.400	-140.050	5793.3	24.60	0.23	34.840	1010.8	351.08	450.39	338.64	434.43	
26 May	147.542	2.617	-140.033	5817.5	24.70	0.23	34.834	1011.0	351.12	467.06	338.68	450.52	
26 May	147.583	2.867	-140.033	5845.3	25.80	0.23	34.828	1011.0	350.85	438.74	337.72	422.33	
26 May	147.625	2.983	-140.000	5858.7	25.80	0.23	34.822	1011.9	351.36	437.19	338.52	421.22	
26 May	147.667	2.983	-140.017	5860.5	26.20	0.22	34.826	1012.9	350.87	419.23	338.13	404.01	
26 May	147.708	3.117	-140.033	5875.5	26.20	0.22	34.830	1013.4	351.30	418.16	338.72	403.18	
26 May	147.750	3.367	-140.067	5903.6	27.10	0.22	34.834	1013.6	350.69	414.76	337.58	399.26	
26 May	147.792	3.617	-140.050	5931.4	27.10	0.22	34.839	1013.5	351.42	421.58	338.25	405.78	
26 May	147.833	3.850	-140.017	5957.6	27.00	0.22	34.843	1013.2		432.91		416.65	
26 May	147.875	4.000	-140.000	5974.3	27.00	0.22	34.847	1012.8	350.86	432.88	337.54	416.45	
26 May	147.917	3.983	-140.000	5976.2	27.10	0.22	34.849	1012.0	351.26	437.71	337.58	420.67	
26 May	147.958	4.083	-140.017	5987.5	27.10	0.22	34.852	1011.2	350.78	437.57	336.85	420.18	
27 May	148.000	4.333	-140.033	6015.3	27.10	0.22	34.854	1010.8	350.59	434.51	336.53	417.08	
27 May	148.042	4.583	-140.017	6043.2	27.10	0.22	34.857	1010.8	350.88	432.74	336.80	415.38	
27 May	148.083	4.850	-140.000	6072.9	27.00	0.22	34.859	1010.9	351.17	433.23	337.19	415.98	
27 May	148.125	5.000	-140.000	6089.6	26.90	0.22	34.862	1011.8	350.55	436.68	336.97	419.76	
27 May	148.167	5.000	-140.000	6089.6	26.90	0.22	34.864	1012.3		436.14		419.45	
27 May	148.208	5.017	-139.983	6092.2	26.80	0.22	34.866	1012.8	352.40	436.19	339.16	419.81	
27 May	148.250	5.033	-140.000	6094.8	26.80	0.22	34.869	1013.4		435.88		419.76	
27 May	148.292	5.033	-140.000	6094.8	26.80	0.22	34.871	1013.4	351.81	437.00	338.80	420.84	
27 May	148.333	5.033	-140.000	6094.8	26.80	0.22	34.874	1013.3					
27 May	148.375	5.033	-140.017	6096.7	26.80	0.22	34.876	1012.5					
27 May	148.417	5.000	-140.017	6100.4	26.80	0.22	34.879	1011.5					
27 May	148.458	5.000	-140.017	6100.4	26.80	0.22	34.881	1011.3					
27 May	148.500	4.983	-140.050	6104.5	26.80	0.22	34.881	1010.6					
27 May	148.542	5.000	-140.000	6110.3	26.80	0.22	34.880	1010.4					
27 May	148.583	4.983	-140.000	6112.2	26.80	0.22	34.880	1010.8					
27 May	148.625	4.983	-140.000	6112.2	26.80	0.22	34.819	1011.6					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
27 May	148.667	4.967	-139.983	6114.8	26.80	0.22	34.758	1012.0					
27 May	148.708	5.017	-139.983	6120.4	26.70	0.22	34.698	1012.8	351.68	436.79	338.54	420.47	
27 May	148.750	5.200	-139.983	6140.7	26.70	0.22	34.637	1013.3	351.53	438.77	338.57	422.59	
27 May	148.792	5.467	-139.967	6170.4	27.40	0.21	34.576	1013.3	350.74	385.20	337.32	370.46	
27 May	148.833	5.733	-139.983	6200.0	27.70	0.21	34.516	1012.7	351.64	377.58	337.76	362.68	
27 May	148.875	5.983	-140.000	6227.9	27.70	0.21	34.455	1012.4	353.13	378.53	339.09	363.48	
27 May	148.917	6.000	-139.983	6230.5	27.80	0.21	34.394	1012.0	353.63	379.24	339.35	363.93	
27 May	148.958	6.083	-139.983	6239.8	27.90	0.21	34.362	1011.3	353.91	379.84	339.31	364.16	
28 May	149.000	6.317	-139.983	6265.8	27.90	0.21	34.329	1010.7	353.55	376.54	338.75	360.78	
28 May	149.042	6.583	-140.000	6295.4	27.90	0.21	34.296	1010.3	354.02	373.51	339.06	357.73	
28 May	149.083	6.833	-140.000	6323.2	27.70	0.21	34.264	1010.6	354.59	367.46	339.86	352.19	
28 May	149.125	7.000	-140.000	6341.7	27.70	0.21	34.232	1010.8	354.61	367.43	339.95	352.24	
28 May	149.167	7.050	-139.983	6347.6	27.70	0.21	34.199	1011.2	355.46	364.16	340.90	349.24	
28 May	149.208	7.050	-139.983	6347.6	27.60	0.21	34.167	1012.0		364.03		349.48	
28 May	149.250	7.017	-139.983	6351.3	27.60	0.21	34.134	1012.7		365.04		350.71	
28 May	149.292	7.000	-139.983	6353.1	27.60	0.21	34.101	1013.2		365.28		351.11	
28 May	149.333	6.983	-140.000	6355.8	27.60	0.21	34.069	1013.3	354.77	370.82	341.04	356.47	
28 May	149.375	6.967	-140.000	6357.6	27.70	0.21	34.037	1013.2	354.37	370.20	340.55	355.76	
28 May	149.417	6.933	-140.000	6361.4	27.70	0.21	34.004	1012.6	355.19	368.90	341.13	354.30	
28 May	149.458	6.933	-140.000	6361.4	27.70	0.21	33.972	1012.0	354.39	363.02	340.15	348.43	
28 May	149.500	6.983	-140.000	6366.9	27.60	0.21	33.939	1011.6	354.60	366.93	340.29	352.12	
28 May	149.542	6.983	-140.000	6366.9	27.50	0.21	33.959	1011.6	354.36	367.14	340.13	352.40	
28 May	149.583	6.983	-140.000	6366.9	27.40	0.21	33.979	1012.2	354.94	368.11	340.97	353.62	
28 May	149.625	6.967	-140.000	6368.7	27.60	0.21	33.999	1012.4	354.82	373.20	340.78	358.43	
28 May	149.667	6.983	-140.017	6371.3	27.60	0.21	34.013	1013.0	354.66	371.14	340.83	356.67	
28 May	149.708	6.983	-140.000	6373.2	27.60	0.21	34.026	1013.6	355.07	365.74	341.44	351.70	
28 May	149.750	7.117	-139.983	6388.2	27.40	0.21	34.040	1014.3	354.67	365.61	341.44	351.97	
28 May	149.792	7.367	-140.017	6416.2	27.60	0.21	34.054	1014.2	354.32	359.10	340.92	345.52	
28 May	149.833	7.633	-140.017	6445.8	27.60	0.21	34.067	1013.9	354.30	365.79	340.80	351.85	
28 May	149.875	7.917	-140.017	6477.3	27.60	0.21	34.081	1013.5		371.17		356.89	
28 May	149.917	8.000	-140.000	6486.7	27.80	0.21	34.095	1012.5	354.93	366.56	340.77	351.94	
28 May	149.958	8.033	-140.000	6490.4	28.00	0.21	34.097	1012.0	354.56	366.64	340.10	351.68	
29 May	150.000	8.317	-140.017	6522.0	27.90	0.21	34.099	1011.5	353.91	373.35	339.37	358.01	
29 May	150.042	8.583	-140.017	6551.6	27.70	0.21	34.101	1011.1	354.36	371.19	339.81	355.95	
29 May	150.083	8.867	-140.017	6583.1	27.70	0.21	34.104	1011.3	354.44	365.00	339.96	350.09	
29 May	150.125	9.000	-140.017	6597.9	27.70	0.21	34.106	1011.9	353.88	357.70	339.63	343.29	
29 May	150.167	9.017	-139.917	6609.0	27.70	0.21	34.108	1012.4	353.91	359.54	339.83	345.24	
29 May	150.208	9.083	-139.933	6616.6	27.70	0.21	34.110	1012.6	354.40	363.28	340.37	348.90	
29 May	150.250	8.933	-139.967	6633.7	27.80	0.21	34.112	1013.8	352.61	361.74	339.00	347.78	
29 May	150.292	8.983	-139.733	6659.9	27.70	0.21	34.114	1013.7	352.76	361.12	339.18	347.21	
29 May	150.333	8.967	-139.600	6674.6	27.70	0.21	34.116	1013.9	352.25		338.76		
29 May	150.375	8.933	-139.617	6678.9	27.70	0.21	34.119	1013.8	352.09	360.76	338.57	346.90	
29 May	150.417	8.883	-139.800	6699.7	27.70	0.21	34.121	1013.0	352.35	362.33	338.54	348.13	
29 May	150.458	8.867	-140.017	6723.6	27.60	0.21	34.123	1012.4	351.78	361.71	337.86	347.40	
29 May	150.500	9.000	-140.017	6738.4	27.60	0.21	34.125	1011.5	351.80	361.53	337.57	346.90	
29 May	150.542	8.983	-140.033	6740.9	27.60	0.21	34.127	1011.4	351.98	362.40	337.71	347.70	
29 May	150.583	8.933	-140.083	6748.8	27.60	0.21	34.129	1011.6	351.52	360.85	337.33	346.29	
29 May	150.625	9.133	-140.083	6771.0	27.50	0.21	34.131	1012.2	352.26	357.67	338.32	343.52	
29 May	150.667	8.900	-140.067	6796.9	27.60	0.21	34.134	1013.4	351.65	363.81	338.08	349.77	
29 May	150.708	9.100	-140.100	6819.4	27.60	0.21	34.136	1014.4	352.14	357.99	338.90	344.52	
29 May	150.750	8.950	-140.133	6836.5	27.60	0.21	34.138	1014.2	355.50	360.06	342.06	346.44	
29 May	150.792	9.017	-140.150	6844.2	27.60	0.21	34.140	1014.8		368.37		354.66	
29 May	150.833	8.967	-140.033	6858.2	27.60	0.21	34.142	1014.4	353.72	362.17	340.42	348.55	
29 May	150.875	9.000	-140.000	6863.3	27.60	0.21	34.144	1014.1	354.30	352.48	340.87	339.12	
29 May	150.917	8.983	-140.000	6865.2	27.70	0.21	34.146	1012.7		365.95		351.50	
29 May	150.958	8.983	-140.017	6867.1	27.70	0.21	34.149	1012.2	355.21	367.02	341.01	352.35	
30 May	151.000	8.983	-140.033	6868.8	27.70	0.21	34.151	1011.8	354.86	369.35	340.54	354.44	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
30 May	151.042	8.983	-140.067	6872.6	27.70	0.21	34.153	1011.5	354.77	371.07	340.35	355.98	
30 May	151.083	8.983	-140.083	6874.3	27.70	0.21	34.155	1011.5	355.28	369.31	340.83	354.30	
30 May	151.125	8.983	-140.100	6876.2	27.70	0.21	34.157	1011.6	354.27	353.35	339.90	339.02	
30 May	151.167	8.983	-140.083	6878.1	27.70	0.21	34.159	1012.3	355.18	369.63	341.02	354.89	
30 May	151.208	8.983	-140.083	6878.1	27.70	0.21	34.161	1012.9	354.54	369.25	340.61	354.75	
30 May	151.250	8.983	-140.083	6878.1	27.60	0.21	34.164	1013.4	354.81	369.32	341.12	355.07	
30 May	151.292	8.983	-140.083	6878.1	27.60	0.21	34.166	1013.6	354.55	363.17	340.94	349.23	
30 May	151.333	9.000	-140.117	6882.2	27.60	0.21	34.168	1013.8	355.05	371.51	341.49	357.32	
30 May	151.375	8.983	-140.167	6888.0	27.60	0.21	34.170	1013.0	355.25	347.99	341.40	334.42	
30 May	151.417	8.983	-140.167	6888.0	27.60	0.21	34.169	1012.0	355.23	366.98	341.03	352.31	
30 May	151.458	8.983	-140.150	6889.9	27.60	0.21	34.169	1011.0	354.63	370.37	340.11	355.20	
30 May	151.500	9.000	-140.150	6891.8	27.60	0.21	34.168	1011.2	354.46	369.81	340.02	354.74	
30 May	151.542	8.983	-140.150	6893.7	27.60	0.21	34.167	1010.8	354.88	369.64	340.28	354.43	
30 May	151.583	9.000	-140.133	6896.3	27.60	0.21	34.166	1010.7	354.76		340.13		
30 May	151.625	9.000	-140.117	6898.1	27.60	0.21	34.165	1011.4	355.00	364.13	340.60	349.36	
30 May	151.667	9.000	-140.000	6910.9	27.50	0.21	34.164	1012.0		364.61		350.12	
30 May	151.708	8.950	-140.017	6916.8	27.50	0.21	34.163	1013.4	354.53	364.26	340.92	350.28	
30 May	151.750	9.050	-140.050	6928.5	27.50	0.21	34.162	1013.6	355.11	364.29	341.55	350.38	
30 May	151.792	9.100	-140.067	6934.4	27.50	0.21	34.161	1013.6	355.94	362.73	342.35	348.88	
30 May	151.833	9.067	-140.100	6939.5	27.50	0.21	34.160	1013.3	355.33	356.47	341.66	342.75	
30 May	151.875	9.067	-140.117	6941.4	27.50	0.21	34.159	1012.2	355.36	364.40	341.30	349.98	
30 May	151.917	9.033	-140.117	6945.1	27.50	0.21	34.157	1011.6	355.35	366.64	341.08	351.92	
30 May	151.958	9.017	-140.133	6947.6	27.50	0.21	34.156	1010.6	355.61	367.34	340.98	352.23	
31 May	152.000	8.983	-140.167	6953.0	27.50	0.21	34.155	1010.4	356.51	359.21	341.78	344.36	
31 May	152.042	8.983	-140.167	6953.0	27.50	0.21	34.154	1009.8	354.78	369.67	339.91	354.17	
31 May	152.083	9.017	-140.150	6957.2	27.50	0.21	34.153	1009.9	355.67	365.08	340.80	349.81	
31 May	152.125	9.283	-140.150	6986.7	27.60	0.21	34.152	1010.5	355.11	362.20	340.40	347.19	
31 May	152.167	9.550	-140.100	7016.9	27.50	0.21	34.151	1011.1					
31 May	152.208	9.800	-140.050	7045.2	27.50	0.21	34.150	1012.1	354.05	368.45	340.01	353.84	
31 May	152.250	10.000	-140.000	7068.1	27.50	0.21	34.149	1013.0	355.10	368.04	341.33	353.77	
31 May	152.292	10.017	-140.000	7070.0	27.50	0.21	34.195	1013.0	355.66	361.77	341.87	347.74	
31 May	152.333	10.233	-140.017	7094.1	27.40	0.21	34.240	1012.9	355.28	364.91	341.54	350.80	
31 May	152.375	10.483	-140.033	7121.9	27.30	0.21	34.285	1012.4	355.29	363.24	341.45	349.09	
31 May	152.417	10.750	-140.033	7151.6	27.10	0.22	34.331	1011.4	355.40	360.47	341.35	346.22	
31 May	152.458	11.000	-140.000	7179.6	27.00	0.22	34.376	1011.3	355.51	361.86	341.49	347.59	
31 May	152.500	11.017	-140.000	7181.5	27.00	0.22	34.368	1011.1	355.18	360.96	341.10	346.66	
31 May	152.542	11.133	-140.017	7194.5	27.00	0.22	34.361	1010.9	354.65	360.27	340.52	345.93	
31 May	152.583	11.383	-140.000	7222.3	26.80	0.22	34.353	1011.2	355.44	358.14	341.53	344.13	
31 May	152.625	11.650	-140.017	7252.1	26.40	0.22	34.345	1011.8	355.00	359.22	341.59	345.65	
31 May	152.667	11.900	-139.983	7280.1	25.80	0.23	34.338	1012.2	355.93	356.63	343.03	343.70	
31 May	152.708	12.000	-140.017	7291.8	25.90	0.22	34.330	1013.4	354.65	354.22	342.15	341.73	
31 May	152.750	12.050	-140.100	7302.4	26.00	0.22	34.333	1013.9	355.29	354.50	342.87	342.11	
31 May	152.792	12.150	-140.348	7331.5	26.00	0.22	34.336	1014.2	354.78	352.02	342.48	339.82	
31 May	152.833	12.233	-140.600	7360.4	26.20	0.22	34.339	1014.3	355.06	357.62	342.65	345.13	
31 May	152.875	12.317	-140.850	7389.1	26.40	0.22	34.342	1013.5	355.48	357.91	342.64	344.99	
31 May	152.917	12.450	-141.100	7420.0	26.70	0.22	34.345	1012.4	355.20	360.29	341.78	346.68	
31 May	152.958	12.550	-141.350	7449.3	26.70	0.22	34.348	1012.0	354.72	360.75	341.18	346.98	
1 Jun	153.000	12.667	-141.600	7479.4	26.80	0.22	34.350	1012.1	355.08	361.13	341.50	347.31	
1 Jun	153.042	12.783	-141.850	7509.4	26.90	0.22	34.353	1011.8	355.15	360.27	341.39	346.31	
1 Jun	153.083	12.883	-142.100	7538.7	26.80	0.22	34.356	1011.8	355.38	357.72	341.68	343.93	
1 Jun	153.125	13.000	-142.367	7570.4	26.80	0.22	34.359	1012.4	354.95	357.95	341.48	344.36	
1 Jun	153.167	13.100	-142.617	7599.6	26.60	0.22	34.362	1012.7	355.24	355.93	342.00	342.66	
1 Jun	153.208	13.250	-142.833	7628.3	26.40	0.22	34.365	1013.1	355.72	362.00	342.74	348.79	
1 Jun	153.250	13.417	-143.050	7658.3	26.40	0.22	34.368	1013.9	355.03	360.97	342.35	348.08	
1 Jun	153.292	13.517	-143.267	7684.2	26.30	0.22	34.371	1014.6	355.14	360.37	342.77	347.82	
1 Jun	153.333	13.550	-143.467	7706.1	26.50	0.22	34.374	1015.2	355.00	361.18	342.71	348.67	
1 Jun	153.375	13.583	-143.683	7729.7	26.40	0.22	34.377	1015.0	355.33	357.57	343.02	345.18	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
1 Jun	153.417	13.667	-143.883	7753.3	25.80	0.23	34.380	1014.6	355.34	353.32	343.30	341.35	
1 Jun	153.458	13.750	-144.100	7778.5	25.62	0.23	34.383	1014.0	355.15	348.25	343.02	336.35	
1 Jun	153.500	13.833	-144.333	7805.2	25.38	0.23	34.385	1013.5	355.11	348.06	342.97	336.16	
1 Jun	153.542	13.917	-144.567	7832.1	25.14	0.24	34.388	1013.2	355.14	347.64	343.04	335.80	
1 Jun	153.583	13.983	-144.750	7853.2	24.90	0.24	34.391	1013.2	355.49	347.36	343.54	335.68	
1 Jun	153.625	14.083	-145.000	7882.4	24.86	0.24	34.394	1013.5	355.42	346.54	343.60	335.02	
1 Jun	153.667	14.200	-145.250	7912.3	24.84	0.24	34.397	1014.0	355.18	345.60	343.55	334.29	
1 Jun	153.708	14.317	-145.500	7942.2	24.82	0.24	34.400	1014.7	355.05	345.46	343.68	334.40	
1 Jun	153.750	14.433	-145.750	7972.0	24.80	0.24	34.400	1015.8	354.59	345.26	343.63	334.59	
1 Jun	153.792	14.533	-146.000	8001.1	24.78	0.24	34.400	1015.0	354.62	346.41	343.40	335.44	
1 Jun	153.833	14.583	-146.117	8014.9	24.79	0.24	34.400	1014.7	354.80	346.27	343.46	335.20	
1 Jun	153.875	14.583	-146.117	8014.9	24.81	0.24	34.400	1014.5	354.69	347.62	343.27	336.43	
1 Jun	153.917	14.583	-146.150	8018.4	24.82	0.24	34.400	1014.2	354.94	348.40	343.40	337.08	
1 Jun	153.958	14.600	-146.194	8023.5	24.84	0.24	34.400	1013.9	353.91	349.16	342.29	337.69	
2 Jun	154.000	14.617	-146.238	8028.6	24.86	0.24	34.400	1013.6	354.73	348.65	342.97	337.09	
2 Jun	154.042	14.633	-146.283	8033.8	24.87	0.24	34.400	1013.3	354.69	346.99	342.82	335.37	
2 Jun	154.083	14.717	-146.550	8063.9	24.89	0.24	34.400	1013.3	354.58	344.85	342.70	333.29	
2 Jun	154.125	14.833	-146.817	8095.4	24.90	0.24	34.400	1013.5	354.77	345.16	342.94	333.65	
2 Jun	154.167	14.933	-147.033	8121.1	24.92	0.24	34.400	1014.5	355.00	343.31	343.50	332.19	
2 Jun	154.208	15.000	-147.200	8140.5	24.92	0.24	34.400	1015.4	355.05	347.80	343.86	336.84	
2 Jun	154.250	15.117	-147.450	8170.3	24.92	0.24	34.400	1016.3	355.52	347.99	344.63	337.33	
2 Jun	154.292	15.217	-147.650	8194.5	24.92	0.24	34.400	1017.1	355.49	340.87	344.88	330.70	
2 Jun	154.333	15.333	-147.883	8222.6	24.91	0.24	34.400	1017.5	355.79	341.62	345.32	331.57	
2 Jun	154.375	15.433	-148.083	8246.7	24.91	0.24	34.400	1017.5	356.19	342.04	345.71	331.98	
2 Jun	154.417	15.533	-148.283	8270.9	24.91	0.24	34.400	1017.5	355.69	344.25	345.22	334.12	
2 Jun	154.458	15.620	-148.485	8294.5	24.90	0.24	34.400	1017.0	355.02	340.99	344.40	330.79	
2 Jun	154.500	15.710	-148.702	8319.8	24.90	0.24	34.400	1016.0	355.07	338.99	344.10	328.52	
2 Jun	154.542	15.805	-148.910	8344.4	24.89	0.24	34.400	1015.6	355.70	338.40	344.58	327.82	
2 Jun	154.583	15.887	-149.122	8368.9	24.89	0.24	34.400	1015.5	355.25	339.56	344.11	328.91	
2 Jun	154.625	15.973	-149.318	8391.9	24.88	0.24	34.400	1015.0	355.37	338.29	344.06	327.52	
2 Jun	154.667	16.063	-149.542	8417.8	24.88	0.24	34.400	1015.6	355.25	336.81	344.15	326.28	
2 Jun	154.708	16.162	-149.738	8441.5	24.87	0.24	34.400	1016.0	355.24	337.01	344.29	326.62	
2 Jun	154.750	16.258	-149.937	8465.2	24.87	0.24	34.400	1016.5	354.60	336.07	343.84	325.88	
2 Jun	154.792	16.360	-150.163	8491.9	24.86	0.24	34.400	1016.8		336.77		326.66	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
13 Feb	44.042	24.458	-113.325	0.0	18.30	0.65	34.000	1016.2					
13 Feb	44.083	24.253	-113.177	27.3	18.30	0.65	34.021	1016.5					
13 Feb	44.125	24.043	-113.095	52.0	18.30	0.65	34.043	1017.0					
13 Feb	44.167	23.907	-112.768	88.5	18.23	0.65	34.065	1017.1					
13 Feb	44.208	23.742	-112.525	119.3	18.17	0.65	34.087	1017.1					
13 Feb	44.250	23.587	-112.323	146.1	18.10	0.65	34.109	1016.9					
13 Feb	44.292	23.460	-112.085	174.2	18.03	0.65	34.130	1016.5					
13 Feb	44.333	23.330	-111.840	203.0	17.97	0.65	34.152	1016.2					
13 Feb	44.375	23.183	-111.607	231.9	17.90	0.65	34.174	1015.5					
13 Feb	44.417	23.040	-111.373	260.6	17.90	0.65	34.196	1015.0					
13 Feb	44.458	22.897	-111.140	289.2	17.90	0.65	34.217	1014.4					
13 Feb	44.500	22.750	-110.888	319.8	17.90	0.65	34.239	1014.9					
13 Feb	44.542	22.607	-110.650	348.9	19.89	0.64	34.261	1015.1					
13 Feb	44.583	22.460	-110.410	378.5	19.89	0.64	34.282	1015.5					
13 Feb	44.625	22.312	-110.172	407.9	19.89	0.64	34.304	1016.1					
13 Feb	44.667	22.173	-109.908	439.2	19.89	0.64	34.326	1016.1					
13 Feb	44.708	22.023	-109.655	470.1	19.89	0.64	34.348	1016.0					
13 Feb	44.750	21.930	-109.487	490.2	19.89	0.64	34.370	1015.8					
13 Feb	44.792	21.762	-109.238	522.0	19.79	0.64	34.391	1014.1					
13 Feb	44.833	21.605	-108.997	552.4	20.58	0.64	34.413	1014.2					
13 Feb	44.875	21.428	-108.688	589.9	20.39	0.64	34.435	1013.3					
13 Feb	44.917	21.352	-108.560	605.6	20.98	0.64	34.457	1012.7					
13 Feb	44.958	21.213	-108.315	635.3	21.38	0.64	34.478	1012.2	353.61		343.38		
