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Scotia-Fundy Region
Department of Fisheries and Oceans

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Technical reports contain scientific and technical information that contributes to existing knowledge but which is not normally appropriate for primary literature. The subject matter is related generally to programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

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Rapport technique canadien sur l'hydrographie et les sciences océaniques

Les rapports techniques contiennent des renseignements scientifiques et techniques qui constituent une contribution aux connaissances actuelles, mais qui ne sont pas normalement appropriés pour la publication dans un journal scientifique. Le sujet est généralement lié aux programmes et intérêts du service des Sciences et levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports techniques peuvent être cités comme des publications complètes. Le titre exact paraît au-dessus du résumé de chaque rapport. Les rapports techniques sont résumés dans la revue *Résumés des sciences aquatiques et halieutiques*, et ils sont classés dans l'index annuel des publications scientifiques et techniques du Ministère.

Les rapports techniques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports en décembre 1981. Une liste complète de ces publications figure dans le volume 39, Index des publications 1982 du *Journal canadien des sciences halieutiques et aquatiques*. La série actuelle a commencé avec la publication du rapport numéro 1 en janvier 1982.

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ABSTRACT

Hendry, R.M. 1989. Hydrographic Measurements from C.S.S. Hudson Cruise 82-002. Can. Tech. Rep. Hydrog. Ocean Sci. No.118: iv+112 pp.

Hydrographic data collected on Cruise 82-002 of C.S.S. Hudson, April 11 to May 2, 1982, are described. Seventy-eight stations were occupied on a line running near 48°N from the mouth of the English Channel to the Grand Banks of Newfoundland. Pressure, temperature and salinity were measured by a Guildline digital CTP system. Salinity, dissolved oxygen, silicate, nitrate and phosphate were measured from water samples collected on the CTP upcasts. Figures showing the plan of stations, bottom topography and sectional views of the observed temperature, salinity, potential density, oxygen and nutrients are presented. CTP and discrete bottle data and associated derived parameters are tabulated at standard levels. The CTP data at 2-decibar intervals and digital bathymetric data are available in computer-compatible versions in formats described in appendices to the report.

RÉSUMÉ

Hendry, R.M. 1989. Hydrographic Measurements from C.S.S. Hudson Cruise 82-002. Can. Tech. Rep. Hydrog. Ocean Sci. No.118: iv+112 pp.

On présente les données hydrographiques recueillies lors de la campagne 82-002 du n.h. Hudson, entre le 11 avril et le 2 mai 1982. Soixante-dix-huit stations étaient distribuées sur une ligne proche de 48°N et allant de l'entrée de la Manche jusqu'aux Grands Bancs de Terre-Neuve. On a mesuré la pression, la température et la salinité à l'aide d'un système CTP numérique Guildline. Les données de salinité, d'oxygène dissous, de silicate, de nitrate et de phosphate ont été mesurées sur des échantillons prélevés lors des remontées du CTP. On présente aussi des figures montrant le plan des stations, la topographie du fond et des sections des profils de température, de salinité, de densité potentielle, d'oxygène et d'éléments nutritifs. Les données du CTP et des flacons individuels, ainsi que les parametrès dérivés, sont tabulées aux niveaux standard. Les données du CTP à intervalles de 2 décibars et les données bathymétriques numériques sont disponibles en versions informatisées dans des formats présentés en annexe au rapport.

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INTRODUCTION

Between April 11 and May 2, 1982, Cruise 82-002 of C.S.S. Hudson occupied a line of hydrographic stations in the North Atlantic Ocean near 48°N running from the mouth of the English Channel to the Grand Banks of Newfoundland. Operational details are described in Hendry (1982). The goal of this work was to obtain a high quality set of measurements of temperature, salinity and associated chemical parameters along the section as part of an international effort to provide a modern large-scale description of the North Atlantic Ocean. This renewed concern for systematic descriptive oceanography was motivated by the need to quantify the ocean's role in the global climate system and to investigate possible long-term changes in ocean properties as a measure of interannual climate variability. The 48°N section was a near repeat of a North Atlantic section occupied by R.R.S. Discovery II during the International Geophysical Year of 1957-1958 (Fuglister, 1960).

This document discusses procedures followed in the collection and processing of the resulting CTP (conductivity-temperature-pressure) measurements and discrete measurements of salinity, dissolved oxygen and nutrients. Estimates of the accuracies of measurement for the various parameters are also discussed. Sectional figures of temperature, salinity, potential density, dissolved oxygen and nutrients are included. Subsampled CTP data and derived parameters at standard levels and the entire discrete bottle data set and similar derived parameters are tabulated.

Computer compatible versions of all the data described in the report are available. Technical details concerning the formats for these versions are described in the Appendices.

CTP DATA

Seventy-eight CTP stations were occupied along the 48°N line yielding measurements from just below the surface to within a few meters of the bottom in depths up to 4800 m. The measurement system used included a Guildline Mark IV digital CTP with dissolved oxygen sensor, a General Oceanics Rosette sampler and a bottom-sensing Datasonics acoustic pinger, all combined in a streamlined weighted body which permitted a nominal lowering rate of about 85 meters per minute.

Raw pressure, temperature, conductivity and oxygen data were logged at 25 samples per second. The raw data were subsequently reduced to 1-second averages of pressure, temperature and salinity in a calculation combining smoothing, conductivity lag correction and salinity computation, and then sorted into 2 dbar pressure bins. The CTP measurements of dissolved oxygen were of poor quality due to excessive noise and repeated failure of oxygen sensors, and no useful continuous oxygen results have been obtained.

Calibration of the CTP data was aided by comparison with discrete measurements of temperature and salinity obtained on the upcasts, as discussed below.

Pressure

Readings of upcast CTP pressure at Niskin bottle stops were compared with thermometric pressures calculated from paired protected and unprotected reversing thermometers with calibrations traceable to National Research Council of Canada standards or to equivalent standards in the thermometers' countries of origin. An empirical model CTP pressure correction varying linearly with pressure and instantaneous temperature was developed, using one set of coefficients for all 78 stations. The root mean square difference between corrected CTP pressure and thermometrically derived pressure was approximately 6 dbar. This comparison involved two independent readings of approximately 230 unprotected thermometers and double this number of associated protected thermometers over the full range of measured pressures. No independent checks on the pressure calibration of downcast readings are available, although some differences are expected due to the thermal time constants of the pressure case and the temperature sensitivity of the pressure transducer.

Bottom pressures

The bottom pressures given in the station headers of the tabulated data were derived by adding the maximum (corrected) pressure achieved by the CTP on a given cast to the pressure equivalent of the distance between the CTP and the bottom at this maximum pressure, as measured acoustically by the pinger attached to the CTP. These calculations generally agree to within 10 dbar (80% confidence) with the pressure equivalent of the bottom depth measured directly by the ship's echo sounder at the start of the CTP cast.

Temperature

The CTP temperature measurements were calibrated to the International Practical Temperature Scale of 1968 (IPTS-68) by a combination of post-cruise laboratory calibrations and comparisons with protected reversing thermometer readings at the discrete bottle stops on the upcast CTP profiles. A discussion of some of the details of the temperature calibration is found in Hendry (1985). The corrected CTP temperatures should be accurate to .002 deg.C in the range 1.5 to 6.5 deg.C, .007 deg.C at temperatures colder than 1.5 deg.C and .005 deg.C at temperatures warmer than 6.5 deg.C, all at 95% confidence. No significant differences in temperature calibration between downcasts and upcasts were detectable by matching readings by pressure, allowing for the temporal and spatial variability of temperature in the ocean.

Salinity

Salinity was derived from CTP pressure, temperature and conductivity using the formulas associated with the International Practical Salinity Scale of 1978 (IPSS-78). After final CTP pressure and temperature calibrations were defined, empirical conductivity calibrations were derived using a conductivity correction ratio (CCR) approach, comparing raw CTP conductivity with conductivity computed from discrete bottle salinity measurements and associated corrected CTP pressure and temperature readings. Significant station to station variability in conductivity calibration was noted, and the model included a constant term dependent only on station number. Significant pressure and temperature effects on CCR were apparent only at pressures less than about 2500 dbar and these effects were included in the model with a single set of coefficients for all stations. Significant differences in downcast and upcast CTP conductivity calibrations at a given station were indicated by comparisons at the same pressures on the downcasts and upcasts, and parameters for downcast calibrations were derived using upcast bottle salinities and downcast CTP conductivity measured at the same corrected CTP pressure as the bottle sample.

In the deep water (pressures greater than 3000 dbar) where temporal and spatial variability in salinity would be expected to be small on the scales of individual station durations (4 hours) and associated ship drift (10 km), the standard error of the difference between bottle salinity determinations and corrected downcast CTP salinity is of the order .002.

BOTTLE DATA

Discrete water samples were collected on the upcast of each CTP station using a maximum of 21 1.2 liter Niskin bottles attached to a General Oceanics Rosette sampler incorporated in the CTP package, and by Knudsen bottles lowered on a hydrowire for near surface samples on some stations. Protected and unprotected reversing thermometers were used on a subset of the Rosette sampler and Knudsen bottles for temperature and pressure calibrations. Approximately 1300 discrete water samples were collected over the course of the cruise.

Pressure

The pressure values associated with the Niskin bottle data are corrected CTP pressure readings at the time the bottle samples were obtained. The pressure values associated with the Knudsen bottle data are either thermometric pressure estimates from paired protected and unprotected reversing thermometers or estimates based on wire out in cases where no thermometric pressures were available.

Temperature

The temperature values associated with the Niskin bottle data are corrected instantaneous upcast CTP temperature readings at the time the bottle sample was obtained. The temperature values associated with the Knudsen bottle date are averages of two readings of one or two protected reversing thermometers and are considered accurate to .02 deg.C at 95% confidence.

Salinity

Salinity samples were collected in 170 ml glass bottles which were then tightly capped and allowed to come to room temperature before being analyzed on board ship using a Guildline Autosal salinometer. Salinity was computed from the salinometer conductivity ratio using the International Practical Salinity Scale of 1978 (IPSS-78) algorithm. The salinometer was standardized using IAPSO Standard Water obtained from the Standard Seawater Service, Institute of Oceanographic Sciences, Wormley, U.K. Standardizations were performed approximately every 12 samples. Three different batches of Standard Water were used : P80 (sample numbers 2534-2610); P85 (sample numbers 1301-1506, 1539-2117); and P86 (sample numbers 1507-1538, 2118-2533).

Duplicate salinity samples were drawn from approximately 10% of the water bottles for a check on repeatability of the sample handling and analysis. Of 129 paired samples, 121 (93.9%) showed differences in salinity with absolute values less than or equal to .002. Several of the Niskin bottles used to collect discrete water samples appeared to suffer intermittent problems of leaking, resulting in the contamination of a number of salinity samples, which were rejected in a manual editing procedure. Salinity samples which were rejected have been replaced in the discrete sample listings by corrected CTP salinities obtained on the upcast at the time the bottle samples were obtained. These cases are indicated in the listings by a "C" appended to the salinity reading.

Oxygen

Samples for oxygen were drawn and analyzed in accordance with standard Atlantic Oceanographic Laboratory practice, as detailed in Levy et al. (1977). The analysis involves manual shipboard titration using an improved version of the Carritt and Carpenter (1966) modification of the standard Winkler method. The sodium thiosulphate solution used in the titration was standardized against a potassium iodide standard solution from CSK Standard Solution Service, Sagami Chemical Research Center, Japan.

Duplicate oxygen samples were drawn and analyzed for approximately 10% of the bottle samples as a test of repeatability. Of 118 cases, 95 pairs (80.5%) showed differences in absolute value of oxygen concentration of less than or equal to .05 ml/l. Some oxygen values have been discarded in a manual editing stage which removed obvious outliers, with leaking Niskin bottles being a likely explanation for many of the outliers.

Nutrients

Samples were drawn for the three primary nutrient salts silicate [Si(OH)4], nitrate [NO2(-1) + NO3(-1)] and phosphate [predominantly HPO4(-2)] which were measured at sea using a Technicon Autoanalyzer II Industrial System.

1. The silicate method is basically Technicon Industrial Method No.186-72W (1973). The method involves the formation of a silicomolybdate blue complex, which is analyzed colorimetrically at a wavelength of 660 nm.

2. The phosphate method is basically Technicon Industrial Method No.155-71W (1973) which is a modification of the Murphy and Riley (1962) single solution method. The method depends on the formation of a phosphomolybdate blue complex, the colour of which is read at a wavelength of 880 nm.

3. The nitrate+nitrite method is basically Technicon Industrial Method No.158-71W which utilizes copper-cadmium reduction of nitrate to nitrite with ammonium chloride as a buffer.

Duplicate nutrient samples were drawn from approximately 10% of the water bottles as a test of repeatability. The results for absolute values of differences between duplicates are summarized as follows:

Silicate:	92 of 143 cases (64.3%)	$\leq$	.06	micromoles/l
Phosphate:	99 of 143 cases (69.2%)	$\leq$	.04	micromoles/l
Nitrate:	97 of 143 cases (67.8%)	$\leq$	.10	micromoles/l

Outliers in the nutrient data were discarded in a manual editing stage. Leaking Niskin bottles were the likely cause of many of the outliers. Shipboard contamination of some of the phosphate samples by detergent from the nearby ship's laundry area was also suspected.

NAVIGATION AND BATHYMETRY

Navigation aids used on the cruise included an Austron LORAN C receiver operating in range-range mode and a two-channel Marconi Transit satellite receiver. A navigation software system (BIONAV) integrated the ship's speed log and gyro-compass readings with these electronic aids. Continuous fixing was generally possible using LORAN C except for a period of approximately one day when the ship was out of range of all North Atlantic LORAN chains. Navigation data are expected to be accurate to within one nautical mile except for a few cases in the vicinity of the North Atlantic Ridge where LORAN was unavailable and navigation was by satellite fixes interpolated by dead reckoning. The station positions given in Table 2 below are as measured at the start of the CTP downcast.

Bottom soundings were carried out continuously while underway using the ship's Raytheon 12 kHz sounding system, with the results displayed on a graphic recorder. The sounding rolls were subsequently digitized and the soundings were corrected for sound speed variations using CTP-derived sound speed profiles interpolated along the cruise track. Tables of pressure as a function of depth derived from each CTP station were interpolated along the cruise track in a similar way to derive pressure equivalents for the corrected bottom depths.

Bottom soundings and navigation data were merged by time. The bottom profile in Figure 2 and in the sectional plots was produced from pressure equivalents of bottom depth tabulated at .01 degree longitude increments. The cruise track and sounding data expressed as uncorrected meters (sound speed 1463 m/s), corrected meters and decibars are available on a flexible diskette in a format described in Appendix 3.

SECTION PLOTS

A plot of bottom topography expressed as equivalent bottom pressure as a function of longitude is given in Figure 2. The locations of the standard-level CTP data are shown in this figure to provide an impression of the data coverage. Contoured section plots of the CTP and bottle data as a function of pressure and longitude are presented in Figures 2-9. The projection of the sections onto longitude as the horizontal coordinate results in some distortion of the horizontal scale, since the direction of the cruise track shifted from south of west in the eastern basin to due west in the western basin, but it provides a geographical reference frame. Pressure was selected for the vertical coordinate, with depth in meters being numerically nearly equal to pressure in decibars.

Prior to contouring, the standard-level CTP data and discrete bottle data were interpolated and extrapolated onto a regular grid in pressure and longitude with grid intervals of 50 dbar and 1/3 degree respectively. Computational points were defined only at levels shallower than the tabulated bathymetry at the location of the grid point. The interpolation was carried out using optimal linear interpolation. This method requires the specification of a covariance function and characteristic vertical and horizontal scales for variations in the fields to be mapped. Each grid point was assigned an equivalent fractional station number based on a linear interpolation of station number against along-track distance, and this equivalent station number was used as the horizontal coordinate in the optimal linear interpolation calculations to provide a spatially varying horizontal scale. No attempt was made to introduce any inhomogeneity in the vertical scale. A covariance function of the form

$$F(r) = (1 + r + r^2/3)\, e^{-r}$$

was used in the calculation. The scaled distance r between vertically and horizontally separated grid points was computed as

$$r^2 = [s1-s2]^2 + [(p1-p2)/200]^2$$

where (s1,p1) and (s2,p2) are the equivalent station number and pressure in decibars for each of the two points. A vertical separation of 200 dbar is equivalent to a horizontal separation of unit station spacing, which varies from approximately 18 to 78 km. The 15 data values nearest each grid point using this scaling were selected to control the interpolation at that grid point. This methodology produces reasonable results, but the covariance model was formulated on a somewhat arbitrary basis and no claims of statistical optimality are made. The calculation of each of the fields on 7850 grid points using approximately 1300 data points required about 100 minutes of central processor time on a Digital Equipment Corporation MicroVAX-II computer.

Computer-drawn contour plots of the gridded data were then produced.

ACKNOWLEDGEMENTS

Thanks are due to the officers and crew of C.S.S. Hudson for their efforts on Cruise 82-002. This 1982 repeat of the 48°N transect of R.R.S. Discovery II originated with a suggestion by Carl Wunsch. The idea was subsequently supported by George Needler and R. Allyn Clarke and this support is gratefully acknowledged. Also gratefully acknowledged are the data processing contributions of Jennifer Hackett, Cathy Porter, and Everett Caldwell.

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TABLE 1 Dates, Itinerary and List of Participants

Sailed:	Glasgow, United Kingdom	April 11, 1982
Arrived:	Dartmouth, Nova Scotia	May 2, 1982
Scientific Party:	Dr. Ross M. Hendry, Senior Scientist Dr. John R.N. Lazier Dr. William L. Ford Mr. Lawrence J. Bellefontaine Mr. Bruce D. Carson Mr. Carl C. Cunningham Mr. Jean-Guy Dessureault Mr. Werner B. Griefeneder Mr. Stephen Halliday Mr. David R. Harvey Mr. David L. Hendsbee Mr. Raymond S. Hiltz Mr. G. Evan Locke Mr. George B. Taylor Mr. Edward A. Verge	
Ship's Master:	Captain Fred C. Mauger	

TABLE 2 Station Information

Station Number	North Latitude	West Longitude	Station Spacing (km)	Total Distance (km)	Start Time (UTC) (hh:mm	dd	mm	yyyy)
1	49.7118	9.9813	0.0	0.0	20:46	12	4	1982
2	49.6202	10.5358	41.2	41.2	23:54	12	4	1982
3	49.5422	11.0120	35.4	76.6	1:59	13	4	1982
4	49.5043	11.4687	33.2	109.8	5:19	13	4	1982
5	49.3437	11.9983	42.3	152.1	7:40	13	4	1982
6	49.2543	12.4993	37.7	189.8	10:50	13	4	1982
7	49.1793	13.0022	35.5	227.2	3:50	13	4	1982
8	49.0885	13.4818	36.3	263.5	18:17	13	4	1982
9	49.0303	13.9775	36.7	300.2	23:58	13	4	1982
10	48.9568	14.4862	38.0	338.2	5:45	14	4	1982
11	48.8328	14.9915	39.4	377.7	11:25	14	4	1982
12	48.7460	15.4875	37.6	415.3	22:13	14	4	1982
13	48.6358	16.2397	56.6	471.8	5:38	15	4	1982
14	48.5873	16.8512	45.3	517.1	13:57	15	4	1982
15	48.3797	17.7473	70.0	587.1	21:14	15	4	1982
16	48.2427	18.4565	54.6	641.7	3:49	16	4	1982
17	48.1697	19.4985	77.6	719.3	11:04	16	4	1982
18	48.1793	20.5075	74.8	794.1	18:49	16	4	1982
19	48.1665	21.4988	73.5	867.6	1:13	17	4	1982
20	48.1642	22.4122	67.9	936.6	12:34	17	4	1982
21	48.2035	23.4353	76.0	1012.5	23:24	17	4	1982
22	48.2065	24.4488	75.1	1087.6	6:38	18	4	1982
23	48.1662	25.3542	67.3	1154.9	12:57	18	4	1982
24	48.0265	25.9895	49.7	1204.6	18:09	18	4	1982
25	47.8372	26.5028	43.7	1248.2	23:24	18	4	1982
26	48.0592	27.0088	45.0	1293.3	4:13	19	4	1982
27	47.9680	27.5565	42.0	1335.3	8:51	19	4	1982
28	47.6833	27.8622	39.0	1374.3	13:44	19	4	1982
29	47.5310	28.2870	36.1	1410.4	18:07	19	4	1982
30	47.1803	28.4042	40.0	1450.3	22:22	19	4	1982
31	46.9988	29.0082	50.0	1500.3	3:18	20	4	1982
32	46.9958	29.5030	37.5	1537.8	7:39	20	4	1982
33	46.9973	30.0000	37.7	1575.5	12:04	20	4	1982
34	46.9982	30.7478	56.7	1632.2	17:29	20	4	1982
35	47.0043	31.4893	56.2	1688.5	22:36	20	4	1982
36	46.9942	32.2527	57.9	1746.4	4:21	21	4	1982
37	46.9995	33.0000	56.7	1803.1	10:35	21	4	1982
38	47.0005	33.7543	57.2	1860.3	16:44	21	4	1982
39	47.0007	34.5065	57.0	1917.3	22:55	21	4	1982
40	46.9953	35.2487	56.3	1973.6	4:48	22	4	1982

TABLE 2 Station information (con'd)

Station Number	North Latitude	West Longitude	Station Spacing (km)	Total Distance (km)	Start Time (UTC) (hh:mm dd mm yyyy)
41	46.9958	35.9975	56.8	2030.4	10:26 22 4 1982
42	46.9957	36.7525	57.3	2087.6	16:22 22 4 1982
43	47.0045	37.5027	56.9	2144.5	22:14 22 4 1982
44	46.9983	38.0027	37.9	2182.4	3:40 23 4 1982
45	47.0055	38.4993	37.7	2220.1	9:36 23 4 1982
46	47.0000	39.0000	38.0	2258.1	16:17 23 4 1982
47	47.0015	39.4958	37.6	2295.7	22:43 23 4 1982
48	47.0195	39.9962	38.0	2333.7	11:41 24 4 1982
49	47.0083	40.6565	50.1	2383.7	23:18 24 4 1982
50	47.0045	41.0048	26.4	2410.2	5:40 25 4 1982
51	46.9998	41.5117	38.4	2448.6	11:18 25 4 1982
52	47.0020	42.0015	37.1	2485.7	17:09 25 4 1982
53	46.9983	42.4990	37.7	2523.5	22:18 25 4 1982
54	47.0062	43.0030	38.2	2561.7	3:51 26 4 1982
55	46.9942	43.2555	19.2	2580.9	8:27 26 4 1982
56	46.9950	43.4983	18.4	2599.3	11:47 26 4 1982
57	46.9992	43.7512	19.2	2618.5	14:40 26 4 1982
58	47.0013	44.0028	19.1	2637.6	16:55 26 4 1982
59	46.9987	44.2555	19.2	2656.7	18:54 26 4 1982
60	46.9900	44.5030	18.8	2675.5	20:39 26 4 1982
61	47.0003	44.7580	19.4	2694.9	22:11 26 4 1982
62	46.9978	45.0038	18.6	2713.5	23:40 26 4 1982
63	47.0013	45.2520	18.8	2732.4	1:33 27 4 1982
64	46.9992	45.5002	18.8	2751.2	3:25 27 4 1982
65	47.0000	45.7487	18.8	2770.0	5:38 27 4 1982
66	47.0047	46.0045	19.4	2789.4	7:28 27 4 1982
67	47.0055	46.2518	18.8	2808.2	9:06 27 4 1982
68	47.0010	46.5022	19.0	2827.2	10:46 27 4 1982
69	46.9998	46.7555	19.2	2846.4	12:35 27 4 1982
70	46.9937	47.0033	18.8	2865.2	15:03 27 4 1982
71	46.9920	47.2373	17.7	2883.0	18:44 27 4 1982
72	46.9997	47.5062	20.4	2903.4	20:42 27 4 1982
73	47.0020	47.7502	18.5	2921.9	22:28 27 4 1982
74	47.0008	47.9985	18.8	2940.7	0:17 28 4 1982
75	47.0028	48.2478	18.9	2959.6	2:06 28 4 1982
76	47.0020	48.5038	19.4	2979.0	4:06 28 4 1982
77	46.9678	48.7518	19.2	2998.2	5:53 28 4 1982
78	47.0033	49.0093	19.9	3018.1	7:54 28 4 1982

LIST OF FIGURES

Figure 1

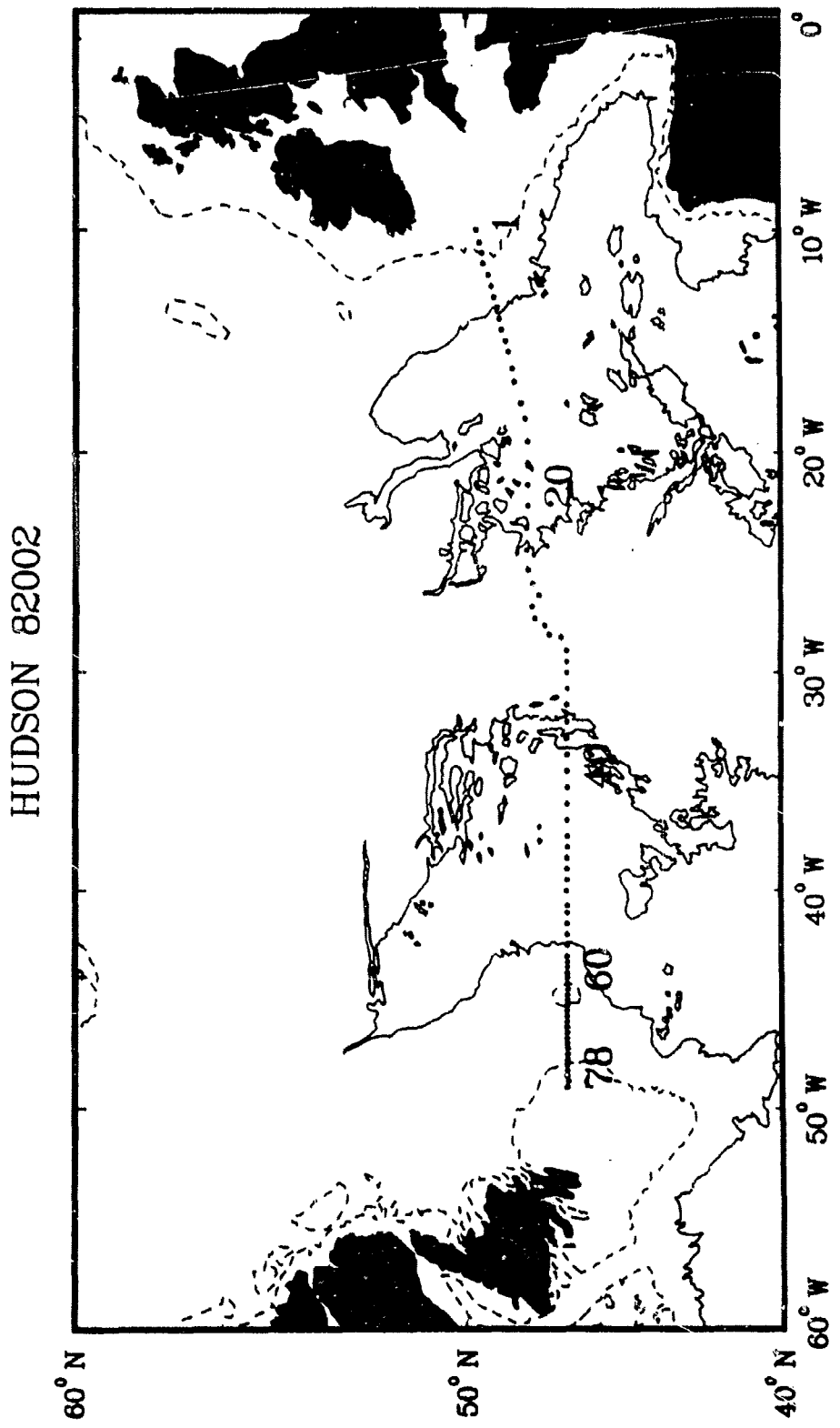


Figure 2

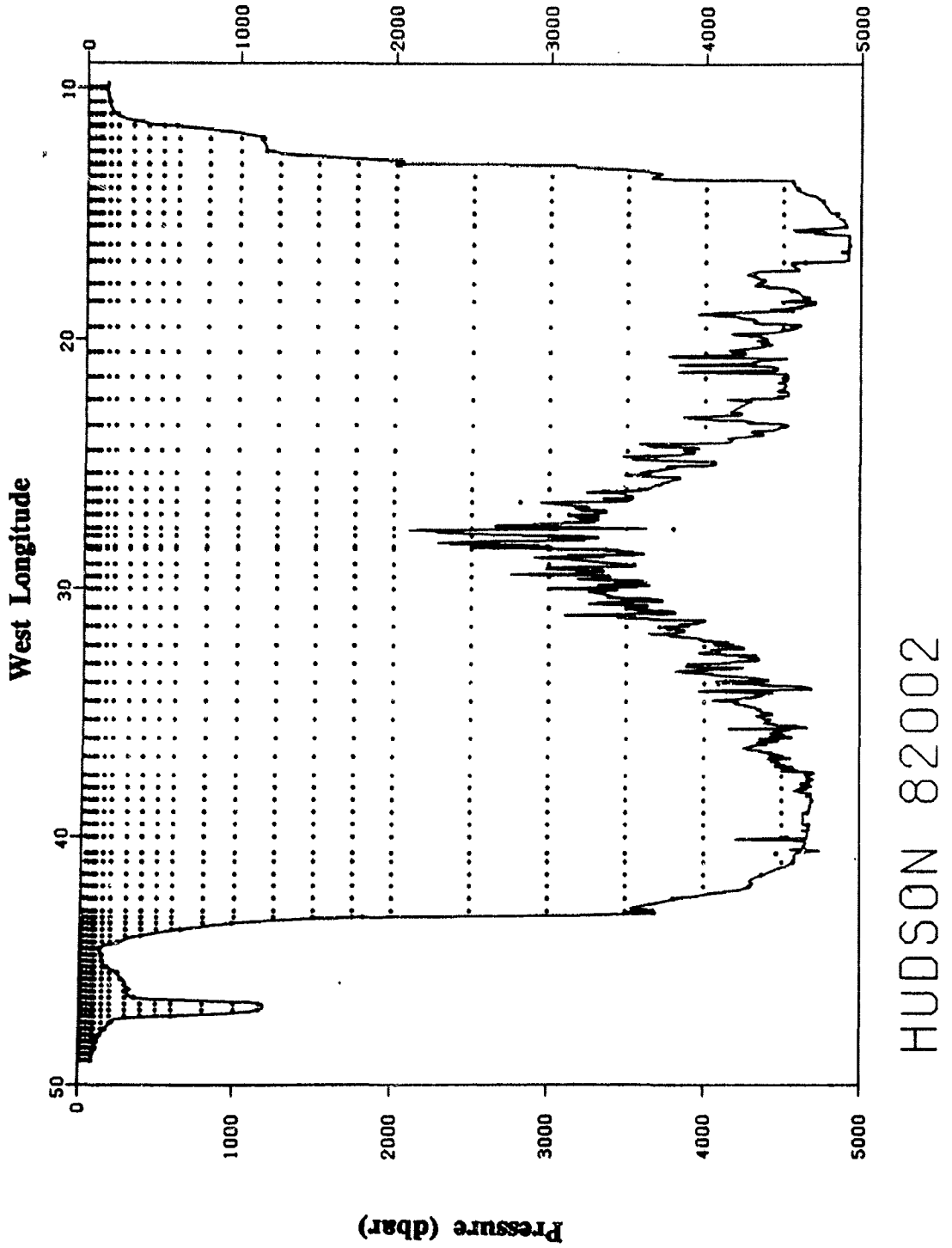

West Longitude
0
10
20
30
40
50
1000
2000
3000
4000
5000
Pressure (dbar)
HUDSON 82002

Figure 3

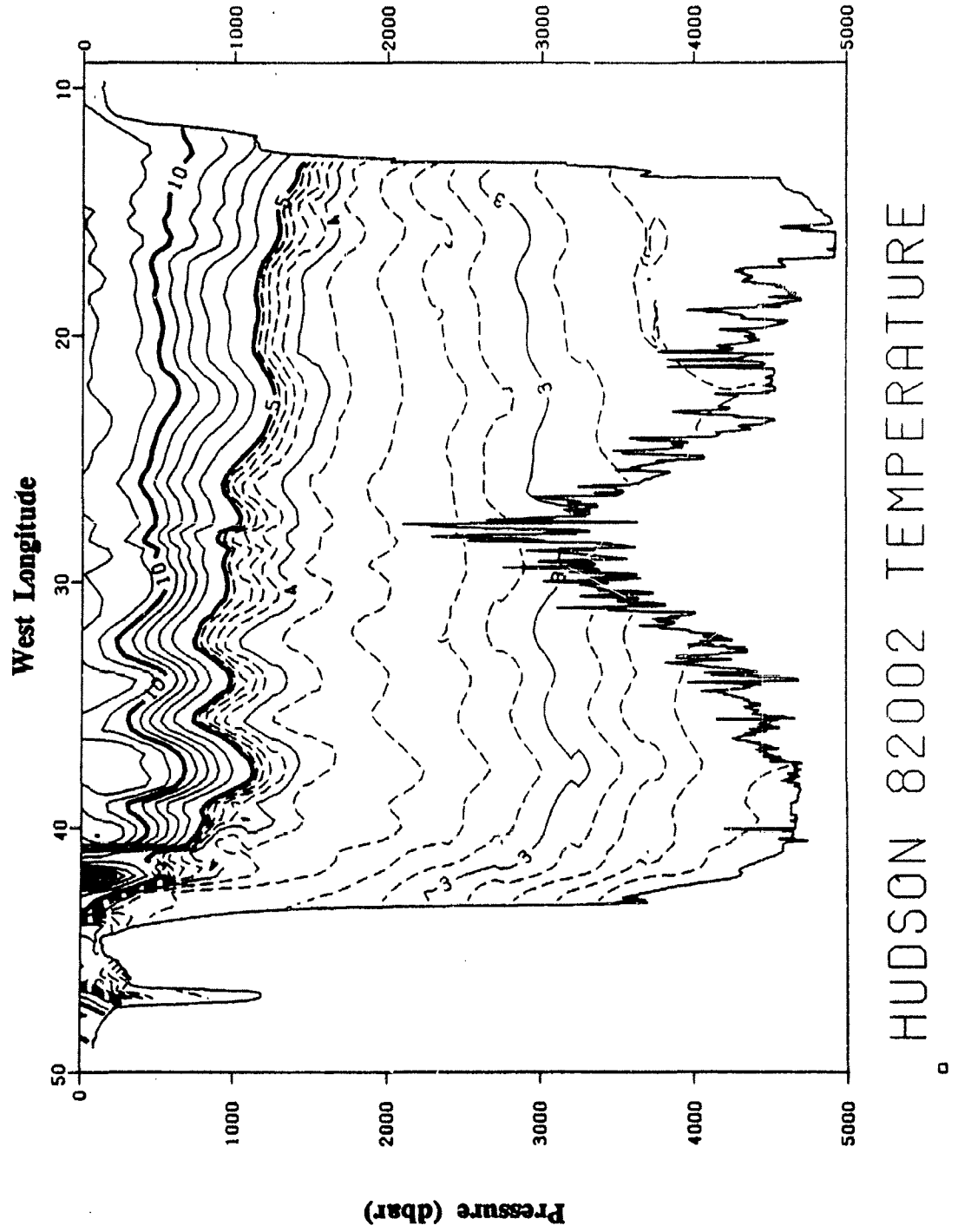

HUDSON 82002 TEMPERATURE
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
10
5
3
2
1

Figure 4

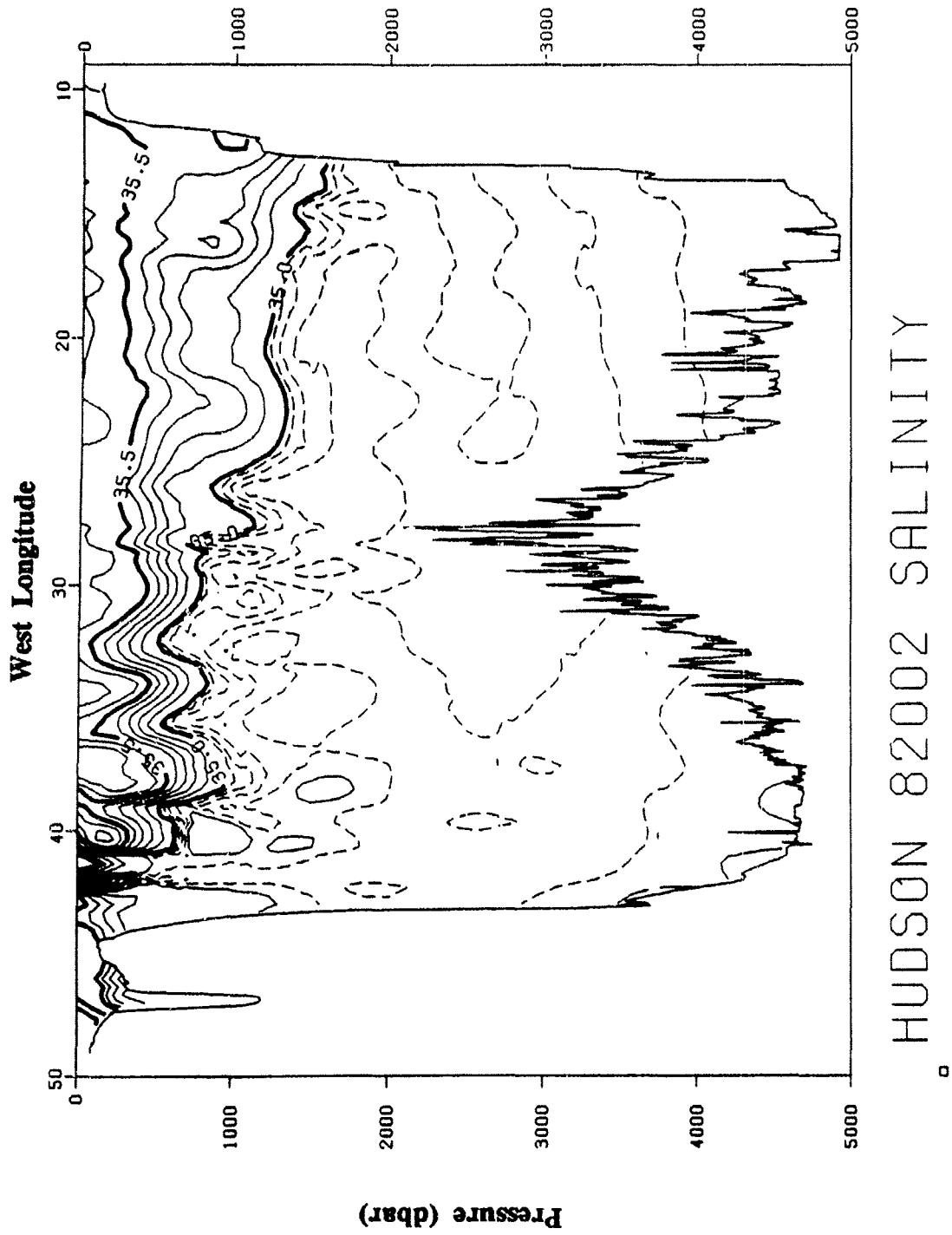

HUDSON 82002 SALINITY
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
35.5
35.0

