

Schroeder

BASELINE DATA COLLECTION EXPERIMENTAL MONITORING PROGRAM,  
THEODORE SHIP CHANNEL AND BARGE CHANNEL EXTENSION, MOBILE  
BAY, ALABAMA.

VOLUME II

APPENDIX A. TABLES

APPENDIX B. FIGURES

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Dauphin Island, Alabama

BASELINE DATA COLLECTION EXPERIMENTAL MONITORING PROGRAM,  
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APPENDIX A

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Table 1. Sampling Chronology.

| YEAR | MONTH | SEASON | CONTINUOUS<br>HYDROGRAPHY | QUARTERLY<br>SAMPLING <sup>1</sup> | MONTHLY<br>GRAB<br>SAMPLING | BIMONTHLY<br>"TURBIDITY"<br>SAMPLING | GRASS<br>BEDS<br>SAMPLING | BARGE<br>CHANNEL D.O.<br>SAMPLING | MUD<br>FLOW<br>SAMPLING |
|------|-------|--------|---------------------------|------------------------------------|-----------------------------|--------------------------------------|---------------------------|-----------------------------------|-------------------------|
| 1977 | O     | Fall   | X                         | 1st                                |                             |                                      | X                         |                                   |                         |
|      | N     |        | X                         |                                    |                             |                                      |                           |                                   |                         |
|      | D     |        | X                         |                                    |                             |                                      |                           |                                   |                         |
| 1978 | J     | Winter | X                         | 2nd <sup>2</sup>                   |                             |                                      |                           |                                   |                         |
|      | F     |        | X                         |                                    |                             |                                      |                           | X                                 |                         |
|      | M     |        | X                         |                                    | X                           | X                                    |                           |                                   |                         |
|      | A     | Spring | X                         | 3rd                                |                             |                                      |                           | X                                 |                         |
|      | M     |        | X                         |                                    | X                           | X <sup>3</sup>                       | X                         |                                   |                         |
|      | J     |        | X                         |                                    | X                           |                                      | X <sup>5</sup>            |                                   |                         |
|      | J     | Summer | X                         | 4th <sup>4</sup>                   |                             |                                      |                           | X                                 |                         |
|      | A     |        | X                         |                                    | X                           | X                                    |                           |                                   |                         |
|      | S     |        | X                         |                                    | X                           |                                      |                           |                                   |                         |
|      | O     | Fall   | X                         | 5th                                |                             |                                      |                           | X                                 |                         |
|      | N     |        |                           |                                    |                             |                                      |                           |                                   | X                       |

- <sup>1</sup>Includes "Turbidity" and Suspended Solids and Bay Bottom Elements (See Table 3).  
<sup>2</sup>"Turbidity" and Suspended Solids Event Monitoring: high wind-low river discharge case.  
<sup>3</sup>"Turbidity" and Suspended Solids Event Monitoring: low wind-high river discharge case.  
<sup>4</sup>"Turbidity" and Suspended Solids Event Monitoring: low wind-low river discharge case.  
<sup>5</sup>Aerial Survey.

April 10, 1980

M E M O

TO: COE P.I's

FROM: Jay Shapiro

RE: Station location changes

1. STATION T-1 has moved approximately 0.2 miles,  $104^{\circ}$  from its original position due to relocation of Fowl River light "2" which marks this station.
2. STATION B-7 is located at  $30^{\circ}-27.9'N$ ,  $87^{\circ}59.15W$ . This location is approximately 0.3 miles,  $000^{\circ}$  from it's base line contract position.

cc: Crozier  
Schroeder  
Hopkins



Table 2. Station Locations.

9930

W

Z

|         |         | <u>STATIONS</u>              | <u>LATITUDE (NORTH)</u> | <u>LONGITUDE (WEST)</u> |
|---------|---------|------------------------------|-------------------------|-------------------------|
|         |         | (COE/WES) Hydrography        |                         |                         |
| 68562.4 | 13157.0 | M-2                          | 30°34.85'               | 88°03.26'               |
| 68598.2 | 13136.5 | M-3                          | 30°30.92'               | 87°58.49'               |
| 68602.2 | 13099.5 | M-4                          | 30°23.78'               | 88°03.14'               |
|         |         | (MESC) Hydrography           |                         |                         |
| 13131.7 | 68578.0 | X-1                          | 30°26.95'               | 88°05.05'               |
| 13116.3 | 68581.9 | X-2                          | 30°28.65'               | 87°57.30'               |
| 13124.8 | 68611.8 | X-3                          | 30°30.00'               | 88°03.62'               |
|         |         | "Turbidity"/Suspended Solids |                         |                         |
| 13116.2 | 68582.0 | T-1                          | 30°26.95'               | 88°05.05'               |
| 13119.5 | 68591.5 | T-2                          | 30°27.40'               | 88°02.55'               |
| 13121.7 | 68601.5 | T-3                          | 30°28.00'               | 88°00.00'               |
| 13124.7 | 68611.5 | T-4                          | 30°28.65'               | 87°57.30'               |
| 13133.5 | 68596.0 | T-5                          | 30°30.35'               | 87°59.95'               |
| 13142.7 | 68582.0 | T-6                          | 30°32.15'               | 88°01.10'               |
| 13157.0 | 68562.4 | T-7                          | 30°34.85'               | 88°03.26'               |
| 13141.5 | 68570.5 | T-8                          | 30°31.85'               | 88°03.85'               |
| 13129.0 | 68576.0 | T-9                          | 30°29.40'               | 88°04.50'               |
|         |         | Bay Bottom                   |                         |                         |
| 13112.5 | 68591.5 | B-1                          | 30°27.40'               | 88°02.55'               |
| 13129.0 | 68584.5 | B-2                          | 30°29.45'               | 88°02.65'               |
| 13134.5 | 68579.7 | B-3                          | 30°30.55'               | 88°02.90'               |
| 13141.8 | 68579.0 | B-4                          | 30°31.90'               | 88°03.05'               |
| 13131.0 | 68586.0 | B-5                          | 30°29.90'               | 88°01.55'               |
| 13133.5 | 68596.0 | B-6                          | 30°30.35'               | 87°59.45'               |
| 13119.0 | 68607.2 | B-7                          | 30°27.55'               | 87°59.10'               |
| 13129.0 | 68576.0 | B-8 (Old)                    | 30°29.40'               | 88°04.50'               |
| 13130.2 | 68575.0 | B-8 (New)                    | 30°29.70'               | 88°04.55'               |
|         |         | Mud Flow                     |                         |                         |
| 13135.8 | 68581.5 | I                            | 30°30.75'               | 88°02.30'               |
| 13137.1 | 68580.5 | IN-1                         | 30°31.05'               | 88°02.35'               |
| 13138.4 | 68579.5 | IN-2                         | 30°31.25'               | 88°02.37'               |
| 13135.8 | 68580.2 | IW-1                         | 30°30.75'               | 88°02.55'               |
| 13135.2 | 68578.8 | IW-2                         | 30°30.75'               | 88°02.88'               |
| 13135.8 | 68577.5 | IW-3                         | 30°30.75'               | 88°03.12'               |

Table 2. Continued

9930

W 2

STATIONSLATITUDE (NORTH)LONGITUDE (WEST)

## Mud Flow Continued

|                 |       |           |           |
|-----------------|-------|-----------|-----------|
| 13135.8 68576.2 | IW-4  | 30°30.75' | 88°03.45' |
| 13135.8 68574.8 | IW-5  | 30°30.75' | 88°03.75' |
| 13135.8 68572.5 | IW-6  | 30°30.75' | 88°04.10' |
| 13130.8 68586.5 | II    | 30°29.85' | 88°01.97' |
| 13129.4 68587.5 | IIS-1 | 30°29.55' | 88°01.95' |
| 13128.1 68588.3 | IIS-2 | 30°29.30' | 88°01.92' |
| 13126.2 68589.2 | IIS-3 | 30°29.00' | 88°01.92' |
| 13125.4 68590.1 | IIS-4 | 30°28.75' | 88°01.92' |
| 13124.1 68591.0 | IIS-5 | 30°28.50' | 88°01.90' |
| 13122.8 68591.8 | IIS-6 | 30°28.25' | 88°01.90' |
| 13122.4 68592.8 | IIS-7 | 30°28.15' | 88°01.80' |
| 13130.8 68585.2 | IIW-1 | 30°29.85' | 88°02.17' |
| 13130.8 68583.8 | IIW-2 | 30°29.85' | 88°02.50' |
| 13130.8 68582.5 | IIW-3 | 30°29.85' | 88°02.77' |
| 13130.8 68581.2 | IIW-4 | 30°29.85' | 88°03.05' |
| 13130.8 68579.8 | IIW-5 | 30°29.82' | 88°03.40' |
| 13130.8 68578.5 | IIW-6 | 30°29.82' | 88°03.67' |
| 13130.8 68577.2 | IIW-7 | 30°29.80' | 88°04.00' |

## Grass Beds

30°31.20' 88°05.05'

Approximate Center Point

## Barge Channel Dissolved Oxygen

1

30°31.38' 88°06.55'

2

30°31.85' 88°05.56'

Table 3. Sampling Element Breakdown for each Station.  
(See Figure 1 for Station locations.)

| STATION<br>IDENTIFICATION         |                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| M<br>(COE/WES) Hydrography        | 1) Salinity and Temperature: Continuous hourly observations at the surface and the bottom of the water column.                                                                                                                                                                                                                                     |
| X<br>(MESC) Hydrography           | 1) Salinity and Temperature: Continuous hourly observations at the bottom of the water column.                                                                                                                                                                                                                                                     |
| T<br>"Turbidity"/Suspended Solids | 1) "Turbidity"/Suspended Solids: Optical and gravimetric measurements at the surface and the bottom of the water column.<br><br>2) Salinity and Temperature: Vertical profiling of the water column.                                                                                                                                               |
| B<br>Bay Bottom                   | 1) Infauna: Grab sample of the bay bottom sediment.<br><br>2) Sediment Classification: Subsample of grab sample.<br><br>3) Demersal Fauna: Trawl sample made of the bay bottom.<br><br>4) Salinity, Temperature and Dissolved Oxygen: Vertical profiling of the water column.<br><br>5) Sediment Quality: Core of bay bottom at selected stations. |
| Mud Flow                          | 1) Mud Flow Sedimentology: Grab sample of the bay bottom sediment.                                                                                                                                                                                                                                                                                 |
| Grass Beds                        | 1) Grasses: site surveyed by foot, snorkling, boat and aircraft: All vegetation removed from trawl and grab samples at bay bottom stations.                                                                                                                                                                                                        |
| Barge Channel<br>Dissolved Oxygen | 1) Dissolved Oxygen, Salinity and Temperature: Vertical profiling of the water column.                                                                                                                                                                                                                                                             |

Table 4. Daily average River Discharge ( $m^3$  sec  $-1$ ) so the Mobile River System

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sep. | Oct. |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1   | 1160 | 1824 | 3506 | 2039 | 7180 | 1551 | 1051 | 805  | 1951 | 464  | 478  | 385  |      |
| 2   | 1587 | 1600 | 3524 | 1863 | 6363 | 1694 | 851  | 1394 | 1682 | 421  | 516  | 354  |      |
| 3   | 1336 | 1669 | 3506 | 1633 | 5817 | 1766 | 745  | 2136 | 1769 | 410  | 461  | 368  |      |
| 4   | 1157 | 2100 | 3851 | 1587 | 5299 | 1966 | 803  | 3736 | 1639 | 433  | 449  | 314  |      |
| 5   | 1084 | 3648 | 3509 | 1563 | 4633 | 2066 | 897  | 4502 | 1769 | 451  | 370  | 282  |      |
| 6   | 1024 | 3184 | 3184 | 1466 | 3969 | 1912 | 966  | 4787 | 1194 | 410  | 366  | 287  |      |
| 7   | 897  | 4214 | 2842 | 1566 | 3424 | 1915 | 896  | 4593 | 1379 | 471  | 391  | 281  |      |
| 8   | 702  | 4399 | 2800 | 2072 | 2703 | 2297 | 836  | 4651 | 1954 | 489  | 382  | 349  |      |
| 9   | 1163 | 4451 | 2712 | 2712 | 2563 | 2790 | 639  | 5333 | 3345 | 458  | 498  | 302  |      |
| 10  | 1972 | 4196 | 2563 | 2972 | 2439 | 3251 | 548  | 5908 | 3763 | 488  | 714  | 343  |      |
| 11  | 2799 | 3412 | 2281 | 3266 | 2106 | 3287 | 626  | 6211 | 3715 | 688  | 777  | 317  |      |
| 12  | 3157 | 2890 | 1924 | 3393 | 2021 | 3605 | 1033 | 6514 | 3000 | 669  | 670  | 291  |      |
| 13  | 2866 | 2639 | 1639 | 3211 | 1742 | 3709 | 1721 | 6756 | 2581 | 547  | 852  | 286  |      |
| 14  | 2357 | 2351 | 1560 | 3003 | 1472 | 4057 | 1878 | 6787 | 2127 | 393  | 740  | 318  |      |
| 15  | 1933 | 1960 | 1518 | 2884 | 1548 | 4435 | 1630 | 6514 | 1951 | 441  | 745  | 325  |      |
| 16  | 1384 | 1863 | 1554 | 2609 | 1733 | 4593 | 1387 | 5260 | 1860 | 479  | 708  | 320  |      |
| 17  | 1236 | 1585 | 1660 | 2218 | 1542 | 4451 | 1051 | 4330 | 1545 | 447  | 619  | 389  |      |
| 18  | 1184 | 1590 | 1827 | 2460 | 1448 | 4311 | 1145 | 3484 | 1082 | 672  | 611  | 489  |      |
| 19  | 888  | 1639 | 2060 | 3078 | 1306 | 3839 | 1981 | 3275 | 784  | 643  | 621  | 453  |      |
| 20  | 676  | 1951 | 2045 | 3605 | 1085 | 3251 | 2593 | 3154 | 751  | 560  | 473  | 591  |      |
| 21  | 658  | 1927 | 1830 | 4093 | 1121 | 2702 | 2239 | 2875 | 803  | 516  | 438  | 457  |      |
| 22  | 551  | 1715 | 1778 | 3990 | 1218 | 2472 | 1806 | 2405 | 909  | 430  | 499  | 411  |      |
| 23  | 489  | 1930 | 1639 | 3678 | 1366 | 2227 | 1388 | 1533 | 960  | 402  | 598  | 341  |      |
| 24  | 420  | 2494 | 1475 | 3348 | 1309 | 2075 | 1075 | 1627 | 764  | 435  | 720  | 286  |      |
| 25  | 760  | 2730 | 1478 | 4402 | 1318 | 1903 | 924  | 1791 | 639  | 361  | 657  | 291  |      |
| 26  | 2112 | 3145 | 1478 | 5908 | 1030 | 1675 | 839  | 1612 | 521  | 399  | 501  | 308  |      |
| 27  | 2745 | 3224 | 1424 | 6623 | 794  | 1466 | 691  | 1582 | 582  | 440  | 402  | 303  |      |
| 28  | 3660 | 2875 | 1460 | 6896 | 1018 | 1300 | 740  | 1366 | 734  | 378  | 391  | 308  |      |
| 29  | 3718 | 2730 | 1454 | 7314 | -    | 1236 | 778  | 1230 | 793  | 428  | 346  | 331  |      |
| 30  | 3348 | 2790 | 1609 | 7290 | -    | 1269 | 859  | 1231 | 695  | 436  | 341  | 337  |      |
| 31  | 2593 | 3000 | 2030 | 7299 | -    | 1081 | -    | 1554 | -    | 392  | 399  | -    |      |

Data unavailable from USGS

Table 5a. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |          |           | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |          | WIND SPEED AND DIRECTION |            |           |
|------|-----------------|----------|-----------|-------------------|----------|-----------------|--------------------------|---------------------|-----------|----------|--------------------------|------------|-----------|
|      | MAX<br>2        | MIN<br>3 | MEAN<br>4 | AM<br>5a          | PM<br>5b |                 |                          |                     | AM<br>9a  | PM<br>9b | AM<br>10a                | Mag./Knots | PM<br>10b |
| 1    |                 |          |           |                   |          |                 |                          |                     |           |          |                          |            |           |
| 2    | 31.7*           | 24.4     | 27.7      | 28.3              | 28.9     | 12              | 3.0                      | 1014.1              | CY        | PC       | S                        | 15         | SSW       |
| 3    | 31.7            | 21.0     | 26.7      | 28.3              | 24.9     |                 | 0.3                      | 1017.2              | PC        | PC       | WSW                      | 7          | SW        |
| 4    | 22.2            | 16.7     | 19.5      | 26.1              | 25.0     |                 | 0.0                      | 1021.2              | C         | C        | N                        | 22         | N         |
| 5    | 22.2            | 15.6     | 18.5      | 21.1              | 23.3     |                 | 0.0                      | 1021.2              | C         | C        | NNE                      | 15         | N         |
| 6    | 25.0            | 20.0     | 21.9      | 22.2              | 22.8     |                 | 0.0                      | 1021.9              | PC        | CY       | NE                       | 14         | ENE       |
| 7    | 26.1            | 20.0     | 22.9      | 21.7              | 23.9     |                 | 0.0                      | 1022.2              | CY        | C        | N                        | 10         | N         |
| 8    | 27.8            | 19.4     | 23.7      | 22.2              | 23.3     |                 | 0.0                      | 1018.9              | C         | CY       | ENE                      | 13         | ESE       |
| 9    | 28.9            | 25.0     | 26.4      | 24.4              | 25.0     |                 | 0.0                      | 1012.8              | PC        | PC       | S                        | 10         | S         |
| 10   | 22.0            | 15.6     | 19.7      | 22.8              | 24.4     |                 | 2.8                      | 1012.5              | CY        | C        | NNW                      | 15         | N         |
| 11   | 21.0            | 17.0     | 19.1      | 22.2              | 23.3     | 12              | 0.0                      | 1014.8              | C         | C        | NE                       | 13         | NNE       |
| 12   | 19.4            | 12.0     | 15.3      | 22.2              | 22.2     | 12              | 5.3                      | 1015.1              | CY        | CY       | NNE                      | 10         | N         |
| 13   | 18.3            | 8.9*     | 13.0      | 19.4              | 19.4     |                 | 30.5                     | 1020.2              | CY        | C        | NNW                      | 24         | NNW       |
| 14   | 18.9            | 12.8     | 14.8      | 17.2              | 16.7     |                 | 0.0                      | 1021.9              | C         | C        | NNW                      | 12         | NNW       |
| 15   | 22.2            | 13.0     | 18.0      | 17.8              | 18.3     |                 | 0.0                      | 1021.9              | C         | C        | N                        | 8          | N         |
| 16   | 22.2            | 12.8     | 16.5      | 17.2              | 19.4     |                 | 0.0                      | 1021.2              | C         | C        | Cal                      | 15         | SW        |
| 17   | 18.9            | 12.8     | 16.4      | 17.2              | 18.9     |                 | 0.0                      | 1021.9              | C         | C        | NW                       | 15         | N         |
| 18   | 22.2            | 13.3     | 19.3      | 18.3              | 18.9     |                 | 0.0                      | 1018.9              | C         | C        | NE                       | 8          | Cal       |
| 19   | 25.0            | 20.0     | 22.4      | 18.9              | 20.6     | 14              | 0.0                      | 1017.5              | PC        | PC       | WNW                      | 3          | SSW       |
| 20   | 22.2            | 17.2     | 19.9      | 18.3              | 20.6     |                 | 0.0                      | 1012.9              | CY        | CY       | W                        | 5          | SW        |
| 21   | 23.9            | 17.2     | 20.7      | 19.4              | 20.6     |                 | 0.0                      | 1022.9              | C         | C        | ENE                      | 12         | NNE       |
| 22   | 25.0            | 17.2     | 21.5      | 19.4              | 20.6     | 14              | 0.0                      | 1021.9              | C         | PC       | NE                       | 10         | NNE       |
| 23   | 23.3            | 18.9     | 21.7      | 20.6              | 21.1     | 14              | 0.0                      | 1019.9              | CY        | PC       | NE                       | 12         | NE        |
| 24   | 23.0            | 20.0     | 21.1      | 21.1              | 21.1     | 12-14           | 0.0                      | 1018.9              | CY        | CY       | ENE                      | 12         | ENE       |
| 25   | 25.0            | 20.0     | 22.1      | 21.7              | 22.2     | 1-12-14         | 17.8                     | 1015.5              | CY        | CY       | ENE                      | 17         | ENE       |
| 26   | 24.4            | 17.8     | 20.0      | 21.1              | 21.7     | 14              | 10.9                     | 1016.1              | PC        | CY       | SSE                      | 5          | SSW       |
| 27   | 23.3            | 15.0     | 18.6      | 20.6              | 21.1     | 14              | 0.0                      | 1015.8              | C         | C        | NNW                      | 9          | SSW       |
| 28   | 24.4            | 16.0     | 19.3      | 18.9              | 19.4     | 14              | 0.0                      | 1016.1              | C         | C        | N                        | 10         | N         |
| 29   | 24.4            | 18.0     | 20.3      | 20.6              | 21.7     | 14              | 0.0                      | 1015.8              | C         | ND       | NNW                      | 8          | W         |
| 30   | 25.0            | 19.0     | 21.5      | 21.1              | 22.2     | 14              | 0.3                      | 1016.5              | C         | C        | NNE                      | 5          | N         |
| 31   | 22.6            | 19.5     | 21.6      | 21.7              | 22.2     | 14              | 0.0                      | 1017.8              | CY        | ND       | N                        | 7          | E         |

MONTHLY SUMMARY  
Maximum Air Temperature 31.7 Average Maximum Air Temperature 23.7 Monthly Mean Air Temperature 20.4  
Minimum Air Temperature 8.9 Average Minimum Air Temperature 17.3 Total Monthly Precipitation 70.9  
Maximum Water Temperature 28.9 Minimum Water Temperature 16.7 Mean Water Temperature 21.3

November 1977  
 Table 5b. METEOROLOGICAL DATA  
 Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |          |           | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |          | WIND SPEED AND DIRECTION |           |    |    |
|------|-----------------|----------|-----------|-------------------|----------|-----------------|--------------------------|---------------------|-----------|----------|--------------------------|-----------|----|----|
|      | MAX<br>2        | MIN<br>3 | MEAN<br>4 | AM<br>5a          | PM<br>5b |                 |                          |                     | AM<br>9a  | PM<br>9b | AM<br>10a                | PM<br>10b |    |    |
| 1    | 21.0            | 17.8     | 19.7      | 21.1              | 21.7     | 12-13           | 0.0                      | 1015.5              | C         | PC       | ENE                      | E         | 15 | 10 |
| 2    | 23.3            | 18.0     | 21.1      | 21.1              | 21.7     |                 | T                        | 1009.7              | CY        | CY       | E                        | ESE       | 12 | 15 |
| 3    | 22.8            | 15.6     | 18.1      | 20.6              | 21.1     |                 | 23.9                     | 1013.1              | PC        | PC       | WNW                      | WNW       | 7  | 2  |
| 4    | 18.3            | 14.0     | 14.6      | 19.4              | 20.0     |                 | 2.8                      | 1010.7              | CY        | CY       | WNW                      | WNW       | 7  | 12 |
| 5    | 18.9            | 15.0     | 16.1      | 18.9              | 19.4     | 14              | 24.6                     | 1007.3              | CY        | PC       | WNW                      | WSW       | 14 | 9  |
| 6    | 22.8            | 15.0     | 18.3      | 18.3              | 20.0     | 14              | 0.5                      | 1010.7              | C         | C        | WNW                      | WSW       | 5  | 5  |
| 7    | 23.3            | 16.0     | 18.6      | 19.4              | 20.0     | 14              | 0.0                      | 1013.4              | C         | PC       | W                        | SSW       | 1  | 6  |
| 8    | 23.9*           | 17.2     | 20.3      | 19.4              | 20.6     | 6-14            | 0.3                      | 1014.8              | C         | C        | E                        | ESE       | 3  | 7  |
| 9    | 21.1            | 13.0     | 19.1      | 18.9              | 20.0     | 13              | 34.3                     | 1015.8              | CY        | CY       | SSE                      | SE        | 8  | 5  |
| 10   | 14.4            | 7.2      | 10.4      | 16.1              | 16.1     |                 | 6.1                      | 1026.3              | PC        | PC       | NW                       | NW        | 20 | 18 |
| 11   | 16.7            | 6.7*     | 11.3      | 13.9              | 15.6     |                 | 0.0                      | 1030.4              | C         | C        | NNW                      | N         | 10 | 6  |
| 12   | 18.9            | 9.4      | 13.8      | 14.4              | 15.6     |                 | 0.0                      | 1029.3              | C         | C        | NNW                      | NNW       | 6  | 2  |
| 13   | 14.4            | 8.9      | 12.9      | 13.6              | 16.1     |                 | 0.0                      | 1030.4              | C         | C        | ENE                      | ENE       | 15 | 4  |
| 14   | 18.9            | 9.4      | 14.6      | 14.4              | 15.6     |                 | 0.0                      | 1026.3              | C         | C        | ENE                      | E         | 11 | 6  |
| 15   | 20.6            | 12.4     | 16.9      | 15.0              | 15.6     | 13              | 0.0                      | 1020.9              | CY        | CY       | NE                       | SE        | 7  | 4  |
| 16   | 22.8            | 17.8     | 19.4      | 16.1              | 16.1     |                 | 23.6                     | 1016.1              | CY        | PC       | SE                       | SE        | 2  | 5  |
| 17   | 22.8            | 17.8     | 19.8      | 17.2              | 17.8     | 6               | 0.5                      | 1017.5              | PC        | CY       | S                        | SSW       | 4  | 5  |
| 18   | 17.0            | 11.7     | 14.1      | 16.7              | 16.1     | 12              | 0.0                      | 1022.6              | CY        | CY       | NNE                      | E         | 18 | 9  |
| 19   | 18.0            | 14.0     | 16.4      | 16.1              | 16.7     | 6-12            | 14.5                     | 1020.9              | CY        | CY       | NNE                      | E         | 15 | 14 |
| 20   | 21.1            | 19.0     | 19.6      | 18.3              | 18.3     | 6-12            | 1.8                      | 1020.9              | CY        | CY       | E                        | ESE       | 10 | 7  |
| 21   | 21.7            | 17.2     | 19.1      | 17.2              | 17.8     | 6               | 1.8                      | 1021.9              | PC        | CY       | E                        | ESE       | 8  | 7  |
| 22   | 19.4            | 17.0     | 17.9      | 17.8              | 17.8     | 6-12            | 0.8                      | 1019.2              | CY        | CY       | E                        | E         | 5  | 7  |
| 23   | 20.6            | 17.0     | 18.0      | 17.8              | 18.3     | 6               | 25.1                     | 1016.8              | CY        | CY       | N                        | N         | 2  | 2  |
| 24   | 21.7            | 17.0     | 18.3      | 18.3              | 19.4     | 6-14            | 0.3                      | 1016.1              | PC        | PC       | NW                       | N         | 6  | 5  |
| 25   | 21.1            | 13.0     | 16.2      | 18.3              | 18.9     | 6-14            | 0.0                      | 1014.8              | CY        | PC       | NW                       | W         | 6  | 7  |
| 26   | 11.0            | 7.2      | 9.1       | 16.1              | 16.1     |                 | 0.0                      | 1019.9              | C         | C        | NNW                      | N         | 18 | 10 |
| 27   | 22.2            | 13.0     | 18.0      | 17.2              | 17.8     |                 | 0.0                      | 1017.5              | C         | PC       | NNW                      | N         | 7  | 11 |
| 28   | 21.1            | 19.0     | 19.8      | 17.8              | 17.8     | 13              | 0.0                      | 1020.2              | CY        | CY       | SSW                      | S         | 3  | 6  |
| 29   | 22.8            | 19.0     | 20.2      | 17.8              | 18.3     |                 | 1.8                      | 1020.9              | PC        | CY       | SE                       | SE        | 3  | 8  |
| 30   | 21.7            | 16.1     | 18.1      | 17.8              | 17.8     | 13              | 26.9                     | 1011.4              | CY        | CY       | ESE                      | E         | 8  | 6  |
| 31   |                 |          |           |                   |          |                 |                          |                     |           |          | N                        | ESE       | 6  | 12 |

## MONTHLY SUMMARY

Maximum Air Temperature 23.9 Average Maximum Air Temperature 20.1 Monthly Mean Air Temperature 17.0  
 Minimum Air Temperature 6.7 Average Minimum Air Temperature 14.4 Total Monthly Precipitation 189.6  
 Maximum Water Temperature 21.7 Minimum Water Temperature 13.6 Mean Water Temperature 17.8

December 1977  
 Table 5c. METEOROLOGICAL DATA  
 Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |      |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm | PRESSURE<br>mb | SKY COVER |    | WIND SPEED AND DIRECTION |     |                  |
|------|-----------------|------|------|-------------------|------|-----------------|---------------------|----------------|-----------|----|--------------------------|-----|------------------|
|      | MAX             | MIN  | MEAN | AM                | PM   |                 |                     |                | AM        | PM | AM                       | PM  | PM               |
| 1    | 2               | 3    | 4    | 5a                | 5b   | 6               | 7                   | 8              | 9a        | 9b | 10a                      | 10b | 10b              |
| 1    | 15.0            | 11.1 | 13.1 | 17.2              | 17.8 |                 | 7.9                 | 1016.5         | CY        | CY | NNW                      | 9   | NNW              |
| 2    | 17.0            | 12.8 | 15.2 | 16.7              | ND   |                 | 0.0                 | 1019.2         | CY        | ND | N                        | 6   | SE               |
| 3    | 22.8            | 17.0 | 19.3 | 16.7              | 17.8 |                 | 0.0                 | 1017.8         | C         | C  | S                        | 3   | SSW              |
| 4    | 22.8            | 17.8 | 19.9 | 17.8              | 18.3 |                 | 0.0                 | 1012.4         | PC        | CY | S                        | 5   | SE               |
| 5    | 23.9*           | 17.0 | 21.2 | 19.4              | 20.0 | 14              | 1.3                 | 1005.6         | C         | CY | S                        | 14  | SSE              |
| 6    | 12.2            | 3.0  | 9.0  | 16.7              | 16.1 |                 | 0.0                 | 1020.5         | C         | C  | NW                       | 19  | NW               |
| 7    | 9.0             | 1.1  | 5.5  | 13.9              | 13.3 |                 | 0.0                 | 1025.3         | C         | C  | NNE                      | 12  | N                |
| 8    | 18.9            | 9.0  | 15.3 | 13.3              | 13.9 |                 | 0.0                 | 1020.9         | PC        | CY | SE                       | 8   | ESE              |
| 9    | 17.2            | 6.0  | 12.6 | 14.4              | 13.3 | 6               | 0.0                 | 1025.3         | CY        | CY | NNW                      | 12  | N                |
| 10   | 7.2             | 0.0* | 4.0  | 10.0              | 11.1 |                 | 0.0                 | 1033.8         | C         | C  | N                        | 22  | N                |
| 11   | 11.1            | 0.0  | 6.3  | 8.3               | 9.4  |                 | 0.0                 | 1031.7         | C         | C  | NNE                      | 15  | N                |
| 12   | 13.3            | 7.0  | 9.9  | 8.3               | 10.0 |                 | 0.0                 | 1026.3         | PC        | CY | ENE                      | 12  | N                |
| 13   | 18.3            | 10.0 | 13.4 | 10.0              | 11.1 | 6               | 0.0                 | 1019.2         | CY        | CY | ENE                      | 7   | E                |
| 14   | 19.4            | 12.0 | 14.3 | 11.7              | ND   | 6               | 32.5                | 1015.1         | C         | ND | Cal <sup>m</sup>         |     |                  |
| 15   | 16.7            | 10.0 | 12.6 | 10.6              | ND   | 6               | 0.0                 | 1017.2         | PC        | ND | NNW                      | 5   | NW               |
| 16   | 17.2            | 13.0 | 15.3 | 11.7              | ND   | 6               | 0.0                 | 1013.8         | CY        | ND | E                        | 5   | Cal <sup>m</sup> |
| 17   | 20.6            | 12.0 | 16.7 | 12.8              | ND   | 6-13            | 1.8                 | 1010.4         | CY        | ND | E                        | 6   | ESE              |
| 18   | 21.1            | 10.0 | 14.7 | 12.2              | ND   |                 | 0.3                 | 1015.5         | PC        | ND | W                        | 5   | S                |
| 19   | 21.1            | 14.0 | 17.1 | 13.3              | ND   |                 | 0.0                 | 1014.5         | C         | ND | W                        | 5   | SW               |
| 20   | 17.6            | 6.0  | 13.1 | ND                | ND   | 12              | 2.8                 | 1012.8         | CY        | ND | S                        | 5   | SW               |
| 21   | 8.3             | 2.0  | 5.3  | ND                | ND   |                 | 2.5                 | 1022.6         | C         | ND | NNW                      | 7   | N                |
| 22   | 10.0            | 1.7  | 5.7  | ND                | ND   |                 | 0.0                 | 1029.7         | C         | ND | W                        | 6   | W                |
| 23   | 15.0            | 10.0 | 13.4 | ND                | ND   |                 | 0.0                 | 1025.3         | ND        | ND | N                        | 7   | S                |
| 24   | 17.2            | 13.0 | 15.5 | ND                | ND   |                 | 0.0                 | 1017.2         | ND        | ND | Cal <sup>m</sup>         |     |                  |
| 25   | 16.0            | 4.0  | 11.2 | ND                | ND   |                 | 3.0                 | 1018.5         | ND        | ND | SE                       | 4   | S                |
| 26   | 7.2             | 1.7  | 4.5  | ND                | ND   |                 | 10.9                | 1023.3         | C         | ND | N                        | 8   | N                |
| 27   | 10.0            | 3.0  | 7.0  | ND                | ND   |                 | 0.0                 | 1026.3         | PC        | ND | NW                       | 9   | N                |
| 28   | 8.0             | 2.8  | 5.4  | ND                | ND   |                 | 0.0                 | 1028.7         | CY        | ND | NNE                      | 3   | SW               |
| 29   | 15.0            | 8.0  | 12.1 | 10.0              | 11.1 | 12              | 0.0                 | 1021.2         | CY        | ND | ESE                      | 7   | N                |
| 30   | 18.3            | 11.0 | 15.5 | 15.6              | 13.3 | 6               | 72.4                | 1016.5         | CY        | CY | SSW                      | 9   | ESE              |
| 31   | 15.0            | 10.0 | 11.9 | 11.7              | 12.2 |                 | 0.0                 | 1019.5         | CY        | PC | N                        | 11  | WSW              |

MONTHLY SUMMARY  
 Maximum Air Temperature 23.9  
 Minimum Air Temperature 0.0  
 Maximum Water Temperature 20.0  
 Average Maximum Air Temperature 15.6  
 Average Minimum Air Temperature 8.3  
 Minimum Water Temperature 8.3  
 Monthly Mean Air Temperature 12.1  
 Total Monthly Precipitation 135.4  
 Mean Water Temperature 13.5