14 Feb	45.000	21.090	-108.118	659.9	21.38	0.64	34.500	1012.7	358.09	378.54	347.91	367.78	
14 Feb	45.042	20.935	-107.788	698.2	22.87	0.63	34.500	1013.1	357.57	389.04	346.74	377.25	
14 Feb	45.083	20.873	-107.598	719.1	22.87	0.63	34.500	1013.5	356.97	381.00	346.28	369.60	
14 Feb	45.125	20.732	-107.347	749.5	23.07	0.63	34.500	1013.9					
14 Feb	45.167	20.505	-107.203	778.8	21.48	0.64	34.500	1013.8		368.16		358.04	
14 Feb	45.208	20.252	-107.142	807.7	21.65	0.64	34.500	1014.2		370.68		360.54	
14 Feb	45.250	20.063	-106.968	835.4	21.83	0.64	34.500	1014.0					
14 Feb	45.292	19.960	-106.720	863.7	22.00	0.64	34.500	1013.6		369.61		359.09	
14 Feb	45.333	19.865	-106.463	892.6	22.17	0.64	34.500	1013.5	355.10	386.76	344.86	375.61	
14 Feb	45.375	19.765	-106.215	920.8	22.17	0.64	34.500	1012.9	355.31	373.60	344.86	362.61	
14 Feb	45.417	19.637	-105.973	949.8	22.17	0.64	34.500	1012.1	356.53	373.36	345.76	362.09	
14 Feb	45.458	19.502	-105.720	980.3	22.77	0.63	34.500	1012.0	357.10	386.30	345.95	374.24	
14 Feb	45.500	19.395	-105.475	1008.6	22.77	0.63	34.500	1012.3	363.05	394.75	351.82	382.54	
14 Feb	45.542	19.320	-105.270	1031.6	22.77	0.63	34.500	1013.1	359.06	390.68	348.24	378.90	
14 Feb	45.583	19.200	-105.029	1060.2	24.33		34.500	1014.0	359.81				
14 Feb	45.625	19.078	-104.783	1089.4	25.65		34.500	1014.9	361.98				
14 Feb	45.667	19.074	-104.771	1090.7	25.80		34.500	1014.8	363.59				
14 Feb	45.708	19.071	-104.759	1092.0	25.81		34.500	1014.7					
14 Feb	45.750	19.067	-104.747	1093.3	25.81		34.500	1014.7					
14 Feb	45.792	19.063	-104.736	1094.6	25.81		34.500	1014.6					
14 Feb	45.833	19.060	-104.724	1095.9	25.82		34.500	1014.5					
14 Feb	45.875	19.056	-104.712	1097.2	25.82		34.500	1014.4					
14 Feb	45.917	19.052	-104.700	1098.6	25.82		34.500	1014.3					
14 Feb	45.958	19.049	-104.688	1099.9	25.82		34.500	1014.3					
15 Feb	46.000	19.045	-104.676	1101.2	25.83		34.500	1014.2					
15 Feb	46.042	19.041	-104.664	1102.5	25.83		34.500	1014.1					
15 Feb	46.083	19.038	-104.653	1103.7	25.83		34.500	1014.0					
15 Feb	46.125	19.034	-104.641	1105.1	25.84		34.500	1014.0					
15 Feb	46.167	19.030	-104.629	1106.4	25.84		34.500	1013.9					
15 Feb	46.208	19.027	-104.617	1107.7	25.84		34.500	1013.8					
15 Feb	46.250	19.023	-104.605	1109.0	25.85		34.500	1013.7					
15 Feb	46.292	19.019	-104.593	1110.4	25.85		34.500	1013.6					
15 Feb	46.333	19.016	-104.582	1111.6	25.85		34.500	1013.6					
15 Feb	46.375	19.012	-104.570	1112.9	25.86		34.500	1013.5					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
15 Feb	46.417	19.008	-104.558	1114.3	25.86		34.500	1013.4					
15 Feb	46.458	19.005	-104.546	1115.6	25.86		34.500	1013.3					
15 Feb	46.500	19.001	-104.534	1116.9	25.86		34.500	1013.2					
15 Feb	46.542	18.997	-104.522	1118.2	25.87		34.500	1013.2					
15 Feb	46.583	18.994	-104.511	1119.4	25.87		34.500	1013.1					
15 Feb	46.625	18.990	-104.499	1120.8	25.87		34.500	1013.0					
15 Feb	46.667	18.986	-104.487	1122.1	25.88		34.500	1012.9					
15 Feb	46.708	18.983	-104.475	1123.4	25.88		34.500	1012.9					
15 Feb	46.750	18.979	-104.463	1124.8	25.88		34.500	1012.8					
15 Feb	46.792	18.975	-104.451	1126.1	25.89		34.500	1012.7					
15 Feb	46.833	18.972	-104.439	1127.4	25.89		34.500	1012.6					
15 Feb	46.875	18.968	-104.428	1128.6	25.89		34.500	1012.5					
15 Feb	46.917	18.964	-104.416	1130.0	25.89		34.500	1012.5					
15 Feb	46.958	18.961	-104.404	1131.3	25.90		34.500	1012.4					
16 Feb	47.000	18.957	-104.392	1132.6	25.80		34.500	1012.3					
16 Feb	47.042	18.768	-104.403	1153.6	26.34	0.62	34.463	1012.7	359.81		346.58		
16 Feb	47.083	18.620	-104.403	1170.1	26.33	0.62	34.427	1013.0	362.41		349.20		
16 Feb	47.125	18.517	-104.433	1182.0	26.17	0.62	34.390	1013.8	358.83		346.14		
16 Feb	47.167	18.287	-104.485	1208.1	25.84	0.62	34.353	1014.1	360.93	393.18	348.50	379.63	
16 Feb	47.208	18.027	-104.493	1237.0	25.84	0.62	34.316	1014.8	356.89	392.62	344.84	379.36	
16 Feb	47.250	17.788	-104.470	1263.7	25.56	0.63	34.279	1014.5	358.30	392.46	346.28	379.29	
16 Feb	47.292	17.555	-104.503	1289.8	25.77	0.63	34.242	1014.8	356.07	387.26	344.09	374.23	
16 Feb	47.333	17.313	-104.532	1316.9	25.35	0.63	34.206	1014.8	354.27	378.11	342.62	365.68	
16 Feb	47.375	17.070	-104.558	1341.0	25.08	0.63	34.169	1014.5	354.62	385.92	343.03	373.31	
16 Feb	47.417	16.828	-104.598	1371.2	25.44	0.63	34.132	1014.2		388.58		375.51	
16 Feb	47.458	16.587	-104.633	1398.3	26.46	0.62	34.096	1014.3	356.72	372.75	344.08	359.54	
16 Feb	47.500	16.340	-104.673	1426.1	27.22	0.62	34.059	1014.5	355.65	358.35	342.58	345.18	
16 Feb	47.542	16.097	-104.713	1453.4	27.62	0.62	34.022	1014.8	354.28	356.50	341.08	343.21	
16 Feb	47.583	15.857	-104.748	1480.3	27.50	0.62	33.986	1015.8		362.91		349.83	
16 Feb	47.625	15.617	-104.792	1507.4	27.29	0.62	33.949	1016.4	354.54	363.83	342.13	351.09	
16 Feb	47.667	15.355	-104.857	1537.3	27.17	0.62	33.912	1017.0	354.02	365.00	341.91	352.52	
16 Feb	47.708	15.130	-104.887	1562.5	26.19	0.62	33.875	1016.5	354.94	355.62	343.30	343.97	
16 Feb	47.750	14.912	-104.903	1586.8	25.91	0.62	33.838	1016.0	356.64	355.67	344.96	344.03	
16 Feb	47.792	14.653	-104.913	1615.6	25.89	0.62	33.801	1014.9	354.29	351.83	342.32	339.95	
16 Feb	47.833	14.362	-104.932	1648.0	26.30	0.62	33.765	1014.0	354.52	350.37	341.96	337.96	
16 Feb	47.875	14.088	-104.993	1679.2	26.95	0.62	33.728	1013.2	353.76	354.58	340.50	341.28	
16 Feb	47.917	14.083	-105.000	1680.1	27.20	0.62	33.691	1012.2		355.97		342.10	
16 Feb	47.958	14.008	-104.987	1688.6	27.10	0.62	33.694	1012.3	353.35	352.69	339.69	339.05	
17 Feb	48.000	14.010	-104.987	1688.8	27.16	0.62	33.698	1012.2	353.97	354.85	340.21	341.05	
17 Feb	48.042	13.765	-104.988	1716.0	27.23	0.62	33.702	1012.5	353.82	355.03	340.12	341.28	
17 Feb	48.083	13.495	-104.987	1746.0	27.28	0.62	33.705	1012.7	353.49	354.48	339.83	340.79	
17 Feb	48.125	13.227	-104.992	1775.8	27.25	0.62	33.709	1013.8	353.57	353.71	340.31	340.44	
17 Feb	48.167	13.017	-105.010	1799.2	27.24	0.62	33.712	1014.1	353.76	351.75	340.60	338.67	
17 Feb	48.208	12.765	-105.012	1827.2	27.32	0.62	33.716	1014.5	353.27	359.50	340.22	346.22	
17 Feb	48.250	12.500	-104.995	1856.7	27.35	0.62	33.719	1014.0	353.58	363.79	340.32	350.15	
17 Feb	48.292	12.245	-105.007	1885.1	27.33	0.62	33.723	1013.8	353.14	360.13	339.84	346.57	
17 Feb	48.333	12.000	-105.000	1912.3	27.25	0.62	33.726	1013.3	353.82	357.76	340.38	344.17	
17 Feb	48.375	12.008	-105.000	1913.2	27.21	0.62	33.730	1012.9	353.35	356.94	339.82	343.27	
17 Feb	48.417	12.010	-105.000	1913.4	27.20	0.62	33.745	1012.1	353.02	363.74	339.23	349.53	
17 Feb	48.458	12.030	-104.998	1915.7	27.20	0.62	33.759	1012.6	353.03	364.45	339.42	350.39	
17 Feb	48.500	12.033	-104.998	1916.0	27.19	0.62	33.774	1012.2	353.29	364.73	339.53	350.53	
17 Feb	48.542	12.023	-104.997	1917.1	27.18	0.62	33.789	1012.1	355.65	365.78	341.77	351.50	
17 Feb	48.583	11.993	-105.000	1920.5	27.17	0.62	33.804	1013.9	352.79	364.72	339.66	351.14	
17 Feb	48.625	11.948	-105.027	1926.3	27.16	0.62	33.819	1015.1	353.54	372.24	340.80	358.83	
17 Feb	48.667	11.735	-105.170	1954.6	27.19	0.62	33.834	1015.8	353.30	365.38	340.79	352.44	
17 Feb	48.708	11.507	-105.290	1983.1	27.18	0.62	33.848	1015.1		367.49		354.23	
17 Feb	48.750	11.260	-105.372	2012.0	27.18	0.62	33.863	1014.9	353.43	365.35	340.61	352.10	

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17 Feb	48.792	11.010	-105.418	2040.2	27.11	0.62	33.878	1013.9		362.35		348.90	
17 Feb	48.833	10.755	-105.503	2070.0	27.40	0.62	33.893	1012.6	351.93	364.48	338.22	350.28	
17 Feb	48.875	10.497	-105.562	2099.4	27.50	0.62	33.908	1012.0	356.76	360.68	342.58	346.33	
17 Feb	48.917	10.500	-105.568	2100.1	27.52	0.62	33.923	1010.6	357.47	360.82	342.75	345.96	
17 Feb	48.958	10.495	-105.598	2103.4	27.55	0.62	33.937	1010.3		356.36		341.55	
18 Feb	49.000	10.493	-105.602	2103.9	27.53	0.62	33.952	1010.8	351.60	359.31	337.19	344.57	
18 Feb	49.042	10.502	-105.585	2106.0	27.50	0.62	33.980	1011.3	352.67	368.93	338.40	354.01	
18 Feb	49.083	10.448	-105.542	2113.7	27.44	0.62	34.006	1011.7	354.54	361.59	340.38	347.15	
18 Feb	49.125	10.195	-105.577	2142.0	27.63	0.62	34.034	1012.2	352.42	367.07	338.39	352.44	
18 Feb	49.167	9.967	-105.775	2175.4	27.72	0.62	34.061	1012.8	351.95	364.63	338.07	350.26	
18 Feb	49.208	9.728	-105.858	2203.4	27.58	0.62	34.088	1012.9	352.75	364.70	338.98	350.46	
18 Feb	49.250	9.490	-105.973	2232.7	27.24	0.62	34.116	1012.5	353.23	371.04	339.55	356.66	
18 Feb	49.292	9.252	-106.080	2261.7	26.36	0.62	34.143	1012.5	353.61	371.88	340.52	358.12	
18 Feb	49.333	9.013	-106.160	2289.6	26.28	0.62	34.170	1011.8	353.90	372.40	340.62	358.42	
18 Feb	49.375	8.770	-106.242	2318.1	26.16	0.62	34.198	1011.0	353.69	367.49	340.21	353.49	
18 Feb	49.417	8.532	-106.273	2344.8	26.05	0.62	34.225	1010.9	355.08	370.69	341.58	356.60	
18 Feb	49.458	8.292	-106.403	2375.0	25.74	0.63	34.252	1010.3	352.98	373.55	339.56	359.35	
18 Feb	49.500	8.050	-106.453	2402.5	25.67	0.63	34.279	1010.3	353.89	379.79	340.49	365.41	
18 Feb	49.542	8.027	-106.447	2405.1	25.67	0.63	34.307	1010.9		379.89		365.73	
18 Feb	49.583	8.028	-106.448	2405.3	25.67	0.63	34.307	1011.7	353.84	379.11	340.93	365.28	
18 Feb	49.625	7.972	-106.488	2412.9	25.69	0.63	34.307	1011.8		380.77		366.89	
18 Feb	49.667	7.992	-106.460	2416.7	25.69	0.63	34.307	1012.8	351.22	371.74	338.77	358.56	
18 Feb	49.708	7.998	-106.463	2417.4	25.72	0.63	34.307	1012.7		375.14		361.78	
18 Feb	49.750	8.003	-106.465	2418.0	25.78	0.63	34.308	1012.1					
18 Feb	49.792	7.998	-106.452	2419.6	25.84	0.62	34.309	1011.4	354.01		340.87		
18 Feb	49.833	8.002	-106.423	2422.8	25.88	0.62	34.310	1010.9					
18 Feb	49.875	8.005	-106.433	2423.9	25.90	0.62	34.311	1010.2	354.31		340.71		
18 Feb	49.917	8.010	-106.422	2425.3	25.95	0.62	34.312	1009.5	351.47		337.70		
18 Feb	49.958	8.018	-106.422	2426.2	25.95	0.62	34.313	1009.8	354.08		340.31		
19 Feb	50.000	8.015	-106.430	2427.1	25.96	0.62	34.314	1010.4					
19 Feb	50.042	8.002	-106.470	2431.7	25.93	0.62	34.315	1011.1					
19 Feb	50.083	7.998	-106.472	2432.2	25.90	0.62	34.316	1011.9	355.14		342.10		
19 Feb	50.125	7.998	-106.475	2432.6	25.87	0.62	34.301	1012.2	354.91		342.00		
19 Feb	50.167	8.000	-106.468	2433.4	25.84	0.62	34.285	1013.0	354.33		341.73		
19 Feb	50.208	7.798	-106.577	2458.8	25.92	0.62	34.270	1012.9	355.30		342.58		
19 Feb	50.250	7.588	-106.722	2487.1	26.03	0.62	34.255	1012.8	353.88		341.11		
19 Feb	50.292	7.373	-106.855	2515.1	26.09	0.62	34.240	1012.3	356.31		343.24		
19 Feb	50.333	7.158	-106.980	2542.7	25.82	0.62	34.225	1011.9	355.74		342.73		
19 Feb	50.375	6.940	-107.093	2569.9	25.91	0.62	34.209	1011.0	355.77		342.38		
19 Feb	50.417	6.720	-107.207	2597.4	25.93	0.62	34.194	1010.5	355.35	363.67	341.79	349.79	
19 Feb	50.458	6.508	-107.320	2624.1	25.81	0.62	34.179	1010.5	355.48	364.47	341.99	350.64	
19 Feb	50.500	6.302	-107.450	2651.1	25.65	0.63	34.163	1010.5	355.61	367.24	342.23	353.42	
19 Feb	50.542	6.135	-107.583	2674.8	25.46	0.63	34.148	1010.8	353.11	368.24	340.05	354.62	
19 Feb	50.583	6.023	-107.625	2688.0	25.41	0.63	34.133	1011.4	355.50	368.57	342.59	355.19	
19 Feb	50.625	6.032	-107.605	2690.5	25.37	0.63	34.130	1012.2	353.33	368.71	340.80	355.63	
19 Feb	50.667	5.868	-107.707	2711.9	25.33	0.63	34.127	1012.0	350.79	368.41	338.31	355.30	
19 Feb	50.708	5.670	-107.825	2737.5	25.41	0.63	34.124	1012.2	356.17	369.60	343.52	356.47	
19 Feb	50.750	5.472	-107.967	2764.5	25.41	0.63	34.121	1012.5	353.61	370.29	341.15	357.24	
19 Feb	50.792	5.292	-108.055	2786.8	25.60	0.63	34.118	1012.1	352.92	400.32	340.22	385.92	
19 Feb	50.833	5.095	-108.215	2814.9	25.64	0.63	34.115	1011.2	353.30	400.83	340.25	386.02	
19 Feb	50.875	4.892	-108.330	2840.8	25.76	0.63	34.112	1010.3	354.71	397.68	341.22	382.55	
19 Feb	50.917	4.683	-108.453	2867.7	25.98	0.62	34.109	1009.8	354.19	393.77	340.40	378.44	
19 Feb	50.958	4.493	-108.558	2891.8	26.03	0.62	34.106	1009.5	353.14	397.34	339.25	381.71	
20 Feb	51.000	4.300	-108.673	2916.8	26.04	0.62	34.103	1009.8	354.57	399.76	340.73	384.15	
20 Feb	51.042	4.300	-108.673	2916.8	25.94	0.62	34.100	1009.9	353.48	405.49	339.77	389.77	
20 Feb	51.083	4.030	-108.848	2952.5	25.91	0.62	34.097	1010.4	354.24	404.08	340.70	388.63	
20 Feb	51.125	4.015	-108.843	2954.3	25.90	0.62	34.089	1011.2	353.94	400.42	340.69	385.44	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
20 Feb	51.167	4.017	-108.822	2956.6	25.88	0.62	34.080	1011.8	353.61	397.08	340.60	382.47	
20 Feb	51.208	4.025	-108.843	2959.1	25.87	0.62	34.072	1012.0	354.33	395.42	341.37	380.95	
20 Feb	51.250	3.980	-108.773	2968.3	25.88	0.62	34.079	1012.0	354.14	393.16	341.18	378.77	
20 Feb	51.292	3.970	-108.750	2971.1	25.85	0.62	34.087	1012.4	353.94	390.28	341.14	376.18	
20 Feb	51.333	3.897	-108.915	2991.1	25.81	0.62	34.094	1011.8	354.56	392.83	341.56	378.43	
20 Feb	51.375	3.695	-109.047	3017.9	25.80	0.62	34.101	1011.2	354.74	397.47	341.53	382.67	
20 Feb	51.417	3.490	-109.178	3044.9	25.75	0.63	34.109	1010.9	354.44	404.09	341.18	388.97	
20 Feb	51.458	3.280	-109.307	3072.3	25.77	0.63	34.116	1010.6	353.51	414.18	340.16	398.54	
20 Feb	51.500	3.065	-109.418	3099.2	25.65	0.63	34.123	1011.0	353.85	410.38	340.71	395.14	
20 Feb	51.542	2.853	-109.597	3130.0	25.51	0.63	34.131	1011.2	354.63	430.43	341.62	414.64	
20 Feb	51.583	2.637	-109.703	3156.7	25.57	0.63	34.138	1011.6	353.38	433.10	340.51	417.33	
20 Feb	51.625	2.423	-109.832	3184.5	25.58	0.63	34.145	1012.5	353.74	438.96	341.17	423.35	
20 Feb	51.667	2.222	-109.983	3212.4	25.56	0.63	34.153	1013.0	354.61	430.15	342.19	415.08	
20 Feb	51.708	2.007	-110.127	3241.2	25.69	0.63	34.160	1013.1	353.16	395.62	340.74	381.71	
20 Feb	51.750	1.998	-110.100	3244.3	25.74	0.63	34.167	1012.9	354.09	395.43	341.54	381.41	
20 Feb	51.792	1.997	-110.127	3247.3	25.84	0.62	34.174	1012.0	354.28	399.99	341.34	385.39	
20 Feb	51.833	1.997	-110.100	3250.3	25.83	0.62	34.182	1011.3	353.54	402.59	340.40	387.62	
20 Feb	51.875	1.997	-110.112	3251.7	25.97	0.62	34.189	1010.8	353.31	408.87	339.91	393.36	
20 Feb	51.917	2.002	-110.148	3255.7	25.99	0.62	34.175	1010.5	353.00	410.65	339.49	394.94	
20 Feb	51.958	1.865	-110.145	3270.9	26.03	0.62	34.162	1010.0	353.46	418.03	339.73	401.79	
21 Feb	52.000	1.725	-110.142	3286.5	25.91	0.62	34.148	1009.5	355.05	417.84	341.16	401.50	
21 Feb	52.042	1.500	-110.097	3312.0	26.02	0.62	34.134	1010.1	354.99	416.69	341.24	400.56	
21 Feb	52.083	1.265	-110.065	3338.3	26.18	0.62	34.121	1010.2	355.10	406.17	341.28	390.36	
21 Feb	52.125	1.032	-110.008	3365.0	26.37	0.62	34.107	1011.1	353.63	384.34	340.05	369.57	
21 Feb	52.167	1.002	-109.998	3368.5	26.37	0.62	34.093	1011.9	354.15	378.03	340.83	363.81	
21 Feb	52.208	0.997	-110.013	3370.3	26.39	0.62	34.100	1012.9	354.91	379.00	341.89	365.10	
21 Feb	52.250	1.002	-110.020	3371.2	26.37	0.62	34.107	1012.9	351.98	379.58	339.08	365.67	
21 Feb	52.292	0.985	-110.020	3373.1	26.36	0.62	34.114	1012.5	353.31	379.49	340.23	365.44	
21 Feb	52.333	0.982	-110.023	3373.6	26.31	0.62	34.107	1011.5	354.15	378.11	340.73	363.78	
21 Feb	52.375	0.992	-110.012	3375.2	26.26	0.62	34.101	1011.0	353.37	379.58	339.83	365.04	
21 Feb	52.417	1.002	-110.002	3376.8	26.23	0.62	34.094	1010.2	353.01	379.03	339.24	364.24	
21 Feb	52.458	0.850	-110.015	3393.7	26.34	0.62	34.071	1010.0	353.54	370.92	339.60	356.29	
21 Feb	52.500	0.603	-110.002	3421.2	26.42	0.62	34.047	1010.1	353.62	365.22	339.66	350.80	
21 Feb	52.542	0.353	-109.988	3449.1	26.40	0.62	34.022	1010.5	351.45	364.91	337.72	350.66	
21 Feb	52.583	0.103	-109.988	3476.8	26.43	0.62	33.999	1010.8	352.20	364.20	338.53	350.06	
21 Feb	52.625	0.007	-109.995	3487.5	26.47	0.62	33.975	1011.8	351.57	361.43	338.24	347.72	
21 Feb	52.667	-0.010	-110.008	3489.9	26.49	0.62	33.963	1012.0	352.92	360.97	339.59	347.34	
21 Feb	52.708	-0.008	-110.015	3490.7	26.54	0.62	33.952	1012.7	353.31	360.66	340.18	347.25	
21 Feb	52.750	-0.010	-110.015	3490.9	26.58	0.62	33.941	1012.8	351.24	359.52	338.19	346.16	
21 Feb	52.792	-0.010	-110.017	3491.2	26.64	0.62	33.929	1012.5	353.18	361.31	339.91	347.74	
21 Feb	52.833	-0.012	-110.022	3491.8	26.75	0.62	33.949	1012.0	351.76	361.91	338.30	348.06	
21 Feb	52.875	-0.003	-109.995	3494.9	26.73	0.62	33.969	1011.4	352.78	364.16	339.08	350.03	
21 Feb	52.917	-0.182	-109.963	3515.1	26.61	0.62	33.989	1011.0	351.58	364.08	337.87	349.89	
21 Feb	52.958	-0.427	-110.000	3542.7	26.61	0.62	34.008	1010.0	350.28	363.11	336.29	348.61	
22 Feb	53.000	-0.670	-110.003	3569.7	26.59	0.62	34.028	1009.9	350.74	369.08	336.71	354.32	
22 Feb	53.042	-0.917	-110.000	3597.1	26.46	0.62	34.048	1010.1	352.14	373.39	338.21	358.62	
22 Feb	53.083	-1.012	-109.973	3608.1	26.71	0.62	34.068	1010.7	349.53	374.94	335.74	360.14	
22 Feb	53.125	-1.103	-109.967	3618.2	26.28	0.62	34.058	1011.0	352.74	379.16	339.22	364.62	
22 Feb	53.167	-1.302	-109.980	3640.4	25.75	0.63	34.049	1012.2	352.83	379.87	340.07	366.14	
22 Feb	53.208	-1.528	-109.993	3665.5	26.08	0.62	34.040	1012.8	352.59	380.90	339.83	367.12	
22 Feb	53.250	-1.748	-110.005	3690.0	25.85	0.62	34.030	1012.9	351.97	394.16	339.41	380.11	
22 Feb	53.292	-1.978	-109.990	3715.6	26.00	0.62	34.020	1012.2	351.72	389.08	338.84	374.83	
22 Feb	53.333	-1.992	-109.960	3719.3	26.00	0.62	34.011	1012.0	353.12	379.76	340.12	365.77	
22 Feb	53.375	-1.968	-109.940	3722.8	25.95	0.62	34.091	1011.1	351.37	377.33	338.15	363.14	
22 Feb	53.417	-2.107	-109.912	3738.5	25.94	0.62	34.170	1010.5	350.29	378.85	336.92	364.39	
22 Feb	53.458	-2.330	-109.918	3763.3	25.56	0.63	34.248	1010.8	352.93	385.13	339.81	370.81	
22 Feb	53.500	-2.552	-109.955	3788.3	25.56	0.63	34.328	1010.4	352.16	419.37	338.93	403.61	