Figure 5

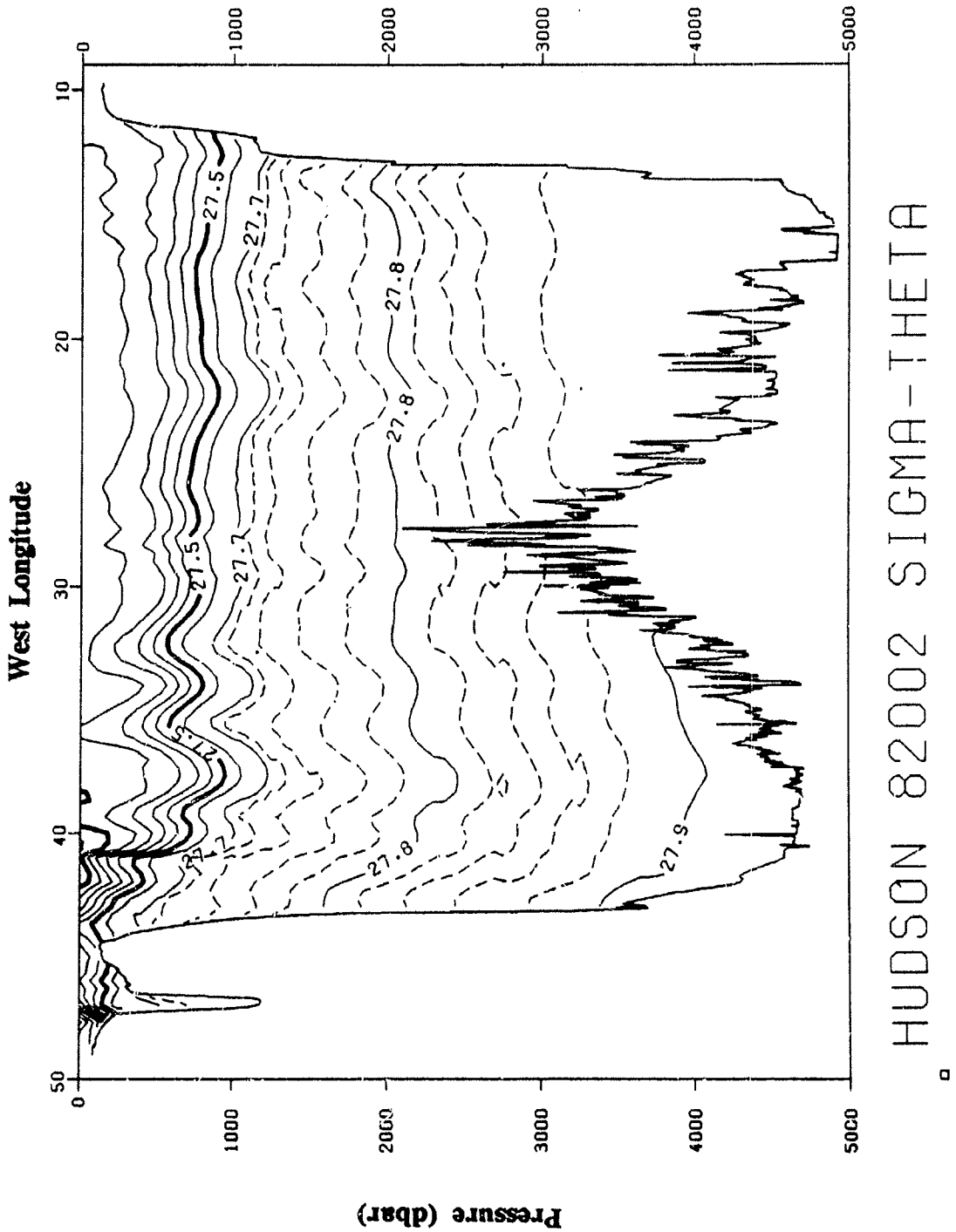

HUDSON 82002 SIGMA-THETA
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
27.5
27.7
27.8
27.9

Figure 6

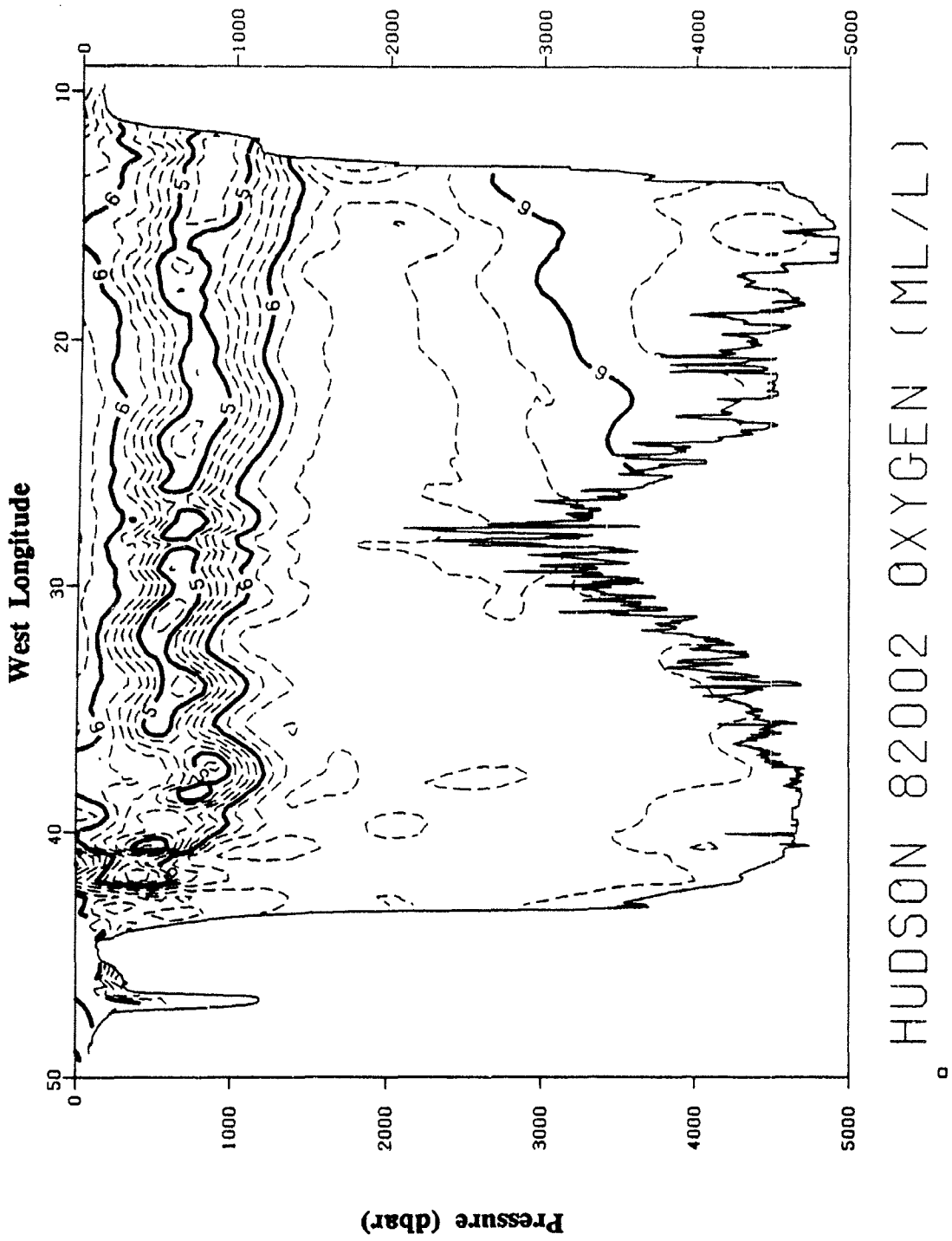

HUDSON 82002 OXYGEN (ML/L)
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
6
5

Figure 7

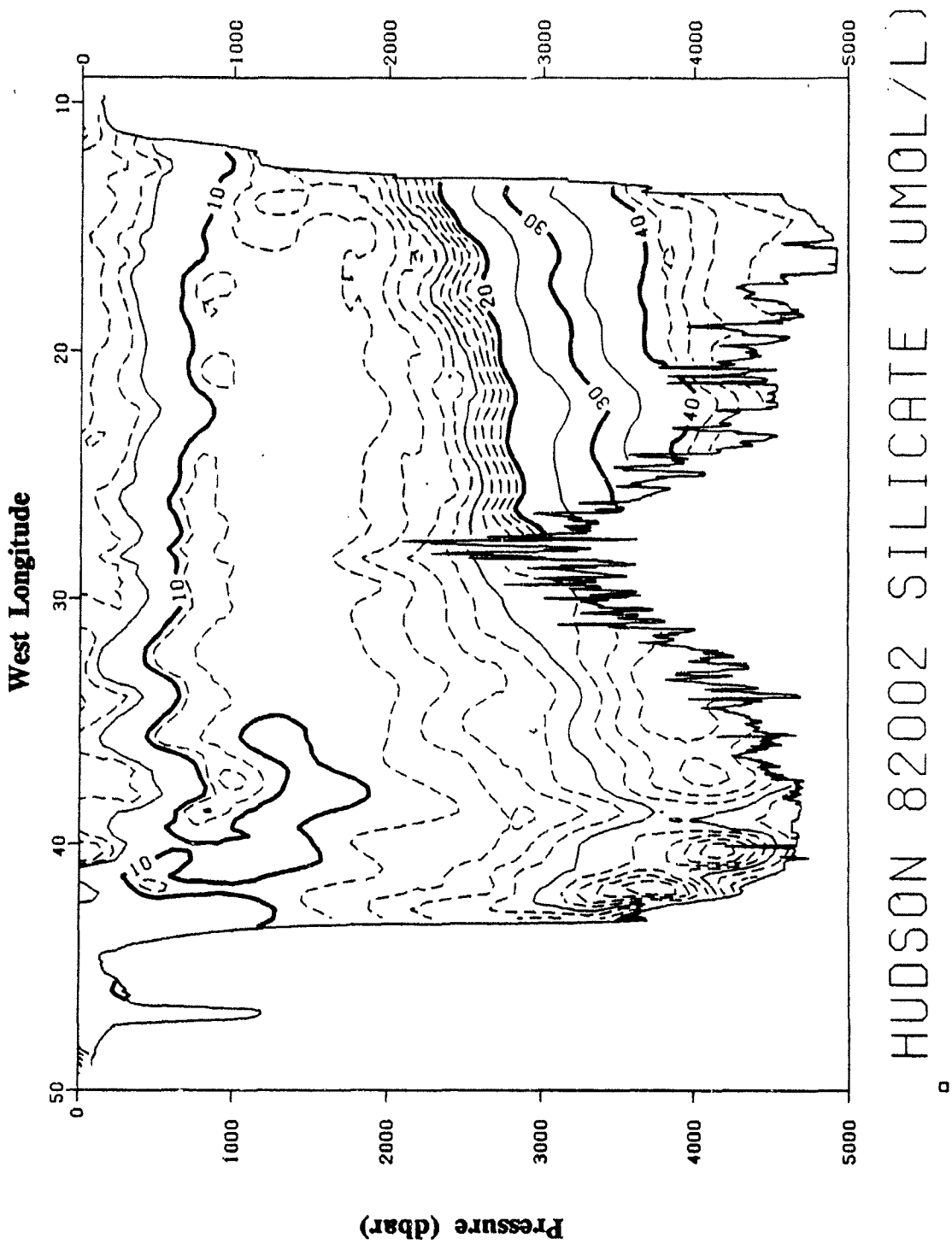
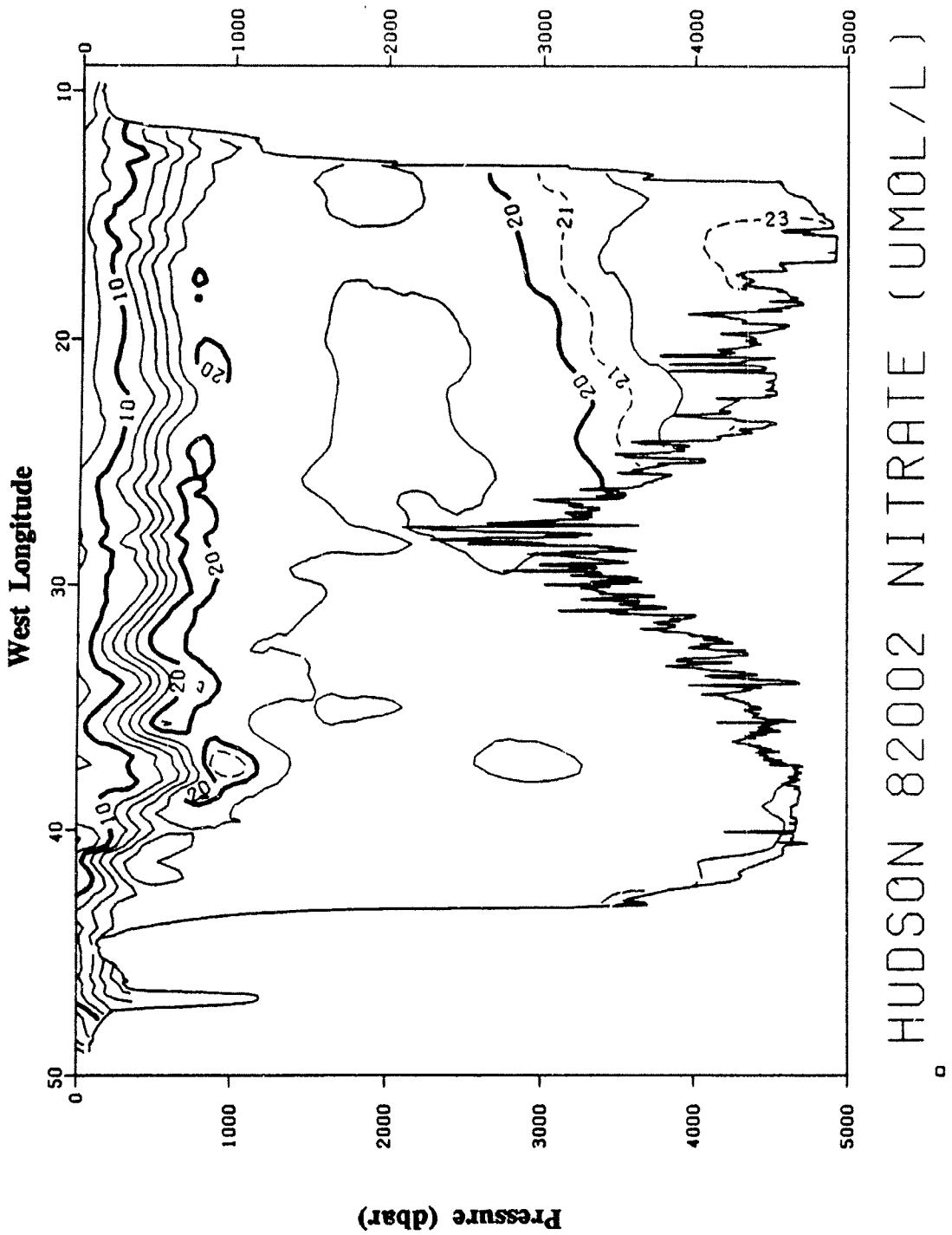

HUDSON 82002 SILICATE (UMOL/L)
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
10
20
30
40

Figure 8


HUDSON 82002 NITRATE (UMOL/L)
West Longitude
Pressure (dbar)
0
10
20
30
40
50
1000
2000
3000
4000
5000
10
20
21
23

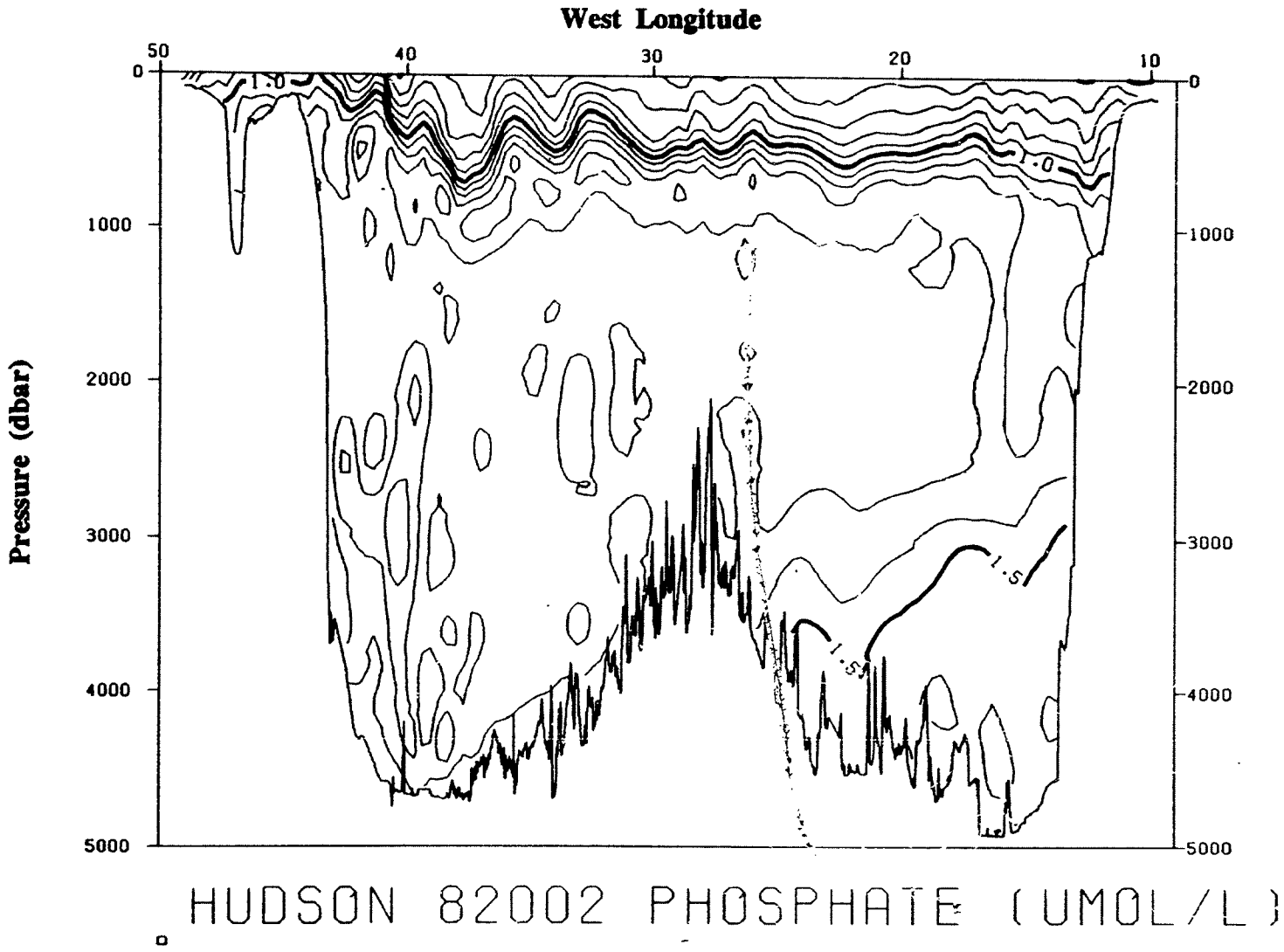

West Longitude
50
40
30
20
10
0
1000
2000
3000
4000
5000
Pressure (dbar)
1.0
1.5
HUDSON 82002 PHOSPHATE (UMOL/L)

Figure 9

TABULATED DATA

STATION HEADER

STN	sequential station number
LAT	north latitude in degrees, minutes and decimal minutes
LONG	west longitude in degrees, minutes and decimal minutes
	date of station occupation
	start time of station (UTC)
SOUNDING	bottom depth in meters at the point of closest approach of the CTP to the bottom. The pressure equivalent in dbar is also given.

CTP DATA (upper panel)

PR	gauge pressure in decibars (1 dbar = 10^4 Pa)
T	temperature in degrees Celsius [International Practical Temperature Scale of 1968 (IPTS-68)]
S	salinity [International Practical Salinity Scale of 1978 (IPSS-78)]
TH	potential temperature relative to zero gauge pressure
SIG-TH	potential density anomaly referred to zero gauge pressure in kg/m^3 relative to 1000 kg/m^3.
SIG-1.5	potential density anomaly referred to 1500 dbar gauge pressure
SIG-3	potential density anomaly referred to 3000 dbar gauge pressure
DEL-S	salinity anomaly at the observed potential temperature relative to a standard curve for the western North Atlantic computed by Armi and Bray (1982).

TABULATED DATA

CTP DATA (upper panel) (con'd)

DYN-HT — dynamic height relative to the sea surface in dynamic meters (1 dyn.m = 10 J/kg)

TRANS — geostrophic transport streamfunction relative to the sea surface in Sverdrups (1 Sv = 10^6 m^3/s)

DEPTH — depth in meters

Potential temperature and potential density anomaly were computed using the algorithms discussed in Unesco (1983). Dynamic height, geostrophic transport streamfunction and depth were computed by trapezoidal integration of the CTP data with respect to pressure using a pressure interval of 2 dbar.

BOTTLE DATA (lower panel)

PR — gauge pressure in decibars (1 dbar = 10^4 Pa). The pressure values associated with the Niskin bottle data are corrected CTP pressure readings at the time the bottle samples were obtained. The pressure values associated with the near-surface Knudsen bottle data (indicated by "K" appended to the sample number) are either thermometric pressure estimates from paired protected and unprotected reversing thermometers or estimates based on wire out in cases where no thermometric pressures were available.

T — temperature in degrees Celsius measured at the time the bottle sample was obtained. The temperature values associated with the Niskin bottle data are corrected CTP temperature readings. The temperature values associated with the Knudsen bottle data are from reversing thermometers.

S — salinity measured from the discrete bottle samples. Values rejected as outliers have been replaced by corrected CTP salinities measured at the time the bottle samples were obtained. These cases are indicated by a "C" appended to the salinity reading.

TABULATED DATA

BOTTLE DATA (lower panel) (con'd)

OXY	oxygen in milliliters per liter
SIL	silicate in micromoles per liter
PHOS	phosphate in milliliters per liter
NIT	nitrate in milliliters per liter
TH	potential temperature at zero gauge pressure in degrees Celsius computed from the tabulated bottle pressure, temperature and salinity
SIG-TH	potential density anomaly at zero gauge pressure in kg/m^3 relative to 1000 kg/m^3 computed from the tabulated bottle pressure, temperature and salinity
SN	sample number. The sample number combined with the year of collection (1982 in this case) uniquely identifies chemical data collected by the Atlantic Oceanographic Laboratory and the present day Physical and Chemical Sciences Branch, Scotia-Fundy Region. Sample numbers with an an appended "K" indicate Knudsen bottle samples.
DEPTH	depth in meters

The tabulated CTP and bottle data are also available on flexible diskette.

HUDSON 82002 STN 1 LAT 49 42.7N LONG 9 58.9W 12 APRIL 1982 2046Z
SOUNDING 116 M (117 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	10.754	35.405	10.752	27.136	33.753	40.151	.016	.013	.0	14
20	10.749	35.403	10.747	27.136	33.753	40.151	.015	.018	.0	20
50	10.599	35.406	10.593	27.166	33.788	40.190	.036	.046	.1	50
80	10.355	35.385	10.346	27.193	33.823	40.233	.044	.073	.3	79
100	10.359	35.384	10.347	27.192	33.822	40.232	.044	.090	.4	99
122	10.361	35.388	10.347	27.195	33.825	40.235	.048	.110	.6	121

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	10.758	35.402	6.900	.92	.49	3.71	10.757	27.133	1306	12
28	10.636	35.398C					10.633	27.152	1305	28
53	10.587	35.401	6.595	1.11	.49	4.97	10.581	27.164	1304	53
112	10.360	35.393	6.405	2.07	.61	7.02	10.347	27.199	1301	111
112	10.360	35.382	6.372	2.09	.63	7.07	10.347	27.191	1303	111
112	10.360	35.388	6.351	2.06	.62	7.05	10.347	27.195	1302	111

HUDSON 82002 STN 2 LAT 49 37.2N LONG 10 32.1W 12 APRIL 1982 2354Z
SOUNDING 145 M (146 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
10	10.996	35.449	10.995	27.127	33.736	40.126	.030	.009	.0	10
20	10.993	35.440	10.991	27.121	33.730	40.120	.021	.019	.0	20
50	10.941	35.458	10.935	27.145	33.755	40.147	.046	.047	.1	50
80	10.933	35.463	10.923	27.151	33.762	40.154	.052	.074	.3	79
100	10.593	35.427	10.581	27.184	33.806	40.209	.058	.092	.4	99
144	10.600	35.428	10.583	27.185	33.807	40.209	.060	.132	.9	143

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	10.981	35.461		1.43	.49	4.93	10.979	27.139	1312	13
27	10.970	35.463	6.245	1.30	.52	5.03	10.967	27.143	1311	27
55	10.924	35.463		1.72	.53	5.80	10.917	27.152	1310	55
105	10.592	35.425	6.262	2.32	.62	7.73	10.579	27.183	1309	104
134	10.596	35.429	6.277	2.30	.62	7.75	10.580	27.186	1307	133
134	10.596	35.427	6.272	2.33	.65	7.79	10.580	27.184	1308	133

HUDSON 82002 STN 3 LAT 49 32.5N LONG 11 .7W 13 APRIL 1982 1592
SOUNDING 191 M (193 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	11.147	35.531	11.146	27.163	33.767	40.152	.092	.011	.0	12
20	11.068	35.512	11.066	27.163	33.769	40.157	.083	.018	.0	20
50	11.055	35.496	11.049	27.154	33.760	40.149	.069	.045	.1	50
80	11.033	35.496	11.023	27.158	33.766	40.155	.073	.073	.3	79
100	10.987	35.498	10.975	27.169	33.778	40.168	.081	.091	.4	99
150	10.871	35.483	10.853	27.179	33.792	40.186	.081	.137	.9	149
192	10.878	35.482	10.854	27.178	33.791	40.185	.081	.176	1.5	190

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	11.142	35.497	7.277	.32	.34	2.03	11.140	27.138	1319	15
29	11.060	35.495C					11.056	27.151	1318	29
55	11.051	35.494	6.170	1.65	.59	5.84	11.044	27.153	1317	55
104	10.997	35.502	6.229	2.51	.78	7.85	10.984	27.170	1316	103
155	10.874	35.483	5.972	2.56	.65	7.95	10.855	27.179	1315	153
180	10.883	35.484	5.569	2.54	.68	8.01	10.861	27.178	1313	178
180	10.883	35.484	5.942	2.59	.81	7.98	10.861	27.178	1314	178

HUDSON 82002 STN 4 LAT 49 30.3N LONG 11 28.1W 13 APRIL 1982 519Z
SOUNDING 582 M (587 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	11.395	35.516	11.393	27.106	33.702	40.080	.045	.015	.0	16
20	11.394	35.520	11.391	27.109	33.705	40.083	.049	.019	.0	20
50	11.254	35.518	11.248	27.134	33.735	40.117	.066	.047	.1	50
80	11.140	35.510	11.130	27.150	33.754	40.140	.073	.075	.3	79
100	11.125	35.512	11.113	27.154	33.759	40.145	.078	.094	.4	99
150	10.991	35.505	10.972	27.174	33.784	40.174	.089	.140	1.0	149
200	10.894	35.499	10.869	27.189	33.801	40.194	.096	.186	1.7	198
300	10.796	35.493	10.759	27.204	33.820	40.216	.103	.279	3.8	298
400	10.649	35.483	10.600	27.224	33.845	40.247	.112	.372	6.7	397
500	10.537	35.479	10.476	27.243	33.868	40.274	.123	.466	10.4	496
584	10.317	35.480	10.246	27.285	33.917	40.329	.151	.544	14.2	579

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	11.393	35.531	6.627	.48	.54	6.04	11.391	27.118	1330	14
28	11.402	35.531	6.603	.62	.72	6.10	11.398	27.116	1329	28
55	11.351	35.521	6.583	.93	.63	6.56	11.344	27.119	1328	55
105	11.148	35.509	6.277	2.43	.64	8.08	11.135	27.148	1327	104
205	10.950	35.497	6.181	3.00	.82	9.31	10.925	27.177	1326	203
305	10.802	35.486	6.030	3.79	.83	10.74	10.764	27.197	1325	303
407	10.619	35.476	5.689	4.58	.85	12.17	10.569	27.225	1324	404
505	10.377	35.476	5.530	5.43	.98	13.33	10.316	27.269	1323	501
571	10.294	35.481		5.76	.92	13.68	10.225	27.289	1320	566
571	10.294	35.477	5.525	5.69	.92	13.69	10.225	27.286	1321	566
571	10.294	35.484	5.500	5.68	.95	13.73	10.225	27.291	1322	566

HUDSON 82002 STN 5 LAT 49 20.6N LONG 11 59.9W 13 APRIL 1982 740Z
SOUNDING 1137 M (1149 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.726	35.612	11.724	27.118	33.703	40.071	.096	.013	.0	14
20	11.722	35.603	11.719	27.112	33.697	40.065	.087	.019	.0	20
50	11.679	35.568	11.673	27.094	33.681	40.050	.059	.048	.1	50
80	11.672	35.567	11.662	27.095	33.682	40.052	.059	.077	.3	79
100	11.658	35.560	11.645	27.092	33.680	40.051	.055	.097	.4	99
150	11.426	35.536	11.407	27.119	33.714	40.091	.063	.146	1.0	149
200	11.365	35.530	11.340	27.126	33.724	40.103	.066	.195	1.8	198
300	11.120	35.507	11.082	27.156	33.762	40.149	.076	.293	4.0	298
400	10.772	35.467	10.723	27.190	33.807	40.206	.082	.391	7.0	397
500	10.494	35.455	10.433	27.232	33.859	40.266	.104	.486	11.0	496
600	10.161	35.452	10.089	27.290	33.927	40.345	.140	.580	15.7	595
800	9.350	35.487	9.257	27.458	34.122	40.564	.260	.751	27.7	792
1000	8.602	35.543	8.490	27.625	34.314	40.780	.381	.898	42.5	990
1146	7.761	35.442	7.639	27.675	34.394	40.889	.337	.991	54.9	1134

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
11	11.720	35.562	6.275	2.42	.52	6.84	11.719	27.080	1343	11
26	11.683	35.561	6.262	2.47	.53	6.94	11.680	27.087	1342	26
55	11.679	35.559	6.275	2.48	.54	7.07	11.672	27.087	1341	55
102	11.645	35.555	6.185	2.56	.56	7.53	11.632	27.091	1340	101
204	11.323	35.524	6.013	3.02	.74	9.33	11.297	27.130	1339	202
303	11.083	35.501	5.859	3.43	.73	10.34	11.045	27.158	1338	301
403	10.738	35.467	5.435	4.81	.93	13.23	10.688	27.196	1337	400
504	10.430	35.452	5.398	5.30	.90	13.83	10.369	27.241	1336	500
606	10.115	35.450	5.136	6.34	.99	14.88	10.042	27.297	1335	601
706	9.499	35.417	4.748	8.46	1.12	17.55	9.417	27.377	1334	700
807	9.358	35.492	4.688	9.04	1.14	17.79	9.265	27.461	1333	799
908	9.049	35.541	4.786	9.73	1.18	18.04	8.945	27.551	1332	899
1135	7.759	35.452	4.985	11.47	1.18	18.44	7.638	27.683	1331	1123

HUDSON 82002 STN 6 LAT 49 15.3N LONG 12 30.0W 13 APRIL 1982 1050Z
SOUNDING 1149 M (1161 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.705	35.609	11.703	27.120	33.705	40.073	.096	.013	.0	14
20	11.728	35.568	11.725	27.083	33.669	40.037	.051	.019	.0	20
50	11.699	35.573	11.693	27.094	33.680	40.049	.061	.048	.1	50
80	11.702	35.565	11.692	27.088	33.674	40.043	.053	.077	.3	79
100	11.703	35.564	11.690	27.087	33.674	40.043	.053	.097	.4	99
150	11.707	35.563	11.688	27.087	33.673	40.043	.052	.147	1.0	149
200	11.573	35.551	11.547	27.104	33.695	40.068	.059	.197	1.8	198
300	11.332	35.525	11.294	27.131	33.730	40.111	.067	.297	4.0	298
400	11.239	35.514	11.188	27.142	33.744	40.128	.070	.398	7.1	397
500	11.081	35.500	11.018	27.162	33.770	40.159	.078	.501	11.2	496
600	10.628	35.459	10.554	27.214	33.837	40.240	.094	.602	16.1	595
800	9.645	35.424	9.551	27.360	34.015	40.449	.169	.792	28.7	793
1000	9.069	35.545	8.954	27.553	34.226	40.677	.345	.956	44.4	990
1162	7.871	35.453	7.746	27.668	34.383	40.874	.342	1.065	59.1	1150

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	11.746	35.562	6.238	2.45	.51	7.11	11.744	27.075	1358	12
27	11.712	35.563	6.273	2.44	.50	7.06	11.709	27.083	1357	27
53	11.707	35.561	6.272	2.46	.51	7.09	11.700	27.083	1356	53
103	11.711	35.561	6.259	2.44	.51	7.09	11.698	27.083	1355	102
203	11.548	35.545	6.052	2.67	.57	8.32	11.522	27.104	1354	201
306	11.311	35.520	6.077	2.77	.63	8.79	11.272	27.131	1353	304
404	11.220	35.512	6.119	2.75	.64	8.75	11.169	27.144	1352	401
507	11.058	35.499	5.945	3.11	.66	9.60	10.994	27.166	1351	503
607	10.588	35.456		4.94	.87	13.39	10.493	27.222	1350	602
707	10.238	35.440	5.219	6.03	.95	14.46	10.152	27.270	1349	701
801	9.707	35.426	4.498	7.80	1.09	16.77	9.612	27.351	1348	794
907	9.530	35.527	4.752	8.86	1.13	17.18	9.423	27.462	1347	898
1008	9.069	35.552	4.652	9.73	1.17	17.87	8.953	27.559	1346	998
1110	7.972	35.481	4.997	11.04	1.21	18.35	7.853	27.674	1345	1099
1152	7.871	35.469	5.661	11.32	1.21	18.35	7.748	27.681	1344	1140

HUDSON 82002 STN 7 LAT 49 10.8N LONG 13 .1W 13 APRIL 1982 1350Z
SOUNDING 1993 M (2018 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
22	11.753	35.552	11.750	27.066	33.651	40.019	.033	.022	.0	22
50	11.700	35.562	11.694	27.085	33.671	40.040	.050	.049	.1	50
80	11.694	35.565	11.684	27.089	33.676	40.045	.054	.079	.3	79
100	11.669	35.566	11.656	27.095	33.683	40.053	.059	.098	.5	99
150	11.588	35.552	11.569	27.101	33.691	40.064	.058	.148	1.0	149
200	11.469	35.540	11.444	27.115	33.709	40.085	.062	.198	1.8	198
300	11.156	35.506	11.118	27.149	33.753	40.139	.071	.297	4.0	298
400	10.896	35.488	10.846	27.184	33.797	40.192	.087	.395	7.1	397
500	10.554	35.451	10.493	27.219	33.843	40.248	.093	.492	11.1	496
600	10.219	35.416	10.147	27.252	33.888	40.304	.098	.588	16.0	595
800	9.488	35.485	9.395	27.434	34.093	40.531	.245	.766	28.2	793
1000	7.843	35.371	7.737	27.605	34.321	40.813	.260	.912	43.3	990
1250	6.484	35.281	6.362	27.728	34.493	41.032	.235	1.064	65.5	1237
1500	4.564	35.020	4.437	27.755	34.595	41.205	.018	1.196	90.8	1483
1750	3.895	34.942	3.753	27.766	34.633	41.269	-.042	1.320	119.0	1730
2000	3.719	34.964	3.556	27.803	34.677	41.321	-.014	1.443	149.9	1975
2020	3.699	34.966	3.534	27.807	34.682	41.327	-.012	1.453	152.4	1995

PR DBAR	T DEG C	S	OXY ML/L	SIL. uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	11.886	35.569	6.335	2.50	.50	6.60	11.884	27.054	1376	16
30	11.761	35.568	6.508	2.46	.53	6.68	11.757	27.077	1375	30
56	11.729	35.566	6.275	2.49	.50	6.81	11.722	27.083	1374	56
105	11.615	35.557		2.70	.58	8.16	11.602	27.098	1373	104
207	11.382	35.523		3.12	.66	9.41	11.356	27.118	1372	205
309	11.076	35.493		4.11	.77	11.58	11.037	27.153	1371	307
409	10.909	35.484		3.49	.75	10.42	10.858	27.179	1370	406
508	10.563	35.448	5.410	5.06	.89	13.37	10.501	27.215	1369	504
608	10.083	35.403	5.128	6.42	1.01	15.25	10.010	27.265	1368	603
698	9.675	35.404	4.780	7.95	1.12	17.04	9.593	27.337	1367	692
802	9.549	35.496	4.662	9.15	1.23	17.67	9.455	27.432	1366	795
901	8.367	35.362	4.645	10.29	1.26	19.05	8.269	27.518	1365	892
1003	7.823	35.363	4.886	10.62	1.23	18.95	7.717	27.602	1364	993
1190	7.259	35.391	5.199	11.27	1.22	18.58	7.137	27.708	1363	1178
1390	5.274	35.116	6.427	11.63	1.32	18.86	5.150	27.750	1362	1375
1596	4.087	34.970	6.451	13.23	1.45	18.22	3.957	27.767	1361	1578
1816	3.843	34.954	6.745	11.82	1.21	17.88	3.695	27.781	1360	1795
2006	3.711	34.975	6.577	15.14	1.26	18.41	3.547	27.813	1359	1981

HUDSON 82002 STN 8 LAT 49 5.3N LONG 13 28.9W 13 APRIL 1982 1817Z
SOUNDING 3620 M (3679 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	12.020	35.602	12.018	27.054	33.630	39.989	.045	.012	.0	12
20	11.982	35.597	11.979	27.058	33.635	39.995	.046	.020	.0	20
50	11.882	35.598	11.876	27.078	33.659	40.022	.061	.050	.1	50
80	11.878	35.597	11.868	27.079	33.660	40.023	.061	.079	.3	79
100	11.872	35.595	11.859	27.079	33.660	40.024	.060	.099	.5	99
150	11.857	35.591	11.837	27.080	33.662	40.026	.060	.150	1.0	149
200	11.779	35.579	11.753	27.087	33.671	40.038	.059	.200	1.8	198
300	11.543	35.546	11.504	27.108	33.700	40.075	.060	.303	4.1	298
400	11.033	35.488	10.983	27.159	33.768	40.159	.070	.405	7.3	397
500	10.759	35.467	10.697	27.195	33.813	40.212	.085	.504	11.4	496
600	10.097	35.391	10.025	27.254	33.894	40.313	.087	.601	16.3	595
800	8.750	35.358	8.661	27.453	34.138	40.601	.183	.775	28.8	793
1000	8.102	35.445	7.994	27.625	34.331	40.814	.318	.918	44.0	990
1250	5.930	35.200	5.814	27.735	34.521	41.080	.171	1.065	66.4	1237
1500	4.466	35.016	4.340	27.763	34.606	41.220	.015	1.193	91.7	1483
1750	3.849	34.952	3.708	27.778	34.647	41.285	-.031	1.314	119.8	1730
2000	3.617	34.957	3.455	27.807	34.686	41.334	-.018	1.433	150.5	1975
2500	3.109	34.962	2.907	27.863	34.764	41.432	.001	1.655	219.5	2466
3000	2.773	34.940	2.527	27.880	34.796	41.479	-.000	1.867	298.0	2956
3500	2.580	34.924	2.285	27.888	34.814	41.507	-.003	2.082	385.8	3445
3676	2.532	34.917	2.219	27.887	34.816	41.512	-.006	2.159	418.9	3617

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	11.992	35.595	6.075	2.86	.52	8.05	11.990	27.054	1399K	12
55	11.861	35.587	6.197	2.67	.56	7.25	11.854	27.074	1398	55
105	11.839	35.584	6.086	2.60	.61	7.63	11.825	27.077	1397	104
201	11.731	35.563	6.025	3.49	.73	8.50	11.705	27.083	1396	199
303	11.470	35.532	5.935	3.16	.68	9.24	11.431	27.111	1395	301
406	10.962	35.470	5.748	4.39	.79	11.06	10.911	27.158	1394	403
506	10.689	35.451	5.376	5.05	.87	13.00	10.627	27.195	1393	502
606	10.069	35.394	5.097	6.71	1.05	15.13	9.997	27.261	1392	601
703	9.382	35.346	4.817	8.59	1.11	16.30	9.301	27.340	1391	697
804	8.691	35.354	4.787	9.84	1.25	18.64	8.602	27.459	1390	797
905	8.778	35.494	4.626	9.89	1.17	17.65	8.676	27.557	1389	896
1007	8.195	35.453	4.769	10.49	1.20	18.04	8.086	27.617	1388	997
1213	6.212	35.241		11.25	1.20	17.65	6.097	27.731	1387	1201
1416	4.909	35.074	5.890	11.79	1.24	18.42	4.786	27.759	1386	1401
1611	4.063	34.967	6.579	11.36	1.27	17.55	3.932	27.767	1385	1593
1813	3.750	34.949	6.413	11.79	1.27	17.40	3.604	27.786	1384	1792
2023	3.586	34.960	6.383	13.53	1.40	17.11	3.422	27.813	1383	1998
2429	3.211	34.968	6.125	21.99	1.35	19.09	3.014	27.858	1382	2396
2838	2.875	34.953C		31.89	1.50	20.76	2.644	27.880	1381	2798
3246	2.672	34.934	5.861	37.28	1.54	21.67	2.403	27.886	1380	3197
3667	2.530	34.919	6.025	42.29	1.55	22.48	2.218	27.889	1378	3608
3669	2.531	34.919	5.829	42.18	1.53	22.64	2.219	27.889	1379	3610