Table 5d. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |           |           | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |          | WIND SPEED AND DIRECTION |            |           |
|------|-----------------|-----------|-----------|-------------------|----------|-----------------|--------------------------|---------------------|-----------|----------|--------------------------|------------|-----------|
|      | MAX.<br>2       | MIN.<br>3 | MEAN<br>4 | AM<br>5a          | PM<br>5b |                 |                          |                     | AM<br>9a  | PM<br>9b | AM<br>10a                | Mag./Knots | PM<br>10b |
| 1    | 13.9            | 9.0       | 11.5      | 11.7              | 11.7     | 6-14            | 0.0                      | 1019.9              | CY        | CY       | N                        | 5          | N         |
| 2    | 8.0             | 3.9       | 5.2       | 10.0              | 10.0     | 13              | 0.5                      | 1026.0              | CY        | CY       | N                        | 20         | N         |
| 3    | 8.3             | 0.6       | 4.8       | 8.3               | 8.9      |                 | 1.8                      | 1029.3              | C         | C        | N                        | 14         | NNW       |
| 4    | 14.4            | 6.0       | 9.6       | 8.3               | 10.0     |                 | 0.0                      | 1029.7              | C         | PC       | NNE                      | 9          | E         |
| 5    | 19.4            | 6.7       | 13.0      | 9.4               | 11.7     | 14              | 0.0                      | 1025.3              | PC        | PC       | E                        | 4          | E         |
| 6    | 20.0*           | 13.0      | 15.6      | 10.6              | 12.8     |                 | 0.0                      | 1019.2              | PC        | CY       | S                        | 2          | S         |
| 7    | 19.4            | 13.3      | 15.8      | 12.2              | 13.3     | 6               | 0.3                      | 1016.8              | CY        | CY       | E                        | 1          | E         |
| 8    | 18.9            | 2.0       | 12.1      | 13.3              | 13.9     |                 | 10.7                     | 1010.4              | CY        | CY       | SW                       | 2          | W         |
| 9    | 5.0             | -3.3*     | 1.0       | 9.4               | 10.0     |                 | 0.0                      | 1027.7              | C         | C        | NNW                      | 18         | NNW       |
| 10   | 4.4             | -2.2      | 1.1       | 7.8               | 8.3      |                 | 0.0                      | 1032.7              | PC        | PC       | N                        | 12         | N         |
| 11   | 6.7             | -1.1      | 2.6       | 7.2               | 7.8      |                 | 0.0                      | 1031.0              | C         | CY       | N                        | 12         | N         |
| 12   | 13.9            | 4.4       | 7.4       | ND                | 10.0     | 4-14            | 4.3                      | 1017.8              | CY        | CY       | N                        | 12         | E         |
| 13   | 5.6             | 2.0       | 4.3       | 8.3               | 8.3      |                 | 34.5                     | 1014.8              | CY        | CY       | NNW                      | 12         | NNW       |
| 14   | 4.4             | -2.0      | 0.9       | 7.8               | ND       |                 | 0.0                      | 1020.5              | CY        | ND       | NNW                      | 12         | NNW       |
| 15   | 4.0             | -2.2      | 0.8       | 7.2               | ND       |                 | TR                       | 1027.7              | PC        | ND       | NNW                      | 6          | NE        |
| 16   | 15.6            | 4.0       | 11.4      | 7.2               | 8.3      |                 | 0.0                      | 1019.2              | PC        | CY       | ESE                      | 5          | ESE       |
| 17   | 13.0            | 1.0       | 7.6       | 7.8               | 7.8      | 6               | 33.3                     | 1016.1              | CY        | CY       | WSW                      | 10         | NW        |
| 18   | 5.0             | 0.6       | 2.7       | 7.2               | 7.8      | 6               | 0.0                      | 1019.5              | CY        | CY       | N                        | 5          | N         |
| 19   | 5.6             | -0.6      | 3.3       | 6.1               | ND       | 6-4             | 30.5                     | 1009.7              | CY        | CY       | N                        | 12         | NW        |
| 20   | 3.9             | -0.6      | 0.8       | 4.4               | 5.0      | 14              | 4.8                      | 1019.8              | CY        | CY       | NW                       | 13         | NW        |
| 21   | 5.0             | -0.6      | 1.6       | 5.0               | 5.6      |                 | 0.5                      | 1028.0              | CY        | PC       | N                        | 8          | NE        |
| 22   | 7.8             | 1.0       | 4.5       | 5.6               | 6.7      | 14              | 0.0                      | 1029.7              | CY        | PC       | N                        | 12         | NE        |
| 23   | 8.0             | 5.0       | 6.4       | 6.1               | 6.1      | 13              | 1.5                      | 1027.3              | CY        | CY       | N                        | 12         | SE        |
| 24   | 17.8            | 8.0       | 12.7      | 6.7               | 7.8      | 6-13            | 1.5                      | 1013.1              | CY        | CY       | E                        | 2          | W         |
| 25   | 18.3            | 5.0       | 10.8      | 8.3               | 8.3      | 6               | 231.4                    | 1004.0              | CY        | CY       | NNW                      | 14         | W         |
| 26   | 9.4             | 3.0       | 5.4       | 7.2               | 8.3      |                 | 12.7                     | 1021.6              | C         | C        | NNW                      | 8          | Cal       |
| 27   | 7.8             | 1.7       | 4.9       | 7.8               | 8.3      |                 | 0.0                      | 1027.3              | C         | PC       | N                        | 14         | N         |
| 28   | 7.8             | 1.7       | 4.3       | 6.7               | 7.8      |                 | 1.3                      | 1029.0              | C         | PC       | NNE                      | 14         | N         |
| 29   | 8.3             | 1.1       | 4.3       | 6.1               | ND       |                 | 0.0                      | 1030.0              | CY        | ND       | NE                       | 11         | NNE       |
| 30   | 4.0             | 1.1       | 2.2       | 6.1               | 6.1      | 13              | TR                       | 1028.7              | CY        | CY       | NNE                      | 14         | NNE       |
| 31   | 4.0             | 2.8       | 3.1       | 5.6               | 5.6      | 13              | 12.2                     | 1026.6              | CY        | CY       | NNE                      | 14         | NNE       |

MONTHLY SUMMARY  
 Maximum Air Temperature 20.0 Average Maximum Air Temperature 9.3 Monthly Mean Air Temperature 6.2  
 Minimum Air Temperature -3.3 Average Minimum Air Temperature 2.7 Total Monthly Precipitation 381.8  
 Maximum Water Temperature 13.9 Minimum Water Temperature 4.4 Mean Water Temperature 8.3



February 1978  
 Table 5e. METEOROLOGICAL DATA  
 Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |           |            | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm | PRESSURE<br>mb | SKY COVER |          | WIND SPEED AND DIRECTION |           |           |
|------|-----------------|-----------|------------|-------------------|----------|-----------------|---------------------|----------------|-----------|----------|--------------------------|-----------|-----------|
|      | MAX<br>°C       | MIN<br>°C | MEAN<br>°C | AM<br>°C          | PM<br>°C |                 |                     |                | AM<br>9a  | PM<br>9b | AM<br>Mag./Knots         | PM<br>10a | PM<br>10b |
| 1    | 16.1            | 4.0       | 9.7        | 6.1               | 6.7      | 12-13-6         | 9.4                 | 1020.9         | CY        | CY       | ENE                      | 14        | ESE       |
| 2    | 7.2             | 5.0       | 6.5        | 6.1               | 6.1      | 6               | 35.3                | 1022.6         | CY        | CY       | WNW                      | 12        | NNE       |
| 3    | 7.2             | 4.4       | 5.7        | 6.1               | 6.1      |                 | 1.8                 | 1026.0         | CY        | CY       | N                        | 13        | N         |
| 4    | 12.2            | 4.4       | 7.2        | 7.2               | 7.2      |                 | 0.0                 | 1028.4         | CY        | C        | NE                       | 15        | N         |
| 5    | 12.2            | 4.0       | 7.6        | 6.7               | 7.8      | 14              | 0.0                 | 1027.0         | C         | C        | N                        | 6         | E         |
| 6    | 5.6             | -1.7      | 2.1        | 6.1               | 5.6      |                 | 0.0                 | 1024.9         | PC        | C        | N                        | 17        | N         |
| 7    | 4.4             | -1.1      | 1.6        | 5.0               | 5.0      |                 | 0.0                 | 1021.9         | CY        | CY       | NNE                      | 8         | N         |
| 8    | 4.0             | 1.7       | 2.7        | 5.6               | 5.0      | 13              | 0.0                 | 1018.2         | CY        | CY       | NNE                      | 14        | NNE       |
| 9    | 8.9             | 3.0       | 5.4        | 5.0               | 5.0      | 14              | 0.0                 | 1017.8         | CY        | CY       | N                        | 7         | NNE       |
| 10   | 10.6            | 3.3       | 6.4        | 5.0               | 6.1      |                 | 0.3                 | 1019.2         | CY        | PC       | WNW                      | 10        | ENE       |
| 11   | 13.3            | 5.0       | 7.4        | 5.6               | 6.1      |                 | 0.0                 | 1019.9         | C         | C        | NE                       | 6         | Cal       |
| 12   | 14.0            | 6.0       | 10.7       | 6.1               | 7.8      | 14              | 0.0                 | 1014.8         | C         | CY       | NE                       | 8         | E         |
| 13   | 16.1            | 11.0      | 13.8       | 9.4               | 11.1     |                 | 6.4                 | 1010.7         | C         | C        | SW                       | 5         | SW        |
| 14   | 10.0            | 4.0       | 7.4        | 7.8               | 8.3      |                 | 0.0                 | 1019.5         | C         | C        | WNW                      | 12        | NE        |
| 15   | 10.6            | 2.8       | 7.1        | 8.3               | 10.0     | 14              | 0.0                 | 1021.2         | PC        | PC       | NE                       | 12        | NE        |
| 16   | 11.7            | 8.0       | 9.6        | 8.9               | 10.6     | 6               | 3.6                 | 1018.9         | C         | PC       | N                        | 8         | N         |
| 17   | 12.8            | 6.7       | 10.6       | 10.0              | 11.7     | 6-14            | 0.0                 | 1017.2         | PC        | CY       | E                        | 7         | E         |
| 18   | 13.9            | 3.0       | 9.7        | 10.6              | 11.7     | 6-14            | 18.0                | 1014.5         | CY        | PC       | WNW                      | 10        | N         |
| 19   | 7.2             | 0.0       | 4.0        | 9.4               | 10.0     |                 | 0.0                 | 1019.2         | CY        | CY       | NW                       | 12        | NW        |
| 20   | 9.0             | 3.0       | 6.8        | ND                | ND       |                 | 0.0                 | 1019.9         | ND        | CY       | NW                       | 12        | S         |
| 21   | 10.0            | 0.0       | 5.8        | ND                | 9.4      |                 | 0.0                 | 1023.6         | ND        | C        | N                        | 5         | W         |
| 22   | 8.0             | -2.2*     | 4.4        | 7.2               | 8.3      |                 | 0.0                 | 1030.0         | C         | C        | WNW                      | 12        | SSW       |
| 23   | 15.6            | 8.0       | 11.9       | 8.9               | 10.0     |                 | 0.0                 | 1021.2         | C         | C        | W                        | 12        | SSW       |
| 24   | 15.6            | 5.0       | 11.5       | 8.9               | ND       |                 | 0.0                 | 1021.6         | C         | ND       | Cal                      |           | S         |
| 25   | 18.3            | 12.0      | 14.8       | 10.0              | 12.2     | 14              | 0.0                 | 1019.9         | C         | C        | Cal                      |           | S         |
| 26   | 13.9            | 11.0      | 12.7       | 10.6              | 10.6     | 13-6            | 0.8                 | 1021.6         | CY        | PC       | SSW                      | 2         | N         |
| 27   | 14.0            | 9.4       | 12.3       | 10.6              | 12.8     |                 | 1.0                 | 1020.2         | CY        | CY       | NE                       | 10        | E         |
| 28   | 20.0*           | 14.0      | 15.6       | 12.2              | 13.3     | 13-6            | 16.8                | 1012.1         | CY        | CY       | SE                       | 5         | SW        |

MONTHLY SUMMARY  
 Maximum Air Temperature 20.0 Average Maximum Air Temperature 11.5 Monthly Mean Air Temperature 8.3  
 Minimum Air Temperature -2.2 Average Minimum Air Temperature 4.8 Total Monthly Precipitation 93.4  
 Maximum Water Temperature 13.3 Minimum Water Temperature 5.0 Mean Water Temperature 8.2

March 1978  
Table 5f. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |      |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |    | WIND SPEED AND DIRECTION |     |     |
|------|-----------------|------|------|-------------------|------|-----------------|--------------------------|---------------------|-----------|----|--------------------------|-----|-----|
|      | MAX             | MIN  | MEAN | AM                | PM   |                 |                          |                     | AM        | PM | AM                       | PM  | PM  |
|      | 2               | 3    | 4    | 5a                | 5b   | 6               |                          |                     | 9a        | 9b | 10a                      | 10b |     |
| 1    | 15.0            | 12.0 | 13.9 | 12.8              | 13.9 | 6-14            | 4.8                      | 1011.8              | CY        | PC | NNW                      | 13  | N   |
| 2    | 16.1            | 10.6 | 14.1 | 13.3              | 13.9 | 6-13            | 0.0                      | 1011.7              | CY        | CY | E                        | 14  | E   |
| 3    | 15.0            | 4.0  | 11.1 | 13.3              | 14.4 | 6-12            | 35.3                     | 1008.7              | CY        | CY | NNW                      | 6   | NNW |
| 4    | 9.4             | 1.7* | 5.8  | 10.0              | 10.6 |                 | 0.3                      | 1019.9              | CY        | C  | NNW                      | 17  | N   |
| 5    | 10.0            | 1.7  | 6.5  | 10.0              | 12.2 |                 | 0.0                      | 1027.0              | C         | C  | NE                       | 11  | SE  |
| 6    | 15.6            | 10.0 | 13.0 | 11.1              | 12.2 |                 | 0.0                      | 1023.3              | CY        | PC | SE                       | 2   | ESE |
| 7    | 15.0            | 13.0 | 14.0 | 12.8              | 12.8 | 6-12            | 0.0                      | 1017.2              | CY        | ND | ESE                      | 12  | E   |
| 8    | 17.2            | 12.2 | 14.8 | 11.7              | 12.8 | 6               | 69.3                     | 1013.1              | OBS       | CY | NNW                      | 5   | NNW |
| 9    | 11.1            | 7.0  | 9.4  | 12.2              | 11.7 | 6-13            | 3.0                      | 1013.1              | CY        | PC | W                        | 4   | W   |
| 10   | 13.9            | 5.0  | 10.5 | 12.2              | 12.2 | 14              | 0.3                      | 1016.5              | PC        | C  | SW                       | 12  | SW  |
| 11   | 17.8            | 11.0 | 14.9 | 12.2              | 13.3 | 14              | 0.0                      | 1016.8              | CY        | PC | S                        | 5   | SE  |
| 12   | 20.0            | 13.3 | 16.3 | 13.3              | 15.0 | 6-14            | 0.0                      | 1017.2              | PC        | CY | WSW                      | 7   | SW  |
| 13   | 18.0            | 15.0 | 16.8 | 14.4              | 15.6 | 6-14            | 0.0                      | 1013.8              | OBS       | PC | E                        | 10  | E   |
| 14   | 23.3            | 16.0 | 18.7 | 15.6              | 16.1 | 6-12            | 8.6                      | 1012.1              | OBS       | ND | WSW                      | 6   | SW  |
| 15   | 17.8            | 13.9 | 16.3 | 15.6              | 17.8 | 6               | 0.0                      | 1015.8              | OBS       | PC | NNW                      | 1   | S   |
| 16   | 17.8            | 10.0 | 13.5 | 15.6              | 16.1 | 14              | 0.0                      | 1022.6              | CY        | PC | NW                       | 19  | NW  |
| 17   | 17.2            | 6.7  | 13.0 | 13.9              | 15.0 |                 | 0.0                      | 1030.7              | PC        | PC | NW                       | 4   | NW  |
| 18   | 17.8            | 9.4  | 14.6 | 13.3              | 13.9 |                 | 0.0                      | 1033.4              | CY        | PC | NE                       | 7   | ESE |
| 19   | 20.0            | 11.1 | 16.1 | 15.0              | 15.6 |                 | 0.0                      | 1030.7              | C         | ND | S                        | 3   | S   |
| 20   | 18.3            | 13.1 | 16.4 | 15.0              | 16.1 |                 | 0.0                      | 1025.6              | CY        | ND | ESE                      | 7   | ESE |
| 21   | 21.1            | 14.4 | 17.4 | 15.0              | 16.1 |                 | 0.0                      | 1019.9              | CY        | PC | S                        | 5   | S   |
| 22   | 21.1            | 13.3 | 16.8 | 16.7              | 18.3 |                 | 1.0                      | 1019.5              | CY        | PC | N                        | 10  | S   |
| 23   | 19.4            | 13.9 | 17.5 | 16.7              | 18.9 | 6-14            | 0.0                      | 1017.8              | CY        | C  | NNE                      | 3   | S   |
| 24   | 19.4            | 15.6 | 17.3 | 17.2              | 17.8 | 14              | 0.0                      | 1015.5              | PC        | ND | E                        | 8   | ESE |
| 25   | 21.7            | 11.0 | 17.0 | 17.2              | 18.3 | 6               | 0.3                      | 1015.1              | CY        | PC | Cal                      | 12  | ENE |
| 26   | 15.6            | 6.7  | 11.1 | 16.1              | 17.2 |                 | 0.0                      | 117.2               | C         | C  | NNW                      | 10  | W   |
| 27   | 15.0            | 5.6  | 11.5 | 16.1              | 16.7 |                 | 0.0                      | 1019.5              | C         | C  | N                        | 10  | N   |
| 28   | 16.7            | 8.9  | 13.9 | 15.0              | 16.1 |                 | 0.0                      | 1021.6              | C         | C  | NE                       | 6   | S   |
| 29   | 22.8            | 13.0 | 17.5 | 15.6              | 16.7 | 14              | 0.0                      | 1022.2              | C         | C  | N                        | 7   | Cal |
| 30   | 26.1*           | 13.9 | 19.2 | 16.1              | 17.8 |                 | 0.0                      | 1022.6              | PC        | ND | N                        | 8   | SW  |
| 31   | 24.4            | 15.0 | 19.4 | 17.2              | 17.8 | 14              | 0.0                      | 1021.2              | C         | ND | N                        | 6   | S   |

MONTHLY SUMMARY  
 Maximum Air Temperature 26.1  
 Minimum Air Temperature 1.7  
 Maximum Water Temperature 18.9  
 Average Maximum Air Temperature 17.7  
 Average Minimum Air Temperature 10.6  
 Minimum Water Temperature 10.0  
 Monthly Mean Air Temperature 14.5  
 Total Monthly Precipitation 122.9  
 Mean Water Temperature 14.8

Table 5g. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

April 1978

| DATE | AIR TEMPERATURE |       |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |    | WIND SPEED AND DIRECTION |     |    |
|------|-----------------|-------|------|-------------------|------|-----------------|--------------------------|---------------------|-----------|----|--------------------------|-----|----|
|      | MAX             | MIN   | MEAN | AM                | PM   |                 |                          |                     | AM        | PM | AM                       | PM  | PM |
|      | 2               | 3     | 4    | 5a                | 5b   | 6               |                          |                     | 9a        | 9b | 10a                      | 10b |    |
| 1    | 24.4            | 17.0  | 20.4 | 18.3              | 20.0 | 6               | 0.0                      | 1020.5              | C         | C  | S                        | S   | 4  |
| 2    | 23.9            | 16.7  | 20.1 | 18.3              | 21.1 |                 | 0.0                      | 1022.2              | C         | C  | SE                       | SE  | 8  |
| 3    | 23.3            | 17.8  | 20.5 | 19.4              | 21.1 |                 | 0.0                      | 1025.6              | PC        | PC | SE                       | SE  | 9  |
| 4    | 23.9            | 17.2  | 20.9 | 20.0              | ND   |                 | 0.0                      | 1026.0              | PC        | ND | SE                       | SE  | 4  |
| 5    | 25.6            | 16.7  | 21.8 | 20.6              | 23.3 |                 | 0.0                      | 1022.2              | PC        | C  | E                        | SSE | 5  |
| 6    | 25.6            | 19.4  | 22.4 | 20.6              | 22.2 | 14              | 0.0                      | 1021.2              | PC        | PC | S                        | S   | 8  |
| 7    | 26.1            | 19.4  | 23.1 | 22.2              | 23.9 | 14              | 0.0                      | 1022.6              | PC        | PC | E                        | S   | 8  |
| 8    | 26.7            | 18.9  | 23.3 | 22.2              | 24.4 |                 | 0.0                      | 1019.6              | C         | C  | S                        | SSW | 5  |
| 9    | 26.7            | 20.0  | 23.3 | 22.8              | ND   |                 | 0.0                      | 1017.5              | PC        | ND | S                        | S   | 4  |
| 10   | 26.7            | 20.6  | 23.5 | 22.8              | 23.3 |                 | 0.0                      | 1013.4              | PC        | PC | SE                       | SE  | 6  |
| 11   | 26.1            | 15.6  | 20.5 | 22.8              | 23.9 | 8               | 0.3                      | 1013.1              | CY        | PC | SSE                      | NW  | 10 |
| 12   | 18.9            | 17.0  | 18.1 | 22.2              | 21.1 | 13              | 5.1                      | 1012.4              | CY        | CY | NE                       | ENE | 8  |
| 13   | 21.7            | 16.7  | 19.3 | 19.4              | 20.0 |                 | 93.5                     | 1015.1              | CY        | C  | NW                       | N   | 15 |
| 14   | 23.9            | 16.7  | 19.7 | 19.4              | 21.1 |                 | 1.8                      | 1021.2              | PC        | PC | NE                       | E   | 2  |
| 15   | 24.4            | 19.0  | 21.3 | 20.6              | 22.8 |                 | 0.0                      | 1019.9              | C         | C  | NNE                      | ESE | 6  |
| 16   | 25.0            | 17.2  | 21.5 | 21.7              | 23.9 | 14              | 0.0                      | 1917.5              | PC        | PC | E                        | SE  | 2  |
| 17   | 26.1            | 21.5  | 23.4 | 22.8              | 22.8 | 14              | 0.0                      | 1015.5              | CY        | CY | SSE                      | ESE | 12 |
| 18   | 26.7            | 17.2  | 23.9 | 22.2              | 23.3 | 14              | 0.0                      | 1010.7              | CY        | C  | S                        | SSW | 13 |
| 19   | 27.8*           | 17.2  | 22.5 | 22.2              | ND   |                 | 0.0                      | 1010.7              | C         | C  | SSW                      | SW  | 9  |
| 20   | 20.6            | 15.0  | 18.0 | 20.6              | 23.3 |                 | 0.0                      | 1014.5              | C         | C  | NNW                      | SW  | 6  |
| 21   | 22.8            | 15.0  | 19.6 | 20.6              | ND   |                 | 0.0                      | 1014.8              | C         | C  | N                        | S   | 8  |
| 22   | 22.2            | 15.6  | 19.6 | 20.0              | ND   |                 | 0.0                      | 1017.8              | C         | ND | ENE                      | ND  | 8  |
| 23   | 22.2            | 20.0  | 21.1 | 20.6              | 20.6 |                 | 0.0                      | 1016.1              | CY        | CY | ESE                      | NNE | 7  |
| 24   | 25.0            | 18.9  | 21.2 | 20.6              | 22.8 |                 | 0.0                      | 1016.5              | C         | C  | NE                       | ESE | 9  |
| 25   | 26.7            | 15.0  | 20.9 | 21.7              | 23.3 |                 | 0.0                      | 1013.8              | PC        | PC | N                        | SW  | 9  |
| 26   | 22.8            | 11.1* | 17.2 | ND...             | 19.4 |                 | 0.0                      | 1014.1              | C         | C  | NW                       | NNW | 15 |
| 27   | 23.8            | 13.9  | 18.7 | 18.3              | 19.4 |                 | 0.0                      | 1018.2              | C         | C  | 10                       | NNE | 10 |
| 28   | 25.0            | 16.1  | 20.3 | 20.0              | ND   |                 | 0.0                      | 1018.9              | C         | ND | 5                        | S   | 7  |
| 29   | 25.0            | 17.8  | 21.0 | 20.0              | 22.2 |                 | 0.0                      | 1016.1              | PC        | PC | SSE                      | S   | 8  |
| 30   | 26.7            | 19.4  | 22.5 | 20.0              | 21.7 | 14              | 0.0                      | 1011.4              | PC        | PC | SSE                      | SE  | 4  |
| 31   |                 |       |      |                   |      |                 |                          |                     |           |    |                          |     |    |

MONTHLY SUMMARY  
Maximum Air Temperature 27.8 Average Maximum Air Temperature 24.5 Monthly Mean Air Temperature 21.0  
Minimum Air Temperature 11.1 Average Minimum Air Temperature 17.5 Total Monthly Precipitation 100.7  
Maximum Water Temperature 24.4 Minimum Water Temperature 18.3 Mean Water Temperature 21.4

May 1978 Table 5h. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |       |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm | PRESSURE<br>mb | SKY COVER |    | WIND SPEED AND DIRECTION |      |    |
|------|-----------------|-------|------|-------------------|------|-----------------|---------------------|----------------|-----------|----|--------------------------|------|----|
|      | MAX             | MIN   | MEAN | AM                | PM   |                 |                     |                | AM        | PM | AM                       | PM   | PM |
|      | 2               | 3     | 4    | 5a                | 5b   | 6               | 7                   | 8              | 9a        | 9b | 10a                      | 10b  |    |
| 1    | 27.8            | 21.0  | 23.4 | 21.1              | 23.6 | 6-14            | 0.0                 | 1007.7         | CY        | CY | Calm                     | SW   | 5  |
| 2    | 26.1            | 21.0  | 22.1 | 22.8              | 23.3 | 6-14            | 0.0                 | 1010.0         | CY        | CY | ESE                      | N    | 10 |
| 3    | 22.2            | 18.3  | 19.6 | 22.8              | 22.2 | 12              | 104.1               | 1003.6         | CY        | CY | ESE                      | N    | 24 |
| 4    | 21.7            | 18.0  | 18.9 | 21.1              | 21.7 |                 | 122.4               | 1004.0         | PC        | PC | W                        | W    | 10 |
| 5    | 24.4            | 16.7* | 21.4 | 21.7              | 23.9 |                 | 0.0                 | 1013.1         | C         | C  | ENE                      | E    | 3  |
| 6    | 23.3            | 21.7  | 22.8 | 22.2              | 22.2 | 14              | 2.3                 | 1017.2         | CY        | CY | E                        | E    | 12 |
| 7    | 24.4            | 22.2  | 23.5 | 22.2              | 22.2 | 14              | 0.8                 | 1016.1         | CY        | CY | SE                       | ESE  | 2  |
| 8    | 27.2            | 23.0  | 24.9 | 22.2              | 23.3 | 6-14            | 1.0                 | 1014.5         | CY        | PC | SSE                      | SE   | 10 |
| 9    | 25.6            | 22.0  | 23.6 | 23.3              | 23.9 | 3-12            | 5.3                 | 1016.5         | CY        | CY | SW                       | SE   | 1  |
| 10   | 26.7            | 20.0  | 23.4 | 23.3              | ND   |                 | 28.4                | 1021.9         | C         | ND | NNE                      | ESE  | 3  |
| 11   | 26.1            | 18.9  | 23.2 | 23.3              | ND   |                 | 0.0                 | 1022.2         | PC        | ND | ENE                      | ESE  | 8  |
| 12   | 27.2            | 22.0  | 24.2 | 23.9              | 23.9 |                 | 0.3                 | 1018.9         | CY        | PC | E                        | SE   | 7  |
| 13   | 28.3            | 22.0  | 25.8 | 24.4              | ND   |                 | 0.0                 | 1015.8         | PC        | ND | NW                       | WSW  | 9  |
| 14   | 27.2            | 17.8  | 23.4 | 22.2              | 23.3 |                 | 0.0                 | 1013.8         | C         | C  | NW                       | W    | 7  |
| 15   | 27.2            | 23.3  | 24.7 | 22.8              | 23.3 |                 | 0.0                 | 1008.0         | C         | C  | W                        | SW   | 8  |
| 16   | 26.1            | 20.0  | 23.6 | 23.3              | 24.4 |                 | 0.0                 | 1008.4         | PC        | PC | ENE                      | ESE  | 4  |
| 17   | 26.7            | 18.9  | 22.2 | 22.8              | 23.3 |                 | 0.0                 | 1013.1         | CY        | CY | E                        | ESE  | 6  |
| 18   | 26.7            | 23.0  | 24.6 | 22.8              | 23.3 |                 | 0.0                 | 1018.9         | CY        | PC | E                        | E    | 8  |
| 19   | 28.3            | 21.7  | 24.7 | 23.9              | 25.0 | 6               | 0.0                 | 1020.5         | OBS       | PC | N                        | S    | 2  |
| 20   | 30.0            | 24.0  | 26.4 | 24.4              | ND   | 14              | 0.0                 | 1018.5         | PC        | ND | N                        | S    | 1  |
| 21   | 28.9            | 22.8  | 26.1 | 25.6              | 27.2 | 14              | 0.0                 | 1018.2         | C         | C  | N                        | S    | 5  |
| 22   | 31.1            | 24.0  | 26.7 | 26.1              | 27.6 | 14              | 0.0                 | 1017.8         | C         | C  | Calm                     | Calm |    |
| 23   | 29.4            | 22.2  | 26.3 | 26.7              | 27.8 | 14              | 0.0                 | 1018.5         | PC        | PC | S                        | S    | 2  |
| 24   | 30.0            | 22.8  | 26.3 | 26.7              | 28.3 | 14              | 0.0                 | 1018.5         | C         | C  | S                        | SE   | 4  |
| 25   | 31.1            | 22.2  | 26.4 | 26.7              | 27.8 | 14              | 0.0                 | 1017.8         | C         | C  | N                        | NE   | 2  |
| 26   | 32.8*           | 24.4  | 27.5 | 26.7              | 28.3 | 14              | 0.0                 | 1016.5         | CY        | CY | N                        | N    | 1  |
| 27   | 30.6            | 24.4  | 27.3 | 27.2              | 29.4 | 14              | 0.0                 | 1016.1         | C         | PC | Calm                     | SE   | 4  |
| 28   | 30.6            | 24.0  | 27.1 | 27.2              | 27.8 | 14              | 0.0                 | 1016.1         | PC        | C  | ESE                      | ESE  | 5  |
| 29   | 31.1            | 22.8  | 26.9 | 26.7              | 28.9 | 14              | 0.0                 | 1016.1         | PC        | PC | N                        | SE   | 3  |
| 30   | 31.1            | 23.3  | 27.0 | 27.2              | 28.9 | 14              | 0.0                 | 1015.8         | C         | PC | NE                       | SE   | 3  |
| 31   | 31.1            | 25.6  | 27.7 | 27.8              | 29.4 | 14              | 0.0                 | 1015.8         | PC        | PC | NE                       | SE   | 5  |

MONTHLY SUMMARY  
Maximum Air Temperature 32.8 Average Maximum Air Temperature 27.8 Monthly Mean Air Temperature 24.6  
Minimum Air Temperature 16.7 Average Minimum Air Temperature 21.7 Total Monthly Precipitation 264.6  
Maximum Water Temperature 29.4 Minimum Water Temperature 21.1 Mean Water Temperature 24.7

Table 51. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

June 1978

| DATE | AIR TEMPERATURE |          |           | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm 7 | PRESSURE<br>mb 8 | SKY COVER |          | WIND SPEED AND DIRECTION |            |           |
|------|-----------------|----------|-----------|-------------------|----------|-----------------|-----------------------|------------------|-----------|----------|--------------------------|------------|-----------|
|      | MAX<br>2        | MIN<br>3 | MEAN<br>4 | AM<br>5a          | PM<br>5b |                 |                       |                  | AM<br>9a  | PM<br>9b | AM<br>10a                | Mag./Knots | PM<br>10b |
| 1    | 31.1            | 26.0     | 27.8      | 27.8              | 29.4     | 14              | 0.0                   | 1015.8           | PC        | PC       | NE                       | 7          | SE        |
| 2    | 30.0            | 22.2*    | 26.5      | 28.3              | ND       | 3-8             | 0.0                   | 1015.8           | CY        | CY       | S                        | 5          | NW        |
| 3    | 27.2            | 22.8     | 24.8      | 27.2              | 27.2     | 12-13           | 77.2                  | 1016.1           | CY        | CY       | N                        | 5          | SSW       |
| 4    | 28.9            | 23.0     | 25.6      | 26.1              | 28.3     | 13              | 15.0                  | 1016.5           | CY        | PC       | N                        | 3          | S         |
| 5    | 30.0            | 25.0     | 27.2      | 27.8              | 29.4     |                 | 7.1                   | 1015.8           | PC        | PC       | Calm                     |            | SE        |
| 6    | 30.6            | 24.4     | 27.4      | 28.3              | 29.9     |                 | 0.0                   | 1014.1           | PC        | PC       | SSW                      | 6          | S         |
| 7    | 31.1            | 26.0     | 27.9      | 27.8              | 29.9     |                 | 7.1                   | 1014.8           | PC        | PC       | S                        | 8          | SSE       |
| 8    | 26.7            | 22.8     | 25.3      | 27.2              | 27.2     | 8-12            | 50.3                  | 1012.8           | CY        | CY       | SSW                      | 12         | SW        |
| 9    | 30.6            | 26.0     | 27.5      | 26.7              | 28.3     | 14              | 19.1                  | 1015.8           | CY        | PC       | SW                       | 6          | SSE       |
| 10   | 29.4            | 24.4     | 26.7      | 27.8              | 29.9     | 14              | 0.0                   | 1019.2           | PC        | C        | NE                       | 10         | E         |
| 11   | 31.1            | 26.0     | 27.7      | 27.8              | 29.9     |                 | 0.0                   | 1019.9           | PC        | PC       | SW                       | 6          | S         |
| 12   | 32.2            | 24.0     | 27.3      | 27.8              | 30.0     |                 | 0.0                   | 1019.9           | PC        | PC       | NW                       | 5          | S         |
| 13   | 31.7            | 23.3     | 27.7      | 28.3              | 29.4     |                 | 4.6                   | 1017.8           | PC        | PC       | NW                       | 4          | N         |
| 14   | 30.0            | 23.9     | 26.8      | 27.2              | 28.3     |                 | 0.0                   | 1019.2           | C         | C        | NNE                      | 10         | N         |
| 15   | 30.6            | 24.4     | 27.5      | 26.7              | 28.3     | 14              | 0.0                   | 1019.9           | CY        | PC       | NE                       | 5          | S         |
| 16   | 28.9            | 25.6     | 27.0      | 28.3              | 28.3     | 14              | 0.0                   | 1022.2           | PC        | CY       | E                        | 8          | E         |
| 17   | 30.6            | 25.0     | 26.8      | 26.7              | 27.8     | 14              | 0.0                   | 1022.9           | PC        | CY       | ENE                      | 8          | E         |
| 18   | 28.9            | 25.0     | 26.8      | 26.7              | 27.8     |                 | 0.0                   | 1021.6           | PC        | PC       | NE                       | 12         | E         |
| 19   | 30.6            | 25.0     | 27.3      | 26.7              | 28.3     |                 | 0.0                   | 1018.5           | C         | C        | N                        | 10         | ESE       |
| 20   | 30.6            | 23.3     | 27.6      | 27.8              | 28.9     |                 | 0.0                   | 1018.2           | C         | C        | NE                       | 7          | ESE       |
| 21   | 31.1            | 25.0     | 27.4      | 27.8              | 30.0     |                 | 0.0                   | 1018.2           | PC        | PC       | NE                       | 7          | S         |
| 22   | 33.3            | 25.0     | 28.7      | 28.3              | 30.0     | 14              | 0.0                   | 1017.2           | PC        | PC       | NNW                      | 4          | N         |
| 23   | 33.9            | 25.6     | 29.2      | 28.9              | 31.1     |                 | 0.0                   | 1018.2           | C         | C        | NW                       | 6          | NNE       |
| 24   | 33.9            | 27.0     | 29.2      | 28.9              | 31.1     | 14              | 0.0                   | 1017.2           | C         | C        | W                        | 5          | S         |
| 25   | 35.0            | 26.1     | 29.5      | 28.9              | 30.6     | 14              | 0.0                   | 1015.8           | C         | C        | NW                       | 5          | N         |
| 26   | 35.0            | 27.2     | 30.4      | 30.0              | 31.7     | 14              | 0.0                   | 1017.5           | C         | C        | Calm                     |            | SSE       |
| 27   | 33.9            | ND       | ND        | 30.0              | 31.7     | 14              | 0.0                   | 1020.5           | C         | C        | Calm                     |            | N         |
| 28   | 35.0            | 28.0     | 30.5      | 31.1              | 31.1     | 14              | 0.0                   | 1019.5           | C         | CY       | NNW                      | 13         | NNW       |
| 29   | 35.6*           | 22.2     | 29.6      | 29.4              | 30.6     | 14              | TR                    | 1018.2           | CY        | CY       | NW                       | 10         | NNW       |
| 30   | 32.2            | ND       | ND        | 30.0              | 30.6     |                 | 17.5                  | 1016.5           | CY        | CY       | N                        | 2          | ESE       |
| 31   |                 |          |           |                   |          |                 |                       |                  |           |          |                          |            |           |