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22 Feb	53.542	-2.777	-109.995	3813.7	25.35	0.63	34.408	1011.3	351.90	422.28	339.13	406.95	
22 Feb	53.583	-3.007	-110.025	3839.5	25.58	0.63	34.485	1012.0	352.53	478.98	339.83	461.72	
22 Feb	53.625	-3.228	-110.038	3864.1	25.66	0.63	34.565	1012.2	353.78	495.86	341.05	478.02	
22 Feb	53.667	-3.493	-110.045	3893.6	25.94	0.62	34.645	1013.0	349.95	470.44	337.45	453.64	
22 Feb	53.708	-3.733	-110.018	3920.4	26.20	0.62	34.723	1013.0	351.83	487.53	339.09	469.88	
22 Feb	53.750	-3.973	-110.080	3947.9	26.20	0.62	34.802	1013.0	350.58	496.57	337.88	478.59	
22 Feb	53.792	-4.003	-110.008	3956.6	26.23	0.62	34.882	1012.9	351.51	499.08	338.73	480.93	
22 Feb	53.833	-4.008	-110.000	3957.6	26.30	0.62	34.865	1011.5	351.32	499.56	338.02	480.64	
22 Feb	53.875	-4.012	-110.022	3960.1	26.47	0.62	34.847	1011.1	349.64	493.88	336.15	474.83	
22 Feb	53.917	-4.020	-110.017	3961.2	26.45	0.62	34.830	1010.2	353.65	496.21	339.70	476.65	
22 Feb	53.958	-4.027	-109.987	3964.6	26.47	0.62	34.840	1010.0	351.77	493.14	337.82	473.57	
23 Feb	54.000	-4.017	-109.987	3965.7	26.40	0.62	34.849	1010.1	351.49	484.56	337.63	465.45	
23 Feb	54.042	-4.178	-109.992	3983.6	26.37	0.62	34.859	1010.3	351.16	482.05	337.40	463.17	
23 Feb	54.083	-4.447	-110.032	4013.8	26.29	0.62	34.869	1011.1	351.42	471.35	337.98	453.33	
23 Feb	54.125	-4.705	-110.008	4042.6	26.25	0.62	34.879	1011.9	352.24	472.48	339.07	454.82	
23 Feb	54.167	-4.973	-110.002	4072.4	26.35	0.62	34.888	1013.2	351.22	474.51	338.47	457.29	
23 Feb	54.208	-4.973	-110.002	4072.4	26.36	0.62	34.898	1013.5	350.82	475.13	338.19	458.01	
23 Feb	54.250	-4.972	-110.000	4072.6	26.27	0.62	34.908	1013.5	350.90	474.70	338.32	457.69	
23 Feb	54.292	-4.972	-110.000	4072.6	26.25	0.62	34.918	1012.8	352.48	475.20	339.61	457.86	
23 Feb	54.333	-4.972	-109.992	4073.5	26.24	0.62	34.927	1012.0	351.41	476.11	338.32	458.37	
23 Feb	54.375	-5.018	-109.977	4078.9	26.17	0.62	34.937	1011.2	351.36	468.62	338.04	450.86	
23 Feb	54.417	-5.280	-109.995	4108.1	26.21	0.62	34.947	1010.9	351.56	464.96	338.11	447.16	
23 Feb	54.458	-5.537	-110.000	4136.6	26.02	0.62	34.956	1010.1	351.31	464.43	337.71	446.46	
23 Feb	54.500	-5.792	-109.995	4165.0	25.93	0.62	34.966	1010.1	350.19	462.14	336.70	444.33	
23 Feb	54.542	-6.000	-109.990	4188.1	25.94	0.62	34.976	1010.5	352.50	462.91	339.04	445.24	
23 Feb	54.583	-5.997	-109.988	4188.5	25.93	0.62	34.975	1011.0	351.80	462.74	338.55	445.32	
23 Feb	54.625	-6.117	-109.985	4201.8	25.98	0.62	34.973	1011.2	351.56	452.62	338.36	435.63	
23 Feb	54.667	-6.258	-109.672	4239.8	26.01	0.62	34.972	1012.5	351.01	454.76	338.26	438.23	
23 Feb	54.708	-6.417	-109.508	4265.1	25.98	0.62	34.971	1012.5	351.06	443.41	338.32	427.32	
23 Feb	54.750	-6.572	-109.327	4291.5	25.95	0.62	34.969	1012.5	350.73	445.42	338.03	429.28	
23 Feb	54.792	-6.690	-109.142	4315.7	25.96	0.62	34.968	1011.3	351.01	448.61	337.87	431.83	
23 Feb	54.833	-6.853	-108.952	4343.4	25.93	0.62	34.967	1011.0	352.52	451.84	339.24	434.83	
23 Feb	54.875	-6.993	-108.778	4368.2	25.91	0.62	34.965	1010.8		449.84		432.83	
23 Feb	54.917	-7.142	-108.607	4393.3	25.89	0.62	34.964	1010.0	352.54	458.36	338.95	440.68	
23 Feb	54.958	-7.290	-108.428	4418.9	25.87	0.62	34.963	1009.3	350.79	465.19	337.04	446.95	
24 Feb	55.000	-7.427	-108.258	4443.1	25.85	0.62	34.961	1009.5	351.92	467.33	338.21	449.12	
24 Feb	55.042	-7.562	-108.078	4467.9	25.82	0.62	34.960	1009.6	351.66	462.07	338.01	444.13	
24 Feb	55.083	-7.712	-107.867	4496.5	25.81	0.62	34.959	1010.0	350.56	460.83	337.10	443.13	
24 Feb	55.125	-7.878	-107.655	4526.3	25.78	0.62	34.957	1010.5	351.09	459.79	337.80	442.38	
24 Feb	55.167	-8.000	-107.500	4548.1	25.76	0.62	34.956	1011.1	352.82	457.95	339.68	440.90	
24 Feb	55.208	-7.985	-107.578	4556.8	25.73	0.62	34.970	1012.5	349.56	455.35	337.04	439.04	
24 Feb	55.250	-8.000	-107.500	4565.6	25.71	0.63	34.984	1012.8	350.80	454.46	338.36	438.34	
24 Feb	55.292	-8.000	-107.493	4566.3	25.73	0.63	34.998	1012.0	349.79	453.23	337.09	436.78	
24 Feb	55.333	-8.000	-107.495	4566.6	25.73	0.63	35.012	1012.0	350.59	453.68	337.87	437.21	
24 Feb	55.375	-8.015	-107.475	4569.3	25.71	0.63	35.301	1010.9	353.81	453.71	340.60	436.77	
24 Feb	55.417	-8.082	-107.397	4580.7	25.72	0.63	35.591	1010.2	351.51	445.24	338.14	428.30	
24 Feb	55.458	-8.280	-107.250	4608.0	25.69	0.63	35.591	1010.0	351.39	448.22	337.98	431.11	
24 Feb	55.500	-8.462	-107.090	4634.8	25.73	0.63	35.591	1010.9	350.96	443.97	337.84	427.38	
24 Feb	55.542	-8.600	-106.905	4660.3	25.71	0.63	35.591	1010.9	352.06	441.28	338.92	424.81	
24 Feb	55.583	-8.748	-106.708	4687.4	25.74	0.63	35.591	1012.0	351.34	439.43	338.58	423.48	
24 Feb	55.625	-8.892	-106.498	4715.5	25.78	0.63	35.591	1012.5	350.89	433.82	338.29	418.25	
24 Feb	55.667	-9.027	-106.320	4740.1	25.99	0.62	35.591	1013.0	352.98	435.40	340.34	419.81	
24 Feb	55.708	-9.177	-106.118	4767.9	26.09	0.62	35.592	1013.0	351.95	434.93	339.29	419.28	
24 Feb	55.750	-9.327	-105.910	4796.1	26.10	0.62	35.592	1013.1	351.02	436.50	338.41	420.83	
24 Feb	55.792	-9.467	-105.685	4825.3	26.14	0.62	35.592	1012.5	351.52	437.49	338.67	421.49	
24 Feb	55.833	-9.607	-105.512	4849.8	26.10	0.62	35.592	1011.9	350.31	432.97	337.32	416.92	
24 Feb	55.875	-9.758	-105.308	4877.7	26.04	0.62	35.592	1010.8	351.00	421.87	337.64	405.82	

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24 Feb	55.917	-9.905	-105.092	4906.5	26.10	0.62	35.592	1010.5	352.27	431.17	338.72	414.59	
24 Feb	55.958	-9.942	-105.110	4911.0	26.12	0.62	35.592	1011.2	352.28	431.95	338.96	415.62	
25 Feb	56.000	-10.002	-105.003	4924.5	26.13	0.62	35.592	1010.3	351.27	431.33	337.68	414.63	
25 Feb	56.042	-10.018	-104.997	4926.4	26.12	0.62	35.592	1010.7	350.18	430.74	336.77	414.24	
25 Feb	56.083	-10.180	-104.990	4944.4	26.13	0.62	35.592	1011.6	351.33	426.38	338.18	410.42	
25 Feb	56.125	-10.418	-104.993	4970.9	25.87	0.62	35.592	1012.0	351.13	413.49	338.30	398.38	
25 Feb	56.167	-10.657	-105.028	4997.7	25.64	0.63	35.592	1013.0	350.24	391.48	337.94	377.72	
25 Feb	56.208	-10.905	-105.025	5025.3	25.40	0.63	35.592	1013.5	350.26	391.45	338.27	378.06	
25 Feb	56.250	-11.157	-104.993	5053.5	25.32	0.63	35.592	1013.6	350.72	396.80	338.80	383.32	
25 Feb	56.292	-11.385	-104.988	5078.8	25.33	0.63	35.593	1012.9	351.88	393.00	339.68	379.37	
25 Feb	56.333	-11.633	-104.987	5106.4	25.30	0.63	35.593	1012.8	350.11	393.41	337.96	379.75	
25 Feb	56.375	-11.878	-104.997	5133.6	25.26	0.63	35.593	1012.0	351.82	398.38	339.35	384.26	
25 Feb	56.417	-12.005	-104.993	5147.8	25.27	0.63	35.593	1012.2	351.74	399.58	339.34	385.49	
25 Feb	56.458	-12.015	-104.978	5149.7	25.26	0.63	35.593	1012.6	350.91	398.43	338.69	384.55	
25 Feb	56.500	-12.020	-104.978	5150.3	25.26	0.63	35.593	1012.9	350.58	397.11	338.47	383.39	
25 Feb	56.542	-12.022	-104.975	5150.7	25.27	0.63	35.593	1013.7	352.34	397.10	340.44	383.69	
25 Feb	56.583	-12.032	-104.972	5151.8	25.26	0.63	35.627	1014.2	352.26	397.92	340.54	384.68	
25 Feb	56.625	-12.037	-104.975	5152.5	25.25	0.63	35.662	1015.1	352.56	399.45	341.14	386.52	
25 Feb	56.667	-12.157	-104.975	5165.8	25.28	0.63	35.697	1015.1	349.67	395.09	338.33	382.28	
25 Feb	56.708	-12.392	-104.992	5192.0	25.22	0.63	35.731	1015.1	349.22	398.40	337.93	385.52	
25 Feb	56.750	-12.643	-104.995	5219.9	25.23	0.63	35.766	1015.1	351.76	398.60	340.39	385.71	
25 Feb	56.792	-12.882	-105.002	5246.5	25.12	0.63	35.800	1014.5	352.64	384.94	341.10	372.35	
25 Feb	56.833	-13.120	-105.040	5273.2	25.09	0.63	35.834	1014.1	351.07	375.42	339.46	363.01	
25 Feb	56.875	-13.358	-105.023	5299.7	25.00	0.63	35.869	1013.5	351.73	375.42	339.95	362.85	
25 Feb	56.917	-13.610	-105.013	5327.8	25.03	0.63	35.904	1013.2	351.25	372.89	339.36	360.28	
25 Feb	56.958	-13.862	-104.998	5355.8	24.94	0.63	35.938	1013.1	350.17	374.20	338.34	361.56	
26 Feb	57.000	-14.000	-105.002	5371.1	25.00	0.63	35.973	1013.3	352.21	371.08	340.34	358.58	
26 Feb	57.042	-14.047	-105.018	5376.6	25.00	0.63	35.995	1013.3	351.25	371.03	339.42	358.53	
26 Feb	57.083	-14.278	-105.008	5402.3	24.88	0.63	36.017	1014.1	351.54	367.46	340.05	355.45	
26 Feb	57.125	-14.553	-105.005	5432.9	24.83	0.63	36.040	1014.9	351.40		340.22		
26 Feb	57.167	-14.803	-105.020	5460.7	24.83	0.63	36.062	1015.3	351.70		340.65		
26 Feb	57.208	-15.057	-105.010	5489.0	24.83	0.63	36.084	1015.4	349.95	379.94	338.99	368.04	
26 Feb	57.250	-15.295	-104.998	5515.4	24.79	0.63	36.106	1015.0	351.24	365.86	340.12	354.28	
26 Feb	57.292	-15.542	-104.993	5542.9	24.84	0.63	36.129	1015.6	350.47	367.74	339.56	356.29	
26 Feb	57.333	-15.788	-104.993	5570.2	24.82	0.63	36.151	1015.2	349.89		338.87		
26 Feb	57.375	-15.998	-104.997	5593.6	24.78	0.63	36.173	1014.8		367.30		355.62	
26 Feb	57.417	-16.002	-104.988	5594.6	24.76	0.63	36.175	1014.7	350.04	367.54	338.88	355.82	
26 Feb	57.458	-16.008	-104.993	5595.5	24.75	0.63	36.176	1014.6	351.36	365.78	340.13	354.09	
26 Feb	57.500	-16.020	-104.982	5597.3	24.74	0.63	36.177	1015.0	350.95	368.25	339.87	356.63	
26 Feb	57.542	-16.045	-104.942	5602.4	24.72	0.63	36.179	1015.1	352.54	368.35	341.46	356.78	
26 Feb	57.583	-16.017	-104.968	5606.5	24.72	0.63	36.181	1015.8	351.64	366.79	340.83	355.52	
26 Feb	57.625	-16.002	-104.950	5609.1	24.69	0.63	36.183	1016.5	351.51	367.37	340.97	356.35	
26 Feb	57.667	-16.220	-104.977	5633.5	24.37	0.63	36.185	1015.9	352.29	374.98	341.71	363.72	
26 Feb	57.708	-16.453	-104.990	5659.4	24.41	0.63	36.187	1016.2	350.40	374.02	339.96	362.87	
26 Feb	57.750	-16.693	-104.997	5686.1	24.44	0.63	36.189	1015.9	349.96	370.35	339.41	359.18	
26 Feb	57.792	-16.933	-105.000	5712.7	24.48	0.63	36.191	1015.0	351.22	371.17	340.30	359.63	
26 Feb	57.833	-17.183	-105.025	5740.7	24.39	0.63	36.193	1014.5	350.99	381.02	339.95	369.05	
26 Feb	57.875	-17.413	-105.010	5766.3	24.36	0.63	36.195	1014.0	351.05	378.80	339.87	366.73	
26 Feb	57.917	-17.643	-105.008	5791.8	24.41	0.63	36.197	1013.8		380.48		368.25	
26 Feb	57.958	-17.872	-105.008	5817.3	24.44	0.63	36.199	1014.0					
27 Feb	58.000	-18.018	-104.987	5833.6	24.46	0.63	36.201	1014.7					
27 Feb	58.042	-18.023	-104.992	5834.4	24.44	0.63	36.222	1014.9					
27 Feb	58.083	-18.232	-105.008	5857.7	24.40	0.63	36.243	1014.9					
27 Feb	58.125	-18.493	-104.983	5886.8	24.41	0.63	36.264	1015.7					
27 Feb	58.167	-18.750	-104.988	5915.4	24.44	0.63	36.285	1016.2					
27 Feb	58.208	-18.977	-105.065	5941.9	24.52	0.63	36.305	1017.2					
27 Feb	58.250	-19.225	-105.060	5969.4	24.60	0.63	36.326	1017.5					

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
27 Feb	58.292	-19.472	-105.038	5997.0	24.68	0.63	36.347	1016.8					
27 Feb	58.333	-19.713	-105.013	6023.9	24.85	0.63	36.368	1016.5					
27 Feb	58.375	-19.957	-105.002	6051.0	24.90	0.63	36.389	1015.9					
27 Feb	58.417	-20.007	-104.995	6056.6	24.83	0.63	36.410	1015.5					
27 Feb	58.458	-19.982	-104.988	6059.5	24.87	0.63	36.418	1015.8		392.66		380.49	
27 Feb	58.500	-19.963	-104.980	6061.8	24.90	0.63	36.426	1015.7					
27 Feb	58.542	-19.952	-104.968	6063.5	24.92	0.63	36.434	1016.0		379.83		368.10	
27 Feb	58.583	-19.940	-104.957	6065.3	24.92	0.63	36.435	1016.5					
27 Feb	58.625	-19.940	-104.935	6067.6	24.92	0.63	36.435	1016.7					
27 Feb	58.667	-19.992	-104.935	6073.4	24.86	0.63	36.436	1017.0		389.05		377.45	
27 Feb	58.708	-20.262	-104.952	6103.4	24.92	0.63	36.436	1017.5		385.78		374.43	
27 Feb	58.750	-20.487	-104.967	6128.5	25.04	0.63	36.437	1017.0	350.37	387.63	339.82	375.95	
27 Feb	58.792	-20.743	-104.980	6156.9	25.08	0.63	36.438	1016.6		386.20		374.39	
27 Feb	58.833	-20.980	-104.992	6183.3	25.09	0.63	36.438	1016.4	349.69	386.08	338.92	374.19	
27 Feb	58.875	-21.228	-105.003	6210.9	25.10	0.63	36.439	1015.8	350.91	389.43	339.89	377.20	
27 Feb	58.917	-21.472	-105.015	6238.0	25.31	0.63	36.439	1015.5	350.31	396.10	339.07	383.39	
27 Feb	58.958	-21.692	-105.010	6262.5	25.38	0.63	36.440	1015.0	351.47	395.09	339.98	382.17	
28 Feb	59.000	-21.955	-105.008	6291.7	25.35	0.63	36.440	1014.5	351.61	398.99	339.96	385.77	
28 Feb	59.042	-22.007	-105.010	6297.5	25.38	0.63	36.441	1015.0	350.69	395.43	339.22	382.50	
28 Feb	59.083	-22.080	-105.035	6306.0	25.39	0.63	36.441	1015.1	352.73	394.53	341.23	381.66	
28 Feb	59.125	-22.318	-105.000	6332.7	25.47	0.63	36.440	1016.1	349.89	397.52	338.77	384.89	
28 Feb	59.167	-22.567	-104.997	6360.4	25.45	0.63	36.440	1016.9	351.19	399.36	340.32	386.99	
28 Feb	59.208	-22.803	-105.033	6386.8	25.32	0.63	36.440	1017.2	352.76	397.61	342.03	385.51	
28 Feb	59.250	-23.053	-105.020	6414.7	25.39	0.63	36.439	1016.7	350.29	399.20	339.42	386.81	
28 Feb	59.292	-23.303	-105.013	6442.4	25.41	0.63	36.439	1016.3	350.82	398.64	339.78	386.09	
28 Feb	59.333	-23.538	-105.010	6468.6	25.57	0.63	36.439	1016.3	351.66	401.16	340.49	388.42	
28 Feb	59.375	-23.802	-105.003	6497.9	25.87	0.62	36.439	1015.8	351.40	402.80	339.87	389.59	
28 Feb	59.417	-24.045	-104.997	6524.9	25.89	0.62	36.438	1015.8	350.88	402.84	339.36	389.61	
28 Feb	59.458	-24.292	-104.990	6552.4	26.00	0.62	36.438	1016.2	350.21	399.97	338.78	386.91	
28 Feb	59.500	-24.537	-104.982	6579.6	26.10	0.62	36.438	1016.0	351.18	401.76	339.57	388.49	
28 Feb	59.542	-24.783	-104.985	6606.9	26.04	0.62	36.437	1016.8	351.79	404.86	340.48	391.85	
28 Feb	59.583	-24.995	-104.995	6630.5	26.09	0.62	36.437	1017.4	350.64	403.54	339.54	390.77	
28 Feb	59.625	-24.992	-104.990	6631.1	26.10	0.62	36.433	1018.2	348.46	402.25	337.70	389.83	
28 Feb	59.667	-24.980	-104.962	6634.2	26.13	0.62	36.429	1018.8	349.23	403.16	338.62	390.93	
28 Feb	59.708	-24.968	-104.968	6635.7	26.13	0.62	36.425	1018.9	349.96	405.41	339.37	393.15	
28 Feb	59.750	-24.962	-104.972	6636.5	26.03	0.62	36.421	1019.0	348.30		337.86		
28 Feb	59.792	-24.955	-104.950	6638.8	26.11	0.62	36.418	1018.6		403.79		391.46	
28 Feb	59.833	-24.953	-104.955	6639.4	26.05	0.62	36.415	1017.9					
28 Feb	59.875	-25.035	-105.105	6657.0	26.04	0.62	36.412	1017.3					
28 Feb	59.917	-25.127	-105.347	6683.4	26.10	0.62	36.409	1017.0		404.26		391.30	
28 Feb	59.958	-25.185	-105.392	6691.3	26.15	0.62	36.407	1017.2	351.63	406.03	340.39	393.05	
1 Mar	60.000	-25.197	-105.497	6702.0	26.11	0.62	36.404	1017.3	348.96	405.77	337.87	392.87	
1 Mar	60.042	-25.358	-105.708	6729.7	26.17	0.62	36.401	1017.9	348.41	406.27	337.50	393.54	
1 Mar	60.083	-25.485	-105.950	6757.8	26.37	0.62	36.398	1018.5	349.61	409.10	338.74	396.38	
1 Mar	60.125	-25.655	-106.182	6787.7	26.47	0.62	36.395	1018.9	350.16	410.06	339.34	397.39	
1 Mar	60.167	-25.678	-106.420	6811.7	26.39	0.62	36.392	1019.2	350.39	407.33	339.71	394.93	
1 Mar	60.208	-25.845	-106.703	6845.6	26.40	0.62	36.389	1019.3	350.39	408.16	339.75	395.76	
1 Mar	60.250	-25.940	-106.900	6867.9	26.47	0.62	36.386	1019.3	351.24	408.86	340.52	396.38	
1 Mar	60.292	-26.062	-107.142	6895.6	26.57	0.62	36.383	1019.0	350.06	410.02	339.21	397.31	
1 Mar	60.333	-26.183	-107.372	6922.2	26.56	0.62	36.380	1019.0	351.68	411.35	340.79	398.61	
1 Mar	60.375	-26.308	-107.620	6950.6	26.57	0.62	36.378	1018.5	350.73	413.62	339.68	400.60	
1 Mar	60.417	-26.437	-107.855	6978.0	26.61	0.62	36.375	1018.5	351.34	405.12	340.25	392.33	
1 Mar	60.458	-26.545	-108.083	7003.7	26.58	0.62	36.372	1018.5	351.37	402.12	340.30	389.45	
1 Mar	60.500	-26.692	-108.137	7020.9	26.54	0.62	36.369	1018.1	351.41	403.42	340.22	390.58	
1 Mar	60.542	-26.820	-108.502	7059.8	26.65	0.62	36.366	1019.9	349.82	406.07	339.23	393.77	
1 Mar	60.583	-26.945	-108.845	7096.5	26.75	0.62	36.363	1020.1	351.11	390.80	340.48	378.97	

RITS/CO_2 1989, Leg 2

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
5 Mar	64.042	-27.245	-109.067	0.0	26.29	0.62	36.122	1020.5		387.07		375.84	
5 Mar	64.083	-27.353	-108.845	25.0	26.18	0.62	36.119	1021.2	351.50	377.08	341.62	366.49	
5 Mar	64.125	-27.395	-108.572	52.3	26.24	0.62	36.117	1021.5	350.65	400.13	340.86	388.96	
5 Mar	64.167	-27.445	-108.305	79.2	26.25	0.62	36.114	1022.0	350.74	400.63	341.11	389.63	
5 Mar	64.208	-27.495	-108.047	105.3	26.07	0.62	36.111	1021.9	350.40	398.47	340.87	387.63	
5 Mar	64.250	-27.545	-107.782	132.0	26.11	0.62	36.108	1021.8	350.43	398.26	340.83	387.36	
5 Mar	64.292	-27.590	-107.525	157.8	25.96	0.62	36.105	1021.8	351.37		341.85		
5 Mar	64.333	-27.638	-107.265	183.9	25.73	0.63	36.102	1021.4	351.50	391.01	341.99	380.43	
5 Mar	64.375	-27.690	-107.003	210.4	25.51	0.63	36.099	1021.0	350.96	393.53	341.47	382.88	
5 Mar	64.417	-27.725	-106.738	236.7	25.31	0.63	36.096	1020.7	350.48	394.76	341.02	384.11	
5 Mar	64.458	-27.765	-106.478	262.7	25.24	0.63	36.093	1020.8	350.19	396.20	340.82	385.60	
5 Mar	64.500	-27.803	-106.222	288.2	25.48	0.63	36.090	1021.0	350.67	401.85	341.20	391.00	
5 Mar	64.542	-27.850	-105.965	314.0	25.58	0.63	36.088	1021.8	351.21	402.25	341.94	391.63	
5 Mar	64.583	-27.895	-105.703	340.2	25.66	0.63	36.085	1022.2	349.27	389.94	340.14	379.75	
5 Mar	64.625	-27.925	-105.440	366.2	25.59	0.63	36.082	1022.3	350.52	392.89	341.43	382.71	
5 Mar	64.667	-27.965	-105.178	392.3	25.53	0.63	36.079	1023.0	350.37	393.22	341.57	383.34	
5 Mar	64.708	-28.000	-105.012	409.1	25.54	0.63	36.076	1023.5	350.88	390.75	342.23	381.12	
5 Mar	64.750	-28.008	-105.008	410.1	25.53	0.63	36.085	1023.3	350.00	395.02	341.31	385.21	
5 Mar	64.792	-28.003	-104.975	413.3	25.55	0.63	36.094	1022.8		395.14		385.12	
5 Mar	64.833	-27.988	-105.018	417.9	25.62	0.63	36.103	1022.7	350.80	392.63	341.83	382.59	
5 Mar	64.875	-27.990	-105.007	419.0	25.63	0.63	36.112	1022.0	350.73	393.15	341.51	382.82	
5 Mar	64.917	-28.000	-104.997	420.5	25.61	0.63	36.091	1021.2	349.20	391.93	339.76	381.33	
5 Mar	64.958	-27.993	-104.967	423.5	25.58	0.63	36.071	1021.1	350.25	391.38	340.77	380.78	
6 Mar	65.000	-28.152	-104.950	441.3	25.22	0.63	36.051	1020.8	349.49	394.93	340.15	384.38	