HUDSON 82002 STN 9 LAT 49 1.8N LONG 13 58.7W 13 APRIL 1982 2358Z
SOUNDING 4511 M (4594 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.999	35.609	11.997	27.063	33.640	40.000	.055	.014	.0	14
20	12.002	35.608	11.999	27.062	33.639	39.999	.053	.020	.0	20
50	11.829	35.587	11.823	27.080	33.662	40.027	.057	.050	.1	50
80	11.785	35.582	11.775	27.085	33.669	40.035	.059	.079	.3	79
100	11.782	35.581	11.769	27.085	33.669	40.036	.059	.099	.5	99
150	11.781	35.580	11.762	27.086	33.670	40.037	.059	.149	1.0	149
200	11.655	35.565	11.629	27.099	33.688	40.059	.062	.200	1.8	198
300	11.331	35.520	11.293	27.127	33.726	40.107	.062	.301	4.1	298
400	10.952	35.487	10.902	27.173	33.785	40.177	.079	.400	7.2	397
500	10.419	35.425	10.358	27.222	33.851	40.261	.084	.498	11.3	496
600	9.864	35.376	9.793	27.281	33.929	40.356	.096	.592	16.2	595
800	8.857	35.392	8.767	27.463	34.144	40.603	.207	.766	28.5	793
1000	7.034	35.241	6.934	27.618	34.363	40.884	.173	.907	43.6	990
1250	5.736	35.159	5.621	27.727	34.520	41.086	.134	1.053	65.6	1237
1500	4.675	35.044	4.547	27.762	34.597	41.203	.040	1.183	90.7	1483
1750	3.860	34.964	3.718	27.787	34.655	41.292	-.019	1.305	118.6	1730
2000	3.534	34.962	3.373	27.819	34.701	41.352	-.011	1.421	149.2	1975
2500	3.072	34.961	2.871	27.866	34.768	41.438	.002	1.638	217.6	2466
3000	2.746	34.940	2.501	27.882	34.799	41.484	.001	1.849	295.4	2956
3500	2.582	34.923	2.287	27.887	34.812	41.506	-.004	2.062	382.4	3445
4000	2.530	34.913	2.181	27.887	34.818	41.515	-.009	2.286	478.9	3933
4500	2.529	34.906	2.121	27.887	34.820	41.520	-.013	2.523	585.5	4420
4590	2.539	34.905	2.119	27.886	34.819	41.519	-.013	2.567	605.8	4507

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	11.980	35.599	6.092	2.65	.55	7.19	11.978	27.059	1421K	13
57	11.806	35.576	6.224	2.51	.56	6.96	11.799	27.076	1420	57
108	11.786	35.576	6.148	2.53	.55	7.29	11.772	27.081	1419	107
207	11.689	35.565	6.061	2.74	.60	8.07	11.662	27.093	1418	205
307	11.395	35.530	6.015	3.01	.69	8.91	11.356	27.123	1417	305
407	10.971	35.481	5.443	4.33	.85	12.23	10.920	27.165	1416	404
508	10.479	35.430	5.309	5.42	.94	13.73	10.417	27.216	1415	504
606	10.054	35.405	5.075	6.51	1.04	15.31	9.982	27.272	1414	601
711	9.332	35.349	4.799	8.53	1.18	17.44	9.250	27.351	1413	705
812	9.248	35.475	4.674	9.24	1.19	17.99	9.155	27.465	1412	805
1008	7.082	35.232	4.984	10.88	1.29	19.12	6.981	27.605	1411	998
1211	6.616	35.281C	5.558	14.14	1.27	18.63	6.497	27.710	1410	1199
1601	4.320	35.000	6.129	11.75	1.26	18.03	4.187	27.767	1409	1583
1981	3.620	34.958	6.293	13.76	1.31	17.82	3.460	27.808	1408	1956
2379	3.191	34.966	6.249	21.92	1.33	18.92	2.999	27.858	1407	2347
2768	2.894	34.954	5.932	30.75	1.44	20.45	2.669	27.878	1406	2730
3161	2.692	34.936	5.870	36.40	1.49	21.32	2.431	27.885	1405	3114
3581	2.571	34.921	5.796	40.64	1.54	22.07	2.268	27.887	1404	3524
4002	2.533	34.913C					2.183	27.887	1403	3935
4211	2.525	34.909	5.737	43.97	1.63	22.61	2.151	27.887	1402	4139
4416	2.528	34.907	5.780	44.51	1.57	22.66	2.130	27.887	1401	4339
4579	2.538	34.906	5.824	44.84	1.58	22.69	2.120	27.887	1400	4496

HUDSON 82002 STN 10 LAT 48 57.4N LONG 14 29.2W 14 APRIL 1982 545Z
SOUNDING 4672 M (4759 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.704	35.571	11.702	27.090	33.676	40.045	.058	.014	.0	14
20	11.703	35.569	11.700	27.089	33.675	40.044	.056	.019	.0	20
50	11.704	35.565	11.698	27.086	33.673	40.042	.053	.049	.1	50
80	11.585	35.551	11.575	27.099	33.689	40.061	.055	.078	.3	79
100	11.504	35.538	11.491	27.104	33.697	40.072	.054	.098	.5	99
150	11.380	35.526	11.361	27.119	33.716	40.095	.059	.146	1.0	149
200	11.244	35.514	11.219	27.136	33.738	40.121	.065	.195	1.8	198
300	10.939	35.476	10.902	27.165	33.776	40.169	.068	.292	4.0	298
400	10.641	35.442	10.592	27.194	33.816	40.218	.073	.388	7.0	397
500	10.304	35.414	10.244	27.234	33.866	40.279	.085	.484	11.0	496
600	9.917	35.399	9.846	27.290	33.936	40.361	.114	.578	15.8	595
800	8.952	35.419	8.862	27.469	34.146	40.602	.227	.749	27.8	793
1000	7.797	35.424	7.691	27.653	34.370	40.864	.317	.888	42.6	990
1250	5.162	35.070	5.053	27.725	34.540	41.128	.057	1.029	64.2	1237
1500	4.198	34.966	4.076	27.751	34.605	41.230	-.028	1.155	88.7	1483
1750	3.810	34.938	3.669	27.771	34.641	41.281	-.044	1.277	116.0	1730
2000	3.626	34.945	3.464	27.797	34.675	41.323	-.031	1.397	146.0	1975
2500	3.205	34.968	3.001	27.860	34.756	41.421	.004	1.626	213.7	2466
3000	2.846	34.946	2.598	27.878	34.791	41.472	.002	1.842	291.2	2956
3500	2.638	34.930	2.342	27.888	34.811	41.502	-.000	2.060	378.1	3445
4000	2.553	34.916	2.203	27.888	34.817	41.514	-.007	2.284	474.7	3933
4500	2.545	34.911	2.136	27.889	34.822	41.521	-.008	2.521	581.2	4420
4756	2.559	34.907	2.118	27.888	34.821	41.521	-.011	2.648	639.9	4669

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	11.724	35.569	5.956	2.14	.56	7.57	11.722	27.085	1443K	12
56	11.700	35.571	6.506	2.26	.56	7.51	11.693	27.092	1442	56
107	11.455	35.530	6.202	2.36	.61	8.30	11.441	27.107	1441	106
206	11.242	35.509	5.821	3.48	.74	10.17	11.216	27.133	1440	204
304	10.990	35.484		4.00	.84	11.45	10.952	27.162	1439	302
405	10.784	35.464	5.910	3.79	.75	10.74	10.734	27.186	1438	402
505	10.314	35.417	5.272	5.98	.95	14.30	10.253	27.234	1437	501
607	9.978	35.420	5.032	6.71	1.02	15.47	9.906	27.297	1436	602
806	8.526	35.351	4.675	9.93	1.24	18.74	8.438	27.483	1435	799
997	7.567	35.381	4.917	10.95	1.25	18.72	7.464	27.653	1434	987
1185	5.672	35.121	5.494	11.01	1.27	18.86	5.565	27.703	1433	1173
1582	3.980	34.943	6.332	10.64	1.24	18.06	3.853	27.756	1432	1564
1986	3.630	34.945	6.403	12.06	1.26	17.76	3.469	27.796	1431	1961
2375	3.313	34.963	6.269	17.12	1.31	18.13	3.120	27.845	1430	2344
2768	2.968	34.958	6.059	27.48	1.45	19.81	2.742	27.875	1429	2730
3168	2.753	34.942	5.883	34.29	1.54	21.05	2.490	27.885	1428	3121
3573	2.608	34.927	5.813	39.08	1.62	21.71	2.305	27.888	1427	3517
3982	2.550	34.916	5.769	41.84	1.58	22.14	2.202	27.888	1426	3916
4191	2.540	34.910C					2.168	27.886	1425	4119
4395	2.538	34.909	5.746	43.38	1.59	22.39	2.142	27.887	1424	4318
4606	2.548	34.908	5.750	43.97	1.59	22.35	2.126	27.888	1423	4523
4740	2.557	34.906	5.737	44.03	1.59	22.09	2.118	27.887	1422	4653

HUDSON 82002 STN 11 LAT 48 50.0N LONG 14 59.5W 14 APRIL 1982 1125Z
SOUNDING 4759 M (4849 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	12.207	35.634	12.205	27.043	33.613	39.967	.050	.014	.0	14
20	12.202	35.629	12.199	27.040	33.611	39.964	.046	.020	.0	20
50	12.204	35.629	12.197	27.040	33.611	39.965	.046	.051	.1	50
80	12.069	35.606	12.059	27.049	33.624	39.982	.043	.082	.3	79
100	11.962	35.593	11.949	27.060	33.639	40.000	.046	.102	.5	99
150	11.714	35.556	11.695	27.080	33.667	40.035	.044	.153	1.1	149
200	11.642	35.553	11.616	27.092	33.681	40.053	.052	.203	1.9	198
300	11.119	35.487	11.081	27.141	33.747	40.134	.057	.304	4.2	298
400	10.882	35.469	10.832	27.172	33.786	40.181	.070	.403	7.4	397
500	10.396	35.406	10.335	27.211	33.841	40.252	.067	.501	11.4	496
600	9.788	35.349	9.718	27.275	33.924	40.353	.077	.596	16.4	595
800	8.567	35.346	8.479	27.472	34.163	40.632	.184	.768	28.8	793
1000	7.266	35.319	7.164	27.647	34.384	40.895	.240	.904	43.9	990
1250	5.049	35.051	4.941	27.723	34.543	41.135	.040	1.044	65.9	1237
1500	4.148	34.959	4.026	27.751	34.607	41.233	-.034	1.170	90.8	1483
1750	3.737	34.928	3.597	27.770	34.643	41.286	-.052	1.292	118.5	1730
2000	3.606	34.941	3.444	27.796	34.675	41.323	-.034	1.412	148.9	1976
2500	3.177	34.967	2.974	27.861	34.759	41.425	.004	1.640	217.4	2467
3000	2.843	34.948	2.596	27.880	34.793	41.474	.004	1.855	295.6	2956
3500	2.625	34.932	2.329	27.890	34.814	41.506	.003	2.070	383.2	3445
4000	2.547	34.917	2.197	27.889	34.819	41.516	-.006	2.294	480.4	3933
4500	2.554	34.911	2.145	27.889	34.821	41.520	-.009	2.532	587.7	4420
4846	2.580	34.907	2.127	27.887	34.820	41.519	-.012	2.705	668.1	4756

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	12.278	35.636	6.041	2.47	.51	6.35	12.276	27.030	1465K	12
58	12.041	35.602	5.996	2.64			12.033	27.051	1464	57
108	11.697	35.552	5.890	3.20	.64	9.37	11.683	27.079	1463	107
207	11.425	35.526	5.762	3.57	.69	10.37	11.399	27.112	1462	205
294	10.974	35.473	5.807	3.94	.74	11.06	10.937	27.156	1461	292
406	10.805	35.462	5.972	3.71	.72	10.56	10.755	27.180	1460	403
508	10.450	35.431	5.218	5.47	.94	14.45	10.388	27.221	1459	504
602	9.779	35.343	4.924	7.40	1.11	16.90	9.708	27.270	1458	597
809	8.445	35.329	4.679	10.04	1.26	19.11	8.357	27.478	1457	802
1009	7.284	35.326	4.978	10.88	1.25	19.19	7.181	27.650	1456	999
1211	5.815	35.167	5.498	11.71	1.24	18.95	5.704	27.723	1455	1199
1600	3.882	34.932	6.375	10.54	1.22	17.97	3.754	27.758	1454	1582
2007	3.622	34.933	6.615	11.61	1.25	17.77	3.460	27.788	1453	1983
2419	3.263	34.966	6.158	20.28	1.29	19.02	3.066	27.852	1452	2387
2832	2.950	34.958	6.042	26.84	1.39	20.04	2.718	27.877	1451	2792
3226	2.746	34.942	5.892	33.60	1.46	21.12	2.477	27.886	1450	3177
3633	2.599	34.924	5.835	39.86	1.54	22.39	2.289	27.887	1449	3575
4038	2.551	34.915	5.750	42.78	1.55	22.71	2.197	27.888	1448	3970
4243	2.548	34.911C					2.170	27.887	1447	4170
4457	2.551	34.909	5.786	43.90	1.55	22.91	2.147	27.887	1446	4378
4740	2.567	34.907	5.733	44.23	1.54	22.89	2.128	27.887	1445	4654
4830	2.578	34.907	5.720	44.18	1.52	22.85	2.127	27.887	1444	4741

HUDSON 82002 STN 12 LAT 48 44.8N LONG 15 29.3W 14 APRIL 1982 2213Z
SOUNDING 4813 M (4904 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	12.110	35.618	12.108	27.049	33.623	39.979	.048	.012	.0	12
20	12.061	35.614	12.058	27.056	33.631	39.989	.051	.020	.0	20
50	11.789	35.572	11.783	27.076	33.660	40.026	.048	.050	.1	50
80	11.589	35.544	11.579	27.093	33.683	40.055	.048	.080	.3	79
100	11.488	35.533	11.475	27.103	33.697	40.072	.051	.099	.5	99
150	11.286	35.508	11.267	27.123	33.723	40.105	.053	.148	1.0	149
200	11.183	35.497	11.158	27.134	33.738	40.123	.057	.197	1.8	198
300	10.822	35.455	10.785	27.169	33.785	40.181	.062	.293	4.0	298
400	10.569	35.431	10.520	27.198	33.822	40.227	.070	.389	7.1	397
500	10.124	35.384	10.064	27.241	33.880	40.299	.075	.484	11.1	496
600	9.556	35.327	9.487	27.295	33.953	40.390	.079	.577	15.9	595
800	8.090	35.261	8.005	27.478	34.186	40.671	.134	.743	27.9	793
1000	6.961	35.271	6.862	27.652	34.399	40.922	.206	.877	42.6	990
1250	5.149	35.073	5.040	27.729	34.545	41.133	.060	1.015	63.9	1237
1500	4.443	35.012	4.318	27.762	34.606	41.221	.012	1.141	88.2	1483
1750	3.919	34.955	3.777	27.774	34.639	41.275	-.030	1.263	115.3	1730
2000	3.739	34.952	3.575	27.792	34.665	41.309	-.026	1.386	145.1	1975
2500	3.343	34.967	3.137	27.846	34.737	41.397	-.001	1.623	212.7	2467
3000	2.917	34.953	2.668	27.878	34.788	41.466	.004	1.844	290.4	2956
3500	2.655	34.930	2.359	27.886	34.809	41.499	-.000	2.063	377.7	3445
4000	2.559	34.917	2.209	27.888	34.818	41.514	-.006	2.288	474.7	3933
4500	2.560	34.915	2.151	27.891	34.823	41.522	-.006	2.525	581.8	4420
4902	2.596	34.908	2.136	27.887	34.819	41.519	-.012	2.728	675.6	4811

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	11.926	35.593	6.082	2.73	.49	7.02	11.924	27.065	1487K	14
104	11.435	35.529	5.895	3.45	.70	10.09	11.422	27.110	1486	103
202	11.139	35.498	5.626	4.19	.79	11.83	11.114	27.143	1485	200
307	10.807	35.461	5.849	4.24	.80	11.60	10.769	27.177	1484	305
405	10.449	35.422	5.203	5.75	.98	14.79	10.400	27.212	1483	402
504	9.971	35.370	5.095	6.77	1.06	16.02	9.911	27.257	1482	500
605	9.448	35.327	4.919	8.11	1.16	17.43	9.378	27.313	1481	600
804	8.074	35.256	4.730	10.53	1.42	19.89	7.989	27.477	1480	797
1007	6.713	35.248	5.187	10.90	1.29	19.35	6.615	27.668	1479	997
1208	5.403	35.106	5.724	11.01	1.28	19.07	5.296	27.724	1478	1196
1619	4.045	34.960	6.381	10.74	1.27	18.35	3.913	27.764	1477	1601
2009	3.667	34.946	6.636	11.81	1.25	18.02	3.504	27.794	1476	1984
2397	3.420	34.966	6.522	15.91	1.26	18.51	3.223	27.837	1475	2365
2807	3.067	34.964	6.133	25.27		20.08	2.835	27.872	1474	2768
3217	2.772	34.946	5.967	33.29	1.49	21.46	2.503	27.887	1473	3169
3626	2.606	34.926	5.886	39.59	1.56	22.45	2.297	27.888	1472	3568
4027	2.560	34.915C					2.207	27.887	1471	3959
4258	2.551	34.912	5.863	43.56	1.55	23.14	2.171	27.887	1470	4184
4473	2.559	34.911	5.970	43.98	1.62	23.43	2.153	27.888	1469	4394
4684	2.573	34.909		44.30	1.57	23.28	2.141	27.887	1468	4599
4782	2.581	34.909		44.41	1.54	24.33	2.136	27.888	1467	4695
4891	2.595	34.907C			1.45	22.27	2.136	27.886	1466	4800

HUDSON 82002 STN 13 LAT 48 38.1N LONG 16 14.4W 15 APRIL 1982 5382
SOUNDING 4848 M (4940 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.248	35.627	12.246	27.029	33.599	39.951	.037	.016	.0	16
20	12.250	35.628	12.247	27.030	33.599	39.952	.038	.021	.0	20
50	12.245	35.631	12.238	27.034	33.603	39.956	.043	.051	.1	50
80	12.053	35.596	12.043	27.045	33.620	39.979	.036	.082	.3	79
100	11.889	35.572	11.876	27.058	33.639	40.002	.035	.103	.5	99
150	11.770	35.561	11.751	27.073	33.658	40.025	.041	.154	1.1	149
200	11.641	35.543	11.615	27.085	33.674	40.045	.042	.205	1.9	198
300	11.532	35.523	11.493	27.092	33.685	40.060	.038	.308	4.2	298
400	11.336	35.500	11.285	27.113	33.713	40.094	.043	.412	7.5	397
500	10.493	35.385	10.432	27.178	33.805	40.213	.034	.515	11.7	496
600	10.023	35.420	9.951	27.289	33.931	40.353	.124	.610	16.8	595
800	9.328	35.541	9.236	27.504	34.168	40.610	.316	.777	29.4	793
1000	7.684	35.413	7.579	27.661	34.382	40.879	.312	.912	44.7	990
1250	5.032	35.057	4.924	27.729	34.550	41.142	.046	1.052	67.0	1237
1500	4.340	34.988	4.216	27.754	34.602	41.221	-.009	1.178	92.2	1483
1750	3.855	34.944	3.714	27.771	34.640	41.278	-.039	1.301	120.1	1730
2000	3.664	34.939	3.502	27.789	34.665	41.312	-.037	1.423	150.8	1976
2500	3.319	34.966	3.113	27.848	34.739	41.400	-.002	1.659	220.2	2467
3000	2.937	34.954	2.687	27.877	34.786	41.463	.004	1.882	299.7	2957
3500	2.669	34.933	2.372	27.887	34.810	41.500	.002	2.102	388.9	3445
4000	2.576	34.918	2.225	27.888	34.816	41.512	-.006	2.328	487.8	3933
4500	2.560	34.908	2.151	27.886	34.818	41.516	-.012	2.566	596.9	4420
4928	2.601	34.910	2.137	27.889	34.821	41.520	-.009	2.782	698.8	4836

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	12.136	35.611	5.933	2.08	.48	6.79	12.134	27.039	1509K	15
99	11.899	35.576	5.677	3.11	.65	9.27	11.886	27.059	1508	98
196	11.622	35.542	6.041	3.18	.67	9.39	11.597	27.088	1507	194
310	11.505	35.523		3.52	.70	9.81	11.465	27.098	1506	308
413	11.269	35.492	5.845	4.12	.79	11.05	11.216	27.120	1505	410
511	10.236	35.357	5.049	6.67	1.08	15.92	10.175	27.201	1504	507
612	9.826	35.390	4.755	7.69	1.16	17.27	9.754	27.299	1503	607
814	9.293	35.541	5.644	9.52	1.26	18.43	9.199	27.510	1502	807
1016	7.139	35.314	4.994	10.92	1.39	19.80	7.037	27.661	1501	1006
1218	5.220	35.075	5.709	10.92	1.34	19.11	5.113	27.722	1500	1206
1622	4.091	34.973	6.277	10.87	1.36	18.35	3.958	27.769	1499	1604
2027	3.653	34.942	6.455	11.73	1.35	18.48	3.488	27.792	1498	2002
2435	3.379	34.963	6.360	15.53	1.39	18.59	3.179	27.839	1497	2403
2840	3.056	34.960C					2.821	27.870	1496	2800
3252	2.782	34.946	5.932	33.25	1.54	21.62	2.509	27.886	1495	3203
3656	2.623	34.927	5.826	39.65	1.61	22.45	2.310	27.888	1494	3598
4065	2.572	34.919	5.780	42.34	1.63	23.14	2.214	27.889	1493	3997
4273	2.560	34.914	5.792	44.46	1.61	23.20	2.178	27.888	1492	4200
4477	2.565	34.912	5.811	43.72	1.68	23.38	2.158	27.888	1491	4398
4675	2.571	34.910	5.770	44.25	1.63	23.31	2.140	27.888	1490	4591
4778	2.583	34.909	5.786	44.31		23.68	2.139	27.888	1489	4691
4914	2.600	34.908	5.812	44.05		23.90	2.138	27.887	1488	4823

HUDSON 82002 STN 14 LAT 48 35.2N LONG 16 51.1W 15 APRIL 1982 1357Z
SOUNDING 4567 M (4651 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.974	35.576	11.972	27.043	33.621	39.981	.025	.014	.0	14
20	11.977	35.572	11.974	27.039	33.617	39.978	.021	.020	.0	20
50	11.892	35.569	11.886	27.054	33.634	39.998	.031	.051	.1	50
80	11.845	35.562	11.835	27.058	33.640	40.005	.030	.081	.3	79
100	11.838	35.562	11.825	27.060	33.642	40.008	.032	.101	.5	99
150	11.640	35.535	11.621	27.078	33.667	40.038	.033	.152	1.1	149
200	11.554	35.526	11.528	27.088	33.680	40.054	.037	.203	1.9	198
300	11.131	35.461	11.093	27.118	33.724	40.111	.029	.305	4.2	298
400	10.242	35.354	10.194	27.195	33.830	40.246	.031	.404	7.4	397
500	9.473	35.281	9.416	27.271	33.931	40.371	.039	.498	11.5	496
600	8.325	35.162	8.261	27.362	34.062	40.540	.017	.585	16.4	595
800	7.144	35.197	7.065	27.565	34.306	40.823	.123	.732	28.4	793
1000	6.310	35.209	6.216	27.690	34.461	41.006	.168	.851	42.8	990
1250	4.584	34.999	4.481	27.734	34.572	41.181	-.005	.981	63.5	1237
1500	3.982	34.943	3.862	27.755	34.618	41.251	-.044	1.103	87.1	1483
1750	3.754	34.933	3.614	27.773	34.645	41.287	-.047	1.225	113.3	1730
2000	3.591	34.934	3.430	27.792	34.671	41.320	-.041	1.345	142.3	1975
2500	3.273	34.961	3.068	27.848	34.742	41.404	-.005	1.579	208.2	2467
3000	2.880	34.947	2.632	27.876	34.788	41.467	.001	1.800	284.1	2956
3500	2.641	34.928	2.345	27.886	34.809	41.500	-.002	2.018	369.6	3445
4000	2.556	34.915	2.206	27.887	34.816	41.513	-.008	2.244	464.9	3933
4500	2.557	34.907	2.148	27.885	34.817	41.516	-.013	2.481	570.3	4420
4638	2.552	34.908	2.126	27.888	34.821	41.520	-.011	2.550	601.2	4554

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
11	12.037	35.585	6.114	2.15	.57	7.11	12.036	27.037	1531K	11
41	11.955	35.584	6.174	2.18	.68	7.31	11.950	27.053	1530	41
96	11.824	35.566	6.022	2.83	.66	8.45	11.812	27.066	1529	95
199	11.515	35.528	5.908	3.44	.81	9.78	11.490	27.097	1528	197
296	11.192	35.480	5.515	4.37	.92	11.71	11.155	27.122	1527	294
342	10.240	35.360	5.086	6.47	1.06	15.59	10.199	27.199	1526	340
498	9.612	35.302	4.999	7.49	1.19	16.84	9.554	27.264	1525	494
594	8.716	35.227	4.729	9.48	1.29	19.03	8.651	27.352	1524	589
692	7.870	35.211	4.659	10.71	1.39	19.98	7.798	27.470	1523	686
791	7.205	35.211	4.899	11.01	1.35	19.98	7.126	27.568	1522	784
988	6.321	35.211	5.234	10.98	1.30	19.25	6.228	27.690	1521	978
1195	4.563	34.990	6.016	10.66	1.26	18.72	4.465	27.728	1520	1183
1594	3.817	34.932	6.615	10.61	1.23	18.26	3.690	27.764	1519	1576
1994	3.575	34.931C					3.414	27.791	1518	1969
2399	3.372	34.964	6.299	16.34	1.26	18.45	3.175	27.840	1517	2367
2794	3.024	34.962	6.110	23.65	1.34	19.56	2.794	27.874	1516	2755
3199	2.765	34.945	5.899	32.88	1.60	21.48	2.498	27.886	1515	3151
3600	2.603	34.924	5.826	39.53	1.55	22.44	2.297	27.887	1514	3543
3999	2.553	34.915	5.767	42.43	1.55	22.91	2.203	27.887	1513	3932
4200	2.546	34.912	5.764	43.59		23.04	2.173	27.887	1512	4128
4403	2.552	34.907	5.783	43.86	1.56	23.10	2.155	27.885	1511	4326
4609	2.549	34.907	5.787	44.49	1.53	23.15	2.127	27.887	1510	4526

HUDSON 82002 STN 15 LAT 48 22.8N LONG 17 44.8W 15 APRIL 1982 2114Z
SOUNDING 4268 M (4343 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	12.387	35.653	12.385	27.022	33.587	39.936	.043	.014	.0	14
20	12.379	35.656	12.376	27.026	33.591	39.940	.048	.021	.0	20
50	12.322	35.644	12.315	27.029	33.596	39.946	.044	.052	.1	50
80	12.273	35.634	12.262	27.031	33.600	39.952	.042	.083	.3	79
100	12.186	35.619	12.173	27.037	33.609	39.964	.040	.104	.5	99
150	12.046	35.596	12.026	27.048	33.624	39.983	.037	.156	1.1	149
200	11.909	35.572	11.883	27.057	33.637	40.001	.034	.208	1.7	198
300	11.391	35.499	11.353	27.100	33.697	40.077	.033	.313	4.3	298
400	10.679	35.416	10.630	27.167	33.788	40.189	.042	.414	7.6	397
500	9.868	35.312	9.809	27.229	33.877	40.304	.031	.511	11.8	496
600	9.214	35.279	9.146	27.313	33.983	40.431	.062	.603	16.9	595
800	7.113	35.188	7.034	27.562	34.305	40.822	.115	.755	29.3	793
1000	5.735	35.124	5.645	27.696	34.489	41.055	.098	.872	44.1	990
1250	4.484	34.995	4.381	27.741	34.583	41.196	-.007	.998	65.4	1237
1500	3.964	34.952	3.844	27.764	34.628	41.261	-.035	1.119	89.4	1483
1750	3.700	34.933	3.561	27.778	34.652	41.297	-.046	1.238	116.0	1730
2000	3.588	34.949	3.427	27.804	34.684	41.332	-.026	1.356	145.4	1976
2500	3.185	34.964	2.982	27.858	34.755	41.421	-.000	1.582	211.8	2467
3000	2.833	34.948	2.586	27.881	34.794	41.476	.005	1.796	287.9	2957
3500	2.627	34.932	2.331	27.890	34.814	41.505	.003	2.012	373.5	3445
4000	2.545	34.915	2.195	27.888	34.818	41.515	-.007	2.235	468.7	3933
4338	2.550	34.911	2.161	27.887	34.819	41.517	-.010	2.394	538.8	4263

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.357	35.651	6.145	2.80	.51	7.20	12.356	27.026	1553K	10
45	12.365	35.656	6.164	2.65	.52	7.10	12.359	27.030	1552	45
95	12.161	35.618	6.008	2.98	.61	8.41	12.148	27.041	1551	94
198	11.896	35.578	5.902	2.92	.63	8.84	11.870	27.064	1550	196
294	11.326	35.498	5.372	4.64	.85	12.65	11.289	27.111	1549	292
393	10.561	35.402	5.511	5.07	.96	13.18	10.513	27.177	1548	390
499	9.651	35.294	4.973	7.49	1.12	16.71	9.593	27.251	1547	495
591	9.147	35.288	4.783	8.94	1.20	18.39	9.080	27.331	1546	586
693	7.602	35.104C	4.721				7.532	27.425	1545	687
794	7.190	35.202C	5.143				7.111	27.563	1544	787
994	5.747	35.128	5.478	11.03	1.33	19.26	5.658	27.697	1543	984
1193	4.673	35.011	5.955	10.81	1.28	18.81	4.574	27.733	1542	1181
1596	3.812	34.938	6.404	10.65	1.24	18.15	3.685	27.769	1541	1578
1999	3.581	34.948C		12.31	1.26	18.06	3.420	27.804	1540	1975
2398	3.297	34.965	6.260	17.60	1.29	18.55	3.102	27.848	1539	2366
2800	2.972	34.960		24.79	1.38	19.57	2.742	27.877	1538	2761
3202	2.720	34.942	5.872	34.69	1.56	21.54	2.454	27.888	1537	3154
3608	2.602	34.925	5.804	39.64	1.59	22.37	2.295	27.888	1536	3551
4011	2.545	34.916	5.810	42.85	1.59	22.81	2.194	27.889	1535	3944
4107	2.540	34.914	5.714	43.22	1.55	22.87	2.178	27.888	1534	4038
4216	2.539	34.911	5.763	43.90	1.70	23.21	2.164	27.887	1533	4144
4317	2.549	34.915		43.90	1.54	23.04	2.162	27.891	1532	4243

HUDSON 82002 STN 16 LAT 48 14.6N LONG 18 27.4W 16 APRIL 1982 349Z
SOUNDING 4623 M (4708 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	12.010	35.591	12.008	27.047	33.624	39.984	.035	.012	.0	12
20	12.027	35.590	12.024	27.043	33.620	39.979	.032	.020	.0	20
50	12.011	35.592	12.004	27.049	33.626	39.985	.037	.051	.1	50
80	11.773	35.557	11.763	27.068	33.652	40.019	.036	.081	.3	79
100	11.765	35.557	11.752	27.070	33.655	40.022	.037	.101	.5	99
150	11.656	35.537	11.637	27.076	33.665	40.035	.033	.152	1.1	149
200	11.605	35.539	11.579	27.089	33.679	40.051	.043	.203	1.9	198
300	11.274	35.484	11.236	27.110	33.711	40.094	.033	.305	4.2	298
400	10.675	35.410	10.626	27.163	33.784	40.185	.037	.406	7.4	397
500	9.610	35.271	9.552	27.240	33.897	40.332	.016	.503	11.6	496
600	8.534	35.170	8.469	27.336	34.029	40.500	.009	.592	16.6	595
800	6.244	35.036	6.170	27.559	34.334	40.883	-.004	.742	28.8	793
1000	5.774	35.122	5.684	27.689	34.481	41.046	.095	.859	43.4	990
1250	4.495	34.997	4.392	27.742	34.583	41.196	-.005	.987	64.4	1237
1500	3.902	34.938	3.783	27.759	34.625	41.261	-.047	1.107	88.2	1483
1750	3.680	34.930	3.541	27.777	34.653	41.298	-.048	1.226	114.7	1730
2000	3.592	34.946	3.431	27.801	34.681	41.329	-.029	1.344	143.8	1976
2500	3.285	34.964	3.080	27.849	34.742	41.404	-.003	1.576	210.0	2467
3000	2.893	34.955	2.644	27.881	34.792	41.471	.008	1.797	286.1	2957
3500	2.648	34.932	2.352	27.888	34.812	41.502	.001	2.014	372.0	3445
4000	2.561	34.918	2.211	27.889	34.818	41.514	-.005	2.238	467.5	3933
4500	2.557	34.911	2.148	27.888	34.820	41.519	-.009	2.475	573.2	4420
4700	2.570	34.911	2.136	27.889	34.822	41.521	-.008	2.574	618.5	4615

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
11	11.975	35.584	6.068	2.40	.56	7.19	11.974	27.049	1575K	11
95	11.753	35.561	6.157	2.37	.68	7.86	11.741	27.075	1574	94
196	11.626	35.548	6.057	3.13	.71	9.12	11.601	27.092	1573	194
296	11.357	35.511	5.932	3.95	.80	10.65	11.319	27.115	1572	294
398	10.678	35.408		5.08	.91	13.04	10.629	27.161	1571	395
496	9.735	35.297	5.002	7.39	1.11	16.57	9.677	27.239	1570	492
597	8.641	35.171	4.747	9.32	1.27	18.89	8.576	27.320	1569	592
695	7.369	35.049	4.741	11.09	1.43	20.57	7.300	27.415	1568	689
793	6.325	35.021	5.116	11.33	1.37	20.10	6.251	27.537	1567	786
990	5.976	35.203	5.501	9.86	1.22	17.85	5.885	27.728	1566	980
1182	4.992	35.062	5.823	10.98	1.39	19.47	4.891	27.737	1565	1170
1604	3.851	34.938	6.441	10.61	1.23	18.01	3.723	27.766	1564	1586
1999	3.613	34.941	6.461	11.63	1.23	17.91	3.451	27.795	1563	1975
2395	3.379	34.955C					3.183	27.832	1562	2363
2803	3.054	34.961	6.090	24.00	1.37	19.47	2.822	27.870	1561	2764
3198	2.804	34.951	5.905	29.88	1.48	20.43	2.537	27.888	1560	3150
3600	2.624	34.928	5.777	38.79	1.54	22.15	2.317	27.888	1559	3543
4003	2.556	34.917	5.720	42.63	1.65	23.03	2.206	27.889	1558	3936
4204	2.549	34.913	5.748	43.25	1.58	22.90	2.175	27.888	1557	4132
4412	2.551	34.911	5.754	43.99	1.58	22.93	2.153	27.888	1556	4335
4507	2.558	34.910	5.756	43.99	1.56	22.89	2.148	27.888	1555	4427
4686	2.570	34.909	5.799	44.25	1.56	23.03	2.138	27.888	1554	4601

HUDSON 82002 STN 17 LAT 48 10.2N LONG 19 29.9W 16 APRIL 1982 1104Z
SOUNDING 4537 M (4619 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	12.349	35.642	12.347	27.021	33.587	39.937	.038	.012	.0	12
20	12.335	35.639	12.332	27.022	33.588	39.938	.036	.021	.0	20
50	12.212	35.619	12.205	27.031	33.602	39.955	.035	.052	.1	50
80	12.056	35.594	12.046	27.042	33.618	39.977	.033	.083	.3	79
100	11.938	35.573	11.925	27.049	33.629	39.991	.029	.103	.5	99
150	11.872	35.562	11.852	27.055	33.636	40.001	.028	.155	1.1	149
200	11.692	35.540	11.666	27.073	33.661	40.030	.032	.207	1.9	198
300	11.526	35.517	11.487	27.089	33.682	40.057	.033	.310	4.3	298
400	11.048	35.452	10.998	27.129	33.737	40.128	.033	.414	7.6	397
500	10.285	35.377	10.225	27.208	33.842	40.256	.050	.515	11.8	496
600	9.610	35.317	9.540	27.278	33.934	40.370	.063	.610	17.0	595
800	7.595	35.208	7.513	27.510	34.235	40.737	.111	.773	29.7	793
1000	5.967	35.131	5.875	27.672	34.457	41.015	.100	.900	45.0	990
1250	4.480	34.975	4.378	27.726	34.568	41.181	-.027	1.032	67.0	1237
1500	3.991	34.940	3.871	27.752	34.614	41.247	-.048	1.156	91.9	1483
1750	3.764	34.927	3.624	27.767	34.639	41.281	-.053	1.277	119.5	1730
2000	3.633	34.940	3.471	27.792	34.670	41.318	-.036	1.398	149.9	1976
2500	3.323	34.961	3.117	27.843	34.735	41.396	-.007	1.634	218.6	2467
3000	2.947	34.959	2.697	27.880	34.789	41.466	.008	1.857	297.5	2957
3500	2.650	34.932	2.354	27.888	34.811	41.502	.002	2.075	386.2	3446
4000	2.559	34.917	2.209	27.888	34.818	41.514	-.006	2.299	484.7	3933
4500	2.574	34.912	2.164	27.888	34.819	41.517	-.009	2.537	593.2	4420
4562	2.579	34.914	2.162	27.890	34.821	41.519	-.007	2.568	607.4	4481

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	12.440	35.645	6.338	2.72	.52	6.58	12.438	27.005	1597K	12
100	12.064	35.604	5.941	2.93	.63	8.79	12.051	27.049	1596	99
199	11.733	35.558	6.065	3.06	.75	8.94	11.707	27.079	1595	197
300	11.555	35.539	6.140	3.31	.65	9.37	11.516	27.100	1594	298
396	11.256	35.491	5.508	4.54	.83	12.41	11.206	27.121	1593	393
496	10.462	35.399	5.145	6.08	1.03	15.20	10.402	27.194	1592	492
598	9.617	35.326	5.985	7.57	1.15	17.08	9.548	27.284	1591	593
665	9.045	35.286	4.727	8.94	1.26	18.64	8.970	27.347	1590	659
796	7.512	35.182	4.812	10.66	1.33	19.97	7.431	27.501	1589	789
998	6.361	35.189	5.304	10.83	1.27	19.35	6.267	27.668	1588	988
1199	4.722	34.997	5.916	10.51	1.27	18.73	4.622	27.716	1587	1187
1596	3.902	34.934	6.357	10.36	1.25	18.04	3.774	27.757	1586	1578
1994	3.650	34.938	6.478	11.26	1.22	17.96	3.488	27.789	1585	1970
2397	3.401	34.951C		13.19	1.21	17.75	3.204	27.827	1584	2366
2800	3.087	34.963	6.249	20.47	1.33	18.87	2.855	27.869	1583	2761
3201	2.798	34.949	6.026	29.94	1.43	20.37	2.530	27.887	1582	3153
3602	2.610	34.928	5.803	38.88	1.54	22.11	2.303	27.889	1581	3545
4006	2.557	34.915	5.808	42.24	1.57	22.64	2.206	27.887	1580	3939
4206	2.558	34.913	5.775	42.72	1.60	22.77	2.184	27.887	1579	4134
4408	2.570	34.912	5.768	43.31	1.60	22.95	2.172	27.887	1578	4331
4507	2.575	34.912	5.783	43.37	1.61	22.90	2.164	27.888	1577	4427
4559	2.579	34.911	5.776	43.38	1.62	22.78	2.162	27.887	1576	4478

HUDSON 82002 STN 18 LAT 48 10.8N LONG 20 30.5W 16 APRIL 1982 1849Z
SOUNDING 4168 M (4241 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	12.283	35.626	12.281	27.022	33.590	39.941	.032	.014	.0	14
20	12.231	35.622	12.228	27.029	33.599	39.952	.035	.021	.0	20
50	11.998	35.590	11.991	27.050	33.627	39.987	.037	.051	.1	50
80	11.856	35.569	11.846	27.061	33.643	40.008	.036	.082	.3	79
100	11.771	35.557	11.758	27.069	33.653	40.020	.037	.102	.5	99
150	11.664	35.543	11.645	27.079	33.668	40.038	.038	.152	1.1	149
200	11.544	35.525	11.518	27.089	33.681	40.056	.037	.203	1.9	198
300	11.476	35.520	11.438	27.100	33.695	40.072	.043	.306	4.2	298
400	11.015	35.448	10.965	27.131	33.741	40.133	.032	.409	7.5	397
500	9.952	35.292	9.893	27.199	33.844	40.269	.002	.509	11.7	496
600	8.706	35.164	8.640	27.304	33.992	40.457	-.009	.603	16.7	595
800	6.693	35.097	6.617	27.548	34.306	40.839	.042	.757	29.2	793
1000	5.707	35.103	5.617	27.683	34.477	41.044	.078	.877	44.1	990
1250	4.230	34.948	4.130	27.731	34.583	41.206	-.047	1.005	65.6	1237
1500	3.924	34.937	3.805	27.756	34.621	41.256	-.048	1.126	89.8	1483
1750	3.738	34.936	3.598	27.777	34.650	41.292	-.043	1.246	116.8	1730
2000	3.654	34.959	3.492	27.805	34.682	41.329	-.018	1.365	146.4	1976
2500	3.252	34.967	3.047	27.854	34.749	41.412	.001	1.594	213.5	2467
3000	2.879	34.953	2.631	27.881	34.793	41.472	.007	1.811	290.4	2957
3500	2.654	34.933	2.358	27.889	34.812	41.502	.002	2.028	377.0	3445
4000	2.554	34.917	2.204	27.889	34.818	41.515	-.006	2.252	473.3	3933
4238	2.549	34.916	2.171	27.891	34.821	41.519	-.005	2.363	522.7	4165