## MONTHLY SUMMARY

Maximum Air Temperature 35.6 Average Maximum Air Temperature 31.3 Monthly Mean Air Temperature 27.6  
 Minimum Air Temperature 22.2 Average Minimum Air Temperature 24.8 Total Monthly Precipitation 197.9  
 Maximum Water Temperature 31.7 Minimum Water Temperature 26.1 Mean Water Temperature 28.8

Table 5j. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

July 1978

| DATE | AIR TEMPERATURE |       |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |    | WIND SPEED AND DIRECTION |       |    |
|------|-----------------|-------|------|-------------------|------|-----------------|--------------------------|---------------------|-----------|----|--------------------------|-------|----|
|      | MAX             | MIN   | MEAN | AM                | PM   |                 |                          |                     | AM        | PM | AM                       | PM    | PM |
|      | 2               | 3     | 4    | 5a                | 5b   | 6               |                          |                     | 9a        | 9b | 10a                      | 10b   |    |
| 1    | 33.3            | 27.2  | 29.9 | 30.0              | 31.1 | 14              | 0.0                      | 1015.8              | PC        | PC | Cal m                    | SW    | 10 |
| 2    | 32.2            | 27.0  | 29.6 | 30.0              | 30.0 |                 | 0.0                      | 1014.8              | PC        | PC | NW                       | SSW   | 7  |
| 3    | 32.8            | 28.0  | 29.9 | 30.6              | ND   |                 | 0.0                      | 1013.8              | PC        | ND | W                        | SW    | 8  |
| 4    | 32.2            | 23.9  | 27.8 | 29.4              | ND   |                 | 10.9                     | 1015.5              | CY        | ND | W                        | SW    | 8  |
| 5    | 32.2            | 26.0  | 28.4 | 30.0              | 30.0 |                 | 2.8                      | 1016.1              | CY        | C  | NW                       | SW    | 5  |
| 6    | 32.2            | 26.7  | 29.3 | 2.4               | 30.6 |                 | 0.0                      | 1017.2              | PC        | C  | W                        | S     | 5  |
| 7    | 31.7            | 24.4  | 28.2 | 28.9              | 30.6 | 14              | 10.9                     | 1018.5              | CY        | PC | ENE                      | ENE   | 2  |
| 8    | 33.3            | 26.1  | ND   | 29.4              | 31.7 |                 | 0.0                      | 1018.5              | PC        | PC | ENE                      | SE    | 2  |
| 9    | 35.6*           | 26.1  | 30.3 | ND                | 31.7 |                 | 0.0                      | 1018.5              | PC        | PC | NE                       | Cal m | 3  |
| 10   | 33.3            | 26.7  | 29.4 | 30.6              | 31.7 |                 | 0.0                      | 1018.5              | PC        | PC | NE                       | Cal m |    |
| 11   | 32.8            | 25.6  | 28.6 | 29.4              | 31.1 |                 | 0.0                      | 1017.5              | PC        | PC | S                        | N     | 2  |
| 12   | 31.7            | 26.1  | 28.3 | 29.4              | 30.6 |                 | 5.3                      | 1017.5              | PC        | PC | N                        | NW    | 2  |
| 13   | 31.7            | 23.3  | 28.1 | 30.0              | 31.1 |                 | 29.7                     | 1018.5              | CY        | CY | N                        | NE    | 3  |
| 14   | 32.8            | 26.1  | 28.7 | 30.6              | 31.1 | 13-14           | TR                       | 1017.5              | PC        | PC | N                        | NE    | 3  |
| 15   | 30.0            | 23.9  | 27.4 | 30.6              | 31.1 |                 | 4.1                      | 1014.1              | CY        | PC | ESE                      | S     | 5  |
| 16   | 31.7            | 25.0  | 28.1 | ND                | ND   |                 | 20.6                     | 1010.7              | PC        | PC | NW                       | N     | 3  |
| 17   | 32.2            | 27.2  | 29.3 | 30.0              | 31.1 |                 | 0.0                      | 1012.8              | PC        | C  | N                        | NE    | 2  |
| 18   | 32.8            | 26.1  | 29.5 | 31.1              | 31.7 | 14              | 0.0                      | 1017.2              | C         | C  | Cal m                    | S     | 1  |
| 19   | 32.8            | 22.2  | 28.7 | 30.6              | 31.1 | 13              | 0.0                      | 1019.2              | PC        | C  | ENE                      | Cal m |    |
| 20   | 31.1            | 25.0  | 28.3 | 30.6              | 30.6 |                 | 1.3                      | 1017.8              | PC        | C  | E                        | Cal m |    |
| 21   | 30.6            | 25.6  | 27.1 | 29.4              | 28.9 | 3               | 0.5                      | 1018.2              | CY        | CY | SE                       | E     | 15 |
| 22   | 31.7            | 27.0  | 29.0 | 28.9              | 29.4 |                 | 3.6                      | 1019.9              | PC        | PC | ESE                      | ESE   | 10 |
| 23   | 28.0            | 23.9  | 26.5 | 28.9              | 28.3 | 12              | 0.5                      | 1021.2              | PC        | CY | ESE                      | ESE   | 5  |
| 24   | 29.0            | 25.0  | 26.3 | 27.8              | 28.9 |                 | 8.9                      | 1021.9              | PC        | PC | NE                       | NE    | 4  |
| 25   | 27.2            | 23.0  | 25.8 | 27.8              | 27.8 |                 | 11.7                     | 1020.2              | CY        | CY | ESE                      | SSW   | 8  |
| 26   | 26.0            | 21.1* | 23.8 | ND                | ND   | 12              | 95.5                     | 1015.8              | CY        | ND | SW                       | SSE   | 10 |
| 27   | 27.8            | 25.0  | 26.3 | 25.6              | 27.2 |                 | 21.1                     | 1014.5              | CY        | PC | SW                       | SW    | 5  |
| 28   | 30.0            | 23.3  | 27.2 | 27.2              | 27.8 |                 | 4.6                      | 1018.2              | CY        | PC | SW                       | SW    | 6  |
| 29   | 31.7            | 25.0  | 28.1 | 27.8              | 28.9 | 3-8-13          | 14.2                     | 1018.9              | PC        | PC | W                        | W     | 9  |
| 30   | 28.0            | 22.8  | 25.7 | 28.3              | 28.3 | 3               | 0.3                      | 1018.5              | CY        | CY | W                        | SE    | 12 |
| 31   | 31.7            | 27.0  | 28.6 | 27.2              | 27.8 |                 | 53.3                     | 1018.2              | PC        | PC | SW                       | SW    | 8  |

MONTHLY SUMMARY  
 Maximum Air Temperature 35.6 Average Maximum Air Temperature 31.3 Monthly Mean Air Temperature 28.1  
 Minimum Air Temperature 21.1 Average Minimum Air Temperature 25.2 Total Monthly Precipitation 299.8  
 Maximum Water Temperature 31.7 Minimum Water Temperature 25.6 Mean Water Temperature 29.6

Table 5k. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |          |           | WATER TEMPERATURE |          | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |          | WIND SPEED AND DIRECTION<br>Mag./Knots |           |     |    |
|------|-----------------|----------|-----------|-------------------|----------|-----------------|--------------------------|---------------------|-----------|----------|----------------------------------------|-----------|-----|----|
|      | MAX<br>2        | MIN<br>3 | MEAN<br>4 | AM<br>5a          | PM<br>5b |                 |                          |                     | AM<br>9a  | PM<br>9b | AM<br>10a                              | PM<br>10b |     |    |
| 1    | 32.2            | 26.1     | 28.9      | 27.2              | 28.3     |                 | 0.0                      | 1019.2              | CY        | PC       | W                                      | 7         | SW  | 5  |
| 2    | 32.8            | 26.1     | 29.3      | 28.3              | 30.0     |                 | 0.0                      | 1018.5              | PC        | PC       | NW                                     | 5         | S   | 4  |
| 3    | 33.9*           | 26.7     | 29.0      | 29.4              | 30.0     |                 | 0.0                      | 1017.2              | C         | PC       | NNW                                    | 10        | N   | 7  |
| 4    | 33.9            | 26.1     | 28.0      | 28.9              | 30.0     |                 | 0.0                      | 1017.2              | PC        | PC       | NE                                     | 1         | ESE | 10 |
| 5    | 31.7            | 26.0     | 28.6      | 28.9              | 30.6     |                 | 4.1                      | 1018.9              | PC        | PC       | ESE                                    | 10        | ESE | 5  |
| 6    | 31.7            | 24.4     | 27.9      | 29.4              | 31.1     |                 | 0.0                      | 1019.5              | PC        | PC       | NNE                                    | 4         | E   | 2  |
| 7    | 31.1            | 23.0     | 27.4      | 28.9              | 30.0     | 13              | 6.9                      | 1019.5              | CY        | PC       | E                                      | 5         | E   | 7  |
| 8    | 27.0            | 22.2*    | 24.1      | 28.9              | 28.9     | 3-12-13         | 22.4                     | 1020.2              | CY        | CY       | NNE                                    | 9         | NE  | 18 |
| 9    | 27.8            | 24.0     | 25.5      | 26.7              | 27.2     | 13              | 118.6                    | 1019.2              | CY        | CY       | ESE                                    | 10        | E   | 10 |
| 10   | 27.2            | 22.2     | 25.0      | 26.7              | 26.7     |                 | 23.4                     | 1016.8              | CY        | CY       | ESE                                    | 9         | ESE | 11 |
| 11   | 29.4            | 25.0     | 27.1      | 26.7              | 27.2     |                 | 38.1                     | 1016.1              | CY        | CY       | ESE                                    | 6         | SW  | 5  |
| 12   | 30.6            | 22.8     | ND        | 27.2              | 28.3     | 3               | 48.0                     | 1018.2              | CY        | PC       | S                                      | 5         | SSW | 6  |
| 13   | 30.6            | 22.8     | 27.9      | 27.8              | 29.4     |                 | 0.0                      | 1019.5              | PC        | PC       | NNW                                    | 3         | SSW | 7  |
| 14   | 30.0            | 22.2     | 26.4      | 27.8              | 29.4     | 14              | 14.5                     | 1019.9              | PC        | C        | NNW                                    | 2         | SSE | 2  |
| 15   | 31.1            | 25.6     | 28.6      | 28.3              | ND       |                 | 0.0                      | 1020.9              | PC        | PC       | S                                      | 2         | S   | 3  |
| 16   | 31.7            | 27.0     | 29.2      | 29.4              | ND       |                 | 6.6                      | 1020.2              | PC        | ND       | SW                                     | 1         | S   | 5  |
| 17   | 32.2            | 26.7     | 29.5      | 30.0              | 31.1     |                 | 0.0                      | 1018.9              | PC        | PC       | SW                                     | 2         | NW  | 2  |
| 18   | 32.2            | 27.2     | 29.3      | 30.6              | 31.1     |                 | 0.0                      | 1018.2              | PC        | PC       | NNW                                    | 5         | S   | 5  |
| 19   | 32.8            | 26.1     | 29.3      | 30.0              | 31.1     |                 | 0.0                      | 1019.9              | PC        | PC       | CalM                                   | 2         | E   | 2  |
| 20   | 32.8            | 26.7     | 29.8      | 30.6              | 31.1     |                 | 0.0                      | 1020.2              | PC        | PC       | SSW                                    | 2         | NW  | 4  |
| 21   | 34.4            | 22.8     | 28.2      | 30.0              | 31.7     | 14              | 0.0                      | 1019.2              | C         | PC       | N                                      | 5         | N   | 2  |
| 22   | 32.8            | 26.7     | 29.9      | ND                | 31.7     | 14              | 18.3                     | 1018.9              | CY        | PC       | N                                      | 4         | ESE | 2  |
| 23   | 32.2            | 28.0     | 29.8      | 30.6              | ND       | 14              | 0.0                      | 1019.5              | PC        | ND       | NE                                     | 8         | ESE | 5  |
| 24   | 32.2            | 27.2     | 29.3      | 30.0              | 31.1     |                 | 0.0                      | 1019.9              | C         | C        | NE                                     | 9         | ESE | 5  |
| 25   | 32.2            | 26.1     | 29.2      | 29.4              | 30.6     | 14              | 0.0                      | 1018.9              | C         | C        | NNE                                    | 11        | ESE | 8  |
| 26   | 32.2            | 27.8     | ND        | 30.0              | ND       |                 | 0.0                      | 1017.8              | PC        | ND       | NE                                     | 6         | ESE | 3  |
| 27   | 31.7            | 23.9     | 28.1      | 30.0              | 30.0     |                 | 0.0                      | 1017.8              | PC        | CY       | SE                                     | 5         | SE  | 2  |
| 28   | 31.1            | 27.8     | 29.3      | 29.4              | 30.0     | 14              | 5.1                      | 1017.2              | PC        | CY       | SE                                     | 6         | SE  | 10 |
| 29   | 32.8            | 28.0     | 30.0      | 29.4              | 29.4     |                 | 0.0                      | 1015.1              | CY        | PC       | SE                                     | 5         | SSE | 10 |
| 30   | 32.2            | 27.2     | 29.0      | 28.3              | ND       |                 | 0.0                      | 1016.5              | PC        | PC       | SSW                                    | 5         | S   | 9  |
| 31   | 31.7            | 25.6     | 28.7      | 28.9              | 29.4     |                 | 0.0                      | 1018.2              | PC        | C        | N                                      | 10        | NE  | 3  |

MONTHLY SUMMARY  
 Maximum Air Temperature 33.9    Average Maximum Air Temperature 31.6    Monthly Mean Air Temperature 28.4  
 Minimum Air Temperature 22.2    Average Minimum Air Temperature 25.5    Total Monthly Precipitation 306.0  
 Maximum Water Temperature 31.7    Minimum Water Temperature 26.7    Mean Water Temperature 29.3

September 1978

Table 51. METEOROLOGICAL DATA

Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |       |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm | PRESSURE<br>mb | SKY COVER |    | WIND SPEED AND DIRECTION |     |     |
|------|-----------------|-------|------|-------------------|------|-----------------|---------------------|----------------|-----------|----|--------------------------|-----|-----|
|      | MAX             | MIN   | MEAN | AM                | PM   |                 |                     |                | AM        | PM | AM                       | PM  | PM  |
|      | 2               | 3     | 4    | 5a                | 5b   | 6               | 7                   | 8              | 9a        | 9b | 10a                      | 10b |     |
| 1    | 31.7            | 25.0  | 28.4 | 28.9              | 29.4 |                 | 0.0                 | 1019.2         | C         | C  | NNE                      | 1   | NE  |
| 2    | 31.7            | 24.4  | 28.1 | 28.9              | 30.0 | 14              | 0.0                 | 1019.2         | PC        | PC | NNE                      | 8   | NNE |
| 3    | 29.4            | 25.0  | 27.2 | 28.3              | 28.9 | 14              | 0.0                 | 1017.8         | PC        | PC | N                        | 9   | N   |
| 4    | 32.2            | 24.4  | 28.1 | 27.8              | 28.9 | 14              | 0.0                 | 1015.1         | C         | C  | N                        | 7   | N   |
| 5    | 32.8            | 24.4  | 28.8 | 28.3              | ND   | 14              | 0.0                 | 1013.4         | C         | ND | NNE                      | 8   | NE  |
| 6    | 31.1            | 25.6  | 28.4 | 28.3              | 29.4 | 14              | 0.0                 | 1015.5         | C         | PC | NE                       | 10  | ESE |
| 7    | 32.2            | 25.6  | 28.8 | 28.3              | 28.9 | 14              | 0.0                 | 1016.8         | C         | PC | NE                       | 10  | NE  |
| 8    | 32.2            | 25.6  | 28.8 | 28.9              | 30.0 | 14              | 0.0                 | 1016.5         | CY        | CY | NE                       | 6   | NE  |
| 9    | 30.0            | 26.1  | 27.4 | 28.3              | 28.9 | 14              | 0.0                 | 1016.8         | CY        | CY | N                        | 6   | Cal |
| 10   | 28.9            | 23.9  | 26.3 | 27.8              | 27.8 |                 | 0.0                 | 1017.2         | CY        | CY | N                        | 3   | E   |
| 11   | 31.7            | 26.0  | 28.0 | 27.8              | 28.9 |                 | 1.3                 | 1015.1         | CY        | CY | N                        | 6   | S   |
| 12   | 33.3*           | 25.6  | 29.8 | 28.3              | 30.0 |                 | 0.0                 | 1014.5         | PC        | PC | SE                       | 3   | S   |
| 13   | 30.6            | 25.6  | 27.9 | 28.9              | 29.4 |                 | 2.8                 | 1015.8         | CY        | CY | SW                       | 4   | SE  |
| 14   | 32.8            | 27.0  | 28.8 | 28.3              | 29.4 |                 | 4.1                 | 1017.5         | CY        | CY | S                        | 3   | SE  |
| 15   | 31.1            | 25.6  | 28.1 | 28.3              | 28.9 |                 | 0.0                 | 1018.2         | CY        | CY | E                        | 8   | SSW |
| 16   | 32.8            | 24.4  | 28.4 | 28.9              | 30.6 | 14              | 0.0                 | 1014.8         | PC        | PC | ENE                      | 4   | S   |
| 17   | 31.7            | 26.1  | 29.1 | 28.9              | 30.0 | 14              | 0.0                 | 1015.5         | PC        | PC | NE                       | 6   | E   |
| 18   | 32.2            | 29.0  | 30.0 | 29.4              | 30.0 |                 | 0.0                 | 1018.9         | PC        | PC | ESE                      | 8   | E   |
| 19   | 32.2            | 26.1  | 28.8 | 28.9              | 29.4 |                 | 0.0                 | 1019.5         | C         | PC | NE                       | 12  | E   |
| 20   | 32.2            | 27.0  | 28.9 | 28.9              | 29.4 |                 | TR                  | 1017.2         | C         | PC | NE                       | 12  | ESE |
| 21   | 32.2            | 26.1  | 28.9 | 28.9              | 29.4 |                 | 0.0                 | 1017.5         | C         | C  | NE                       | 8   | ESE |
| 22   | 31.1            | 23.3  | 27.3 | 28.3              | 28.9 | 12              | 52.8                | 1020.5         | CY        | C  | S                        | 5   | NNW |
| 23   | 31.7            | 25.0  | 28.3 | 28.3              | 28.9 | 14              | 0.5                 | 1021.2         | C         | C  | N                        | 13  | N   |
| 24   | 31.1            | 24.4  | 27.6 | 28.3              | 29.4 | 14              | 0.0                 | 1019.5         | C         | PC | NNE                      | 9   | ESE |
| 25   | 28.9            | 24.4  | 26.4 | 28.3              | 28.9 |                 | 0.0                 | 1016.5         | PC        | PC | NE                       | 6   | Cal |
| 26   | 28.9            | 24.4  | 25.5 | 27.8              | 28.3 |                 | 3.0                 | 1016.1         | CY        | CY | NE                       | 10  | E   |
| 27   | 26.7            | 22.8  | 25.3 | 27.8              | 27.8 | 13              | 16.0                | 1016.8         | CY        | CY | E                        | 10  | ESE |
| 28   | 25.6            | 22.8  | 25.0 | 26.7              | 26.7 | 13              | 1.5                 | 1016.5         | CY        | CY | NE                       | 14  | NE  |
| 29   | 26.1            | 21.1* | 23.2 | 25.0              | 25.6 | 13-14           | 2.5                 | 1015.8         | CY        | CY | NE                       | 16  | E   |
| 30   | 26.1            | 22.2  | 24.1 | 24.4              | 25.0 | 13-14           | 2.8                 | 1015.8         | CY        | CY | N                        | 11  | N   |
| 31   |                 |       |      |                   |      |                 |                     |                |           |    |                          |     |     |

MONTHLY SUMMARY

Maximum Air Temperature 33.3 Average Maximum Air Temperature 30.7 Monthly Mean Air Temperature 27.7

Minimum Air Temperature 21.1 Average Minimum Air Temperature 25.0 Total Monthly Precipitation 87.3

Maximum Water Temperature 30.6 Minimum Water Temperature 24.4 Mean Water Temperature 28.5



October 1978  
Table 5m. METEOROLOGICAL DATA  
Dauphin Island Sea Lab Dauphin Island, Alabama

| DATE | AIR TEMPERATURE |       |      | WATER TEMPERATURE |      | TYPE OF WEATHER | PRECIPITATION<br>mm<br>7 | PRESSURE<br>mb<br>8 | SKY COVER |    | WIND SPEED AND DIRECTION |     |     |
|------|-----------------|-------|------|-------------------|------|-----------------|--------------------------|---------------------|-----------|----|--------------------------|-----|-----|
|      | MAX             | MIN   | MEAN | AM                | PM   |                 |                          |                     | AM        | PM | AM                       | PM  | PM  |
|      | 2               | 3     | 4    | 5a                | 5b   | 6               | 7                        | 8                   | 9a        | 9b | 10a                      | 10b | 10b |
| 1    | 27.2            | 22.8  | 24.8 | 24.4              | 25.0 | 8-14            | TR                       | 1017.5              | CY        | C  | N                        | N   | 8   |
| 2    | 27.8            | 21.1  | 23.8 | 24.4              | 25.6 |                 | 0.0                      | 1017.2              | C         | C  | ENE                      | N   | 8   |
| 3    | 27.2            | 22.0  | 24.2 | 25.0              | 25.6 |                 | 0.0                      | 1015.5              | C         | PC | N                        | NE  | 2   |
| 4    | 28.3            | 21.7  | 25.3 | 24.4              | 25.6 | 6-14            | 0.0                      | 1015.5              | C         | C  | NNW                      | ENE | 2   |
| 5    | 28.9*           | 22.8  | 25.7 | 25.0              | 26.1 |                 | 0.0                      | 1016.5              | C         | C  | N                        | ENE | 4   |
| 6    | 26.7            | 19.0  | 22.1 | 25.0              | 25.6 |                 | 0.0                      | 1018.5              | C         | PC | NNW                      | N   | 4   |
| 7    | 21.7            | 16.1  | 18.6 | 22.2              | 22.8 |                 | 0.0                      | 1021.6              | CY        | PC | NNW                      | N   | 14  |
| 8    | 22.2            | 15.0  | 18.2 | 21.1              | 21.1 |                 | 0.0                      | 1023.6              | C         | PC | NNW                      | NNW | 8   |
| 9    | 24.4            | 17.0  | 20.6 | ND                | 22.2 |                 | 0.0                      | 1023.3              | PC        | PC | ENE                      | N   | 6   |
| 10   | 26.7            | 18.9  | 21.8 | ND                | 22.2 |                 | 0.0                      | 1019.9              | PC        | PC | ENE                      | ENE | 9   |
| 11   | 26.7            | 20.6  | 23.6 | 21.7              | ND   |                 | 0.0                      | 1015.1              | CY        | C  | NE                       | NNE | 2   |
| 12   | 27.2            | 21.1  | 23.5 | 21.7              | 23.9 |                 | 0.0                      | 1015.1              | C         | PC | NE                       | E   | 6   |
| 13   | 27.8            | 21.7  | 24.1 | 22.8              | 23.9 | 6               | 0.0                      | 1016.5              | PC        | C  | NE                       | NE  | 2   |
| 14   | 22.2            | 15.6  | 18.8 | 22.2              | 22.2 |                 | 0.0                      | 1021.2              | CY        | C  | NNW                      | E   | 4   |
| 15   | 20.0            | 14.4  | 16.3 | 18.9              | 18.3 |                 | 0.0                      | 1024.3              | C         | C  | NNW                      | NNW | 15  |
| 16   | 24.4            | 14.4  | 19.9 | 20.0              | 20.6 |                 | 0.0                      | 1020.2              | C         | C  | NNW                      | N   | 10  |
| 17   | 20.0            | 12.8* | 16.2 | 18.9              | 18.9 |                 | 0.0                      | 1023.6              | C         | C  | NNW                      | SSW | 5   |
| 18   | 23.3            | 16.1  | 19.2 | 18.3              | 18.9 |                 | 0.0                      | 1025.6              | C         | PC | NE                       | ENE | 8   |
| 19   | 22.2            | 15.6  | 19.3 | 18.3              | 19.4 |                 | 0.0                      | 1023.6              | C         | C  | N                        | ENE | 11  |
| 20   | 26.1            | 16.7  | 20.9 | 18.9              | 19.4 | 14              | 0.0                      | 1019.9              | C         | C  | N                        | NNW | 8   |
| 21   | 25.6            | 16.7  | 20.8 | 19.4              | 20.6 |                 | 0.0                      | 1019.5              | C         | C  | N                        | N   | 5   |
| 22   | 26.1            | 17.8  | 21.5 | 20.0              | 21.1 | 14              | 0.0                      | 1020.9              | PC        | C  | NNW                      | ENE | 2   |
| 23   | 26.7            | 18.9  | 22.0 | 21.1              | 21.7 | 6-14            | TR                       | 1021.6              | C         | C  | NE                       | ENE | 2   |
| 24   | 26.7            | 18.3  | 21.9 | 21.1              | 22.2 | 14              | 0.0                      | 1017.5              | C         | C  | N                        | NNW | 2   |
| 25   | 26.1            | 19.4  | 23.2 | 22.2              | 22.8 | 14              | 0.0                      | 1015.5              | C         | C  | N                        | N   | 6   |
| 26   | 26.7            | 16.7  | 22.4 | ND                | 23.3 | 14              | 0.0                      | 1015.8              | C         | C  | ENE                      | ESE | 5   |
| 27   | 26.1            | 20.6  | 22.6 | 22.8              | 23.3 | 14              | 0.0                      | 1016.8              | PC        | PC | NE                       | NE  | 4   |
| 28   | 26.7            | 20.0  | 22.6 | 22.8              | 23.3 | 14              | 0.0                      | 1018.5              | C         | PC | N                        | NNW | 5   |
| 29   | 25.0            | 19.4  | 21.8 | 21.7              | 21.7 |                 | 0.0                      | 1019.2              | PC        | PC | N                        | N   | 6   |
| 30   | 23.9            | 21.0  | 21.9 | 21.7              | 22.8 | 14              | 0.0                      | 1022.6              | PC        | CY | NNW                      | N   | 2   |
| 31   | 25.0            | 18.9  | 21.1 | 21.7              | 22.8 |                 | 0.0                      | 1023.6              | CY        | C  | ENE                      | E   | 12  |
|      |                 |       |      |                   |      |                 |                          |                     |           |    |                          | ESF | 5   |

MONTHLY SUMMARY  
 Maximum Air Temperature 28.9 Average Maximum Air Temperature 25.3 Monthly Mean Air Temperature 21.6  
 Minimum Air Temperature 12.8 Average Minimum Air Temperature 18.5 Total Monthly Precipitation 18.3  
 Maximum Water Temperature 26.1 Minimum Water Temperature 12.1 Mean Water Temperature 22.1

Table 6. METEOROLOGICAL DATA COLUMN EXPLANATIONS

The Dauphin Island Meteorological Station is located on the east end of Dauphin Island, Alabama at Latitude 30° 14' 57" N and Longitude 88° 04' 38" W. The elevation is approximately 2.45 m above mean sea level.

Column

- (1) Date.
- (2) Daily maximum air temperature (°C), based on 24 hourly readings from 0100 to 0000. \* = Extremes for the month: first occurrence.
- (3) Daily minimum air temperature (°C), based on 24 hourly readings from 0100 to 0000. \* = Extremes for the month: first occurrence.
- (4) Daily mean air temperature (°C), based on 12 hourly readings from 0100 to 0000.
- (5) Water temperature (°C), observed twice daily at specified times (0800 and 1300).
- (6) Type of weather, weather conditions observed, usually during regular observation periods (0800 and 1300). A blank in this column indicates that none of the weather conditions listed below were observed.

| <u>Code</u> | <u>Weather Condition</u> | <u>Code</u> | <u>Weather Condition</u> |
|-------------|--------------------------|-------------|--------------------------|
| 1           | Water Spout              | 9           | Hail                     |
| 2           | Squall                   | 10          | Snow Pellets             |
| 3           | Thunder Storm            | 11          | Snow                     |
| 4           | Freezing Rain            | 12          | Rain                     |
| 5           | Freezing Drizzle         | 13          | Drizzle                  |
| 6           | Fog                      | 14          | Haze                     |
| 7           | Snow Shower              | 15          | Smoke                    |
| 8           | Rain Shower              |             |                          |

- (7) Precipitation (mm), measured once daily at 0800. Precipitation may have actually occurred the preceeding day after the 0800 reading (check column 6). T = Trace Amount.
- (8) Pressure (millibars) 24 hourly readings taken and averaged.
- (9) Sky Cover, observed daily at two specified observation periods (0800 and 1300). 0 to 20% = Clear (C); 30 to 70% = Partly Cloudy (PC); 80 to 100% = Cloudy (CY); OBS = Visibility Obstructed.
- (10) Wind direction and speed (° mag/knots), observed daily at two specified observation periods (0800 and 1300). Variable = Var.

Table 7. Performance Records for the ENDECO 101 Units.

|                                       | DEPLOYMENT PERIOD <sup>1</sup> | DATA<br>GENERATED<br>(%) |       | REASONS FOR<br>DATA LOSSES | FOR COMPUTER<br>PRINTOUTS <sup>7</sup> OF<br>DATA, SEE<br>APPENDIX: |
|---------------------------------------|--------------------------------|--------------------------|-------|----------------------------|---------------------------------------------------------------------|
|                                       |                                | SAL.                     | TEMP. |                            |                                                                     |
| 1) East Fowl River/X-1 (Bot. 2.2 m)   | 10/26/77 - 10/24/78            | 32                       | 63    | 2, 3, & 4                  | C-1                                                                 |
| 2) Great Point Clear/X-2 (Bot. 2.0 m) | 10/18/77 - 10/25/78            | 65                       | 100   | 5                          | C-2                                                                 |
| 3) Deer River #1/X-3 (Bot. 2.5 m)     | 6/26/78 - 8/1/78               | 100                      | 100   | -                          | C-3                                                                 |
| 4) Dog River/M-2 (Surf. 0.5 m)        | 2/16/78 - 10/24/78             | 67                       | 67    | 6                          | C-4                                                                 |
| 5) Dog River/M-2 (Bot. 1.6 m)         | 10/21/77 - 10/24/78            | 84                       | 90    | 3, 4, & 6                  | C-5                                                                 |
| 6) Fairhope/M-3 (Surf. 0.5 m)         | 2/16/78 - 10/25/78             | 100                      | 100   | -                          | C-6                                                                 |
| 7) Fairhope/M-3 (Bot. 3.3 m)          | 2/16/78 - 10/25/78             | 64                       | 90    | 2, 4, & 5                  | C-7                                                                 |
| 8) Whitehouse Reef/M-4 (Surf. 0.5 m)  | 2/16/78 - 10/24/78             | 70                       | 100   | 2 & 5                      | C-8                                                                 |
| 9) Whitehouse Reef/M-4 (Bot. 3.2 m)   | 2/16/78 - 10/24/78             | 82                       | 100   | 3 & 5                      | C-9                                                                 |

1. Includes instrument servicing periods.
2. Instrument Mechanical failure.
3. Instrument Electronic failure.
4. Instrument Deployment failure.
5. Sediment clouding or clogging of instrument optics.
6. Instrument failure due to flooding.
7. Only one copy of computer printout available. It is included with the original copy of the final report.

Table 8. Julian Week Calender.

| JULIAN WEEK | MONTH(S) OF THE YEAR | JULIAN WEEK | MONTH(S) OF THE YEAR |
|-------------|----------------------|-------------|----------------------|
| 1           | January              | 27          | July                 |
| 2           | January              | 28          | July                 |
| 3           | January              | 29          | July                 |
| 4           | January              | 30          | July                 |
| 5           | January - February   | 31          | July - August        |
| 6           | February             | 32          | August               |
| 7           | February             | 33          | August               |
| 8           | February             | 34          | August               |
| 9           | February - March     | 35          | August - September   |
| 10          | March                | 36          | September            |
| 11          | March                | 37          | September            |
| 12          | March                | 38          | September            |
| 13          | March - April        | 39          | September            |
| 14          | April                | 40          | October              |
| 15          | April                | 41          | October              |
| 16          | April                | 42          | October              |
| 17          | April                | 43          | October              |
| 18          | April - May          | 44          | October - November   |
| 19          | May                  | 45          | November             |
| 20          | May                  | 46          | November             |
| 21          | May                  | 47          | November             |
| 22          | May - June           | 48          | November - December  |
| 23          | June                 | 49          | December             |
| 24          | June                 | 50          | December             |
| 25          | June                 | 51          | December             |
| 26          | June - July          | 52          | December             |

Table 9. Average Weekly Salinity and Temperature Values for each Location Monitored.  
(Time Julian Weeks; Salinity ppt and Temperature °C)

| LOCATION <sup>1</sup> | 1977      |            |          |          |          |          |          |  |  |
|-----------------------|-----------|------------|----------|----------|----------|----------|----------|--|--|
|                       | 43        | 44         | 45       | 46       | 47       | 48       | 49       |  |  |
| 1) ERF/X-1 (B)        | ND        | 8.0/21.4   | 5.3/18.9 | +        | ND       | ND       | ND       |  |  |
| 2) GPC/X-2 (B)        | 15.8/20.7 | *20.6/21.4 | ND/18.8  | ND/16.2  | ND/17.8  | ND/16.7  | ND/14.9  |  |  |
| 3) DR-1/X-3 (B)       | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |
| 4) DR/M-2 (S)         | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |
| 5) DR/M-2 (B)         | 5.1/20.8  | 4.9/21.1   | 3.0/18.7 | 2.4/16.5 | 2.8/17.9 | 5.2/16.8 | 4.1/15.2 |  |  |
| 6) F/M-3 (S)          | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |
| 7) F/M-3 (B)          | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |
| 8) WR/M-4 (S)         | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |
| 9) WR/M-4 (B)         | ND        | ND         | ND       | ND       | ND       | ND       | ND       |  |  |

<sup>1</sup>See Table 7 for full name of location.