6 Mar	65.042	-28.432	-104.992	472.6	25.00	0.63	36.030	1021.3	349.28	395.87	340.26	385.64	
6 Mar	65.083	-28.693	-104.997	501.6	24.84	0.63	36.010	1021.8	349.70	392.56	340.94	382.72	
6 Mar	65.125	-28.907	-104.963	525.7	24.81	0.63	35.990	1022.6	351.06	399.79	342.56	390.11	
6 Mar	65.167	-29.157	-105.012	553.8	24.64	0.63	35.969	1023.0	350.05	402.45	341.81	392.98	
6 Mar	65.208	-29.397	-105.025	580.5	24.70	0.63	35.949	1023.2	350.11	392.49	341.91	383.29	
6 Mar	65.250	-29.635	-105.008	607.0	24.61	0.63	35.929	1023.3	351.75	387.99	343.59	378.99	
6 Mar	65.292	-29.865	-104.995	632.6	24.66	0.63	35.908	1022.7	351.12	388.57	342.74	379.30	
6 Mar	65.333	-30.010	-104.972	648.9	24.75	0.63	35.888	1023.2	351.77	390.29	343.49	381.10	
6 Mar	65.375	-29.988	-105.005	652.9	24.74	0.63	35.823	1022.2	349.77	388.66	341.20	379.14	
6 Mar	65.417	-30.073	-104.982	662.6	24.81	0.63	35.759	1021.5	350.57	389.90	341.70	380.03	
6 Mar	65.458	-30.337	-104.973	691.9	24.66	0.63	35.696	1021.8	349.52	390.73	340.87	381.06	
6 Mar	65.500	-30.583	-104.975	719.3	24.34	0.63	35.631	1022.0	349.91	388.22	341.51	378.91	
6 Mar	65.542	-30.833	-104.977	747.1	24.23	0.63	35.566	1022.9		393.99		384.96	
6 Mar	65.583	-31.100	-104.985	776.7	24.18	0.63	35.503	1023.2					
6 Mar	65.625	-31.323	-104.977	801.5	24.41	0.63	35.438	1024.0					
6 Mar	65.667	-31.538	-104.983	825.4	24.04	0.63	35.374	1024.3		387.50		379.27	
6 Mar	65.708	-31.803	-104.995	854.9	23.61	0.63	35.311	1024.4	350.72	384.89	343.55	377.03	
6 Mar	65.750	-31.998	-105.007	876.6	23.61	0.63	35.246	1024.2	350.45	382.64	343.22	374.75	
6 Mar	65.792	-32.022	-105.010	879.3	23.64	0.63	35.236	1024.1	349.45	382.08	342.20	374.15	
6 Mar	65.833	-31.958	-105.003	886.4	23.67	0.63	35.226	1023.5	350.32	384.01	342.82	375.79	
6 Mar	65.875	-31.987	-104.985	890.1	23.71	0.63	35.216	1022.5	350.23	383.81	342.36	375.19	
6 Mar	65.917	-31.985	-104.993	890.8	23.71	0.63	35.210	1021.9	349.68	385.96	341.62	377.07	
6 Mar	65.958	-31.982	-104.952	894.7	23.69	0.63	35.204	1021.2	349.16	386.15	340.89	377.00	
7 Mar	66.000	-31.980	-104.938	896.1	23.68	0.63	35.198	1021.1	350.49	384.20	342.15	375.07	
7 Mar	66.042	-31.982	-104.927	897.1	23.65	0.63	35.193	1021.5	349.28	382.50	341.13	373.58	
7 Mar	66.083	-31.958	-104.920	899.9	23.60	0.63	35.187	1021.8	349.37	383.30	341.35	374.50	
7 Mar	66.125	-31.988	-104.917	903.2	23.58	0.63	35.136	1022.2	349.58	383.66	341.70	375.02	
7 Mar	66.167	-31.990	-104.905	904.4	23.55	0.63	35.084	1023.0	349.77	382.49	342.18	374.19	
7 Mar	66.208	-32.140	-104.898	921.1	23.43	0.63	35.034	1023.0	349.79	385.36	342.26	377.08	
7 Mar	66.250	-32.380	-104.947	948.1	22.99	0.63	34.983	1023.2		391.52		383.45	
7 Mar	66.292	-32.615	-104.983	974.4	22.89	0.63	34.932	1023.1		390.39		382.37	
7 Mar	66.333	-32.849	-104.986	1000.4	22.95	0.63	34.882	1022.7	350.57	390.36	343.20	382.15	
7 Mar	66.375	-33.088	-104.990	1027.0	22.81	0.63	34.830	1022.3	350.72	391.44	343.29	383.14	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
7 Mar	66.417	-33.322	-104.992	1053.0	22.54	0.63	34.779	1021.8	350.14	387.55	342.70	379.31	
7 Mar	66.458	-33.557	-105.005	1079.2	22.25	0.64	34.729	1021.8	350.02	384.52	342.74	376.52	
7 Mar	66.500	-33.793	-105.008	1105.4	22.21	0.64	34.677	1021.8	350.58	384.83	343.31	376.85	
7 Mar	66.542	-33.998	-104.998	1128.2	22.19	0.64	34.626	1022.5	350.51	384.67	343.49	376.97	
7 Mar	66.583	-33.995	-104.987	1129.2	22.18	0.64	34.576	1023.2	350.81	382.88	344.03	375.48	
7 Mar	66.625	-33.978	-104.997	1131.3	22.12	0.64	34.547	1023.3	350.15	385.66	343.45	378.28	
7 Mar	66.667	-34.260	-104.988	1162.7	22.22	0.64	34.519	1023.8	349.84	384.11	343.26	376.89	
7 Mar	66.708	-34.508	-104.990	1190.3	22.21	0.64	34.491	1024.0		385.48		378.32	
7 Mar	66.750	-34.770	-105.002	1219.4	21.93	0.64	34.462	1023.5	349.04	384.96	342.52	377.77	
7 Mar	66.792	-35.022	-105.003	1247.4	21.72	0.64	34.434	1023.8	350.27	381.59	343.95	374.70	
7 Mar	66.833	-35.267	-105.002	1274.6	21.66	0.64	34.406	1023.5	350.29	380.40	343.89	373.46	
7 Mar	66.875	-35.510	-105.022	1301.7	21.53	0.64	34.377	1023.2	350.36	378.20	343.93	371.26	
7 Mar	66.917	-35.768	-105.008	1330.4	21.51	0.64	34.349	1022.9	351.00	379.33	344.46	372.27	
7 Mar	66.958	-36.000	-105.000	1356.2	21.33	0.64	34.321	1022.5	351.20	381.63	344.61	374.47	
8 Mar	67.000	-35.998	-105.025	1358.4	21.34	0.64	34.316	1022.1	350.44	381.49	343.73	374.18	
8 Mar	67.042	-35.983	-105.040	1360.6	21.30	0.64	34.311	1022.5	350.93	381.21	344.36	374.08	
8 Mar	67.083	-35.987	-105.008	1363.5	21.27	0.64	34.306	1022.3	349.76	380.92	343.16	373.73	
8 Mar	67.125	-35.987	-105.002	1364.0	21.22	0.64	34.301	1023.0	349.25	380.45	342.93	373.56	
8 Mar	67.167	-35.963	-105.042	1368.5	21.19	0.64	34.277	1023.2	350.64	381.43	344.38	374.61	
8 Mar	67.208	-35.953	-105.020	1370.8	21.18	0.64	34.253	1023.3	351.20	381.31	344.97	374.54	
8 Mar	67.250	-36.020	-105.018	1378.2	21.16	0.64	34.229	1023.3	349.17	378.28	342.99	371.58	
8 Mar	67.292	-36.268	-105.018	1405.8	21.15	0.64	34.205	1022.9	350.01	381.00	343.68	374.10	
8 Mar	67.333	-36.535	-105.012	1435.4	20.97	0.64	34.182	1022.8	350.56	380.07	344.27	373.25	
8 Mar	67.375	-36.792	-105.003	1464.0	20.01	0.64	34.157	1022.1	350.48	380.33	344.42	373.75	
8 Mar	67.417	-37.042	-105.002	1491.8	19.39	0.64	34.133	1021.5	350.05	384.97	344.08	378.41	
8 Mar	67.458	-37.292	-105.007	1519.6	19.30	0.64	34.110	1021.0	349.78	386.08	343.68	379.36	
8 Mar	67.500	-37.547	-105.015	1547.9	18.99	0.64	34.086	1020.8	350.07	390.18	344.04	383.46	
8 Mar	67.542	-37.805	-105.017	1576.6	18.89	0.64	34.062	1020.8	350.20	386.99	344.21	380.38	
8 Mar	67.583	-38.005	-104.993	1598.9	18.81	0.65	34.038	1020.5	351.29	387.47	345.22	380.77	
8 Mar	67.625	-38.005	-104.993	1598.9	18.81	0.65	34.014	1020.5		387.31		380.61	
8 Mar	67.667	-38.003	-104.992	1599.1	18.85	0.64	34.014	1020.2	351.46	386.86	345.27	380.04	
8 Mar	67.708	-38.132	-104.993	1613.5	18.83	0.64	34.015	1020.1	350.82	388.90	344.61	382.02	
8 Mar	67.750	-38.377	-105.010	1640.7	18.75	0.65	34.015	1020.0	350.48	387.23	344.28	380.38	
8 Mar	67.792	-38.655	-104.975	1671.8	18.45	0.65	34.016	1019.3		391.70		384.65	
8 Mar	67.833	-38.908	-105.002	1700.0	18.74	0.65	34.016	1018.6	349.91	388.92	343.24	381.51	
8 Mar	67.875	-39.163	-105.012	1728.3	18.71	0.65	34.016	1017.5	349.23	387.92	342.21	380.12	
8 Mar	67.917	-39.402	-104.982	1755.0	18.28	0.65	34.017	1016.5	350.91	386.18	343.70	378.25	
8 Mar	67.958	-39.638	-104.998	1781.3	17.78	0.65	34.017	1015.2	349.74	384.37	342.32	376.22	
9 Mar	68.000	-39.888	-105.012	1809.1	17.22	0.65	34.018	1014.8	349.99	382.85	342.66	374.83	
9 Mar	68.042	-39.993	-105.000	1820.8	17.04	0.65	34.018	1014.0	349.65	379.87	342.13	371.69	
9 Mar	68.083	-39.985	-105.002	1821.7	17.04	0.65	34.018	1014.2	349.88	379.31	342.42	371.23	
9 Mar	68.125	-39.997	-105.042	1825.4	17.02	0.65	34.019	1014.9	350.90	377.20	343.67	369.42	
9 Mar	68.167	-40.002	-105.060	1827.0	16.97	0.65	34.020	1015.0	350.38	377.73	343.21	370.00	
9 Mar	68.208	-40.022	-105.055	1829.3	16.91	0.65	34.020	1014.5	349.41	375.21	342.11	367.38	
9 Mar	68.250	-40.033	-105.062	1830.6	16.88	0.65	34.021	1014.6	349.70	374.64	342.44	366.86	
9 Mar	68.292	-40.038	-105.070	1831.5	16.86	0.65	34.021	1014.5	349.78	374.48	342.49	366.68	
9 Mar	68.333	-40.090	-105.065	1837.3	16.85	0.65	34.022	1014.1	348.75	373.16	341.36	365.24	
9 Mar	68.375	-40.255	-105.105	1855.9	16.74	0.65	34.022	1013.5	350.00	372.83	342.41	364.75	
9 Mar	68.417	-40.450	-105.092	1877.6	16.39	0.65	34.023	1013.2	350.65	372.46	343.09	364.42	
9 Mar	68.458	-40.658	-105.055	1901.0	16.19	0.65	34.024	1013.0	350.19	373.37	342.65	365.32	
9 Mar	68.500	-40.858	-105.017	1923.4	16.15	0.65	34.024	1012.8	350.31	373.75	342.70	365.64	
9 Mar	68.542	-41.048	-105.005	1944.6	16.05	0.65	34.025	1013.8	348.83	371.91	341.64	364.25	
9 Mar	68.583	-41.210	-105.022	1962.6	15.97	0.65	34.026	1015.5	349.90	371.94	343.30	364.92	
9 Mar	68.625	-41.335	-105.008	1976.6	15.97	0.65	34.026	1016.5	350.13	370.12	343.87	363.50	
9 Mar	68.667	-41.365	-105.045	1981.1	15.89	0.65	34.027	1016.6	348.66	367.95	342.49	361.44	
9 Mar	68.708	-41.447	-105.045	1990.2	15.62	0.65	34.027	1017.5	348.58	366.13	342.82	360.08	
9 Mar	68.750	-41.542	-105.048	2000.8	15.43	0.65	34.028	1019.5	349.52	363.33	344.49	358.11	

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9 Mar	68.792	-41.687	-105.063	2016.9	15.32	0.66	34.029	1020.6	350.18	362.26	345.56	357.48	
9 Mar	68.833	-41.897	-105.030	2040.4	15.02	0.66	34.029	1020.9	350.16	363.51	345.75	358.94	
9 Mar	68.875	-42.042	-104.997	2056.8	14.68	0.66	34.030	1021.2	348.55	363.54	344.39	359.19	
9 Mar	68.917	-42.200	-104.978	2074.4	14.83	0.66	34.031	1021.2	348.57	362.18	344.35	357.80	
9 Mar	68.958	-42.307	-105.002	2086.4	15.13	0.66	34.031	1022.1	348.94	359.80	344.92	355.66	
10 Mar	69.000	-42.465	-104.997	2104.0	15.33	0.66	34.032	1023.0	349.70	359.57	345.91	355.68	
10 Mar	69.042	-42.648	-104.968	2124.5	15.13	0.66	34.032	1024.0	349.86	358.82	346.48	355.35	
10 Mar	69.083	-42.723	-104.967	2132.8	14.84	0.66	34.033	1024.1	349.87	358.94	346.63	355.61	
10 Mar	69.125	-42.918	-104.950	2154.5	14.68	0.66	34.034	1025.1	350.39	357.38	347.55	354.47	
10 Mar	69.167	-43.087	-104.957	2173.3	14.55	0.66	34.034	1025.0	350.36	356.72	347.53	353.83	
10 Mar	69.208	-43.253	-104.968	2191.8	14.14	0.66	34.035	1025.1	349.11	357.22	346.46	354.51	
10 Mar	69.250	-43.432	-104.972	2211.7	13.85	0.66	34.036	1025.3	350.29	357.54	347.79	355.00	
10 Mar	69.292	-43.613	-104.975	2231.8	13.39	0.66	34.036	1025.4	349.52	357.10	347.22	354.74	
10 Mar	69.333	-43.787	-104.985	2251.1	13.33	0.66	34.037	1025.1	349.29	358.69	346.90	356.24	
10 Mar	69.375	-44.007	-104.995	2275.6	13.43	0.66	34.037	1024.7	349.90	360.13	347.34	357.49	
10 Mar	69.417	-44.013	-105.000	2276.4	13.50	0.66	34.038	1024.5	349.57	359.55	346.92	356.83	
10 Mar	69.458	-44.038	-105.010	2279.3	13.50	0.66	34.038	1024.7	349.85	359.49	347.26	356.83	
10 Mar	69.500	-44.025	-105.017	2280.8	13.50	0.66	34.039	1023.8	349.63	360.42	346.74	357.44	
10 Mar	69.542	-44.028	-105.033	2282.1	13.50	0.66	34.039	1023.6	350.50	359.10	347.53	356.06	
10 Mar	69.583	-44.022	-105.042	2283.1	13.49	0.66	34.046	1023.2	349.17	358.16	346.08	354.99	
10 Mar	69.625	-44.020	-105.047	2283.6	13.50	0.66	34.052	1023.0		359.86		356.61	
10 Mar	69.667	-44.123	-105.037	2295.0	13.53	0.66	34.059	1022.2	348.52	359.38	345.08	355.84	
10 Mar	69.708	-44.367	-105.027	2322.2	13.26	0.66	34.065	1021.8	350.55	359.88	347.05	356.28	
10 Mar	69.750	-44.613	-105.032	2349.5	12.63	0.66	34.072	1020.8	350.01	358.24	346.36	354.51	
10 Mar	69.792	-44.860	-105.030	2377.0	12.42	0.66	34.079	1019.5	350.12	360.13	346.09	355.99	
10 Mar	69.833	-45.103	-105.055	2404.0	12.31	0.66	34.085	1018.4	349.40	358.85	345.03	354.37	
10 Mar	69.875	-45.325	-105.035	2428.7	11.71	0.67	34.092	1017.1	348.95	358.51	344.32	353.76	
10 Mar	69.917	-45.588	-104.997	2458.1	11.73	0.67	34.099	1016.2	349.70	356.69	344.75	351.64	
10 Mar	69.958	-45.853	-104.973	2487.6	11.84	0.67	34.105	1015.0	350.52	363.18	345.11	357.58	
11 Mar	70.000	-46.015	-104.995	2505.7	11.84	0.67	34.112	1013.8	349.25	361.19	343.45	355.19	
11 Mar	70.042	-46.055	-104.995	2510.2	11.83	0.67	34.117	1012.8	349.03	360.69	342.89	354.35	
11 Mar	70.083	-46.020	-105.057	2516.3	11.85	0.66	34.121	1012.3	349.91	362.67	343.58	356.11	
11 Mar	70.125	-46.187	-105.040	2534.9	11.80	0.67	34.126	1012.0		361.21		354.58	
11 Mar	70.167	-46.432	-105.037	2562.1	11.69	0.67	34.131	1010.0	349.24	360.35	342.18	353.08	
11 Mar	70.208	-46.652	-105.037	2586.6	11.58	0.67	34.136	1009.1	350.09	360.67	342.74	353.10	
11 Mar	70.250	-46.888	-105.023	2612.8	11.34	0.67	34.140	1007.8	350.62	359.25	342.88	351.32	
11 Mar	70.292	-47.170	-105.002	2644.2	10.88	0.67	34.145	1006.8	350.34	355.69	342.39	347.62	
11 Mar	70.333	-47.415	-104.990	2671.5	10.61	0.67	34.150	1005.2	349.72	353.68	341.31	345.18	
11 Mar	70.375	-47.642	-105.008	2696.7	10.42	0.67	34.155	1004.7	349.78	352.02	341.25	343.44	
11 Mar	70.417	-47.873	-105.002	2722.4	10.35	0.67	34.159	1004.0	349.59	351.54	340.85	342.75	
11 Mar	70.458	-48.003	-105.002	2736.8	10.22	0.67	34.164	1004.0	349.85	351.29	341.13	342.54	
11 Mar	70.500	-48.015	-105.012	2738.4	10.11	0.67	34.166	1003.9	349.90	352.14	341.17	343.36	
11 Mar	70.542	-48.027	-105.027	2740.1	10.12	0.67	34.167	1004.0	350.72	349.66	342.01	340.97	
11 Mar	70.583	-48.038	-105.038	2741.6	10.09	0.67	34.169	1004.4	348.82	349.21	340.30	340.69	
11 Mar	70.625	-48.045	-105.047	2742.6	10.10	0.67	34.169	1004.2	350.39	350.38	341.77	341.75	
11 Mar	70.667	-48.055	-105.057	2743.9	10.16	0.67	34.169	1004.5	349.59	348.70	341.07	340.20	
11 Mar	70.708	-48.065	-105.077	2745.8	10.18	0.67	34.169	1004.5	349.10	347.76	340.58	339.28	
11 Mar	70.750	-48.060	-105.080	2746.4	10.21	0.67	34.169	1004.3	349.85	349.24	341.24	340.65	
11 Mar	70.792	-48.077	-105.088	2748.4	10.25	0.67	34.169	1004.1	349.88	348.44	341.19	339.79	
11 Mar	70.833	-48.085	-105.095	2749.4	10.28	0.67	34.172	1003.9		351.26		342.46	
11 Mar	70.875	-48.095	-105.102	2750.6	10.32	0.67	34.175	1004.0	348.80	351.66	340.09	342.87	
11 Mar	70.917	-48.185	-105.110	2760.6	10.12	0.67	34.179	1003.5		349.17		340.33	
11 Mar	70.958	-48.463	-105.070	2791.7	10.04	0.67	34.182	1003.0	349.87	347.37	340.85	338.42	
12 Mar	71.000	-48.718	-105.082	2820.0	10.12	0.67	34.185	1003.0	351.18	347.34	342.12	338.38	
12 Mar	71.042	-49.003	-105.093	2851.7	10.16	0.67	34.188	1003.1	350.20	348.86	341.19	339.88	
12 Mar	71.083	-49.223	-105.023	2876.7	9.60	0.67	34.191	1004.0	348.92	346.41	340.39	337.94	
12 Mar	71.125	-49.467	-105.035	2903.8	9.19	0.67	34.194	1005.0	349.27	344.69	341.18	336.70	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 Mar	71.167	-49.720	-105.037	2931.9	9.19	0.67	34.198	1006.1	350.73	343.35	342.98	335.76	
12 Mar	71.208	-49.957	-104.997	2958.4	9.25	0.67	34.201	1007.0	349.45	341.56	342.02	334.30	
12 Mar	71.250	-50.028	-104.967	2966.6	9.26	0.67	34.204	1008.1	350.97	342.17	343.88	335.26	
12 Mar	71.292	-50.048	-104.967	2968.8	9.26	0.67	34.208	1008.8	348.95	341.91	342.14	335.24	
12 Mar	71.333	-50.138	-105.003	2979.1	9.08	0.67	34.212	1009.1	349.37	342.17	342.70	335.64	
12 Mar	71.375	-50.347	-105.058	3002.7	9.15	0.67	34.216	1009.3	348.98	340.54	342.37	334.09	
12 Mar	71.417	-50.608	-105.013	3031.9	9.32	0.67	34.220	1009.9	349.32	341.83	342.87	335.51	
12 Mar	71.458	-50.862	-105.010	3060.1	8.99	0.67	34.224	1009.8	349.47	341.30	343.06	335.05	
12 Mar	71.500	-51.113	-105.012	3088.0	8.52	0.67	34.229	1010.0	349.82	339.68	343.59	333.63	
12 Mar	71.542	-51.365	-104.997	3116.0	8.36	0.68	34.233	1010.2	349.04	340.29	342.93	334.33	
12 Mar	71.583	-51.618	-105.000	3144.1	8.28	0.68	34.237	1010.0	349.67	337.46	343.49	331.50	
12 Mar	71.625	-51.852	-105.018	3170.1	8.30	0.68	34.241	1010.9	349.54	338.66	343.67	332.97	
12 Mar	71.667	-52.025	-105.045	3189.4	8.38	0.67	34.245	1011.2	348.96	339.37	343.18	333.75	
12 Mar	71.708	-52.030	-105.068	3191.1	8.39	0.67	34.245	1011.1	349.64	338.67	343.82	333.02	
12 Mar	71.750	-52.035	-105.068	3191.7	8.40	0.67	34.245	1011.1		338.76		333.11	
12 Mar	71.792	-52.043	-105.013	3195.5	8.41	0.67	34.245	1010.6	349.64	338.43	343.64	332.63	
12 Mar	71.833	-52.062	-105.022	3197.7	8.43	0.67	34.245	1010.4	349.25	339.19	343.18	333.30	
12 Mar	71.875	-52.015	-105.030	3203.0	8.48	0.67	34.245	1009.9	348.56	339.36	342.32	333.29	
12 Mar	71.917	-52.045	-105.028	3206.3	8.53	0.67	34.226	1009.5	349.67	340.18	343.26	333.95	
12 Mar	71.958	-52.038	-105.038	3207.4	8.55	0.67	34.207	1009.3	349.47	342.58	343.00	336.23	
13 Mar	72.000	-52.155	-105.028	3220.4	8.36	0.67	34.188	1008.9	350.26	341.18	343.68	334.77	
13 Mar	72.042	-52.395	-105.057	3247.1	8.29	0.68	34.170	1008.4	349.49	340.35	342.77	333.80	
13 Mar	72.083	-52.622	-105.017	3272.5	8.09	0.68	34.151	1008.0	349.57	339.26	342.76	332.65	
13 Mar	72.125	-52.932	-105.010	3306.9	8.11	0.68	34.132	1008.0	350.53	339.73	343.69	333.10	
13 Mar	72.167	-53.188	-105.005	3335.4	8.10	0.68	34.113	1008.0	350.37	338.20	343.54	331.60	
13 Mar	72.208	-53.340	-105.010	3352.3	7.90	0.68	34.094	1007.3	350.24	339.45	343.21	332.65	
13 Mar	72.250	-53.578	-104.993	3378.8	7.64	0.68	34.076	1007.5	349.76	341.07	342.87	334.36	
13 Mar	72.292	-53.830	-104.995	3406.8	7.37	0.68	34.057	1007.3	350.81	343.10	343.89	336.34	
13 Mar	72.333	-53.993	-105.002	3424.9	7.41	0.68	34.038	1007.0	349.73	343.97	342.72	337.08	
13 Mar	72.375	-54.082	-104.990	3434.8	7.41	0.68	34.019	1007.1	348.82	344.21	341.87	337.35	
13 Mar	72.417	-54.095	-104.990	3436.2	7.39	0.68	34.036	1007.0	350.20	343.55	343.19	336.67	
13 Mar	72.458	-54.260	-105.008	3454.6	7.41	0.68	34.053	1007.0	349.47	346.05	342.47	339.12	
13 Mar	72.500	-54.455	-105.043	3476.4	7.38	0.68	34.070	1007.0	350.91	347.87	343.89	340.91	
13 Mar	72.542	-54.680	-105.038	3501.4	7.41	0.68	34.087	1007.2		349.86		342.92	
13 Mar	72.583	-54.903	-105.035	3526.2	7.45	0.68	34.103	1007.9	349.88	343.38	343.17	336.79	
13 Mar	72.625	-55.058	-105.087	3543.7	7.47	0.68	34.121	1009.3	349.80	341.61	343.57	335.52	
13 Mar	72.667	-55.168	-105.093	3555.9	7.50	0.68	34.138	1008.8	350.77	340.43	344.34	334.19	
13 Mar	72.708	-55.470	-105.033	3589.7	7.46	0.68	34.154	1009.0	350.85	340.48	344.50	334.32	
13 Mar	72.750	-55.747	-104.970	3620.8	7.13	0.68	34.171	1008.8	350.12	341.39	343.78	335.21	
13 Mar	72.792	-55.988	-105.005	3647.6	6.89	0.68	34.188	1008.8					
13 Mar	72.833	-56.010	-105.027	3650.4	6.93	0.68	34.205	1008.7		345.66		339.42	
13 Mar	72.875	-56.022	-105.050	3652.4	6.90	0.68	34.202	1008.4	350.05	346.35	343.62	340.00	
13 Mar	72.917	-56.047	-105.020	3655.7	6.92	0.68	34.199	1008.4	350.16	345.61	343.73	339.26	
13 Mar	72.958	-56.078	-105.110	3662.3	6.85	0.68	34.196	1007.7	349.46	345.70	342.82	339.13	