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	12.209	35.622	6.352	2.74	.57	6.67	12.207	27.033	1618	16
96	11.810	35.574	6.105	2.96	.70	8.39	11.798	27.074	1617	95
196	11.583	35.544	6.027	3.82	.69	9.43	11.558	27.096	1616	194
296	11.430	35.524	5.938	3.86	.73	10.50	11.392	27.112	1615	294
396	10.832	35.424	5.783	5.55	.83	12.47	10.783	27.146	1614	393
496	10.007	35.321	5.806	5.24	.95	13.08	9.948	27.212	1613	492
595	8.887	35.178	4.827	8.84	1.26	18.41	8.821	27.287	1612	590
695	7.476	35.062	4.752	10.74	1.44	20.34	7.406	27.410	1611	689
800	6.664	35.092	4.994	10.96	1.36	19.94	6.588	27.548	1610	793
1004	5.766	35.108	5.428	10.86	1.31	19.50	5.676	27.679	1609	994
1195	4.353	34.950	6.127	10.39	1.33	18.70	4.257	27.719	1608	1183
1596	3.842	34.932	6.433	10.40	1.23	18.06	3.715	27.762	1607	1578
1997	3.676	34.950	6.401	11.88	1.25	17.99	3.514	27.796	1606	1973
2412	3.341	34.964C					3.143	27.843	1605	2380
2805	2.994	34.961	6.104	24.83	1.36	19.67	2.763	27.876	1604	2766
3197	2.759	34.947	5.965	31.44	1.43	20.73	2.493	27.888	1603	3149
3603	2.600	34.926	5.780	39.33	1.54	22.21	2.294	27.888	1602	3546
4013	2.550	34.915C					2.199	27.888	1601	3946
4104	2.549	34.914	5.751	43.60		23.05	2.187	27.888	1600	4035
4162	2.541	34.913	5.763	43.44	1.61	23.05	2.173	27.888	1599	4091
4222	2.546	34.913	5.782	43.61	1.54	22.98	2.170	27.888	1598	4149

HUDSON 82002 STN 19 LAT 48 10.0N LONG 21 29.9W 17 APRIL 1982 1132
SOUNDING 4451 M (4531 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	11.949	35.602	11.947	27.068	33.646	40.007	.055	.018	.0	18
20	11.950	35.601	11.947	27.067	33.645	40.007	.054	.020	.0	20
50	11.946	35.602	11.939	27.069	33.648	40.009	.056	.050	.1	50
80	11.895	35.600	11.885	27.078	33.658	40.021	.061	.079	.3	79
100	11.853	35.596	11.840	27.083	33.665	40.030	.064	.099	.5	99
150	11.813	35.591	11.794	27.088	33.672	40.037	.065	.149	1.0	149
200	11.761	35.581	11.735	27.092	33.677	40.044	.064	.200	1.8	198
300	11.510	35.536	11.472	27.106	33.700	40.076	.054	.302	4.1	298
400	10.850	35.432	10.800	27.149	33.764	40.160	.037	.404	7.4	397
500	10.218	35.336	10.158	27.188	33.824	40.240	.017	.503	11.5	496
600	9.945	35.307	9.874	27.214	33.860	40.285	.019	.602	16.6	595
800	6.874	35.001	6.797	27.448	34.201	40.728	-.061	.779	29.2	793
1000	6.083	35.116	5.991	27.646	34.426	40.980	.082	.913	44.7	990
1250	4.729	35.018	4.624	27.733	34.565	41.169	.012	1.048	67.1	1237
1500	4.053	34.952	3.932	27.755	34.615	41.245	-.038	1.171	92.3	1483
1750	3.735	34.929	3.595	27.771	34.645	41.287	-.050	1.292	120.3	1730
2000	3.608	34.930	3.446	27.787	34.666	41.314	-.046	1.413	151.0	1976
2500	3.422	34.956	3.214	27.830	34.718	41.375	-.015	1.655	220.5	2467
3000	3.037	34.962	2.785	27.874	34.780	41.453	.007	1.886	300.6	2957
3500	2.768	34.943	2.469	27.887	34.805	41.491	.006	2.109	390.7	3446
4000	2.616	34.922	2.264	27.888	34.815	41.509	-.003	2.337	490.7	3933
4500	2.590	34.915	2.180	27.889	34.820	41.517	-.007	2.577	601.0	4420
4516	2.592	34.913	2.180	27.887	34.818	41.516	-.008	2.585	604.8	4436

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	11.926	35.600C					11.924	27.070	1639	15
94	11.889	35.585	6.208	3.22	.60	8.38	11.877	27.068	1638	93
195	11.746	35.564	5.989	3.70	.65	9.59	11.721	27.081	1637	193
302	11.401	35.509	5.884	4.29	.74	11.01	11.362	27.106	1636	300
397	10.722	35.402	5.583	5.49	.89	13.25	10.673	27.148	1635	394
495	10.045	35.320	5.797	5.50	.89	13.11	9.986	27.205	1634	491
596	9.421	35.224	5.092	7.86	1.12	16.89	9.353	27.236	1633	591
700	8.643	35.219	4.660	9.81	1.31	19.57	8.566	27.359	1632	694
780	7.209	35.055	4.794	10.84	1.37	20.44	7.132	27.444	1631	773
995	6.068	35.109	5.309	10.87	1.31	19.71	5.976	27.642	1630	985
1192	4.797	34.999	5.921	10.55	1.26	18.94	4.697	27.710	1629	1180
1594	3.904	34.933	6.397	10.45	1.22	18.17	3.776	27.756	1628	1576
1999	3.618	34.931	6.501	11.08	1.22	17.92	3.456	27.787	1627	1975
2391	3.451	34.946C					3.254	27.818	1626	2360
2800	3.210	34.962	6.338	17.00	1.26	18.27	2.976	27.857	1625	2761
3202	2.931	34.958	6.105	26.07	1.36	19.82	2.660	27.882	1624	3154
3576	2.734	34.940	5.938	34.00	1.45	21.30	2.427	27.888	1623	3520
4012	2.634	34.925	5.808	39.87	1.51	22.46	2.280	27.889	1622	3945
4212	2.608	34.919	5.804	42.01	1.51	22.94	2.232	27.888	1621	4140
4412	2.594	34.916	5.760	43.09	1.60	22.90	2.194	27.889	1620	4335
4517	2.592	34.909C		43.61	1.61	23.07	2.180	27.884	1661	4437
4524	2.586	34.912	5.746	43.68	1.57	23.01	2.173	27.887	1619	4444

HUDSON 82002 STN 20 LAT 48 9.9N LONG 22 24.7W 17 APRIL 1982 1234Z
SOUNDING 4214 M (4288 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	12.156	35.589	12.154	27.018	33.590	39.946	.012	.015	.0	14
20	12.147	35.589	12.144	27.019	33.592	39.948	.014	.021	.0	20
50	12.142	35.606	12.135	27.034	33.607	39.963	.032	.052	.1	50
80	11.894	35.578	11.884	27.061	33.642	40.005	.040	.083	.3	79
100	11.812	35.569	11.799	27.070	33.654	40.019	.042	.103	.5	99
150	11.733	35.561	11.714	27.080	33.666	40.035	.047	.153	1.1	149
200	11.708	35.561	11.682	27.086	33.673	40.042	.051	.204	1.9	198
300	11.686	35.560	11.647	27.092	33.680	40.050	.055	.307	4.2	298
400	11.425	35.516	11.374	27.109	33.706	40.084	.047	.412	7.5	397
500	10.952	35.455	10.889	27.151	33.763	40.156	.049	.516	11.8	496
600	10.533	35.432	10.459	27.210	33.836	40.242	.078	.618	16.9	595
800	8.841	35.264	8.752	27.365	34.048	40.509	.081	.808	30.0	793
1000	7.409	35.274	7.307	27.592	34.323	40.831	.188	.962	46.2	990
1250	4.961	35.015	4.854	27.704	34.528	41.123	.005	1.110	69.9	1237
1500	4.257	34.964	4.134	27.744	34.595	41.218	-.031	1.239	96.6	1484
1750	3.817	34.922	3.676	27.758	34.628	41.268	-.060	1.365	126.2	1730
2000	3.663	34.921	3.501	27.774	34.651	41.298	-.055	1.489	158.6	1976
2500	3.456	34.954	3.248	27.825	34.712	41.368	-.017	1.736	231.7	2467
3000	3.063	34.959	2.811	27.870	34.774	41.446	.003	1.970	315.6	2957
3500	2.771	34.941	2.472	27.885	34.803	41.489	.004	2.195	409.5	3446
4000	2.622	34.922	2.270	27.887	34.814	41.508	-.004	2.424	513.4	3934
4288	2.613	34.916	2.228	27.886	34.814	41.510	-.008	2.561	578.0	4214

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	12.315	35.599	6.472	2.60	.54	6.59	12.313	26.994	1660	16
105	11.810	35.577	6.180	3.08	.60	8.62	11.796	27.077	1659	104
202	11.719	35.563	6.137	3.89	.63	9.01	11.693	27.086	1658	200
307	11.676	35.560	6.069	3.31	.65	9.27	11.636	27.094	1657	305
408	11.467	35.525	5.869	3.97	.73	10.57	11.415	27.109	1656	405
512	10.870	35.451	5.657	4.55	.88	12.27	10.806	27.163	1655	508
605	10.398	35.407	5.404	5.50	.97	14.16	10.324	27.214	1654	600
707	9.698	35.331	5.136	7.18	1.18	16.40	9.615	27.276	1653	701
811	8.842	35.302	4.692	9.48	1.27	19.03	8.751	27.395	1652	804
1015	7.143	35.244	5.015	10.80	1.34	19.63	7.041	27.606	1651	1005
1215	5.264	35.047	5.727	10.91	1.29	19.30	5.157	27.694	1650	1203
1584	4.039	34.939	6.352	10.34	1.28	18.27	3.911	27.747	1649	1566
1999	3.636	34.919	6.579	10.76	1.20	17.74	3.474	27.775	1648	1975
2394	3.503	34.957C					3.304	27.822	1647	2363
2804	3.211	34.966	6.161	21.47	1.34	19.75	2.976	27.860	1646	2765
3199	2.904	34.955	6.188	24.75	1.32	19.33	2.634	27.882	1645	3151
3608	2.732	34.938	6.025	33.24	1.45	20.91	2.422	27.887	1644	3551
4005	2.621	34.922	5.839	40.32	1.52	22.33	2.269	27.887	1643	3939
4106	2.618	34.921	5.885	40.91	1.52	22.48	2.254	27.888	1642	4037
4208	2.620	34.919	5.884	41.29	1.55	22.56	2.244	27.887	1641	4136
4273	2.617	34.918	5.794	41.73	1.50	22.58	2.233	27.887	1640	4199

HUDSON 82002 STN 21 LAT 48 12.2N LONG 23 26.1W 17 APRIL 1982 2324Z
SOUNDING 4429 M (4509 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.554	35.659	12.552	26.994	33.554	39.898	.025	.019	.0	18
20	12.554	35.657	12.551	26.993	33.553	39.896	.023	.021	.0	20
50	12.449	35.652	12.442	27.010	33.574	39.920	.034	.053	.1	50
80	12.356	35.644	12.345	27.023	33.589	39.939	.040	.084	.3	79
100	12.349	35.650	12.336	27.030	33.596	39.946	.047	.105	.5	99
150	12.207	35.629	12.187	27.042	33.613	39.967	.048	.158	1.1	149
200	12.008	35.596	11.982	27.056	33.634	39.994	.044	.210	1.9	198
300	11.734	35.551	11.695	27.076	33.663	40.032	.039	.315	4.3	298
400	10.981	35.434	10.931	27.127	33.738	40.130	.023	.420	7.7	397
500	10.231	35.341	10.171	27.189	33.825	40.241	.020	.521	12.0	496
600	9.428	35.268	9.359	27.270	33.933	40.374	.032	.617	17.2	595
800	7.981	35.283	7.897	27.512	34.223	40.711	.163	.783	30.0	793
1000	6.982	35.295	6.883	27.668	34.414	40.936	.229	.910	45.5	990
1250	4.722	35.015	4.617	27.731	34.564	41.168	.009	1.044	67.8	1237
1500	4.025	34.952	3.905	27.758	34.619	41.250	-.037	1.167	92.9	1483
1750	3.723	34.928	3.583	27.772	34.645	41.289	-.051	1.287	120.7	1730
2000	3.635	34.936	3.473	27.789	34.667	41.314	-.040	1.408	151.3	1976
2500	3.362	34.960	3.155	27.839	34.729	41.388	-.009	1.647	220.5	2467
3000	3.003	34.961	2.752	27.877	34.783	41.458	.008	1.874	300.1	2957
3500	2.705	34.938	2.407	27.888	34.809	41.498	.005	2.096	389.6	3446
4000	2.595	34.920	2.244	27.888	34.816	41.511	-.004	2.322	488.9	3933
4500	2.596	34.915	2.186	27.889	34.819	41.516	-.007	2.561	598.5	4420
4508	2.598	34.915	2.187	27.889	34.819	41.516	-.007	2.565	600.4	4428

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	12.559	35.648	6.262	3.17	.52	6.85	12.557	26.984	1683K	13
92	12.338	35.635C					12.326	27.020	1682	91
196	12.088	35.578	6.019	3.18	.62	8.84	12.062	27.027	1681	194
285	11.893	35.575	5.907	3.27	.69	9.32	11.856	27.064	1680	283
394	11.530	35.518	5.585	4.55	.82	11.88	11.479	27.091	1679	391
498	10.375	35.349	5.048	6.94	1.06	15.89	10.315	27.170	1678	494
592	9.603	35.300	4.981	7.78	1.16	17.00	9.534	27.266	1677	587
699	8.186	35.185	4.642	10.50	1.36	20.26	8.112	27.403	1676	693
793	7.974	35.288	4.789	10.40	1.37	19.58	7.890	27.517	1675	786
998	6.777	35.277	5.162	10.77	1.27	19.28	6.679	27.682	1674	988
1198	5.005	35.047	5.883	10.67	1.29	19.11	4.902	27.724	1673	1186
1578	3.890	34.937	6.480	10.41	1.26	18.09	3.764	27.761	1672	1560
1999	3.629	34.939	6.518	11.14	1.22	17.77	3.467	27.792	1671	1975
2398	3.442	34.959	6.423	13.29	1.23	17.97	3.244	27.830	1670	2367
2788	3.145	34.963C					2.913	27.864	1669	2749
3202	2.873	34.954	6.108	27.60	1.39	19.99	2.604	27.884	1668	3154
3603	2.676	34.934	5.905	36.88	1.53	21.66	2.368	27.889	1667	3546
4013	2.593	34.919	5.876	41.33	1.63	22.74	2.240	27.887	1666	3946
4214	2.586	34.917	5.779	42.62		23.12	2.210	27.888	1665	4142
4304	2.585	34.915	5.789	43.22	1.62	23.27	2.199	27.888	1664	4230
4415	2.588	34.914	5.793	43.33	1.56	22.92	2.188	27.888	1663	4338
4500	2.596	34.913	5.792	43.28	1.52	22.93	2.186	27.887	1662	4420

HUDSON 82002 STN 22 LAT 48 12.4N LONG 24 26.9W 18 APRIL 1982 6382
SOUNDING 3868 M (3934 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.147	35.580	12.145	27.012	33.585	39.941	.005	.017	.0	16
20	12.140	35.580	12.137	27.014	33.587	39.943	.006	.021	.0	20
50	12.067	35.587	12.060	27.034	33.609	39.968	.024	.052	.1	50
80	11.968	35.597	11.958	27.062	33.640	40.001	.048	.082	.3	79
100	11.949	35.594	11.936	27.064	33.642	40.004	.049	.103	.5	99
150	11.869	35.581	11.849	27.070	33.652	40.016	.048	.154	1.1	149
200	11.799	35.569	11.773	27.075	33.659	40.026	.046	.205	1.9	198
300	11.682	35.555	11.643	27.089	33.677	40.047	.050	.309	4.2	298
400	10.496	35.370	10.447	27.163	33.790	40.198	.018	.411	7.5	397
500	9.603	35.293	9.545	27.258	33.915	40.350	.038	.507	11.7	496
600	8.779	35.234	8.713	27.348	34.032	40.494	.054	.595	16.8	595
800	6.556	35.085	6.480	27.557	34.320	40.858	.035	.745	29.1	793
1000	5.437	35.072	5.349	27.691	34.495	41.072	.053	.861	43.7	990
1250	4.606	35.009	4.502	27.739	34.576	41.185	.005	.988	64.8	1237
1500	4.028	34.955	3.907	27.760	34.621	41.252	-.034	1.109	88.6	1483
1750	3.748	34.937	3.608	27.776	34.649	41.291	-.043	1.230	115.2	1730
2000	3.644	34.953	3.482	27.802	34.679	41.326	-.023	1.349	144.4	1976
2500	3.287	34.963	3.082	27.848	34.741	41.403	-.005	1.581	210.8	2467
3000	2.945	34.955	2.695	27.877	34.786	41.463	.005	1.802	287.3	2957
3500	2.731	34.941	2.433	27.889	34.808	41.496	.006	2.023	373.5	3445
3922	2.616	34.925	2.273	27.889	34.816	41.510	-.001	2.213	453.9	3857

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.139	35.578	6.362	3.40	.52	6.84	12.136	27.012	1704	21
95	11.965	35.593	6.073	3.04	.60	8.49	11.953	27.060	1703	94
192	11.858	35.577	6.019	3.18	.64	8.90	11.833	27.070	1702	190
295	11.724	35.561	6.017	3.44	.66	9.40	11.686	27.086	1701	293
398	10.484	35.379	5.149	6.29	1.01	15.08	10.436	27.173	1700	395
499	9.712	35.279C	4.947	7.64	1.12	16.90	9.654	27.229	1699	495
592	8.684	35.194	4.699	9.66	1.32	19.32	8.619	27.331	1698	587
681	8.066	35.175	4.669	10.39	1.39	20.07	7.994	27.413	1697	675
793	6.580	35.079	5.016	11.07	1.38	20.10	6.505	27.549	1696	786
995	5.497	35.069	5.588	10.76	1.30	19.33	5.409	27.681	1695	985
1193	4.766	35.021	5.930	10.61	1.30	18.78	4.666	27.730	1694	1181
1597	3.913	34.944	6.404	10.45	1.28	18.16	3.785	27.764	1693	1579
1995	3.661	34.947	6.442	11.91	1.28	18.04	3.499	27.795	1692	1971
2400	3.368	34.961C					3.171	27.838	1691	2368
2798	3.037	34.961	6.271	20.04	1.32	18.76	2.806	27.872	1690	2759
3001	2.925	34.958	6.162	23.50	1.40	19.32	2.676	27.881	1689	2958
3199	2.833	34.952	6.120	27.08	1.43	20.03	2.565	27.886	1688	3151
3403	2.755	34.945	5.995	31.17	1.49	20.60	2.466	27.889	1687	3354
3601	2.665	34.933	5.902	36.36	1.48	21.50	2.357	27.889	1686	3544
3806	2.625	34.926	5.853	39.20	1.55	22.16	2.295	27.888	1685	3744
3915	2.617	34.923	5.854	40.17	1.48	22.28	2.275	27.888	1684	3850

HUDSON 82002 STN 23 LAT 48 10.0N LONG 25 21.3W 18 APRIL 1982 1257Z
SOUNDING 3566 M (3623 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.125	35.591	12.123	27.025	33.599	39.955	.019	.017	.0	16
20	12.128	35.590	12.125	27.024	33.597	39.954	.017	.021	.0	20
50	12.091	35.604	12.084	27.043	33.617	39.974	.037	.051	.1	50
80	11.851	35.573	11.841	27.065	33.647	40.012	.041	.082	.3	79
100	11.763	35.570	11.750	27.080	33.665	40.032	.050	.102	.5	99
150	11.662	35.559	11.643	27.092	33.680	40.051	.054	.152	1.1	149
200	11.609	35.550	11.583	27.096	33.686	40.059	.053	.202	1.9	198
300	11.254	35.494	11.216	27.121	33.723	40.106	.046	.303	4.2	298
400	10.298	35.338	10.250	27.173	33.807	40.220	.009	.403	7.4	397
500	9.584	35.250	9.526	27.228	33.885	40.322	-.002	.500	11.5	496
600	7.918	35.090	7.856	27.366	34.081	40.573	-.028	.589	16.5	595
800	6.502	35.131	6.427	27.601	34.365	40.904	.083	.730	28.6	793
1000	5.027	35.008	4.943	27.688	34.509	41.101	-.004	.842	43.0	990
1250	4.143	34.944	4.044	27.737	34.593	41.219	-.049	.966	63.6	1237
1500	3.861	34.933	3.742	27.760	34.627	41.264	-.051	1.085	86.9	1483
1750	3.674	34.926	3.535	27.775	34.651	41.296	-.051	1.204	112.9	1730
2000	3.573	34.936	3.412	27.795	34.675	41.325	-.038	1.323	141.6	1976
2500	3.362	34.956	3.155	27.836	34.726	41.385	-.013	1.559	206.9	2467
3000	2.969	34.960	2.719	27.879	34.787	41.463	.009	1.786	282.6	2957
3500	2.812	34.947	2.512	27.887	34.803	41.487	.008	2.008	368.1	3445
3618	2.787	34.944	2.474	27.888	34.806	41.491	.006	2.062	389.8	3561

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
23	12.121	35.602	6.307	3.40	.59	7.95	12.118	27.035	1725	23
111	11.693	35.561	6.064	3.83	.75	9.93	11.679	27.087	1724	110
211	11.494	35.535	5.992	4.30	.76	10.79	11.467	27.107	1723	209
310	11.003	35.453	5.870	4.88	.84	12.00	10.964	27.135	1722	308
411	10.182	35.322	5.825	5.64	.92	13.30	10.133	27.181	1721	408
511	9.739	35.274	5.728	5.91	.96	13.82	9.680	27.221	1720	507
605	7.963	35.080	4.583	10.80	1.38	20.49	7.900	27.352	1719	600
708	7.290	35.122	4.856	11.55	1.35	20.34	7.220	27.484	1718	702
810	6.492	35.134C	5.097	10.92	1.34	19.80	6.416	27.604	1717	803
1015	4.851	34.989	5.933	10.66	1.23	19.07	4.767	27.694	1716	1005
1217	4.186	34.938	6.254	10.34	1.22	18.42	4.089	27.728	1715	1205
1621	3.728	34.923	6.507	10.40	1.20	17.85	3.600	27.766	1714	1603
2026	3.562	34.933	6.446	11.21	1.18	17.73	3.399	27.794	1713	2001
2430	3.394	34.953C					3.194	27.830	1712	2398
2635	3.259	34.957	6.339	15.07	1.23	17.83	3.041	27.847	1711	2599
2836	3.091	34.960	6.322	18.54	1.23	18.30	2.855	27.867	1710	2796
3036	2.930	34.956	6.176	23.77	1.29	19.12	2.677	27.879	1709	2992
3242	2.843	34.950	6.095	27.54	1.35	19.78	2.570	27.884	1708	3193
3351	2.824	34.948	6.056	28.75	1.39	20.02	2.540	27.885	1707	3300
3453	2.813	34.946	6.078	29.52	1.40	20.16	2.518	27.885	1706	3399
3603	2.789	34.943	6.028	31.33	1.41	20.58	2.478	27.886	1705	3546

HUDSON 82002 STN 24 LAT 48 1.6N LONG 25 59.4W 18 APRIL 1982 1809Z
SOUNDING 3532 M (3588 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	11.826	35.545	11.824	27.007	33.630	39.995	.015	.014	.0	14
20	11.802	35.544	11.799	27.051	33.634	40.000	.018	.020	.0	20
50	11.744	35.544	11.738	27.063	33.648	40.016	.026	.050	.1	50
80	11.637	35.538	11.627	27.079	33.668	40.039	.035	.080	.3	79
100	11.508	35.535	11.495	27.101	33.694	40.069	.050	.100	.5	99
150	11.325	35.507	11.306	27.115	33.714	40.094	.047	.149	1.0	149
200	11.076	35.466	11.051	27.130	33.737	40.125	.040	.198	1.8	198
300	10.518	35.372	10.482	27.159	33.785	40.191	.015	.295	4.1	298
400	9.905	35.280	9.858	27.195	33.842	40.268	-.007	.392	7.3	397
500	8.403	35.102	8.350	27.301	33.999	40.474	-.049	.483	11.3	496
600	7.252	35.021	7.193	27.409	34.147	40.661	-.059	.565	16.1	595
800	5.543	34.975	5.474	27.599	34.400	40.974	-.047	.699	27.7	793
1000	4.484	34.931	4.404	27.688	34.530	41.143	-.071	.806	41.5	990
1250	4.094	34.940	3.995	27.739	34.597	41.224	-.052	.930	61.3	1237
1500	3.784	34.923	3.666	27.759	34.630	41.270	-.059	1.049	83.8	1483
1750	3.656	34.923	3.517	27.774	34.651	41.296	-.054	1.167	109.1	1730
2000	3.583	34.935	3.422	27.793	34.673	41.322	-.040	1.287	137.0	1976
2500	3.309	34.956	3.103	27.840	34.733	41.394	-.012	1.522	200.8	2467
3000	2.979	34.956	2.729	27.875	34.782	41.458	.004	1.747	274.9	2957
3500	2.802	34.943	2.502	27.884	34.801	41.486	.004	1.972	359.0	3445
3584	2.783	34.946	2.474	27.889	34.807	41.493	.009	2.010	374.1	3528

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
20	11.767	35.551	6.347	3.73	.66	8.47	11.764	27.063	1746	20
111	11.498	35.542	6.130	4.31	.80	10.54	11.484	27.109	1745	110
210	11.189	35.493	5.948	4.79	.86	11.60	11.163	27.130	1744	208
310	10.473	35.368	6.002	5.10	.91	13.15	10.436	27.164	1743	308
410	9.525	35.234	5.139	7.63	1.12	16.38	9.478	27.223	1742	407
509	8.670	35.139	4.783	9.51	1.40	18.88	8.615	27.289	1741	505
610	7.289	35.068	4.737	11.18	1.46	20.47	7.229	27.440	1740	605
711	6.234	35.019		11.18	1.38	20.05	6.169	27.546	1739	705
810	5.358	34.987	5.337	10.98	1.32	19.47	5.289	27.631	1738	803
1013	4.408	34.924	6.054	10.56	1.30	18.68	4.327	27.691	1737	1003
1212	4.226	34.949	6.181	10.57	1.37	18.53	4.129	27.732	1736	1200
1614	3.708	34.926	6.488	10.52	1.24	17.83	3.581	27.770	1735	1596
2019	3.551	34.935	6.482	11.81	1.25	17.79	3.388	27.796	1734	1995
2419	3.353	34.954C					3.155	27.834	1733	2387
2626	3.216	34.957	6.375	15.73	1.36	18.03	2.999	27.851	1732	2590
2821	3.075	34.960	6.277	19.18	1.32	18.38	2.841	27.868	1731	2782
3028	2.963	34.955	6.218	23.52	1.40	19.15	2.710	27.876	1730	2984
3234	2.880	34.953C					2.607	27.883	1729	3185
3333	2.856	34.949	6.075	28.15	1.38	19.95	2.573	27.883	1728	3282
3439	2.820	34.947	6.039	30.06	1.36	20.20	2.526	27.885	1727	3386
3565	2.783	34.943	6.025	31.98	1.40	20.58	2.476	27.887	1726	3509

HUDSON 82002 STN 25 LAT 47 50.2N LONG 26 30.2W 18 APRIL 1982 2324Z
SOUNDING 2777 M (2816 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
22	11.894	35.552	11.891	27.039	33.620	39.984	.013	.022	.1	22
50	11.836	35.558	11.830	27.056	33.638	40.003	.027	.051	.1	50
80	11.778	35.556	11.768	27.066	33.651	40.017	.034	.081	.3	79
100	11.741	35.554	11.728	27.072	33.658	40.026	.037	.101	.5	99
150	11.570	35.544	11.551	27.098	33.689	40.062	.052	.151	1.1	149
200	11.487	35.532	11.461	27.105	33.699	40.075	.051	.201	1.9	198
300	11.233	35.490	11.195	27.122	33.724	40.108	.045	.302	4.2	298
400	10.346	35.343	10.298	27.169	33.801	40.213	.008	.402	7.4	397
500	9.397	35.214	9.340	27.231	33.895	40.337	-.021	.499	11.6	496
600	8.026	35.068	7.964	27.333	34.045	40.533	-.057	.589	16.6	595
800	6.497	35.132	6.422	27.602	34.367	40.906	.084	.728	28.7	793
1000	4.506	34.933	4.426	27.687	34.528	41.140	-.070	.838	43.1	990
1250	4.159	34.944	4.060	27.736	34.590	41.216	-.050	.962	63.7	1237
1500	3.827	34.927	3.709	27.758	34.627	41.266	-.055	1.082	87.1	1483
1750	3.648	34.924	3.509	27.776	34.653	41.299	-.053	1.200	113.2	1730
2000	3.579	34.936	3.418	27.794	34.675	41.324	-.039	1.320	141.9	1976
2500	3.379	34.955	3.172	27.833	34.723	41.381	-.015	1.558	207.5	2467
2810	2.997	34.952	2.766	27.868	34.774	41.449	-.001	1.701	253.4	2771

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
20	11.883	35.546	6.357	3.51	.62	8.31	11.880	27.037	1767	20
112	11.629	35.552	6.011	4.06	.74	10.41	11.615	27.092	1766	111
210	11.418	35.522	5.953	4.35	.76	11.02	11.391	27.111	1765	208
312	11.009	35.455	5.936	4.80	.82	11.68	10.970	27.136	1764	310
411	10.124	35.310	5.626	6.38	.97	14.31	10.075	27.182	1763	408
508	9.231	35.200	5.132	8.33	1.16	17.31	9.174	27.247	1762	504
608	7.631	35.030	5.175	10.86	1.35	20.68	7.569	27.362	1761	603
712	6.337	35.002	5.568	11.31	1.40	20.29	6.271	27.519	1760	706
810	6.139	35.097		11.17	1.31	19.79	6.065	27.621	1759	803
1009	4.518	34.933	5.999	10.66	1.30	18.95	4.437	27.686	1758	999
1208	4.212	34.949	6.172	10.68	1.28	18.45	4.116	27.734	1757	1196
1611	3.741	34.921	6.465	10.75	1.22	18.01	3.614	27.763	1756	1593
2020	3.579	34.935	6.430	11.73	1.24	17.96	3.416	27.794	1755	1996
2123	3.568	34.944C					3.395	27.803	1754	2097
2227	3.535	34.945	6.383	12.63	1.37	18.73	3.353	27.808	1753	2198
2331	3.475	34.950	6.370	13.02	1.58	17.96	3.283	27.819	1752	2301
2430	3.395	34.955	6.401	13.99	1.25	17.21	3.195	27.831	1751	2398
2531	3.346	34.957	6.349	14.68	1.30	18.01	3.137	27.838	1750	2497
2636	3.258	34.963	6.339	15.93	1.43	18.04	3.039	27.852	1749	2600
2739	3.164	34.960	6.296	17.99	1.32	18.33	2.937	27.859	1748	2701
2799	3.026	34.959	6.213	21.29	1.35	18.83	2.795	27.871	1747	2760

HUDSON 82002 STN 26 LAT 48 3.6N LONG 27 .5W 19 APRIL 1982 413Z
SOUNDING 3096 M (3142 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	11.911	35.532	11.909	27.021	33.601	39.964	-.010	.017	.0	16
20	11.888	35.553	11.885	27.041	33.622	39.986	.015	.021	.0	20
50	11.820	35.569	11.814	27.068	33.650	40.016	.040	.051	.1	50
80	11.710	35.565	11.700	27.086	33.672	40.041	.052	.081	.3	79
100	11.646	35.554	11.633	27.090	33.679	40.049	.051	.100	.5	99
150	11.570	35.544	11.551	27.098	33.689	40.062	.052	.150	1.1	149
200	11.489	35.533	11.463	27.106	33.699	40.075	.053	.200	1.9	198
300	11.267	35.497	11.229	27.121	33.723	40.105	.048	.301	4.1	298
400	10.678	35.397	10.629	27.152	33.773	40.175	.023	.402	7.4	397
500	9.809	35.264	9.751	27.201	33.851	40.281	-.012	.501	11.5	496
600	8.544	35.117	8.479	27.293	33.986	40.457	-.044	.595	16.5	595
800	6.024	34.975	5.952	27.539	34.323	40.880	-.058	.747	28.9	793
1000	5.298	35.050	5.212	27.690	34.500	41.082	.033	.864	43.6	990
1250	4.233	34.955	4.133	27.736	34.588	41.211	-.041	.989	64.8	1237
1500	3.895	34.934	3.776	27.757	34.623	41.259	-.051	1.109	88.7	1483
1750	3.680	34.926	3.541	27.774	34.650	41.295	-.051	1.228	115.2	1730
2000	3.565	34.933	3.404	27.793	34.674	41.324	-.041	1.347	144.5	1976
2500	3.331	34.955	3.125	27.838	34.729	41.390	-.013	1.585	211.1	2467
3000	3.082	34.959	2.829	27.868	34.772	41.443	.002	1.815	288.0	2957
3128	3.012	34.957	2.747	27.874	34.781	41.456	.004	1.873	309.4	3082

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
17	11.889	35.553	6.382	3.43	.59	8.39	11.887	27.041	1788	17
109	11.666	35.557		3.77	.68	10.25	11.652	27.089	1787	108
207	11.518	35.540	5.992	4.16	.73	10.91	11.492	27.106	1786	205
308	11.418	35.536	6.069	4.43	.75	11.08	11.379	27.124	1785	306
408	10.592	35.385	5.824	5.46	.89	13.04	10.542	27.158	1784	405
508	9.830	35.278	5.904	5.58	.92	13.29	9.771	27.209	1783	504
608	8.494	35.110	4.565	10.24	1.34	20.04	8.429	27.295	1782	603
707	6.956	34.999	4.780	11.69	1.41	21.06	6.888	27.434	1781	701
812	6.113	35.035	5.182	11.21	1.33	20.06	6.039	27.576	1780	805
1012	5.381	35.051	5.630	10.85	1.28	19.47	5.293	27.681	1779	1002
1216	4.379	34.964	6.086	10.58	1.32	18.68	4.281	27.728	1778	1204
1620	3.808	34.924	6.467	10.49	1.23	18.15	3.679	27.759	1777	1602
2026	3.573	34.927	6.570	11.19	1.23	17.78	3.409	27.788	1776	2001
2429	3.400	34.952C					3.200	27.828	1775	2397
2612	3.263	34.955	6.421	16.00	1.24	18.37	3.047	27.845	1774	2577
2708	3.222	34.956	6.388	16.75	1.24	18.25	2.997	27.850	1773	2671
2810	3.178	34.956	6.399	17.50	1.21	17.98	2.943	27.855	1772	2771
2921	3.153	34.959	6.373	18.18	1.26	18.45	2.907	27.861	1771	2880
3033	3.068	34.957	6.353	20.81	1.29	18.82	2.812	27.868	1770	3989
3113	3.012	34.957	6.313	22.76	1.35	19.24	2.749	27.874	1768	3067
3113	3.012	34.957	6.283	22.58	1.31	19.19	2.749	27.874	1769	3067

HUDSON 82002 STN 27 LAT 47 58.1N LONG 27 33.4W 19 APRIL 1982 8512
SOUNDING 3743 M (3805 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
20	12.218	35.613	12.215	27.024	33.595	39.948	.027	.021	.0	20
50	12.142	35.609	12.135	27.037	33.610	39.965	.035	.052	.1	50
80	12.048	35.606	12.038	27.053	33.629	39.988	.046	.082	.3	79
100	11.893	35.582	11.880	27.065	33.646	40.009	.044	.103	.5	99
150	11.737	35.569	11.718	27.086	33.671	40.040	.054	.153	1.1	149
200	11.656	35.559	11.630	27.095	33.683	40.054	.055	.204	1.9	198
300	11.442	35.527	11.404	27.112	33.708	40.085	.054	.305	4.2	298
400	10.819	35.420	10.769	27.145	33.761	40.159	.029	.407	7.5	397
500	10.043	35.301	9.984	27.190	33.833	40.255	.001	.507	11.7	496
600	8.601	35.128	8.536	27.292	33.984	40.453	-.038	.602	16.8	595
800	6.663	35.104	6.587	27.558	34.317	40.851	.050	.757	29.3	793
1000	5.238	35.037	5.152	27.687	34.499	41.084	.022	.873	44.2	990
1250	4.301	34.970	4.200	27.741	34.590	41.210	-.028	.998	65.6	1237
1500	3.945	34.943	3.825	27.759	34.623	41.257	-.043	1.117	89.8	1483
1750	3.758	34.939	3.618	27.777	34.649	41.291	-.041	1.237	116.6	1730
2000	3.613	34.940	3.451	27.794	34.673	41.321	-.036	1.356	146.1	1976
2500	3.398	34.952	3.191	27.829	34.718	41.376	-.018	1.596	213.2	2467
3000	3.115	34.958	2.862	27.864	34.767	41.437	-.001	1.832	291.0	2957
3500	3.115	34.957	2.807	27.869	34.773	41.445	.001	2.071	379.2	3446
3802	3.147	34.956	2.804	27.868	34.773	41.445	.000	2.225	437.8	3740

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.212	35.606	6.383	3.51	.57	8.05	12.209	27.020	1809	21
110	11.804	35.575	6.112	3.64	.67	9.92	11.790	27.077	1808	109
210	11.614	35.551	6.032	3.98	.72	10.70	11.587	27.096	1807	208
312	11.408	35.522	5.987	4.38	.81	11.34	11.368	27.115	1806	310
411	10.893	35.435	5.881	4.98	.83	11.73	10.842	27.144	1805	408
509	10.048	35.305	5.882	5.53	.91	13.26	9.988	27.193	1804	505
610	8.553	35.125	4.583	10.16	1.34	20.20	8.487	27.298	1803	605
704	7.206	35.038	4.708	11.24	1.39	20.89	7.137	27.430	1802	698
810	6.606	35.111	5.034	10.99	1.35	20.10	6.529	27.571	1801	803
1007	5.245	35.034	5.654	10.83	1.31	19.48	5.158	27.684	1800	997
1210	4.379	34.972	6.134	10.56	1.28	18.91	4.281	27.734	1799	1198
1611	3.800	34.929	6.438	10.57	1.34	18.17	3.672	27.764	1798	1593
2019	3.609	34.935		11.82	1.29	18.09	3.446	27.791	1797	1995
2421	3.445	34.948C					3.245	27.821	1796	2390
2827	3.202	34.955	6.339	17.65	1.50	18.58	2.965	27.853	1795	2787
3133	3.089	34.956	6.265	20.85	1.35	18.82	2.822	27.866	1794	3087
3337	3.100	34.956	6.277	21.20	1.30	18.89	2.811	27.867	1793	3286
3484	3.112	34.957	6.267	21.26	1.39	18.25	2.806	27.869	1792	3430
3578	3.122	34.958	6.268	21.31	1.29	19.11	2.805	27.870	1791	3522
3678	3.133	34.958	6.271	21.32	1.33	19.04	2.804	27.870	1790	3619
3787	3.145	34.958	6.223	21.48	1.29	18.89	2.804	27.870	1789	3725

HUDSON 82002 STN 28 LAT 47 41.0N LONG 27 51.7W 19 APRIL 1982 1344Z
SOUNDING 3050 M (3095 DBAR)