ND No Data

\* Partial week (4 days or more)

+ Insufficient data

Table 9. Continued.

| LOCATION | 1977     |          |          | 1978    |        |        |        |         |
|----------|----------|----------|----------|---------|--------|--------|--------|---------|
|          | 50       | 51       | 52       | 1       | 2      | 3      | 4      | 5       |
| 1)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 2)       | ND/11.0  | ND/12.9  | ND/12.3  | ND/10.9 | ND/8.8 | ND/7.0 | ND/6.7 | ND/6.6  |
| 3)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 4)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 5)       | 5.8/11.8 | 6.5/13.3 | 7.0/12.5 | ND      | ND     | ND     | ND     | 3.9/6.6 |
| 6)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 7)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 8)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |
| 9)       | ND       | ND       | ND       | ND      | ND     | ND     | ND     | ND      |

Table 9. Continued.

| LOCATION | 1978    |         |           |            |           |           |           |  |  |  |  |  |
|----------|---------|---------|-----------|------------|-----------|-----------|-----------|--|--|--|--|--|
|          | 6       | 7       | 8         | 9          | 10        | 11        | 12        |  |  |  |  |  |
| 1)       | ND      | +       | 9.4/9.4   | 4.7/12.3   | 7.4/11.7  | 3.2/15.3  | 1.2/17.1  |  |  |  |  |  |
| 2)       | ND/*6.0 | +       | 6.2/8.8   | 11.1/11.3  | 8.4/10.7  | 4.1/14.6  | 1.8/16.0  |  |  |  |  |  |
| 3)       | ND      | ND      | ND        | ND         | ND        | ND        | ND        |  |  |  |  |  |
| 4)       | ND      | +       | 4.0/9.4   | 2.0/11.6   | 3.6/11.2  | 1.0/14.1  | <1.0/16.1 |  |  |  |  |  |
| 5)       | 4.1/6.0 | 3.5/9.4 | 6.0/9.3   | 3.9/11.7   | 6.1/11.4  | 2.7/14.3  | 2.2/16.2  |  |  |  |  |  |
| 6)       | ND      | +       | 9.0/8.9   | 19.1/11.0  | 11.0/10.7 | 6.2/12.9  | 2.2/14.3  |  |  |  |  |  |
| 7)       | ND      | +       | +/10.3    | *23.0/11.1 | ND/11.4   | ND/12.3   | ND/13.8   |  |  |  |  |  |
| 8)       | ND      | +       | 8.3/9.7   | 6.5/12.1   | 8.2/11.6  | 2.9/14.0  | <1.0/15.9 |  |  |  |  |  |
| 9)       | ND      | +       | 22.6/10.4 | 26.2/11.7  | 16.1/11.8 | 14.3/13.7 | 7.0/15.0  |  |  |  |  |  |

Table 9. Continued.

1978

| LOCATION | 13        | 14        | 15        | 16       | 17        | 18         | 19         | 20      | 21        |
|----------|-----------|-----------|-----------|----------|-----------|------------|------------|---------|-----------|
| 1)       | 1.4/17.3  | +/*22.4   | ND/21.7   | ND/22.2  | ND/20.8   | ND/22.7    | ND/23.9    | ND/24.3 | ND/27.5   |
| 2)       | 2.9/15.9  | 4.0/21.4  | 3.3/21.9  | 2.9/22.0 | 2.0/20.2  | +          | ND         | +       | <1.0/25.8 |
| 3)       | ND        | ND        | ND        | ND       | ND        | ND         | ND         | ND      | ND        |
| 4)       | 1.2/17.0  | 1.7/22.0  | 1.4/21.4  | 1.4/22.0 | <1.0/20.8 | *2.3/*22.3 | ND         | ND      | ND        |
| 5)       | 3.3/17.3  | 3.0/22.3  | 4.1/21.8  | 2.5/22.3 | 3.9/20.8  | +          | ND         | +       | <1.0/25.2 |
| 6)       | 6.2/14.9  | 4.5/19.9  | 4.7/21.7  | 4.1/21.3 | 4.6/20.2  | 5.2/22.2   | *2.4/*22.0 | ND      | ND        |
| 7)       | *7.7/15.0 | 5.2/19.0  | *5.2/21.6 | +20.9    | +21.4     | +21.8      | +/*21.6    | ND      | ND        |
| 8)       | 1.4/16.2  | 5.0/21.1  | 6.7/21.9  | 4.3/22.1 | 5.2/20.7  | +22.6      | ND/*22.7   | ND      | ND        |
| 9)       | 7.0/16.0  | 13.4/19.6 | 9.1/21.9  | 7.4/21.9 | 10.4/20.6 | +22.3      | ND/+       | ND      | ND        |



Table 9. Continued.

| LOCATION | 1978      |           |           |           |            |           |           |             |  |
|----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-------------|--|
|          | 22        | 23        | 24        | 25        | 26         | 27        | 28        | 29          |  |
| 1)       | ND/29.0   | ND/28.3   | ND/28.6   | ND/29.3   | ND/30.7    | ND        | ND        | ND          |  |
| 2)       | <1.0/27.8 | <1.0/27.6 | 4.0/27.5  | 3.8/28.0  | 7.4/29.9   | 7.2/30.4  | 10.0/30.2 | 11.0/29.8   |  |
| 3)       | ND        | ND        | ND        | ND        | *3.4/*30.3 | 4.3/30.1  | 4.5/30.4  | 7.3/29.9    |  |
| 4)       | ND        | ND        | ND        | ND        | ND         | ND        | ND        | ND          |  |
| 5)       | <1.0/28.2 | <1.0/27.8 | *3.3/27.6 | 10.0/29.2 | 11.2/30.8  | 8.7/30.4  | ND/30.3   | ND/28.1     |  |
| 6)       | +         | <1.0/27.6 | <1.0/27.5 | <1.0/28.3 | 2.8/30.2   | 5.2/30.2  | 5.8/30.5  | 8.0/30.1    |  |
| 7)       | ND        | <1.0/26.1 | 1.9/25.9  | 6.6/25.5  | 10.2/26.3  | 4.2/27.3  | 8.3/27.4  | *15.5/*27.0 |  |
| 8)       | +         | <1.0/26.8 | <1.0/27.1 | <1.0/27.8 | 2.4/29.4   | 5.4/29.2  | 6.2/29.8  | 9.3/29.1    |  |
| 9)       | +         | 3.8/27.6  | 6.0/27.9  | 7.6/28.3  | 14.7/29.3  | 13.5/29.6 | 20.4/29.6 | 18.2/29.9   |  |

Table 9. Continued.

| LOCATION | 1978      |            |           |             |           |
|----------|-----------|------------|-----------|-------------|-----------|
|          | 30        | 31         | 32        | 33          | 34        |
| 1)       | ND        | ND         | ND        | ND/29.5     | ND/31.0   |
| 2)       | 10.6/28.2 | +          | ND        | ND/*28.9    | 10.8/29.7 |
| 3)       | 6.3/28.1  | ND         | ND        | ND          | 13.3/29.5 |
| 4)       | ND        | ND         | ND        | *4.1/*30.2  | ND        |
| 5)       | ND        | ND         | ND        | ND          | 2.8/31.1  |
| 6)       | 8.6/28.3  | *6.4/*28.0 | ND        | ND          | 5.5/29.7  |
| 7)       | ND        | ND         | ND        | *1.1/*29.8  | ND        |
| 8)       | 10.4/26.9 | 6.9/27.7   | ND        | *7.3/*26.9  | *2.9/29.5 |
| 9)       | 16.7/28.1 | 18.4/28.3  | 11.0/27.3 | *11.6/*29.8 | 8.5/27.1  |
|          |           |            | 17.3/28.1 | 16.9/28.6   | ND/29.7   |
|          |           |            |           |             | 16.1/29.5 |

Table 9. Continued.

| LOCATION | 1978        |             |              |             |               |               |             |               |  |  |
|----------|-------------|-------------|--------------|-------------|---------------|---------------|-------------|---------------|--|--|
|          | 36          | 37          | 38           | 39          | 40            | 41            | 42          | 43            |  |  |
| 1)       | + / 29.1    | + / 28.9    | 11.0 / 28.3  | 8.8 / 26.0  | 10.9 / 23.9   | 13.5 / 21.3   | 14.5 / 18.4 | ND            |  |  |
| 2)       | 17.2 / 29.0 | 15.4 / 28.6 | 14.8 / 29.1  | 17.0 / 27.0 | 19.9 / 25.1   | 18.9 / 21.9   | 19.8 / 19.3 | *21.7 / *21.0 |  |  |
| 3)       | ND          | ND          | ND           | ND          | ND            | ND            | ND          | ND            |  |  |
| 4)       | 6.4 / 29.1  | 8.9 / 29.4  | *8.1 / 29.7  | 7.5 / 26.8  | 9.3 / 24.7    | 12.3 / 22.6   | 14.5 / 19.5 | ND            |  |  |
| 5)       | ND          | +           | 9.1 / 29.6   | 8.3 / 27.0  | 11.4 / 24.9   | 15.1 / 23.0   | 16.0 / 19.8 | ND            |  |  |
| 6)       | 3.4 / 28.6  | 7.9 / 29.0  | 6.8 / 29.2   | 7.9 / 27.0  | 10.2 / 25.0   | *14.0 / *22.9 | 14.9 / 19.6 | *15.3 / *21.1 |  |  |
| 7)       | 15.4 / 27.0 | 13.5 / 26.9 | 11.1 / 27.0  | ND          | *16.7 / *24.8 | 15.7 / 22.0   | 16.0 / 19.4 | *18.2 / *20.5 |  |  |
| 8)       | ND / 28.9   | ND / 29.4   | ND / 29.6    | ND / 27.2   | ND / 25.3     | ND / 22.7     | ND / 19.6   | ND            |  |  |
| 9)       | 20.7 / 29.7 | 20.0 / 29.4 | *17.6 / 29.4 | ND / 27.3   | ND / 25.2     | ND / 22.6     | ND / 19.4   | ND            |  |  |

Table 10. Hydrographic Data taken in Conjunction with the Quarterly Bay Bottom Grab Sampling Element.  
(Salinity ppt, temperature °C and dissolved oxygen ppm and % saturation.)

| STATION | BOTTOM<br>DEPTH<br>(M) | SAMPLING<br>DEPTH* | Nov. 3 and 6, 1977 |      | Jan. 27, 1978 |      | Apr. 14 and 19, 1978 |      | July 19, 1978 |      | Oct. 2, 1978 |      |
|---------|------------------------|--------------------|--------------------|------|---------------|------|----------------------|------|---------------|------|--------------|------|
|         |                        |                    | SAL                | TEMP | DO            | %SAT | SAL                  | TEMP | DO            | %SAT | SAL          | TEMP |
| B-1     | 2.9                    | 0.5                | 7.4                | 21.0 | 9.1           | 100  | 2.0                  | 7.5  | 11.0          | 92   | 8.9          | 30.9 |
|         |                        |                    |                    |      |               |      | 2.8                  | 22.0 | 8.5           | 99   | 9.5          | 136  |
|         |                        | 1.0                | 7.4                | 21.0 | 8.4           | 99   | 2.1                  | 7.5  | 10.8          | 91   | 8.9          | 30.9 |
|         |                        |                    |                    |      |               |      | 2.8                  | 22.0 | 8.4           | 98   | 8.9          | 30.9 |
| B-2     | 3.2                    | 2.0                | 7.4                | 21.3 | 7.9           | 94   | 2.1                  | 6.0  | 10.6          | 85   | 17.6         | 30.6 |
|         |                        |                    |                    |      |               |      | 3.5                  | 22.0 | 7.7           | 90   | 4.4          | 66   |
|         |                        | 2.6-3.3            | 7.4                | 21.5 | 6.6           | 79   | 2.1                  | 6.0  | 11.0          | 89   | 17.5         | 30.5 |
|         |                        |                    |                    |      |               |      | 5.0                  | 22.0 | 7.8           | 92   | 1.1          | 16   |
| B-3     | 3.1                    | 0.5                | 2.7                | 21.3 | 9.2           | 105  | 3.1                  | 6.5  | 11.0          | 91   | 9.0          | 30.7 |
|         |                        |                    |                    |      |               |      | 4.4                  | 21.0 | 8.7           | 100  | 7.5          | 106  |
|         |                        | 1.0                | 3.0                | 20.8 | 8.1           | 93   | 3.1                  | 6.5  | 11.0          | 91   | 9.1          | 30.7 |
|         |                        |                    |                    |      |               |      | 4.4                  | 20.8 | 8.9           | 102  | 6.8          | 96   |
| B-4     | 2.9                    | 2.0                | 5.3                | 21.0 | 7.9           | 91   | 3.2                  | 6.2  | 11.0          | 91   | 16.9         | 30.6 |
|         |                        |                    |                    |      |               |      | 4.5                  | 20.5 | 9.1           | 103  | 4.4          | 65   |
|         |                        | 3.0-3.5            | 6.8                | 21.3 | 6.7           | 79   | 3.2                  | 6.2  | 10.4          | 86   | 17.0         | 29.8 |
|         |                        |                    |                    |      |               |      | 4.6                  | 20.0 | 9.2           | 103  | 2.0          | 29   |
| B-5     | 3.1                    | 0.5                | 3.9                | 20.0 | 9.3           | 104  | 2.9                  | 6.5  | 11.4          | 94   | 7.7          | 30.7 |
|         |                        |                    |                    |      |               |      | 4.0                  | 20.8 | 8.1           | 93   | 7.5          | 106  |
|         |                        | 1.0                | 4.1                | 19.5 | 9.1           | 101  | 2.9                  | 6.5  | 11.8          | 98   | 8.3          | 30.1 |
|         |                        |                    |                    |      |               |      | 4.0                  | 20.5 | 8.3           | 94   | 6.3          | 88   |
| B-6     | 2.0                    | 2.0                | 5.0                | 19.5 | 8.6           | 96   | 3.0                  | 6.0  | 12.2          | 102  | 16.5         | 29.4 |
|         |                        |                    |                    |      |               |      | 4.1                  | 20.3 | 8.0           | 91   | 3.4          | 49   |
|         |                        | 2.8-3.8            | 9.8                | 20.3 | 5.5           | 64   | 3.2                  | 6.0  | 13.2          | 110  | 18.7         | 29.3 |
|         |                        |                    |                    |      |               |      | 4.4                  | 19.8 | 8.0           | 90   | 1.5          | 22   |
| B-7     | 2.9                    | 0.5                | 3.3                | 19.5 | 9.0           | 100  | 3.0                  | 7.0  | 10.5          | 87   | 7.2          | 30.1 |
|         |                        |                    |                    |      |               |      | 4.2                  | 22.5 | 8.5           | 100  | 7.6          | 107  |
|         |                        | 1.0                | 3.9                | 19.0 | 8.6           | 95   | 3.0                  | 7.0  | 10.4          | 87   | 7.3          | 30.4 |
|         |                        |                    |                    |      |               |      | 4.2                  | 22.5 | 8.6           | 101  | (1.5)        | 9.5  |
| B-8     | 2.0                    | 2.0                | 5.6                | 19.5 | 7.5           | 84   | 4.6                  | 7.0  | 10.4          | 88   | 17.1         | 29.9 |
|         |                        |                    |                    |      |               |      | (2.4)                | 4.3  | 22.3          | 8.7  | 4.5          | 66   |
|         |                        | 2.4-3.2            | 9.1                | 20.5 | 5.1           | 59   | 4.6                  | 7.0  | 10.6          | 90   | 17.5         | 29.9 |
|         |                        |                    |                    |      |               |      |                      |      |               |      | 1.5          | 22   |

\* The bottom sampling depths vary because of water level differences caused by the tide, wind and river water.

+ Bottom depth for this survey.

Table 10. Continued

| STATION | BOTTOM DEPTH (M) | SAMPLING DEPTH* | Nov. 3 and 6, 1977 |      |         | Jan. 27, 1978 |      |         | Apr. 14 and 19, 1978 |         |         | July 19, 1978 |      |              | Oct. 2, 1978 |      |         |           |            |      |      |     |
|---------|------------------|-----------------|--------------------|------|---------|---------------|------|---------|----------------------|---------|---------|---------------|------|--------------|--------------|------|---------|-----------|------------|------|------|-----|
|         |                  |                 | SAL                | TEMP | DO %SAT | SAL           | TEMP | DO %SAT | SAL                  | TEMP    | DO %SAT | SAL           | TEMP | DO %SAT      | SAL          | TEMP | DO %SAT |           |            |      |      |     |
| B-5     | 2.6              | 0.5             | 3.3                | 19.5 | 8.9     | 99            | <1.0 | 6.5     | 11.5                 | 93      | 4.3     | 22.3          | 8.9  | 105          | 9.1          | 30.8 | 7.8     | 110       | 10.1       | 27.1 | 9.8  | 131 |
|         |                  | 1.0             | 3.3                | 19.5 | 8.9     | 99            | 1.1  | 6.5     | 11.6                 | 94      | 4.3     | 21.3          | 9.4  | 109          | 10.6         | 31.0 | 5.8     | 82        | (1.5)12.5  | 25.5 | 7.6  | 100 |
|         |                  | 2.0             | 3.3                | 19.0 | 8.7     | 97            | 1.1  | 6.5     | 11.8                 | 96      | 4.3     | 20.5          | 9.5  | 108(2.3)17.0 | 30.1         | 2.2  | 32      | (3.0)20.1 | 26.0       | 5.2  | 72   |     |
|         |                  | 2.2-3.0         | 5.0                | 19.0 | 8.3     | 92            | 6.8  | 7.3     | 13.0                 | 111     | 4.9     | 20.0          | 9.8  | 110          | -            | -    | -       | -         | -          | -    | -    | -   |
| B-6     | 3.8              | 0.5             | 2.8                | 19.0 | 8.5     | 94            | <1.0 | 6.8     | 11.0                 | 90      | 3.0     | 22.3          | 7.9  | 93           | 9.3          | 31.2 | 7.8     | 111       | 13.1       | 25.6 | 10.8 | 150 |
|         |                  | 1.0             | 2.8                | 19.0 | 8.5     | 94            | <1.0 | 6.8     | 11.8                 | 97      | 3.0     | 22.3          | 8.1  | 95           | 9.8          | 31.0 | 7.5     | 107       | 13.4       | 25.4 | 10.6 | 147 |
|         |                  | 2.0             | 4.4                | 19.5 | 8.0     | 89            | 1.7  | 7.0     | 10.2                 | 84      | 3.0     | 22.0          | 8.3  | 98           | 15.3         | 31.1 | 5.4     | 79        | 13.4       | 25.4 | 9.8  | 138 |
|         |                  | 3.0             | 6.2                | 20.0 | 5.9     | 67(3.4)       | 5.6  | 7.5     | 10.0                 | 86(3.0) | 3.3     | 22.0          | 7.9  | 93           | 16.6         | 31.0 | <1.0    | 15        | (3.5) 20.0 | 24.0 | 5.3  | 71  |
|         |                  | 4.0             | 9.1                | 21.0 | 9.2     | 108           | -    | -       | -                    | -       | -       | -             | -    | -            | (4.0)16.9    | 29.5 | 1.0     | 14        | -          | -    | -    | -   |
|         |                  | 3.0-5.0         | 9.1                | 21.0 | 9.9     | 116           | -    | -       | -                    | -       | -       | -             | -    | -            | -            | -    | -       | -         | -          | -    | -    | -   |
| B-7     | 3.4              | 0.5             | 1.5                | 20.8 | 9.0     | 101           | <1.0 | 7.0     | 11.2                 | 92      | 2.0     | 22.3          | 7.7  | 90           | 9.9          | 31.4 | 9.0     | 130       | 14.3       | 25.0 | 9.2  | 121 |
|         |                  | 1.0             | 2.0                | 20.5 | 8.7     | 98            | 1.1  | 7.0     | 11.8                 | 98      | 2.0     | 22.3          | 7.7  | 90           | 9.9          | 30.9 | 8.1     | 116       | (2.0) 14.3 | 24.9 | 8.4  | 111 |
|         |                  | 2.0             | 3.4                | 20.8 | 8.2     | 93            | 1.3  | 7.0     | 11.8                 | 98      | 2.1     | 22.0          | 7.5  | 87           | 17.5         | 30.7 | 7.2     | 107       | (3.4) 20.7 | 24.8 | 5.4  | 74  |
|         |                  | 3.0-4.0         | 8.0                | 21.5 | 6.0     | 71            | 4.7  | 7.5     | 10.8                 | 92      | 3.6     | 20.0          | 6.7  | 80(3.0)18.8  | 30.9         | <1.0 | <15     | -         | -          | -    | -    | -   |
| B-8     | 2.9              | 0.5             | No Data            |      |         | 1.9           | 8.0  | 11.2    | 95                   | 4.4     | 21.0    | 8.5           | 98   | 8.1          | 30.3         | 8.4  | 117     | 8.6       | 25.4       | 9.5  | 123  |     |
|         |                  | 1.0             |                    |      |         | 1.9           | 8.0  | 11.3    | 96                   | 4.4     | 20.5    | 8.2           | 93   | 9.2          | 30.2         | 8.0  | 113     | (1.5) 9.5 | 24.5       | 8.8  | 111  |     |
|         |                  | 2.0             |                    |      |         | 1.9           | 7.5  | 11.8    | 99                   | 4.4     | 20.5    | 8.2           | 93   | 17.4         | 30.0         | <1.0 | <15     | (3.0) 9.5 | 24.5       | 8.5  | 108  |     |
|         |                  | 2.6-3.0         |                    |      |         | 1.9           | 7.5  | 13.0    | 108                  | 4.4     | 20.5    | 8.2           | 93   | 17.4         | 29.2         | <1.0 | <14     | -         | -          | -    | -    | -   |

\* The bottom sampling depths vary because of water level differences caused by the tide, wind and river water.

+ Bottom depth for this survey.

Table 11. Hydrographic Data taken in Conjunction with the Monthly Bay Bottom Grab Sampling Element. (Salinity ppt, temperature °C and dissolved oxygen ppm and % saturation.)

| STATION | BOTTOM DEPTH* (M) | SAMPLING DEPTH* (M) | March 29, 1978 |       |      | May 24, 1978 |      |       | June 27, 1978 |        |      |       |      |        |
|---------|-------------------|---------------------|----------------|-------|------|--------------|------|-------|---------------|--------|------|-------|------|--------|
|         |                   |                     | SAL.           | TEMP. | D.O. | % SAT.       | SAL. | TEMP. | D.O.          | % SAT. | SAL. | TEMP. | D.O. | % SAT. |
| B-1     | 2.9               | 0.5                 | 2.2            | 15.0  | -    | -            | 1.1  | 25.3  | 7.1           | 87     | 5.0  | 30.0  | 7.9  | 108    |
|         |                   | 1.0                 | 2.8            | 15.0  | -    | -            | 1.1  | 25.0  | 6.8           | 83     | -    | 30.0  | 7.0  | 96     |
|         |                   | 2.0                 | -              | -     | -    | -            | -    | -     | -             | -      | 5.3  | 29.5  | 5.7  | 77     |
|         |                   | 2.6-3.3             | 5.0            | 15.0  | -    | -            | 1.6  | 24.3  | 5.5           | 66     | 7.7  | 28.3  | <1.0 | <14    |
| B-5     | 2.6               | 0.5                 | 1.6            | 16.0  | -    | -            | <1.0 | 25.0  | 6.6           | 80     | 3.9  | 30.0  | 8.6  | 116    |
|         |                   | 1.0                 | 1.4            | 15.3  | -    | -            | <1.0 | 24.8  | 6.4           | 78     | 3.9  | 29.8  | 8.3  | 112    |
|         |                   | 2.2-3.0             | 6.2            | 18.5  | -    | -            | 1.5  | 23.8  | 5.6           | 67     | 9.8  | 29.0  | 2.8  | 39     |
| B-7     | 3.4               | 0.5                 | 6.8            | 16.5  | -    | -            | <1.0 | 26.8  | 9.7           | 121    | 3.6  | 30.5  | 9.0  | 123    |
|         |                   | 1.0                 | 7.7            | 15.4  | -    | -            | -    | -     | -             | -      | 3.3  | 30.0  | 9.0  | 121    |
|         |                   | 2.0                 | 6.8            | 15.0  | -    | -            | <1.0 | 24.5  | 6.1           | 73     | 5.6  | 29.5  | 5.5  | 75     |
|         |                   | 3.0-4.0             | 11.7           | 15.4  | -    | -            | <1.0 | 24.3  | 5.0           | 60     | 13.7 | 28.0  | <1.0 | <14    |

\*The bottom sampling depths vary because of water level differences caused by the tide, wind and river water.

Table 11. Continued.

| STATION | August 23, 1978 |       |      |        | September 15, 1978 |       |      |        |
|---------|-----------------|-------|------|--------|--------------------|-------|------|--------|
|         | SAL.            | TEMP. | D.O. | % SAT. | SAL.               | TEMP. | D.O. | % SAT. |
| B-1     | 8.0             | 30.0  | 6.7  | 93     | 13.1               | 28.0  | 8.0  | 113    |
|         | 8.0             | 30.0  | 6.6  | 92     | 13.1               | 27.5  | 7.8  | 110    |
|         | 8.0             | 30.0  | 6.2  | 86     | 14.7               | 28.0  | 7.4  | 101    |
|         | 14.4            | 29.8  | <1.0 | <15    | 15.1               | 28.5  | 7.5  | 103    |
| B-25    | 6.8             | 30.3  | 7.2  | 100    | 12.4               | 28.0  | 7.4  | 101    |
|         | 6.8             | 30.0  | 7.2  | 100    | 12.7               | 28.0  | 7.1  | 97     |
|         | 8.0             | 30.0  | 5.6  | 78     | 12.7               | 28.0  | 6.8  | 93     |
|         | 8.0             | 30.0  | 7.2  | 99     | 13.1               | 28.3  | 6.7  | 93     |
| B-7     | 8.0             | 30.0  | 6.9  | 95     | 13.1               | 28.3  | 6.7  | 93     |
|         | 14.4            | 30.0  | 3.0  | 43     | 13.1               | 28.3  | 6.0  | 83     |
|         | 19.8            | 29.8  | 3.3  | 49     | 16.4               | 28.5  | 3.2  | 46     |

Table 12. Hydrographic Data taken in Conjunction with the "Turbidity" and Suspended Solids Element.  
(Salinity ppt and temperature °C)

| STATION | BOTTOM<br>DEPTH (m) | SAMPLING<br>DEPTH | Nov. 7, 1977 |       | Jan. 28, 1978 |       | Mar. 29, 1978 |       | Apr. 17, 1978 |       |
|---------|---------------------|-------------------|--------------|-------|---------------|-------|---------------|-------|---------------|-------|
|         |                     |                   | Sal.         | Temp. | Sal.          | Temp. | Sal.          | Temp. | Sal.          | Temp. |
| T-1     | 2.5                 | Surf.             | 7.0          | 17.7  | 1.7           | 6.7   | <1.0          | 17.5  | 5.4           | 22.2  |
|         |                     | Bot.              | 8.8          | 18.0  | 2.1           | 6.7   | 1.1           | 15.6  | 5.4           | 22.0  |
| T-2     | 3.5                 | Surf.             | 5.4          | 17.8  | 2.6           | 5.8   | 2.2           | 15.0  | 4.6           | 22.8  |
|         |                     | Bot.              | 16.9         | 19.2  | 3.5           | 5.7   | 5.0           | 15.0  | 7.7           | 22.6  |
| T-3     | 4.0                 | Surf.             | 4.0          | 17.3  | 3.1           | 5.9   | 3.3           | 16.0  | 4.4           | 22.5  |
|         |                     | Bot.              | 14.7         | 19.0  | 4.2           | 5.8   | 6.2           | 14.8  | 7.5           | 21.4  |
| T-4     | 2.5                 | Surf.             | 4.4          | 19.6  | <1.0          | 5.6   | 4.1           | 16.0  | 4.7           | 23.2  |
|         |                     | Bot.              | 9.4          | 20.2  | <1.0          | 5.5   | 7.4           | 15.0  | 5.1           | 23.0  |
| T-5     | 4.0                 | Surf.             | 2.5          | 19.6  | <1.0          | 5.8   | <1.0          | 18.5  | 3.0           | 22.7  |
|         |                     | Bot.              | 14.7         | 21.1  | 6.7           | 6.4   | 8.0           | 14.8  | 8.0           | 20.7  |
| T-6     | 2.5                 | Surf.             | 1.7          | 19.9  | <1.0          | 6.0   | 1.1           | 16.0  | 2.6           | 23.0  |
|         |                     | Bot.              | 14.1         | 20.7  | 6.6           | 7.5   | 3.1           | 15.0  | 3.8           | 22.5  |
| T-7     | 2.0                 | Surf.             | 3.2          | 20.0  | 2.1           | 6.9   | 3.1           | 14.5  | 3.3           | 24.1  |
|         |                     | Bot.              | 10.9         | 20.8  | 3.3           | 7.1   | 4.7           | 14.8  | 3.3           | 23.9  |
| T-8     | 2.5                 | Surf.             | 4.2          | 20.7  | 2.6           | 6.8   | 1.7           | 18.5  | 4.0           | 23.4  |
|         |                     | Bot.              | 10.1         | 21.7  | 2.9           | 7.2   | 2.8           | 15.0  | 5.2           | 21.7  |
| T-9     | 3.0                 | Surf.             | 5.2          | 20.2  | 2.6           | 7.2   | <1.0          | 19.0  | 4.6           | 22.5  |
|         |                     | Bot.              | 10.7         | 21.6  | 2.6           | 7.3   | 1.7           | 15.0  | 4.7           | 22.4  |



Table 12. Continued.

| STATION | BOTTOM<br>DEPTH (m) | SAMPLING<br>DEPTH | May 22, 1978 |       | July 10, 1978 |       | Aug. 21, 1978 |       | Oct. 4, 1978 |       |
|---------|---------------------|-------------------|--------------|-------|---------------|-------|---------------|-------|--------------|-------|
|         |                     |                   | Sal.         | Temp. | Sal.          | Temp. | Sal.          | Temp. | Sal.         | Temp. |
| T-1     | 2.5                 | Surf.             | <1.0         | 26.3  | 9.0           | 31.8  | 9.5           | 31.0  | 10.6         | 26.2  |
|         |                     | Bot.              | <1.0         | 26.3  | 5.6           | 31.2  | 10.3          | 30.0  | 12.9         | 25.8  |
| T-2     | 3.5                 | Surf.             | <1.0         | 25.5  | 9.2           | 31.6  | 10.5          | 29.8  | 10.8         | 25.0  |
|         |                     | Bot.              | 1.6          | 23.5  | 10.4          | 30.6  | 16.0          | 28.8  | 20.8         | 26.0  |
| T-3     | 4.0                 | Surf.             | <1.0         | 25.8  | 8.1           | 30.9  | 7.8           | 29.9  | 12.4         | 25.5  |
|         |                     | Bot.              | <1.0         | 24.0  | 17.4          | 29.4  | 20.3          | 29.2  | 23.1         | 26.2  |
| T-4     | 2.5                 | Surf.             | <1.0         | 25.5  | 9.1           | 31.4  | 7.8           | 29.5  | 13.0         | 26.0  |
|         |                     | Bot.              | <1.0         | 25.5  | 8.9           | 31.0  | 15.5          | 28.9  | 18.4         | 25.8  |
| T-5     | 4.0                 | Surf.             | <1.0         | 26.0  | 7.5           | 31.2  | 8.0           | 30.9  | 11.2         | 25.8  |
|         |                     | Bot.              | <1.0         | 24.0  | 9.2           | 30.0  | 13.2          | 28.7  | 19.9         | 26.0  |
| T-6     | 2.5                 | Surf.             | <1.0         | 25.5  | 8.2           | 31.7  | 6.0           | 31.2  | 10.8         | 26.5  |
|         |                     | Bot.              | <1.0         | 24.5  | 13.5          | 30.1  | 20.4          | 29.1  | 20.8         | 26.2  |
| T-7     | 2.0                 | Surf.             | 1.1          | 26.0  | 4.8           | 32.2  | 5.2           | 30.4  | 9.8          | 26.5  |
|         |                     | Bot.              | <1.0         | 25.3  | 4.0           | 32.0  | 7.1           | 31.4  | 11.5         | 25.9  |
| T-8     | 2.5                 | Surf.             | 1.4          | 26.5  | 6.0           | 32.1  | 6.5           | 30.7  | 10.1         | 26.3  |
|         |                     | Bot.              | 1.6          | 25.0  | 5.2           | 30.0  | 7.2           | 30.5  | 10.9         | 26.6  |
| T-9     | 3.0                 | Surf.             | 1.5          | 26.5  | 8.0           | 31.5  | 7.0           | 31.2  | 12.3         | 26.5  |
|         |                     | Bot.              | 1.6          | 26.0  | 6.1           | 31.3  | 12.8          | 29.5  | 13.0         | 26.0  |

Table 13. Theodore Barge Canal Dissolved Oxygen Survey Winter Quarter Five Day Sampling. Station 2.

| DATE<br>(1978)                  | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|---------------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 02/20                           | 0820          | 0.5          | 10.4         | 2.0                       | 9.2         | 83                         |
|                                 |               | 1.0          | 10.5         | 2.0                       | 8.7         | 78                         |
|                                 |               | 2.0          | 10.5         | 2.0                       | 8.7         | 78                         |
|                                 |               | 3.0          | 10.0         | 2.0                       | 8.7         | 78                         |
| 02/20                           | 1630          | 0.5          | 11.5         | 2.0                       | 10.6        | 98                         |
|                                 |               | 1.0          | 11.5         | 2.0                       | 10.4        | 96                         |
|                                 |               | 2.0          | 11.5         | 2.0                       | 9.4         | 87                         |
|                                 |               | 3.0          | 11.0         | 2.0                       | 8.4         | 76                         |
| 02/21                           | 0730          | 0.5          | 9.8          | 2.0                       | 9.3         | 82                         |
|                                 |               | 1.0          | 9.8          | 2.0                       | 8.7         | 77                         |
|                                 |               | 2.0          | 9.5          | 2.0                       | 8.6         | 75                         |
|                                 |               | 3.0          | 7.5          | 2.0                       | 7.2         | 61                         |
| 02/21                           | 1500          | 0.5          | 11.5         | 2.0                       | 9.6         | 89                         |
|                                 |               | 1.0          | 12.0         | 2.0                       | 9.3         | 87                         |
|                                 |               | 2.0          | 11.5         | 2.0                       | 8.9         | 82                         |
|                                 |               | 3.0          | 11.5         | 2.0                       | 7.8         | 72                         |
| 02/22                           | 0815          | 0.5          | 9.0          | 2.0                       | 8.7         | 76                         |
|                                 |               | 1.0          | 9.0          | 2.0                       | 8.4         | 73                         |
|                                 |               | 2.0          | 8.7          | 2.0                       | 7.8         | 67                         |
|                                 |               | 3.0          | 7.5          | 2.0                       | 7.8         | 66                         |
| 02/22                           | 1705          | 0.5          | 10.5         | 2.0                       | 11.4        | 103                        |
|                                 |               | 1.0          | 10.5         | 2.0                       | 10.2        | 92                         |
|                                 |               | 2.0          | 9.0          | 2.0                       | 10.2        | 91                         |
|                                 |               | 3.0          | 8.5          | 2.0                       | 7.5         | 65                         |
| 02/23 AM instrument malfunction |               |              |              |                           |             |                            |
| 02/23                           | 1635          | 0.5          | 14.3         | 2.0                       | 10.4        | 102                        |
|                                 |               | 1.0          | 13.2         | 2.0                       | 11.0        | 106                        |
|                                 |               | 2.0          | 13.6         | 2.0                       | 12.0        | 117                        |
|                                 |               | 3.0          | 12.8         | 2.0                       | 9.4         | 94                         |
| 02/24                           | 0830          | 0.5          | 10.0         | 2.0                       | 10.2        | 91                         |
|                                 |               | 1.0          | 10.5         | 2.0                       | 10.8        | 97                         |
|                                 |               | 2.0          | 10.2         | 2.0                       | 11.6        | 104                        |
|                                 |               | 3.0          | 10.0         | 2.0                       | 7.5         | 67                         |
| 02/24                           | 1630          | 0.5          | 15.5         | 2.0                       | 10.6        | 107                        |
|                                 |               | 1.0          | 13.5         | 2.0                       | 10.6        | 102                        |
|                                 |               | 2.0          | 13.0         | 2.0                       | 10.6        | 101                        |
|                                 |               | 3.0          | 13.0         | 2.0                       | 9.0         | 86                         |

<sup>1</sup>Salinities assumed; no instrumentation available.<sup>2</sup>Oxygen saturation values are calculated on the bases of work by Green and Carritt (1967), J. Mar. Res., 25: 140-147.