14 Mar	73.000	-56.100	-105.127	3664.9	6.81	0.68	34.193	1007.1	349.59	346.13	342.75	339.36	
14 Mar	73.042	-56.115	-105.143	3666.9	6.80	0.68	34.189	1005.8	350.58	348.88	343.27	341.61	
14 Mar	73.083	-56.113	-105.145	3667.1	6.79	0.68	34.185	1005.0	349.01	357.84	341.47	350.10	
14 Mar	73.125	-56.105	-105.175	3669.2	6.79	0.68	34.182	1005.5	349.74	360.01	342.36	352.41	
14 Mar	73.167	-56.182	-105.187	3677.8	6.81	0.68	34.178	1005.0	350.03	350.81	342.46	343.23	
14 Mar	73.208	-56.260	-105.152	3686.7	6.77	0.68	34.174	1005.5	349.17	344.69	341.80	337.41	
14 Mar	73.250	-56.427	-105.130	3705.3	6.62	0.68	34.170	1005.0	348.97	345.35	341.46	337.92	
14 Mar	73.292	-56.712	-105.123	3737.0	5.81	0.68	34.166	1004.8	350.91		343.46		
14 Mar	73.333	-56.960	-105.068	3764.8	5.77	0.68	34.163	1003.5	351.15	339.82	343.25	332.18	
14 Mar	73.375	-57.195	-105.093	3790.9	5.79	0.68	34.159	1003.0	350.24	341.01	342.19	333.17	
14 Mar	73.417	-57.428	-105.110	3816.8	6.05	0.68	34.155	1002.6	350.35	347.45	342.10	339.28	
14 Mar	73.458	-57.663	-105.102	3842.9	6.08	0.68	34.151	1001.2	350.81	347.03	342.07	338.39	
14 Mar	73.500	-57.905	-105.070	3869.9	5.76	0.68	34.147	1000.9	350.52	347.21	341.75	338.53	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
14 Mar	73.542	-58.127	-105.048	3894.6	6.05	0.68	34.144	1000.0	349.25	347.19	340.15	338.14	
14 Mar	73.583	-58.357	-105.010	3920.3	5.80	0.68	34.140	998.5	349.69	347.79	340.11	338.26	
14 Mar	73.625	-58.548	-104.997	3941.5	5.16	0.68	34.136	996.5	351.31	347.70	341.12	337.61	
14 Mar	73.667	-58.790	-104.978	3968.4	5.15	0.68	34.132	993.7	349.26	345.73	338.18	334.75	
14 Mar	73.708	-59.027	-104.970	3994.7	5.03	0.68	34.128	992.5	348.48	343.88	337.03	332.59	
14 Mar	73.750	-59.255	-104.980	4020.1	5.00	0.68	34.125	990.5	349.98	344.51	337.80	332.52	
14 Mar	73.792	-59.442	-104.980	4040.9	4.73	0.69	34.121	987.8	349.83	344.75	336.78	331.90	
14 Mar	73.833	-59.670	-104.947	4066.3	4.38	0.69	34.117	984.4	351.33	348.13	337.12	334.05	
14 Mar	73.875	-59.912	-104.967	4093.2	4.24	0.69	34.113	981.5	350.39	348.83	335.25	333.76	
14 Mar	73.917	-60.008	-104.920	4104.2	4.25	0.69	34.109	978.8	349.94	349.41	333.89	333.39	
14 Mar	73.958	-60.033	-105.108	4115.0	4.20	0.69	34.106	975.0	350.05	350.60	332.71	333.23	
15 Mar	74.000	-60.057	-105.193	4120.4	4.22	0.69	34.102	973.0	348.42	351.37	330.47	333.27	
15 Mar	74.042	-60.078	-105.298	4126.7	4.20	0.69	34.098	972.0	349.56	351.58	331.22	333.13	
15 Mar	74.083	-60.085	-105.403	4132.5	4.17	0.69	34.094	970.9	349.40	353.76	330.69	334.81	
15 Mar	74.125	-60.080	-105.503	4138.1	4.09	0.69	34.091	969.9	349.94	354.18	330.87	334.88	
15 Mar	74.167	-60.065	-105.585	4142.9	4.17	0.69	34.087	968.5	348.94	353.73	329.44	333.96	
15 Mar	74.208	-60.042	-105.690	4149.3	4.33	0.69	34.083	968.1		355.60		335.55	
15 Mar	74.250	-60.110	-105.777	4158.3	4.39	0.69	34.079	968.1	350.31	357.04	330.55	336.90	
15 Mar	74.292	-59.992	-105.885	4172.7	4.65	0.69	34.075	968.4	349.72	355.73	330.05	335.72	
15 Mar	74.333	-59.975	-105.987	4178.7	4.53	0.69	34.072	968.3	350.29	355.17	330.58	335.18	
15 Mar	74.375	-59.958	-106.113	4185.9	4.46	0.69	34.068	968.8	350.14	352.50	330.62	332.85	
15 Mar	74.417	-59.945	-106.195	4190.7	4.46	0.69	34.064	970.0	349.45	352.67	330.38	333.42	
15 Mar	74.458	-59.953	-106.267	4194.8	4.48	0.69	34.060	971.0	350.17	352.21	331.40	333.33	
15 Mar	74.500	-59.963	-106.345	4199.3	4.45	0.69	34.056	972.0	350.26	352.42	331.83	333.88	
15 Mar	74.542	-59.958	-106.433	4204.2	4.39	0.69	34.053	972.9	349.29	355.86	331.23	337.46	
15 Mar	74.583	-59.953	-106.502	4208.1	4.37	0.69	34.049	973.7	349.29	354.38	331.51	336.33	
15 Mar	74.625	-59.935	-106.583	4213.0	4.38	0.69	34.045	973.8	348.93	352.85	331.20	334.92	
15 Mar	74.667	-59.913	-106.642	4217.1	4.41	0.69	34.041	974.3	348.68	354.07	331.12	336.25	
15 Mar	74.708	-59.912	-106.703	4220.5	4.42	0.69	34.037	975.0		352.30		334.80	
15 Mar	74.750	-59.940	-106.807	4227.1	4.47	0.69	34.034	975.8	349.61	351.37	332.51	334.18	
15 Mar	74.792	-59.960	-106.955	4235.6	4.53	0.69	34.030	976.5	350.44	348.28	333.53	331.48	
15 Mar	74.833	-59.977	-107.127	4245.4	4.45	0.69	34.026	977.1	350.04	351.01	333.37	334.29	
15 Mar	74.875	-59.993	-107.243	4252.1	4.49	0.69	34.026	976.8	349.38	348.39	332.63	331.69	
15 Mar	74.917	-60.002	-107.380	4259.7	4.55	0.69	34.025	977.5	350.51	350.87	333.93	334.29	
15 Mar	74.958	-60.025	-107.527	4268.3	4.47	0.69	34.025	976.5	348.14	354.65	331.36	337.55	
16 Mar	75.000	-60.043	-107.655	4275.7	4.34	0.69	34.025	977.0	349.10	348.55	332.46	331.94	
16 Mar	75.042	-60.057	-107.718	4279.5	4.34	0.69	34.025	976.0	349.84	347.79	332.82	330.87	
16 Mar	75.083	-60.098	-107.878	4289.5	4.34	0.69	34.024	976.0	350.90	348.06	333.83	331.13	
16 Mar	75.125	-60.177	-108.080	4303.7	4.35	0.69	34.024	976.2	350.24	350.76	333.27	333.76	
16 Mar	75.167	-60.150	-108.080	4306.7	4.33	0.69	34.024	976.8	350.26	349.99	333.50	333.24	
16 Mar	75.208	-60.150	-108.365	4322.4	4.34	0.69	34.023	977.0	348.34	349.27	331.74	332.62	
16 Mar	75.250	-60.170	-108.602	4335.7	4.39	0.69	34.023	977.0	350.22	348.26	333.51	331.65	
16 Mar	75.292	-60.193	-108.822	4348.2	4.50	0.69	34.023	977.5	350.47	348.22	333.91	331.76	
16 Mar	75.333	-60.225	-109.025	4359.9	4.10	0.69	34.023	978.1	349.23	350.38	333.00	334.10	
16 Mar	75.375	-60.252	-109.212	4370.7	3.91	0.69	34.022	978.1	350.07	349.40	333.84	333.20	
16 Mar	75.417	-60.273	-109.405	4381.6	3.95	0.69	34.022	978.1	350.58	349.57	334.31	333.36	
16 Mar	75.458	-60.305	-109.588	4392.2	3.94	0.69	34.022	977.8	349.51	347.38	333.20	331.16	
16 Mar	75.500	-60.320	-109.773	4402.6	3.92	0.69	34.021	978.2	349.19	344.74	333.03	328.78	
16 Mar	75.542	-60.375	-109.945	4413.8	3.90	0.69	34.021	978.4	348.46	345.60	332.40	329.68	
16 Mar	75.583	-60.425	-110.085	4423.3	3.85	0.69	34.021	979.5	348.25	343.50	332.59	328.05	
16 Mar	75.625	-60.477	-110.228	4433.0	3.85	0.69	34.021	979.0	348.74	344.02	332.88	328.38	
16 Mar	75.667	-60.512	-110.357	4441.1	3.95	0.69	34.020	979.5	350.32	346.92	334.55	331.30	
16 Mar	75.708	-60.550	-110.487	4449.4	4.33	0.69	34.020	980.0	349.34	349.20	333.71	333.58	
16 Mar	75.750	-60.547	-110.518	4451.1	4.46	0.69	34.020	980.0	350.18	348.19	334.49	332.60	
16 Mar	75.792	-60.548	-110.568	4453.8	4.47	0.69	34.019	979.9	350.76	349.26	335.01	333.58	
16 Mar	75.833	-60.547	-110.598	4455.5	4.47	0.69	34.019	980.0	349.34	350.90	333.69	335.18	
16 Mar	75.875	-60.565	-110.617	4457.7	4.48	0.69	34.019	979.9	350.21	344.90	334.49	329.42	

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16 Mar	75.917	-60.567	-110.642	4459.1	4.51	0.69	34.019	980.1	349.97	348.66	334.33	333.07	
16 Mar	75.958	-60.570	-110.647	4459.5	4.55	0.69	34.018	980.0	351.12	347.77	335.38	332.18	
17 Mar	76.000	-60.572	-110.670	4460.8	4.48	0.69	34.018	979.8	349.76	346.97	334.02	331.36	
17 Mar	76.042	-60.592	-110.747	4465.6	4.31	0.69	34.018	979.5	350.41	350.21	334.57	334.38	
17 Mar	76.083	-60.647	-110.830	4473.2	4.31	0.69	34.017	979.9	350.23	350.30	334.53	334.61	
17 Mar	76.125	-60.727	-110.997	4485.9	4.35	0.69	34.017	979.5	348.90	349.96	333.12	334.13	
17 Mar	76.167	-60.687	-110.968	4490.6	4.41	0.69	34.017	979.0	349.54	350.25	333.55	334.23	
17 Mar	76.208	-60.718	-111.057	4496.5	4.45	0.69	34.017	978.5	349.64	350.20	333.47	334.01	
17 Mar	76.250	-60.737	-111.128	4500.9	4.56	0.69	34.016	978.0	348.74	346.93	332.42	330.69	
17 Mar	76.292	-60.745	-111.188	4504.3	4.57	0.69	34.016	978.0	349.60	348.89	333.23	332.56	
17 Mar	76.333	-60.783	-111.253	4509.8	4.56	0.69	34.016	977.8	348.79	348.11	332.40	331.76	
17 Mar	76.375	-60.807	-111.337	4515.1	4.54	0.69	34.016	977.5	349.09	278.75	332.59	265.57	
17 Mar	76.417	-60.833	-111.417	4520.3	4.52	0.69	34.015	977.5	349.21	275.05	332.71	262.05	
17 Mar	76.458	-60.862	-111.493	4525.5	4.43	0.69	34.015	977.8	348.31	257.23	331.97	245.16	
17 Mar	76.500	-60.892	-111.577	4531.2	4.50	0.69	34.015	977.8	349.05	253.57	332.66	241.66	
17 Mar	76.542	-60.923	-111.658	4536.7	4.40	0.69	34.014	978.3	348.46	253.16	332.28	241.41	
17 Mar	76.583	-60.952	-111.722	4541.5	4.35	0.69	34.014	978.8	349.88	255.88	333.82	244.13	
17 Mar	76.625	-60.972	-111.788	4545.6	4.22	0.69	34.014	979.5	349.89	251.73	334.09	240.37	
17 Mar	76.667	-61.000	-111.857	4550.5	4.08	0.69	34.014	980.2	349.85	254.12	334.32	242.84	
17 Mar	76.708	-61.057	-111.918	4557.6	4.08	0.69	34.013	981.2	349.71	250.48	334.52	239.61	
17 Mar	76.750	-61.063	-112.000	4562.1	4.08	0.69	34.013	982.1		256.03		245.14	
17 Mar	76.792	-60.853	-112.043	4585.5	4.51	0.69	34.013	982.8		250.01		239.49	
17 Mar	76.833	-60.562	-111.950	4618.3	4.52	0.69	34.012	982.8		244.39		234.10	
17 Mar	76.875	-60.285	-111.935	4649.1	4.35	0.69	34.012	983.9		244.74		234.73	
17 Mar	76.917	-60.020	-111.889	4678.6	4.46	0.69	34.012	984.6					
17 Mar	76.958	-59.762	-111.845	4707.4	4.29	0.69	34.012	985.2					
18 Mar	77.000	-59.498	-111.788	4736.9	4.09	0.69	34.011	986.3					
18 Mar	77.042	-59.255	-111.607	4765.8	4.38	0.69	34.011	987.0					
18 Mar	77.083	-58.988	-111.585	4795.5	4.60	0.69	34.011	987.8					
18 Mar	77.125	-58.738	-111.562	4823.3	5.23	0.68	34.010	989.0					
18 Mar	77.167	-58.488	-111.538	4851.1	5.13	0.68	34.010	989.9		339.24		327.22	
18 Mar	77.208	-58.243	-111.528	4878.3	4.87	0.69	34.010	990.5		379.94		366.75	3
18 Mar	77.250	-58.000	-111.510	4905.4	4.81	0.69	34.010	991.0		345.30		333.49	
18 Mar	77.292	-57.890	-111.590	4918.5	4.83	0.69	34.009	991.4	350.29	345.57	338.44	333.89	
18 Mar	77.333	-57.955	-111.907	4938.5	4.96	0.68	34.009	992.9		341.67		330.59	
18 Mar	77.375	-57.988	-112.013	4945.8	5.01	0.68	34.009	993.7	349.87	342.95	338.80	332.09	
18 Mar	77.417	-58.003	-112.078	4949.9	4.95	0.68	34.008	994.4	350.17	342.27	339.34	331.68	
18 Mar	77.458	-58.030	-112.165	4955.9	5.07	0.68	34.008	995.3	349.45	340.50	338.92	330.24	
18 Mar	77.500	-58.048	-112.227	4960.0	5.05	0.68	34.008	996.5	348.87	340.62	338.77	330.76	
18 Mar	77.542	-58.052	-112.277	4963.0	5.04	0.68	34.008	996.8	348.98	339.68	338.98	329.95	
18 Mar	77.583	-58.070	-112.312	4965.9	4.94	0.68	34.007	997.9	349.46	341.21	339.84	331.82	
18 Mar	77.625	-58.090	-112.370	4969.9	4.92	0.68	34.007	998.0	351.06	339.54	341.43	330.23	
18 Mar	77.667	-58.110	-112.368	4972.2	4.87	0.69	34.006	999.0		340.33		331.35	
18 Mar	77.708	-58.127	-112.398	4974.7	4.85	0.69	34.004	999.8		340.04		331.34	
18 Mar	77.750	-58.043	-112.137	4992.7	5.01	0.68	34.003	1000.0		338.40		329.77	
18 Mar	77.792	-57.988	-111.982	5003.7	5.09	0.68	34.001	999.2		337.16		328.29	
18 Mar	77.833	-58.008	-112.032	5007.4	5.01	0.68	34.000	999.8		340.13		331.39	
18 Mar	77.875	-58.028	-112.058	5010.1	4.83	0.69	34.002	1000.5					
18 Mar	77.917	-58.052	-112.090	5013.3	4.85	0.69	34.004	1000.7	351.24	338.95	342.56	330.57	
18 Mar	77.958	-58.085	-112.123	5017.5	4.90	0.68	34.006	1000.9	350.97	340.37	342.35	332.02	
19 Mar	78.000	-58.117	-112.160	5021.6	4.98	0.68	34.008	1001.5	350.49	339.16	342.08	331.02	
19 Mar	78.042	-58.148	-112.185	5025.4	4.93	0.68	34.010	1001.3	351.70	341.54	343.19	333.29	
19 Mar	78.083	-58.158	-112.202	5026.9	4.91	0.68	34.012	1001.7	350.61	340.75	342.27	332.65	
19 Mar	78.125	-58.172	-112.277	5031.5	4.84	0.69	34.012	1001.8	349.67	340.19	341.40	332.15	
19 Mar	78.167	-58.157	-112.263	5033.4	4.87	0.69	34.012	1002.0	350.59	340.27	342.37	332.29	
19 Mar	78.208	-57.987	-111.980	5058.6	4.92	0.68	34.012	1001.4	351.48	340.73	343.02	332.53	
19 Mar	78.250	-57.997	-112.003	5060.3	4.94	0.68	34.012	1001.3	351.18	331.07	342.69	323.06	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
19 Mar	78.292	-58.022	-112.083	5065.8	4.96	0.68	34.012	1001.2	350.15	330.69	341.64	322.66	
19 Mar	78.333	-58.020	-112.078	5066.2	4.98	0.68	34.012	1000.9	349.83	331.93	341.22	323.76	
19 Mar	78.375	-58.028	-112.117	5068.6	5.00	0.68	34.013	1000.2	349.31	331.95	340.47	323.56	
19 Mar	78.417	-58.028	-112.135	5069.7	5.02	0.68	34.014	999.5	350.27	332.25	341.17	323.61	
19 Mar	78.458	-58.053	-112.348	5082.5	5.04	0.68	34.014	998.3	351.52	332.07	341.96	323.05	
19 Mar	78.500	-58.065	-112.790	5108.5	5.06	0.68	34.015	997.0	350.76	338.26	340.78	328.64	
19 Mar	78.542	-58.055	-113.277	5137.2	5.08	0.68	34.016	994.8	349.18	341.18	338.49	330.73	
19 Mar	78.583	-58.042	-113.753	5165.2	5.10	0.68	34.017	993.2	351.33	346.26	340.02	335.11	
19 Mar	78.625	-58.042	-114.253	5194.6	5.12	0.68	34.017	991.4	350.66	345.23	338.74	333.50	
19 Mar	78.667	-58.043	-114.725	5222.4	5.14	0.68	34.018	989.0	350.18	344.25	337.46	331.74	
19 Mar	78.708	-58.063	-115.183	5249.4	5.16	0.68	34.019	988.6	350.89	346.43	338.00	333.70	
19 Mar	78.750	-58.070	-115.597	5273.7	5.18	0.68	34.020	987.3	350.97	344.34	337.62	331.25	
19 Mar	78.792	-58.085	-116.067	5301.4	5.20	0.68	34.021	989.2	350.75	343.56	338.07	331.14	
19 Mar	78.833	-58.067	-116.400	5321.1	5.22	0.68	34.021	988.5	350.67	339.32	337.74	326.81	
19 Mar	78.875	-58.070	-116.713	5339.5	5.24	0.68	34.022	989.1	351.82	347.55	339.05	334.94	
19 Mar	78.917	-58.053	-117.195	5367.9	5.28	0.68	34.023	989.8	351.05	347.78	338.54	335.39	
19 Mar	78.958	-58.015	-117.607	5392.5	5.17	0.68	34.024	990.3	352.16	347.35	339.81	335.17	
20 Mar*	79.000	-57.992	-118.052	5418.8	4.63	0.69	34.025	990.9	352.11	350.58	340.06	338.59	
20 Mar	79.042	-57.980	-118.432	5441.2	4.55	0.69	34.025	991.5	350.72	351.20	338.94	339.41	
20 Mar	79.083	-57.980	-118.835	5465.0	4.50	0.69	34.026	991.5	351.69	351.99	339.89	340.18	
20 Mar	79.125	-57.992	-119.223	5487.9	4.30	0.69	34.027	991.8	352.00	356.08	340.33	344.27	
20 Mar	79.167	-58.005	-119.618	5511.2	4.21	0.69	34.028	991.8	352.70	355.02	341.02	343.27	
20 Mar	79.208	-57.913	-119.622	5521.4	4.20	0.69	34.028	991.0	351.13	357.29	339.23	345.19	
20 Mar	79.250	-57.913	-119.522	5527.3	4.26	0.69	34.029	991.0	350.68	356.04	338.78	343.96	
20 Mar	79.292	-57.917	-119.618	5533.0	4.24	0.69	34.030	990.5	350.74	355.83	338.68	343.60	
20 Mar	79.333	-57.912	-119.623	5533.6	4.24	0.69	34.031	989.7	350.32	355.75	337.99	343.24	
20 Mar	79.375	-57.902	-119.667	5536.4	4.18	0.69	34.032	989.5	349.81	355.56	337.44	343.00	
20 Mar	79.417	-57.903	-119.687	5537.6	4.12	0.69	34.034	989.5	351.12	356.10	338.72	343.52	
20 Mar	79.458	-57.908	-119.718	5539.5	4.04	0.69	34.035	989.6	350.14	356.30	337.83	343.77	
20 Mar	79.500	-57.908	-119.735	5540.5	3.80	0.69	34.036	989.3	349.77	360.77	337.41	348.02	
20 Mar	79.542	-57.898	-119.743	5541.7	3.78	0.69	34.037	989.7	350.93	362.67	338.67	350.00	
20 Mar	79.583	-57.892	-119.760	5542.9	3.79	0.69	34.037	989.8	350.14	359.62	337.94	347.09	
20 Mar	79.625	-57.882	-119.817	5546.5	3.84	0.69	34.038	990.0	351.39	359.16	339.20	346.71	
20 Mar	79.667	-57.888	-119.865	5549.4	3.99	0.69	34.039	991.0	350.72	355.55	338.87	343.54	
20 Mar	79.708	-57.870	-119.997	5557.5	4.01	0.69	34.040	992.5	350.28	356.55	338.96	345.02	
20 Mar	79.750	-57.673	-120.345	5587.5	3.92	0.69	34.040	992.8	351.08	359.63	339.85	348.13	
20 Mar	79.792	-57.463	-120.585	5614.9	3.98	0.69	34.041	994.9	350.49	357.38	339.99	346.67	
20 Mar	79.833	-57.340	-120.785	5633.1	4.07	0.69	34.042	996.2	351.57	359.05	341.47	348.74	
20 Mar	79.875	-57.212	-120.967	5651.0	4.04	0.69	34.043	998.8	350.46	359.19	341.28	349.79	
20 Mar	79.917	-57.025	-121.182	5675.5	4.02	0.69	34.043	1000.5	351.09	353.42	342.49	344.76	
20 Mar	79.958	-57.003	-121.222	5678.9	4.07	0.69	34.044	1002.1	351.38	353.14	343.32	345.03	
21 Mar	80.000	-56.988	-121.227	5680.6	4.09	0.69	34.045	1003.0	351.29	353.33	343.53	345.53	
21 Mar	80.042	-56.947	-121.347	5689.2	4.22	0.69	34.046	1004.2	351.38	351.75	344.01	344.37	
21 Mar	80.083	-56.918	-121.415	5694.5	4.23	0.69	34.046	1004.2		352.80		345.40	
21 Mar	80.125	-56.948	-121.277	5703.5	4.14	0.69	34.047	1005.0		352.94		345.83	
21 Mar	80.167	-56.983	-121.203	5709.4	3.99	0.69	34.048	1004.8	350.24	355.81	343.14	348.60	
21 Mar	80.208	-56.973	-121.227	5711.2	3.95	0.69	34.048	1004.8	350.04	356.02	342.95	348.81	
21 Mar	80.250	-56.972	-121.277	5714.3	4.04	0.69	34.049	1004.0	350.93	354.09	343.53	346.62	
21 Mar	80.292	-56.990	-121.308	5717.0	4.10	0.69	34.049	1004.0	349.41	354.60	342.03	347.12	
21 Mar	80.333	-56.967	-121.353	5720.7	4.10	0.69	34.050	1003.2	350.59	353.94	342.91	346.19	
21 Mar	80.375	-56.962	-121.368	5721.8	4.14	0.69	34.050	1002.5	350.83	354.73	342.90	346.72	
21 Mar	80.417	-56.958	-121.400	5723.8	4.18	0.69	34.058	1001.5	350.59	354.87	342.32	346.50	
21 Mar	80.458	-56.932	-121.432	5727.3	4.24	0.69	34.066	1000.1	349.41	355.43	340.68	346.55	
21 Mar	80.500	-56.857	-121.492	5736.4	4.36	0.69	34.075	998.0	349.82	355.19	340.33	345.56	
21 Mar	80.542	-56.745	-121.608	5750.7	4.39	0.69	34.083	998.5	351.34	354.83	341.98	345.38	
21 Mar	80.583	-56.640	-121.737	5764.7	4.46	0.69	34.091	998.5	350.73	355.26	341.37	345.78	
21 Mar	80.625	-56.457	-121.980	5789.9	4.66	0.69	34.099	998.1	349.71	356.95	340.21	347.25	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
21 Mar	80.667	-56.397	-122.052	5797.9	5.44	0.68	34.108	997.4	350.31	355.77	340.40	345.71	
21 Mar	80.708	-56.298	-122.163	5810.9	5.61	0.68	34.116	997.8	349.57	354.35	339.79	344.44	
21 Mar	80.750	-56.183	-122.075	5824.8	5.69	0.68	34.124	998.0	349.83	354.43	340.10	344.57	
21 Mar	80.792	-56.123	-122.210	5835.5	5.77	0.68	34.132	998.4	349.96	357.70	340.35	347.87	
21 Mar	80.833	-56.077	-122.312	5843.6	5.85	0.68	34.140	999.1	350.86	355.32	341.44	345.78	
21 Mar	80.875	-56.035	-122.413	5851.4	5.90	0.68	34.149	999.1	350.49	353.75	341.07	344.24	
21 Mar	80.917	-55.993	-122.470	5857.3	5.92	0.68	34.157	1000.1	350.07	352.02	341.00	342.91	
21 Mar	80.958	-55.992	-122.530	5861.0	5.93	0.68	34.165	999.8	350.65	354.22	341.46	344.94	
22 Mar	81.000	-55.983	-122.568	5863.6	5.95	0.68	34.173	1000.6	350.92	353.54	341.99	344.55	
22 Mar	81.042	-55.975	-122.618	5866.8	5.96	0.68	34.182	1000.0	349.08	354.47	339.99	345.24	