PR DBAR	T DEG C	S	TH. DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.269	35.602	12.267	27.006	33.575	39.927	.009	.019	.0	18
20	12.239	35.605	12.236	27.014	33.584	39.937	.017	.021	.0	20
50	12.183	35.613	12.176	27.032	33.603	39.958	.033	.052	.1	50
80	11.989	35.602	11.979	27.062	33.639	39.999	.050	.083	.3	79
100	11.949	35.596	11.936	27.065	33.644	40.006	.050	.103	.5	99
150	11.791	35.565	11.772	27.072	33.657	40.023	.043	.154	1.1	149
200	11.742	35.559	11.716	27.078	33.664	40.032	.044	.205	1.9	198
300	11.707	35.555	11.668	27.084	33.672	40.041	.046	.309	4.3	298
400	11.297	35.482	11.246	27.106	33.707	40.090	.031	.414	7.6	397
500	9.565	35.240	9.507	27.223	33.882	40.319	-.011	.515	11.9	496
600	7.704	35.061	7.643	27.375	34.098	40.596	-.043	.604	17.1	595
800	5.950	35.027	5.878	27.590	34.375	40.934	-.004	.742	29.5	793
1000	4.860	35.005	4.777	27.705	34.532	41.130	-.003	.852	44.2	990
1250	4.184	34.957	4.084	27.743	34.597	41.221	-.037	.973	65.1	1237
1500	3.858	34.940	3.739	27.765	34.633	41.270	-.044	1.091	88.8	1483
1750	3.682	34.932	3.543	27.779	34.654	41.299	-.046	1.209	115.1	1730
2000	3.608	34.940	3.446	27.795	34.674	41.322	-.036	1.328	144.1	1976
2500	3.324	34.953	3.118	27.837	34.729	41.389	-.015	1.566	210.2	2467
3000	3.158	34.954	2.904	27.857	34.758	41.427	-.006	1.798	286.8	2957
3094	3.143	34.955	2.879	27.860	34.762	41.432	-.005	1.843	302.4	3049

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.277	35.603	6.460	3.45	.57	7.31	12.274	27.005	1830	21
111	11.951	35.596	6.026	3.64	.85	10.13	11.937	27.065	1829	110
209	11.748	35.561	6.035	3.64	.69	9.61	11.721	27.079	1828	207
312	11.715	35.562	5.979	3.65	.74	10.47	11.674	27.088	1827	310
414	10.887	35.421	5.296	6.02	.94	13.38	10.836	27.134	1826	411
512	9.322	35.220	4.691	8.97	1.25	18.93	9.264	27.248	1825	508
611	7.540	35.047	4.501	11.65	1.43	21.46	7.479	27.388	1824	606
713	6.657	35.048	4.909	11.50	1.37	20.63	6.589	27.513	1823	707
814	5.802	35.029	5.315	11.40	1.38	20.11	5.730	27.610	1822	807
1013	4.912	35.008	5.819	10.82	1.28	19.17	4.827	27.702	1821	1003
1214	4.225	34.953	6.225	10.56	1.25	18.63	4.128	27.735	1820	1202
1619	3.741	34.935	6.432	10.66	1.24	18.24	3.613	27.774	1819	1601
2024	3.593	34.935	6.448	12.03	1.24	18.09	3.429	27.792	1818	2000
2430	3.369	34.952C					3.169	27.831	1817	2398
2527	3.311	34.952	6.356	15.24	1.21	18.38	3.103	27.837	1816	2493
2627	3.260	34.955	6.283	15.94	1.21	18.18	3.042	27.845	1815	2591
2728	3.226	34.953	6.364	17.00	1.28	18.54	2.999	27.848	1814	2690
2832	3.177	34.962	6.262	17.60	1.26	18.49	2.940	27.860	1813	2792
2939	3.161	34.956	6.297	18.57	1.25	18.64	2.913	27.858	1812	2897
3043	3.149	34.956	6.283	19.86	1.25	18.66	2.890	27.860	1811	2999
3087	3.146	34.956	6.291	19.19	1.25	18.68	2.883	27.861	1810	3042

HUDSON 82002 STN 29 LAT 47 31.9N LONG 28 17.2W 19 APRIL 1982 1807Z
SOUNDING 2967 M (3010 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	11.990	35.593	11.988	27.053	33.630	39.990	.040	.018	.0	18
20	11.984	35.593	11.981	27.054	33.632	39.992	.041	.020	.0	20
50	11.791	35.583	11.785	27.084	33.668	40.034	.059	.050	.1	50
80	11.667	35.570	11.657	27.098	33.686	40.055	.064	.079	.3	79
100	11.661	35.570	11.648	27.100	33.688	40.058	.064	.098	.5	99
150	11.465	35.545	11.446	27.118	33.712	40.089	.066	.147	1.0	149
200	11.024	35.464	10.999	27.138	33.746	40.136	.044	.196	1.8	198
300	10.409	35.367	10.373	27.174	33.803	40.213	.024	.293	4.1	298
400	9.640	35.247	9.594	27.214	33.870	40.304	-.012	.388	7.2	397
500	8.210	35.061	8.158	27.298	34.003	40.485	-.077	.478	11.2	496
600	6.624	34.925	6.568	27.419	34.181	40.717	-.128	.559	16.0	595
800	5.052	34.935	4.986	27.626	34.445	41.037	-.077	.686	27.6	793
1000	4.238	34.912	4.160	27.699	34.551	41.173	-.084	.789	41.2	990
1250	4.016	34.929	3.918	27.738	34.599	41.230	-.060	.910	60.7	1237
1500	3.840	34.935	3.722	27.763	34.632	41.270	-.048	1.028	83.0	1483
1750	3.690	34.932	3.551	27.778	34.653	41.297	-.046	1.146	107.9	1730
2000	3.623	34.942	3.461	27.795	34.673	41.321	-.033	1.264	135.5	1976
2500	3.403	34.947	3.196	27.825	34.713	41.371	-.023	1.503	198.9	2467
2990	3.131	34.949	2.878	27.856	34.757	41.427	-.010	1.734	271.3	2947

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	11.960	35.606	6.589	2.90	.64	7.51	11.957	27.069	1851	21
111	11.580	35.563	6.019	4.45	.74	10.56	11.566	27.110	1850	110
211	11.267	35.520	5.757	4.95	.86	12.07	11.240	27.137	1849	209
313	10.568	35.412	5.870	5.71	.90	12.96	10.530	27.182	1848	311
409	9.524	35.246	5.442	7.54	1.10	15.76	9.477	27.233	1847	406
508	8.006	35.045	5.711	8.35	1.14	16.54	7.953	27.317	1846	504
608	6.597	34.914	4.936	10.97	1.38	20.23	6.540	27.414	1845	603
702	5.654	34.912	5.280	11.25	1.38	20.14	5.593	27.535	1844	696
798	5.043	34.938	5.641	10.73	1.31	19.32	4.977	27.629	1843	791
1002	4.247	34.910	6.270	10.04	1.28	18.35	4.169	27.697	1842	992
1189	4.195	34.951	6.231	10.37	1.27	18.32	4.101	27.737	1841	1177
1383	3.934	34.936	6.491	10.48	1.24	18.17	3.825	27.754	1840	1368
1584	3.753	34.926	6.437	10.49	1.31	18.03	3.628	27.766	1839	1566
1788	3.702	34.938C					3.559	27.782	1838	1767
1987	3.606	34.942	6.393	12.48	1.23	18.00	3.446	27.796	1837	1963
2194	3.521	34.947C	6.401	13.02	1.23	17.96	3.342	27.811	1836	2166
2400	3.424	34.946	6.395	14.15	1.32	18.08	3.226	27.821	1835	2369
2603	3.320	34.951	6.365	15.38	1.29	18.21	3.104	27.836	1834	2568
2792	3.202	34.953	6.334	17.25	1.25	18.31	2.969	27.851	1833	2753
2895	3.187	34.954	6.317	17.52	1.27	18.24	2.943	27.854	1832	2854
2981	3.136	34.950	6.319	17.19	1.24	18.05	2.884	27.856	1831	2938

HUDSON 82002 STN 30 LAT 47 10.8N LONG 28 24.3W 19 APRIL 1982 2222Z
SOUNDING 3316 M (3367 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
24	12.437	35.645	12.434	27.006	33.570	39.917	.028	.025	.1	24
50	12.193	35.632	12.186	27.045	33.616	39.970	.050	.052	.2	50
80	12.105	35.616	12.094	27.050	33.624	39.981	.048	.082	.3	79
100	12.018	35.609	12.005	27.062	33.639	39.998	.054	.103	.5	99
150	11.830	35.589	11.811	27.084	33.666	40.052	.061	.154	1.1	149
200	11.823	35.596	11.797	27.092	33.675	40.040	.070	.204	1.9	198
300	11.727	35.584	11.688	27.103	33.690	40.058	.073	.307	4.3	298
400	11.380	35.530	11.329	27.128	33.726	40.106	.067	.410	7.6	397
500	10.100	35.314	10.040	27.191	33.831	40.251	.008	.511	11.9	496
600	9.138	35.202	9.071	27.265	33.938	40.390	-.008	.608	17.1	595
800	6.092	35.002	6.019	27.552	34.333	40.887	-.033	.762	29.9	793
1000	5.060	35.010	4.975	27.686	34.505	41.097	-.002	.879	45.2	990
1250	4.318	34.974	4.217	27.743	34.591	41.210	-.023	1.003	66.9	1237
1500	3.836	34.935	3.718	27.764	34.632	41.270	-.048	1.121	91.5	1484
1750	3.748	34.948	3.608	27.785	34.658	41.300	-.031	1.239	118.7	1730
2000	3.654	34.950	3.492	27.798	34.675	41.322	-.027	1.357	148.6	1976
2500	3.406	34.950	3.199	27.827	34.715	41.373	-.021	1.597	216.6	2467
3000	3.095	34.948	2.842	27.858	34.761	41.433	-.010	1.833	295.4	2957
3366	2.933	34.943	2.644	27.872	34.783	41.462	-.004	2.004	359.8	3315

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.317	35.633	6.400	3.46	.57	7.66	12.314	27.021	1872	21
112	12.039	35.611	6.055	3.85	.68	9.45	12.024	27.060	1871	111
212	11.817	35.600	5.954	4.12	.73	10.41	11.789	27.096	1870	210
312	11.710	35.587	5.928	4.31	.73	10.80	11.669	27.109	1869	310
410	11.290	35.513	5.790	4.96	.82	11.91	11.238	27.132	1868	407
511	10.049	35.333	5.947	5.89	.93	13.30	9.988	27.215	1867	507
608	8.900	35.170	4.371	10.34	1.35	20.30	8.833	27.279	1866	603
708	7.131	35.011	4.597	11.85	1.46	21.36	7.062	27.419	1865	702
811	5.947	34.992	5.135	11.60	1.41	20.25	5.874	27.563	1864	804
1016	5.129	35.028	5.702	10.87	1.32	19.22	5.042	27.693	1863	1006
1210	4.265	34.956	6.196	10.51	1.25	18.47	4.168	27.734	1862	1198
1411	3.934	34.937	6.373	10.56	1.26	18.25	3.823	27.755	1861	1396
1618	3.774	34.940C					3.646	27.775	1860	1600
1826	3.734	34.950	6.374	12.28	1.27	18.20	3.587	27.789	1859	1804
2037	3.639	34.948	6.372	13.09	1.26	18.26	3.473	27.798	1858	2012
2429	3.446	34.947	6.337	14.01	1.28	18.08	3.245	27.820	1857	2397
2824	3.202	34.955C	6.359	17.02	1.38	18.30	2.965	27.853	1856	2785
3035	3.077	34.948	6.360	17.09	1.31	18.09	2.821	27.860	1855	2991
3140	3.028	34.949	6.397	17.16	1.23	17.92	2.762	27.866	1854	3094
3243	2.985	34.945	6.399	17.07	1.25	17.87	2.709	27.868	1853	3195
3351	2.939	34.946C	6.449	16.92	1.30	17.77	2.652	27.874	1852	3300

HUDSON 82002 STN 31 LAT 46 59.9N LONG 29 .5W 20 APRIL 1982 318Z
SOUNDING 3503 M (3558 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
20	12.677	35.684	12.674	26.989	33.545	39.885	.031	.021	.0	20
50	12.515	35.686	12.508	27.024	33.585	39.929	.058	.053	.1	50
80	12.400	35.677	12.389	27.040	33.605	39.953	.067	.084	.3	79
100	12.376	35.673	12.363	27.042	33.608	39.956	.066	.105	.5	99
150	12.167	35.633	12.147	27.053	33.625	39.981	.058	.157	1.1	149
200	11.894	35.582	11.868	27.067	33.648	40.012	.046	.209	2.0	198
300	11.820	35.595	11.781	27.094	33.678	40.044	.071	.312	4.4	298
400	11.007	35.454	10.957	27.138	33.748	40.139	.040	.416	7.8	397
500	9.535	35.232	9.478	27.222	33.881	40.320	-.016	.515	12.1	496
600	8.007	35.099	7.945	27.360	34.072	40.561	-.024	.603	17.3	595
800	5.474	34.971	5.405	27.604	34.408	40.984	-.049	.740	29.9	793
1000	4.830	34.980	4.747	27.689	34.517	41.117	-.028	.849	44.7	990
1250	4.226	34.958	4.126	27.740	34.592	41.214	-.038	.972	65.8	1237
1500	3.778	34.918	3.660	27.756	34.627	41.267	-.063	1.091	89.7	1484
1750	3.612	34.915	3.474	27.772	34.650	41.298	-.061	1.210	116.4	1730
2000	3.570	34.930	3.409	27.790	34.671	41.321	-.045	1.329	145.7	1976
2500	3.401	34.948	3.194	27.826	34.714	41.372	-.022	1.569	212.6	2467
3000	3.082	34.948	2.829	27.859	34.763	41.435	-.009	1.806	290.4	2957
3500	2.793	34.941	2.493	27.883	34.801	41.486	.002	2.036	378.7	3446
3548	2.783	34.942	2.478	27.886	34.803	41.489	.005	2.058	387.7	3493

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
20	12.519	35.658	6.536	3.49	.52	6.89	12.516	27.000	1893	20
112	12.373	35.673	5.920	3.49	.65	9.51	12.358	27.043	1892	111
206	11.883	35.582C					11.856	27.069	1891	204
311	11.762	35.589	5.916	4.05	.74	10.64	11.722	27.101	1890	309
411	10.798	35.433	5.568	5.77	.91	13.36	10.747	27.159	1889	408
510	9.423	35.229	5.006	8.51	1.18	17.42	9.365	27.238	1888	506
613	7.987	35.151	4.573	10.43	1.35	20.01	7.923	27.404	1887	608
713	6.098	34.947	5.022	11.67	1.40	20.59	6.034	27.507	1886	707
808	5.439	34.979	5.415	11.14	1.35	19.88	5.369	27.615	1885	801
999	4.939	35.012	5.809	10.83	1.27	19.08	4.855	27.702	1884	989
1205	4.277	34.954	6.112	10.99	1.27	18.53	4.181	27.731	1883	1193
1590	3.708	34.912	6.481	10.25	1.24	17.93	3.583	27.759	1882	1572
1980	3.558	34.922	6.483	11.17	1.31	17.85	3.399	27.785	1881	1956
2409	3.435	34.946C					3.236	27.820	1880	2378
2603	3.329	34.949	6.365	15.08	1.22	18.08	3.113	27.834	1879	2568
2799	3.218	34.950	6.374	15.56	1.22	18.03	2.984	27.847	1878	2760
3004	3.064	34.947	6.395	15.99	1.23	17.83	2.811	27.860	1877	2961
3100	2.996	34.945	6.399	16.21	1.26	17.81	2.735	27.865	1876	3055
3225	2.928	34.943	6.418	16.38	1.19	17.76	2.655	27.871	1875	3177
3336	2.884	34.942	6.442	16.54	1.19	17.84	2.600	27.875	1874	3285
3547	2.784	34.937	6.445	17.06	1.21	17.57	2.479	27.881	1873	3492

HUDSON 82002 STN 32 LAT 46 59.7N LONG 29 30.2W 20 APRIL 1982 739Z
SOUNDING 3333 M (3384 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.038	35.613	12.036	27.059	33.635	39.993	.054	.018	.0	18
20	12.033	35.616	12.030	27.062	33.638	39.997	.057	.020	.0	20
50	11.963	35.610	11.956	27.072	33.650	40.011	.061	.050	.1	50
80	11.871	35.600	11.861	27.083	33.664	40.027	.065	.080	.3	79
100	11.779	35.591	11.766	27.094	33.678	40.044	.069	.099	.5	99
150	11.773	35.590	11.754	27.095	33.680	40.047	.070	.149	1.1	149
200	11.778	35.592	11.752	27.097	33.682	40.048	.072	.199	1.9	198
300	11.791	35.597	11.752	27.101	33.685	40.052	.077	.301	4.2	298
400	11.469	35.535	11.418	27.116	33.711	40.088	.061	.406	7.5	397
500	10.524	35.362	10.463	27.154	33.781	40.188	.008	.509	11.8	496
600	9.334	35.189	9.266	27.223	33.890	40.335	-.038	.610	17.0	595
800	6.024	34.964	5.952	27.531	34.314	40.871	-.069	.771	29.9	793
1000	4.694	34.938	4.612	27.671	34.504	41.109	-.068	.888	45.4	990
1250	3.943	34.910	3.846	27.731	34.594	41.228	-.077	1.012	67.4	1237
1500	3.770	34.915	3.653	27.754	34.626	41.266	-.066	1.131	92.3	1484
1750	3.663	34.919	3.524	27.770	34.647	41.292	-.058	1.251	119.8	1730
2000	3.589	34.929	3.428	27.788	34.668	41.317	-.046	1.371	150.2	1976
2500	3.413	34.949	3.205	27.825	34.714	41.371	-.022	1.613	219.0	2467
3000	3.140	34.952	2.886	27.857	34.759	41.428	-.008	1.852	298.9	2957
3382	2.764	34.938	2.478	27.882	34.800	41.486	.001	2.029	367.1	3331

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.098	35.611	6.409	3.68	.57	8.01	12.095	27.046	1914	21
111	11.766	35.586	6.039	4.35	.70	10.29	11.752	27.093	1913	110
219	11.779	35.593	6.007	3.97	.72	10.39	11.751	27.098	1912	217
313	11.808	35.603	5.998	4.08	.75	10.49	11.767	27.103	1911	311
414	11.725	35.588	5.739	4.18	.74	10.79	11.671	27.109	1910	411
513	10.789	35.418	4.636	5.84	.94	13.45	10.725	27.151	1909	509
596	9.035	35.155	4.528	9.74	1.30	19.17	8.968	27.245	1908	591
715	7.187	34.994	5.106	11.90	1.45	21.49	7.117	27.398	1907	709
812	5.913	34.977	5.107	11.66	1.37	20.43	5.840	27.555	1906	805
1021	4.518	34.924	6.014	10.32	1.25	18.77	4.436	27.679	1905	1011
1215	4.067	34.912	6.355	9.95	1.22	18.11	3.972	27.719	1904	1203
1616	3.722	34.912	6.485	10.11	1.23	17.89	3.595	27.758	1903	1598
2025	3.589	34.926	6.476	11.12	1.21	17.74	3.425	27.786	1902	2001
2230	3.517	34.938C					3.335	27.804	1901	2202
2433	3.431	34.946	6.407	13.52	1.23	17.86	3.230	27.820	1900	2401
2636	3.327	34.950	6.375	15.12	1.25	18.01	3.107	27.835	1899	2600
2839	3.240	34.952	6.356	16.08	1.24	18.11	3.001	27.847	1898	2799
3044	3.104	34.948	6.394	15.81	1.22	17.78	2.846	27.858	1897	3000
3194	2.950	34.946	6.412	15.92	1.17	17.53	2.680	27.871	1896	3147
3298	2.841	34.941	6.423	16.51	1.20	17.53	2.562	27.877	1895	3248
3369	2.763	34.938	6.422	16.84	1.25	17.61	2.478	27.882	1894	3318

HUDSON 82002 STN 33 LAT 46 59.8N LONG 30 .0W 20 APRIL 1982 1204Z
SOUNDING 3337 M (3388 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.114	35.621	12.112	27.051	33.624	39.980	.051	.016	.0	16
20	12.069	35.600	12.066	27.043	33.618	39.976	.036	.020	.0	20
50	11.916	35.585	11.910	27.062	33.641	40.004	.043	.050	.1	50
80	11.908	35.585	11.898	27.064	33.644	40.007	.045	.081	.3	79
100	11.910	35.586	11.897	27.065	33.645	40.008	.046	.101	.5	99
150	11.850	35.599	11.831	27.088	33.670	40.034	.068	.151	1.1	149
200	11.830	35.600	11.804	27.093	33.676	40.042	.073	.202	1.9	198
300	11.834	35.604	11.795	27.098	33.681	40.047	.079	.304	4.3	298
400	11.504	35.551	11.452	27.122	33.716	40.092	.072	.408	7.6	397
500	10.954	35.466	10.891	27.159	33.771	40.164	.060	.512	11.9	496
600	9.708	35.268	9.638	27.223	33.877	40.310	.004	.612	17.1	595
800	5.885	34.949	5.814	27.536	34.325	40.887	-.081	.776	30.1	793
1000	4.948	34.987	4.864	27.681	34.505	41.100	-.023	.891	45.6	990
1250	4.189	34.948	4.089	27.736	34.589	41.213	-.047	1.016	67.8	1237
1500	3.898	34.935	3.779	27.757	34.623	41.259	-.050	1.136	92.7	1484
1750	3.719	34.937	3.579	27.779	34.653	41.296	-.042	1.255	120.4	1730
2000	3.606	34.939	3.444	27.794	34.673	41.322	-.036	1.375	150.8	1976
2500	3.401	34.952	3.194	27.829	34.718	41.375	-.018	1.614	219.8	2467
3000	3.069	34.949	2.817	27.861	34.765	41.438	-.007	1.848	299.6	2957
3378	2.925	34.947	2.635	27.876	34.787	41.467	.000	2.022	366.8	3327

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
19	11.928	35.583	6.411	3.70	.61	8.20	11.926	27.057	1935	19
110	11.831	35.595	5.999	3.93	.68	10.26	11.817	27.087	1934	109
210	11.833	35.604	6.021	3.95	.69	10.26	11.806	27.096	1933	208
311	11.743	35.591	5.928	4.13	.72	10.75	11.703	27.106	1932	309
421	11.421	35.536	5.845	4.66	.78	11.59	11.367	27.126	1931	418
514	11.055	35.491	5.925	5.03	.81	12.01	10.990	27.160	1930	510
613	9.272	35.199	5.045	8.49	1.16	17.43	9.202	27.242	1929	608
712	7.362	35.003	4.474	11.80	1.44	21.44	7.291	27.380	1928	706
811	5.899	34.952	5.109	11.48	1.34	20.37	5.826	27.537	1927	804
1014	4.920	34.980	5.807	10.73	1.27	19.19	4.835	27.679	1926	1004
1216	4.258	34.940	6.217	10.19	1.26	18.38	4.161	27.722	1925	1204
1417	4.004	34.935	6.329	10.40	1.23	18.26	3.891	27.746	1924	1402
1622	3.778	34.929	6.464	10.56	1.21	18.03	3.649	27.766	1923	1604
1824	3.666	34.938C					3.520	27.786	1922	1803
2028	3.593	34.934	6.455	11.68	1.20	17.93	3.429	27.792	1921	2003
2227	3.544	34.943	6.391	12.24	1.20	17.89	3.361	27.805	1920	2199
2635	3.301	34.951	6.432	14.23	1.21	17.90	3.082	27.838	1919	2599
2834	3.161	34.952	6.411	15.29	1.17	17.85	2.924	27.854	1918	2794
3041	3.054	34.952	6.422	15.50	1.23	17.65	2.798	27.865	1917	2997
3250	2.938	34.948	6.442	15.98	1.21	17.60	2.662	27.874	1916	3202
3349	2.928	34.944	6.213	16.09	1.23	17.64	2.641	27.873	1915	3298

HUDSON 82002 STN 34 LAT 46 59.9N LONG 30 44.9W 20 APRIL 1982 1729Z
SOUNDING 3452 M (3506 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
22	12.428	35.650	12.425	27.012	33.576	39.923	.034	.023	.1	22
50	12.169	35.625	12.162	27.044	33.616	39.971	.047	.052	.2	50
80	12.168	35.642	12.157	27.058	33.630	39.985	.065	.082	.3	79
100	12.109	35.633	12.096	27.063	33.637	39.993	.065	.103	.5	99
150	11.827	35.585	11.808	27.081	33.664	40.029	.058	.153	1.1	149
200	11.837	35.601	11.811	27.093	33.675	40.041	.073	.204	1.9	198
300	11.754	35.586	11.715	27.099	33.685	40.053	.071	.307	4.3	298
400	11.582	35.562	11.530	27.116	33.707	40.081	.073	.411	7.7	397
500	10.528	35.377	10.467	27.165	33.792	40.198	.022	.514	12.0	496
600	8.472	35.101	8.408	27.291	33.987	40.461	-.055	.610	17.2	595
800	5.537	34.945	5.468	27.576	34.378	40.952	-.077	.759	30.0	793
1000	5.005	35.018	4.921	27.699	34.520	41.113	.007	.869	45.2	990
1250	4.336	34.984	4.235	27.749	34.596	41.215	-.014	.992	66.8	1237
1500	3.914	34.947	3.795	27.765	34.631	41.266	-.038	1.110	91.2	1484
1750	3.740	34.944	3.600	27.783	34.656	41.298	-.035	1.228	118.2	1730
2000	3.616	34.942	3.454	27.796	34.674	41.322	-.033	1.347	148.0	1976
2500	3.352	34.953	3.146	27.834	34.725	41.384	-.016	1.585	215.7	2467
3000	3.013	34.949	2.762	27.866	34.772	41.447	-.005	1.816	294.0	2957
3500	2.704	34.938	2.406	27.889	34.809	41.498	.004	2.041	382.7	3446

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
21	12.576	35.652C	6.054	5.73	.79	11.20	12.573	26.984	1956	21
111	12.074	35.615	6.139	3.70	.65	8.87	12.059	27.056	1955	110
210	11.842	35.597	5.995	4.03	.75	10.37	11.815	27.089	1954	208
314	11.775	35.595	6.008	4.03	.74	10.57	11.734	27.103	1953	312
415	11.360	35.490	5.795	5.04	.80	11.63	11.307	27.101	1952	412
514	10.012	35.289	4.650	8.24	1.18	17.90	9.951	27.187	1951	510
614	8.074	35.061	4.406	11.12	1.40	21.03	8.010	27.321	1950	609
712	6.763	34.993	4.763	11.70	1.42	21.13	6.695	27.456	1949	706
810	5.376	34.942	5.414	10.95	1.33	18.63	5.307	27.593	1948	803
1011	5.003	35.012	5.791	10.84	1.28	19.06	4.918	27.695	1947	1001
1210	4.434	34.987	6.109	10.66	1.26	18.55	4.336	27.740	1946	1198
1615	3.812	34.942	6.438	10.83	1.21	18.05	3.684	27.773	1945	1597
2024	3.606	34.939	6.443	11.84	1.21	17.87	3.442	27.794	1944	2000
2429	3.395	34.956C					3.195	27.832	1943	2397
2629	3.247	34.950	6.401	14.72	1.22	17.95	3.029	27.843	1942	2593
2827	3.113	34.949	6.348	15.19	1.19	17.75	2.878	27.856	1941	2787
3031	2.998	34.947	6.457	15.56	1.18	17.64	2.744	27.866	1940	2987
3235	2.871	34.943	6.437	16.15	1.17	17.64	2.598	27.876	1939	3187
3328	2.799	34.939	6.455	16.62	1.19	17.57	2.518	27.880	1938	3277
3430	2.741	34.937	6.468	16.83	1.20	17.44	2.450	27.884	1937	3377
3485	2.707	34.936	6.478	17.09	1.16	17.49	2.411	27.887	1936	3431

HUDSON 82002 STN 35 LAT 47 .3N LONG 31 29.4W 20 APRIL 1982 2236Z
SOUNDING 3655 M (3714 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.217	35.622	12.215	27.031	33.602	39.955	.037	.018	.0	18
20	12.216	35.629	12.213	27.037	33.607	39.961	.044	.021	.0	20
50	12.117	35.620	12.110	27.050	33.624	39.980	.050	.051	.1	50
80	12.085	35.616	12.074	27.054	33.629	39.986	.051	.082	.3	79
100	12.025	35.617	12.012	27.067	33.643	40.002	.060	.102	.5	99
150	11.887	35.602	11.867	27.083	33.664	40.027	.066	.152	1.1	149
200	11.789	35.592	11.763	27.095	33.679	40.046	.070	.203	1.9	198
300	11.097	35.474	11.059	27.134	33.741	40.129	.047	.304	4.3	298
400	9.819	35.251	9.772	27.187	33.837	40.266	-.027	.403	7.6	397
500	7.886	35.044	7.835	27.333	34.050	40.542	-.072	.492	11.7	496
600	6.641	35.003	6.585	27.478	34.239	40.773	-.051	.568	16.7	595
800	5.111	34.959	5.044	27.638	34.455	41.044	-.054	.692	28.5	793
1000	4.307	34.941	4.228	27.715	34.564	41.183	-.057	.793	42.3	990
1250	3.901	34.922	3.804	27.745	34.610	41.245	-.064	.911	62.0	1237
1500	3.719	34.917	3.602	27.761	34.634	41.277	-.062	1.028	84.5	1484
1750	3.582	34.916	3.444	27.776	34.655	41.304	-.059	1.146	109.7	1730
2000	3.571	34.935	3.410	27.794	34.675	41.325	-.040	1.264	137.5	1976
2500	3.328	34.948	3.122	27.832	34.724	41.385	-.020	1.501	201.4	2467
3000	2.979	34.947	2.729	27.868	34.775	41.451	-.005	1.733	275.9	2957
3500	2.665	34.936	2.368	27.890	34.813	41.502	.005	1.955	360.7	3446
3714	2.507	34.928	2.191	27.899	34.828	41.525	.006	2.048	400.0	3655

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.327	35.623	6.340	3.55	.55	7.81	12.326	27.011	1978K	10
106	11.936	35.608	5.982	4.05	.81	10.06	11.922	27.077	1977	105
216	11.708	35.577	5.884	4.38	.75	10.79	11.680	27.099	1976	214
309	10.892	35.432	5.514	5.63	.94	13.24	10.854	27.139	1975	307
407	9.819	35.260	4.995	7.89	1.12	16.76	9.772	27.194	1974	404
510	8.044	35.066	4.364	11.20	1.41	21.30	7.991	27.327	1973	506
612	6.652	35.030	4.830	11.54	1.50	20.89	6.595	27.498	1972	607
712	5.713	34.985	5.264	11.33	1.36	20.06	5.651	27.585	1971	706
813	5.031	34.959	5.668	10.84	1.28	19.37	4.964	27.647	1970	806
1013	4.351	34.952	6.478	10.37	1.26	18.54	4.271	27.719	1969	1003
1216	4.007	34.927	6.359	10.16	1.22	18.32	3.912	27.737	1968	1204
1621	3.630	34.910	6.707	10.23	1.19	17.78	3.503	27.765	1967	1603
2025	3.550	34.935	6.472	11.56	1.20	17.73	3.387	27.797	1966	2001
2433	3.360	34.951C	6.423	12.88	1.20	17.66	3.160	27.831	1965	2401
2837	3.085	34.951C					2.849	27.860	1964	2797
3042	2.942	34.947	6.457	15.15	1.20	17.43	2.688	27.871	1963	2998
3246	2.807	34.944	6.468	15.88	1.19	17.35	2.534	27.882	1962	3198
3344	2.729	34.940	6.499	16.38	1.23	17.30	2.448	27.887	1961	3293
3448	2.685	34.938	6.461	[illegible].72		17.51	2.393	27.890	1960	3395
3544	2.639	34.934	6.516	17.11	1.24	17.36	2.338	27.891	1959	3489
3646	2.576	34.930	6.518	17.56	1.20	17.31	2.265	27.894	1958	3588
3703	2.514	34.927	6.532	17.85	1.17	17.28	2.199	27.897	1957	3644

HUDSON 82002 STN 36 LAT 46 59.7N LONG 32 15.2W 21 APRIL 1982 421Z
SOUNDING 4097 M (4168 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	12.069	35.577	12.067	27.025	33.600	39.958	.013	.014	.0	14
20	11.877	35.565	11.874	27.053	33.634	39.998	.028	.021	.0	20
50	11.580	35.545	11.574	27.094	33.685	40.057	.050	.050	.1	50
80	11.114	35.473	11.104	27.125	33.731	40.118	.040	.079	.3	79
100	10.936	35.443	10.924	27.135	33.746	40.139	.033	.098	.5	99
150	10.511	35.406	10.493	27.183	33.809	40.214	.049	.144	1.0	149
200	10.231	35.362	10.207	27.199	33.834	40.249	.037	.190	1.8	198
300	9.353	35.222	9.319	27.240	33.905	40.348	-.011	.280	4.0	298
400	7.964	35.047	7.923	27.323	34.036	40.525	-.075	.366	7.0	397
500	6.596	34.958	6.550	27.448	34.210	40.746	-.094	.441	10.8	496
600	5.689	34.967	5.637	27.573	34.368	40.936	-.058	.506	15.2	595
800	4.903	34.985	4.837	27.682	34.507	41.103	-.025	.613	25.6	793
1000	4.106	34.918	4.029	27.718	34.575	41.201	-.075	.710	37.9	990
1250	3.841	34.915	3.745	27.745	34.613	41.250	-.069	.827	55.8	1237
1500	3.764	34.930	3.647	27.767	34.638	41.279	-.051	.943	76.3	1483
1750	3.620	34.930	3.482	27.783	34.661	41.308	-.046	1.059	99.4	1730
2000	3.549	34.938	3.388	27.799	34.680	41.331	-.036	1.177	125.3	1976
2500	3.332	34.951	3.126	27.834	34.726	41.386	-.018	1.411	185.0	2467
3000	2.946	34.943	2.696	27.867	34.776	41.453	-.007	1.640	255.3	2957
3500	2.636	34.934	2.340	27.891	34.815	41.506	.005	1.861	335.8	3446
4000	2.438	34.922	2.091	27.902	34.836	41.537	.005	2.078	426.2	3934
4164	2.410	34.921	2.045	27.905	34.841	41.544	.007	2.150	458.0	4093

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	12.111	35.601	6.427	2.61	.55	7.14	12.109	27.036	2000K	16
109	10.897	35.442	6.179	4.83	.81	10.83	10.884	27.142	1999	108
199	10.219	35.366	5.446	6.76	.97	14.58	10.195	27.204	1998	197
315	9.320	35.228	5.587	7.55	1.08	15.50	9.285	27.251	1997	313
406	7.866	35.052	4.516	11.39	1.42	21.18	7.825	27.341	1996	403
509	6.606	34.961	4.836	12.17	1.44	21.50	6.559	27.449	1995	505
609	5.657	34.981	5.230	11.62	1.37	20.25	5.604	27.588	1994	604
710	5.123	34.975	5.641	11.12	1.31	19.55	5.064	27.648	1993	704
810	4.736	34.968	5.934	10.59	1.26	18.90	4.671	27.688	1992	803
1005	4.099	34.926	6.279	10.12	1.23	18.16	4.021	27.725	1991	995
1193	3.880	34.911	6.453	10.12	1.25	18.06	3.788	27.737	1990	1181
1568	3.738	34.928	6.468	10.60	1.24	18.03	3.615	27.769	1989	1550
1937	3.573	34.932	6.490	11.39	1.22	17.93	3.418	27.791	1988	1914
2300	3.433	34.945	6.438	12.39	1.20	17.86	3.245	27.818	1987	2270
2710	3.155	34.955C					2.931	27.856	1986	2673
3147	2.867	34.942	6.488	15.92	1.22	17.68	2.604	27.875	1985	3101
3363	2.723	34.937	6.489	16.75	1.23	17.53	2.440	27.885	1984	3312
3583	2.583	34.939	6.505	17.30	1.24	17.57	2.279	27.900	1983	3527
3800	2.489	34.924	6.531	18.33	1.20	17.48	2.164	27.898	1982	3739
3912	2.452	34.922	6.529	18.62	1.19	17.46	2.115	27.900	1981	3848
4016	2.433	34.924C					2.085	27.904	1980	3950
4144	2.411	34.920	6.542	18.64	1.16	17.36	2.048	27.904	1979	4074

HUDSON 82002 STN 37 LAT 46 60.0N LONG 33 .0W 21 APRIL 1982 10352
SOUNDING 3840 M (3904 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	11.833	35.581	11.831	27.074	33.656	40.021	.050	.018	.0	18
20	11.827	35.581	11.824	27.075	33.657	40.022	.051	.020	.0	20
50	11.702	35.578	11.696	27.097	33.683	40.052	.066	.049	.1	50
80	11.539	35.556	11.529	27.111	33.703	40.077	.067	.078	.3	79
100	11.148	35.500	11.136	27.141	33.745	40.131	.063	.097	.5	99
150	10.762	35.445	10.744	27.169	33.786	40.184	.057	.144	1.0	149
200	10.316	35.360	10.292	27.183	33.815	40.227	.026	.190	1.8	198
300	9.817	35.287	9.782	27.214	33.863	40.291	.008	.282	4.0	298
400	8.875	35.164	8.831	27.274	33.955	40.415	-.025	.372	7.1	397
500	7.868	35.069	7.817	27.356	34.072	40.565	-.047	.457	10.9	496
600	6.743	35.030	6.686	27.486	34.242	40.773	-.028	.531	15.5	595
800	4.721	34.918	4.657	27.650	34.482	41.086	-.088	.650	26.6	793
1000	4.216	34.922	4.138	27.710	34.562	41.184	-.073	.750	39.6	990
1250	3.928	34.919	3.831	27.739	34.604	41.238	-.067	.869	58.4	1237
1500	3.763	34.921	3.646	27.760	34.631	41.272	-.060	.987	79.9	1483
1750	3.662	34.925	3.523	27.775	34.651	41.297	-.052	1.106	104.1	1730
2000	3.579	34.932	3.418	27.791	34.671	41.321	-.043	1.225	131.1	1976
2500	3.348	34.944	3.142	27.827	34.718	41.378	-.025	1.465	193.2	2467
3000	3.021	34.941	2.770	27.859	34.765	41.439	-.013	1.699	266.1	2957
3500	2.645	34.933	2.349	27.889	34.813	41.503	.003	1.924	349.4	3446
3902	2.365	34.923	2.031	27.908	34.844	41.547	.010	2.097	423.6	3838

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	11.943	35.588	6.558	3.22	.52	7.32	11.942	27.058	2022K	10
110	11.172	35.506	5.916	5.12	.98	11.51	11.158	27.141	2021	109
211	10.650	35.438	5.772	7.63	.93	13.10	10.624	27.185	2020	209
310	10.239	35.375	5.765	6.39	1.00	13.78	10.202	27.210	2019	308
412	9.233	35.223	5.339	8.25	1.16	16.62	9.187	27.263	2018	409
507	7.720	35.063	4.449	11.75	1.46	21.76	7.669	27.373	2017	503
615	5.969	34.898C	5.113	11.76	1.56	20.47	5.915	27.483	2016	610
709	5.349	34.944	5.384	11.45	1.35	20.02	5.289	27.597	2015	703
804	4.639	34.912	5.917	10.53	1.27	19.13	4.575	27.654	2014	797
1005	4.227	34.930	6.243	10.05	1.26	18.38	4.148	27.715	2013	995
1216	3.961	34.921	6.415	10.12	1.23	18.17	3.867	27.737	2012	1204
1618	3.695	34.918	6.517	10.30		18.09	3.568	27.765	2011	1600
2022	3.560	34.929C	6.546	11.02	1.50	17.94	3.397	27.791	2010	1998
2420	3.388	34.941	6.497	12.01	1.47	17.70	3.189	27.820	2009	2389
2824	3.153	34.944C					2.917	27.848	2008	2785
3016	2.983	34.941	6.488	14.00	1.20	17.39	2.731	27.863	2007	2973
3226	2.849	34.940	6.505	15.32	1.21	17.47	2.578	27.875	2006	3178
3433	2.695	34.936	6.504	17.35	1.35	17.67	2.405	27.887	2005	3380
3641	2.536	34.928	6.534	18.56	1.42	17.91	2.227	27.896	2004	3583
3749	2.473	34.924	6.537	18.68	1.25	17.62	2.154	27.898	2003	3689
3849	2.404	34.920	6.668	19.18	1.23	17.67	2.075	27.902	2002	3787
3895	2.364	34.920	6.869	18.81	1.18	17.42	2.031	27.905	2001	3831