Table 14. Theodore Barge Canal Dissolved Oxygen Survey Spring Quarter  
Five Day Sampling. Station 2.

| DATE<br>(1978) | TIME<br>(CDT) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm)       | DO SAT <sup>2</sup><br>(%) |
|----------------|---------------|--------------|--------------|---------------------------|-------------------|----------------------------|
| 04/24          | 1645          | 0.5          | 23.0         | 2.0                       | 8.2               | 96                         |
|                |               | 1.5          | 22.5         | 2.0                       | 7.7               | 90                         |
|                |               | 3.0          | 22.0         | 2.0                       | 7.2               | 83                         |
|                |               | 3.5          | 22.0         | 2.0                       | 7.2               | 83                         |
| 04/25          | 0830          | 0.5          | 22.8         | 2.0                       | 7.0               | 80 <sup>2</sup>            |
|                |               | 1.5          | 22.5         | 2.0                       | 6.9               | 80                         |
|                |               | 3.0          | 22.2         | 2.0                       | 6.7               | 77                         |
|                |               | 3.5          | 22.0         | 2.0                       | 6.5               | 75                         |
| 04/25          | 1730          | 0.5          | 3            | -                         | 8.0 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 8.1               |                            |
|                |               | 3.0          |              |                           | 8.3               |                            |
|                |               | 3.5          |              |                           | 8.5               |                            |
| 04/26          | 0837          | 0.5          | 3            | -                         | 7.8 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 7.8               |                            |
|                |               | 3.0          |              |                           | 7.8               |                            |
|                |               | 3.5          |              |                           | 8.0               |                            |
| 04/26          | 1630          | 0.5          | 3            | -                         | 10.5 <sup>5</sup> | 4                          |
|                |               | 1.5          |              |                           | 10.5              |                            |
|                |               | 3.0          |              |                           | 10.4              |                            |
|                |               | 3.5          |              |                           | 9.5               |                            |
| 04/27          | 0835          | 0.5          | 3            | -                         | 6.4 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 6.5               |                            |
|                |               | 3.0          |              |                           | 6.3               |                            |
|                |               | 3.5          |              |                           | 6.3               |                            |
| 04/27          | 1600          | 0.5          | 3            | -                         | 9.4 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 9.4               |                            |
|                |               | 3.0          |              |                           | 9.4               |                            |
|                |               | 3.5          |              |                           | 9.5               |                            |
| 04/28          | 0930          | 0.5          | 3            | -                         | 6.3 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 6.3               |                            |
|                |               | 3.0          |              |                           | 6.3               |                            |
|                |               | 3.5          |              |                           | 6.5               |                            |
| 04/28          | 1830          | 0.5          | 3            | -                         | 8.0 <sup>5</sup>  | 4                          |
|                |               | 1.5          |              |                           | 8.0               |                            |
|                |               | 3.0          |              |                           | 8.2               |                            |
|                |               | 3.5          |              |                           | 8.2               |                            |

<sup>1</sup>Salinities assumed; no instrumentation available.

<sup>2</sup>Oxygen saturation values are calculated on the bases of work by Green and Cerritt (1967), J. Mar. Res., 25: 140-147.

<sup>3</sup>Thermal subsystem malfunctioned on COE provided instrument.

<sup>4</sup>Oxygen saturation values are unavailable due to the lack of temperature and salinity data.

<sup>5</sup>DO values must be considered questionable because of potential problems in COE provided instrument.

Table 15. Theodore Barge Canal Dissolved Oxygen Survey Summer Quarter  
Five Day Sampling. Station 2.

| DATE<br>(1978)   | TIME<br>(CDT) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 07/24            | 1040          | 0.5          | 29.0         | 6.1          | 11.8        | 159                        |
|                  |               | 1.5          | 28.0         | 7.4          | 11.2        | 149                        |
|                  |               | 3.0          | 28.0         | 7.6          | 10.0        | 133                        |
|                  |               | 3.5          | 28.0         | 7.7          | 9.2         | 123                        |
| 07/24            | 1730          | 0.5          | 29.5         | 7.9          | 9.0         | 123                        |
|                  |               | 1.5          | 28.0         | 7.9          | 8.6         | 115                        |
|                  |               | 3.0          | 28.0         | 8.0          | 8.3         | 111                        |
|                  |               | 3.5          | 28.0         | 8.5          | 8.3         | 111                        |
| 07/25            | 0830          | 0.5          | 28.0         | 7.8          | 9.4         | 127                        |
|                  |               | 1.5          | -            | -            | -           | -                          |
|                  |               | 3.0          | -            | -            | -           | -                          |
|                  |               | 3.5          | -            | -            | -           | -                          |
| 07/25            | 1705          | 0.5          | 28.5         | 7.8          | 7.9         | 108                        |
|                  |               | 1.5          | 28.0         | 7.9          | 8.2         | 112                        |
|                  |               | 3.0          | 27.8         | 8.1          | 9.7         | 131                        |
|                  |               | 3.5          | 27.8         | 8.3          | 9.7         | 131                        |
| 07/26 AM No Data |               |              |              |              |             |                            |
| 07/26            | 1720          | 0.5          | 26.0         | 5.0          | 8.2         | 106                        |
|                  |               | 1.5          | 27.0         | 7.3          | 7.5         | 99                         |
|                  |               | 3.0          | 27.0         | 7.3          | 8.0         | 105                        |
|                  |               | 3.5          | 27.0         | 7.3          | 8.0         | 105                        |
| 07/27            | 0830          | 0.5          | 26.0         | 6.2          | 7.8         | 100                        |
|                  |               | 1.5          | 26.2         | 7.6          | 7.8         | 100                        |
|                  |               | 3.0          | 26.2         | 8.0          | 8.0         | 104                        |
|                  |               | 3.5          | 26.0         | 8.0          | 8.3         | 108                        |
| 07/27            | 1715          | 0.5          | 28.0         | 5.8          | 7.7         | 103                        |
|                  |               | 1.5          | 27.0         | 7.4          | 8.0         | 105                        |
|                  |               | 3.0          | 26.5         | 7.8          | 8.2         | 106                        |
|                  |               | 3.5          | 26.5         | 8.1          | 8.4         | 106                        |
| 07/28            | 0800          | 0.5          | 27.0         | 7.0          | 7.6         | 100                        |
|                  |               | 1.5          | 27.0         | 7.3          | 6.5         | 85                         |
|                  |               | 3.0          | 26.5         | 7.9          | 6.2         | 81                         |
|                  |               | 3.4          | 26.2         | 7.9          | 6.4         | 83                         |
| 07/28            | 1600          | 0.5          | 29.5         | 6.9          | 10.3        | 141                        |
|                  |               | 1.5          | 28.0         | 7.4          | 10.3        | 137                        |
|                  |               | 3.0          | 28.0         | 8.7          | 10.2        | 138                        |

<sup>1</sup>Oxygen saturation values are calculated on the bases of work by Green and Carritt (1967), J. Mar. Res., 25: 140-147.

Table 16. Theodore Barge Canal Dissolved Oxygen Survey Fall Quarter  
Five Day Sampling. Station 2.

| DATE<br>(1978) | TIME<br>(CDT) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|----------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 10/09          | 1715          | 0.5          | 23.6         | 13.1         | 10.0        | 127                        |
|                |               | 1.5          | 22.9         | 13.3         | 8.7         | 108                        |
|                |               | 3.0          | 21.8         | 13.7         | 5.6         | 69                         |
| 10/10          | 0820          | 0.5          | 22.5         | 12.3         | 8.2         | 101                        |
|                |               | 1.5          | 20.9         | 12.7         | 8.0         | 96                         |
|                |               | 3.0          | 20.4         | 12.6         | 8.2         | 98                         |
| 10/10          | 1830          | 0.5          | 24.7         | 13.2         | 7.2         | 99                         |
|                |               | 1.5          | 23.5         | 13.6         | 7.2         | 89                         |
|                |               | 3.0          | 23.8         | 14.4         | 7.8         | 88                         |
| 10/11          | 0910          | 0.5          | 23.6         | 12.2         | 9.0         | 104                        |
|                |               | 1.5          | 21.7         | 12.0         | 8.6         | 105                        |
|                |               | 3.0          | 22.0         | 12.5         | 8.4         | 114                        |
| 10/11          | 1810          | 0.5          | 24.6         | 12.5         | 7.4         | 87                         |
|                |               | 1.5          | 22.8         | 13.0         | 6.6         | 83                         |
|                |               | 3.0          | 23.1         | 13.7         | 6.9         | 95                         |
| 10/12          | 0810          | 0.5          | 24.2         | 13.0         | 5.6         | 76                         |
|                |               | 1.5          | 23.2         | 13.8         | 6.2         | 79                         |
|                |               | 3.0          | 22.7         | 14.7         | 6.0         | 73                         |
| 10/12          | 1715          | 0.5          | 24.7         | 13.0         | 6.4         | 92                         |
|                |               | 1.5          | 23.7         | 13.4         | 6.9         | 87                         |
|                |               | 3.0          | 23.5         | 14.0         | 7.2         | 83                         |
| 10/13          | 0940          | 0.5          | 25.0         | 13.3         | 6.2         | 81                         |
|                |               | 1.5          | 24.2         | 14.1         | 5.8         | 75                         |
|                |               | 3.0          | 23.6         | 14.5         | 5.5         | 71                         |
| 10/13          | 1705          | 0.5          | 26.2         | 13.3         | 6.4         | 85                         |
|                |               | 1.5          | 25.6         | 13.6         | 6.1         | 81                         |
|                |               | 3.0          | 24.9         | 14.4         | 5.6         | 74                         |

<sup>1</sup>Oxygen saturation values are calculated on the bases of work by Green and Carritt. (1967), J. Mar. Res., 25: 140-147.

Table 17. Theodore Barge Canal Dissolved Oxygen Survey Summary of Quarterly Five Day Sampling. Station 2.

|                |       | DISSOLVED OXYGEN |      |      |              |     |      |
|----------------|-------|------------------|------|------|--------------|-----|------|
|                |       | PPM              |      |      | % SATURATION |     |      |
|                |       | MAX              | AV.  | MIN. | MAX.         | AV. | MIN. |
| Winter Quarter | 0.5 m | 11.4             | 10.0 | 8.7  | 107          | 92  | 76   |
|                | 3.0 m | 9.4              | 8.1  | 7.2  | 94           | 74  | 61   |
| Spring Quarter | 0.5 m | 10.5             | 8.0  | 6.3  |              | 1   |      |
|                | 3.5 m | 9.5              | 7.8  | 6.3  |              |     |      |
| Summer Quarter | 0.5 m | 11.8             | 8.9  | 7.6  | 159          | 119 | 100  |
|                | 3.5 m | 10.2             | 8.6  | 6.4  | 138          | 113 | 83   |
| Fall Quarter   | 0.5 m | 10.0             | 7.4  | 5.6  | 127          | 95  | 76   |
|                | 3.0 m | 8.4              | 6.8  | 5.5  | 114          | 85  | 69   |

<sup>1</sup>Oxygen saturation values are unavailable due to the lack of temperature and salinity data.

Table 18. Theodore Barge Canal Dissolved Oxygen Survey Winter Quarter  
26 hour sampling. February 20 and 21, 1978.

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 1                        | 0825          | 0.5          | 10.0         | -                         | 8.6         | -                          |
|                          |               | 2.0          | 9.8          | -                         | 8.3         | -                          |
|                          |               | 4.0          | 8.5          | -                         | 8.7         | -                          |
| 2                        | 0820          | 0.5          | 10.4         | -                         | 9.2         | -                          |
|                          |               | 3.0          | 10.0         | -                         | 8.7         | -                          |
| 1                        | 0930          | 0.5          | 10.0         | -                         | 8.4         | -                          |
|                          |               | 2.0          | 9.8          | -                         | 8.6         | -                          |
|                          |               | 4.0          | 8.0          | -                         | 8.6         | -                          |
| 2                        | 0925          | 0.5          | 10.5         | -                         | 8.8         | -                          |
|                          |               | 3.0          | 10.3         | -                         | 7.9         | -                          |
| 1                        | 1025          | 0.5          | 10.0         | -                         | 8.7         | -                          |
|                          |               | 2.0          | 9.8          | -                         | 8.7         | -                          |
|                          |               | 4.0          | 8.0          | -                         | 8.8         | -                          |
| 2                        | 1020          | 0.5          | 10.5         | -                         | 9.0         | -                          |
|                          |               | 3.0          | 10.0         | -                         | 8.9         | -                          |
| 1                        | 1125          | 0.5          | 10.0         | -                         | 8.5         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 7.9         | -                          |
|                          |               | 4.0          | 9.3          | -                         | 8.0         | -                          |
| 2                        | 1120          | 0.5          | 10.5         | -                         | 9.5         | -                          |
|                          |               | 3.0          | 11.0         | -                         | 8.1         | -                          |
| 1                        | 1225          | 0.5          | 10.5         | -                         | 8.6         | -                          |
|                          |               | 2.0          | 10.5         | -                         | 7.8         | -                          |
|                          |               | 4.0          | 10.5         | -                         | 7.8         | -                          |
| 2                        | 1220          | 0.5          | 11.8         | -                         | 9.5         | -                          |
|                          |               | 3.0          | 13.0         | -                         | 8.8         | -                          |
| 1                        | 1335          | 0.5          | 11.0         | -                         | 9.3         | -                          |
|                          |               | 2.0          | 10.8         | -                         | 8.6         | -                          |
|                          |               | 4.0          | 10.8         | -                         | 7.3         | -                          |
| 2                        | 1325          | 0.5          | 13.0         | -                         | 9.7         | -                          |
|                          |               | 3.0          | 15.0         | -                         | 8.2         | -                          |
| 1                        | 1636          | 0.5          | 10.5         | -                         | 8.6         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 8.0         | -                          |

Table 18. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 2                        | 1630          | 0.5          | 11.5         | -                         | 10.6        | -                          |
|                          |               | 2.0          | 11.0         | -                         | 8.4         | -                          |
| 1                        | 1730          | 0.5          | 10.5         | -                         | 9.0         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.6         | -                          |
|                          |               | 4.0          | 9.5          | -                         | 8.5         | -                          |
| 2                        | 1720          | 0.5          | 10.0         | -                         | 9.7         | -                          |
|                          |               | 3.0          | 8.5          | -                         | 8.6         | -                          |
| 1                        | 1850          | 0.5          | 10.0         | -                         | 10.0        | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.1         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 7.6         | -                          |
| 2                        | 1840          | 0.5          | 11.0         | -                         | 10.5        | -                          |
|                          |               | 3.0          | 9.0          | -                         | 10.4        | -                          |
| 1                        | 1950          | 0.5          | 9.0          | -                         | 10.0        | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.2         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 8.8         | -                          |
| 2                        | 1945          | 0.5          | 9.5          | -                         | 11.8        | -                          |
|                          |               | 3.0          | 10.5         | -                         | 11.0        | -                          |
| 1                        | 2045          | 0.5          | 8.0          | -                         | 10.4        | -                          |
|                          |               | 2.0          | 10.0         | -                         | 9.1         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 9.6         | -                          |
| 2                        | 2035          | 0.5          | 8.5          | -                         | 11.8        | -                          |
|                          |               | 3.0          | 10.0         | -                         | 10.6        | -                          |
| 1                        | 2140          | 0.5          | 10.5         | -                         | 8.5         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 4.0          | 8.8          | -                         | 9.2         | -                          |
| 2                        | 2130          | 0.5          | 10.8         | -                         | 9.8         | -                          |
|                          |               | 3.0          | 9.0          | -                         | 9.6         | -                          |
| 1                        | 2243          | 0.5          | 10.0         | -                         | 8.7         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.4         | -                          |
|                          |               | 4.0          | 8.5          | -                         | 8.3         | -                          |
| 2                        | 2230          | 0.5          | 10.0         | -                         | 9.9         | -                          |
|                          |               | 3.0          | 8.0          | -                         | 9.6         | -                          |



Table 18. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 1                        | 2340          | 0.5          | 10.5         | -                         | 8.2         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.7         | -                          |
|                          |               | 4.0          | 9.0          | -                         | 7.5         | -                          |
| 2                        | 2333          | 0.5          | 10.5         | -                         | 9.4         | -                          |
|                          |               | 3.0          | 8.5          | -                         | 8.2         | -                          |
| 1                        | 0040          | 0.5          | 10.5         | -                         | 8.1         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.7         | -                          |
|                          |               | 4.0          | 9.0          | -                         | 7.8         | -                          |
| 2                        | 0033          | 0.5          | 10.0         | -                         | 8.6         | -                          |
|                          |               | 3.0          | 8.0          | -                         | 8.7         | -                          |
| 1                        | 0145          | 0.5          | 10.5         | -                         | 8.8         | -                          |
|                          |               | 2.0          | 10.5         | -                         | 8.7         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 7.9         | -                          |
| 2                        | 0125          | 0.5          | 9.5          | -                         | 9.3         | -                          |
|                          |               | 3.0          | 10.0         | -                         | 7.6         | -                          |
| 1                        | 0250          | 0.5          | 10.5         | -                         | 8.1         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 9.3         | -                          |
|                          |               | 4.0          | 10.0         | -                         | 8.3         | -                          |
| 2                        | 0237          | 0.5          | 10.0         | -                         | 9.7         | -                          |
|                          |               | 3.0          | 9.0          | -                         | 7.4         | -                          |
| 1                        | 0350          | 0.5          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.8         | -                          |
|                          |               | 4.0          | 9.5          | -                         | 7.7         | -                          |
| 2                        | 0340          | 0.5          | 10.0         | -                         | 9.1         | -                          |
|                          |               | 3.0          | 9.0          | -                         | 8.7         | -                          |
| 1                        | 0450          | 0.5          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.8         | -                          |
|                          |               | 4.0          | 9.5          | -                         | 7.4         | -                          |
| 2                        | 0440          | 0.5          | 9.5          | -                         | 9.1         | -                          |
|                          |               | 3.0          | 9.5          | -                         | 7.7         | -                          |
| 1                        | 0545          | 0.5          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 4.0          | 8.5          | -                         | 7.4         | -                          |

Table 18. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 2                        | 0535          | 0.5          | 9.5          | -                         | 8.9         | -                          |
|                          |               | 3.0          | 7.5          | -                         | 7.5         | -                          |
| 1                        | 0645          | 0.5          | 10.0         | -                         | 8.3         | -                          |
|                          |               | 2.0          | 9.5          | -                         | 7.9         | -                          |
|                          |               | 4.0          | 7.5          | -                         | 7.4         | -                          |
| 2                        | 0635          | 0.5          | 9.5          | -                         | 9.1         | -                          |
|                          |               | 3.0          | 7.0          | -                         | 7.2         | -                          |
| 1                        | 0740          | 0.5          | 10.0         | -                         | 8.2         | -                          |
|                          |               | 2.0          | 10.0         | -                         | 7.8         | -                          |
|                          |               | 4.0          | 8.0          | -                         | 7.2         | -                          |
| 2                        | 0730          | 0.5          | 9.8          | -                         | 9.3         | -                          |
|                          |               | 3.0          | 7.5          | -                         | 7.2         | -                          |
| 1                        | 0840          | 0.5          | 9.5          | -                         | 8.5         | -                          |
|                          |               | 2.0          | 9.5          | -                         | 7.9         | -                          |
|                          |               | 4.0          | 7.5          | -                         | 8.0         | -                          |
| 2                        | 0830          | 0.5          | 10.0         | -                         | 9.3         | -                          |
|                          |               | 2.0          | 8.5          | -                         | 7.2         | -                          |
| 1                        | 0935          | 0.5          | 9.5          | -                         | 8.7         | -                          |
|                          |               | 2.0          | 9.0          | -                         | 7.1         | -                          |
|                          |               | 4.0          | 8.0          | -                         | 7.6         | -                          |
| 2                        | 0925          | 0.5          | 9.5          | -                         | 8.7         | -                          |
|                          |               | 3.0          | 8.0          | -                         | 6.2         | -                          |

<sup>1</sup>COE provided instrument did not measure salinity.

<sup>2</sup>Oxygen saturation values unavailable due to the lack of salinity data.

Table 19. Theodore Barge Canal Dissolved Oxygen Survey Spring Quarter  
26 hour Sampling. April 26 and 27, 1978.

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 1                        | 0837          | 0.5          | 21.8         | -                         | 7.8         | -                          |
|                          |               | 3.6          | 21.8         | -                         | 8.0         | -                          |
| 2                        | 0853          | 0.5          | 21.0         | -                         | 8.0         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 6.9         | -                          |
| 1                        | 0938          | 0.5          | 23.0         | -                         | 8.8         | -                          |
|                          |               | 3.6          | 23.0         | -                         | 8.6         | -                          |
| 2                        | 0945          | 0.5          | 21.5         | -                         | 8.8         | -                          |
|                          |               | 3.5          | 21.5         | -                         | 8.8         | -                          |
| 1                        | 1037          | 0.5          | 21.3         | -                         | 9.3         | -                          |
|                          |               | 3.6          | 23.0         | -                         | 9.1         | -                          |
| 2                        | 1045          | 0.5          | 21.5         | -                         | 8.9         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 8.7         | -                          |
| 1                        | 1130          | 0.5          | 23.2         | -                         | 9.4         | -                          |
|                          |               | 3.6          | 23.1         | -                         | 9.7         | -                          |
| 2                        | 1140          | 0.5          | 21.9         | -                         | 9.2         | -                          |
|                          |               | 3.5          | 21.8         | -                         | 9.3         | -                          |
| 1                        | 1238          | 0.5          | 22.5         | -                         | 9.2         | -                          |
|                          |               | 3.6          | 22.8         | -                         | 9.4         | -                          |
| 2                        | 1250          | 0.5          | 22.0         | -                         | 9.5         | -                          |
|                          |               | 3.5          | 21.8         | -                         | 9.2         | -                          |
| 1                        | 1330          | 0.5          | 23.2         | -                         | 10.3        | -                          |
|                          |               | 3.6          | 23.0         | -                         | 10.6        | -                          |
| 2                        | 1338          | 0.5          | 21.5         | -                         | 10.0        | -                          |
|                          |               | 3.5          | 21.3         | -                         | 10.1        | -                          |
| 1                        | 1430          | 0.5          | 22.0         | -                         | 9.3         | -                          |
|                          |               | 3.6          | 21.0         | -                         | 9.0         | -                          |
| 2                        | 1440          | 0.5          | 21.8         | -                         | 9.7         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 9.6         | -                          |
| 1                        | 1530          | 0.5          | 22.0         | -                         | 10.0        | -                          |
|                          |               | 3.6          | 21.3         | -                         | 8.6         | -                          |

Table 19. Continued.

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm) | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|-------------|----------------------------|
| 2                        | 1540          | 0.5          | 22.0         | -                         | 10.2        | -                          |
|                          |               | 3.5          | 20.5         | -                         | 10.1        | -                          |
| 1                        | 1630          | 0.5          | 24.0         | -                         | 10.5        | -                          |
|                          |               | 3.6          | 22.0         | -                         | 9.5         | -                          |
| 2                        | 1640          | 0.5          | 23.0         | -                         | 10.2        | -                          |
|                          |               | 3.5          | 22.0         | -                         | 10.6        | -                          |
| 1                        | 1730          | 0.5          | 23.0         | -                         | 10.6        | -                          |
|                          |               | 3.6          | 22.0         | -                         | 9.6         | -                          |
| 2                        | 1740          | 0.5          | 22.0         | -                         | 8.2         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 8.4         | -                          |
| 1                        | 1830          | 0.5          | 23.0         | -                         | 7.4         | -                          |
|                          |               | 3.6          | 22.0         | -                         | 7.2         | -                          |
| 2                        | 1840          | 0.5          | 22.0         | -                         | 6.4         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 6.4         | -                          |
| 1                        | 1950          | 0.5          | 22.0         | -                         | 7.1         | -                          |
|                          |               | 3.6          | 22.0         | -                         | 7.0         | -                          |
| 2                        | 1955          | 0.5          | 22.0         | -                         | 7.3         | -                          |
|                          |               | 3.5          | 22.0         | -                         | 7.3         | -                          |
| 1                        | 2040          | 0.5          | 20.9         | -                         | 6.0         | -                          |
|                          |               | 3.6          | 20.9         | -                         | 5.8         | -                          |
| 2                        | 2050          | 0.5          | 21.0         | -                         | 6.9         | -                          |
|                          |               | 3.5          | 20.9         | -                         | 7.0         | -                          |
| 1                        | 2140          | 0.5          | 21.0         | -                         | 6.0         | -                          |
|                          |               | 3.6          | 20.9         | -                         | 5.8         | -                          |
| 2                        | 2150          | 0.5          | 21.0         | -                         | 6.8         | -                          |
|                          |               | 3.5          | 21.0         | -                         | 6.6         | -                          |
| 1                        | 2240          | 0.5          | 21.0         | -                         | 6.1         | -                          |
|                          |               | 3.6          | 20.5         | -                         | 6.0         | -                          |
| 2                        | 2245          | 0.5          | 21.0         | -                         | 6.4         | -                          |
|                          |               | 3.5          | 20.2         | -                         | 6.5         | -                          |

Table 19. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm)      | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|------------------|----------------------------|
| 1                        | 2345          | 0.5          | 21.0         | -                         | 5.8              | -                          |
|                          |               | 3.6          | 21.0         | -                         | 5.7              | -                          |
| 2                        | 2355          | 0.5          | 21.0         | -                         | 6.4              | -                          |
|                          |               | 3.5          | 20.5         | -                         | 6.3              | -                          |
| 1                        | 0030          | 0.5          | 22.0         | -                         | 5.9              | -                          |
|                          |               | 3.6          | 22.0         | -                         | 5.9              | -                          |
| 2                        | 0040          | 0.5          | 20.0         | -                         | 6.4              | -                          |
|                          |               | 3.5          | 22.0         | -                         | 6.4              | -                          |
| 1                        | 0135          | 0.5          | 22.0         | -                         | 6.0              | -                          |
|                          |               | 3.6          | 22.0         | -                         | 5.7              | -                          |
| 2                        | 0145          | 0.5          | 22.0         | -                         | 7.6              | -                          |
|                          |               | 3.5          | 23.0         | -                         | 7.5              | -                          |
| 1                        | 0235          | 0.5          | 23.0         | -                         | 7.4              | -                          |
|                          |               | 3.6          | 23.0         | -                         | 7.6              | -                          |
| 2                        | 0245          | 0.5          | 22.5         | -                         | 6.0              | -                          |
|                          |               | 3.5          | 22.5         | -                         | 6.3              | -                          |
| 1                        | 0335          | 0.5          | 3            | -                         | 5.4 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 5.8              | -                          |
| 2                        | 0345          | 0.5          | 3            | -                         | 6.3 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | -                | -                          |
| 1                        | 0445          | 0.5          | 3            | -                         | 6.8 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | -                | -                          |
| 2                        | 0455          | 0.5          | 3            | -                         | 7.8 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | -                | -                          |
| 1                        | 0540          | 0.5          | 3            | -                         | 6.2 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 6.2              | -                          |
| 2                        | 0550          | 0.5          | 3            | -                         | 6.8 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | 6.9              | -                          |
| 1                        | 0640          | 0.5          | 3            | -                         | 6.5 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 6.8              | -                          |
| 2                        | 0650          | 0.5          | 3            | -                         | 6.5 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | 6.6              | -                          |

Table 19. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL <sup>1</sup><br>(ppt) | DO<br>(ppm)      | DO SAT <sup>2</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|---------------------------|------------------|----------------------------|
| 1                        | 0735          | 0.5          | 3            | -                         | 6.8 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 7.0              | -                          |
| 2                        | 0740          | 0.5          | 3            | -                         | 6.6 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | 6.8              | -                          |
| 1                        | 0835          | 0.5          | 3            | -                         | 6.4 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 6.3              | -                          |
| 2                        | 0845          | 0.5          | 3            | -                         | 6.4 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | 6.6              | -                          |
| 1                        | 0930          | 0.5          | 3            | -                         | 8.6 <sup>4</sup> | -                          |
|                          |               | 3.6          |              | -                         | 8.7              | -                          |
| 2                        | 0940          | 0.5          | 3            | -                         | 7.6 <sup>4</sup> | -                          |
|                          |               | 3.5          |              | -                         | 7.8              | -                          |

<sup>1</sup>COE provided instrument did not measure salinity.

<sup>2</sup>Oxygen saturation valves unavailable due to the lack of salinity data.

<sup>3</sup>Thermal subsystem malfunctioned on COE provided instrument.

<sup>4</sup>D.O. valves must be considered questionable because of potential problems in the COE provided instrument.

Table 20. Theodore Barge Canal Dissolved Oxygen Survey Summer Quarter  
26 hour Sampling. July 27 and 28, 1978.