22 Mar	81.083	-55.963	-122.653	5869.4	5.97	0.68	34.190	999.9	350.04	354.10	340.89	344.85	
22 Mar	81.125	-55.970	-122.650	5870.2	5.97	0.68	34.198	999.9	350.13	354.02	340.98	344.78	
22 Mar	81.167	-55.968	-122.675	5871.7	5.98	0.68	34.200	999.0	350.65	355.33	341.18	345.73	
22 Mar	81.208	-55.963	-122.683	5872.5	5.99	0.68	34.203	998.2	351.22	353.96	341.46	344.12	
22 Mar	81.250	-55.938	-122.680	5875.3	5.98	0.68	34.205	997.5	350.10	354.08	340.13	343.99	
22 Mar	81.292	-55.960	-122.852	5886.2	5.96	0.68	34.207	996.6	351.52	355.17	341.21	344.75	
22 Mar	81.333	-55.920	-122.955	5894.0	5.91	0.68	34.209	995.5	350.33	353.32	339.68	342.58	
22 Mar	81.375	-55.807	-123.137	5911.0	5.90	0.68	34.212	995.2	350.18	355.84	339.43	344.92	
22 Mar	81.417	-55.740	-123.283	5922.7	6.00	0.68	34.214	995.6	351.45	355.23	340.79	344.45	
22 Mar	81.458	-55.567	-123.478	5945.5	6.09	0.68	34.216	995.1	351.85	357.60	340.98	346.55	
22 Mar	81.500	-55.458	-123.637	5961.2	6.22	0.68	34.219	995.0	350.59	360.06	339.70	348.87	
22 Mar	81.542	-55.333	-123.792	5978.2	6.52	0.68	34.221	995.2	350.33	359.09	339.45	347.94	
22 Mar	81.583	-55.207	-123.942	5995.1	6.76	0.68	34.223	994.5	349.44	361.15	338.31	349.64	
22 Mar	81.625	-55.045	-124.170	6018.2	6.58	0.68	34.226	994.5	350.25	361.57	339.12	350.09	
22 Mar	81.667	-54.898	-124.370	6039.0	6.53	0.68	34.228	993.5	350.12	357.10	338.67	345.42	
22 Mar	81.708	-54.740	-124.585	6061.3	6.51	0.68	34.230	993.3	351.10	356.76	339.55	345.02	
22 Mar	81.750	-54.558	-124.757	6084.3	6.68	0.68	34.233	994.0	351.36	352.72	340.00	341.32	
22 Mar	81.792	-54.368	-124.897	6107.3	6.95	0.68	34.235	993.9	351.04	346.99	339.61	335.69	
22 Mar	81.833	-54.180	-125.050	6130.4	7.06	0.68	34.237	994.1	349.28	347.58	337.94	336.31	
22 Mar	81.875	-54.008	-125.267	6154.2	6.99	0.68	34.239	993.9		345.37		334.12	
22 Mar	81.917	-53.963	-125.297	6159.6	7.01	0.68	34.242	993.3	350.53	344.68	338.90	333.23	
22 Mar	81.958	-53.942	-125.325	6162.5	7.05	0.68	34.244	993.1	351.42	345.19	339.68	333.65	
23 Mar	82.000	-53.977	-125.362	6167.1	7.08	0.68	34.244	992.5	350.35	345.09	338.43	333.35	
23 Mar	82.042	-53.970	-125.412	6170.5	7.11	0.68	34.243	991.3	350.24	346.86	337.91	334.65	
23 Mar	82.083	-53.967	-125.432	6171.8	7.10	0.68	34.243	991.0	351.53	347.38	339.05	335.05	
23 Mar	82.125	-53.970	-125.467	6174.1	7.09	0.68	34.249	990.5					
23 Mar	82.167	-53.973	-125.485	6175.4	7.09	0.68	34.255	990.0					
23 Mar	82.208	-53.883	-125.623	6188.8	7.10	0.68	34.260	989.0					
23 Mar	82.250	-53.657	-125.812	6216.8	6.78	0.68	34.266	988.2					
23 Mar	82.292	-53.478	-125.973	6239.4	6.92	0.68	34.272	987.1					
23 Mar	82.333	-53.318	-126.118	6259.6	7.03	0.68	34.278	987.1		358.23		344.16	
23 Mar	82.375	-53.182	-126.220	6276.2	7.71	0.68	34.284	986.8		347.40		333.50	
23 Mar	82.417	-52.968	-126.405	6303.0	7.91	0.68	34.289	985.9	351.22	346.71	336.81	332.49	
23 Mar	82.458	-52.760	-126.600	6329.5	7.32	0.68	34.295	985.1	350.22	353.87	335.72	339.21	
23 Mar	82.500	-52.552	-126.835	6357.5	7.02	0.68	34.301	984.8	350.49	352.74	335.93	338.09	
23 Mar	82.542	-52.358	-127.075	6384.5	7.00	0.68	34.307	983.7	350.32	353.88	335.40	338.81	
23 Mar	82.583	-52.155	-127.300	6411.8	7.32	0.68	34.312	983.7	350.68	356.03	335.67	340.80	
23 Mar	82.625	-52.000	-127.518	6434.6	7.79	0.68	34.318	982.5	351.14	348.97	335.59	333.52	
23 Mar	82.667	-51.975	-127.527	6437.4	7.82	0.68	34.324	981.0	350.75	349.02	334.70	333.05	
23 Mar	82.708	-51.972	-127.527	6437.7	7.80	0.68	34.324	981.0	350.01	349.55	333.99	333.56	
23 Mar	82.750	-51.850	-127.710	6456.2	7.76	0.68	34.323	980.0	350.29	349.35	333.93	333.04	
23 Mar	82.792	-51.638	-127.935	6484.4	7.83	0.68	34.323	979.1	350.61	349.14	333.91	332.51	
23 Mar	82.833	-51.543	-128.048	6497.5	8.01	0.68	34.323	979.1	350.20	347.98	333.48	331.37	
23 Mar	82.875	-51.283	-128.373	6534.2	8.20	0.68	34.323	979.6	350.03	349.56	333.44	333.00	
23 Mar	82.917	-51.162	-128.532	6551.6	8.31	0.68	34.322	982.5	350.95	350.27	335.29	334.65	
23 Mar	82.958	-50.995	-128.713	6574.0	8.43	0.67	34.322	985.0	351.01	348.06	336.18	333.36	
24 Mar	83.000	-50.852	-128.880	6593.8	8.59	0.67	34.322	987.0	351.01	346.19	336.84	332.20	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
24 Mar	83.042	-50.733	-129.040	6611.1	8.60	0.67	34.322	989.0	351.52	350.19	338.01	336.73	
24 Mar	83.083	-50.618	-129.218	6629.0	8.51	0.67	34.321	990.5	351.96	345.73	338.97	332.97	
24 Mar	83.125	-50.502	-129.388	6646.6	8.47	0.67	34.321	992.0		344.59		332.39	
24 Mar	83.167	-50.385	-129.560	6664.4	8.69	0.67	34.321	993.2	350.83	344.67	338.76	332.82	
24 Mar	83.208	-50.253	-129.713	6682.7	9.12	0.67	34.320	995.8	350.27	344.05	339.01	333.00	
24 Mar	83.250	-50.132	-129.883	6700.8	9.22	0.67	34.320	996.7	349.27	344.95	338.33	334.15	
24 Mar	83.292	-50.028	-130.047	6717.2	9.33	0.67	34.320	998.6	350.26	348.24	339.91	337.95	
24 Mar	83.333	-50.035	-130.085	6720.0	9.33	0.67	34.320	998.5	350.00	347.74	339.63	337.43	
24 Mar	83.375	-50.040	-130.107	6721.7	9.34	0.67	34.319	999.8	349.81	348.29	339.88	338.41	
24 Mar	83.417	-50.278	-130.555	6763.1	9.31	0.67	34.319	999.9	349.00	346.63	339.14	336.84	
24 Mar	83.458	-50.075	-130.235	6795.2	9.30	0.67	34.319	1000.9	349.86	344.97	340.32	335.56	
24 Mar	83.500	-50.073	-130.280	6798.4	9.30	0.67	34.319	1001.6	348.95	344.83	339.67	335.67	
24 Mar	83.542	-50.075	-130.332	6802.1	9.34	0.67	34.318	1003.0	350.12	346.39	341.28	337.65	
24 Mar	83.583	-50.077	-130.385	6805.9	9.34	0.67	34.318	1004.0	350.41	346.29	341.90	337.89	
24 Mar	83.625	-50.073	-130.458	6811.1	9.14	0.67	34.318	1005.2	350.92	342.21	342.86	334.36	
24 Mar	83.667	-50.073	-130.517	6815.3	9.20	0.67	34.318	1006.8	350.84	342.12	343.32	334.79	
24 Mar	83.708	-50.043	-130.547	6819.3	9.25	0.67	34.317	1007.5	351.87	341.72	344.56	334.62	
24 Mar	83.750	-50.023	-130.448	6826.7	9.28	0.67	34.317	1009.1		359.45		352.54	
24 Mar	83.792	-49.993	-130.100	6851.8	9.33	0.67	34.317	1010.0	351.21	341.78	344.75	335.50	
24 Mar	83.833	-49.970	-129.948	6862.9	9.30	0.67	34.316	1010.8		341.70		335.69	
24 Mar	83.875	-49.835	-129.775	6882.4	9.19	0.67	34.316	1012.1		342.75		337.19	
24 Mar	83.917	-49.618	-129.643	6908.3	9.24	0.67	34.316	1013.1		344.54		339.28	
24 Mar	83.958	-49.367	-129.558	6936.8	9.15	0.67	34.316	1014.9		339.54		334.97	
25 Mar	84.000	-49.147	-129.352	6965.5	9.25	0.67	34.315	1015.1		340.76		336.22	
25 Mar	84.042	-48.977	-129.258	6985.6	9.51	0.67	34.315	1014.5	351.53	339.05	346.57	334.27	
25 Mar	84.083	-48.968	-129.627	7012.5	9.31	0.67	34.315	1015.9	349.76	338.98	345.35	334.71	
25 Mar	84.125	-48.987	-129.940	7035.4	9.28	0.67	34.315	1017.3	349.95	339.35	346.03	335.55	
25 Mar	84.167	-49.007	-130.023	7041.9	9.28	0.67	34.314	1020.1	349.78	337.87	346.82	335.01	
25 Mar	84.208	-49.008	-130.043	7043.4	9.26	0.67	34.314	1020.5	349.86	337.34	347.04	334.63	
25 Mar	84.250	-49.018	-130.062	7045.1	9.25	0.67	34.312	1021.2	351.13	337.31	348.54	334.83	
25 Mar	84.292	-49.018	-130.082	7046.6	9.25	0.67	34.310	1022.5	350.05	336.11	347.92	334.06	
25 Mar	84.333	-49.032	-130.082	7048.1	9.24	0.67	34.308	1023.1	350.44	337.46	348.52	335.61	
25 Mar	84.375	-49.055	-130.228	7059.1	9.22	0.67	34.305	1023.1	349.47	338.68	347.56	336.83	
25 Mar	84.417	-49.013	-130.333	7068.0	9.21	0.67	34.303	1024.3	350.38	342.27	348.87	340.80	
25 Mar	84.458	-48.762	-130.268	7096.3	9.55	0.67	34.301	1024.3	349.78	342.20	348.19	340.65	
25 Mar	84.500	-48.505	-130.265	7124.9	9.95	0.67	34.299	1025.6	349.97	341.08	348.73	339.87	
25 Mar	84.542	-48.252	-130.258	7153.0	10.01	0.67	34.297	1026.3		343.87		342.87	
25 Mar	84.583	-47.955	-130.242	7186.0	10.00	0.67	34.295	1027.3	351.23	345.13	350.56	344.47	
25 Mar	84.625	-47.767	-130.235	7206.9	9.97	0.67	34.292	1028.5	350.27	344.30	350.01	344.05	
25 Mar	84.667	-47.547	-130.218	7231.4	10.45	0.67	34.290	1029.5	350.35	345.33	350.31	345.29	
25 Mar	84.708	-47.290	-130.163	7260.3	10.51	0.67	34.288	1030.2	351.16	343.44	351.34	343.62	
25 Mar	84.750	-46.982	-130.068	7295.2	10.70	0.67	34.286	1031.0	349.82	344.62	350.22	345.02	
25 Mar	84.792	-46.723	-130.032	7324.1	10.65	0.67	34.284	1031.5	350.76	339.83	351.35	340.41	
25 Mar	84.833	-46.490	-130.060	7350.1	10.75	0.67	34.282	1032.2	351.73	341.83	352.54	342.61	
25 Mar	84.875	-46.233	-130.013	7378.9	11.16	0.67	34.280	1032.8	349.75	344.99	350.65	345.87	
25 Mar	84.917	-46.007	-130.017	7404.0	11.14	0.67	34.277	1032.8	350.09	345.86	350.99	346.76	
25 Mar	84.958	-46.023	-130.032	7406.1	11.16	0.67	34.275	1032.3	349.82	345.44	350.54	346.16	
26 Mar	85.000	-46.030	-130.033	7406.9	11.15	0.67	34.273	1032.3	350.18	346.50	350.91	347.22	
26 Mar	85.042	-46.037	-130.037	7407.8	11.14	0.67	34.271	1032.3	351.32	344.93	352.05	345.65	
26 Mar	85.083	-46.042	-130.040	7408.4	11.17	0.67	34.268	1032.7	351.45	346.25	352.31	347.10	
26 Mar	85.125	-45.815	-129.968	7434.2	11.41	0.67	34.265	1033.0	350.16	347.32	351.05	348.21	
26 Mar	85.167	-45.552	-129.968	7463.4	11.46	0.67	34.262	1033.8	350.60	347.52	351.76	348.66	
26 Mar	85.208	-45.290	-129.978	7492.5	11.52	0.67	34.259	1034.2	350.07	348.23	351.35	349.50	
26 Mar	85.250	-45.027	-129.985	7521.8	11.84	0.67	34.256	1034.5	351.51	350.28	352.80	351.57	
26 Mar	85.292	-44.763	-129.985	7551.1	11.98	0.66	34.253	1034.4	350.67	351.21	351.89	352.42	
26 Mar	85.333	-44.505	-129.973	7579.8	11.94	0.66	34.250	1034.1	350.44	351.10	351.56	352.22	
26 Mar	85.375	-44.263	-129.992	7606.7	12.41	0.66	34.247	1033.3	349.74	353.17	350.45	353.88	

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26 Mar	85.417	-44.007	-130.000	7635.2	12.48	0.66	34.244	1033.3		352.49		353.18	
26 Mar	85.458	-44.008	-130.002	7635.4	12.47	0.66	34.241	1033.2		352.17		352.83	
26 Mar	85.500	-43.987	-129.992	7637.8	12.68	0.66	34.238	1032.9	350.60	352.22	351.08	352.71	
26 Mar	85.542	-43.948	-129.982	7642.3	13.02	0.66	34.234	1033.0	350.69	353.31	351.10	353.72	
26 Mar	85.583	-43.928	-129.945	7646.0	12.92	0.66	34.231	1033.0	350.43	352.75	350.88	353.20	
26 Mar	85.625	-43.902	-129.938	7648.9	12.67	0.66	34.228	1033.0	350.50	352.82	351.02	353.35	
26 Mar	85.667	-43.890	-129.943	7650.3	12.52	0.66	34.229	1033.2	351.69	353.42	352.33	354.06	
26 Mar	85.708	-43.853	-129.935	7654.5	12.70	0.66	34.230	1033.0	350.61	352.58	351.12	353.10	
26 Mar	85.750	-43.630	-129.920	7679.3	13.53	0.66	34.231	1032.2	350.35	354.26	350.33	354.24	
26 Mar	85.792	-43.403	-129.897	7704.6	13.98	0.66	34.232	1032.0	350.07	354.70	349.83	354.46	
26 Mar	85.833	-43.135	-129.983	7735.1	14.18	0.66	34.233	1031.3	349.95	357.90	349.40	357.35	
26 Mar	85.875	-42.893	-130.008	7762.1	14.17	0.66	34.234	1030.4	350.13	359.36	349.28	358.49	
26 Mar	85.917	-42.638	-129.978	7790.5	15.26	0.66	34.235	1029.8	350.31	353.67	348.87	352.22	
26 Mar	85.958	-42.387	-129.980	7818.4	15.66	0.65	34.236	1028.4	350.58	354.12	348.52	352.03	
27 Mar	86.000	-42.133	-129.987	7846.7	15.61	0.65	34.237	1027.8	350.64	357.81	348.38	355.51	
27 Mar	86.042	-41.995	-129.992	7862.0	16.12	0.65	34.238	1027.5	350.50	358.07	347.96	355.47	
27 Mar	86.083	-41.982	-129.973	7864.1	16.09	0.65	34.240	1027.3	350.67	359.09	348.07	356.42	
27 Mar	86.125	-41.968	-129.953	7866.4	15.95	0.65	34.241	1027.1	350.38	359.21	347.76	356.53	
27 Mar	86.167	-41.748	-129.943	7890.9	15.70	0.65	34.243	1026.3	350.34	356.70	347.54	353.85	
27 Mar	86.208	-41.492	-129.943	7919.3	15.60	0.65	34.245	1026.5	351.59	357.22	348.88	354.47	
27 Mar	86.250	-41.233	-129.952	7948.1	15.71	0.65	34.247	1026.6	350.73	357.75	348.02	354.99	
27 Mar	86.292	-40.973	-129.962	7977.0	16.08	0.65	34.248	1025.3	351.39	358.43	348.09	355.07	
27 Mar	86.333	-40.717	-129.972	8005.5	16.42	0.65	34.250	1024.0	351.15	366.55	347.27	362.51	
27 Mar	86.375	-40.460	-129.990	8034.1	16.51	0.65	34.252	1022.5	350.54	365.06	346.12	360.46	
27 Mar	86.417	-40.197	-130.002	8063.3	16.70	0.65	34.253	1022.1	350.66	365.67	346.03	360.84	
27 Mar	86.458	-40.002	-129.993	8085.0	16.84	0.65	34.255	1021.5	350.82	366.27	345.93	361.16	
27 Mar	86.500	-39.997	-129.982	8086.1	16.86	0.65	34.254	1020.9	350.87	366.44	345.76	361.10	
27 Mar	86.542	-39.983	-129.948	8089.4	16.88	0.65	34.253	1021.2	350.95	366.63	345.94	361.40	
27 Mar	86.583	-39.983	-129.932	8090.7	16.83	0.65	34.253	1021.2	349.97	366.02	345.00	360.81	
27 Mar	86.625	-39.990	-129.915	8092.4	16.80	0.65	34.252	1021.5	351.37	365.68	346.48	360.60	
27 Mar	86.667	-39.977	-129.872	8096.3	16.70	0.65	34.251	1021.2	350.57	364.64	345.64	359.50	
27 Mar	86.708	-39.977	-129.855	8097.8	16.55	0.65	34.251	1021.0	350.62	363.87	345.67	358.74	
27 Mar	86.750	-40.000	-129.812	8102.2	16.45	0.65	34.251	1021.9	351.66	364.60	347.05	359.82	
27 Mar	86.792	-39.987	-129.818	8103.8	16.67	0.65	34.251	1020.7	352.38		347.26		
27 Mar	86.833	-40.012	-130.065	8125.0	16.86	0.65	34.251	1020.5	350.95	366.24	345.70	360.77	
27 Mar	86.875	-40.010	-130.050	8126.3	16.90	0.65	34.251	1019.8	350.73	366.84	345.23	361.09	
27 Mar	86.917	-39.995	-129.985	8132.0	16.97	0.65	34.251	1018.9	350.03	368.48	344.21	362.35	
27 Mar	86.958	-39.992	-130.027	8135.6	16.95	0.65	34.251	1018.2	350.97	367.08	344.89	360.73	
28 Mar	87.000	-40.002	-130.007	8137.7	17.01	0.65	34.251	1018.1	350.92	368.37	344.79	361.93	
28 Mar	87.042	-39.993	-129.980	8140.2	17.05	0.65	34.251	1018.3	351.05	369.07	344.97	362.68	
28 Mar	87.083	-39.995	-129.960	8141.9	17.03	0.65	34.251	1017.9	350.54	368.44	344.34	361.92	
28 Mar	87.125	-39.957	-129.970	8146.2	16.96	0.65	34.251	1017.9	349.95	367.81	343.79	361.34	
28 Mar	87.167	-39.752	-130.175	8174.9	16.73	0.65	34.251	1018.0	350.87	368.21	344.82	361.86	
28 Mar	87.208	-39.562	-130.380	8202.4	16.41	0.65	34.251	1018.3	350.58	364.95	344.76	358.89	
28 Mar	87.250	-39.382	-130.643	8232.5	16.59	0.65	34.251	1017.9	350.63	348.24	344.60	342.26	
28 Mar	87.292	-39.117	-130.890	8268.8	16.77	0.65	34.251	1017.5	351.31	355.99	345.06	349.66	
28 Mar	87.333	-39.027	-131.152	8293.5	16.95	0.65	34.251	1017.1	350.62	352.83	344.17	346.34	
28 Mar	87.375	-38.855	-131.397	8322.1	17.13	0.65	34.251	1017.8	350.53	349.05	344.25	342.80	
28 Mar	87.417	-38.680	-131.642	8350.8	17.31	0.65	34.251	1017.3	350.62	352.77	344.10	346.21	
28 Mar	87.458	-38.517	-131.908	8380.2	17.49	0.65	34.251	1017.3	350.43	350.71	343.84	344.12	
28 Mar	87.500	-38.350	-132.170	8409.6	17.68	0.65	34.251	1016.9	350.34	350.31	343.53	343.51	
28 Mar	87.542	-38.198	-132.418	8437.1	17.86	0.65	34.251	1017.5	350.84	350.33	344.16	343.66	
28 Mar	87.583	-38.030	-132.683	8466.8	18.04	0.65	34.251	1017.2	350.47	351.19	343.62	344.33	
28 Mar	87.625	-37.850	-132.937	8496.7	18.22	0.65	34.251	1017.5	350.76	354.69	343.93	347.78	
28 Mar	87.667	-37.662	-133.188	8527.1	18.40	0.64	34.251	1018.0	350.58	351.54	343.84	344.78	
28 Mar	87.708	-37.488	-133.428	8555.8	18.58	0.64	34.256	1018.1	350.78	356.17	343.99	349.28	
28 Mar	87.750	-37.268	-133.280	8583.5	18.76	0.64	34.260	1019.2	351.27	360.51	344.78	353.84	

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28 Mar	87.792	-37.250	-133.325	8587.9	18.83	0.64	34.265	1019.4	351.52	361.11	345.05	354.48	
28 Mar	87.833	-37.243	-133.328	8588.7	18.85	0.64	34.270	1019.5	351.19	360.22	344.76	353.63	
28 Mar	87.875	-37.237	-133.325	8589.5	18.88	0.64	34.274	1019.0	350.28	360.82	343.68	354.02	
28 Mar	87.917	-37.232	-133.382	8594.5	18.92	0.64	34.279	1018.9	350.43	363.08	343.78	356.19	
28 Mar	87.958	-37.152	-133.327	8604.7	18.96	0.64	34.284	1019.5	350.28	362.51	343.82	355.82	
29 Mar	88.000	-36.920	-133.167	8634.1	18.99	0.64	34.289	1019.6	351.39	366.28	344.93	359.54	
29 Mar	88.042	-36.687	-133.002	8663.9	19.33	0.64	34.293	1020.0	351.83	367.42	345.34	360.64	
29 Mar	88.083	-36.472	-133.048	8688.1	19.49	0.64	34.298	1020.5	350.63	370.26	344.26	363.54	
29 Mar	88.125	-36.258	-133.253	8718.1	20.46	0.64	34.303	1022.0	351.56	372.61	345.23	365.90	
29 Mar	88.167	-36.052	-133.477	8746.6	20.55	0.64	34.307	1022.8		373.49		367.01	
29 Mar	88.208	-35.847	-133.687	8778.2	20.48	0.64	34.312	1023.0		370.06		363.75	
29 Mar	88.250	-35.510	-133.888	8819.8	20.49	0.64	34.317	1023.0		367.04		360.78	
29 Mar	88.292	-35.425	-134.095	8840.8	20.42	0.64	34.321	1023.9		369.40		363.46	
29 Mar	88.333	-35.218	-134.313	8871.1	20.75	0.64	34.326	1023.7		363.37		357.29	
29 Mar	88.375	-35.033	-134.487	8897.0	21.12	0.64	34.331	1023.9		361.71		355.53	
29 Mar	88.417	-34.795	-134.710	8930.4	21.55	0.64	34.335	1023.9		352.41		346.17	
29 Mar	88.458	-34.588	-134.903	8959.4	21.89	0.64	34.340	1024.0		336.70		330.61	
29 Mar	88.500	-34.373	-135.005	8985.0	22.11	0.64	34.345	1024.0		339.63		333.37	
29 Mar	88.542	-34.165	-135.310	9021.3	22.33	0.63	34.350	1024.1		339.64		333.29	
29 Mar	88.583	-33.963	-135.512	9050.5	22.46	0.63	34.354	1024.5		329.80		323.70	
29 Mar	88.625	-33.768	-135.708	9078.7	22.22	0.64	34.359	1025.0		361.70		355.33	
29 Mar	88.667	-33.565	-135.907	9107.8	22.82	0.63	34.364	1025.2		340.84		334.58	
29 Mar	88.708	-33.365	-136.100	9136.4	22.49	0.63	34.368	1025.5		352.15		345.97	
29 Mar	88.750	-33.177	-136.277	9162.9	22.24	0.64	34.373	1025.8		349.90		344.00	
29 Mar	88.792	-32.957	-136.480	9193.9	22.81	0.63	34.378	1025.8		340.63		334.58	
29 Mar	88.833	-32.758	-136.682	9222.9	23.04	0.63	34.382	1025.0		329.46		323.23	
29 Mar	88.875	-32.557	-136.867	9251.2	23.10	0.63	34.387	1024.0	352.85	337.63	345.79	330.88	
29 Mar	88.917	-32.350	-137.058	9280.3	23.23	0.63	34.392	1023.3		338.01		330.95	
29 Mar	88.958	-32.142	-137.267	9310.7	23.30	0.63	34.396	1023.1	353.55	347.94	346.06	340.57	
30 Mar	89.000	-31.932	-137.488	9341.9	23.28	0.63	34.401	1022.0	354.33	351.55	346.45	343.73	
30 Mar	89.042	-31.747	-137.610	9365.5	23.23	0.63	34.406	1022.1		353.11		345.32	
30 Mar	89.083	-31.635	-137.802	9387.5	23.05	0.63	34.410	1022.2		356.36		348.63	
30 Mar	89.125	-31.518	-138.007	9410.9	23.12	0.63	34.415	1021.9	352.56	355.94	344.78	348.08	