HUDSON 82002 STN 38 LAT 47 .0N LONG 33 45.3W 21 APRIL 1982 1644Z
SOUNDING 4026 M (4094 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.323	35.699	12.321	27.070	33.637	39.987	.098	.016	.0	16
20	12.325	35.684	12.322	27.059	33.625	39.975	.083	.020	.0	20
50	12.315	35.684	12.308	27.061	33.628	39.978	.086	.050	.1	50
80	12.299	35.684	12.288	27.065	33.633	39.983	.088	.080	.3	79
100	12.299	35.683	12.286	27.065	33.633	39.983	.088	.100	.5	99
150	12.291	35.681	12.271	27.066	33.634	39.986	.087	.151	1.1	149
200	12.302	35.681	12.275	27.065	33.633	39.985	.088	.203	1.9	198
300	12.236	35.667	12.196	27.070	33.640	39.994	.084	.309	4.3	298
400	11.981	35.618	11.928	27.084	33.663	40.024	.074	.416	7.6	397
500	11.379	35.511	11.315	27.116	33.715	40.095	.050	.524	12.0	496
600	9.840	35.264	9.769	27.198	33.848	40.277	-.013	.628	17.4	595
800	6.699	35.030	6.623	27.495	34.253	40.786	-.025	.799	30.8	793
1000	4.909	34.951	4.826	27.657	34.482	41.079	-.058	.921	46.8	990
1250	4.143	34.927	4.044	27.724	34.579	41.205	-.067	1.050	69.7	1237
1500	3.851	34.915	3.733	27.746	34.614	41.252	-.069	1.173	95.4	1484
1750	3.702	34.913	3.563	27.762	34.636	41.281	-.065	1.295	124.0	1730
2000	3.611	34.923	3.449	27.781	34.660	41.308	-.053	1.417	155.3	1976
2500	3.466	34.944	3.257	27.816	34.703	41.358	-.028	1.665	226.5	2467
3000	3.146	34.944	2.892	27.850	34.752	41.421	-.016	1.908	308.8	2957
3500	2.764	34.935	2.465	27.881	34.800	41.486	-.002	2.142	401.9	3446
4000	2.408	34.920	2.062	27.903	34.838	41.540	.005	2.363	505.3	3934
4088	2.346	34.917	1.992	27.906	34.844	41.549	.008	2.401	524.5	4020

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	12.337	35.683	6.076	3.73	.58	8.41	12.335	27.055	2044K	12
106	12.300	35.689	6.004	3.66	.62	9.06	12.286	27.070	2043	105
197	12.293	35.685	5.996	3.70	.61	9.14	12.267	27.070	2042	195
306	12.201	35.671	5.901	3.81	.68	9.71	12.160	27.080	2041	304
410	11.848	35.608	5.786	4.47	.77	10.94	11.794	27.102	2040	407
512	10.952	35.452	5.308	6.16	.94	13.90	10.888	27.149	2039	508
607	9.701	35.257	4.691	8.93	1.21	18.29	9.630	27.216	2038	602
704	7.733	35.041	4.372	12.03	1.47	22.07	7.661	27.357	2037	698
811	6.230	34.993	4.930	11.87	1.41	21.03	6.155	27.527	2036	804
1012	4.756	34.949	5.825	10.64	1.31	18.97	4.673	27.673	2035	1002
1206	4.436	34.962	6.157	10.43	1.22	18.52	4.338	27.720	2034	1194
1620	3.797	34.916	6.497	10.27	1.20	17.82	3.668	27.754	2033	1602
2023	3.591	34.924	6.533	10.66	1.23	17.82	3.427	27.784	2032	1999
2413	3.503	34.942	6.437	12.03	1.20	17.79	3.303	27.810	2031	2382
2807	3.278	34.949C		13.24	1.23	17.69	3.042	27.841	2030	2768
3215	2.975	34.943	6.456	14.60	1.19	17.48	2.702	27.867	2029	3168
3425	2.785	34.937	6.433	16.08	1.21	17.53	2.494	27.880	2028	3373
3623	2.653	34.931	6.483	17.88	1.23	17.76	2.343	27.888	2027	3566
3828	2.516	34.925	6.512	18.49	1.21	17.61	2.187	27.897	2026	3766
3931	2.445	34.921	6.531	18.77	1.20	17.56	2.106	27.900	2025	3866
4035	2.374	34.920	6.572	18.39	1.19	17.37	2.025	27.906	2024	3968
4074	2.350	34.914	6.613	18.40	1.17	17.27	1.997	27.903	2023	4006

HUDSON 82002 STN 39 LAT 47 .0N LONG 34 30.4W 21 APRIL 1982 2255Z
SOUNDING 4128 M (4199 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.966	35.766	12.964	26.995	33.542	39.873	.070	.019	.0	18
20	12.966	35.770	12.963	26.998	33.545	39.876	.074	.021	.0	20
50	12.965	35.766	12.958	26.996	33.543	39.874	.072	.053	.1	50
80	12.865	35.757	12.854	27.010	33.560	39.894	.078	.085	.3	79
100	12.738	35.741	12.724	27.023	33.577	39.915	.082	.106	.5	99
150	12.728	35.752	12.708	27.035	33.590	39.928	.095	.159	1.1	149
200	12.606	35.733	12.579	27.046	33.605	39.947	.094	.212	2.0	198
300	12.104	35.628	12.064	27.065	33.640	39.998	.065	.319	4.5	298
400	11.595	35.560	11.543	27.112	33.703	40.076	.069	.425	7.9	397
500	10.500	35.396	10.439	27.185	33.812	40.219	.045	.528	12.4	496
600	8.232	35.074	8.169	27.307	34.011	40.493	-.065	.623	17.7	595
800	5.717	34.966	5.647	27.571	34.365	40.933	-.059	.771	30.8	793
1000	4.803	34.970	4.720	27.684	34.513	41.114	-.038	.883	46.2	990
1250	4.087	34.925	3.988	27.728	34.586	41.214	-.066	1.008	68.2	1237
1500	3.814	34.915	3.696	27.750	34.619	41.259	-.067	1.129	92.9	1484
1750	3.705	34.919	3.566	27.766	34.641	41.285	-.059	1.250	120.5	1730
2000	3.595	34.922	3.434	27.782	34.661	41.310	-.053	1.372	150.8	1976
2500	3.415	34.945	3.207	27.822	34.710	41.368	-.026	1.616	219.8	2467
3000	3.017	34.938	2.766	27.857	34.763	41.438	-.016	1.853	299.7	2957
3500	2.614	34.926	2.319	27.886	34.811	41.503	-.003	2.081	390.2	3446
4000	2.295	34.912	1.952	27.905	34.845	41.552	.006	2.295	490.5	3934
4200	2.291	34.912	1.925	27.907	34.848	41.556	.008	2.380	533.4	4129

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.958	35.777	6.242	2.66	.48	6.92	12.957	27.005	2066K	10
116	12.799	35.755	5.923	3.04	.60	8.19	12.783	27.022	2065	115
211	12.431	35.697C	5.718	3.92	.73	9.98	12.403	27.053	2064	209
309	12.153	35.649	5.938	3.98	.71	10.28	12.112	27.072	2063	307
411	11.169	35.474	5.129	6.36	.95	14.37	11.117	27.124	2062	408
513	10.181	35.351	5.353	7.23	1.04	15.27	10.120	27.206	2061	509
614	8.091	35.087	4.492	11.19	1.53	21.20	8.027	27.339	2060	609
714	7.010	35.060	4.671	11.79	1.45	21.25	6.940	27.475	2059	708
812	5.801	34.990	5.211	11.63	1.37	20.37	5.729	27.579	2058	805
1016	4.763	34.993	5.860	10.72	1.29	18.96	4.679	27.707	2057	1006
1210	4.165	34.934	6.274	10.19	1.24	18.33	4.069	27.727	2056	1198
1608	3.782	34.926	6.454	10.52		18.17	3.655	27.763	2055	1590
2014	3.594	34.924	6.529	11.01	1.19	17.77	3.431	27.783	2054	1990
2420	3.478	34.947	6.428	12.86	1.35	17.98	3.277	27.817	2053	2389
2830	3.151	34.941C					2.915	27.846	2052	2790
3240	2.852	34.937	6.499	15.05	1.24	17.46	2.579	27.873	2051	3192
3640	2.491	34.922	6.497	17.88		17.02	2.183	27.894	2050	3583
3792	2.419	34.919	6.513	18.65	1.24	17.49	2.096	27.899	2049	3731
3891	2.334	34.915	6.535	18.28	1.31	17.30	2.003	27.903	2048	3827
3986	2.300	34.911	6.603	18.01	1.19	17.12	1.959	27.904	2047	3920
4086	2.285	34.910	6.635	17.81	1.17	17.02	1.933	27.905	2046	4017
4175	2.287	34.910	6.613	17.71	1.16	17.09	1.924	27.906	2045	4105

HUDSON 82002 STN 40 LAT 46 59.7N LONG 35 14.9W 22 APRIL 1982 448Z
SOUNDING 4334 M (4411 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.009	35.629	12.007	27.077	33.654	40.013	.073	.018	.0	18
20	12.008	35.630	12.005	27.078	33.655	40.014	.075	.020	.0	20
50	12.019	35.626	12.012	27.074	33.650	40.009	.069	.049	.1	50
80	12.021	35.626	12.011	27.074	33.650	40.010	.070	.079	.3	79
100	12.014	35.627	12.001	27.077	33.653	40.013	.073	.099	.5	99
150	11.337	35.516	11.318	27.119	33.718	40.098	.054	.149	1.1	149
200	10.754	35.420	10.730	27.152	33.770	40.168	.034	.197	1.9	198
300	10.443	35.397	10.407	27.192	33.820	40.228	.050	.291	4.1	298
400	8.946	35.162	8.902	27.261	33.940	40.397	-.034	.383	7.3	397
500	7.261	35.011	7.212	27.398	34.136	40.650	-.070	.466	11.2	496
600	6.197	35.040	6.143	27.566	34.342	40.891	.001	.534	15.9	595
800	4.785	34.962	4.720	27.678	34.507	41.108	-.046	.644	26.9	793
1000	4.151	34.920	4.073	27.715	34.570	41.195	-.074	.741	39.8	990
1250	3.770	34.892	3.674	27.734	34.604	41.245	-.090	.860	58.4	1237
1500	3.717	34.908	3.600	27.754	34.627	41.270	-.072	.978	79.6	1483
1750	3.636	34.913	3.497	27.768	34.646	41.292	-.064	1.097	103.7	1730
2000	3.575	34.926	3.414	27.787	34.667	41.317	-.048	1.218	130.4	1976
2500	3.371	34.941	3.164	27.823	34.713	41.372	-.028	1.460	192.2	2467
3000	3.029	34.939	2.778	27.857	34.763	41.436	-.015	1.696	265.0	2957
3500	2.622	34.927	2.326	27.886	34.811	41.502	-.002	1.922	348.2	3446
4000	2.352	34.915	2.008	27.903	34.841	41.545	.004	2.137	441.3	3934
4408	2.275	34.909	1.885	27.908	34.851	41.560	.010	2.313	524.4	4331

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	12.080	35.633	6.147	3.43	.63	7.89	12.078	27.066	2088K	13
113	11.620	35.566	5.879	4.63	.76	10.72	11.606	27.105	2087	112
213	10.794	35.438	5.573	6.09	.93	13.44	10.768	27.159	2086	211
313	10.340	35.405	5.830	6.04	.93	13.11	10.303	27.216	2085	311
413	8.622	35.141	4.846	9.70	1.29	18.96	8.578	27.296	2084	410
511	6.906	35.011	4.595	12.07	1.43	21.73	6.857	27.448	2083	507
613	6.223	35.056	5.017	11.97	1.37	20.67	6.167	27.576	2082	608
710	5.560	35.045	5.415	11.11	1.30	19.71	5.499	27.651	2081	704
812	4.771	34.966	5.874	10.63	1.37	19.12	4.705	27.682	2080	805
1011	4.163	34.930	6.228	10.10	1.24	18.21	4.084	27.722	2079	1001
1214	3.788	34.897	6.535	9.67	1.21	17.84	3.695	27.736	2078	1202
1614	3.671	34.915	6.496	10.26	1.24	18.03	3.544	27.765	2077	1596
2020	3.557	34.931	6.471	10.92	1.20	18.69	3.394	27.793	2076	1996
2426	3.409	34.947	6.396	13.03	1.23	17.79	3.209	27.823	2075	2394
2834	3.127	34.951C					2.891	27.856	2074	2794
3240	2.863	34.940	6.455	15.41	1.23	17.50	2.590	27.874	2073	3192
3649	2.512	34.924	6.467	18.39	1.27	17.63	2.203	27.894	2072	3591
4057	2.337	34.913	6.557	18.72	1.19	17.28	1.987	27.903	2071	3989
4160	2.315	34.913	6.550	18.08	1.20	17.15	1.953	27.906	2070	4090
4267	2.305	34.911	6.558	17.81	1.16	17.02	1.931	27.906	2069	4194
4372	2.283	34.909	6.603	17.33	1.17	16.86	1.897	27.907	2068	4296
4397	2.274	34.908	6.557	17.23	1.15	16.85	1.886	27.907	2067	4320

HUDSON 82002 STN 41 LAT 46 59.7N LONG 35 59.8W 22 APRIL 1982 1026Z
SOUNDING 4288 M (4364 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
22	10.968	35.440	10.965	27.125	33.735	40.126	.025	.021	.0	22
50	10.930	35.465	10.924	27.152	33.763	40.155	.055	.046	.1	50
80	10.930	35.476	10.920	27.161	33.772	40.165	.066	.074	.3	79
100	10.935	35.480	10.923	27.164	33.775	40.167	.070	.092	.5	99
150	10.894	35.477	10.876	27.170	33.783	40.176	.073	.138	1.0	149
200	10.605	35.428	10.581	27.185	33.807	40.210	.059	.185	1.7	198
300	10.300	35.392	10.264	27.213	33.845	40.258	.061	.277	3.9	298
400	9.125	35.200	9.081	27.262	33.935	40.386	-.011	.368	6.9	397
500	7.361	34.992	7.312	27.369	34.104	40.614	-.094	.452	10.7	496
600	6.072	34.949	6.018	27.510	34.292	40.846	-.086	.524	15.3	595
800	4.843	34.953	4.778	27.664	34.491	41.090	-.055	.639	26.1	793
1000	4.306	34.941	4.227	27.715	34.564	41.183	-.057	.738	38.9	990
1250	3.883	34.913	3.786	27.739	34.605	41.241	-.073	.856	57.4	1237
1500	3.782	34.920	3.664	27.757	34.628	41.268	-.061	.974	78.6	1483
1750	3.705	34.926	3.566	27.772	34.646	41.290	-.052	1.094	102.6	1730
2000	3.578	34.927	3.417	27.787	34.668	41.317	-.047	1.214	129.3	1976
2500	3.386	34.941	3.179	27.821	34.711	41.369	-.029	1.457	190.9	2467
3000	3.061	34.936	2.809	27.852	34.756	41.429	-.020	1.696	263.5	2957
3500	2.667	34.925	2.370	27.881	34.804	41.494	-.007	1.926	346.8	3446
4000	2.336	34.914	1.992	27.903	34.842	41.547	.004	2.144	440.2	3934
4362	2.208	34.907	1.826	27.911	34.856	41.568	.014	2.299	513.9	4286

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	11.038	35.441	6.401	4.61	.67	9.59	11.037	27.113	2110K	10
111	10.826	35.460	6.093	5.09	.81	11.46	10.812	27.168	2109	110
210	10.552	35.426	5.896	5.71	1.00	12.96	10.527	27.193	2108	208
312	10.256	35.391	5.891	5.82	.89	13.16	10.219	27.220	2107	310
413	8.789	35.163	4.752	10.04	1.28	19.37	8.744	27.287	2106	410
512	7.235	34.992	4.611	11.78	1.40	21.39	7.185	27.387	2105	508
612	6.014	34.940C	5.046	11.51	1.50	20.54	5.960	27.511	2104	607
715	5.138	34.931	5.563	11.13	1.31	19.70	5.079	27.612	2103	709
815	5.031	34.993	5.795	11.08	1.51	19.40	4.963	27.674	2102	808
1017	4.273	34.941	6.221	10.16	1.38	18.41	4.193	27.719	2101	1007
1219	3.879	34.906	6.504	9.67	1.21	17.93	3.785	27.734	2100	1207
1626	3.753	34.926	6.489	10.43	1.27	18.04	3.624	27.766	2099	1607
2030	3.577	34.931	6.516	11.03	1.23	17.02	3.413	27.791	2098	2005
2457	3.431	34.941	6.475	12.12	1.23	17.72	3.227	27.817	2097	2425
2845	3.147	34.940C					2.909	27.846	2096	2805
3253	2.844	34.935	6.518	15.16	1.29	17.73	2.570	27.872	2095	3204
3662	2.529	34.922	6.573	16.90	1.31	17.33	2.218	27.892	2094	3604
3969	2.365	34.920	6.582	17.81	1.29	17.33	2.024	27.906	2093	3904
4073	2.323	34.912	6.594	17.62	1.26	17.27	1.971	27.904	2092	4005
4175	2.287	34.909	6.637	17.24	1.18	17.33	1.924	27.905	2091	4105
4278	2.251	34.906	6.656	16.81	1.17	16.83	1.878	27.906	2090	4205
4353	2.211	34.905	6.742	16.10	1.13	16.55	1.830	27.909	2089	4277

HUDSON 82002 STN 42 LAT 46 59.7N LONG 36 45.2W 22 APRIL 1982 1622Z
SOUNDING 4362 M (4439 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	13.022	35.790	13.020	27.002	33.547	39.876	.086	.017	.0	16
20	12.985	35.789	12.982	27.009	33.555	39.885	.091	.021	.0	20
50	12.972	35.790	12.965	27.013	33.560	39.890	.094	.052	.1	50
80	12.973	35.789	12.962	27.013	33.560	39.890	.093	.084	.3	79
100	12.973	35.788	12.959	27.013	33.559	39.890	.093	.105	.5	99
150	12.978	35.787	12.957	27.012	33.559	39.890	.093	.159	1.1	149
200	12.997	35.789	12.969	27.011	33.558	39.889	.093	.213	2.0	198
300	12.641	35.726	12.600	27.036	33.594	39.936	.085	.324	4.5	298
400	12.241	35.670	12.187	27.074	33.645	39.998	.089	.433	8.0	397
500	11.043	35.476	10.980	27.151	33.760	40.150	.058	.539	12.6	496
600	11.048	35.503	10.972	27.173	33.782	40.173	.087	.642	18.0	595
800	7.276	35.028	7.196	27.414	34.152	40.666	-.052	.833	31.8	793
1000	5.132	34.963	5.047	27.641	34.458	41.047	-.051	.964	48.6	990
1250	4.193	34.927	4.093	27.718	34.572	41.196	-.067	1.096	72.5	1237
1500	3.860	34.917	3.741	27.747	34.615	41.252	-.067	1.219	99.4	1484
1750	3.767	34.923	3.627	27.763	34.635	41.277	-.058	1.341	129.0	1730
2000	3.667	34.926	3.505	27.778	34.655	41.301	-.051	1.465	161.4	1976
2500	3.449	34.937	3.241	27.812	34.699	41.356	-.034	1.714	234.8	2467
3000	3.101	34.938	2.848	27.850	34.753	41.424	-.020	1.958	319.4	2957
3500	2.770	34.929	2.471	27.876	34.794	41.480	-.008	2.192	414.9	3446
4000	2.386	34.915	2.041	27.900	34.837	41.540	.001	2.413	520.6	3934
4430	2.213	34.908	1.823	27.912	34.857	41.569	.016	2.599	619.3	4353

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	13.103	35.794	5.794	3.36	.53	8.06	13.101	26.988	2132K	12
144	12.971	35.781	5.836	3.31	.56	8.36	12.951	27.009	2131	143
274	12.932	35.778	5.617	3.73	.63	9.42	12.894	27.018	2130	272
320	12.414	35.674C					12.371	27.041	2129	318
370	12.451	35.718	5.637	4.21	.69	10.59	12.401	27.070	2128	367
446	12.169	35.670	5.640	4.47	.71	10.90	12.109	27.089	2127	443
571	11.093	35.521	5.888	6.29	.88	11.64	11.021	27.178	2126	566
706	9.277	35.215	4.993	8.99	1.22	17.98	9.196	27.255	2125	700
807	7.268	35.025	4.486	12.29	1.44	22.00	7.187	27.412	2124	800
1009	5.141	34.972	5.581	11.21	1.38	19.67	5.055	27.647	2123	999
1208	4.316	34.933	6.198	10.25	1.28	18.48	4.219	27.710	2122	1196
1611	3.809	34.914	6.638	10.14	1.23	18.06	3.681	27.751	2121	1593
2018	3.672	34.936	6.465	11.40	1.24	17.94	3.508	27.786	2120	1994
2422	3.493	34.934	6.472	11.51	1.36	17.90	3.292	27.805	2119	2391
2813	3.271	34.932C					3.034	27.828	2118	2774
3216	2.938	34.938	6.458	14.55	1.28	17.58	2.666	27.866	2117	3169
3605	2.668	34.928	6.435	16.13	1.18	17.49	2.360	27.884	2116	3549
3786	2.492	34.920	6.555	17.43	1.19	17.50	2.168	27.894	2115	3725
3973	2.384	34.915	6.534	18.42	1.26	17.68	2.042	27.900	2114	3908
4093	2.343	34.912	6.569	18.20	1.26	17.41	1.988	27.902	2113	4024
4186	2.314	34.911	6.585	18.05	1.22	17.24	1.949	27.904	2112	4115
4409	2.215	34.903	6.655	16.10	1.13	16.68	1.827	27.908	2111	4333

HUDSON 82002 STN 43 LAT 47 .3N LONG 37 30.2W 22 APRIL 1982 2214Z
SOUNDING 4581 M (4665 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.765	35.738	12.763	27.013	33.566	39.903	.073	.019	.0	18
20	12.763	35.739	12.760	27.015	33.568	39.905	.074	.021	.0	20
50	12.778	35.737	12.771	27.011	33.564	39.900	.070	.052	.1	50
80	12.782	35.735	12.771	27.009	33.562	39.899	.068	.084	.3	79
100	12.790	35.736	12.776	27.009	33.562	39.898	.068	.105	.5	99
150	12.805	35.740	12.782	27.011	33.563	39.900	.071	.159	1.1	149
200	12.492	35.690	12.465	27.035	33.597	39.943	.068	.213	2.0	198
300	12.419	35.701	12.379	27.061	33.625	39.973	.092	.320	4.5	298
400	12.136	35.666	12.083	27.091	33.665	40.022	.100	.428	8.0	397
500	11.070	35.477	11.007	27.146	33.755	40.144	.056	.533	12.4	496
600	10.896	35.467	10.821	27.172	33.787	40.182	.070	.637	17.9	595
800	8.624	35.142	8.536	27.303	33.995	40.464	-.023	.837	31.6	793
1000	5.662	34.947	5.573	27.565	34.362	40.933	-.077	.995	48.7	990
1250	4.512	34.957	4.409	27.708	34.550	41.162	-.045	1.136	73.5	1237
1500	3.955	34.917	3.835	27.737	34.601	41.235	-.070	1.263	101.3	1484
1750	3.770	34.909	3.630	27.752	34.624	41.266	-.071	1.388	132.0	1730
2000	3.682	34.916	3.519	27.768	34.645	41.291	-.061	1.513	165.5	1976
2500	3.544	34.935	3.334	27.802	34.685	41.338	-.038	1.767	241.2	2467
3000	3.228	34.943	2.972	27.842	34.740	41.406	-.021	2.019	328.5	2957
3500	2.875	34.939	2.573	27.875	34.789	41.471	-.004	2.259	426.8	3446
4000	2.482	34.918	2.134	27.895	34.828	41.527	-.001	2.489	535.8	3934
4500	2.264	34.909	1.864	27.910	34.853	41.563	.012	2.709	654.7	4421
4666	2.215	34.907	1.796	27.913	34.860	41.573	.018	2.783	696.4	4582

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.833	35.731	5.917	3.49	.57	8.11	12.832	26.994	2154K	10
111	12.819	35.743C					12.804	27.009	2153	110
214	12.954	35.773	5.755	3.47	.60	8.79	12.924	27.008	2152	212
313	12.435	35.698	5.973	3.65	.60	8.94	12.393	27.056	2151	311
466	11.614	35.555	5.450	5.33	.81	12.51	11.553	27.106	2150	462
515	11.072	35.450	5.571	5.55	.83	12.98	11.007	27.125	2149	511
616	10.981	35.487	5.749	5.55	.86	12.74	10.903	27.173	2148	611
716	10.261	35.363	5.473	6.96	.99	14.83	10.174	27.206	2147	710
864	7.706	35.077	4.281	12.61	1.47	22.70	7.617	27.392	2146	856
1089	5.125	34.960	5.562	12.83	1.48	22.72	5.032	27.640	2145	1078
1187	4.786	34.961	5.870	10.73	1.28	19.01	4.687	27.681	2144	1175
1547	3.849	34.896	6.558	9.50	1.22	17.63	3.726	27.732	2143	1530
1949	3.689	34.909	6.557	10.15	1.24	17.91	3.531	27.762	2142	1926
2369	3.594	34.926	6.498	11.01		17.84	3.397	27.788	2141	2339
2762	3.412	34.946C					3.178	27.825	2140	2724
3146	3.126	34.944	6.434	14.31	1.25	18.84	2.857	27.854	2139	3100
3562	2.808	34.934	6.445	15.99	1.18	17.53	2.501	27.877	2138	3507
3980	2.478	34.920	6.562	18.15	1.19	17.49	2.132	27.897	2137	3915
4247	2.349	34.913	6.556	18.54	1.27	17.43	1.976	27.904	2136	4175
4468	2.257	34.906	6.620	16.49	1.32	16.82	1.861	27.907	2135	4390
4569	2.253	34.906	6.636	16.44	1.10	16.80	1.845	27.909	2134	4488
4648	2.248	34.907	6.665				1.830	27.911	2133	4565

HUDSON 82002 STN 44 LAT 46 59.9N LONG 38 .2W 23 APRIL 1982 340Z
SOUNDING 4547 M (4630 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.396	35.722	12.394	27.074	33.638	39.985	.111	.016	.0	16
20	12.398	35.713	12.395	27.067	33.631	39.978	.102	.020	.0	20
50	12.412	35.712	12.405	27.064	33.628	39.975	.099	.050	.1	50
80	12.413	35.721	12.402	27.072	33.635	39.983	.108	.080	.3	79
100	12.417	35.725	12.404	27.074	33.638	39.985	.112	.100	.5	99
150	12.407	35.724	12.387	27.077	33.641	39.989	.113	.150	1.1	149
200	12.413	35.723	12.386	27.076	33.641	39.988	.113	.202	1.9	198
300	12.431	35.733	12.390	27.083	33.647	39.995	.122	.306	4.2	298
400	12.433	35.734	12.379	27.086	33.651	39.998	.125	.413	7.6	397
500	12.232	35.696	12.165	27.099	33.670	40.024	.118	.522	11.9	496
600	11.196	35.506	11.119	27.148	33.753	40.139	.071	.630	17.3	595
800	8.377	35.093	8.291	27.303	34.003	40.480	-.054	.832	30.9	793
1000	5.938	35.033	5.847	27.599	34.385	40.945	.002	.984	47.9	990
1250	4.279	34.921	4.179	27.705	34.555	41.176	-.075	1.124	72.4	1237
1500	3.768	34.891	3.651	27.735	34.607	41.248	-.089	1.250	99.9	1484
1750	3.693	34.897	3.554	27.750	34.625	41.270	-.081	1.374	130.3	1730
2000	3.687	34.920	3.524	27.771	34.647	41.293	-.057	1.499	163.5	1976
2500	3.504	34.937	3.295	27.807	34.692	41.346	-.035	1.752	238.6	2467
3000	3.193	34.937	2.938	27.841	34.740	41.408	-.025	2.000	325.0	2957
3500	2.792	34.933	2.492	27.877	34.795	41.480	-.005	2.239	422.5	3446
4000	2.366	34.912	2.021	27.900	34.837	41.540	-.001	2.463	530.4	3934
4500	2.144	34.900	1.748	27.911	34.860	41.575	.017	2.678	648.1	4421
4628	2.098	34.897	1.688	27.914	34.865	41.582	.022	2.732	679.7	4545

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	12.424	35.701	5.853	3.67	.58	8.56	12.422	27.052	2177K	12
86	12.418	35.711C					12.406	27.063	2176	85
206	12.420	35.721	5.887	3.74	.65	9.35	12.392	27.074	2175	204
308	12.432	35.730	5.800	3.90	.67	9.71	12.390	27.081	2174	306
413	12.417	35.728	5.802	3.91	.70	9.93	12.361	27.085	2173	410
515	12.187	35.685	5.756	4.22	.70	10.71	12.118	27.099	2172	511
613	11.026	35.509	5.616	5.45	.82	12.48	10.948	27.182	2171	608
715	10.085	35.347	5.611	6.74	.97	14.43	9.999	27.224	2170	709
814	8.144	35.063	4.845	10.22	1.28	19.41	8.057	27.315	2169	807
1009	5.839	35.057	5.145	11.78	1.35	20.25	5.748	27.630	2168	999
1205	4.331	34.918	6.163	10.07	1.28	18.45	4.234	27.696	2167	1193
1614	3.710	34.885	6.625	9.28	1.19	17.48	3.583	27.737	2166	1596
2024	3.660	34.915	6.435	10.41	1.27	17.89	3.495	27.770	2165	2000
2432	3.561	34.934	6.226	11.43	1.19	17.79	3.358	27.799	2164	2400
2835	3.304	34.939C					3.064	27.831	2163	2795
3230	3.005	34.941	6.427	14.13	1.19	17.53	2.730	27.863	2162	3182
3628	2.659	34.929	6.458	16.55	1.33	17.51	2.348	27.886	2161	3571
4051	2.342	34.911	6.574	16.61	1.16	17.12	1.992	27.901	2160	3983
4358	2.225	34.905		15.71	1.18	16.68	1.843	27.908	2159	4283
4451	2.182	34.900	6.636	14.96	1.13	16.46	1.790	27.908	2158	4373
4553	2.117	34.896	6.685	13.68	1.11	16.05	1.715	27.911	2157	4472
4617	2.095	34.895	6.724	13.20	1.14	15.93	1.686	27.912	2156	4534

HUDSON 82002 STN 45 LAT 47 .3N LONG 38 30.0W 23 APRIL 1982 936Z
SOUNDING 4611 M (4695 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	11.307	35.291	11.305	26.947	33.548	39.931	-.168	.018	.0	16
20	11.295	35.286	11.293	26.945	33.547	39.930	-.171	.022	.0	20
50	11.342	35.303	11.336	26.950	33.551	39.932	-.161	.055	.1	50
80	12.545	35.648	12.534	26.989	33.550	39.894	.016	.088	.3	79
100	12.813	35.728	12.799	26.998	33.550	39.886	.057	.110	.5	99
150	12.398	35.636	12.378	27.010	33.576	39.924	.027	.164	1.2	149
200	12.613	35.697	12.586	27.017	33.575	39.918	.058	.218	2.1	198
300	12.674	35.730	12.633	27.033	33.590	39.931	.084	.328	4.6	298
400	11.832	35.574	11.780	27.078	33.662	40.028	.050	.438	8.2	397
500	11.133	35.518	11.070	27.167	33.773	40.160	.089	.541	12.7	496
600	9.733	35.296	9.663	27.241	33.894	40.326	.029	.642	18.2	595
800	6.329	35.023	6.255	27.538	34.310	40.856	-.019	.806	31.8	793
1000	4.794	34.947	4.712	27.667	34.496	41.098	-.060	.924	47.9	990
1250	4.182	34.928	4.082	27.720	34.575	41.199	-.066	1.051	70.8	1237
1500	3.754	34.895	3.637	27.740	34.612	41.254	-.085	1.174	96.6	1484
1750	3.630	34.894	3.492	27.754	34.631	41.279	-.082	1.297	125.2	1730
2000	3.697	34.927	3.534	27.776	34.651	41.297	-.051	1.421	156.6	1976
2500	3.415	34.921	3.208	27.803	34.691	41.349	-.049	1.673	228.0	2467
3000	3.117	34.927	2.864	27.839	34.742	41.413	-.032	1.920	310.8	2957
3500	2.718	34.924	2.420	27.876	34.797	41.485	-.010	2.155	404.5	3446
4000	2.346	34.911	2.002	27.900	34.838	41.543	.000	2.377	508.5	3934
4500	2.146	34.899	1.749	27.910	34.859	41.574	.015	2.591	622.2	4421
4694	2.059	34.897	1.642	27.917	34.870	41.589	.028	2.673	668.9	4610

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.051	35.494	6.107	3.81	.52	7.20	12.050	26.964	2200K	10
111	12.228	35.590C	5.776	6.29	.81	12.13	12.213	27.007	2199	110
213	12.850	35.754	5.665	3.73	.62	9.28	12.821	27.014	2198	211
328	12.828	35.763	5.640	3.90	.64	9.67	12.783	27.029	2197	326
414	11.404	35.486	5.481	5.35	.82	12.41	11.351	27.090	2196	411
511	11.185	35.538	5.964	4.71	.77	11.20	11.120	27.173	2195	507
606	9.285	35.222C	4.551	10.07	1.29	19.43	9.216	27.257	2194	601
707	7.748	35.099	4.255	12.93	1.59	22.95	7.675	27.400	2193	701
805	6.389	35.016	4.800	12.77	1.50	21.76	6.314	27.525	2192	798
1006	4.878	34.982C	5.761	10.64	1.36	18.92	4.794	27.685	2191	996
1210	4.074	34.902	6.384	9.79	1.24	17.98	3.979	27.711	2190	1198
1609	3.807	34.907	6.695	9.96	1.20	17.84	3.679	27.745	2189	1591
2012	3.706	34.926	6.486	10.60	1.22	17.94	3.542	27.774	2188	1988
2421	3.458	34.917	6.575	10.39	1.25	17.35	3.258	27.795	2187	2390
2833	3.258	34.932C					3.019	27.829	2186	2793
3242	2.956	34.930	6.566	12.30	1.19	16.91	2.680	27.858	2185	3194
3637	2.632	34.923	6.585	13.73	1.39	16.75	2.321	27.884	2184	3580
4041	2.347	34.910	6.672	15.61	1.21	16.85	1.998	27.900	2183	3974
4253	2.256	34.908	6.642	15.50	1.55	17.43	1.885	27.907	2182	4180
4431	2.168	34.899	6.719	14.49	1.54	16.37	1.779	27.908	2181	4354
4563	2.125	34.899	6.674	13.86	1.21	16.00	1.722	27.913	2180	4482
4677	2.064	34.894	6.756	12.79	1.06	15.66	1.649	27.914	2179	4593

HUDSON 82002 STN 46 LAT 47 .0N LONG 39 .0W 23 APRIL 1982 1617Z
SOUNDING 4595 M (4679 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	11.744	35.536	11.742	27.055	33.641	40.009	.017	.016	.0	16
20	11.751	35.532	11.748	27.051	33.636	40.004	.012	.020	.0	20
50	11.730	35.529	11.724	27.054	33.640	40.008	.013	.050	.1	50
80	11.739	35.528	11.729	27.052	33.638	40.006	.011	.081	.3	79
100	11.485	35.473	11.472	27.057	33.651	40.028	-.009	.101	.5	99
150	10.935	35.354	10.917	27.067	33.679	40.073	-.055	.153	1.1	149
200	10.235	35.228	10.211	27.094	33.730	40.146	-.097	.203	1.9	198
300	10.354	35.329	10.318	27.154	33.786	40.197	-.008	.303	4.3	298
400	8.043	34.953	8.002	27.237	33.948	40.437	-.174	.396	7.5	397
500	7.608	34.982	7.558	27.325	34.052	40.554	-.118	.483	11.6	496
600	5.969	34.852	5.916	27.447	34.233	40.792	-.101	.562	16.5	595
800	4.853	34.920	4.788	27.636	34.464	41.063	-.089	.683	28.1	793
1000	4.214	34.914	4.136	27.704	34.556	41.179	-.082	.783	41.8	990
1250	3.890	34.907	3.793	27.734	34.599	41.235	-.078	.903	61.3	1237
1500	3.706	34.899	3.589	27.748	34.622	41.265	-.080	1.023	83.6	1484
1750	3.708	34.918	3.569	27.765	34.640	41.284	-.061	1.143	108.7	1730
2000	3.564	34.915	3.403	27.779	34.660	41.310	-.060	1.265	136.5	1976
2500	3.409	34.932	3.202	27.812	34.701	41.359	-.038	1.511	200.6	2467
3000	3.111	34.934	2.858	27.846	34.748	41.419	-.025	1.754	275.8	2957
3500	2.701	34.927	2.403	27.880	34.801	41.490	-.006	1.986	361.8	3446
4000	2.293	34.909	1.950	27.903	34.843	41.550	.002	2.203	457.9	3934
4500	2.129	34.897	1.733	27.910	34.859	41.575	.015	2.414	563.6	4421
4664	2.124	34.896	1.708	27.911	34.861	41.578	.018	2.484	600.3	4580

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
17	11.675	35.525		3.86	.64	8.58	11.673	27.060	2223K	17
110	11.483	35.491C					11.469	27.072	2222	109
209	9.669	35.127	6.170	5.11	.80	10.96	9.645	27.112	2221	207
320	10.468	35.391	5.547	6.10	.93	13.65	10.429	27.183	2220	318
398	8.977	35.115	5.280	8.11	1.11	16.07	8.933	27.219	2219	395
503	7.521	34.988	5.713	8.77	1.18	17.14	7.471	27.343	2218	499
616	5.880	34.839C	5.764	9.10	1.18	17.60	5.826	27.448	2217	611
706	5.589	34.932	5.251	11.50	1.35	20.05	5.528	27.558	2216	700
808	4.966	34.929	5.668	10.85	1.29	19.12	4.899	27.631	2215	801
1011	4.193	34.927	6.174	9.62	1.22	17.77	4.114	27.716	2214	1001
1207	3.885	34.902	6.503	9.66	1.21	17.61	3.792	27.730	2213	1195
1615	3.745	34.920	6.431	10.21	1.23	17.73	3.617	27.762	2212	1597
2012	3.569	34.920	6.443	10.38	1.25	17.59	3.407	27.783	2211	1988
2421	3.465	34.936	6.459	11.42	1.20	17.39	3.265	27.809	2210	2390
2828	3.225	34.939C					2.987	27.838	2209	2788
3246	2.884	34.936	6.490	13.28	1.17	16.90	2.610	27.869	2208	3198
3637	2.563	34.924	6.583	14.97	1.15	16.82	2.254	27.890	2207	3579
4051	2.291	34.909C			1.04		1.943	27.903	2206	3983
4257	2.203	34.907C	6.573	13.40	1.08	15.74	1.833	27.910	2205	4184
4342	2.165	34.899	6.707	14.33	1.12	16.11	1.787	27.908	2204	4267
4444	2.139	34.897	6.724	13.79	1.13	16.04	1.749	27.909	2203	4366
4637	2.121	34.895	6.713	13.20	1.14	15.73	1.709	27.910	2202	4554

HUDSON 82002 STN 47 LAT 47 .1N LONG 39 29.7W 23 APRIL 1982 2243Z
SOUNDING 4590 M (4674 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	12.096	35.623	12.094	27.056	33.630	39.986	.055	.016	.0	16
20	12.101	35.628	12.098	27.059	33.632	39.989	.060	.020	.0	20
50	12.097	35.622	12.090	27.056	33.630	39.987	.055	.050	.1	50
80	12.111	35.621	12.100	27.053	33.627	39.983	.053	.081	.3	79
100	11.859	35.583	11.846	27.072	33.654	40.018	.051	.101	.5	99
150	10.426	35.286	10.408	27.105	33.734	40.143	-.062	.150	1.1	149
200	10.715	35.403	10.691	27.146	33.765	40.165	.021	.199	1.9	198
300	10.696	35.423	10.659	27.167	33.787	40.187	.046	.295	4.2	298
400	10.133	35.346	10.086	27.208	33.847	40.265	.035	.391	7.4	397
500	7.774	35.015	7.723	27.327	34.047	40.544	-.095	.479	11.4	496
600	7.239	34.983	7.180	27.380	34.120	40.635	-.097	.562	16.3	595
800	5.327	34.971	5.259	27.622	34.431	41.012	-.046	.698	28.1	793
1000	4.353	34.939	4.274	27.709	34.555	41.173	-.060	.800	42.0	990
1250	3.977	34.922	3.879	27.737	34.599	41.231	-.067	.920	62.0	1237
1500	3.765	34.915	3.648	27.755	34.626	41.267	-.066	1.039	84.7	1484
1750	3.721	34.934	3.581	27.777	34.650	41.294	-.045	1.159	110.1	1730
2000	3.621	34.933	3.459	27.788	34.666	41.314	-.043	1.279	138.3	1976
2500	3.390	34.947	3.183	27.826	34.715	41.373	-.023	1.521	202.9	2467
3000	3.052	34.939	2.800	27.855	34.760	41.433	-.017	1.758	278.5	2957
3500	2.637	34.927	2.341	27.885	34.809	41.500	-.003	1.986	364.6	3446
4000	2.276	34.908	1.934	27.903	34.844	41.551	.003	2.199	460.6	3934
4500	2.165	34.900	1.768	27.910	34.858	41.572	.014	2.409	566.0	4421
4670	2.100	34.896	1.685	27.913	34.864	41.582	.021	2.482	604.0	4586