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                        | 0820          | 0.5          | 25.0         | 4.4          | 7.4         | 93                         |
|                          |               | 3.6          | 26.5         | 7.8          | 8.4         | 109                        |
| 2                        | 0830          | 0.5          | 26.0         | 6.2          | 7.8         | 100                        |
|                          |               | 3.5          | 26.0         | 8.0          | 8.3         | 108                        |
| 1                        | 0930          | 0.5          | 26.0         | 4.5          | 8.1         | 103                        |
|                          |               | 3.6          | 27.0         | 8.0          | 8.7         | 114.                       |
| 2                        | 0940          | 0.5          | 26.0         | 6.3          | 8.3         | 81                         |
|                          |               | 3.5          | 26.5         | 8.1          | 8.0         | 105                        |
| 1                        | 1005          | 0.5          | 26.0         | 4.8          | 8.2         | 104                        |
|                          |               | 3.6          | 27.0         | 8.0          | 8.9         | 105                        |
| 2                        | 1015          | 0.5          | 26.5         | 5.5          | 8.8         | 113                        |
|                          |               | 3.5          | 26.9         | 8.2          | 8.7         | 114                        |
| 1                        | 1105          | 0.5          | 27.2         | 5.1          | 8.8         | 114                        |
|                          |               | 3.6          | 28.2         | 7.9          | 10.4        | 139                        |
| 2                        | 1115          | 0.5          | 27.1         | 5.6          | 9.4         | 122                        |
|                          |               | 3.5          | 27.2         | 8.2          | 10.1        | 133                        |
| 1                        | 1210          | 0.5          | 29.1         | 5.7          | 10.1        | 136                        |
|                          |               | 3.6          | 29.0         | 7.9          | 13.4        | 184                        |
| 2                        | 1220          | 0.5          | 27.5         | 5.4          | 8.5         | 112                        |
|                          |               | 3.5          | 27.0         | 8.2          | 9.2         | 121                        |
| 1                        | 1300          | 0.5          | 29.0         | 5.6          | 8.4         | 114                        |
|                          |               | 3.6          | 27.8         | 7.9          | 9.9         | 132                        |
| 2                        | 1310          | 0.5          | 28.0         | 5.2          | 8.5         | 112                        |
|                          |               | 3.5          | 27.0         | 8.3          | 9.6         | 126                        |
| 1                        | 1410          | 0.5          | 28.5         | 4.5          | 7.8         | 104                        |
|                          |               | 3.6          | 27.0         | 8.0          | 9.9         | 130                        |
| 2                        | 1420          | 0.5          | 27.9         | 5.6          | 8.6         | 115                        |
|                          |               | 3.5          | 26.8         | 8.3          | 9.1         | 120                        |
| 1                        | 1505          | 0.5          | 30.1         | 4.6          | 10.2        | 140                        |
|                          |               | 3.6          | 28.0         | 7.8          | 12.0        | 160                        |

Table 20. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 2                        | 1515          | 0.5          | 28.5         | 6.0          | 8.6         | 115                        |
|                          |               | 3.5          | 27.0         | 8.1          | 9.4         | 124                        |
| 1                        | 1605          | 0.5          | 28.5         | 5.0          | 7.5         | 100                        |
|                          |               | 3.6          | 26.0         | 8.1          | 8.6         | 105                        |
| 2                        | 1615          | 0.5          | 27.0         | 4.8          | 7.2         | 94                         |
|                          |               | 3.5          | 26.0         | 8.2          | 8.1         | 105                        |
| 1                        | 1705          | 0.5          | 29.0         | 5.3          | 7.4         | 100                        |
|                          |               | 3.6          | 27.0         | 7.2          | 8.7         | 114                        |
| 2                        | 1715          | 0.5          | 28.0         | 5.8          | 7.7         | 103                        |
|                          |               | 3.5          | 26.5         | 8.1          | 8.4         | 106                        |
| 1                        | 1805          | 0.5          | 29.0         | 4.6          | 8.0         | 107                        |
|                          |               | 3.6          | 27.0         | 7.9          | 9.4         | 124                        |
| 2                        | 1815          | 0.5          | 28.0         | 6.2          | 9.6         | 128                        |
|                          |               | 3.5          | 26.0         | 7.9          | 9.2         | 119                        |
| 1                        | 1905          | 0.5          | 28.0         | 5.2          | 8.1         | 107                        |
|                          |               | 3.6          | 26.5         | 7.5          | 8.8         | 114                        |
| 2                        | 1915          | 0.5          | 28.0         | 6.3          | 8.2         | 109                        |
|                          |               | 3.5          | 26.5         | 8.0          | 8.8         | 116                        |
| 1                        | 2000          | 0.5          | 28.0         | 6.1          | 7.6         | 101                        |
|                          |               | 3.6          | 26.2         | 7.9          | 8.5         | 110                        |
| 2                        | 2010          | 0.5          | 27.5         | 6.7          | 9.0         | 118                        |
|                          |               | 3.5          | 26.2         | 8.1          | 8.0         | 104                        |
| 1                        | 2110          | 0.5          | 28.0         | 5.2          | 7.6         | 100                        |
|                          |               | 3.6          | 26.0         | 7.9          | 7.3         | 98                         |
| 2                        | 2120          | 0.5          | 27.0         | 4.8          | 7.0         | 91                         |
|                          |               | 3.5          | 26.5         | 8.1          | 7.0         | 91                         |
| 1                        | 2215          | 0.5          | 28.0         | 5.7          | 7.1         | 95                         |
|                          |               | 3.6          | 26.0         | 7.9          | 6.8         | 88                         |
| 2                        | 2222          | 0.5          | 26.8         | 6.7          | 7.8         | 103                        |
|                          |               | 3.5          | 26.2         | 8.0          | 7.7         | 100                        |



Table 20. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                        | 2305          | 0.5          | 27.2         | 5.4          | 7.2         | 94                         |
|                          |               | 3.6          | 26.5         | 7.9          | 6.9         | 90                         |
| 2                        | 2315          | 0.5          | 26.8         | 6.0          | 7.7         | 100                        |
|                          |               | 3.5          | 26.0         | 7.8          | 6.8         | 88                         |
| 1                        | 0005          | 0.5          | 27.0         | 5.7          | 6.8         | 88                         |
|                          |               | 3.6          | 26.0         | 7.5          | 6.8         | 88                         |
| 2                        | 0015          | 0.5          | 27.0         | 6.2          | 7.8         | 101                        |
|                          |               | 3.5          | 26.0         | 7.8          | 6.6         | 86                         |
| 1                        | 0105          | 0.5          | 27.0         | 4.9          | 7.2         | 94                         |
|                          |               | 3.6          | 26.0         | 7.9          | 7.3         | 95                         |
| 2                        | 0115          | 0.5          | 27.0         | 6.5          | 6.9         | 91                         |
|                          |               | 3.5          | 26.0         | 7.8          | 6.4         | 83                         |
| 1                        | 0205          | 0.5          | 27.5         | 5.7          | 7.4         | 97                         |
|                          |               | 3.6          | 26.5         | 8.2          | 5.4         | 70                         |
| 2                        | 0220          | 0.5          | 27.0         | 7.1          | 7.5         | 99                         |
|                          |               | 3.5          | 26.5         | 7.9          | 7.5         | 99                         |
| 1                        | 0305          | 0.5          | 27.5         | 5.7          | 7.3         | 96                         |
|                          |               | 3.6          | 26.2         | 7.9          | 5.3         | 69                         |
| 2                        | 0315          | 0.5          | 27.0         | 5.8          | 7.5         | 99                         |
|                          |               | 3.5          | 26.5         | 8.0          | 6.0         | 79                         |
| 1                        | 0410          | 0.5          | 27.0         | 6.0          | 7.3         | 95                         |
|                          |               | 3.6          | 26.0         | 7.9          | 6.8         | 88                         |
| 2                        | 0415          | 0.5          | 27.0         | 6.4          | 7.0         | 92                         |
|                          |               | 3.5          | 26.5         | 8.0          | 6.8         | 89                         |
| 1                        | 0610          | 0.5          | 27.5         | 7.0          | 6.8         | 89                         |
|                          |               | 3.6          | 26.5         | 7.8          | 6.0         | 80                         |
| 2                        | 0615          | 0.5          | 27.0         | 6.9          | 7.6         | 100                        |
|                          |               | 3.5          | 26.5         | 7.4          | 7.6         | 97                         |
| 1                        | 0710          | 0.5          | 27.0         | 6.6          | 7.2         | 95                         |
|                          |               | 3.6          | 26.5         | 7.9          | 7.1         | 93                         |
| 2                        | 0715          | 0.5          | 27.0         | 6.9          | 7.1         | 93                         |
|                          |               | 3.5          | 27.0         | 7.7          | 7.2         | 95                         |

Table 20. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                        | 0810          | 0.5          | 27.2         | 6.6          | 6.3         | 83                         |
|                          |               | 3.6          | 26.5         | 7.9          | 6.5         | 86                         |
| 2                        | 0800          | 0.5          | 27.0         | 7.0          | 7.6         | 100                        |
|                          |               | 3.6          | 26.2         | 7.9          | 6.4         | 83                         |
| 1                        | 0900          | 0.5          | 27.2         | 6.2          | 7.2         | 95                         |
|                          |               | 3.6          | 27.0         | 7.8          | 7.1         | 93                         |
| 2                        | 0910          | 0.5          | 27.0         | 6.4          | 6.2         | 81                         |
|                          |               | 3.5          | 26.9         | 7.9          | 6.5         | 86                         |

<sup>1</sup>Oxygen saturation values are calculated on the bases of work by Green and Carritt (1967), J. Mar. Res., 25: 140-147.

Table 21. Theodore Barge Canal Dissolved Oxygen Survey Fall Quarter  
26 hour Sampling. October 9 and 10, 1978.

| STATIONS<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|---------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                         | 1145          | 0.5          | 24.8         | 12.6         | 7.3         | 95                         |
|                           |               | 3.6          | 25.0         | 13.3         | 4.2         | 55                         |
| 2                         | 1200          | 0.5          | 22.7         | 12.9         | 9.1         | 114                        |
|                           |               | 3.0          | 21.8         | 13.5         | 6.8         | 84                         |
| 1                         | 1245          | 0.5          | 24.9         | 12.9         | -           | -                          |
|                           |               | 3.6          | 24.9         | 13.6         | -           | -                          |
| 2                         | 1255          | No Data      |              |              |             |                            |
| 1                         | 1355          | 0.5          | 25.0         | 13.0         | 7.6         | 99                         |
|                           |               | 2.0          | 24.1         | 13.5         | 2.7         | 35                         |
|                           |               | 3.6          | 24.5         | 13.7         | <1.0        | ~13                        |
| 2                         | 1410          | 0.5          | 23.8         | 12.5         | 9.8         | 126                        |
|                           |               | 3.0          | 21.8         | 13.4         | 6.5         | 80                         |
| 1                         | 1455          | 0.5          | 25.5         | 12.5         | 8.4         | 111                        |
|                           |               | 2.0          | 25.4         | 13.4         | 2.9         | 38                         |
|                           |               | 3.6          | 25.3         | 13.3         | 1.1         | 14                         |
| 2                         | 1505          | 0.5          | 24.5         | 12.6         | 10.4        | 133                        |
|                           |               | 3.0          | 22.7         | 13.5         | 5.6         | 69                         |
| 1                         | 1605          | 0.5          | 25.1         | 12.8         | 8.1         | 105                        |
|                           |               | 2.0          | 24.8         | 13.3         | 1.7         | 22                         |
|                           |               | 3.6          | 24.2         | 12.4         | <1.0        | ~13                        |
| 2                         | 1620          | 0.5          | 23.9         | 12.7         | 10.0        | 128                        |
|                           |               | 1.5          | 22.5         | 15.0         | 9.1         | 115                        |
|                           |               | 3.0          | 21.8         | 13.3         | 5.5         | 69                         |
| 1                         | 1705          | 0.5          | 24.5         | 13.2         | 8.8         | 114                        |
|                           |               | 2.0          | 25.2         | 14.0         | 1.5         | 20                         |
|                           |               | 3.6          | 24.4         | 12.8         | <1.0        | ~13                        |
| 2                         | 1715          | 0.5          | 23.6         | 13.1         | 10.0        | 127                        |
|                           |               | 1.5          | 22.9         | 13.3         | 8.7         | 109                        |
|                           |               | 3.0          | 21.8         | 13.7         | 5.6         | 69                         |
| 1                         | 1805          | 0.5          | 24.9         | 13.3         | 8.3         | 108                        |
|                           |               | 2.0          | 24.8         | 14.3         | 2.0         | 26                         |
|                           |               | 3.6          | 23.2         | 12.3         | 3.2         | 40                         |

Table 21. Continued

| STATION<br>(See Fig. 17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|--------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 2                        | 1815          | 0.5          | 23.3         | 12.5         | 9.8         | 124                        |
|                          |               | 1.5          | 22.7         | 12.6         | 8.5         | 106                        |
|                          |               | 3.0          | 21.9         | 13.4         | 6.0         | 74                         |
| 1                        | 1905          | 0.5          | 24.4         | 12.7         | 8.8         | 113                        |
|                          |               | 2.0          | 24.3         | 14.1         | 2.5         | 32                         |
|                          |               | 3.6          | 22.6         | 13.3         | 3.6         | 44                         |
| 2                        | 1915          | 0.5          | 23.3         | 12.4         | 10.0        | 125                        |
|                          |               | 3.0          | 21.9         | 13.2         | 5.5         | 68                         |
| 1                        | 2010          | 0.5          | 24.2         | 13.2         | 7.7         | 99                         |
|                          |               | 2.0          | 24.5         | 14.2         | 1.5         | 19                         |
|                          |               | 3.6          | 22.4         | 13.1         | 3.6         | 44                         |
| 2                        | 2020          | 0.5          | 23.0         | 13.1         | 9.8         | 123                        |
|                          |               | 1.5          | 23.1         | 12.8         | 8.5         | 106                        |
|                          |               | 3.0          | 22.3         | 13.2         | 4.4         | 54                         |
| 1                        | 2100          | 0.5          | 24.6         | 12.9         | 7.5         | 97                         |
|                          |               | 2.0          | 25.2         | 13.9         | 3.5         | 46                         |
|                          |               | 3.6          | 22.4         | 13.3         | 4.8         | 59                         |
| 2                        | 2110          | 0.5          | 23.1         | 12.8         | 9.7         | 121                        |
|                          |               | 3.0          | 22.0         | 13.4         | 4.7         | 58                         |
| 1                        | 2205          | 0.5          | 25.0         | 12.7         | 7.1         | 92                         |
|                          |               | 2.0          | 24.6         | 13.9         | 2.7         | 35                         |
|                          |               | 3.6          | 21.3         | 12.5         | 4.5         | 54                         |
| 2                        | 2215          | 0.5          | 22.8         | 12.7         | 9.0         | 125                        |
|                          |               | 3.0          | 22.0         | 13.2         | 5.0         | 62                         |
| 1                        | 2305          | 0.5          | 24.7         | 13.3         | 8.0         | 104                        |
|                          |               | 3.6          | 22.1         | 13.5         | 4.7         | 58                         |
| 2                        | 2310          | 0.5          | 22.7         | 12.6         | 9.0         | 125                        |
|                          |               | 3.0          | 21.8         | 13.1         | 5.6         | 69                         |
| 1                        | 0005          | 0.5          | 25.0         | 12.8         | 7.0         | 91                         |
|                          |               | 2.0          | 24.9         | 13.6         | 8.4         | 109                        |
|                          |               | 3.6          | 22.4         | 13.3         | 4.6         | 57                         |
| 2                        | 0020          | 0.5          | 21.8         | 12.1         | 9.0         | 110                        |
|                          |               | 3.0          | 22.2         | 12.5         | 8.6         | 105                        |

Table 21. Continued

| STATION<br>(See Fig.17) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|-------------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                       | 0105          | 0.5          | 25.0         | 12.6         | 6.9         | 90                         |
|                         |               | 3.6          | 22.5         | 13.2         | 3.8         | 48                         |
| 2                       | 0115          | 0.5          | 22.5         | 12.5         | 8.9         | 111                        |
|                         |               | 3.0          | 21.9         | 13.0         | 5.7         | 70                         |
| 1                       | 0205          | 0.5          | 24.7         | 12.7         | 6.3         | 82                         |
|                         |               | 2.0          | 24.6         | 13.5         | 6.6         | 87                         |
|                         |               | 3.6          | 22.3         | 13.8         | 3.9         | 48                         |
| 2                       | 0215          | 0.5          | 22.3         | 12.5         | 8.6         | 106                        |
|                         |               | 3.0          | 22.0         | 13.2         | 5.4         | 67                         |
| 1                       | 0310          | 0.5          | 24.7         | 13.1         | 6.4         | 83                         |
|                         |               | 3.6          | 22.0         | 13.6         | 3.6         | 44                         |
| 2                       | 0320          | 0.5          | 22.8         | 12.6         | 8.6         | 108                        |
|                         |               | 3.0          | 22.1         | 12.5         | 5.9         | 73                         |
| 1                       | 0505          | 0.5          | 24.8         | 13.0         | 6.1         | 79                         |
|                         |               | 2.0          | 23.8         | 13.3         | 5.7         | 73                         |
|                         |               | 3.6          | 22.0         | 13.5         | 2.9         | 36                         |
| 2                       | 0515          | 0.5          | 21.2         | 12.0         | 8.2         | 99                         |
|                         |               | 3.0          | 21.5         | 12.5         | 5.7         | 69                         |
| 1                       | 0605          | 0.5          | 24.5         | 13.0         | 5.8         | 75                         |
|                         |               | 2.0          | 23.7         | 13.2         | 5.7         | 73                         |
|                         |               | 3.6          | 22.0         | 13.4         | 3.0         | 38                         |
| 2                       | 0620          | 0.5          | 21.4         | 12.7         | 8.2         | 99                         |
|                         |               | 3.0          | 21.9         | 13.1         | 6.2         | 75                         |
| 1                       | 0710          | 0.5          | 23.2         | 9.6          | 5.3         | 65                         |
|                         |               | 3.6          | 21.5         | 8.5          | 4.0         | 48                         |
| 2                       | 0720          | 0.5          | 21.1         | 12.4         | 8.1         | 98                         |
|                         |               | 3.0          | 21.4         | 12.7         | 8.8         | 106                        |
| 1                       | 0810          | 0.5          | 24.3         | 12.6         | 5.6         | 72                         |
|                         |               | 3.6          | 22.6         | 13.3         | 3.3         | 41                         |
| 2                       | 0820          | 0.5          | 22.5         | 12.3         | 8.2         | 101                        |
|                         |               | 3.0          | 20.4         | 12.6         | 8.2         | 98                         |

Table 21. Continued

| STATION<br>(See Fig.) | TIME<br>(CST) | DEPTH<br>(M) | TEMP<br>(°C) | SAL<br>(ppt) | DO<br>(ppm) | DO SAT <sup>1</sup><br>(%) |
|-----------------------|---------------|--------------|--------------|--------------|-------------|----------------------------|
| 1                     | 0900          | 0.5          | 24.1         | 12.3         | 6.0         | 77                         |
|                       |               | 2.0          | 23.2         | 12.6         | 5.2         | 65                         |
|                       |               | 3.6          | 22.0         | 13.2         | 2.8         | 35                         |
| 2                     | 0910          | 0.5          | 22.7         | 12.7         | 8.0         | 100                        |
|                       |               | 3.0          | 21.9         | 12.9         | 8.0         | 99                         |
| 1                     | 1000          | 0.5          | 24.2         | 12.1         | 6.0         | 76                         |
|                       |               | 3.6          | 22.5         | 13.3         | 2.5         | 31                         |
| 2                     | 1010          | 0.5          | 23.0         | 12.4         | 8.1         | 101                        |
|                       |               | 3.0          | 21.5         | 12.5         | 5.8         | 70                         |
| 1                     | 1100          | 0.5          | 24.5         | 12.7         | 6.5         | 84                         |
|                       |               | 2.0          | 24.2         | 12.9         | 3.0         | 38                         |
|                       |               | 3.6          | 22.6         | 10.0         | 2.1         | 26                         |
| 2                     | 1115          | 0.5          | 23.2         | 12.5         | 8.5         | 106                        |
|                       |               | 3.0          | 22.4         | 12.4         | 5.2         | 64                         |
| 1                     | 1200          | 0.5          | 25.4         | 12.6         | 6.3         | 83                         |
|                       |               | 2.0          | 24.8         | 13.2         | 4.0         | 52                         |
|                       |               | 3.6          | 23.0         | 13.1         | 1.5         | 19                         |
| 2                     | 1210          | 0.5          | 24.3         | 12.6         | 9.0         | 115                        |
|                       |               | 1.5          | 23.0         | 12.6         | 7.7         | 96                         |
|                       |               | 3.0          | 22.5         | 12.8         | 5.8         | 73                         |

<sup>1</sup>Oxygen saturation values are calculated on the bases of work by Green and Carrett. (1967). . Mar. Res., 25: 140-147.

Table 22. Theodore Barge Canal Dissolved Oxygen Survey Summary of the Quarterly 26 hour Sampling.

| QUARTERS | STATION | DEPTH<br>(M) | DISSOLVED OXYGEN |            |      |              |     |      |
|----------|---------|--------------|------------------|------------|------|--------------|-----|------|
|          |         |              | MAX.             | PPM<br>AV. | MIN. | % SATURATION |     |      |
|          |         |              |                  |            |      | MAX.         | AV. | MIN. |
| Winter   | 1       | 0.5          | 10.4             | 8.7        | 8.1  |              |     |      |
|          |         | 4.0          | 9.6              | 8.1        | 7.3  |              | 1   |      |
|          | 2       | 0.5          | 11.8             | 9.6        | 8.6  |              |     |      |
|          |         | 3.0          | 11.0             | 8.4        | 6.2  |              |     |      |
| Spring   | 1       | 0.5          | 10.6             | 7.7        | 5.4  |              |     |      |
|          |         | 3.6          | 10.6             | 7.6        | 5.7  |              | 1   |      |
|          | 2       | 0.5          | 10.2             | 8.4        | 6.0  |              |     |      |
|          |         | 3.5          | 10.6             | 7.8        | 6.3  |              |     |      |
| Summer   | 1       | 0.5          | 10.2             | 7.7        | 6.3  | 140          | 102 | 83   |
|          |         | 3.6          | 12.0             | 8.2        | 5.3  | 184          | 107 | 69   |
|          | 2       | 0.5          | 9.6              | 7.9        | 6.2  | 128          | 104 | 81   |
|          |         | 3.5          | 10.1             | 7.9        | 6.4  | 133          | 103 | 79   |
| FALL     | 1       | 0.5          | 8.8              | 7.0        | 5.3  | 114          | 91  | 65   |
|          |         | 3.6          | 4.8              | 3.1        | <1.0 | 59           | 38  | 13   |
|          | 2       | 0.5          | 10.4             | 9.0        | 8.0  | 133          | 114 | 98   |
|          |         | 3.0          | 8.8              | 6.1        | 4.4  | 106          | 75  | 54   |

<sup>1</sup>Oxygen saturation values are unavailable due to the lack of salinity data.





Table 23. Continued.

|       |      | SUMMER                  |      |    |     |         |    |     |      |         |     | FALL    |     |      |  |
|-------|------|-------------------------|------|----|-----|---------|----|-----|------|---------|-----|---------|-----|------|--|
|       |      | 7/10/78                 |      |    |     | 7/11/78 |    |     |      | 8/21/78 |     | 10/4/78 |     |      |  |
|       |      | H (low river discharge) |      |    |     |         |    |     |      |         |     | H       |     |      |  |
|       |      | NTU                     | mg/l | %T | NTU | mg/l    | %T | NTU | mg/l | %T      | NTU | mg/l    | NTU | mg/l |  |
| Sta # | Surf | 10                      | 15.1 | 50 | 2   | 12.2    | 61 | 13  | 10.6 | 65      | 2.5 | 5.5     | 2.5 | 3.7  |  |
| T - 1 | Bot  | 3                       | 16.9 | 33 | 4   | 20.3    | 33 | 2   | 7.7  | 62      | 3.0 | 8.0     | 2.3 | 4.2  |  |
| Sta # | Surf | 6                       | 6.6  | 70 | 5   | 3.6     | 69 | 4   | 4.6  | 72      | 2.5 | 3.4     | 3.2 | 5.8  |  |
| T - 2 | Bot  | 3                       | 12.0 | 33 | 11  | 14.2    | 32 | 12  | 2.9  | 63      | 5.3 | 12      | 0.4 | 0.0  |  |
| Sta # | Surf | 11                      | 5.1  | 70 | 6   | 2.7     | 71 | 5   | 4.8  | 71      | 2.5 | 3.5     | 2.1 | 1.1  |  |
| T - 3 | Bot  | 6                       | 8.3  | 32 | 14  | 8.4     | 32 | 5   | 3.0  | 69      | 5.3 | 3.9     | 2.0 | 1.9  |  |
| Sta # | Surf | 10                      | 2.8  | 75 | 11  | 2.7     | 79 | 7   | 6.4  | 57      | 5.0 | 7.8     | 2.0 | 4.0  |  |
| T - 4 | Bot  | 3                       | 1.7  | 71 | 11  | 6.3     | 74 | 8   | 8.2  | 59      | -   | -       | 1.0 | 2.0  |  |
| Sta # | Surf | 3                       | 3.5  | 77 | 5   | 5.2     | 73 | 9   | 2.5  | 64      | 2.3 | 6.7     | 2.5 | 0.6  |  |
| T - 5 | Bot  | 3                       | 5.4  | 44 | 6   | 3.5     | 32 | 9   | 2.7  | 60      | 4.0 | 10.6    | 3.8 | 3.3  |  |
| Sta # | Surf | 2                       | 4.2  | 63 | 7   | 4.0     | 72 | 10  | 6.1  | 61      | 2.9 | 3.5     | 2.4 | 3.4  |  |
| T - 6 | Bot  | 14                      | -    | 32 | 6   | 2.9     | 33 | 14  | 5.8  | 47      | 8.4 | 27.3    | 2.4 | 0.8  |  |
| Sta # | Surf | 5                       | 4.4  | 70 | 15  | 15.8    | 57 | 15  | 12.4 | 83      | 3.4 | 1.7     | 3.0 | 5.3  |  |
| T - 7 | Bot  | 4                       | 14.5 | 71 | 10  | 10.1    | 57 | 17  | 13.9 | 66      | 7.5 | 17.4    | 4.5 | 6.4  |  |
| Sta # | Surf | 3                       | 7.7  | 65 | 10  | 7.7     | 73 | 21  | 14.2 | 71      | 2.8 | 1.5     | 3.3 | 2.8  |  |
| T - 8 | Bot  | 9                       | 46.3 | 65 | 10  | 8.8     | 65 | 14  | 11.3 | 54      | 4.4 | 5.1     | 3.0 | 5.0  |  |
| Sta # | Surf | 8                       | 6.7  | 55 | 17  | 15.1    | 51 | 20  | 11.3 | 64      | 1.8 | 1.7     | 3.3 | 1.8  |  |
| T - 9 | Bot  | 5                       | 9.3  | 53 | 16  | 17.4    | 31 | 18  | 8.7  | 60      | 9.2 | 40.8    | 3.3 | 2.8  |  |

Handwritten notes:

- nearby
- off
- to

Table 24. Annual Optical and Gravimetric Averages for Individual Stations.

| STATIONS         |         | %T | mg/l | NOTES |
|------------------|---------|----|------|-------|
| Station<br>T - 1 | Surface | 46 | 16   |       |
|                  | Bottom  | 41 | 18   |       |
| Station<br>T - 2 | Surface | 54 | 12   |       |
|                  | Bottom  | 38 | 14   |       |
| Station<br>T - 3 | Surface | 53 | 12   |       |
|                  | Bottom  | 40 | 14   |       |
| Station<br>T - 4 | Surface | 58 | 13   |       |
|                  | Bottom  | 57 | 10   |       |
| Station<br>T - 5 | Surface | 54 | 13   |       |
|                  | Bottom  | 42 | 14   |       |
| Station<br>T - 6 | Surface | 53 | 14   |       |
|                  | Bottom  | 42 | 14   |       |
| Station<br>T - 7 | Surface | 52 | 14   |       |
|                  | Bottom  | 51 | 17   |       |
| Station<br>T - 8 | Surface | 54 | 10   |       |
|                  | Bottom  | 46 | 13   |       |
| Station<br>T - 9 | Surface | 51 | 12   |       |
|                  | Bottom  | 45 | 12   |       |

Table 25. Areal Optical and Gravimetric Averages.

| SEASON | DATE                               |         | MAXIMUM RIVER<br>DISCHARGE FOR<br>MONTH   | %T          | NTU           | mg/l        |
|--------|------------------------------------|---------|-------------------------------------------|-------------|---------------|-------------|
| Fall   | 11/7/77                            | Surface | (4500 m <sup>3</sup> sec <sup>-1</sup> )  | 43 $\pm$ 14 | -             | 6.4 $\pm$ 4 |
|        |                                    | Bottom  |                                           | 50 $\pm$ 12 |               | 9.8 $\pm$ 5 |
| Winter | 1/16/78                            | Surface | (4500 m <sup>3</sup> sec <sup>-1</sup> )  | -           | -             | 11 $\pm$ 8  |
|        |                                    | Bottom  |                                           | -           |               | 10 $\pm$ 8  |
|        | 1/28/78<br>High wind               | Surface |                                           | 29 $\pm$ 5  |               | 44 $\pm$ 20 |
|        |                                    | Bottom  |                                           | 29 $\pm$ 5  |               | 29 $\pm$ 21 |
| Spring | 3/29/78                            | Surface | (5000 m <sup>3</sup> sec <sup>-1</sup> )  | 37 $\pm$ 5  | -             | 14 $\pm$ 7  |
|        |                                    | Bottom  |                                           | 42 $\pm$ 20 |               | 14 $\pm$ 6  |
|        | 4/17/78                            | Surface | (1250 m <sup>3</sup> sec <sup>-1</sup> )  | 44 $\pm$ 12 | -             | 8 $\pm$ 4   |
|        |                                    | Bottom  |                                           | 49 $\pm$ 8  |               | 13 $\pm$ 7  |
|        | 5/22/78<br>High river<br>Discharge | Surface | (6800 m <sup>3</sup> sec <sup>-1</sup> )  | 37 $\pm$ 5  | -             | 22 $\pm$ 4  |
|        |                                    | Bottom  |                                           | 32 $\pm$ 3  |               | 26 $\pm$ 6  |
|        | 5/23/78                            | Surface |                                           | 40 $\pm$ 5  | -             | 24 $\pm$ 4  |
|        |                                    | Bottom  |                                           | 36 $\pm$ 5  |               | 27 $\pm$ 8  |
|        | 5/23/78                            | Surface |                                           | 43 $\pm$ 5  | -             | 21 $\pm$ 4  |
|        |                                    | Bottom  |                                           | 37 $\pm$ 4  |               | 25 $\pm$ 5  |
| Summer | 7/10/78<br>Low river<br>Discharge  | Surface | (500 m <sup>3</sup> sec <sup>-1</sup> )   | 60 $\pm$ 14 | -             | 6 $\pm$ 4   |
|        |                                    | Bottom  |                                           | 45 $\pm$ 16 |               | 10 $\pm$ 5  |
|        | 7/11/78                            | Surface |                                           | 66 $\pm$ 9  | -             | 8 $\pm$ 5   |
|        |                                    | Bottom  |                                           | 48 $\pm$ 17 |               | 10 $\pm$ 6  |
|        | 7/11/78                            | Surface |                                           | 67 $\pm$ 9  | -             | 8 $\pm$ 4   |
|        |                                    | Bottom  |                                           | 43 $\pm$ 17 |               | 7 $\pm$ 4   |
|        | 8/21/78                            | Surface | (< 500 m <sup>3</sup> sec <sup>-1</sup> ) | 68 $\pm$ 8  | 2.9 $\pm$ 1   | 4 $\pm$ 2   |
|        |                                    | Bottom  |                                           | 60 $\pm$ 6  | 5.9 $\pm$ 2   | 12 $\pm$ 8  |
| Fall   | 10/4/78                            | Surface |                                           | -           | 2.7 $\pm$ 0.5 | 3 $\pm$ 2   |
|        |                                    | Bottom  |                                           | -           | 2.5 $\pm$ 1   | 3 $\pm$ 2   |

Table 26 . Sediment Size Data.

| Sample Number | % Moisture                 | % Sand | % Silt | % Clay | Phi Mean | Phi Median | Skewness | Sorting | Sediment Type |
|---------------|----------------------------|--------|--------|--------|----------|------------|----------|---------|---------------|
| January, 1978 |                            |        |        |        |          |            |          |         |               |
| B-1           | 53                         | 2      | 50     | 48     | 7.53     | 7.80       | -.11     | 2.17    | Mud           |
| B-1           | 38                         | 3      | 65     | 32     | 6.53     | 6.00       | .38      | 2.00    | Mud           |
| B-2           | 53                         | 6      | 52     | 42     | 6.07     | 5.00       | .70      | 2.02    | Mud           |
| B-2           | 36                         | 5      | 63     | 32     | 6.27     | 5.40       | .56      | 2.09    | Mud-silt      |
| B-3           | 44                         | 5      | 29     | 66     | 8.67     | 8.80       | -.19     | 2.22    | Mud           |
| B-3           | 39                         | 2      | 70     | 28     | 6.47     | 6.00       | .36      | 1.93    | Silt          |
| B-4           | 37                         | 2      | 70     | 28     | 6.20     | 5.20       | .68      | 1.93    | Silt          |
| B-4           | 41                         | 7      | 65     | 28     | 6.40     | 6.00       | .30      | 2.10    | Silt          |
| B-5           | 39                         | 1      | 86     | 13     | 6.37     | 6.60       | -.07     | 1.50    | Silt          |
| B-5           | 42                         | 4      | 79     | 17     | 6.13     | 6.40       | -.14     | 1.37    | Silt          |
| B-6           | 32                         | 1      | 75     | 24     | 6.07     | 5.00       | .79      | 1.82    | Silt          |
| B-6           | 52                         | 1      | 64     | 35     | 6.93     | 6.40       | .37      | 1.98    | Mud           |
| B-7           | 53                         | 1      | 51     | 48     | 7.63     | 8.20       | -.27     | 2.19    | Mud           |
| B-7           | 50                         | 1      | 77     | 22     | 7.00     | 7.20       | -.04     | 1.90    | Silt          |
| B-8           | 43                         | 6      | 50     | 44     | 8.07     | 8.80       | -.34     | 2.57    | Mud           |
| B-8           | 39                         | 9      | 64     | 27     | 6.00     | 5.00       | .66      | 2.06    | Silt          |
| April, 1978   |                            |        |        |        |          |            |          |         |               |
| B-1-1         | 34                         | 2      | 92     | 6      | 5.53     | 5.00       | .61      | 1.26    | Silt          |
| B-1-2         | 38                         | 2      | 90     | 8      | 6.13     | 6.00       | .20      | 1.24    | Silt          |
| B-2-1         | 38                         | 7      | 86     | 7      | 6.33     | 7.20       | -.66     | 1.42    | Silt          |
| B-2-2         | 39                         | 6      | 79     | 15     | 6.53     | 7.20       | -.41     | 1.62    | Silt          |
| B-3-1         | 47                         | 9      | 85     | 6      | 6.27     | 6.40       | -.17     | 1.14    | Silt          |
| B-4-1         | 35                         | 8      | 92     | 0      | 4.90     | 4.90       | .02      | .67     | Silt          |
| B-5-1         | Shell hash - not analyzed. |        |        |        |          |            |          |         |               |
| B-5-2         | Shell hast - not analyzed. |        |        |        |          |            |          |         |               |
| B-6-1         | 35                         | 2      | 72     | 26     | 6.13     | 5.00       | .77      | 1.93    | Silt          |
| B-6-2         | 44                         | 11     | 69     | 20     | 6.67     | 7.20       | -.25     | 1.88    | Sandy silt    |
| B-7-1         | 33                         | 1      | 98     | 1      | 5.13     | 5.00       | .44      | .69     | Silt          |
| B-7-2         | 36                         | 1      | 70     | 29     | 6.20     | 5.20       | .68      | 1.93    | Silt          |
| B-8-1         | 46                         | 9      | 45     | 46     | 7.20     | 7.60       | -.18     | 2.22    | Mud           |
| B-8-2         | 45                         | 14     | 34     | 52     | 7.27     | 8.00       | -.33     | 2.41    | Sandy mud     |
| July, 1973    |                            |        |        |        |          |            |          |         |               |
| B-1-A         | 32                         | 8      | 60     | 32     | 6.00     | 4.80       | .72      | 2.17    | Mud           |
| B-1-B         | 27                         | 1      | 75     | 24     | 6.03     | 4.90       | .83      | 1.83    | Silt          |
| B-2-A         | 33                         | 1      | 78     | 21     | 5.97     | 5.00       | .73      | 1.82    | Silt          |
| B-2-B         | 36                         | 1      | 63     | 36     | 6.40     | 5.40       | .64      | 2.04    | Mud           |
| B-3-A         | 36                         | 7      | 74     | 19     | 5.80     | 5.00       | .62      | 1.85    | Silt          |
| B-3-B         | 39                         | 8      | 86     | 6      | 6.00     | 6.00       | .07      | 1.50    | Silt          |

Table 26. Continued.