30 Mar	89.167	-31.325	-138.202	9439.2	23.46	0.63	34.420	1022.5	354.37	353.32	346.55	345.53	
30 Mar	89.208	-31.135	-138.395	9467.1	23.96	0.63	34.425	1022.8	354.01	347.35	346.01	339.51	
30 Mar	89.250	-30.942	-138.588	9495.4	23.73	0.63	34.429	1022.9	352.20	352.72	344.41	344.92	
30 Mar	89.292	-30.760	-138.780	9522.7	23.81	0.63	34.434	1022.9	350.99	347.65	343.18	339.92	
30 Mar	89.333	-30.533	-138.870	9549.3	23.96	0.63	34.439	1021.9		346.29		338.17	
30 Mar	89.375	-30.350	-139.097	9579.1	24.43	0.63	34.443	1021.9	351.28	347.47	342.75	339.04	
30 Mar	89.417	-30.160	-139.332	9610.0	24.52	0.63	34.448	1021.5	351.42	346.71	342.70	338.10	
30 Mar	89.458	-29.960	-139.510	9638.0	24.69	0.63	34.453	1020.0	350.40	342.22	341.08	333.12	
30 Mar	89.500	-29.755	-139.680	9666.1	24.69	0.63	34.457	1018.7	352.43	343.38	342.61	333.81	
30 Mar	89.542	-29.557	-139.868	9694.6	24.76	0.63	34.462	1018.3	351.29	345.78	341.32	335.97	
30 Mar	89.583	-29.400	-139.997	9716.1	24.87	0.63	34.467	1018.2	350.80	343.54	340.74	333.69	
30 Mar	89.625	-29.215	-140.165	9742.3	25.05	0.63	34.472	1018.0	352.25	344.50	341.97	334.45	
30 Mar	89.667	-29.028	-140.335	9768.8	25.23	0.63	34.476	1019.0	351.66	344.81	341.63	334.98	
30 Mar	89.708	-28.958	-140.573	9793.2	25.31	0.63	34.481	1019.5	352.95	346.40	343.01	336.64	
30 Mar	89.750	-28.687	-140.652	9824.3	25.39	0.63	34.486	1018.9	351.41	345.65	341.24	335.66	
30 Mar	89.792	-28.490	-140.833	9852.4	25.23	0.63	34.490	1018.9	350.86	346.29	340.81	336.37	
30 Mar	89.833	-28.305	-140.988	9878.0	25.22	0.63	34.495	1018.1	350.59	345.36	340.29	335.21	
30 Mar	89.875	-28.152	-141.140	9900.6	25.34	0.63	34.500	1017.8	349.56	346.64	339.11	336.27	
30 Mar	89.917	-27.955	-141.292	9927.1	25.51	0.63	34.504	1017.1	351.97	346.09	341.10	335.39	
30 Mar	89.958	-27.760	-141.490	9956.2	25.54	0.63	34.509	1016.2	351.37	344.89	340.19	333.91	
31 Mar	90.000	-27.560	-141.677	9985.0	25.60	0.63	34.514	1015.3	350.44	346.19	338.93	334.83	
31 Mar	90.042	-27.362	-141.842	10012.4	25.55	0.63	34.518	1014.5	350.43	345.23	338.68	333.66	
31 Mar	90.083	-27.178	-142.010	10038.7	25.46	0.63	34.523	1015.1	350.40	348.89	338.92	337.45	
31 Mar	90.125	-26.978	-142.178	10066.5	25.98	0.62	34.528	1015.0	352.71	351.66	340.78	339.76	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
31 Mar	90.167	-26.767	-142.348	10095.4	26.06	0.62	34.533	1014.9	350.98	349.39	339.01	337.48	
31 Mar	90.208	-26.603	-142.608	10126.9	26.12	0.62	34.537	1015.8	351.02	348.17	339.33	336.57	
31 Mar	90.250	-26.458	-142.608	10143.1	26.15	0.62	34.542	1015.8	351.64	348.80	339.90	337.16	
31 Mar	90.292	-26.257	-142.767	10170.4	26.37	0.62	34.547	1015.2	351.44	348.88	339.36	336.89	
31 Mar	90.333	-26.058	-142.922	10197.4	26.61	0.62	34.551	1015.2	352.24	344.95	339.96	332.93	
31 Mar	90.375	-25.862	-143.097	10225.3	26.54	0.62	34.556	1016.1	352.77	345.48	340.84	333.80	
31 Mar	90.417	-25.668	-143.247	10251.6	26.79	0.62	34.561	1016.8	352.20	338.70	340.36	327.31	
31 Mar	90.458	-25.468	-143.387	10277.9	26.90	0.62	34.565	1015.0	352.16	338.22	339.62	326.18	
31 Mar	90.500	-25.275	-143.535	10304.0	26.92	0.62	34.570	1014.7	352.21	344.94	339.55	332.55	
31 Mar	90.542	-25.063	-143.692	10332.4	27.07	0.62	34.575	1014.9	352.47	346.32	339.77	333.84	
31 Mar	90.583	-24.870	-143.860	10359.7	27.18	0.62	34.579	1014.5	352.83	345.38	339.90	332.72	
31 Mar	90.625	-24.700	-144.022	10384.6	27.21	0.62	34.584	1014.7	351.96	347.97	339.10	335.26	
31 Mar	90.667	-24.505	-144.172	10411.1	27.10	0.62	34.589	1015.1	352.17	346.42	339.52	333.98	
31 Mar	90.708	-24.308	-144.380	10441.5	26.96	0.62	34.593	1015.5	352.99	341.87	340.56	329.83	
31 Mar	90.750	-24.092	-144.578	10472.7	26.95	0.62	34.598	1015.9	352.98	342.14	340.69	330.22	
31 Mar	90.792	-23.937	-144.713	10494.8	27.06	0.62	34.603	1015.1	352.50	343.26	339.87	330.96	
31 Mar	90.833	-23.678	-144.938	10531.5	27.08	0.62	34.608	1015.2		345.77		333.40	
31 Mar	90.875	-23.483	-145.110	10559.4	27.25	0.62	34.612	1015.0	352.56	350.60	339.76	337.87	
31 Mar	90.917	-23.278	-145.267	10587.2	27.39	0.62	34.617	1014.8	352.76	350.17	339.78	337.29	
31 Mar	90.958	-23.090	-145.447	10615.1	27.61	0.62	34.622	1014.8	352.18	357.50	339.07	344.19	
1 Apr	91.000	-22.902	-145.592	10640.7	27.67	0.62	34.626	1014.1	352.78	358.34	339.36	344.71	
1 Apr	91.042	-22.790	-145.618	10653.4	27.65	0.62	34.631	1014.9	352.91	355.64	339.77	342.41	
1 Apr	91.083	-22.820	-145.647	10657.9	27.62	0.62	34.636	1014.7		354.98		341.72	
1 Apr	91.125	-22.725	-145.733	10671.6	27.62	0.62	34.640	1014.7	352.45	355.92	339.29	342.63	
1 Apr	91.167	-22.508	-145.877	10699.9	27.59	0.62	34.645	1015.2	350.64	355.08	337.74	342.01	
1 Apr	91.208	-22.297	-146.017	10727.4	27.56	0.62	34.650	1016.0	351.68	355.06	339.04	342.30	
1 Apr	91.250	-22.082	-146.152	10755.0	27.60	0.62	34.655	1016.3	352.12	355.28	339.53	342.58	
1 Apr	91.292	-21.873	-146.297	10782.7	27.68	0.62	34.659	1016.8	351.81	355.29	339.35	342.71	
1 Apr	91.333	-21.577	-146.450	10819.1	27.53	0.62	34.664	1017.2	352.39	349.83	340.16	337.69	
1 Apr	91.375	-21.465	-146.625	10841.1	27.68	0.62	34.669	1016.7	351.83	347.36	339.34	335.02	
1 Apr	91.417	-21.270	-146.768	10867.3	27.81	0.62	34.673	1016.5	351.52	348.72	338.87	336.17	
1 Apr	91.458	-21.107	-146.913	10890.9	27.73	0.62	34.678	1015.9	352.03	348.80	339.22	336.11	
1 Apr	91.500	-20.942	-147.050	10914.1	28.01	0.62	34.683	1015.9	351.32	347.20	338.32	334.36	
1 Apr	91.542	-20.775	-147.178	10936.9	28.06	0.62	34.687	1015.4	351.35	349.62	338.15	336.49	
1 Apr	91.583	-20.612	-147.310	10959.6	27.98	0.62	34.692	1015.5	350.91	349.69	337.82	336.64	
1 Apr	91.625	-20.450	-147.443	10982.3	28.07	0.62	34.697	1015.8	351.23	348.58	338.17	335.62	
1 Apr	91.667	-20.293	-147.590	11005.5	28.17	0.62	34.701	1016.2	350.64	346.77	337.66	333.94	
1 Apr	91.708	-20.127	-147.720	11028.4	28.17	0.62	34.706	1016.8	351.92	346.93	339.10	334.29	
1 Apr	91.750	-19.957	-147.878	11053.5	28.02	0.62	34.711	1016.8	352.16	346.65	339.44	334.14	
1 Apr	91.792	-19.873	-147.925	11064.1	28.24	0.62	34.716	1016.8	352.72	347.40	339.82	334.70	
1 Apr	91.833	-19.715	-148.048	11085.8	28.41	0.62	34.720	1016.6	351.70	351.64	338.64	338.58	
1 Apr	91.875	-19.645	-148.093	11094.9	28.37	0.62	34.725	1016.3	352.41	350.79	339.25	337.69	
1 Apr	91.917	-19.565	-148.140	11105.1	28.42	0.62	34.730	1015.8	351.53	348.94	338.19	335.71	
1 Apr	91.958	-19.492	-148.222	11116.9	28.52	0.62	34.734	1015.1	352.28	351.23	338.60	337.58	
2 Apr	92.000	-19.487	-148.230	11117.9	28.52	0.62	34.739	1014.6		350.66		336.87	
2 Apr	92.042	-19.463	-148.262	11122.2	28.59	0.62	34.744	1014.8	352.82	357.08	338.96	343.06	
2 Apr	92.083	-19.438	-148.285	11125.8	28.47	0.62	34.748	1014.2	352.08	368.44	338.13	353.84	
2 Apr	92.125	-19.288	-148.408	11146.9	28.47	0.62	34.753	1014.8	351.70	344.50	337.97	331.05	
2 Apr	92.167	-19.137	-148.535	11168.3	28.63	0.62	34.758	1015.0	354.06	358.76	340.18	344.71	
2 Apr	92.208	-18.988	-148.662	11189.6	28.63	0.62	34.762	1015.5	353.87		340.18		
2 Apr	92.250	-18.833	-148.785	11211.1	28.62	0.62	34.767	1016.2	352.62		339.22		
2 Apr	92.292	-18.680	-148.910	11232.6	28.64	0.62	34.772	1015.9	353.04		339.51		
2 Apr	92.333	-18.522	-149.038	11254.8	28.58	0.62	34.776	1016.2	353.82		340.41		
2 Apr	92.375	-18.377	-149.148	11274.6	28.58	0.62	34.781	1015.8	354.11	350.61	340.55	337.19	
2 Apr	92.417	-18.225	-149.270	11295.9	28.61	0.62	34.786	1015.1	354.05	350.95	340.23	337.25	
2 Apr	92.458	-18.052	-149.388	11318.8	28.67	0.62	34.791	1014.4	353.26	354.47	339.18	340.34	
2 Apr	92.500	-17.940	-149.482	11334.7	28.64	0.62	34.795	1013.8	354.08	353.82	339.78	339.53	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
2 Apr	92.542	-17.820	-149.600	11353.0	28.64	0.62	34.800	1013.2		355.29		340.74	
2 Apr	92.583	-17.742	-149.683	11365.3	28.74	0.62	34.805	1013.0	355.05	355.11	340.36	340.42	

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Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
7 Apr	97.917	-15.353	-148.600	0.0	28.44	0.62	35.405	1011.1	350.95	356.16	336.00	340.99	
7 Apr	97.958	-15.133	-148.497	26.8	28.49	0.62	35.410	1010.4	353.03	359.65	337.71	344.06	
8 Apr	98.000	-14.907	-148.352	56.4	28.54	0.62	35.415	1009.8	351.86	360.42	336.35	344.54	
8 Apr	98.042	-14.688	-148.323	80.9	28.58	0.62	35.419	1008.9	352.68	360.80	336.80	344.55	
8 Apr	98.083	-14.482	-148.242	105.4	28.56	0.62	35.424	1009.4					
8 Apr	98.125	-14.272	-148.088	134.0	28.58	0.62	35.429	1009.7					
8 Apr	98.167	-14.077	-147.952	160.2	28.54	0.62	35.433	1009.8	349.89	359.47	334.47	343.63	
8 Apr	98.208	-13.882	-147.808	186.8	28.49	0.62	35.438	1010.1	349.75	357.88	334.47	342.25	
8 Apr	98.250	-13.687	-147.672	213.0	28.49	0.62	35.443	1011.1	351.69	363.90	336.68	348.37	
8 Apr	98.292	-13.487	-147.532	239.9	28.47	0.62	35.448	1012.0	351.99	363.84	337.29	348.65	
8 Apr	98.333	-13.307	-147.417	263.4	28.50	0.62	35.452	1011.7	350.41	364.31	335.65	348.97	
8 Apr	98.375	-13.085	-147.235	295.0	28.50	0.62	35.457	1011.2	350.56	364.45	335.62	348.92	
8 Apr	98.417	-12.887	-147.113	320.7	28.50	0.62	35.462	1010.5	351.48	363.59	336.26	347.85	
8 Apr	98.458	-12.670	-146.988	348.3	28.50	0.62	35.466	1009.9	350.25	363.74	334.87	347.78	
8 Apr	98.500	-12.480	-146.825	375.9	28.49	0.62	35.471	1009.8	351.71	359.59	336.25	343.79	
8 Apr	98.542	-12.207	-146.713	408.5	28.49	0.62	35.476	1009.1	351.00	357.33	335.33	341.37	
8 Apr	98.583	-12.113	-146.597	424.9	28.49	0.62	35.480	1008.8	350.49	356.68	334.74	340.65	
8 Apr	98.625	-11.935	-146.463	449.5	28.52	0.62	35.485	1008.8	351.72	357.54	335.89	341.45	
8 Apr	98.667	-11.743	-146.330	475.2	28.58	0.62	35.490	1009.4	351.54	360.97	335.88	344.89	
8 Apr	98.708	-11.523	-146.190	504.0	28.60	0.62	35.494	1009.8	350.85	368.61	335.34	352.32	
8 Apr	98.750	-11.327	-146.060	530.0	28.54	0.62	35.499	1010.1	351.39	378.76	336.00	362.18	
8 Apr	98.792	-11.127	-145.928	556.5	28.54	0.62	35.504	1010.5	350.81	377.32	335.59	360.95	
8 Apr	98.833	-10.920	-145.802	583.3	28.52	0.62	35.508	1010.1	351.00	377.80	335.65	361.28	
8 Apr	98.875	-10.713	-145.670	610.4	28.51	0.62	35.513	1009.5	350.90	376.08	335.35	359.42	
8 Apr	98.917	-10.502	-145.550	637.3	28.49	0.62	35.518	1008.8	351.50	374.87	335.71	358.03	
8 Apr	98.958	-10.320	-145.435	661.1	28.48	0.62	35.523	1008.4	352.36	374.36	336.40	357.39	
9 Apr	99.000	-10.123	-145.308	687.0	28.50	0.62	35.527	1007.8	351.69	377.82	335.53	360.46	
9 Apr	99.042	-10.013	-145.232	701.8	28.46	0.62	35.532	1008.2	352.36	375.61	336.34	358.53	
9 Apr	99.083	-10.027	-145.247	704.1	28.43	0.62	35.560	1008.9	352.21	374.99	336.46	358.22	
9 Apr	99.125	-9.998	-145.242	707.3	28.42	0.62	35.553	1008.9	352.13	374.45	336.39	357.72	
9 Apr	99.167	-9.832	-145.142	728.8	28.45	0.62	35.545	1009.0	352.35	375.85	336.61	359.07	
9 Apr	99.208	-9.637	-145.017	754.4	28.50	0.62	35.538	1009.2	352.46	374.26	336.75	357.58	
9 Apr	99.250	-9.447	-144.878	780.5	28.45	0.62	35.531	1009.3	352.45	381.77	336.81	364.83	
9 Apr	99.292	-9.292	-144.755	802.3	28.33	0.62	35.523	1010.0	352.07	390.20	336.78	373.26	
9 Apr	99.333	-9.070	-144.605	832.0	28.33	0.62	35.516	1010.2	351.30	381.56	336.11	365.07	
9 Apr	99.375	-8.877	-144.475	857.7	28.37	0.62	35.509	1010.0	352.85	385.22	337.50	368.46	
9 Apr	99.417	-8.673	-144.345	884.5	28.38	0.62	35.501	1009.7	352.34	383.17	336.90	366.38	
9 Apr	99.458	-8.470	-144.217	911.1	28.40	0.62	35.494	1008.2	351.98	377.46	336.03	360.35	
9 Apr	99.500	-8.272	-144.083	937.6	28.31	0.62	35.487	1007.9	351.82	370.92	335.84	354.06	
9 Apr	99.542	-8.070	-143.965	963.5	28.27	0.62	35.479	1007.9	351.69	368.75	335.73	352.02	
9 Apr	99.583	-7.865	-143.837	990.3	28.29	0.62	35.472	1007.9	352.08	368.36	336.10	351.64	
9 Apr	99.625	-7.658	-143.705	1017.5	28.33	0.62	35.465	1008.2	352.47	351.09	336.55	335.22	
9 Apr	99.667	-7.445	-143.565	1045.8	28.19	0.62	35.457	1009.1	351.70	405.32	336.22	387.48	
9 Apr	99.708	-7.237	-143.427	1073.4	28.08	0.62	35.450	1009.3	352.10	408.08	336.75	390.30	
9 Apr	99.750	-7.045	-143.277	1100.4	28.09	0.62	35.442	1009.9	353.11	402.58	337.92	385.26	
9 Apr	99.792	-6.858	-143.152	1125.4	28.14	0.62	35.435	1010.0	352.88	405.26	337.70	387.83	
9 Apr	99.833	-6.637	-143.007	1154.7	28.15	0.62	35.428	1009.5	352.04	415.28	336.71	397.20	
9 Apr	99.875	-6.430	-142.887	1181.2	28.16	0.62	35.420	1008.8	351.38	415.66	335.83	397.28	
9 Apr	99.917	-6.232	-142.750	1207.9	28.20	0.62	35.413	1008.0	352.85	417.00	336.93	398.19	
9 Apr	99.958	-6.018	-142.613	1236.1	28.21	0.62	35.406	1007.3	352.99	415.04	336.81	396.02	
10 Apr	100.000	-5.813	-142.478	1263.3	28.24	0.62	35.398	1006.5	351.50	412.19	335.10	392.95	
10 Apr	100.042	-5.595	-142.352	1291.3	28.30	0.62	35.391	1006.2	352.66	411.63	336.05	392.24	
10 Apr	100.083	-5.387	-142.222	1318.5	28.23	0.62	35.384	1006.5	351.80	415.81	335.39	396.41	
10 Apr	100.125	-5.175	-142.093	1346.1	28.03	0.62	35.376	1006.7	352.54	417.72	336.32	398.49	
10 Apr	100.167	-5.007	-142.002	1367.3	27.91	0.62	35.369	1007.5	352.26	429.10	336.41	409.79	
10 Apr	100.208	-4.950	-141.954	1375.5	27.75	0.62	35.360	1008.0	351.97	427.61	336.42	408.72	
10 Apr	100.250	-4.892	-141.905	1384.0	27.69	0.62	35.352	1008.5	351.85	430.88	336.52	412.12	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
10 Apr	100.292	-4.695	-141.782	1409.7	27.51	0.62	35.343	1009.0	352.01	436.15	336.98	417.53	
10 Apr	100.333	-4.503	-141.642	1436.1	27.26	0.62	35.334	1009.1	352.52	437.97	337.68	419.53	
10 Apr	100.375	-4.300	-141.538	1461.4	27.00	0.62	35.326	1009.3	352.72	443.06	338.12	424.72	
10 Apr	100.417	-4.107	-141.397	1488.0	26.89	0.62	35.317	1008.8	352.35	445.02	337.68	426.48	
10 Apr	100.458	-3.928	-141.238	1514.6	26.91	0.62	35.308	1008.4	351.91	450.25	337.10	431.30	
10 Apr	100.500	-3.740	-141.102	1540.3	26.83	0.62	35.299	1008.1	351.65	448.21	336.80	429.29	
10 Apr	100.542	-3.550	-140.990	1564.8	26.72	0.62	35.291	1008.0	351.89	438.97	337.07	420.49	
10 Apr	100.583	-3.382	-140.825	1591.0	26.71	0.62	35.282	1008.0	353.16	435.28	338.30	416.96	
10 Apr	100.625	-3.200	-140.690	1616.1	26.71	0.62	35.273	1008.7	352.57	436.48	337.97	418.41	
10 Apr	100.667	-2.995	-140.582	1641.9	26.66	0.62	35.265	1009.4	352.79	435.60	338.46	417.91	
10 Apr	100.708	-2.808	-140.443	1667.7	26.52	0.62	35.256	1010.2	352.78	437.47	338.82	420.16	
10 Apr	100.750	-2.610	-140.305	1694.5	26.20	0.62	35.247	1010.7	352.23	442.49	338.68	425.47	
10 Apr	100.792	-2.415	-140.188	1719.8	25.93	0.62	35.239	1010.5	353.51	451.34	340.03	434.13	
10 Apr	100.833	-2.215	-140.057	1746.4	25.77	0.63	35.230	1010.1	353.15	452.86	339.65	435.55	
10 Apr	100.875	-2.010	-139.978	1770.8	25.68	0.63	35.221	1009.7	353.53	454.96	339.93	437.46	
10 Apr	100.917	-1.785	-139.985	1795.8	25.52	0.63	35.212	1008.5	353.19	455.96	339.30	438.03	
10 Apr	100.958	-1.840	-139.962	1802.4	25.73	0.63	35.204	1007.8	353.19	457.09	338.92	438.62	
11 Apr	101.000	-1.825	-139.993	1806.2	25.74	0.63	35.195	1007.1	348.74	459.26	334.40	440.37	
11 Apr	101.042	-1.807	-139.995	1808.3	25.75	0.63	35.186	1007.1	348.96	456.76	334.60	437.97	
11 Apr	101.083	-1.847	-140.013	1813.1	25.73	0.63	35.178	1007.5	348.61	456.33	334.42	437.75	
11 Apr	101.125	-1.835	-140.017	1814.5	25.69	0.63	35.169	1007.9	348.14	455.19	334.12	436.87	
11 Apr	101.167	-1.843	-139.975	1819.3	25.64	0.63	35.160	1008.5					
11 Apr	101.208	-1.702	-139.930	1835.7	25.57	0.63	35.152	1008.9	348.87	457.26	335.25	439.41	
11 Apr	101.250	-1.470	-139.948	1861.6	25.45	0.63	35.143	1010.0	348.57	455.25	335.41	438.06	
11 Apr	101.292	-1.248	-139.965	1886.3	25.38	0.63	35.134	1010.5	348.00	454.32	335.08	437.45	
11 Apr	101.333	-0.998	-139.968	1914.1	25.27	0.63	35.126	1010.4	347.98	455.24	335.10	438.39	
11 Apr	101.375	-0.752	-139.997	1941.6	25.16	0.63	35.117	1010.2	348.04	454.97	335.16	438.13	
11 Apr	101.417	-0.530	-139.983	1966.4	25.09	0.63	35.108	1009.8	347.19	455.05	334.24	438.08	
11 Apr	101.458	-0.300	-139.987	1991.9	25.01	0.63	35.100	1009.0	347.50	456.23	334.32	438.92	
11 Apr	101.500	-0.058	-139.990	2018.8	24.94	0.63	35.091	1009.0	348.05	455.44	334.89	438.23	
11 Apr	101.542	-0.003	-139.993	2024.9	24.91	0.63	35.082	1009.0	348.45	456.03	335.29	438.81	
11 Apr	101.583	0.020	-139.982	2027.8	24.88	0.63	35.054	1008.9	348.38	454.88	335.21	437.69	
11 Apr	101.625	0.173	-139.933	2045.6	24.87	0.63	35.026	1008.8	348.17	453.99	334.98	436.79	
11 Apr	101.667	0.410	-139.868	2072.9	24.84	0.63	34.998	1009.8	349.02	452.36	336.16	435.70	
11 Apr	101.708	0.650	-139.800	2100.6	24.91	0.63	34.970	1009.8	348.50	451.34	335.62	434.65	
11 Apr	101.750	0.907	-139.787	2129.2	25.11	0.63	34.942	1010.0	347.84	446.74	334.92	430.15	
11 Apr	101.792	1.152	-139.837	2157.0	25.38	0.63	34.913	1010.0		443.66		426.97	
11 Apr	101.833	1.385	-139.932	2185.0	25.64	0.63	34.886	1009.2		441.45		424.29	
11 Apr	101.875	1.620	-139.988	2211.8	25.91	0.62	34.857	1008.8	353.26	437.24	339.21	419.84	
11 Apr	101.917	1.840	-140.068	2237.8	25.94	0.62	34.829	1007.4		431.73		413.94	
11 Apr	101.958	1.858	-140.083	2240.4	25.97	0.62	34.823	1006.2	353.92	430.96	338.90	412.67	
12 Apr	102.000	1.992	-140.137	2256.5	26.00	0.62	34.817	1005.9	354.41	427.45	339.25	409.15	
12 Apr	102.042	2.252	-140.242	2287.6	26.03	0.62	34.811	1006.1	353.69	418.65	338.60	400.80	
12 Apr	102.083	2.480	-140.343	2315.4	26.07	0.62	34.806	1005.9	354.15	411.72	338.94	394.04	
12 Apr	102.125	2.708	-140.435	2342.7	26.10	0.62	34.800	1006.5	353.31	408.56	338.34	391.24	
12 Apr	102.167	2.940	-140.533	2370.6	26.13	0.62	34.794	1007.1	354.48	401.90	339.64	385.07	
12 Apr	102.208	3.170	-140.630	2398.4	26.16	0.62	34.788	1007.7	353.41	404.50	338.80	387.79	
12 Apr	102.250	3.400	-140.723	2425.9	26.19	0.62	34.782	1008.1		401.79		385.32	
12 Apr	102.292	3.608	-140.805	2450.8	26.22	0.62	34.776	1008.9	353.88	401.44	339.63	385.27	