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	10.880	35.339	6.121	4.89	.70	9.75	10.879	27.062	2246K	10
156	10.553	35.317	6.104	4.68	.76	10.31	10.534	27.107	2245	154
199	9.891	35.189	6.192	4.96	.95	10.82	9.868	27.123	2244	197
301	10.620	35.398	5.833	5.89	.89	12.23	10.583	27.161	2243	299
466	8.158	35.019	4.892	9.85	1.29	18.69	8.109	27.273	2242	462
514	7.845	35.009	5.007	10.23	1.31	19.06	7.792	27.312	2241	510
666	6.036	34.903C	5.534	9.75		17.66	5.976	27.479	2240	660
693	6.029	34.953	4.948	12.12	1.42	21.19	5.967	27.520	2239	687
801	5.070	34.954	5.651	11.07	1.32	19.35	5.003	27.639	2238	794
1009	4.336	34.951	6.124	9.99	1.35	18.08	4.256	27.720	2237	999
1207	4.002	34.924C	6.370	9.83	1.23	17.86	3.908	27.735	2236	1195
1616	3.748	34.926	6.465	10.38	1.25	17.71	3.620	27.766	2235	1598
2018	3.607	34.941	6.794	10.87	1.48	17.71	3.444	27.796	2234	1994
2416	3.449	34.943C					3.249	27.816	2233	2385
2808	3.180	34.944C					2.945	27.846	2232	2769
3243	2.855	34.934C					2.582	27.870	2231	3195
3646	2.499	34.920	6.559	16.63	1.27	17.35	2.191	27.892	2230	3588
4044	2.265	34.909	6.705	16.20	1.23	16.71	1.918	27.905	2229	3977
4243	2.195	34.905	6.629	15.07		16.69	1.827	27.909	2228	4171
4446	2.166	34.900	6.721	14.85	1.30	16.30	1.775	27.909	2227	4368
4539	2.154	34.899	6.711	14.43	1.46	16.22	1.753	27.910	2226	4459
4650	2.102	34.895	6.773	13.24	1.16	15.81	1.689	27.912	2225	4567

HUDSON 82002 STN 48 LAT 47 1.2N LONG 39 59.8W 24 APRIL 1982 1141Z
SOUNDING 4571 M (4655 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
30	12.037	35.406	12.033	26.899	33.477	39.837	-.153	.035	.1	30
50	13.005	35.728	12.998	26.958	33.505	39.835	.027	.057	.2	50
80	13.089	35.766	13.078	26.971	33.515	39.843	.053	.090	.4	79
100	13.103	35.771	13.089	26.973	33.516	39.844	.057	.11[illegible]	.6	99
150	13.121	35.776	13.100	26.975	33.518	39.845	.060	.1[illegible]	1.2	149
200	13.048	35.768	13.020	26.985	33.530	39.860	.063	.224	2.1	198
300	12.402	35.658	12.362	27.031	33.596	39.945	.051	.335	4.8	298
400	9.954	35.173	9.907	27.103	33.750	40.175	-.119	.443	8.4	397
500	9.796	35.247	9.738	27.190	33.841	40.271	-.027	.544	13.0	496
600	8.451	35.119	8.387	27.309	34.005	40.479	-.035	.638	18.5	595
800	3.860	34.683	3.801	27.555	34.423	41.061	-.303	.783	31.8	793
1000	4.252	34.902	4.174	27.690	34.541	41.163	-.095	.893	47.4	990
1250	4.130	34.934	4.031	27.731	34.587	41.213	-.059	1.016	69.5	1237
1500	3.720	34.898	3.603	27.746	34.619	41.262	-.082	1.137	94.5	1484
1750	3.741	34.920	3.601	27.764	34.637	41.279	-.060	1.259	122.2	1730
2000	3.688	34.933	3.525	27.781	34.657	41.303	-.044	1.382	152.7	1976
2500	3.407	34.940	3.200	27.819	34.707	41.365	-.031	1.627	222.1	2467
3000	3.042	34.935	2.790	27.852	34.758	41.431	-.020	1.866	302.6	2957
3500	2.651	34.925	2.355	27.882	34.806	41.496	-.006	2.095	393.6	3446
4000	2.328	34.913	1.984	27.903	34.842	41.547	.003	2.310	494.7	3934
4500	2.210	34.906	1.811	27.911	34.857	41.569	.015	2.524	605.3	4421
4532	2.191	34.905	1.789	27.912	34.859	41.572	.016	2.538	612.7	4452

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.157	35.439	6.093	2.88	.54	7.14	12.156	26.901	2268K	10
106	13.155	35.798	5.955	3.11	.57	8.11	13.140	26.984	2267	105
190	13.115	35.782C	5.767	3.23	.59	8.28	13.089	26.982	2266	188
309	11.441	35.436C	4.920	6.58	.99	14.83	11.402	27.042	2265	307
400	10.922	35.457	6.108	4.75	.79	10.89	10.872	27.155	2264	397
499	10.390	35.387	5.818	5.67	.96	12.69	10.330	27.197	2263	495
722	6.391	34.954	4.988	11.80	1.45	20.56	6.324	27.474	2262	716
820	4.162	34.784C	5.875	8.40		15.64	4.100	27.604	2261	813
1009	4.694	34.986	5.960	10.68	1.41	18.63	4.611	27.709	2260	999
1207	4.000	34.939	6.431	9.60		17.68	3.906	27.748	2259	1195
1584	3.895	34.940	6.486	10.41	1.25	18.00	3.768	27.763	2258	1566
1985	3.645	34.934	6.579	12.73	1.38	17.75	3.484	27.786	2257	1961
2400	3.463	34.942	6.550	11.94	1.44	17.73	3.265	27.814	2256	2369
2827	3.176	34.936C	6.581	12.27	1.37	17.17	2.940	27.840	2255	2787
3243	2.848	34.937C	6.624				2.575	27.873	2254	3195
3654	2.554	34.925	6.630	15.79	1.24	16.98	2.243	27.892	2253	3596
3853	2.398	34.916	6.718	15.99	1.30	16.88	2.069	27.899	2252	3790
4065	2.303	34.904C	6.607	19.49	1.33	17.91	1.953	27.899	2251	3997
4262	2.272	34.907	6.658	19.93	1.36	17.33	1.900	27.905	2250	4189
4406	2.226	34.909	6.727	17.39	1.30	16.74	1.838	27.912	2249	4329
4522	2.192	34.902	6.757	15.28	1.14	16.23	1.791	27.910	2248	4442

HUDSON 82002 STN 49 LAT 47 .5N LONG 40 39.4W 24 APRIL 1982 2318Z
SOUNDING 4401 M (4479 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
32	10.158	34.799	10.154	26.769	33.411	39.833	-.520	.041	.1	32
50	12.458	35.553	12.451	26.932	33.496	39.843	-.067	.063	.2	50
80	12.872	35.700	12.861	26.964	33.515	39.849	.020	.096	.4	79
100	12.920	35.711	12.906	26.964	33.513	39.846	.024	.118	.6	99
150	12.992	35.767	12.971	26.994	33.541	39.871	.070	.174	1.3	149
200	12.840	35.751	12.813	27.013	33.565	39.900	.079	.228	2.3	198
300	11.868	35.561	11.829	27.058	33.641	40.006	.031	.338	4.9	298
400	9.769	35.241	9.723	27.188	33.839	40.270	-.032	.440	8.5	397
500	7.844	35.087	7.793	27.373	34.091	40.584	-.027	.529	13.0	496
600	6.328	35.024	6.273	27.536	34.308	40.853	-.019	.600	18.3	595
800	3.858	34.836	3.799	27.677	34.543	41.179	-.149	.707	30.5	793
1000	3.823	34.883	3.748	27.719	34.587	41.225	-.101	.801	44.5	990
1250	3.594	34.873	3.500	27.736	34.614	41.261	-.104	.917	64.4	1237
1500	3.601	34.892	3.485	27.753	34.631	41.278	-.085	1.034	87.0	1484
1750	3.626	34.915	3.488	27.771	34.648	41.295	-.061	1.154	112.4	1730
2000	3.564	34.921	3.403	27.784	34.665	41.315	-.054	1.274	140.4	1976
2500	3.335	34.930	3.129	27.817	34.709	41.370	-.039	1.516	204.8	2467
3000	2.999	34.932	2.748	27.854	34.761	41.436	-.021	1.753	280.1	2957
3500	2.605	34.926	2.310	27.887	34.812	41.504	-.002	1.978	365.9	3446
4000	2.310	34.912	1.967	27.904	34.843	41.549	.004	2.191	461.6	3934
4466	2.076	34.900	1.686	27.916	34.867	41.585	.025	2.389	559.3	4388

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	9.946	34.687	5.834	1.03	.43	4.29	9.945	26.717	2291K	10
107	13.060	35.772	5.833	3.10	.71	7.95	13.045	26.983	2290	106
197	13.089	35.816	5.789	3.24	.65	8.19	13.062	27.014	2289	195
302	12.229	35.627	5.202	5.11	.90	12.15	12.189	27.040	2288	300
436	9.175	35.198	4.145	11.00	1.44	21.03	9.126	27.253	2287	433
524	7.660	35.098	4.233	12.86	1.48	22.53	7.607	27.409	2286	520
599	6.871	35.055C	4.683	11.22	1.35	19.99	6.814	27.488	2285	594
779	3.811	34.801	6.680	8.52	1.18	16.55	3.754	27.653	2284	772
984	3.834	34.908	6.473	8.85	1.22	17.12	3.760	27.738	2283	974
1168	3.609	34.865	6.829	8.42	1.16	16.75	3.522	27.728	2282	1156
1548	3.610	34.895	6.671	9.66	1.27	17.34	3.490	27.755	2281	1531
1951	3.563	34.921	6.570	10.36	1.18	17.37	3.407	27.783	2280	1927
2385	3.389	34.933	6.536	11.29	1.20	17.20	3.193	27.814	2279	2354
2796	3.114	34.940	6.629	12.80	1.57	17.21	2.882	27.848	2278	2757
3216	2.826	34.937	6.519	15.67	1.49	17.33	2.556	27.875	2277	3169
3594	2.524	34.924	6.614	15.94	1.34	16.82	2.221	27.893	2276	3537
3760	2.419	34.916	6.591	17.40	1.38	17.14	2.100	27.896	2275	3700
4106	2.276	34.911	6.570	19.27	1.25	17.29	1.922	27.907	2274	4037
4300	2.238	34.905	6.629	18.49		17.25	1.862	27.907	2273	4226
4401	2.177	34.903	6.706	15.53		16.48	1.791	27.910	2272	4324
4472	2.072	34.898	6.751	13.64	1.17	15.82	1.681	27.915	2271	4394

HUDSON 82002 STN 50 LAT 47 .3N LONG 41 .3W 25 APRIL 1982 540Z
SOUNDING 4498 M (4580 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
28	6.686	34.484	6.683	27.056	33.818	40.356	-.573	.028	.1	28
50	6.650	34.533	6.646	27.099	33.863	40.401	-.523	.050	.2	50
80	6.006	34.540	5.999	27.189	33.976	40.536	-.495	.078	.3	79
100	5.627	34.550	5.619	27.245	34.045	40.619	-.475	.095	.5	99
150	5.912	34.708	5.899	27.335	34.123	40.685	-.323	.134	1.0	149
200	5.941	34.790	5.924	27.397	34.183	40.743	-.243	.170	1.7	198
300	4.566	34.717	4.543	27.503	34.342	40.952	-.288	.235	3.6	298
400	5.151	34.924	5.119	27.601	34.416	41.003	-.090	.291	6.1	397
500	4.690	34.936	4.651	27.665	34.497	41.101	-.070	.341	9.0	496
600	4.180	34.898	4.135	27.691	34.543	41.166	-.098	.388	12.4	595
800	3.897	34.900	3.838	27.724	34.588	41.222	-.087	.477	20.4	792
1000	3.980	34.935	3.904	27.745	34.606	41.237	-.054	.565	30.1	990
1250	3.697	34.911	3.602	27.756	34.629	41.272	-.069	.677	44.5	1237
1500	3.678	34.926	3.562	27.772	34.647	41.291	-.052	.790	61.5	1483
1750	3.574	34.931	3.436	27.789	34.668	41.317	-.045	.905	81.1	1729
2000	3.445	34.927	3.286	27.800	34.685	41.340	-.045	1.020	103.4	1975
2500	3.230	34.941	3.026	27.836	34.731	41.396	-.025	1.252	155.8	2467
3000	2.914	34.933	2.665	27.862	34.772	41.451	-.015	1.481	218.8	2957
3500	2.502	34.923	2.209	27.893	34.822	41.518	-.001	1.701	292.0	3446
4000	2.253	34.906	1.912	27.903	34.845	41.553	.003	1.910	374.8	3933
4500	2.139	34.898	1.743	27.910	34.859	41.574	.016	2.120	467.0	4420
4572	2.143	34.897	1.738	27.910	34.859	41.574	.016	2.150	481.1	4490

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	6.063	34.257	7.112	5.97	.88	9.44	6.062	26.958	2313K	12
107	5.558	34.511	6.781	7.43	1.00	12.74	5.549	27.223	2312	106
170	5.450	34.639	5.960	9.24	1.21	16.37	5.436	27.338	2311	168
305	4.664	34.727	6.450	8.52	1.16	15.73	4.641	27.500	2310	303
408	5.260	34.941	5.326	11.81	1.34	20.14	5.227	27.602	2309	405
500	4.385	34.880	5.927	10.04	1.23	18.08	4.347	27.654	2308	496
601	4.015	34.910	6.401	8.80	1.13	16.17	3.971	27.718	2307	596
801	4.003	34.910	6.361	9.94	1.28	17.71	3.943	27.721	2306	793
1015	3.764	34.902	6.636	9.35	1.18	18.43	3.688	27.740	2305	1005
1205	3.759	34.914	6.525	10.06	1.21	17.67	3.667	27.752	2304	1192
1596	3.624	34.923	6.515	10.61	1.21	17.57	3.500	27.776	2303	1578
1997	3.492	34.933	6.476	11.37	1.30	17.52	3.332	27.800	2302	1972
2401	3.277	34.933	6.491	11.86	1.18	17.38	3.082	27.824	2301	2369
2794	3.051	34.939	6.495	13.48	1.20	17.26	2.821	27.853	2300	2755
3205	2.771	34.932	6.498	14.02	1.17	16.84	2.504	27.875	2299	3157
3604	2.407	34.916	6.602	15.97	1.17	16.86	2.106	27.896	2298	3547
3804	2.311	34.911	6.589	16.79	1.18	16.82	1.990	27.901	2297	3742
4001	2.246	34.902	6.635	15.07	1.14	16.50	1.905	27.901	2296	3934
4193	2.204	34.904	6.679	15.45	1.28	16.38	1.842	27.907	2295	4121
4304	2.171	34.902	6.692	14.76	1.14	16.17	1.797	27.909	2294	4230
4556	2.141	34.897	6.703	13.79	1.13	15.98	1.738	27.910	2293	4474

HUDSON 82002 STN 51 LAT 46 60.0N LONG 41 30.7W 25 APRIL 1962 1118Z
SOUNDING 4296 M (4372 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	5.550	33.995	5.549	26.814	33.624	40.206	-1.028	.017	.0	14
20	5.542	33.999	5.540	26.818	33.628	40.211	-1.024	.025	.0	20
50	4.912	34.113	4.908	26.983	33.815	40.419	-.898	.060	.2	50
80	4.181	34.185	4.175	27.120	33.979	40.609	-.812	.089	.4	79
100	5.264	34.350	5.256	27.130	33.947	40.535	-.667	.108	.6	99
150	6.870	34.693	6.856	27.197	33.951	40.480	-.371	.154	1.2	149
200	5.231	34.509	5.215	27.261	34.077	40.665	-.507	.197	2.0	198
300	5.998	34.836	5.972	27.427	34.211	40.769	-.198	.272	4.2	298
400	5.394	34.872	5.361	27.531	34.338	40.916	-.147	.337	7.0	397
500	4.755	34.893	4.716	27.623	34.454	41.055	-.114	.392	10.4	496
600	4.572	34.925	4.525	27.670	34.507	41.116	-.079	.442	14.3	595
800	4.098	34.920	4.038	27.719	34.575	41.201	-.073	.535	23.4	792
1000	3.790	34.902	3.715	27.738	34.607	41.245	-.081	.624	34.2	990
1250	3.713	34.909	3.618	27.753	34.626	41.268	-.071	.737	50.0	1237
1500	3.657	34.922	3.541	27.771	34.647	41.292	-.055	.850	68.3	1483
1750	3.538	34.923	3.401	27.786	34.667	41.317	-.051	.965	89.3	1730
2000	3.453	34.931	3.294	27.802	34.688	41.342	-.042	1.081	113.0	1976
2500	3.206	34.941	3.002	27.838	34.735	41.400	-.024	1.311	168.2	2467
3000	2.891	34.934	2.643	27.865	34.776	41.455	-.013	1.538	233.8	2957
3500	2.536	34.921	2.243	27.889	34.816	41.512	-.004	1.756	309.6	3446
4000	2.261	34.905	1.919	27.902	34.843	41.551	.002	1.968	395.0	3934
4370	2.002	34.892	1.625	27.914	34.868	41.588	.025	2.121	464.3	4294

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	6.000	33.992	7.189	4.78	.66	7.05	5.999	26.756	2335K	16
102	4.639	34.258	7.010	6.91	.92	11.31	4.632	27.129	2334	101
203	6.167	34.664	5.564	9.43	1.21	16.93	6.149	27.268	2333	201
302	5.568	34.787	5.397	10.93	1.33	18.43	5.543	27.442	2332	300
404	5.454	34.909	5.356	11.30	1.33	19.32	5.420	27.553	2331	401
505	4.725	34.899	5.779	10.64	1.25	18.80	4.685	27.631	2330	501
608	4.403	34.910	6.086				4.356	27.677	2329	603
809	4.066	34.927	6.344	9.92	1.25	17.28	4.005	27.728	2328	801
1011	3.756	34.898	6.556	9.62	1.42	17.18	3.681	27.738	2327	1001
1210	3.692	34.905	6.561	9.92	1.28	17.63	3.601	27.752	2326	1198
1616	3.578	34.918	6.525	10.52	1.36	16.90	3.452	27.777	2325	1598
2021	3.457	34.929	6.519	11.24	1.29	17.45	3.296	27.801	2324	1997
2423	3.267	34.936	6.513	12.57		17.35	3.070	27.828	2323	2391
2821	3.025	34.941	6.464	14.91	1.52	17.32	2.792	27.857	2322	2782
3218	2.711	34.930	6.501	16.60	1.37	17.27	2.444	27.879	2321	3170
3607	2.440	34.916	6.540	18.65	1.22	17.02	2.137	27.893	2320	3550
3798	2.359	34.913	6.561	19.31		16.71	2.037	27.899	2319	3736
4005	2.247	34.908	6.681	14.98	1.21	15.75	1.905	27.906	2318	3939
4159	2.160	34.903	6.754	13.96	1.27	15.54	1.803	27.910	2317	4088
4261	2.106	34.897	6.766	12.64	1.07	14.89	1.739	27.910	2316	4188
4350	2.000	34.893	6.782				1.626	27.915	2315	4275

HUDSON 82002 STN 52 LAT 47 .1N LONG 42 .1W 25 APRIL 1982 1709Z
SOUNDING 4216 M (4290 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
18	12.661	35.644	12.659	26.961	33.518	39.859	-.006	.020	.0	18
20	12.654	35.648	12.651	26.966	33.523	39.864	-.001	.022	.0	20
50	12.579	35.640	12.572	26.975	33.535	39.878	.003	.054	.1	50
80	12.705	35.679	12.694	26.981	33.537	39.876	.023	.087	.3	79
100	12.089	35.541	12.076	26.995	33.571	39.929	-.025	.109	.5	99
150	10.774	35.376	10.756	27.113	33.730	40.129	-.014	.160	1.2	149
200	10.257	35.333	10.233	27.172	33.806	40.220	.005	.207	2.0	198
300	8.327	35.059	8.296	27.276	33.976	40.453	-.089	.299	4.4	298
400	6.628	34.977	6.591	27.457	34.217	40.752	-.077	.376	7.5	397
500	5.254	34.936	5.213	27.600	34.411	40.994	-.080	.437	11.3	496
600	4.691	34.951	4.644	27.677	34.510	41.114	-.055	.488	15.6	595
800	4.233	34.955	4.172	27.732	34.583	41.204	-.041	.580	25.6	792
1000	4.055	34.958	3.978	27.755	34.613	41.241	-.033	.668	37.2	990
1250	3.761	34.934	3.665	27.768	34.639	41.279	-.048	.777	53.9	1237
1500	3.640	34.938	3.524	27.786	34.661	41.307	-.039	.888	73.2	1483
1750	3.499	34.938	3.362	27.801	34.684	41.335	-.035	.999	95.1	1730
2000	3.343	34.937	3.185	27.818	34.707	41.365	-.033	1.110	119.4	1976
2500	2.955	34.931	2.756	27.852	34.759	41.434	-.023	1.327	175.8	2467
3000	2.844	34.925	2.597	27.862	34.775	41.456	-.020	1.547	241.9	2957
3500	2.393	34.916	2.103	27.896	34.830	41.530	-.002	1.762	318.0	3446
4000	2.196	34.906	1.856	27.908	34.852	41.562	.009	1.966	403.5	3934
4290	2.011	34.899	1.643	27.919	34.872	41.591	.029	2.083	457.3	4216

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	12.620	35.619	5.804	3.58	.59	8.22	12.619	26.950	2357K	10
111	12.432	35.649	5.506	4.31	.81	10.23	12.417	27.013	2356	110
171	10.685	35.382	5.965	5.09	.81	10.80	10.664	27.134	2355	169
227	10.894	35.471	5.965	4.91	.90	11.35	10.866	27.167	2354	225
386	7.111	35.006	4.492	12.18	1.56	21.93	7.074	27.413	2353	383
507	5.165	34.923	5.450	11.35	1.57	19.97	5.124	27.600	2352	503
602	4.725	34.969	5.762	10.52	1.31	18.15	4.677	27.688	2351	597
803	4.301	34.953	6.144	10.35	1.26	17.81	4.239	27.724	2350	795
1001	4.068	34.950	6.301	10.36	1.25	18.03	3.991	27.747	2349	991
1199	3.850	34.934	6.392	10.60	1.24	17.72	3.758	27.759	2348	1187
1599	3.651	34.944	6.422	11.57	1.23	17.62	3.526	27.790	2347	1581
2006	3.332	34.934	6.468	11.46	1.22	16.85	3.174	27.816	2346	1982
2402	2.991	34.933	6.563	11.76	1.17	16.87	2.801	27.850	2345	2370
2780	2.919	34.928	6.529	11.77	1.16	16.56	2.693	27.856	2344	2741
3163	2.738	34.931	6.484	15.68	1.20	17.35	2.476	27.877	2343	3116
3556	2.370	34.915	6.479	19.58	1.26	17.60	2.075	27.898	2342	3500
3776	2.256	34.908	6.476	21.40	1.22	17.85	1.940	27.903	2341	3715
3982	2.211	34.909	6.534	19.22	1.19	17.32	1.873	27.909	2340	3916
4083	2.151	34.902	6.626	16.92	1.13	15.60	1.803	27.909	2339	4015
4199	2.094	34.898	6.734	13.39	1.11	14.79	1.734	27.911	2338	4127
4265	2.055	34.896	6.775	12.79	1.17	15.04	1.689	27.913	2337	4192

HUDSON 82002 STN 53 LAT 46 59.9N LONG 42 29.9W 25 APRIL 1982 2218Z
SOUNDING 3742 M (3804 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	6.458	34.455	6.457	27.063	33.834	40.379	-.594	.012	.0	12
20	6.397	34.445	6.395	27.063	33.837	40.384	-.602	.020	.0	20
50	6.342	34.515	6.338	27.126	33.901	40.449	-.530	.049	.1	50
80	6.207	34.634	6.200	27.238	34.016	40.568	-.406	.075	.3	79
100	6.847	34.806	6.838	27.289	34.042	40.571	-.258	.092	.5	99
150	6.492	34.869	6.479	27.387	34.153	40.692	-.181	.129	1.0	149
200	6.378	34.929	6.360	27.450	34.219	40.762	-.116	.163	1.7	198
300	3.779	34.637	3.758	27.522	34.393	41.033	-.347	.224	3.5	298
400	4.208	34.826	4.179	27.629	34.481	41.103	-.171	.277	5.8	397
500	3.679	34.843	3.644	27.698	34.570	41.212	-.137	.323	8.6	496
600	3.650	34.861	3.608	27.716	34.589	41.233	-.119	.365	11.8	595
800	3.529	34.863	3.472	27.731	34.610	41.258	-.113	.451	19.4	792
1000	3.459	34.874	3.387	27.748	34.630	41.281	-.100	.536	28.6	990
1250	3.460	34.900	3.367	27.771	34.653	41.305	-.074	.644	42.2	1237
1500	3.420	34.921	3.306	27.793	34.678	41.332	-.052	.751	58.4	1483
1750	3.376	34.944	3.241	27.818	34.705	41.361	-.027	.858	77.0	1729
2000	3.225	34.944	3.069	27.834	34.728	41.391	-.022	.964	98.1	1975
2500	2.876	34.936	2.678	27.863	34.773	41.451	-.014	1.173	147.4	2466
3000	2.491	34.922	2.251	27.889	34.816	41.511	-.004	1.376	206.1	2956
3500	2.164	34.904	1.880	27.904	34.847	41.557	.005	1.571	273.9	3445
3804	1.922	34.894	1.611	27.917	34.871	41.592	.029	1.685	319.3	3742

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	6.292	34.446	7.416	6.37	.79	10.09	6.291	27.078	2380K	10
100	6.743	34.822					6.734	27.315	2379K	99
309	3.563	34.634	7.212	7.21	1.05	14.16	3.542	27.541	2378	307
409	3.694	34.790	6.732	8.12	1.14	16.27	3.666	27.653	2377	406
510	3.694	34.842	6.758	8.37	1.15	16.32	3.658	27.696	2375	506
510	3.694	34.844	6.754	8.30	1.14	16.86	3.658	27.697	2376	506
606	3.659	34.862	6.745	8.50	1.16	17.02	3.616	27.716	2374	601
705	3.588	34.858C	6.783	8.68	1.19	16.43	3.538	27.720	2373	698
799	3.521	34.866	6.775	8.98	1.18	17.15	3.464	27.734	2372	791
1000	3.456	34.870	6.721	9.05	1.18	17.24	3.384	27.745	2371	990
1200	3.484	34.892	6.794	9.65	1.24	17.37	3.395	27.761	2370	1187
1606	3.447	34.934	6.443	11.45	1.30	17.54	3.324	27.802	2369	1588
2021	3.222	34.945	6.412	13.01	1.21	17.67	3.064	27.835	2368	1996
2428	2.932	34.935	6.513	14.39	1.61	17.30	2.740	27.857	2367	2395
2836	2.595	34.926	6.517	16.79	1.51	17.17	2.370	27.882	2366	2796
3185	2.349	34.916	6.612	15.36	1.18	16.73	2.093	27.897	2365	3137
3286	2.294	34.910	6.602	16.50	1.21	16.35	2.029	27.897	2364	3236
3386	2.245	34.909	6.588	18.66	1.21	16.88	1.971	27.901	2363	3334
3484	2.166	34.904	6.719	13.59	1.18	15.77	1.884	27.904	2362	3429
3571	2.114	34.902	6.702	14.56	1.09	16.25	1.824	27.907	2361	3515
3665	2.061	34.900	6.747	13.50	1.14	15.71	1.762	27.910	2360	3607
3762	2.000	34.895	6.818	12.85	1.29	15.47	1.692	27.912	2359	3701

HUDSON 82002 STN 54 LAT 47 .4N LONG 43 .2W 26 APRIL 1982 351Z
SOUNDING 3619 M (3678 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	5.642	34.481	5.641	27.188	33.988	40.561	-.544	.012	.0	14
20	5.634	34.454	5.632	27.167	33.968	40.542	-.572	.018	.0	20
50	5.509	34.453	5.505	27.182	33.988	40.566	-.569	.044	.1	50
80	5.069	34.473	5.063	27.250	34.072	40.667	-.541	.070	.3	79
100	4.616	34.491	4.609	27.316	34.155	40.766	-.515	.086	.4	99
150	4.280	34.620	4.269	27.456	34.306	40.928	-.379	.120	.9	149
200	3.888	34.653	3.874	27.523	34.389	41.024	-.336	.150	1.5	198
300	3.805	34.780	3.784	27.634	34.501	41.139	-.206	.203	3.2	298
400	3.777	34.854	3.749	27.696	34.564	41.202	-.130	.247	5.3	397
500	3.743	34.870	3.708	27.713	34.582	41.222	-.113	.290	7.8	496
600	3.642	34.866	3.600	27.721	34.594	41.238	-.113	.332	10.7	595
800	3.524	34.866	3.467	27.734	34.613	41.261	-.110	.416	17.6	792
1000	3.459	34.872	3.387	27.746	34.629	41.280	-.102	.502	26.2	990
1250	3.486	34.899	3.393	27.767	34.649	41.300	-.075	.610	39.0	1237
1500	3.429	34.913	3.315	27.786	34.670	41.324	-.060	.718	54.4	1483
1750	3.342	34.932	3.207	27.811	34.700	41.358	-.039	.826	72.3	1729
2000	3.188	34.932	3.033	27.828	34.723	41.388	-.034	.933	92.6	1975
2500	2.823	34.931	2.626	27.864	34.776	41.456	-.015	1.143	140.6	2466
3000	2.486	34.913	2.246	27.882	34.810	41.505	-.012	1.344	197.9	2956
3500	2.105	34.899	1.822	27.905	34.850	41.562	.007	1.540	264.2	3445
3678	1.934	34.895	1.637	27.916	34.869	41.589	.027	1.605	289.9	3619

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	5.611	34.448	7.174	6.38	.92	10.31	5.610	27.165	2403K	10
71	5.333	34.456	7.089	6.39	.91	10.77	5.327	27.206	2402K	70
190	4.290	34.702	6.164	9.24	1.23	16.23	4.276	27.520	2398	188
263	4.049	34.788	6.357	8.97	1.19	16.50	4.030	27.614	2397	261
319	3.893	34.846C	6.517	8.78	1.18	16.91	3.871	27.677	2396	317
485	3.755	34.870	6.660	8.79	1.16	16.99	3.721	27.712	2395	481
578	3.642	34.836	6.707	8.61	1.17	16.39	3.601	27.697	2394	573
671	3.564	34.863	6.857	8.68	1.16	16.59	3.517	27.726	2393	665
775	3.560	34.871	6.757	8.98	1.21	17.25	3.505	27.734	2392	767
996	3.473	34.872	6.738	9.22	1.32	17.12	3.401	27.745	2391	986
1186	3.491	34.891	6.628	9.70	1.20	16.81	3.403	27.760	2390	1173
1588	3.393	34.922	6.507	10.72	1.20	16.78	3.272	27.797	2389	1570
2005	3.163	34.927	6.358	12.03	1.21	17.21	3.008	27.826	2388	1980
2390	2.962	34.938	6.450	12.99	1.18	16.77	2.773	27.856	2387	2358
2819	2.609	34.922	6.603	12.22	1.16	16.22	2.385	27.878	2386	2780
3032	2.474	34.912	6.638	12.41	1.12	15.93	2.231	27.882	2385	2987
3229	2.344	34.910	6.637	13.13	1.12	16.41	2.084	27.893	2384	3180
3324	2.268	34.907	6.700	12.84	1.12	16.44	2.000	27.897	2383	3274
3432	2.191	34.903	6.753	12.79	1.12	15.83	1.913	27.901	2382	3379

HUDSON 82002 STN 55 LAT 46 59.7N LONG 43 15.3W 26 APRIL 1982 827Z
SOUNDING 1798 M (1820 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	5.865	34.478	5.864	27.158	33.950	40.515	-.552	.013	.0	14
20	5.773	34.481	5.771	27.171	33.967	40.536	-.548	.018	.0	20
50	4.903	34.500	4.899	27.291	34.119	40.718	-.510	.043	.1	50
80	4.592	34.511	4.586	27.334	34.174	40.785	-.494	.065	.3	79
100	4.391	34.531	4.384	27.373	34.220	40.838	-.470	.080	.4	99
150	3.951	34.660	3.941	27.522	34.385	41.018	-.330	.112	.9	149
200	4.444	34.850	4.429	27.621	34.463	41.076	-.152	.138	1.4	198
300	3.641	34.816	3.621	27.679	34.552	41.195	-.164	.183	2.9	297
400	3.726	34.851	3.698	27.699	34.569	41.209	-.131	.226	4.8	397
500	3.657	34.859	3.622	27.713	34.586	41.228	-.121	.268	7.1	496
600	3.618	34.860	3.576	27.718	34.593	41.237	-.119	.310	9.8	595
800	3.514	34.861	3.457	27.731	34.610	41.259	-.115	.395	16.4	792
1000	3.465	34.873	3.393	27.747	34.628	41.280	-.101	.481	24.5	990
1250	3.467	34.909	3.374	27.777	34.659	41.311	-.065	.588	36.9	1237
1500	3.314	34.925	3.202	27.806	34.695	41.353	-.045	.692	51.8	1483
1750	3.243	34.924	3.110	27.814	34.707	41.368	-.044	.796	69.0	1729
1818	3.242	34.923	3.103	27.814	34.707	41.369	-.044	.825	74.1	1796

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	5.922	34.476	7.011	6.62	.84	11.01	5.921	27.149	2426K	10
68	4.549	34.504	6.955	6.68	.96	12.43	4.544	27.334	2425K	67
80	4.347	34.541	6.852	7.04	1.04	13.43	4.341	27.385	2424	79
154	3.956	34.619	6.643	7.76	1.08	14.59	3.945	27.489	2423	152
190	4.511	34.786	5.968	10.07	1.30	17.80	4.497	27.563	2422	188
255	3.804	34.808	6.584	8.71	1.21	16.71	3.786	27.656	2421	252
304	3.696	34.830	6.738	8.34	1.15	16.52	3.675	27.684	2420	301
405	3.780	34.867C	6.769				3.752	27.706	2419	402
501	3.647	34.861	6.828	8.32	1.17	16.13	3.612	27.715	2418	497
608	3.566	34.856	6.847	8.56	1.21	16.77	3.524	27.720	2417	603
702	3.537	34.860	6.885	8.74	1.17	16.51	3.488	27.727	2416	695
809	3.524	34.867	6.837	8.75	1.26	16.79	3.466	27.735	2415	801
911	3.455	34.864	6.806	8.99	1.19	16.73	3.390	27.740	2414	902
1012	3.460	34.871	6.750	9.35	1.21	17.25	3.387	27.746	2413	1002
1106	3.496	34.887	6.659	10.18	1.26	17.04	3.415	27.756	2412	1095
1211	3.472	34.899	6.596	9.83	1.27	16.78	3.383	27.768	2411	1198
1314	3.455	34.911	6.550	10.19	1.28	16.51	3.357	27.780	2410	1300
1413	3.396	34.914	6.581	10.44	1.31	17.34	3.290	27.789	2409	1398
1507	3.327	34.923	6.565	10.72	1.18	16.68	3.214	27.804	2408	1490
1612	3.271	34.921	6.590	10.46	1.18	16.57	3.149	27.808	2407	1594
1716	3.262	34.921	6.566	10.53		16.72	3.131	27.810	2406	1696
1802	3.239	34.921	6.598	10.71	1.25	16.89	3.101	27.813	2405	1781

HUDSON 82002 STN 56 LAT 46 59.7N LONG 43 29.9W 26 APRIL 1982 1147Z
SOUNDING 978 M (988 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	5.020	34.670	5.019	27.412	34.233	40.827	-.343	.011	.0	16
20	5.061	34.666	5.059	27.404	34.224	40.816	-.347	.013	.0	20
50	4.843	34.673	4.839	27.435	34.263	40.863	-.337	.033	.1	50
80	4.182	34.665	4.176	27.501	34.355	40.979	-.332	.051	.2	79
100	3.598	34.647	3.591	27.547	34.424	41.070	-.332	.062	.3	99
150	3.598	34.748	3.588	27.628	34.503	41.149	-.231	.087	.7	149
200	3.421	34.771	3.408	27.664	34.546	41.198	-.204	.110	1.1	198
300	3.780	34.861	3.759	27.701	34.568	41.206	-.123	.152	2.3	297
400	3.623	34.861	3.596	27.717	34.591	41.235	-.118	.193	4.0	397
500	3.568	34.867	3.533	27.728	34.604	41.250	-.110	.233	5.9	496
600	3.523	34.865	3.481	27.732	34.610	41.258	-.112	.274	8.3	594
800	3.483	34.874	3.426	27.744	34.625	41.274	-.101	.356	14.2	792
984	3.478	34.890	3.407	27.759	34.640	41.290	-.084	.432	20.9	974

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	4.886	34.656	7.149	7.35	1.01	12.95	4.885	27.416	2441K	10
25	5.040	34.654	7.220	7.30	1.04	13.54	5.038	27.397	2440K	25
58	4.875	34.664	7.152	7.37	1.03	13.09	4.871	27.424	2439	58
107	3.874	34.645	7.221	7.14	1.06	13.79	3.867	27.518	2438	106
157	3.549	34.695	6.840	8.14	1.33	15.24	3.539	27.590	2437	155
207	3.394	34.747	6.895	7.93	1.15	15.63	3.381	27.647	2436	205
307	3.904	34.875	6.609	8.80	1.20	16.72	3.882	27.699	2435	304
408	3.626	34.861	6.836	8.40	1.24	16.17	3.598	27.717	2434	405
509	3.569	34.868	6.854	8.52	1.21	16.42	3.534	27.729	2433	505
610	3.515	34.865	6.850	8.70	1.19	16.58	3.473	27.732	2432	604
710	3.490	34.870	6.812	8.77	1.20	16.18	3.440	27.740	2431	703
812	3.483	34.880	6.752	9.07	1.23	17.17	3.425	27.749	2430	804
913	3.476	34.893	6.633	9.50	1.19	16.48	3.411	27.761	2429	904
975	3.477	34.895	6.665	9.63	1.18	16.97	3.407	27.763	2428	965

HUDSON 82002 STN 57 LAT 46 60.0N LONG 43 45.1W 26 APRIL 1982 1440Z
SOUNDING 651 M (657 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.414	34.489	3.413	27.438	34.324	40.979	-.485	.009	.0	14
20	3.348	34.492	3.347	27.447	34.336	40.993	-.481	.013	.0	20
50	3.211	34.484	3.208	27.474	34.348	41.011	-.486	.031	.1	50
80	3.110	34.538	3.105	27.507	34.404	41.070	-.430	.049	.2	79
100	2.903	34.550	2.897	27.535	34.441	41.115	-.411	.061	.3	99
150	3.019	34.623	3.010	27.583	34.484	41.152	-.342	.087	.6	149
200	3.457	34.723	3.444	27.622	34.504	41.155	-.252	.112	1.1	198
300	3.715	34.828	3.694	27.681	34.551	41.192	-.154	.157	2.4	297
400	3.605	34.845	3.578	27.706	34.581	41.225	-.134	.200	4.0	397
500	3.549	34.849	3.515	27.716	34.593	41.240	-.128	.241	6.1	496
600	3.460	34.858	3.419	27.732	34.613	41.263	-.117	.282	8.5	594
656	3.465	34.866	3.419	27.738	34.619	41.270	-.109	.305	10.0	650

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
10	3.556	34.486	7.696	6.81	1.23	12.00	3.555	27.422	2453K	10
25	3.269		7.739	6.69	1.00	11.59			2452K	25
54	3.140	34.494C	7.666	6.68	.97	12.24	3.137	27.469	2451	54
103	2.890	34.542	7.528	6.72	1.01	13.03	2.884	27.530	2450	102
155	3.249	34.674	6.884	8.08	1.14	14.98	3.239	27.603	2449	153
204	3.477	34.733	6.616	8.73	1.31	16.77	3.464	27.628	2448	202
306	3.702	34.830	6.491	9.21	1.28	16.95	3.681	27.684	2447	303
407	3.605	34.843	6.598	9.10	1.34	17.73	3.577	27.705	2446	404
508	3.545	34.851	6.682	9.16	1.22	16.79	3.510	27.718	2445	504
610	3.463	34.861	6.756	9.22	1.24	17.15	3.421	27.734	2444	604
649	3.464	34.865	6.797	8.99	1.18	16.44	3.419	27.738	2443	643

HUDSON 82002 STN 58 LAT 47 .1N LONG 44 .2W 26 APRIL 1982 1655Z
SOUNDING 398 M (401 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.018	34.410	3.017	27.413	34.315	40.986	-.555	.009	.0	14
20	2.949	34.410	2.948	27.419	34.324	40.998	-.552	.013	.0	20
50	2.771	34.421	2.768	27.444	34.356	41.037	-.533	.032	.1	50
80	2.728	34.433	2.723	27.457	34.371	41.053	-.519	.051	.2	79
100	2.607	34.467	2.601	27.495	34.414	41.100	-.478	.063	.3	99
150	2.651	34.548	2.642	27.556	34.472	41.156	-.399	.091	.7	149
200	3.353	34.687	3.340	27.603	34.490	41.145	-.286	.117	1.2	198
300	3.817	34.845	3.796	27.684	34.550	41.187	-.141	.162	2.5	297
398	3.821	34.857	3.793	27.694	34.560	41.197	-.129	.204	4.1	395