| Sample Number        | % Moisture                 | % Sand | % Silt | % Clay | Phi Mean | Phi Median | Skewness | Sorting | Sediment Type |
|----------------------|----------------------------|--------|--------|--------|----------|------------|----------|---------|---------------|
| July, 1973 Continued |                            |        |        |        |          |            |          |         |               |
| B-4-A                | 39                         | 7      | 76     | 17     | 5.80     | 5.00       | .65      | 1.72    | Silt          |
| B-4-B                | 35                         | 10     | 90     | 0      | 4.93     | 5.00       | -.05     | .67     | Silt          |
| B-5-A                | Shell hash - not analyzed. |        |        |        |          |            |          |         |               |
| B-5-B                | Shell hash - not analyzed. |        |        |        |          |            |          |         |               |
| B-6-A                | 35                         | 3      | 87     | 10     | 5.93     | 5.40       | .50      | 1.53    | Silt          |
| B-6-B                | 35                         | 5      | 91     | 4      | 5.40     | 5.00       | .49      | 1.18    | Silt          |
| B-7-A                | 27                         | 1      | 96     | 3      | 5.13     | 4.80       | .73      | .82     | Silt          |
| B-7-B                | 28                         | 1      | 96     | 3      | 5.07     | 4.80       | .70      | .75     | Silt          |
| B-8-A                | 38                         | 12     | 87     | 1      | 5.27     | 5.00       | .33      | 1.15    | Sandy silt    |
| B-8-B                | 43                         | 18     | 55     | 27     | 5.97     | 5.20       | .48      | 1.96    | Sandy silt    |
| October, 1978        |                            |        |        |        |          |            |          |         |               |
| B-1-1                | 65                         | 1      | 58     | 41     | 8.40     | 9.00       | -.34     | 2.09    | Mud           |
| B-1-2                | 65                         | 2      | 36     | 62     | 9.17     | 9.50       | -.25     | 1.69    | Mud           |
| B-2-1                | 69                         | 1      | 69     | 30     | 7.47     | 7.40       | .05      | 1.45    | Silt          |
| B-2-2                | 70                         | 1      | 39     | 60     | 8.53     | 9.20       | -.38     | 2.20    | Mud           |
| B-3-1                | 68                         | 2      | 33     | 65     | 8.73     | 9.20       | -.34     | 2.07    | Mud           |
| B-3-2                | 67                         | 6      | 22     | 72     | 9.00     | 9.40       | -.40     | 2.02    | Clay          |
| B-4-1                | 62                         | 6      | 74     | 20     | 6.53     | 6.00       | .38      | 1.94    | Silt          |
| B-4-2                | 63                         | 1      | 49     | 50     | 7.27     | 8.00       | -.38     | 1.93    | Mud           |
| B-5-1                | 63                         | 3      | 35     | 62     | 8.30     | 9.10       | -.44     | 2.30    | Mud           |
| B-5-2                | 63                         | 5      | 40     | 55     | 8.13     | 9.20       | -.50     | 2.51    | Mud           |
| B-6-1                | 61                         | 20     | 50     | 30     | 6.13     | 7.40       | .73      | 2.58    | Sandy mud     |
| B-6-2                | 61                         | 6      | 52     | 42     | 7.47     | 7.40       | .03      | 2.41    | Mud           |
| B-7-1                | 61                         | 1      | 23     | 76     | 9.00     | 9.40       | -.34     | 2.03    | Clay          |
| B-7-2                | 62                         | 2      | 44     | 54     | 8.07     | 8.60       | -.28     | 2.22    | Mud           |
| B-8-1                | 43                         | 55     | 23     | 22     | 5.70     | 4.00       | .90      | 2.41    | Muddy sand    |
| B-8-2                | 56                         | 42     | 18     | 40     | 6.80     | 6.80       | .06      | 2.59    | Sandy clay    |
| October, 1978        |                            |        |        |        |          |            |          |         |               |
| A-N-1                | 49                         | 3      | 93     | 4      | 6.87     | 6.80       | -.10     | .90     | Silt          |
| A-N-2                | 38                         | 11     | 81     | 8      | 6.27     | 6.60       | -.25     | 1.48    | Sandy silt    |
| A-W-1                | 44                         | 2      | 94     | 4      | 6.03     | 6.30       | -.21     | 1.23    | Silt          |
| A-W-2                | 51                         | 1      | 98     | 1      | 5.87     | 6.20       | -.52     | .80     | Silt          |
| A-W-3                | 37                         | 7      | 92     | 1      | 4.73     | 6.20       | .72      | 1.28    | Silt          |
| A-W-4                | 22                         | 68     | 31     | 1      | 4.60     | 4.00       | .68      | 1.12    | Silty sand    |
| A-W-5                | 26                         | 65     | 34     | 1      | 4.27     | 4.00       | .52      | .73     | Silty sand    |
| A-W-6                | 37                         | 26     | 74     | 0      | 5.43     | 6.10       | -.78     | 1.04    | Sandy silt    |
| B-S-1                | 46                         | 22     | 72     | 8      | 5.90     | 6.40       | -.31     | 1.54    | Sandy silt    |
| B-S-2                | 44                         | 5      | 93     | 2      | 5.80     | 6.20       | -.59     | .92     | Silt          |

Table 26. Continued.

| Sample Number           | % Moisture | % Sand | % Silt | % Clay | Phi Mean | Phi Median | Skewness | Sorting | Sediment Type |
|-------------------------|------------|--------|--------|--------|----------|------------|----------|---------|---------------|
| October, 1978 Continued |            |        |        |        |          |            |          |         |               |
| B-S-3                   | 34         | 3      | 35     | 62     | 8.27     | 9.00       | -.40     | 2.28    | Mud           |
| B-S-4                   | 53         | 2      | 93     | 5      | 6.43     | 6.40       | -.07     | .55     | Silt          |
| B-S-5                   | 51         | 6      | 91     | 3      | 6.87     | 7.20       | -.62     | 1.03    | Silt          |
| B-S-6                   | 44         | 1      | 97     | 2      | 5.90     | 6.10       | -.22     | .82     | Silt          |
| B-S-7                   | 48         | 2      | 95     | 3      | 6.00     | 6.20       | -.25     | .92     | Silt          |
| B                       | 34         | 14     | 82     | 4      | 5.63     | 6.00       | -.25     | 1.28    | Sandy silt    |
| B-W-1                   | 40         | 1      | 98     | 1      | 6.63     | 6.60       | .19      | .37     | Silt          |
| B-W-2                   | 53         | 2      | 78     | 20     | 7.37     | 7.20       | .23      | 1.30    | Silt          |
| B-W-3                   | 50         | 1      | 97     | 3      | 7.33     | 7.40       | -.53     | .60     | Silt          |
| B-W-4                   | 48         | 1      | 97     | 3      | 7.13     | 7.20       | -.33     | .58     | Silt          |
| B-W-5                   | 47         | 10     | 88     | 2      | 6.33     | 6.40       | -.25     | .91     | Sandy silt    |
| B-W-6                   | 32         | 6      | 92     | 2      | 5.80     | 6.20       | .51      | 1.00    | Silt          |
| B-W-7                   | 46         | 15     | 83     | 2      | 6.63     | 6.60       | -.18     | .92     | Sandy silt    |

Table 27. Sediment Size Distribution, Weight Percent.

| Sample Number | Weight Percent | Sand       | 5Phi | 6Phi | 7Phi | 8Phi | 9Phi | 10Phi |
|---------------|----------------|------------|------|------|------|------|------|-------|
| January, 1978 |                |            |      |      |      |      |      |       |
| B-1           |                | 2          | 26   | 14   | 4    | 10   |      |       |
| B-1           |                | 3          | 40   | 7    | 9    | 9    |      |       |
| B-2           |                | 5          | 35   | 2    | 3    | 14   |      |       |
| B-2           |                | 5          | 43   | 5    | 7    | 7    |      |       |
| B-3           |                | 5          | 4    | 5    | 5    | 15   | 17   | 13    |
| B-3           |                | 2          | 41   | 6    | 8    | 15   | 10   |       |
| B-4           |                | 2          | 48   | 10   | 9    | 5    |      |       |
| B-4           |                | 7          | 31   | 12   | 11   | 12   |      |       |
| B-5           |                | 1          | 38   | 16   | 9    | 33   |      |       |
| B-5           |                | 4          | 25   | 6    | 37   | 21   |      |       |
| B-6           |                | 1          | 55   | 4    | 9    | 6    |      |       |
| B-6           |                | 1          | 41   | 6    | 10   | 8    |      |       |
| B-7           |                | 1          | 18   | 4    | 8    | 20   | 16   | 22    |
| B-7           |                | 1          | 22   | 7    | 16   | 10   |      |       |
| B-8           |                | 6          | 14   | 6    | 5    | 10   | 8    | 15    |
| B-8           |                | 9          | 41   | 11   | 5    | 7    |      |       |
| April, 1978   |                |            |      |      |      |      |      |       |
| B-1-1         |                | 2          | 50   | 11   | 19   | 12   |      |       |
| B-1-2         |                | 1          | 36   | 15   | 28   | 13   |      |       |
| B-2-1         |                | 7          | 36   | 3    | 28   | 19   |      |       |
| B-2-2         |                | 6          | 17   | 4    | 10   | 48   |      |       |
| B-3-1         |                | 9          | 6    | 12   | 53   | 14   |      |       |
| B-3-2         |                |            |      |      |      |      |      |       |
| B-4-1         |                | 8          | 49   | 39   | 3    | 1    |      |       |
| B-4-2         |                |            |      |      |      |      |      |       |
| B-5-1         |                | Shell Hash |      |      |      |      |      |       |
| B-5-2         |                | Shell Hash |      |      |      |      |      |       |
| B-6-1         |                | 2          | 52   | 4    | 7    | 8    |      |       |
| B-6-2         |                | 11         | 27   | 2    | 8    | 34   |      |       |
| B-7-1         |                | 1          | 54   | 33   | 7    | 3    |      |       |
| B-7-2         |                | 1          | 47   | 4    | 9    | 10   |      |       |
| B-8-1         |                | 9          | 16   | 14   | 6    | 9    |      |       |
| B-8-2         |                | 14         | 13   | 6    | 6    | 10   |      |       |
| July, 1978    |                |            |      |      |      |      |      |       |
| B-1-A         |                | 8          | 52   | 2    | 2    | 2    |      |       |
| B-1-B         |                | 1          | 63   | 3    | 7    | 2    |      |       |
| B-2-A         |                | 1          | 53   | 3    | 9    | 13   |      |       |
| B-2-B         |                | 1          | 46   | 7    | 8    | 2    |      |       |
| B-3-A         |                | 7          | 51   | 8    | 7    | 14   |      |       |
| B-3-B         |                | 8          | 39   | 2    | 15   | 28   |      |       |

Table 27. Continued.

| Sample Number        | Weight Percent | Sand  | 5Phi | 6Phi | 7Phi | 8Phi | 9Phi | 10Phi |
|----------------------|----------------|-------|------|------|------|------|------|-------|
| July, 1978 Continued |                |       |      |      |      |      |      |       |
| B-4-A                |                | 7     | 43   | 8    | 11   | 13   |      |       |
| B-4-B                |                | 10    | 47   | 20   | 15   | 8    |      |       |
| B-5-A                |                | Shell | Hash |      |      |      |      |       |
| B-5-B                |                | Shell | Hash |      |      |      |      |       |
| B-6-A                |                | 3     | 44   | 6    | 13   | 24   |      |       |
| B-6-B                |                | 5     | 39   | 6    | 26   | 10   |      |       |
| B-7-A                |                | 1     | 65   | 18   | 8    | 5    |      |       |
| B-7-B                |                | 1     | 67   | 19   | 5    | 5    |      |       |
| B-8-A                |                | 12    | 37   | 24   | 17   | 9    |      |       |
| B-8-B                |                | 18    | 29   | 12   | 8    | 6    |      |       |
| October, 1978        |                |       |      |      |      |      |      |       |
| B-1-1                |                | 1     | 9    | 8    | 11   | 11   | 12   |       |
| B-1-2                |                | 2     | 1    | 3    | 12   | 12   | 7    |       |
| B-2-1                |                | 1     | 6    | 5    | 19   | 39   |      |       |
| B-2-2                |                | 1     | 8    | 9    | 1    | 20   | 6    |       |
| B-3-1                |                | 2     | 5    | 5    | 11   | 11   | 7    |       |
| B-3-2                |                | 6     | 3    | 6    | 12   | 12   | 9    |       |
| B-4-1                |                | 6     | 14   | 28   | 20   | 12   | 5    |       |
| B-4-2                |                | 1     | 28   | 5    | 9    | 7    | 33   |       |
| B-5-1                |                | 3     | 11   | 5    | 10   | 9    | 9    |       |
| B-5-2                |                | 5     | 17   | 9    | 4    | 10   | 1    |       |
| B-6-1                |                | 20    | 36   | 3    | 6    | 5    | 3    |       |
| B-6-2                |                | 6     | 17   | 12   | 11   | 10   | 4    |       |
| B-7-1                |                | 1     | 10   | 6    | 7    | 7    | 8    |       |
| B-7-2                |                | 2     | 23   | 2    | 9    | 10   | 6    |       |
| B-8-1                |                | 55    | 12   | 2    | 5    | 3    | 3    |       |
| B-8-2                |                | 42    | 1    | 3    | 8    | 9    | 5    |       |
| October, 1978        |                |       |      |      |      |      |      |       |
| A-N-1                |                | 3     | 6    | 4    | 82   | 1    |      |       |
| A-N-2                |                | 11    | 9    | 3    | 37   | 32   |      |       |
| A-W-1                |                | 2     | 32   | 6    | 38   | 18   |      |       |
| A-W-2                |                | 1     | 25   | 5    | 67   |      |      |       |
| A-W-3                |                | 7     | 21   | 7    | 61   | 3    | 1    |       |
| A-W-4                |                | 68    | 3    | 6    | 22   | 1    |      |       |
| A-W-5                |                | 65    | 7    | 26   | 1    | 1    |      |       |
| A-W-6                |                | 26    | 9    | 1    | 64   |      |      |       |
| B-S-1                |                | 22    | 6    | 9    | 56   | 1    | 4    |       |
| B-S-2                |                | 5     | 23   | 9    | 61   | 1    | 1    |       |
| B-S-3                |                | 3     | 10   | 14   | 1    | 10   | 12   |       |
| B-S-4                |                | 2     | 4    | 3    | 84   | 5    | 1    |       |
| B-S-5                |                | 6     | 4    | 8    | 14   | 65   | 1    |       |



Table 27. Continued.

| Sample<br>Number        | Weight<br>Percent | Sand | 5Phi | 6Phi | 7Phi | 8Phi | 9Phi | 10Phi |
|-------------------------|-------------------|------|------|------|------|------|------|-------|
| October, 1978 Continued |                   |      |      |      |      |      |      |       |
| B-S-6                   |                   | 1    | 15   | 25   | 51   | 5    | 1    |       |
| B-S-7                   |                   | 2    | 17   | 20   | 53   | 5    | 1    |       |
| B                       |                   | 14   | 19   | 15   | 41   | 7    | 1    |       |
| B-W-1                   |                   | 1    | 2    | 1    | 83   | 12   | 1    |       |
| B-W-2                   |                   | 2    | 1    | 5    | 35   | 37   | 6    |       |
| B-W-3                   |                   | 1    | 8    | 1    | 1    | 88   | 1    |       |
| B-W-4                   |                   | 1    | 1    | 5    | 18   | 73   | 1    |       |
| B-W-5                   |                   | 10   | 3    | 5    | 67   | 13   | 1    |       |
| B-W-6                   |                   | 6    | 23   | 5    | 62   | 3    | 1    |       |
| B-W-7                   |                   | 15   | 1    | 1    | 57   | 25   | 1    |       |

Table 28. Rates of oxygen consumption ( $\text{ml}/\text{m}^2$  per hr) at corresponding dissolved oxygen concentrations ( $\text{ml}/\text{liter}$ ) at  $20^\circ\text{C}$  in October 1977.

|                        | B1                |                       | B2                |                       | B3                |                       | B5                |                       | B7                |                       |
|------------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|
|                        | Rate of<br>Uptake | $\text{O}_2$<br>Conc. | Rate of<br>Uptake | $\text{O}_2$<br>Conc. | Rate of<br>Uptake | $\text{O}_2$<br>Conc. | Rate of<br>Uptake | $\text{O}_2$<br>Conc. | Rate of<br>Uptake | $\text{O}_2$<br>Conc. |
| <b>Live Uptake</b>     |                   |                       |                   |                       |                   |                       |                   |                       |                   |                       |
| Core 1                 | 22.2              | 4.27                  | 26.2              | 3.05                  | 24.7              | 2.70                  | 12.9              | 1.36                  | 29.0              | 3.31                  |
| Core 2                 | 19.4              | 2.73                  | 20.8              | 3.57                  | 13.0              | 1.73                  | 22.4              | 2.91                  | 31.6              | 3.40                  |
| Core 3                 | 20.1              | 3.42                  | 20.8              | 3.52                  | 15.1              | 2.30                  | 16.2              | 1.45                  | 24.7              | 3.27                  |
| Core 4                 | 17.8              | 3.74                  |                   |                       | 22.0              | 3.47                  | 13.6              | 1.82                  | 29.8              | 2.71                  |
| Core 5                 |                   |                       |                   |                       |                   |                       | 16.4              | 1.76                  |                   |                       |
| Mean                   | 19.9              |                       | 22.6              |                       | 18.7              |                       | 16.3              |                       | 28.8              |                       |
| Std. Dev.              | 1.82              |                       | 3.12              |                       | 5.55              |                       | 3.74              |                       | 2.93              |                       |
| <b>Chemical Uptake</b> |                   |                       |                   |                       |                   |                       |                   |                       |                   |                       |
| Core 1                 | 10.7              | 3.45                  | 8.9               | 1.64                  | 8.8               | 3.03                  | 4.8               | 0.74                  | 7.0               | 0.63                  |
| Core 2                 | 6.1               | 1.37                  | 7.9               | 2.07                  | 11.2              | 2.27                  | 9.5               | 1.99                  | 9.0               | 2.08                  |
| Core 3                 | 8.7               | 2.97                  | 7.8               | 1.70                  | 5.4               | 1.51                  | 6.3               | 1.01                  | 13.6              | 3.78                  |
| Core 4                 | 9.6               | 2.99                  |                   |                       | 10.0              | 3.29                  | 14.3              | 3.69                  |                   |                       |
| Mean                   | 8.8               |                       | 8.2               |                       | 8.8               |                       | 8.7               |                       | 9.9               |                       |
| Std. Dev.              | 1.96              |                       | 0.61              |                       | 2.50              |                       | 4.20              |                       | 3.38              |                       |
| Chemical Uptake        | .44               |                       | 0.36              |                       | 0.47              |                       | 0.53              |                       | 0.34              |                       |
| Respiration            | 0.56              |                       | 0.64              |                       | 0.53              |                       | 0.47              |                       | 0.66              |                       |

Table 29. Rates of oxygen consumption ( $\text{ml}/\text{m}^2$  per hr) at corresponding dissolved oxygen concentrations ( $\text{ml}/\text{liter}$ ) at  $20^\circ\text{C}$  in January 1978.

|                 | B2             |                      | B3             |                      | B5             |                      | B8             |                      |
|-----------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|
|                 | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. |
| Live Uptake     |                |                      |                |                      |                |                      |                |                      |
| Core 1          | 25.2           | 5.81                 | 33.0           | 5.15                 | 27.8           | 5.57                 | 29.7           | 5.66                 |
| Core 2          | 27.9           | 5.63                 | 24.1           | 5.76                 | 28.0           | 4.81                 | 21.5           | 5.97                 |
| Core 3          | 27.4           | 5.83                 | 23.8           | 5.58                 | 26.8           | 5.28                 | 20.8           | 5.62                 |
| Core 4          | 24.7           | 5.67                 | 21.1           | 5.67                 | 25.7           | 5.99                 | 19.4           | 5.86                 |
| Mean            | 26.3           |                      | 25.5           |                      | 27.1           |                      | 22.8           |                      |
| Std. Dev.       | 1.59           |                      | 5.18           |                      | 1.06           |                      | 4.65           |                      |
| Chemical Uptake |                |                      |                |                      |                |                      |                |                      |
| Core 1          | 12.8           | 5.38                 | 18.1           | 5.71                 | 15.5           | 5.01                 | 9.5            | 5.93                 |
| Core 2          | 12.4           | 5.39                 | 16.8           | 5.89                 | 13.0           | 5.06                 | 9.2            | 5.84                 |
| Core 3          | 11.1           | 5.41                 | 11.5           | 5.99                 | 13.2           | 5.82                 | 9.0            | 5.93                 |
| Mean            | 12.1           |                      | 15.5           |                      | 13.9           |                      | 9.2            |                      |
| Std. Dev.       | 0.89           |                      | 3.50           |                      | 1.39           |                      | 0.25           |                      |
| Chemical Uptake |                |                      |                |                      |                |                      |                |                      |
| Total Uptake    | 0.46           |                      | 0.61           |                      | 0.51           |                      | 0.40           |                      |
| Respiration     |                |                      |                |                      |                |                      |                |                      |
| Total Uptake    | 0.54           |                      | 0.39           |                      | 0.49           |                      | 0.60           |                      |

Table 30. Rates of oxygen consumption ( $\text{ml}/\text{m}^2$  per hr) at corresponding dissolved oxygen concentrations ( $\text{ml}/\text{liter}$ ) at  $20^\circ\text{C}$  in April 1978.

|                        | B2             |                      | B3             |                      | B5             |                      | B8             |                      |
|------------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|
|                        | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. | Rate of Uptake | O <sub>2</sub> Conc. |
| <b>Live Uptake</b>     |                |                      |                |                      |                |                      |                |                      |
| Core 1                 | 24.3           | 5.07                 | 30.3           | 5.09                 | 21.4           | 5.82                 | 24.5           | 5.61                 |
| Core 2                 | 27.2           | 4.89                 | 27.7           | 5.74                 | 16.5           | 5.59                 | 28.3           | 5.24                 |
| Core 3                 | 21.3           | 5.72                 | 31.8           | 5.15                 | 19.7           | 5.60                 | 24.1           | 5.31                 |
| Core 4                 | 22.9           | 5.74                 | 30.8           | 5.01                 | 13.8           | 5.32                 | 30.8           | 4.98                 |
| Core 5                 |                |                      | 41.7           | 4.67                 |                |                      | 28.4           | 5.24                 |
| Mean                   | 23.9           |                      | 32.5           |                      | 17.8           |                      | 27.2           |                      |
| Std. Dev.              | 2.50           |                      | 5.38           |                      | 3.38           |                      | 2.85           |                      |
| <b>Chemical Uptake</b> |                |                      |                |                      |                |                      |                |                      |
| Core 1                 | 13.0           | 5.23                 | 10.0           | 4.71                 | 6.5            | 5.68                 | 15.6           | 3.77                 |
| Core 2                 | 12.2           | 5.99                 | 13.7           | 4.71                 | 9.8            | 5.43                 | 15.8           | 3.95                 |
| Core 3                 | 12.8           | 5.30                 | 13.6           | 5.01                 | 9.4            | 5.62                 | 11.7           | 5.17                 |
| Mean                   | 12.7           |                      | 12.4           |                      | 8.6            |                      | 14.4           |                      |
| Std. Dev.              | 0.42           |                      | 2.11           |                      | 1.80           |                      | 2.31           |                      |
| Chemical Uptake        |                |                      |                |                      |                |                      |                |                      |
| Total Uptake           | 0.53           |                      | 0.38           |                      | 0.48           |                      | 0.53           |                      |
| Respiration            |                |                      |                |                      |                |                      |                |                      |
| Total Uptake           | 0.47           |                      | 0.62           |                      | 0.52           |                      | 0.47           |                      |

Table 31. Effects of core size, stirring and sediment resuspension, and exposure to anoxia of live and poisoned cores, on rates of oxygen uptake ( $\text{ml O}_2/\text{m}^2$  per hr).

| Station<br>and<br>Core Nos. | Small Cores<br>( $25.3 \text{ cm}^2$<br>surface area),<br>Live | Large Cores<br>( $57.2 \text{ cm}^2$<br>surface area),<br>Live | Large Core,<br>Resuspended<br>Sediment,<br>Live | Reoxygenated after 4 hr below 0.5 ml/liter<br>plus 2 hr of anoxia |            |
|-----------------------------|----------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------|------------|
|                             |                                                                |                                                                |                                                 | Poisoned Cores                                                    | Live Cores |
| B7-1                        | 31.6                                                           |                                                                |                                                 |                                                                   |            |
| B7-2                        | 24.7                                                           |                                                                |                                                 |                                                                   |            |
| B7-3                        |                                                                | 29.0                                                           |                                                 |                                                                   |            |
| B7-4                        |                                                                | 29.8                                                           |                                                 |                                                                   |            |
| B2-1                        | 20.8                                                           |                                                                |                                                 |                                                                   |            |
| B2-2                        | 20.8                                                           |                                                                |                                                 |                                                                   |            |
| B2-3                        | 26.2                                                           |                                                                |                                                 |                                                                   |            |
| B2-4                        |                                                                |                                                                | 39.6                                            |                                                                   |            |
| B5-1                        | 22.4                                                           |                                                                |                                                 |                                                                   | 38.5       |
| B5-2                        | 13.6                                                           |                                                                |                                                 |                                                                   | 38.0       |
| B5-3                        | 16.2                                                           |                                                                |                                                 |                                                                   |            |
|                             | 8.7 (after poisoning)                                          |                                                                |                                                 | 9.7                                                               |            |
| B3-1                        | 15.1                                                           |                                                                |                                                 |                                                                   |            |
|                             | 7.5 (after poisoning)                                          |                                                                |                                                 | 10.0                                                              |            |

Table 32.

Effect of salinity changes on rates of oxygen uptake by sediment cores. Salinity was raised by adding Instant Ocean to the overlying water, and in Core #3 from B8, subsequently lowered twice by adding distilled water.

| STATION | CORE | SALINITY<br>(‰) | OXYGEN UPTAKE<br>(ml/m <sup>2</sup> per hr.) | AVERAGE OXYGEN<br>Concentration (ml/liter) |
|---------|------|-----------------|----------------------------------------------|--------------------------------------------|
| B3      | 1    | 5.1             | 30.8                                         | 5.01                                       |
|         |      | 13.2            | 31.9                                         | 4.80                                       |
|         | 2    | 5.1             | 41.7                                         | 4.67                                       |
|         |      | 18.1            | 39.0                                         | 4.97                                       |
|         | 3    | 5.1             | 30.3                                         | 5.09                                       |
|         |      | 29.1            | 24.3                                         | 4.93                                       |
| B8      | 1    | 5.1             | 28.4                                         | 5.20                                       |
|         |      | 13.2            | 25.2                                         | 4.74                                       |
|         | 2    | 5.1             | 30.8                                         | 4.98                                       |
|         |      | 18.1            | 30.3                                         | 5.00                                       |
|         | 3    | 5.1             | 24.1                                         | 5.31                                       |
|         |      | 25.9            | 18.2                                         | 5.01                                       |
|         |      | 15.8            | 24.6                                         | 5.02                                       |
|         |      | 9.8             | 26.9                                         | 5.16                                       |
|         |      |                 |                                              |                                            |

Table 33. Mean concentrations of reduced substances (milliequivalents per g dry sediment) and their standard deviations in Mobile Bay in October 1977.

| Sediment<br>Layer<br>(cm) | B1   |       | B2   |      | B3   |       | B5   |      | B7   |      |
|---------------------------|------|-------|------|------|------|-------|------|------|------|------|
|                           | x    | s     | x    | s    | x    | s     | x    | s    | x    | s    |
| 0-1                       | .276 | .016  | .248 | .047 | .279 | .062  | .170 | .010 | .280 | .076 |
| 1-2                       | .285 |       | .183 | .013 |      |       |      |      | .392 | .028 |
| 2-3                       |      |       |      |      | .377 | .0062 | .290 | .028 | .453 | .071 |
| 5-6                       | .246 |       |      |      | .407 | .051  | .435 | .035 | .422 | .028 |
| 10-11                     | .202 |       |      |      | .411 | .024  | .487 | .028 | .399 | .028 |
| 15-16                     | .190 |       |      |      | .471 | .047  | .493 | .006 | .384 | .034 |
| 20-21                     | .217 | .0014 |      |      | .479 | .024  | .625 | .091 | .412 | .043 |
| Core Mean                 | .236 |       | .220 |      | .404 |       | .417 |      | .392 |      |

Table 34. Mean concentrations of reduced substances (meq/g dry sediment) and their standard deviations in Mobile Bay in January, April, and June 1978.

| Sediment<br>Layer<br>(cm) | B2   |      | B3   |      | B5   |      | B8   |      |
|---------------------------|------|------|------|------|------|------|------|------|
|                           | x    | s    | x    | s    | x    | s    | x    | s    |
| January                   |      |      |      |      |      |      |      |      |
| 0-2                       | .194 | .063 | .298 | .037 | .295 | .091 | .121 | .029 |
| 2-4                       | .322 | .083 | .445 | .108 | .330 | .078 | .238 | .014 |
| 6-8                       | .362 | .036 | .270 | .034 | .308 | .015 | .211 | .008 |
| 10-12                     | .206 | .128 | .216 | .044 | .376 | .089 | .146 | .017 |
| 14-16                     | .215 | .163 | .411 | .112 | .327 | .069 | .159 | .022 |
| 18-20                     | .248 | .142 | .720 | .077 | .401 | .058 | .176 | .016 |
| Core Mean                 | .258 |      | .393 |      | .340 |      | .175 |      |
| April                     |      |      |      |      |      |      |      |      |
| 0-2                       | .553 | .167 | .657 | .098 | .247 | .040 | .682 | .177 |
| 2-4                       | .647 | .053 | .594 | .147 | .471 | .056 | .687 | .029 |
| 4-6                       | .490 | .063 | .527 | .046 | .511 | .042 | .531 | .049 |
| 8-10                      | .504 | .056 | .510 | .041 | .506 | .028 | .410 | .023 |
| 12-14                     | .384 | .090 | .517 | .027 | .498 | .043 | .490 | .024 |
| 16-18                     |      |      | .397 | .062 | .409 | .049 |      |      |
| Core Mean                 | .516 |      | .534 |      | .440 |      | .560 |      |
| June                      |      |      |      |      |      |      |      |      |
| 0-2                       | .132 | .026 |      |      | .021 | .009 |      |      |
| 2-4                       | .122 | .032 |      |      | .078 | .011 |      |      |
| 4-6                       | .108 | .018 |      |      | .098 | .022 |      |      |
| 8-10                      | .140 | .024 |      |      | .111 | .021 |      |      |
| Core Mean                 | .126 |      |      |      | .077 |      |      |      |



Table 35. Mean ATP concentrations (ug/g dry sediment) and their standard deviations in Mobile Bay.

| Sediment Layer (cm)  | B1   |       | B2               |       | B3  |     | B5           |       | B7  |      | B8           |      |
|----------------------|------|-------|------------------|-------|-----|-----|--------------|-------|-----|------|--------------|------|
|                      | x    | s     | x                | s     | x   | s   | x            | s     | x   | s    | x            | s    |
| October 1977 Surface | .10  | .019  | .52 <sup>a</sup> | .021  |     |     | .57          | .026  | .20 | .030 |              |      |
|                      |      |       | .27 <sup>a</sup> | .0065 |     |     |              |       |     |      |              |      |
| January Surface      |      |       | .38              | .14   | .65 | .41 | .11          | .035  |     |      | .54          | .24  |
| April 0-2            | 13.0 | 6.1   | 3.1              |       |     |     | .56          | .22   |     |      | .32          | .17  |
| 2-4                  | 16.0 | 3.3   | 0.72             | .076  |     |     | .25          | .041  |     |      | .065         | .019 |
| 4-6                  | .070 | .062  | .10              | .0027 |     |     | .29          | .041  |     |      | .092         | .051 |
| 8-10                 | .13  | .095  | .11              | .019  |     |     | undetectable |       |     |      | .13          | .097 |
| 12-14                | .17  | .14   | .084             | .011  |     |     | undetectable |       |     |      | undetectable |      |
| 16-18                |      |       | .046             | .0081 |     |     | undetectable |       |     |      |              |      |
| June 0-2             | .094 | .014  |                  |       |     |     | .026         | .012  |     |      |              |      |
| 2-4                  | .024 | .0095 |                  |       |     |     | .022         | .0063 |     |      |              |      |
| 4-6                  | .023 | .012  |                  |       |     |     | .020         | .0065 |     |      |              |      |
| 8-10                 | .023 | .0029 |                  |       |     |     | .0088        | 0     |     |      |              |      |

<sup>a</sup>two different cores

Table 36. Total Reduced Substances, core mean.

| STATION        | FALL      |            | WINTER<br>(meq/g) |            | SPRING<br>(meq/g) |            | SUMMER<br>(meq/g) |            |
|----------------|-----------|------------|-------------------|------------|-------------------|------------|-------------------|------------|
|                | $\bar{x}$ | $\sigma^2$ | $\bar{x}$         | $\sigma^2$ | $\bar{x}$         | $\sigma^2$ | $\bar{x}$         | $\sigma^2$ |
| B <sub>1</sub> | 0.236     | .001       | -                 | -          | -                 | -          | -                 | -          |
| B <sub>2</sub> | 0.215     | .001       | 0.258             | .004       | 0.516             | 0.007      | 0.370             | .069       |
| B <sub>3</sub> | 0.404     | .004       | 0.328             | .007       | 0.534             | .006       | 0.398             | .090       |
| B <sub>5</sub> | 0.417     | .022       | .340              | .001       | 0.440             | .009       | 0.117             | .023       |
| B <sub>7</sub> | 0.392     | .003       | -                 | -          | -                 | -          | -                 | -          |
| B <sub>8</sub> | -         | -          | .175              | .002       | 0.560             | .012       | 0.118             | .007       |

Table 37. Total Organic Carbon - Summer sample.

| STATION | TOC<br>(mg/Kg) |
|---------|----------------|
| B-2     | 1190 $\pm$ 430 |
| B-3     | 800 $\pm$ 120  |
| B-5     | 795 $\pm$ 104  |
| B-8     | 1130 $\pm$ 450 |

Table 38. ATP concentration ( $\mu\text{g/g}$  dry sediment) of sediments in Mobile Bay top 2 cm of core.

| STATION | OCTOBER      |                  | JANUARY   |       | APRIL     |       | JULY      |      |
|---------|--------------|------------------|-----------|-------|-----------|-------|-----------|------|
|         | $\bar{X}$    | S.D.             | $\bar{X}$ | S.D.  | $\bar{X}$ | S.D.  | $\bar{X}$ | S.D. |
| B-1     | 0.038        | 0.0072           |           |       |           |       |           |      |
| B-2     | 0.19<br>0.10 | 0.0078<br>0.0024 | 0.14      | 0.053 | 4.85      | 2.24  | <0.1 ng/g |      |
| B-3     |              |                  | 0.24      | 0.15  | 1.14      | -     | <0.1 ng/g |      |
| B-5     | 0.21         | 0.0095           | 0.039     | 0.013 | 0.209     | 0.081 | <0.1 ng/g |      |
| B-7     | 0.074        | 0.011            |           |       |           |       |           |      |
| B-8     |              |                  | 0.20      | 0.089 | 0.117     | 0.064 | <0.1 ng/g |      |

Table 39. Polychaete Abundance, Species Number, Average Diversity and Average Evenness.