12 Apr	102.333	3.903	-140.907	2485.5	26.25	0.62	34.771	1009.0	354.01	398.46	339.77	382.43	
12 Apr	102.375	4.098	-140.998	2509.4	26.28	0.62	34.765	1008.4	353.58	397.42	339.13	381.18	
12 Apr	102.417	4.328	-141.097	2537.2	26.31	0.62	34.759	1008.2	353.53	398.69	338.99	382.30	
12 Apr	102.458	4.563	-141.190	2565.2	26.35	0.62	34.753	1007.4	352.70	392.49	337.89	376.01	
12 Apr	102.500	4.798	-141.273	2592.9	26.38	0.62	34.747	1007.0		391.06		374.47	
12 Apr	102.542	5.042	-141.385	2622.7	26.41	0.62	34.741	1007.2	353.73	389.05	338.77	372.59	
12 Apr	102.583	5.280	-141.477	2651.1	26.44	0.62	34.735	1007.5		395.98		379.32	
12 Apr	102.625	5.518	-141.575	2679.7	26.47	0.62	34.730	1007.9		398.70		382.06	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
12 Apr	102.667	5.758	-141.685	2709.0	26.50	0.62	34.724	1008.8	352.99	399.04	338.55	382.72	
12 Apr	102.708	5.997	-141.788	2737.9	26.53	0.62	34.718	1009.3	352.54	369.40	338.27	354.45	
12 Apr	102.750	6.192	-141.883	2761.9	26.56	0.62	34.712	1009.9		368.34		353.63	
12 Apr	102.792	6.472	-142.005	2795.9	26.59	0.62	34.706	1009.8	352.70	370.91	338.56	356.03	
12 Apr	102.833	6.580	-142.002	2807.9	26.63	0.62	34.700	1009.7		377.35		362.16	
12 Apr	102.875	6.690	-141.998	2820.1	26.65	0.62	34.694	1009.5		375.10		359.91	
12 Apr	102.917	6.725	-142.042	2826.3	26.67	0.62	34.688	1008.6	353.19	376.54	338.56	360.94	
12 Apr	102.958	6.958	-141.953	2854.0	26.74	0.62	34.683	1007.8	353.46	375.85	338.49	359.93	
13 Apr	103.000	7.208	-141.863	2883.5	26.66	0.62	34.677	1007.1		369.21		353.38	
13 Apr	103.042	7.443	-141.785	2911.0	26.68	0.62	34.671	1007.4	352.55	368.32	337.52	352.62	
13 Apr	103.083	7.675	-141.702	2938.3	26.70	0.62	34.665	1007.3	350.20	375.27	335.22	359.22	
13 Apr	103.125	7.905	-141.618	2965.5	26.68	0.62	34.659	1008.0	351.45	379.20	336.67	363.26	
13 Apr	103.167	8.140	-141.538	2993.1	26.58	0.62	34.653	1008.8	353.17	384.10	338.67	368.33	
13 Apr	103.208	8.372	-141.455	3020.4	26.51	0.62	34.648	1009.2	352.81	373.57	338.51	358.43	
13 Apr	103.250	8.598	-141.363	3047.5	26.40	0.62	34.642	1010.2	351.19	364.60	337.38	350.26	
13 Apr	103.292	8.830	-141.265	3075.4	26.41	0.62	34.636	1011.0	350.25	365.72	336.74	351.61	
13 Apr	103.333	9.077	-141.190	3104.1	26.40	0.62	34.630	1011.0	351.84	374.16	338.27	359.74	
13 Apr	103.375	9.273	-141.073	3129.4	26.23	0.62	34.624	1011.0		365.25		351.29	
13 Apr	103.417	9.500	-141.000	3155.8	26.04	0.62	34.618	1010.8		363.35		349.52	
13 Apr	103.458	9.728	-140.913	3182.9	25.87	0.62	34.612	1010.4					
13 Apr	103.500	9.962	-140.823	3210.7	25.62	0.63	34.607	1009.8					
13 Apr	103.542	10.192	-140.735	3238.0	25.29	0.63	34.601	1009.5					
13 Apr	103.583	10.432	-140.645	3266.4	25.19	0.63	34.595	1009.5		359.85		346.26	
13 Apr	103.625	10.660	-140.562	3293.4	25.24	0.63	34.589	1010.2		360.55		347.15	
13 Apr	103.667	10.900	-140.473	3321.7	25.30	0.63	34.583	1010.8		359.01		345.83	
13 Apr	103.708	11.095	-140.423	3344.1	25.17	0.63	34.577	1012.3	351.35	359.52	339.05	346.94	
13 Apr	103.750	11.378	-140.313	3377.7	25.08	0.63	34.571	1012.3	348.94	354.71	336.79	342.35	
13 Apr	103.792	11.557	-140.248	3398.9	25.14	0.63	34.566	1012.5	352.20	354.16	339.96	341.86	
13 Apr	103.833	11.682	-140.217	3413.1	25.17	0.63	34.560	1012.8		353.56		341.36	
13 Apr	103.875	11.988	-140.107	3449.2	25.16	0.63	34.554	1012.2	352.41	355.52	340.05	343.05	
13 Apr	103.917	12.107	-140.108	3462.4	25.19	0.63	34.548	1011.3		356.84		343.99	
13 Apr	103.958	12.132	-140.062	3468.1	25.23	0.63	34.550	1010.9	350.69	357.51	337.90	344.47	
14 Apr	104.000	12.375	-139.973	3496.8	25.24	0.63	34.552	1010.9		356.60		343.58	
14 Apr	104.042	12.623	-139.907	3525.3	25.05	0.63	34.554	1010.8	352.29	357.50	339.52	344.54	
14 Apr	104.083	12.865	-139.828	3553.5	24.94	0.63	34.556	1011.2	351.65	355.85	339.11	343.16	
14 Apr	104.125	13.105	-139.743	3581.7	24.81	0.63	34.558	1011.9	350.99	353.09	338.80	340.82	
14 Apr	104.167	13.343	-139.660	3609.6	24.82	0.63	34.560	1012.9		353.35		341.41	
14 Apr	104.208	13.580	-139.582	3637.3	24.76	0.63	34.562	1013.8	349.84	353.39	338.37	341.80	
14 Apr	104.250	13.815	-139.490	3665.2	24.40	0.63	34.564	1014.2	349.78	350.78	338.67	339.64	
14 Apr	104.292	14.048	-139.392	3693.2	24.15	0.63	34.566	1014.9	349.62	347.64	338.90	336.99	
14 Apr	104.333	14.275	-139.275	3721.4	24.14	0.63	34.568	1015.0		345.34		334.79	
14 Apr	104.375	14.477	-139.227	3744.4	24.19	0.63	34.570	1014.8	349.12	346.60	338.36	335.92	
14 Apr	104.417	14.728	-139.122	3774.5	24.15	0.63	34.572	1013.8					
14 Apr	104.458	14.970	-138.998	3804.5	24.14	0.63	34.574	1013.1					
14 Apr	104.500	15.200	-138.913	3831.7	23.97	0.63	34.576	1012.8					
14 Apr	104.542	15.448	-138.828	3860.7	23.97	0.63	34.578	1012.8					
14 Apr	104.583	15.693	-138.728	3889.9	23.75	0.63	34.580	1012.8					
14 Apr	104.625	15.912	-138.653	3915.6	23.35	0.63	34.582	1014.0	350.01	337.65	339.44	327.45	
14 Apr	104.667	16.147	-138.568	3943.2	23.41	0.63	34.584	1014.2	351.57	336.97	340.99	326.82	
14 Apr	104.708	16.382	-138.480	3971.0	23.54	0.63	34.586	1015.1	348.81	339.32	338.54	329.33	
14 Apr	104.750	16.615	-138.383	3998.8	23.69	0.63	34.588	1015.6	349.91	339.56	339.70	329.64	
14 Apr	104.792	16.877	-138.280	4030.0	23.68	0.63	34.590	1015.3	351.01	339.58	340.67	329.57	
14 Apr	104.833	17.120	-138.202	4058.2	23.65	0.63	34.592	1016.2	350.61	340.12	340.61	330.41	
14 Apr	104.875	17.362	-138.095	4087.4	23.58	0.63	34.594	1014.8	351.06	338.88	340.60	328.79	
14 Apr	104.917	17.600	-137.998	4115.8	23.58	0.63	34.596	1013.9	352.86	339.57	342.04	329.16	
14 Apr	104.958	17.852	-137.932	4144.6	24.14	0.63	34.598	1012.9	351.43	341.96	339.97	330.81	
15 Apr	105.000	18.097	-137.847	4173.3	24.35	0.63	34.600	1012.9	350.83	343.26	339.27	331.95	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
15 Apr	105.042	18.345	-137.770	4202.0	24.43	0.63	34.606	1012.4	353.09	344.01	341.23	332.45	
15 Apr	105.083	18.585	-137.633	4232.3	24.33	0.63	34.612	1013.2	351.08	343.62	339.62	332.40	
15 Apr	105.125	18.850	-137.522	4264.0	23.58	0.63	34.619	1013.2	351.95	344.02	340.91	333.23	
15 Apr	105.167	19.103	-137.448	4293.2	23.87	0.63	34.625	1013.8	351.63	338.70	340.63	328.11	
15 Apr	105.208	19.345	-137.363	4321.5	23.79	0.63	34.631	1014.8	350.75	341.94	340.17	331.63	
15 Apr	105.250	19.588	-137.287	4349.7	23.68	0.63	34.637	1015.2	352.84	343.05	342.40	332.91	
15 Apr	105.292	19.835	-137.198	4378.7	23.28	0.63	34.644	1016.0		337.66		328.16	
15 Apr	105.333	20.085	-137.103	4408.2	23.03	0.63	34.650	1016.0	351.20	338.38	341.47	329.00	
15 Apr	105.375	20.350	-136.995	4439.7	23.01	0.63	34.656	1015.5	352.27	335.82	342.34	326.35	
15 Apr	105.417	20.577	-136.903	4466.7	22.89	0.63	34.663	1015.0	349.51	334.39	339.56	324.86	
15 Apr	105.458	20.815	-136.793	4495.5	22.22	0.64	34.669	1014.8	350.93	332.16	341.23	322.99	
15 Apr	105.500	21.048	-136.718	4522.5	22.10	0.64	34.675	1014.5	350.25	329.76	340.54	320.62	
15 Apr	105.542	21.290	-136.605	4551.8	22.13	0.64	34.681	1015.0	352.31	328.56	342.69	319.59	
15 Apr	105.583	21.520	-136.515	4579.0	22.08	0.64	34.687	1015.5	351.50	329.72	342.11	320.91	
15 Apr	105.625	21.757	-136.418	4607.2	22.12	0.64	34.694	1016.0		328.99		320.34	
15 Apr	105.667	21.993	-136.323	4635.2	22.01	0.64	34.700	1016.5	351.21	328.88	342.21	320.44	
15 Apr	105.708	22.230	-136.227	4663.3	22.02	0.64	34.706	1016.7		327.58		319.24	
15 Apr	105.750	22.467	-136.122	4691.8	21.97	0.64	34.712	1016.3	353.30	326.57	344.19	318.15	
15 Apr	105.792	22.708	-136.028	4720.3	22.11	0.64	34.719	1016.1	351.48	330.01	342.27	321.37	
15 Apr	105.833	22.947	-135.913	4749.3	21.83	0.64	34.725	1016.1	352.32	328.21	343.25	319.76	
15 Apr	105.875	23.203	-135.840	4778.7	21.70	0.64	34.731	1015.6		337.68		328.88	
15 Apr	105.917	23.447	-135.747	4807.5	21.89	0.64	34.738	1015.2	353.42	335.20	343.97	326.24	
15 Apr	105.958	23.690	-135.653	4836.1	21.73	0.64	34.744	1014.9	351.28	331.17	341.87	322.30	
16 Apr	106.000	23.933	-135.557	4864.8	21.60	0.64	34.750	1014.6	353.21	329.55	343.71	320.69	
16 Apr	106.042	24.188	-135.447	4895.3	21.63	0.64	34.729	1014.3	353.54	328.77	343.91	319.82	
16 Apr	106.083	24.427	-135.342	4923.9	21.62	0.64	34.708	1014.1	353.33	329.07	343.64	320.05	
16 Apr	106.125	24.673	-135.262	4952.4	21.51	0.64	34.688	1014.5	351.32	329.22	341.89	320.38	
16 Apr	106.167	24.918	-135.172	4981.1	21.28	0.64	34.667	1014.8	353.05	330.91	343.79	322.23	
16 Apr	106.208	25.160	-135.068	5009.9	20.99	0.64	34.646	1015.1		335.91		327.34	
16 Apr	106.250	25.403	-134.963	5038.9	20.91	0.64	34.625	1015.5		336.73		328.31	
16 Apr	106.292	25.652	-134.863	5068.4	20.72	0.64	34.604	1015.2		335.56		327.16	
16 Apr	106.333	25.898	-134.762	5097.5	20.81	0.64	34.583	1015.1		337.41		328.89	
16 Apr	106.375	26.152	-134.680	5126.9	20.64	0.64	34.563	1014.9	351.31	335.41	342.45	326.95	
16 Apr	106.417	26.400	-134.577	5156.3	20.53	0.64	34.542	1014.2		342.78		333.96	
16 Apr	106.458	26.648	-134.478	5185.6	20.42	0.64	34.521	1014.0	347.80	337.48	338.83	328.78	
16 Apr	106.500	26.893	-134.367	5214.9	20.21	0.64	34.500	1013.5	346.76	342.95	337.75	334.04	
16 Apr	106.542	27.142	-134.267	5244.3	20.04	0.64	34.479	1013.1		345.93		336.88	
16 Apr	106.583	27.403	-134.182	5274.5	20.12	0.64	34.458	1013.3		357.73		348.41	
16 Apr	106.625	27.653	-134.087	5303.8	20.08	0.64	34.438	1013.5	345.84	355.39	336.92	346.22	
16 Apr	106.667	27.785	-133.942	5324.3	20.16	0.64	34.417	1013.9	345.21	354.70	336.39	345.65	
16 Apr	106.708	28.150	-133.862	5365.6	20.17	0.64	34.396	1014.2	348.05	348.10	339.26	339.31	
16 Apr	106.750	28.400	-133.755	5395.3	19.85	0.64	34.375	1014.2	346.93	341.23	338.32	332.76	
16 Apr	106.792	28.652	-133.650	5425.1	19.42	0.64	34.354	1014.7	349.87	349.17	341.56	340.87	
16 Apr	106.833	28.903	-133.547	5454.7	19.62	0.64	34.333	1014.6		360.05		351.37	
16 Apr	106.875	29.120	-133.467	5480.1	19.59	0.64	34.313	1013.9	347.57	358.41	338.97	349.54	
16 Apr	106.917	29.388	-133.352	5511.9	19.70	0.64	34.292	1013.2	348.71	351.99	339.78	342.98	
16 Apr	106.958	29.628	-133.240	5540.7	19.55	0.64	34.271	1012.8	347.84	353.86	338.87	344.74	
17 Apr	107.000	29.895	-133.153	5571.5	19.60	0.64	34.250	1012.0	348.53	364.74	339.24	355.03	
17 Apr	107.042	30.152	-133.057	5601.5	19.56	0.64	34.208	1011.8	349.38	364.32	340.03	354.56	
17 Apr	107.083	30.402	-132.945	5631.3	19.71	0.64	34.167	1012.1	351.28	362.45	341.91	352.78	
17 Apr	107.125	30.645	-132.830	5660.5	19.70	0.64	34.125	1012.2	348.25	356.40	339.00	346.93	
17 Apr	107.167	30.888	-132.720	5689.4	19.40	0.64	34.083	1012.8	351.51	355.36	342.51	346.26	
17 Apr	107.208	31.135	-132.620	5718.5	19.39	0.64	34.042	1013.7	350.57	353.92	341.91	345.18	
17 Apr	107.250	31.378	-132.523	5747.0	19.32	0.64	34.000	1014.0	348.50	352.44	340.02	343.87	
17 Apr	107.292	31.618	-132.425	5775.3	18.98	0.64	33.958	1014.1	345.29	351.24	337.08	342.89	
17 Apr	107.333	31.860	-132.330	5803.6	18.70	0.65	33.917	1014.1	345.95	349.33	337.85	341.15	
17 Apr	107.375	32.097	-132.227	5831.7	18.60	0.65	33.875	1014.0	347.32	349.21	339.20	341.04	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
17 Apr	107.417	32.340	-132.133	5860.1	18.10	0.65	33.833	1014.0	345.83	344.40	337.95	336.55	
17 Apr	107.458	32.587	-132.020	5889.5	18.23	0.65	33.792	1013.8	349.40	349.79	341.32	341.70	
17 Apr	107.500	32.832	-131.903	5918.8	17.78	0.65	33.750	1013.3	351.43	350.96	343.32	342.86	
17 Apr	107.542	33.085	-131.812	5948.2	17.91	0.65	33.708	1013.3	350.92	353.69	342.77	345.47	
17 Apr	107.583	33.332	-131.712	5977.2	17.25	0.65	33.667	1013.3	351.46	354.19	343.57	346.24	
17 Apr	107.625	33.597	-131.610	6008.1	17.20	0.65	33.625	1013.9	349.65	355.46	342.02	347.71	
17 Apr	107.667	33.875	-131.470	6041.6	17.30	0.65	33.583	1014.9	347.37	355.08	340.09	347.64	
17 Apr	107.708	34.090	-131.362	6067.5	17.17	0.65	33.542	1015.9	347.24	351.67	340.36	344.71	
17 Apr	107.750	34.340	-131.248	6097.2	16.84	0.65	33.500	1016.2	347.77	355.56	341.11	348.76	
17 Apr	107.792	34.468	-131.192	6112.3	16.13	0.65	33.458	1016.4	351.73	357.14	345.34	350.66	
17 Apr	107.833	34.847	-131.025	6157.1	16.05	0.65	33.417	1016.8	348.63	352.58	342.47	346.34	
17 Apr	107.875	35.092	-130.925	6185.8	15.75	0.65	33.375	1016.5	351.95	352.07	345.74	345.85	
17 Apr	107.917	35.342	-130.820	6215.2	15.30	0.66	33.333	1016.1	349.43	342.26	343.28	336.24	
17 Apr	107.958	35.600	-130.708	6245.6	15.39	0.65	33.292	1015.8	346.26	341.23	340.03	335.10	
18 Apr	108.000	35.832	-130.613	6272.7	15.31	0.66	33.250	1015.8	346.92	341.94	340.72	335.83	
18 Apr	108.042	36.075	-130.517	6301.1	15.33	0.65	33.229	1015.3	349.18	340.08	342.76	333.82	
18 Apr	108.083	36.308	-130.368	6330.2	15.21	0.66	33.208	1015.5	346.96	324.88	340.69	319.00	
18 Apr	108.125	36.553	-130.263	6359.0	14.69	0.66	33.188	1015.2		336.05		330.05	
18 Apr	108.167	36.800	-130.158	6388.0	14.28	0.66	33.167	1015.9		332.36		326.80	
18 Apr	108.208	37.045	-130.052	6416.8	14.58	0.66	33.146	1016.1	350.43	334.26	344.52	328.62	
18 Apr	108.250	37.288	-129.947	6445.4	14.15	0.66	33.125	1016.5	346.03	334.12	340.48	328.76	
18 Apr	108.292	37.535	-129.848	6474.2	13.43	0.66	33.104	1016.2	345.49	328.01	340.08	322.88	
18 Apr	108.333	37.772	-129.748	6502.0	13.55	0.66	33.083	1016.1	348.92	326.08	343.38	320.91	
18 Apr	108.375	37.995	-129.652	6528.1	13.57	0.66	33.063	1016.0	348.62	324.84	343.05	319.65	
18 Apr	108.417	38.218	-129.553	6554.4	14.05	0.66	33.042	1016.0	350.37	326.08	344.61	320.72	
18 Apr	108.458	38.443	-129.457	6580.7	13.40	0.66	33.021	1015.4	351.44	329.46	345.67	324.06	
18 Apr	108.500	38.668	-129.360	6607.1	13.15	0.66	33.000	1015.2	348.01	322.29	342.31	317.01	
18 Apr	108.542	38.880	-129.280	6631.7	13.04	0.66	32.979	1015.0	352.65	323.17	346.84	317.85	
18 Apr	108.583	39.097	-129.210	6656.5	12.95	0.66	32.958	1015.2	350.36	320.36	344.69	315.17	
18 Apr	108.625	39.307	-129.142	6680.6	13.12	0.66	32.938	1015.3	351.54	321.06	345.82	315.85	
18 Apr	108.667	39.552	-129.058	6708.8	13.11	0.66	32.917	1015.3	347.90	322.36	342.25	317.12	
18 Apr	108.708	39.808	-128.968	6738.2	13.08	0.66	32.896	1014.9	351.33	322.22	345.49	316.87	
18 Apr	108.750	40.018	-128.893	6762.4	13.57	0.66	32.875	1015.7	349.48	319.70	343.79	314.50	
18 Apr	108.792	40.317	-128.772	6797.2	13.34	0.66	32.854	1015.5	349.10	324.80	343.43	319.52	
18 Apr	108.833	40.575	-128.655	6827.5	11.84	0.67	32.833	1015.8	352.14	318.56	346.98	313.90	
18 Apr	108.875	40.838	-128.485	6860.1	11.49	0.67	32.813	1015.4	348.72	315.13	343.57	310.48	
18 Apr	108.917	41.088	-128.365	6889.6	10.84	0.67	32.792	1014.4	349.83	316.66	344.51	311.85	
18 Apr	108.958	41.307	-128.265	6915.4	10.67	0.67	32.771	1013.8	349.60	321.88	344.13	316.84	
19 Apr	109.000	41.532	-128.155	6942.0	10.77	0.67	32.750	1013.7	349.95	321.50	344.40	316.41	
19 Apr	109.042	41.737	-128.058	6966.2	10.75	0.67	32.718	1013.2	353.39	317.38	347.63	312.20	
19 Apr	109.083	41.955	-127.955	6991.8	10.77	0.67	32.688	1012.2	353.16	319.91	347.04	314.37	
19 Apr	109.125	42.180	-127.850	7018.3	10.56	0.67	32.656	1012.2	350.21	320.78	344.20	315.27	
19 Apr	109.167	42.403	-127.745	7044.5	10.47	0.67	32.625	1012.2	352.36	325.68	346.34	320.12	
19 Apr	109.208	42.625	-127.630	7070.9	10.32	0.67	32.594	1012.1	350.83	329.51	344.85	323.89	
19 Apr	109.250	42.848	-127.522	7097.2	10.38	0.67	32.563	1012.0	350.42	330.34	344.39	324.66	
19 Apr	109.292	43.075	-127.420	7123.8	10.88	0.67	32.531	1011.9	351.13	322.55	344.91	316.84	
19 Apr	109.333	43.327	-127.305	7153.3	10.93	0.67	32.500	1011.9	351.49	315.33	345.25	309.74	
19 Apr	109.375	43.575	-127.210	7181.9	10.62	0.67	32.469	1011.2	348.28	322.49	341.95	316.62	
19 Apr	109.417	43.837	-127.105	7212.2	10.05	0.67	32.437	1010.8	353.04	327.52	346.63	321.58	
19 Apr	109.458	44.068	-127.007	7239.1	9.96	0.67	32.407	1010.9	348.66	327.08	342.40	321.20	
19 Apr	109.500	44.322	-126.888	7268.8	9.89	0.67	32.375	1010.4	348.58	324.82	342.17	318.84	
19 Apr	109.542	44.563	-126.778	7297.0	9.81	0.67	32.343	1010.5	349.97	325.38	343.59	319.44	
19 Apr	109.583	44.742	-126.718	7317.4	9.86	0.67	32.313	1010.7	352.15	325.74	345.78	319.85	
19 Apr	109.625	45.043	-126.547	7353.5	9.99	0.67	32.281	1010.7	351.51	323.26	345.12	317.38	
19 Apr	109.667	45.242	-126.458	7376.7	10.04	0.67	32.250	1011.1	349.06	327.20	342.83	321.36	
19 Apr	109.708	45.462	-126.325	7403.2	10.04	0.67	32.219	1011.2	350.99	325.86	344.77	320.08	
19 Apr	109.750	45.675	-126.210	7428.6	10.36	0.67	32.188	1011.2	349.64	325.97	343.35	320.10	

Date (GMT)	Day (GMT)	Latitude	Longitude	Dist. km	Tss	Warming	Salinity	P mbar	X(CO2)a	X(CO2)w	f(CO2)a	f(CO2)w	Flag
19 Apr	109.792	45.927	-126.070	7458.6	10.52	0.67	32.156	1011.3	346.74		340.50		
19 Apr	109.833	46.187	-125.962	7488.6	10.36	0.67	32.125	1011.5	348.96	313.48	342.78	307.93	
19 Apr	109.875	46.435	-125.818	7518.3	10.35	0.67	32.094	1011.2	347.43	313.44	341.18	307.81	
19 Apr	109.917	46.688	-125.690	7548.1	9.98	0.67	32.062	1011.3	349.32	263.09	343.18	258.46	
19 Apr	109.958	46.937	-125.565	7577.4	9.80	0.67	32.032	1011.3	345.11	303.48	339.08	298.18	
20 Apr	110.000	47.188	-125.453	7606.5	9.85	0.67	32.000	1010.9	345.43	280.68	339.25	275.66	
20 Apr	110.042	47.447	-125.343	7636.5	9.75	0.67	32.000	1010.4	348.10	307.84	341.73	302.21	
20 Apr	110.083	47.682	-125.228	7661.0	9.85	0.67	32.000	1009.9		262.92		257.96	
20 Apr	110.125	47.927	-125.097	7692.9	9.79	0.67	32.000	1009.7	348.07	257.43	341.45	252.53	
20 Apr	110.167	48.016	-124.861	7713.0	9.37		32.000	1009.4	346.94		340.35		
20 Apr	110.208	48.103	-124.630	7732.7	8.95		32.000	1009.1	355.32		348.56		
20 Apr	110.250	48.193	-124.393	7752.9	8.53		32.000	1008.7	356.75		349.93		
20 Apr	110.292	48.282	-124.157	7773.0	8.10		32.000	1008.4	354.05		347.28		

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