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	3.092	34.408	7.778	6.79	.92	11.65	3.091	27.404	2460	14
28	2.850	34.409	7.792	6.88	.94	11.80	2.848	27.427	2459	28
54	2.781	34.415	7.742	6.80	1.10	11.65	2.778	27.438	2458	54
105	2.721	34.436	7.674	6.80	.96	12.61	2.715	27.460	2457	104
204	3.130	34.631	6.864	8.33	1.13	15.40	3.117	27.580	2456	202
306	3.816	34.848	6.333	9.81	1.21	17.67	3.795	27.687	2455	303
386	3.830	34.859	6.355	9.81	1.22	17.54	3.803	27.695	2454	383

HUDSON 82002 STN 59 LAT 46 59.9N LONG 44 15.3W 26 APRIL 1982 1854Z
SOUNDING 255 M (257 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.198	34.315	3.197	27.320	34.217	40.882	-.655	.010	.0	14
20	3.151	34.320	3.150	27.329	34.227	40.894	-.649	.015	.0	20
50	2.849	34.363	2.846	27.390	34.301	40.979	-.595	.036	.1	50
80	2.770	34.438	2.765	27.458	34.370	41.050	-.516	.055	.2	79
100	2.682	34.466	2.676	27.488	34.403	41.087	-.483	.068	.3	99
150	2.748	34.546	2.739	27.546	34.458	41.138	-.406	.096	.7	149
200	3.417	34.694	3.404	27.603	34.486	41.139	-.281	.122	1.2	198
250	3.643	34.761	3.626	27.634	34.508	41.152	-.219	.146	1.9	248

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	3.180	34.323	7.781	7.00	.92	12.16	3.179	27.328	2467	13
28	3.006	34.324	7.782	7.01	.93	12.11	3.004	27.345	2466	28
54	2.813	34.350	7.609	7.13	.96	12.89	2.810	27.383	2465	54
103	2.505	34.456	7.478	7.02	1.03	13.95	2.499	27.495	2464	102
155	2.835	34.568	7.040	8.07	1.07	15.58	2.826	27.556	2463	153
199	3.578	34.736	6.299	10.15	1.32	18.30	3.565	27.620	2462	197
235	3.641	34.761	6.292	10.10	1.26	18.13	3.625	27.634	2461	233

HUDSON 82002 STN 60 LAT 46 59.4N LONG 44 30.2W 26 APRIL 1982 2039Z
SOUNDING 135 M (136 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.133	34.244	3.132	27.270	34.170	40.838	-.725	.011	.0	14
20	3.093	34.246	3.092	27.275	34.176	40.846	-.722	.016	.0	20
50	2.992	34.269	2.989	27.303	34.208	40.892	-.696	.039	.1	50
80	2.763	34.389	2.758	27.419	34.332	41.013	-.565	.061	.2	79
100	2.986	34.494	2.980	27.483	34.386	41.057	-.470	.074	.4	99
130	3.019	34.516	3.011	27.498	34.399	41.069	-.449	.091	.6	129

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
28	3.033	34.248	7.698	7.50	.91	11.89	3.031	27.282	2471	28
28	3.033	34.249	7.743	6.98	.92	11.79	3.031	27.283	2472	28
53	2.976	34.289	7.661	7.02	.93	12.23	2.973	27.320	2470	53
104	2.979	34.498	6.942	8.49	1.09	15.42	2.973	27.487	2469	103
119	3.025	34.521	6.912	8.90	1.10	16.01	3.018	27.501	2468	118

HUDSON 82002 STN 61 LAT 47 .0N LONG 44 45.5W 26 APRIL 1982 2211Z
SOUNDING 146 M (147 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	3.227	34.247	3.226	27.263	34.159	40.824	-.724	.013	.0	16
20	3.167	34.248	3.166	27.270	34.168	40.835	-.722	.016	.0	20
50	3.063	34.263	3.060	27.291	34.194	40.865	-.704	.040	.1	50
80	3.013	34.286	3.008	27.314	34.219	40.892	-.679	.063	.2	79
100	2.826	34.366	2.820	27.395	34.306	40.985	-.591	.077	.4	99
144	2.974	34.459	2.965	27.456	34.360	41.033	-.504	.105	.8	143

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	3.174	34.248	7.650	6.95	1.02	11.72	3.173	27.269	2477	16
31	3.050	34.253	7.761	7.10	.98	11.84	3.048	27.284	2476	31
57	3.061	34.266	7.692	7.05	.99	12.01	3.058	27.294	2475	57
107	2.823	34.353	7.347	7.77	1.02	14.10	2.817	27.385	2474	106
137	2.958	34.450	6.841	8.70	1.10	15.66	2.950	27.451	2473	136

HUDSON 82002 STN 62 LAT 46 59.9N LONG 45 .2W 26 APRIL 1982 2340Z
SOUNDING 150 M (151 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	3.316	34.188	3.315	27.208	34.101	40.763	-.785	.014	.0	16
20	3.193	34.214	3.192	27.240	34.138	40.805	-.756	.017	.0	20
50	3.043	34.209	3.040	27.250	34.154	40.827	-.757	.041	.1	50
80	2.879	34.240	2.874	27.290	34.200	40.879	-.719	.065	.3	79
100	2.838	34.319	2.832	27.357	34.268	40.947	-.638	.081	.4	99
148	2.910	34.435	2.901	27.443	34.350	41.025	-.526	.112	.8	147

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
17	3.228	34.223	7.762	6.96	.89	11.62	3.227	27.244	2483	17
31	3.053	34.208	7.690	6.96	.96	11.62	3.051	27.248	2482	31
58	3.042	34.212	7.712	6.90	.87	11.73	3.039	27.253	2481	58
107	2.878	34.351	7.192	7.74	1.05	14.04	2.872	27.379	2480	106
138	2.911	34.441	6.911	8.49	1.12	15.47	2.903	27.448	2479	137

HUDSON 82002 STN 63 LAT 47 .1N LONG 45 15.1W 27 APRIL 1982 133Z
SOUNDING 179 M (180 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
6	3.142	34.275	3.142	27.293	34.193	40.860	-.694	.005	.0	6
20	3.173	34.210	3.172	27.239	34.138	40.805	-.759	.016	.0	20
50	3.058	34.208	3.055	27.248	34.151	40.823	-.759	.040	.1	50
80	2.841	34.260	2.836	27.309	34.221	40.900	-.697	.064	.2	79
100	2.790	34.295	2.784	27.342	34.255	40.936	-.660	.079	.4	99
150	3.006	34.493	2.997	27.481	34.383	41.054	-.471	.112	.8	149
176	3.123	34.551	3.112	27.516	34.413	41.079	-.417	.127	1.1	175

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	3.098	34.210	7.813	6.90	.87	11.60	3.097	27.246	2490	16
31	3.066	34.207	7.753	6.91	.85	11.58	3.064	27.246	2489	31
56	3.025	34.223	7.695	7.13	.86	11.97	3.022	27.263	2488	55
104	2.787	34.314	7.503	7.39	.93	13.30	2.781	27.357	2487	103
136	2.917	34.441	7.114	8.31	1.04	15.08	2.909	27.447	2486	135
152	3.047	34.515	6.811	9.03	1.11	16.32	3.038	27.495	2485	151

HUDSON 82002 STN 64 LAT 46 60.0N LONG 45 30.0W 27 APRIL 1982 325Z
SOUNDING 250 M (252 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.480	34.247	3.479	27.239	34.125	40.780	-.729	.012	.0	14
20	3.358	34.277	3.357	27.275	34.165	40.825	-.697	.016	.0	20
50	3.158	34.279	3.155	27.295	34.194	40.861	-.691	.040	.1	50
80	3.069	34.286	3.064	27.309	34.211	40.882	-.681	.063	.2	79
100	2.925	34.295	2.919	27.330	34.238	40.914	-.666	.078	.4	99
150	2.773	34.463	2.764	27.478	34.390	41.070	-.490	.112	.8	149
200	3.397	34.652	3.384	27.571	34.456	41.110	-.322	.140	1.4	198
250	3.651	34.754	3.634	27.628	34.502	41.145	-.227	.165	2.1	248

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	3.473	34.238	7.947	7.02	.88	11.68	3.472	27.233	2498	14
28	3.219	34.289	7.695	7.14	.91	11.96	3.217	27.298	2497	28
54	3.126	34.274	7.708	7.43	.92	12.09	3.123	27.294	2496	54
104	2.891	34.296	7.644	7.16	.95	12.43	2.885	27.334	2495	103
155	2.823	34.477	7.012	8.43	1.08	15.72	2.814	27.484	2494	153
204	3.456	34.672	6.401	9.73	1.48	17.78	3.443	27.581	2493	202
241	3.636	34.748	6.184	10.60	1.23	18.87	3.620	27.625	2492	239

HUDSON 82002 STN 65 LAT 47 .0N LONG 45 44.9W 27 APRIL 1982 538Z
SOUNDING 275 M (277 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	3.414	34.285	3.413	27.276	34.164	40.821	-.690	.011	.0	14
20	3.358	34.277	3.357	27.275	34.165	40.825	-.697	.016	.0	20
50	3.098	34.272	3.095	27.295	34.196	40.866	-.696	.039	.1	50
80	2.975	34.289	2.970	27.320	34.226	40.900	-.674	.062	.2	79
100	2.839	34.292	2.833	27.335	34.246	40.926	-.665	.077	.4	99
150	2.824	34.473	2.815	27.481	34.391	41.069	-.483	.112	.8	149
200	3.551	34.684	3.538	27.582	34.460	41.108	-.293	.140	1.4	198
272	3.779	34.798	3.760	27.650	34.519	41.157	-.187	.174	2.5	270

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	3.392	34.270	7.773	7.16	.87	11.75	3.391	27.266	2507	14
29	3.176	34.268	7.859	7.23	.89	11.94	3.174	27.285	2506	29
54	3.072	34.273	7.719	7.18	.92	12.13	3.069	27.299	2505	54
104	2.850	34.290	7.621	7.19	1.16	12.82	2.844	27.332	2504	103
153	2.882	34.496	7.097	8.12	1.07	15.33	2.873	27.494	2503	151
204	3.648	34.715	6.243	10.34	1.21	18.36	3.634	27.597	2502	202
255	3.781	34.798	6.217	10.75	1.22	19.06	3.763	27.650	2501	253
265	3.780	34.797	6.529	10.81	1.23	18.98	3.762	27.649	2500	263

HUDSON 82002 STN 66 LAT 47 .3N LONG 46 .3W 27 APRIL 1982 728Z
SOUNDING 299 M (301 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	3.326	34.282	3.325	27.282	34.174	40.834	-.691	.009	.0	12
20	3.101	34.281	3.100	27.302	34.203	40.872	-.686	.016	.0	20
50	2.902	34.316	2.899	27.348	34.257	40.933	-.644	.038	.1	50
80	2.635	34.377	2.630	27.421	34.339	41.026	-.569	.059	.2	79
100	2.592	34.434	2.586	27.470	34.390	41.077	-.509	.072	.4	99
150	3.565	34.682	3.555	27.578	34.456	41.103	-.296	.099	.8	149
200	3.829	34.783	3.815	27.633	34.499	41.135	-.203	.124	1.3	198
296	3.815	34.805	3.794	27.652	34.519	41.156	-.180	.168	2.6	294

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	3.298	34.282	7.753	7.25	.99	11.96	3.297	27.284	2515	14
28	3.160	34.281	7.745	7.21	.91	12.02	3.158	27.297	2514	28
53	2.975	34.293	7.682	7.28	.92	12.38	2.972	27.323	2513	53
104	2.609	34.378	7.529	7.51	.97	13.63	2.603	27.424	2512	103
154	3.369	34.629	6.303	9.56	1.15	17.44	3.359	27.555	2511	152
206	3.830	34.782	6.182	10.53	1.26	18.91	3.816	27.632	2510	204
256	3.811	34.807	6.167	10.88	1.21	18.93	3.793	27.654	2509	254
286	3.815	34.807	6.164	11.00	1.25	19.21	3.795	27.654	2508	284

HUDSON 82002 STN 67 LAT 47 .3N LONG 46 15.1W 27 APRIL 1982 906Z
SOUNDING 296 M (298 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT D/N M	TRANS SV	DEPTH M
14	3.225	34.264	3.224	27.277	34.173	40.838	-.707	.011	.0	14
20	3.212	34.261	3.211	27.276	34.172	40.838	-.709	.016	.0	20
50	3.002	34.265	2.999	27.298	34.204	40.877	-.699	.039	.1	50
80	2.867	34.283	2.862	27.325	34.236	40.914	-.676	.062	.2	79
100	2.526	34.286	2.520	27.357	34.281	40.973	-.654	.076	.4	99
150	2.657	34.403	2.648	27.440	34.357	41.043	-.544	.111	.8	149
200	3.473	34.640	3.460	27.554	34.436	41.088	-.336	.140	1.4	198
294	3.801	34.808	3.781	27.656	34.524	41.161	-.177	.185	2.8	292

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	3.240	34.262	7.815	7.21	.90	11.57	3.239	27.274	2524	13
15	3.214	34.262	7.769	7.41	.90	11.71	3.213	27.276	2516	15
29	3.222	34.262	7.800	7.28	.96	11.61	3.220	27.276	2523	29
53	2.994	34.266	7.670	7.23	.91	11.85	2.991	27.300	2522	53
103	2.495	34.283	7.697	7.29	.96	12.54	2.489	27.357	2521	102
154	2.645	34.410	7.351	7.98	1.03	14.20	2.636	27.446	2520	152
204	3.589	34.676	6.446	9.52	1.21	17.48	3.575	27.572	2519	202
255	3.790	34.784	6.290	10.21	1.23	18.53	3.772	27.638	2518	253
280	3.791	34.805	6.306	10.33	1.23	18.51	3.772	27.655	2517	278

HUDSON 82002 STN 68 LAT 47 .1N LONG 46 30.1W 27 APRIL 1982 1046Z
SOUNDING 359 M (362 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	3.359	34.275	3.358	27.273	34.164	40.823	-.698	.013	.0	16
20	3.264	34.274	3.263	27.281	34.176	40.839	-.697	.016	.0	20
50	3.087	34.273	3.084	27.297	34.199	40.869	-.694	.039	.1	50
80	2.677	34.279	2.672	27.339	34.257	40.943	-.670	.062	.2	79
100	2.778	34.327	2.772	27.368	34.282	40.963	-.628	.076	.4	99
150	3.002	34.502	2.993	27.488	34.391	41.061	-.462	.108	.8	149
200	3.217	34.592	3.204	27.540	34.433	41.095	-.378	.137	1.4	198
300	3.603	34.813	3.583	27.680	34.555	41.200	-.166	.185	2.9	297
360	3.575	34.843	3.551	27.707	34.583	41.229	-.135	.210	4.0	357

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
16	3.327	34.265	7.759	7.35	.94	11.81	3.326	27.268	2533	16
31	3.227	34.264	7.726	7.30	1.01	11.70	3.225	27.277	2532	31
57	3.001	34.276	7.662	7.36	1.15	12.29	2.998	27.307	2531	57
106	2.771	34.344	7.402	7.59	1.03	13.48	2.765	27.383	2530	105
157	3.021	34.523	6.983	8.33	1.10	15.66	3.011	27.503	2529	155
207	3.403	34.653	6.604	9.32	1.20	17.15	3.390	27.571	2528	205
253	3.610	34.778	6.502	9.58	1.16	17.79	3.593	27.651	2527	250
308	3.602	34.836	6.642	9.37	1.14	17.80	3.581	27.699	2526	305
349	3.578	34.843	6.649	9.34	1.17	17.78	3.554	27.707	2525	346

HUDSON 82002 STN 69 LAT 46 60.0N LONG 46 45.3W 27 APRIL 1982 1235Z
SOUNDING 1149 M (1161 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	1.537	33.982	1.536	27.191	34.160	40.894	-.873	.012	.0	14
20	1.992	34.041	1.991	27.204	34.153	40.869	-.869	.017	.0	20
50	1.405	34.154	1.403	27.338	34.311	41.048	-.685	.041	.1	50
80	1.485	34.253	1.481	27.412	34.380	41.113	-.594	.062	.3	79
100	2.120	34.396	2.115	27.479	34.418	41.125	-.522	.074	.4	99
150	2.910	34.582	2.901	27.560	34.466	41.139	-.379	.102	.8	149
200	3.722	34.739	3.708	27.609	34.480	41.120	-.244	.127	1.3	198
300	3.949	34.844	3.928	27.670	34.531	41.162	-.145	.174	2.7	297
400	3.777	34.858	3.749	27.699	34.567	41.205	-.126	.217	4.6	397
500	3.633	34.855	3.598	27.712	34.586	41.230	-.124	.259	6.8	496
600	3.597	34.855	3.555	27.716	34.592	41.237	-.123	.301	9.4	595
800	3.567	34.864	3.510	27.728	34.605	41.252	-.113	.387	15.8	792
1000	3.470	34.865	3.398	27.740	34.622	41.273	-.109	.474	23.8	990
1160	3.452	34.876	3.367	27.751	34.634	41.286	-.098	.543	31.3	1148

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	2.143	34.070	8.026	7.31	.87	10.75	2.142	27.215	2548	15
28	1.420	34.119	7.925	7.81	.92	11.49	1.419	27.309	2547	28
55	1.393	34.133	7.517	8.93	1.03	12.77	1.390	27.322	2546	55
107	2.250	34.440	7.350	7.43	1.05	14.27	2.244	27.503	2545	106
155	2.761	34.558	7.067	8.05	1.10	15.42	2.752	27.555	2544	153
207	3.832	34.752	6.390	9.34	1.17	17.50	3.818	27.608	2543	205
258	3.952	34.820	6.310	9.91	1.21	18.36	3.934	27.650	2542	255
307	3.936	34.846	6.504	9.30	1.17	17.97	3.914	27.673	2541	304
408	3.734	34.849	6.769	8.69	1.14	17.57	3.706	27.696	2540	405
506	3.629	34.849	6.754	8.76	1.17	17.49	3.594	27.708	2539	502
608	3.595	34.855	6.809	8.65	1.15	17.45	3.552	27.717	2538	603
711	3.582	34.861	6.734	9.11	1.17	17.50	3.532	27.723	2537	704
864	3.517	34.863	6.726	9.29	1.14	17.81	3.455	27.733	2536	855
1015	3.467	34.866	6.726	9.57	1.45	17.59	3.394	27.741	2535	1005
1148	3.451	34.876	6.637	10.70	1.41	17.80	3.367	27.751	2534	1136

HUDSON 82002 STN 70 LAT 46 59.6N LONG 47 .2W 27 APRIL 1982 1503Z
SOUNDING 1143 M (1155 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	-.249	33.631	-.249	27.013	34.065	40.878	-1.107	.015	.0	14
20	.063	33.690	.062	27.046	34.082	40.882	-1.048	.021	.0	20
50	1.176	34.111	1.174	27.319	34.302	41.050	-.702	.047	.1	50
80	1.737	34.311	1.733	27.440	34.397	41.119	-.570	.068	.3	79
100	1.908	34.405	1.903	27.503	34.451	41.166	-.496	.080	.4	99
150	2.275	34.564	2.267	27.601	34.532	41.230	-.362	.106	.9	149
200	2.411	34.591	2.400	27.611	34.537	41.230	-.342	.130	1.4	198
300	2.753	34.661	2.735	27.638	34.549	41.228	-.292	.177	2.8	297
400	3.506	34.792	3.479	27.674	34.553	41.202	-.185	.222	4.7	397
500	3.810	34.856	3.775	27.695	34.562	41.199	-.129	.266	7.0	496
600	3.714	34.858	3.671	27.707	34.578	41.219	-.124	.310	9.7	595
800	3.617	34.865	3.560	27.724	34.599	41.244	-.114	.397	16.2	792
1000	3.531	34.865	3.458	27.734	34.613	41.262	-.110	.485	24.4	990
1154	3.456	34.874	3.371	27.749	34.632	41.284	-.099	.553	31.9	1142

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
11	-.297	33.562	8.096	6.98	.90	9.71	-.297	26.959	2563	11
27	.645	33.814	8.177	7.24	.95	10.53	.644	27.114	2562	27
51	1.166	34.121	7.850	7.86	.94	12.20	1.164	27.328	2561	51
104	1.916	34.434	7.702	7.48	.99	13.71	1.911	27.525	2560	103
155	2.323	34.572	7.587	7.21	1.00	14.35	2.314	27.603	2559	153
197	2.481	34.599	7.532	7.27	1.09	14.45	2.470	27.612	2558	195
293	2.575	34.632	7.393	7.38	1.02	14.95	2.558	27.631	2557	290
405	3.516	34.794	6.950	8.17	1.10	16.47	3.489	27.674	2556	402
502	3.814	34.838	6.839	8.34	1.13	16.97	3.778	27.680	2555	498
604	3.714	34.859	6.869	8.29	1.13	17.07	3.671	27.708	2554	599
709	3.651	34.868	6.610	8.53	1.16	17.09	3.600	27.722	2553	702
806	3.609	34.867	6.866	8.64	1.18	17.30	3.551	27.726	2552	798
911	3.572	34.865	6.841	8.87	1.34	17.20	3.506	27.729	2551	902
1013	3.528	34.869	6.796	9.05	1.39	17.36	3.454	27.737	2550	1003
1143	3.457	34.877	6.687	10.39	1.16	17.66	3.373	27.752	2549	1131

HUDSON 82002 STN 71 LAT 46 59.5N LONG 47 14.2W 27 APRIL 1982 1844Z
SOUNDING 602 M (607 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	-.009	33.410	-.009	26.823	33.867	40.673	-1.328	.015	.0	12
20	-.055	33.479	-.056	26.881	33.926	40.733	-1.259	.024	.0	20
50	-.117	33.638	-.119	27.013	34.058	40.866	-1.100	.057	.1	50
80	.723	34.055	.720	27.303	34.306	41.074	-.707	.083	.3	79
100	1.112	34.193	1.108	27.389	34.374	41.124	-.612	.098	.5	99
150	1.439	34.324	1.432	27.472	34.442	41.176	-.518	.130	1.0	149
200	1.817	34.453	1.807	27.548	34.500	41.218	-.437	.158	1.7	198
300	2.594	34.599	2.576	27.603	34.521	41.207	-.344	.210	3.4	298
400	3.052	34.709	3.026	27.650	34.549	41.216	-.256	.257	5.6	397
500	3.688	34.852	3.653	27.704	34.576	41.218	-.129	.300	8.2	496
600	3.688	34.852	3.646	27.705	34.577	41.219	-.129	.344	11.2	595
604	3.687	34.852	3.644	27.705	34.577	41.219	-.129	.345	11.3	599

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	-.016	33.439C	8.468	6.43	.79	8.57	-.016	26.847	2574	12
28	-.050	33.511	8.414	6.58	.80	8.84	-.051	26.907	2573	28
53	-.154	33.625	8.183	6.89	.83	9.98	-.156	27.004	2572	53
103	1.210	34.207	7.646	7.83	1.00	12.84	1.205	27.394	2571	102
156	1.586	34.346C	7.611	8.28	.94	12.68	1.578	27.480	2570	154
203	1.821	34.447C					1.810	27.543	2569	201
256	2.473	34.557	6.961	9.84	1.11	15.41	2.458	27.579	2568	254
306	2.826	34.661	7.028	8.86	1.08	15.59	2.807	27.632	2567	304
396	3.215	34.733	6.940	8.81	1.18	16.27	3.189	27.654	2566	393
503	3.693	34.848	6.795	9.15	1.22	17.06	3.658	27.700	2565	499
599	3.688	34.831	6.812	8.99	1.15	16.87	3.646	27.688	2564	594

HUDSON 82002 STN 72 LAT 46 60.0N LONG 47 30.4W 27 APRIL 1982 2042Z
SOUNDING 211 M (213 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
12	-.598	33.104	-.598	26.602	33.676	40.512	-1.634	.017	.0	12
20	-.656	33.100	-.657	26.601	33.678	40.516	-1.638	.029	.0	20
50	-1.091	33.137	-1.092	26.647	33.743	40.600	-1.601	.071	.2	50
80	-1.268	33.255	-1.270	26.748	33.851	40.715	-1.483	.110	.4	79
100	-1.159	33.306	-1.161	26.786	33.883	40.741	-1.432	.136	.7	99
150	.454	33.758	.448	27.080	34.099	40.881	-.980	.191	1.4	149
200	1.528	34.169	1.518	27.342	34.309	41.042	-.684	.235	2.4	198
208	1.596	34.198	1.586	27.360	34.325	41.054	-.664	.241	2.6	206

PR DBAR	T DEG C	S	OXY ML/L	SIL uMOL/L	PHOS uMOL/L	NIT uMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
12	-.576	33.093C	8.503	6.61	.89	7.50	-.576	26.592	2582	12
26	-.762	33.101	8.492	6.61	.86	7.53	-.763	26.606	2581	26
37	-.992	33.112	8.436	6.56	.85	7.71	-.993	26.623	2580	37
68	-1.270	33.216C					-1.271	26.716	2579	67
114	-.770	33.460	7.841	7.23	.91	9.38	-.773	26.897	2578	113
162	.507	33.800	7.287	8.83	.95	11.40	.501	27.111	2577	160
187	1.074	34.007	6.995	10.02	1.03	12.67	1.066	27.243	2576	185
202	1.605	34.204	6.443	11.48	1.06	14.14	1.595	27.364	2575	200

HUDSON 82002 STN 73 LAT 47 .1N LONG 47 45.0W 27 APRIL 1982 2228Z
SOUNDING 178 M (179 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	-.718	33.103	-.718	26.606	33.686	40.526	-1.635	.023	.0	16
20	-.689	33.090	-.690	26.594	33.673	40.513	-1.648	.028	.0	20
50	-1.173	33.158	-1.174	26.666	33.766	40.627	-1.580	.071	.2	50
80	-1.307	33.219	-1.309	26.720	33.825	40.691	-1.519	.111	.4	79
100	-1.357	33.250	-1.359	26.747	33.854	40.722	-1.488	.136	.7	99
150	-.765	33.504	-.769	26.932	34.009	40.847	-1.234	.197	1.5	149
174	.156	33.738	.150	27.080	34.112	40.907	-1.000	.222	1.9	173

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	-.465	33.110	8.511	6.35	.88	7.43	-.465	26.601	2588	15
31	-.769	33.107	8.498	6.41	.84	7.49	-.770	26.611	2587	31
55	-1.142	33.155	8.374	6.53	.93	7.92	-1.143	26.663	2586	55
105	-1.346	33.257	8.359	6.37	.96	8.30	-1.348	26.752	2585	104
130	-.997	33.370	7.971	6.98	.92	9.04	-1.000	26.832	2584	129
162	.173	33.687	7.471	8.90	.96	10.80	.167	27.038	2583	161

HUDSON 82002 STN 74 LAT 47 .0N LONG 47 59.9W 28 APRIL 1982 17Z
SOUNDING 140 M (141 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	-.300	33.200	-.300	26.667	33.726	40.548	-1.539	.022	.0	16
20	-.295	33.197	-.296	26.664	33.724	40.545	-1.541	.027	.0	20
50	-.273	33.269	-.275	26.722	33.779	40.598	-1.469	.068	.2	50
80	-.459	33.326	-.461	26.776	33.841	40.668	-1.412	.106	.4	79
100	-.452	33.469	-.455	26.891	33.954	40.779	-1.269	.131	.6	99
138	.242	33.725	.237	27.065	34.093	40.885	-1.013	.170	1.2	137

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
14	-.306	33.197	8.576	5.66	.85	7.33	-.306	26.665	2593	14
30	-.214	33.212	8.577	5.17	.79	7.05	-.215	26.673	2592	30
56	-.356	33.287	8.508	5.37	.83	7.55	-.358	26.740	2591	56
95	-.467	33.349	8.317	6.01	.88	8.20	-.470	26.795	2590	94
129	.267	33.724	7.353	9.07	.98	10.99	.262	27.063	2589	128

HUDSON 82002 STN 75 LAT 47 .2N LONG 48 14.9W 28 APRIL 1982 206Z
SOUNDING 119 M (120 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
16	-.310	33.212	-.310	26.677	33.737	40.559	-1.526	.022	.0	16
20	-.227	33.268	-.228	26.719	33.774	40.591	-1.470	.027	.0	20
50	-.755	33.292	-.756	26.760	33.839	40.679	-1.446	.066	.2	50
80	-.689	33.312	-.691	26.774	33.850	40.687	-1.426	.104	.4	79
100	-.781	33.399	-.784	26.848	33.927	40.767	-1.340	.128	.6	99
118	-.319	33.551	-.323	26.952	34.008	40.825	-1.187	.149	.9	117

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	-.270	33.224	8.611	5.31	.79	7.02	-.270	26.685	2598	15
29	-.381	33.254	8.596	5.05	.86	7.10	-.382	26.714	2597	29
56	-.764	33.255	8.586	5.00	.79	6.98	-.765	26.731	2596	56
105	-.541	33.465	7.973	7.51	.93	9.48	-.544	26.892	2594	104
105	-.539	33.466	7.954	7.67	1.05	9.78	-.542	26.892	2595	104

HUDSON 82002 STN 76 LAT 47 .1N LONG 48 30.2W 28 APRIL 1982 406Z
SOUNDING 110 M (111 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	.018	33.259	.018	26.700	33.744	40.551	-1.479	.019	.0	14
20	.106	33.280	.105	26.713	33.753	40.556	-1.458	.027	.0	20
50	-.121	33.333	-.123	26.766	33.816	40.628	-1.405	.066	.2	50
80	-.379	33.381	-.381	26.817	33.878	40.700	-1.357	.103	.4	79
100	-.388	33.456	-.391	26.878	33.938	40.760	-1.282	.127	.6	99
110	-.387	33.457	-.390	26.879	33.939	40.761	-1.281	.138	.7	109

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
15	.081	33.288	8.785	3.61	.68	5.40	.080	26.720	2602	15
30	-.080	33.292	8.658	4.11	.75	6.34	-.081	26.731	2601	30
55	-.051	33.341	8.447	4.71	.82	7.34	-.053	26.770	2600	55
100	-.388	33.455	7.885	7.65	.98	9.13	-.391	26.877	2599	99

HUDSON 82002 STN 77 LAT 46 58.1N LONG 48 45.1W 28 APRIL 1982 553Z
SOUNDING 86 M (87 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
6	.455	33.324	.455	26.730	33.754	40.541	-1.414	.008	.0	6
20	.385	33.328	.384	26.737	33.764	40.554	-1.411	.026	.0	20
50	-.115	33.348	-.117	26.778	33.827	40.639	-1.390	.065	.2	50
80	-.306	33.364	-.308	26.800	33.858	40.677	-1.374	.102	.4	79
86	-.308	33.367	-.311	26.802	33.860	40.680	-1.371	.109	.5	85

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	.457	33.338	9.216	.96	.51	4.84	.457	26.741	2606	13
28	.219	33.333	8.847	2.25	.59	4.24	.218	26.750	2605	28
52	-.084	33.340	8.460	4.25	.81	6.94	-.086	26.770	2604	51
77	-.313	33.376	8.114	5.95	.92	7.91	-.315	26.810	2603	76

HUDSON 82002 STN 78 LAT 47 .2N LONG 49 .6W 28 APRIL 1982 754Z
SOUNDING 83 M (84 DBAR)

PR DBAR	T DEG C	S	TH DEG C	SIG-TH KG/M**3	SIG-1.5 KG/M**3	SIG-3 KG/M**3	DEL-S	DYN-HT DYN M	TRANS SV	DEPTH M
14	.428	33.333	.427	26.738	33.764	40.552	-1.405	.018	.0	14
20	.428	33.328	.427	26.734	33.760	40.548	-1.410	.026	.0	20
50	-.009	33.339	-.011	26.766	33.810	40.618	-1.399	.064	.2	50
80	-.147	33.344	-.150	26.777	33.827	40.640	-1.394	.102	.4	79

PR DBAR	T DEG C	S	OXY ML/L	SIL UMOL/L	PHOS UMOL/L	NIT UMOL/L	TH DEG C	SIG-TH KG/M**3	SN	DEPTH M
13	.404	33.332	9.432	.45	.45	1.19	.404	26.739	2610	13
28	.210	33.334	9.107	.95	.47	1.66	.209	26.751	2609	28
53	-.017	33.338	8.621	3.40	.66	5.35	-.019	26.765	2608	52

EXTERNAL FORMAT DESCRIPTION

This appendix describes the characteristics of a standard "external format" used by Physical and Chemical Sciences Branch, Scotia-Fundy Region for transferring data on magnetic tape. A printed summary is provided with the magnetic tape.

The printer output consists of a partial station header listing and the first data cycle. A verification program (listing included) reads back the data and summarizes the header, channel headers, comments and first few data cycles. This should be sufficient information to ensure the data are being read correctly.

Tape density and character type are recorded in the dayfile at the end of this job. Character type is either ASCII or EBCDIC. Tape density is 800, 1600, or 6250 bpi. All tapes are nine track.

External Format

Output records consist of 80 character logical records.

For tape output a stranger tape is written containing 5120-character physical blocks (64 records per block).

Each file contains a main station header (80 characters), one channel header (80 characters) for each data channel, comments (80 characters) if available, and data records.

The data records consist of a time stamp for each cycle of the form yydddhhmm, followed by up to 7 data channels / line. If there are more than 7 channels in the file, they follow on subsequent lines.

The number of channels, comments, data cycles, and lines required per data cycle are specified in the station header.

A data value which is missing is designated by a dummy value of -99.999.

EXTERNAL FORMAT DESCRIPTION (con'd)

Station Header

Format (I6, I5, 2F9.3, 2I5, I6, 2I5, I6, I5, I6, I2, 2I3)

Character No.	Field
1 - 6	cruise number
7 - 11	station number
12 - 20	latitude (degrees)
21 - 29	longitude (degrees)
30 - 34	magnetic variation (degrees)
35 - 39	bottom depth (meters)
40 - 45	start time (seconds)
46 - 50	start day (Julian)
51 - 55	start year
56 - 61	sampling interval (seconds)
62 - 66	section angle (degrees)
67 - 72	number of data cycles
73 - 74	number of records/cycle
75 - 77	number of channels
78 - 80	number of comments

Channel Header — The number of channel headers is specified in characters 75 -77 of the station header

Format (F3.0, 2X, A20, A10, A10, A6, A7, F5.0, F10.2, F7.0)

Character No.	Field
1 - 5	channel number
6 - 25	parameter name
26 - 35	parameter units
36 - 45	instrument type
46 - 51	instrument model
52 - 58	instrument serial number
59 - 63	sensor depth (meters)
64 - 73	time offset (seconds)
74 - 80	number of data values in channel

EXTERNAL FORMAT DESCRIPTION (con'd)

Comments — The number of comments is specified in characters 78 - 80 of the station header.

Format (A80)

Data Records — The number of data cycles is specified in characters 67 - 72 of the station header. the number of records per cycle is specified in characters 73 -74.

The number of data values / cycle is specified in characters 75 - 77.

Format (1X, I2, I3, 2I2, 7F10.3)

Character No.	Field
2 - 3	year
4 - 6	day of the year
7 - 8	hour
9 - 10	minute
11 - 20	first channel value this record
71 - 80	last channel value this record

EXTERNAL FORMAT DESCRIPTION (con'd)

```
c Sample Fortran Program

      program verify(input,output,tape2,tape10=output)
c program to verify the contents of a bio pcs external tape
      dimension datot(30)
      integer filcnt
      character comm*80, parnm*20, parun*10, insty*10, insmo*6, inser*7
      character*10 date
      data filcnt / 1 /

      write(10,'(1H1,15X,A,10X,A/)')
     +        ' bio external Format verification', date()

c initialize counters

5     icnt = 0

c read and print the header

      read(2,1000,end=600) icru,istat,xlat,xlong,mag,idpbot,
     +           isec,iday,iyear,idelt,iangle,ndat,nrec,nch,ncomm
          icnt = icnt + 1
          write(10,2000) filcnt
          write(10,2001) icru,istat,xlat,xlong,isec,iday,iyear,idelt
          write(10,2002) ncomm,nch,ndat

c read and print the channel headers

          write(10,'(/A)') '  ----- printing channel headers -----'
      do 10 i = 1,nch
      read(2,1020,end=500) ichan, parnm, parun, insty, insmo, inser,
     +                     sensdp, toff, datval
          icnt =      icnt + 1
          write(10,1020) ichan, parnm, parun, insty, insmo, inser,
     +                   sensdp, toff, datval
10    continue

c read and print the comments

          write(10,'(/A)') '  ----- printing comments -----'
      do 20 i = 1,ncomm
      read(2,'(A)',end=500) comm
          icnt = icnt + 1
          write(10,'(1H ,A)') comm
20    continue
```

EXTERNAL FORMAT DESCRIPTION (con'd)

```
c read input records, print first fifteen

      write(10,'(/A)') '  ----- printing first 15 data cycles -----'
      do 40 i = 1,131000
      do 30 irec = 1,nrec

      if(irec .eq. 1) then
          read(2,1030,end=500) itme,(datot(l),l=1,7)
             icnt = icnt + 1
             if(i .le. 15) write(10,1030) itme,(datot(l),l=1,7)
      else
          read(2,1035,end=500) (datot(l),l=1,7)
             icnt = icnt + 1
             if(i .le. 15) write(10,1035) (datot(l),l=1,7)
      endif

30    continue
40    continue

c finished, close file repeat for next file

      write(10,'(/A,I3,1X,I6,A/)')  ' end of file ', filcnt,
     +                                icnt,' records read'
      filcnt = filcnt + 1
      close(2)
      go to 5

      write(10,'(/A/,1H1)')  ' double end of file encountered'
      stop

c Formats

1000  Format(I6,I5,2F9.3,2I5,I6,2I5,I6,I5,I6,I2,2I3)
1020  Format(F3.0,2X,A20,A10,A10,A6,A7,F5.0,F10.2,F7.0)
1030  Format(1X,I9,7F10.3)
1035  Format(10X,7F10.3)
2000  Format(1H,10X,20('-'),'reading file ',I4,20('-')/
     +       ,1H0,'cruise',' station',' latitude',' longitude',
     +            ' starting seconds day year ','interval')
2001  Format(1X,I6,2X,I5,2(2X,F9.3),12X,I6,2I5,I6)
2002  Format(' file contains ',I4,' comments ',I4,' channels ',
     +       I5,' data cycles'/)

      end
```

BATHYMETRIC DATA

The cruise track and digitized bathymetry for Hudson 82-002 are available on IBM-compatible personal computer flexible diskette in the form:

TIME	- elapsed minutes since 00:00 UTC 1 January 1982
LAT	- north latitude
LONG	- west longitude
PRES	- pressure equivalent of bottom depth (dbar)
DEPTH1	- bottom depth (corrected m)
DEPTH2	- bottom depth (uncorrected m - sound speed 1463 m/s)
DIST	- along track distance (km)

e.g.

time	lat	long	pres	depth1	depth2	dist
146606.1	49.8439	9.74	133.9	132.9	130.9	.0
146608.9	49.8381	9.75	134.5	133.5	131.5	1.0
146611.5	49.8316	9.76	135.5	134.5	132.5	2.0
146613.9	49.8252	9.77	136.1	135.1	133.1	3.0
146616.4	49.8185	9.78	135.5	134.5	132.5	4.0
146618.7	49.8123	9.79	134.2	133.2	131.2	5.0
146621.0	49.8064	9.80	135.4	134.4	132.4	6.0
146623.3	49.8001	9.81	136.3	135.3	133.3	7.0
146625.9	49.7932	9.82	136.2	135.2	133.2	8.1
146628.6	49.7863	9.83	135.9	134.9	132.9	9.1
.....	.....	.....	.....	.....	.....	.....
168915.8	46.9864	48.90	89.5	88.4	89.5	3134.9
168917.9	46.9871	48.91	89.3	88.2	89.3	3135.7
168919.6	46.9878	48.92	90.2	89.0	90.2	3136.4
168922.6	46.9892	48.94	90.4	89.2	90.4	3138.0
168924.7	46.9901	48.95	90.2	89.0	90.2	3138.7
168926.7	46.9910	48.96	89.2	88.1	89.2	3139.5
168928.7	46.9922	48.97	89.5	88.4	89.5	3140.3
168932.1	46.9945	48.99	89.5	88.4	89.5	3141.8
168935.2	46.9974	49.00	88.0	86.9	88.0	3142.7
168957.2	47.0036	49.01	87.1	86.0	87.1	3143.7