| Date                | Station | Average Abundance<br>Per 0.1 m <sup>2</sup> | Number Of<br>Species<br>Per 0.4 m <sup>2</sup> | Average No.<br>of Species<br>Per 0.1 m <sup>2</sup> | Average<br>Diversity<br>As H' <sup>*</sup> | Average<br>Evenness<br>As J' <sup>*</sup> |
|---------------------|---------|---------------------------------------------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------|
| Nov. 3-6,<br>1977   | 8-1 ✓   | 77                                          | 10                                             | 7                                                   | 0.52                                       | 0.69                                      |
|                     | 8-2     | 14                                          | 9                                              | 4                                                   | 0.41                                       | 0.67                                      |
|                     | 8-3     | 88                                          | 10                                             | 6                                                   | 0.33                                       | 0.45                                      |
|                     | 8-4 ✓   | 50                                          | 10                                             | 5                                                   | 0.22                                       | 0.33                                      |
|                     | 8-5     | 113                                         | 11                                             | 7                                                   | 0.56                                       | 0.69                                      |
|                     | 8-6     | 27                                          | 7                                              | 4                                                   | 0.39                                       | 0.76                                      |
|                     | 8-7 ✓   | 68                                          | 14                                             | 7                                                   | 0.51                                       | 0.60                                      |
| Jan. 27,<br>1978    | 8-1     | 59                                          | 12                                             | 8                                                   | 0.56                                       | 0.66                                      |
|                     | 8-2     | 45                                          | 10                                             | 5                                                   | 0.29                                       | 0.46                                      |
|                     | 8-3     | 66                                          | 14                                             | 9                                                   | 0.56                                       | 0.60                                      |
|                     | 8-4     | 98                                          | 7                                              | 5                                                   | 0.32                                       | 0.47                                      |
|                     | 8-5     | 26                                          | 17                                             | 9                                                   | 0.76                                       | 0.83                                      |
|                     | 8-6     | 23                                          | 8                                              | 6                                                   | 0.43                                       | 0.60                                      |
|                     | 8-7     | 39                                          | 12                                             | 8                                                   | 0.70                                       | 0.77                                      |
|                     | 8-8     | 48                                          | 8                                              | 5                                                   | 0.37                                       | 0.55                                      |
| Mar. 29,<br>1978    | 8-1     | 161                                         | 13                                             | 10                                                  | 0.32                                       | 0.33                                      |
|                     | 8-5     | 52                                          | 6                                              | 5                                                   | 0.21                                       | 0.32                                      |
|                     | 8-7     | 469                                         | 13                                             | 8                                                   | 0.62                                       | 0.71                                      |
| Apr. 14-19,<br>1978 | 8-1     | 8                                           | 7                                              | 4                                                   | 0.51                                       | 0.90                                      |
|                     | 8-2     | 10                                          | 9                                              | 4                                                   | 0.36                                       | 0.57                                      |
|                     | 8-3     | 94                                          | 8                                              | 7                                                   | 0.67                                       | 0.75                                      |
|                     | 8-4     | 18                                          | 12                                             | 5                                                   | 0.42                                       | 0.67                                      |
|                     | 8-5     | 36                                          | 11                                             | 7                                                   | 0.66                                       | 0.78                                      |
|                     | 8-6     | 7                                           | 4                                              | 2                                                   | 0.21                                       | 0.43                                      |
|                     | 8-7     | 27                                          | 13                                             | 6                                                   | 0.58                                       | 0.74                                      |
|                     | 8-8     | 38                                          | 9                                              | 4                                                   | 0.36                                       | 0.59                                      |
| May 24,             | 8-1     | 36                                          | 8                                              | 4                                                   | 0.23                                       | 0.40                                      |
|                     | 8-5     | 17                                          | 6                                              | 4                                                   | 0.54                                       | 0.88                                      |
|                     | 8-7     | 10                                          | 6                                              | 2                                                   | 0.07                                       | 0.10                                      |
| June 27,<br>1978    | 8-1     | 3                                           | 2                                              | 1                                                   | 0.05                                       | 0.18                                      |
|                     | 8-5     | 31                                          | 9                                              | 5                                                   | 0.36                                       | 0.53                                      |
|                     | 8-7     | 14                                          | 6                                              | 4                                                   | 0.39                                       | 0.77                                      |

Table 39. Continued.

| Date              | Station | Average<br>Abundance<br>Per 0.1 m <sup>2</sup> | Number Of<br>Species<br>Per 0.4 m <sup>2</sup> | Average No.<br>of Species<br>Per 0.1 m <sup>2</sup> | Average<br>Diversity<br>As H' <sup>*</sup> | Average<br>Evenness<br>As J' <sup>*</sup> |
|-------------------|---------|------------------------------------------------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------|
| July 15,<br>1978  | B-1     | 15                                             | 4                                              | 2                                                   | 0.32                                       | 0.99                                      |
|                   | B-2     | 34                                             | 3                                              | 2                                                   | 0.06                                       | 0.15                                      |
|                   | B-3     | 53                                             | 7                                              | 4                                                   | 0.19                                       | 0.29                                      |
|                   | B-4     | 47                                             | 5                                              | 3                                                   | 0.23                                       | 0.50                                      |
|                   | B-5     | 336                                            | 11                                             | 8                                                   | 0.54                                       | 0.60                                      |
|                   | B-6     | 2                                              | 2                                              | 1                                                   | 0.07                                       | 0.23                                      |
|                   | B-7     | 6                                              | 2                                              | 1                                                   | 0.06                                       | 0.19                                      |
|                   | B-8     | 32                                             | 2                                              | 2                                                   | 0.07                                       | 0.22                                      |
| Aug. 23,<br>1978  | B-1     | 2                                              | 2                                              | 1                                                   | 0.07                                       | 0.22                                      |
|                   | B-5     | 35                                             | 5                                              | 3                                                   | 0.34                                       | 0.76                                      |
|                   | B-7     | 10                                             | 6                                              | 4                                                   | 0.43                                       | 0.80                                      |
| Sept. 15,<br>1978 | B-1 ✓   | 0                                              | 0                                              | 0                                                   | 0                                          | 0                                         |
|                   | B-5     | 250                                            | 13                                             | 9                                                   | 0.53                                       | 0.56                                      |
|                   | B-7 ✓   | 23                                             | 6                                              | 5                                                   | 0.43                                       | 0.67                                      |
| Oct. 5,<br>1978   | B-1 ✓   | 3                                              | 2                                              | 4                                                   | 0.03                                       | 0.06                                      |
|                   | B-2     | 3                                              | 1                                              | 1                                                   | 0.03                                       | 0.06                                      |
|                   | B-3     | 3                                              | 2                                              | 18                                                  | 0.10                                       | 0.34                                      |
|                   | B-4 ✓   | 4                                              | 3                                              | 67                                                  | 0.20                                       | 0.40                                      |
|                   | B-5     | 6                                              | 4                                              | 38                                                  | 0.37                                       | 0.64                                      |
|                   | B-6     | 7                                              | 4                                              | 75                                                  | 0.19                                       | 0.28                                      |
|                   | B-7 ✓   | 6                                              | 5                                              | 58                                                  | 0.26                                       | 0.38                                      |
|                   | B-8 ✓   | 5                                              | 3                                              | 45                                                  | 0.22                                       | 0.45                                      |

Table 40. Results of ANOVA for station and season effects on polychaete abundance and diversity.

| SOURCES OF VARIATION                                                                | SS      | df | MS     | F       |
|-------------------------------------------------------------------------------------|---------|----|--------|---------|
| A. <u>Polychaete Abundance:</u>                                                     |         |    |        |         |
| Station Effects                                                                     | 7411.6  | 6  | 1235.3 | 3.64*   |
| Season Effects                                                                      | 3184.1  | 2  | 1592.0 | 4.69*   |
| Error                                                                               | 4073.2  | 12 | 339.4  |         |
| Total                                                                               | 14669.0 | 20 |        |         |
| B. <u>Polychaete Diversity:</u>                                                     |         |    |        |         |
| Station Effects                                                                     | 0.004   | 6  | 0.007  | 0.28 NS |
| Season Effects                                                                      | 0.449   | 2  | 0.225  | 9.00**  |
| Error                                                                               | 0.300   | 12 | 0.025  |         |
| Total                                                                               | 0.793   | 20 |        |         |
| * Significant, $p < 0.05$ ** Significant, $p < 0.01$ NS-Not Significant, $p < 0.10$ |         |    |        |         |

Table 41. Seasonal comparisons of benthic polychaete abundance and diversity.

| Season       | Average Abundance<br>Per 0.1 m <sup>2</sup> | Number Of<br>Species<br>Per 0.4 m <sup>2</sup> | Average No.<br>Of Species<br>Per 0.1 m <sup>2</sup> | Average<br>Diversity<br>As H' <sup>*</sup> | Average<br>Evenness<br>As J' <sup>*</sup> |
|--------------|---------------------------------------------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------|
| Fall, 1977   | 62                                          | 10                                             | 6                                                   | 0.42                                       | 0.60                                      |
| Winter, 1978 | 50                                          | 11                                             | 7                                                   | 0.50                                       | 0.62                                      |
| Spring, 1978 | 30                                          | 9                                              | 5                                                   | 0.46                                       | 0.68                                      |
| Summer, 1978 | 66                                          | 4                                              | 3                                                   | 0.19                                       | 0.40                                      |
| Fall, 1978   | 38                                          | 3                                              | 5                                                   | 0.18                                       | 0.33                                      |

\* Calculated using log base 10.

Table 42. Monthly changes in benthic polychaete abundance and diversity.

| Month           | Average<br>Abundance<br>Per 0.1 m <sup>2</sup> | Number Of<br>Species<br>Per 0.4 m <sup>2</sup> | Average No.<br>Of Species<br>Per 0.1 m <sup>2</sup> | Average<br>Diversity<br>As H' <sup>*</sup> | Average<br>Evenness<br>As J' <sup>*</sup> |
|-----------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-------------------------------------------|
| November, 1977  | 86                                             | 12                                             | 7                                                   | 0.53                                       | 0.66                                      |
| January, 1978   | 41                                             | 14                                             | 8                                                   | 0.67                                       | 0.75                                      |
| March, 1978     | 227                                            | 11                                             | 7                                                   | 0.38                                       | 0.45                                      |
| April, 1978     | 24                                             | 10                                             | 6                                                   | 0.58                                       | 0.81                                      |
| May, 1978       | 21                                             | 7                                              | 3                                                   | 0.28                                       | 0.46                                      |
| June, 1978      | 16                                             | 6                                              | 3                                                   | 0.27                                       | 0.49                                      |
| July, 1978      | 119                                            | 6                                              | 4                                                   | 0.31                                       | 0.59                                      |
| August, 1978    | 16                                             | 4                                              | 3                                                   | 0.28                                       | 0.59                                      |
| September, 1978 | 91                                             | 6                                              | 5                                                   | 0.32                                       | 0.41                                      |

\*Calculated using log base 10.

Table 43. Percent abundance of the capitellid Mediomastus Californiensis.

| Period                      | B-1 | B-2 | B-3 | B-4 | B-5 | B-6 | B-7 | B-8 |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Nov. 3, 1977                | 64  | 72  | 78  | 57  | 26  | 58  | 61  | -   |
| Jan. 27, 1978               | 58  | 79  | 66  | 77  | 2   | 71  | 38  | 78  |
| Mar. 29, 1978 <sup>a</sup>  | 85  | -   | -   | -   | 88  | -   | 17  | -   |
| Apr. 19, 1978 <sup>b</sup>  | 52  | 72  | 51  | 73  | 21  | 57  | 54  | 0   |
| May 24, 1978                | 90  | -   | -   | -   | 25  | -   | 85  | -   |
| June 27, 1978               | 85  | -   | -   | -   | 77  | -   | 67  | -   |
| July 15, 1978 <sup>c</sup>  | 93  | 93  | 85  | 86  | 3   | 83  | 79  | 96  |
| Aug. 23, 1978               | 67  | -   | -   | -   | 39  | -   | 44  | -   |
| Sept. 15, 1978 <sup>d</sup> | 0   | -   | -   | -   | 15  | -   | -   | -   |
| Oct. 5, 1978                | 87  | 40  | 94  | 72  | 71  | 89  | 81  | 87  |

<sup>a</sup>Station B-7 dominated by Streblospio benedicti and Polydora ligni.

<sup>b</sup>Station B-8 dominated by S. benedicti.

<sup>c</sup>Station B-5 dominated by S. benedicti and Neanthes succinea.

<sup>d</sup>Station B-5 dominated by N. succinea; no Polychaeta at Station B-1.

Table 44. Results of ANOVA for station and season effects on sediment mean phi diameter and phi sorting coefficient. (Sediment data from Hooks, Table 26.)

|                                         |       |    |      |         |
|-----------------------------------------|-------|----|------|---------|
| <b>A. Mean Phi Particle Size:</b>       |       |    |      |         |
| Station Effects                         | 2.49  | 6  | 0.42 | 1.52 NS |
| Season Effects                          | 4.77  | 2  | 2.38 | 8.70 ** |
| Error                                   | 3.29  | 12 | 0.27 |         |
| Total                                   | 10.55 | 20 |      |         |
| <b>B. Sediment Sorting Coefficient:</b> |       |    |      |         |
| Station Effects                         | 1.25  | 6  | 0.21 | 1.50 NS |
| Season Effects                          | 1.63  | 2  | 0.81 | 5.86    |
| Error                                   | 1.67  | 12 | 0.14 |         |
| Total                                   | 4.55  | 20 |      |         |

\*Significant,  $p < 0.05$     \*\*Significant,  $p < 0.01$     NS-Not Significant,  $p < 0.01$



Table 45. Sediment composition at two stations.

|            | B-1         |             |             |                          | B-7         |             |             |                          |
|------------|-------------|-------------|-------------|--------------------------|-------------|-------------|-------------|--------------------------|
|            | <u>Sand</u> | <u>Silt</u> | <u>Clay</u> | <u>Mean Phi Diameter</u> | <u>Sand</u> | <u>Silt</u> | <u>Clay</u> | <u>Mean Phi Diameter</u> |
| Jan, 1978  | 2%          | 58%         | 40%         | 7.03                     | 1%          | 64%         | 35%         | 7.32                     |
| Apr, 1978  | 2           | 91          | 7           | 5.83                     | 1           | 84          | 15          | 5.66                     |
| July, 1978 | 4           | 68          | 28          | 6.02                     | 1           | 96          | 3           | 5.10                     |

Table 46. Characteristics of bottom waters averaged for all benthic stations. (Salinity, temperature, and DO from Section II; suspended solids from Section III.)

| <u>PARAMETER</u>    | SEASON      |             |             |             |             |
|---------------------|-------------|-------------|-------------|-------------|-------------|
|                     | <u>Nov.</u> | <u>Jan.</u> | <u>Apr.</u> | <u>July</u> | <u>Oct.</u> |
| Salinity (o/oo)     | 7.9         | 4.0         | 4.3         | 17.6        | 15.5        |
| Temperature (°C)    | 20.7        | 6.9         | 20.8        | 29.8        | 24.8        |
| DO (% saturation)   | 80          | 96          | 95          | < 20        | 82          |
| Susp. Solids (mg/l) | 9.0         | 29.0        | 13.0        | 7.0         | 3.0         |

Table 47: Occurrence and Distribution of Taxa from Seven Sampling Stations in Mobile Bay.

1. The Ratios preceding the general occurrence symbols represent the total number of individuals over the number of sampling seasons in which they were taken.
2. Legend: VC = 66 to 100% occurrence during 10 sampling periods.  
C = 33 to 56% occurrence during 10 sampling periods.  
R = 1 to 32 % occurrence during 10 sampling periods.  
0 = No occurrence.

| TAXA                         | STATION |        |         |         |         |        |         |
|------------------------------|---------|--------|---------|---------|---------|--------|---------|
|                              | 1       | 2      | 3       | 4       | 5       | 6      | 7       |
| Phylum Porifera              |         |        |         |         |         |        |         |
| Sp. A                        | 3/2 R   | 0      |         | 0       | 0       | 5/3 R  | 0       |
| Sp. B                        | 0       | 0      | 0       | 0       | 0       | 1/1 R  | 0       |
| Phylum Platyhelminthes       |         |        |         |         |         |        |         |
| Class Turbellaria            |         |        |         |         |         |        |         |
| Unidentified turbellarian    | 1/1 R   | 0      | 0       | 2/1 R   | 130/3 R | 0      | 2/2 R   |
| Phylum Nemertina             |         |        |         |         |         |        |         |
| Sp. A                        | 6/3 R   | 6/2 R  | 11/4 R  | 4/3 R   | 12/5 C  | 7/4 C  | 6/4 C   |
| Sp. B                        | 11/2 R  | 4/1 R  | 9/2 R   | 8/3 R   | 5/2 R   | 5/1 R  | 3/2 R   |
| Sp. C                        | 12/4 C  | 11/3 R | 4/3 R   | 8/3 R   | 33/7 VC | 3/2 R  | 8/4 C   |
| Sp. D                        | 1/1 R   | 1/1 R  | 6/1 R   | 2/1 R   | 1/1 R   | 0      | 3/2 R   |
| Sp. E                        | 4/1 R   | 8/2 R  | 5/2 R   | 5/2 R   | 19/6 VC | 4/2 R  | 10/4 C  |
| Sp. F                        | 2/1 R   | 7/1 R  | 0       | 0       | 0       | 3/1 R  | 0       |
| Phylum Annelida              |         |        |         |         |         |        |         |
| Class Oligochaeta            |         |        |         |         |         |        |         |
| Unidentified oligochaete     | 39/2 R  | 29/2 R | 15/2 R  | 14/2 R  | 2/1 R   | 7/1 R  | 67/2 R  |
| Phylum Echinoderma           |         |        |         |         |         |        |         |
| Class Ophiuroidea            |         |        |         |         |         |        |         |
| Unidentified ophiuroid       | 0       | 0      | 2/1 R   | 0       | 0       | 0      | 0       |
| Phylum Mollusca              |         |        |         |         |         |        |         |
| Class Bivalvia               |         |        |         |         |         |        |         |
| <u>Rangea cuneata</u>        | 2/2 R   | 0      | 162/2 R | 104/4 C | 150/4 C | 19/2 R | 2/2 R   |
| <u>Tellina lineata</u>       | 72/4 C  | 42/3 R | 190/3 R | 75/3 R  | 27/4 C  | 8/1 R  | 109/4 C |
| <u>Macra fragilis</u>        | 0       | 2/1 R  | 0       | 0       | 2/1 R   | 1/1 R  | 0       |
| <u>Schadium recurvum</u>     | 0       | 0      | 1/1 R   | 0       | 356/5 C | 0      | 61/1 R  |
| <u>Amydium supyrium</u>      | 0       | 0      | 0       | 0       | 3/3 R   | 0      | 0       |
| <u>Crassostrea virginica</u> | 0       | 0      | 0       | 0       | 2/1 R   | 0      | 0       |
| <u>Mulinia lateralis</u>     | 0       | 0      | 0       | 0       | 0       | 1/1 R  | 0       |
| <u>Spisula</u> sp.           | 0       | 0      | 0       | 0       | 0       | 1/1 R  | 0       |
| Class Gastropoda             |         |        |         |         |         |        |         |
| Subclass Prosobranchia       |         |        |         |         |         |        |         |
| Gastropod A                  | 2/1 R   | 0      | 0       | 2/1 R   | 3/1 R   | 0      | 0       |
| Gastropod B                  | 0       | 10/1   | 0       | 0       | 0       | 0      | 0       |

Table 47 Continued.

| TAXA                                 | STATION |   |       |       |         |       |        |
|--------------------------------------|---------|---|-------|-------|---------|-------|--------|
|                                      | 1       | 2 | 3     | 4     | 5       | 6     | 7      |
| Subclass Prosobranchis Cont.         |         |   |       |       |         |       |        |
| <u>Texadina sphinctostoma</u>        | 0       | 0 | 0     | 1/1 R | 0       | 0     | 0      |
| <u>Cassidinidea lunifrons</u>        | 0       | 0 | 0     | 0     | 3/2 R   | 0     | 0      |
| <u>Neritina reclinata</u>            | 0       | 0 | 0     | 0     | 11/1 R  | 0     | 0      |
| <u>Polynices duplicatus</u>          | 0       | 0 | 0     | 0     | 5/2 R   | 0     | 0      |
| Subclass Opisthobranchia             |         |   |       |       |         |       |        |
| <u>Dorid nudibranch</u>              | 1/1 R   | 0 | 0     | 0     | 4/1 R   | 0     | 0      |
| Phylum Arthropoda                    |         |   |       |       |         |       |        |
| Class Crustacea                      |         |   |       |       |         |       |        |
| Subclass Cirripedia                  |         |   |       |       |         |       |        |
| Order Thoracia                       |         |   |       |       |         |       |        |
| <u>Balanus</u> sp.                   | 0       | 0 | 0     | 0     | 26/5 C  | 0     | 11/1 R |
| Subclass Malacostraca                |         |   |       |       |         |       |        |
| Order Amphipoda                      |         |   |       |       |         |       |        |
| <u>Melita nitida</u>                 | 0       | 0 | 0     | 0     | 617/3 R | 0     | 12/2 R |
| <u>Corophium lacustre</u>            | 0       | 0 | 0     | 0     | 170/3 R | 0     | 0      |
| <u>Grandidierella bonnieroides</u>   | 0       | 0 | 0     | 0     | 1/1 R   | 0     | 0      |
| Order Decapoda                       |         |   |       |       |         |       |        |
| <u>Ogyrides limnicola</u>            | 5/2 R   | 0 | 0     | 1/1 R | 4/1 R   | 0     | 10/2 R |
| <u>Palaemonetes</u> cf. <u>pugio</u> | 0       | 0 | 0     | 0     | 1/1 R   | 0     | 0      |
| <u>Cribanarius vittatus</u>          | 0       | 0 | 0     | 0     | 3/2 R   | 0     | 0      |
| <u>Callinectes sapidus</u>           | 0       | 0 | 0     | 0     | 1/1 R   | 0     | 0      |
| <u>Pinnixa</u> sp.                   | 0       | 0 | 0     | 0     | 8/1 R   | 0     | 0      |
| <u>Rithropanopeus harrisi</u>        | 0       | 0 | 0     | 0     | 1/1 R   | 0     | 0      |
| <u>Eurypanopeus depressus</u>        | 0       | 0 | 0     | 0     | 25/4 C  | 1/1 R | 1/1 R  |
| <u>Panopeus herbstii</u>             | 0       | 0 | 0     | 0     | 4/2 R   | 0     | 0      |
| (forma simpsoni)                     |         |   |       |       |         |       |        |
| Class Insecta                        |         |   |       |       |         |       |        |
| Unidentified chironomids             | 1/1 R   | 0 | 4/2 R | 6/2 R | 0       | 1/1 R | 3/2 R  |
| Phylum chordata                      |         |   |       |       |         |       |        |
| Subphylum Cephalochordata            |         |   |       |       |         |       |        |
| <u>Branchiostoma</u> sp.             | 0       | 0 | 0     | 0     | 1/1 R   | 0     | 0      |

Table 48: Demersal Macroinvertebrates

1. The ratios preceding the general occurrence symbols represent the total number of individuals over the number of sampling seasons in which they were taken.
2. Legend: VC = 3 or 4 occurrences out of 4 sampling periods.  
C = 2 occurrences out of 4 sampling periods.  
R = 1 occurrence out of 4 sampling periods.  
0 = 0 occurrences out of 4 sampling periods.

| TAXA                   | STATION |         |        |        |         |         |        |
|------------------------|---------|---------|--------|--------|---------|---------|--------|
|                        | 1       | 2       | 3      | 4      | 5       | 6       | 7      |
| Phylum Coelenterata    |         |         |        |        |         |         |        |
| Class Scyphozoa        |         |         |        |        |         |         |        |
| Aurelia sp.            | 0       | 1/1 R   | 3/1 R  | 0      | 0       | 0       | 11/1 R |
| Phylum Mollusca        |         |         |        |        |         |         |        |
| Class Bivalvia         |         |         |        |        |         |         |        |
| Tagelus plebeius       | 0       | 0       | 0      | 0      | 1/1 R   | 0       | 0      |
| Ischadium recurvum     | 0       | 1/1 R   | 0      | 0      | 3/1 R   | 0       | 0      |
| Phylum Arthropoda      |         |         |        |        |         |         |        |
| Class Crustacea        |         |         |        |        |         |         |        |
| Subclass Cirripedia    |         |         |        |        |         |         |        |
| Order Thoracica        |         |         |        |        |         |         |        |
| Balanus sp.            | 0       | 4/1 R   | 40/1 R | 43/2 C | 100/1 R | 0       | 0      |
| Order Decapoda         |         |         |        |        |         |         |        |
| Penaeus setiferus      | 23/2 C  | 50/3 VC | 8/2 C  | 13/2 C | 2/2 C   | 1/1 R   | 12/2 C |
| Penaeus aztecus        | 2/1 R   | 0       | 0      | 1/1 R  | 3/2 R   | 17/1 R  | 4/1 R  |
| Callinectes sapidus    | 64/2 C  | 8/2 C   | 1/1 R  | 8/3 VC | 8/3 VC  | 10/4 VC | 6/2 R  |
| Rithropanopeus harrisi | 0       | 1/1 R   | 0      | 0      | 0       | 0       | 0      |
| Order Isopoda          |         |         |        |        |         |         |        |
| Aegathoa               | 1/1 R   | 0       | 0      | 0      | 0       | 2/1 R   | 3/1 R  |
| Olenocera praegastator | 0       | 0       | 0      | 0      | 1/1 R   | 0       | 0      |

Table 49. Oyster Reef Data - Whitehouse Reef.

| #/Acre              | 8/77   | 9/77    | 11/78  |
|---------------------|--------|---------|--------|
| Oysters             | 242    | 0       | 290    |
| Spat                | 42,592 | 303,069 | 15,972 |
| Boxes               | 121    | 0       | 484    |
| $\frac{1}{2}$ Shell | 34,606 | 29,182  | 31,363 |
| Drills              | 0      | 8,826   | 290    |

Table 50. Families and common names of demersal fish species collected.

| FAMILY                                | SPECIES COLLECTED                                                                                                                                                | COMMON NAME                                                                                             |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Engraulidae<br>(Anchovies)            | Anchoa mitchilli<br>Anchoa hepsetus                                                                                                                              | Bay anchovy<br>Striped anchovy                                                                          |
| Clupeidae<br>(Herrings)               | Brevoortia patronus<br>Dorosoma petenense<br>Harengula jaguana                                                                                                   | Gulf menhaden<br>Threadfin shad<br>Scaled sardine                                                       |
| Ariidae<br>(Sea catfishes)            | Arius felis                                                                                                                                                      | Sea catfish                                                                                             |
| Ictaluridae<br>(Freshwater catfishes) | Ictalurus furcatus                                                                                                                                               | Blue catfish                                                                                            |
| Synodontidae<br>(Lizard fishes)       | Synodus felis                                                                                                                                                    | Inshore lizardfish                                                                                      |
| Stromateidae<br>(Harvest fishes)      | Peprilus alepidotus<br>Peprilus burti                                                                                                                            | Harvestfish<br>Gulf butterfish                                                                          |
| Polynemidae<br>Threadfins             | Polydactylus octonemus                                                                                                                                           | Atlantic threadfish                                                                                     |
| Batrachoididae<br>Toadfishes          | Porichthys plectrodon                                                                                                                                            | Midshipman                                                                                              |
| Gadidae<br>Cods                       | Urophycis regius                                                                                                                                                 | Spotted hake                                                                                            |
| Sciaenidae<br>Croakers                | Micropogon undulatus<br>Leiostomus xanthurus<br>Cynoscion arenarius<br>Cynoscion nebulosus<br>Bairdiella chrysura<br>Pogonias chromis<br>Menticirrhus americanus | Croaker<br>Spot<br>Sand seatrout<br>Spotted seatrout<br>Silver parch<br>Black drum<br>Southern kingfish |
| Sphyraenidae<br>Barracudes            | Sphyraena guachanche                                                                                                                                             | Guaguanche                                                                                              |
| Carangidae<br>Jacks                   | Chloroscombrus chrysurus<br>Vomer setapinnis<br>Selene vomer<br>Caranx hippos                                                                                    | Atlantic bumper<br>Moonfish<br>Lookdown<br>Jack Crevalle                                                |

Table 50. Continued.

| FAMILY                         | SPECIES COLLECTED                                                          | COMMON NAME                                        |
|--------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|
| Sparidae<br>Porgies            | Archosargus probatocephalus                                                | Sheepshead                                         |
| Ephippidae<br>Spadefishes      | Chaetodipterus faber                                                       | Spadefish                                          |
| Trichiuridae<br>Cutlessfishes  | Trichiurus lepturus                                                        | Atlantic cutlessfish                               |
| Triglidae<br>Sea robins        | Prionotus tribulus<br>Prionotus rubio                                      | Bighead searobin<br>Blackfin searobin              |
| Gobiidae<br>Gobies             | Gobionellus boleosoma                                                      | Darter goby                                        |
| Bothidae<br>Lefteyed flounders | Paralichthys lethostigma<br>Citharichthys spilopterus<br>Etropus crossotus | Southern flounder<br>Bay whiff<br>Fringed flounder |
| Soleidae<br>Soles              | Trinectes maculatus                                                        | Hogchoker                                          |
| Tetraodontidae<br>Puffers      | Sphoeroides parvus                                                         | Least puffer                                       |

Table 51. Demersal Fish Species occurrence at Theodore Station B-1.

## STATION COE B-1

| SPECIES                          | Fall 1977 | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
|----------------------------------|-----------|-------------|-------------|-------------|-----------|
| <i>Anchoa mitchilli</i>          | 27        | 3           | 8           | -           | 13        |
| <i>A. hepsetus</i>               | 1         | -           | -           | -           | -         |
| <i>Brevoortia patronus</i>       | 1         | 1           | 2           | -           | 5         |
| <i>Dorosoma petenense</i>        | -         | 12          | -           | -           | 10        |
| <i>Harengula jaguana</i>         | -         | -           | -           | -           | 2         |
| <i>Arius felis</i>               | -         | -           | -           | -           | 3         |
| <i>Synodus foetens</i>           | -         | -           | -           | -           | 1         |
| <i>Peprilus alepidotus</i>       | 2         | -           | -           | -           | 2         |
| <i>Micropogon undulatus</i>      | 14        | -           | 390         | 103         | 8         |
| <i>Leiostomus xanthurus</i>      | 2         | -           | 33          | 1           | 1         |
| <i>Cynoscion arenarius</i>       | -         | -           | 3           | -           | 3         |
| <i>Prionotus tribulus</i>        | -         | -           | -           | -           | -         |
| <i>Chloroscombrus chrysurus</i>  | -         | -           | -           | -           | 2         |
| <i>Vomer setipinnis</i>          | -         | -           | -           | -           | 8         |
| <i>Trichiurus lepturus</i>       | -         | -           | 6           | -           | -         |
| <i>Porichthys plectrodon</i>     | -         | -           | 1           | -           | -         |
| <i>Gobionellus boleosoma</i>     | -         | -           | 1           | -           | -         |
| <i>Paralichthys lethostigma</i>  | -         | -           | 1           | -           | -         |
| <i>Citharichthys spilopterus</i> | -         | -           | -           | -           | 5         |
| <i>Trinectes maculatus</i>       | -         | -           | 1           | -           | -         |
| <i>Symphurus plagiusa</i>        | -         | -           | 1           | -           | -         |
| <i>Sphoeroides parvus</i>        | 5         | -           | -           | -           | 6         |
| No. of species                   | 7         | 3           | 12          | 2           | 14        |
| No. of individuals               | 52        | 16          | 448         | 104         | 83        |



Table 52.

## STATION COE B-2

|                                    | Fall 1977 | Winter 1978 | Spring 1978 | Summer 1973 | Fall 1978 |
|------------------------------------|-----------|-------------|-------------|-------------|-----------|
| <i>Anchoa mitchilli</i>            | 26        | 3           | 28          | -           | 4         |
| <i>A. hepsetus</i>                 | -         | -           | -           | -           | 1         |
| <i>Brevoortia patronus</i>         | -         | 4           | 5           | -           | 1         |
| <i>Dorosoma petenense</i>          | -         | -           | -           | -           | 2         |
| <i>Arius felis</i>                 | 5         | -           | -           | 2           | -         |
| <i>Synodus foetens</i>             | 2         | -           | -           | -           | -         |
| <i>Peprilus alepidotus</i>         | -         | -           | -           | -           | 3         |
| <i>Micropogon undulatus</i>        | 6         | 1           | -           | 120         | 1         |
| <i>Leiostomus xanthurus</i>        | 8         | -           | 8           | 70          | 5         |
| <i>Cynoscion arenarius</i>         | 5         | -           | 6           | 3           | 2         |
| <i>Archosargus probatocephalus</i> | 1         | -           | 1           | -           | -         |
| <i>Chaetodipterus faber</i>        | 2         | -           | -           | -           | -         |
| <i>Caranx hippos</i>               | 1         | -           | -           | -           | 1         |
| <i>Trichiurus lepturus</i>         | -         | -           | 13          | -           | -         |
| <i>Etropus crossotus</i>           | 3         | -           | -           | -           | -         |
| <i>Paralichthys lethostigma</i>    | -         | -           | 2           | -           | -         |
| <i>Citharichthys spilopterus</i>   | -         | -           | -           | -           | 1         |
| <i>Sphoeroides parvus</i>          | 3         | -           | -           | -           | -         |
| No. of species                     | 11        | 3           | 7           | 4           | 10        |
| No. of individuals                 | 62        | 8           | 63          | 195         | 21        |

Table 53.

| SPECIES                          | STATION COE B-3 |             |             |             |           |
|----------------------------------|-----------------|-------------|-------------|-------------|-----------|
|                                  | Fall 1977       | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
| <i>Anchoa mitchilli</i>          | 44              | 3           | 12          | 6           | 10        |
| <i>A. hepsetus</i>               | 4               | -           | -           | -           | -         |
| <i>Brevoortia patronus</i>       | -               | -           | -           | -           | -         |
| <i>Dorosoma petenense</i>        | 2               | -           | -           | -           | 1         |
| <i>Arius felis</i>               | 1               | -           | -           | -           | 5         |
| <i>Peprilus adepdodus</i>        | 1               | -           | -           | -           | -         |
| <i>Polydactylus octonemus</i>    | -               | -           | -           | -           | 1         |
| <i>Micropogon undulatus</i>      | 2               | -           | 84          | 36          | 3         |
| <i>Leiostomus xanthurus</i>      | 26              | -           | 4           | 14          | 14        |
| <i>Cynoscion arenarius</i>       | 5               | -           | -           | 1           | 6         |
| <i>C. nebulosus</i>              | -               | 1           | -           | -           | -         |
| <i>Pogonias chromis</i>          | -               | 1           | -           | -           | -         |
| <i>Prionotus tribulus</i>        | 1               | -           | -           | -           | -         |
| <i>Trichiurus lepturus</i>       | -               | -           | 1           | -           | -         |
| <i>Vomer setapinnis</i>          | -               | -           | -           | 3           | -         |
| <i>Etropus crossotus</i>         | 1               | -           | -           | -           | -         |
| <i>Paralichthys lethostigma</i>  | -               | -           | -           | -           | 1         |
| <i>Citharichthys spilopterus</i> | -               | -           | -           | -           | 1         |
| <i>Trinectes maculatus</i>       | -               | -           | -           | -           | 1         |
| <i>Sphueroides parvus</i>        | 2               | -           | -           | -           | 1         |
| No. of species                   | 11              | 3           | 5           | 7           | 11        |
| No. of individuals               | 89              | 5           | 102         | 62          | 44        |

Table 54.

| SPECIES                          | STATION COE B-4 |             |             |             |           |
|----------------------------------|-----------------|-------------|-------------|-------------|-----------|
|                                  | Fall 1977       | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
| <i>Anchoa mitchilli</i>          | 7               | 1           | 4           | 1           | 7         |
| <i>A. hepsetus</i>               | 1               | -           | -           | -           | -         |
| <i>Brevoortia patronus</i>       | -               | -           | 2           | 2           | -         |
| <i>Dorosoma petenense</i>        | -               | -           | -           | 2           | 2         |
| <i>Arius felis</i>               | -               | -           | 2           | -           | 2         |
| <i>Ictalurus furcatus</i>        | -               | -           | 2           | -           | -         |
| <i>Synodus foetens</i>           | 1               | -           | -           | -           | 1         |
| <i>Prionotus tribulus</i>        | 1               | -           | -           | -           | 1         |
| <i>Micropogon undulatus</i>      | 1               | -           | 340         | 8           | 4         |
| <i>Leiostomus xanthurus</i>      | 4               | -           | 18          | 70          | 24        |
| <i>Cynoscion arenarius</i>       | 4               | -           | 10          | 3           | 2         |
| <i>Vomer setapinnis</i>          | -               | -           | -           | 1           | -         |
| <i>Trichiurus lepturus</i>       | -               | -           | 3           | -           | -         |
| <i>Citharichthys spilopterus</i> | 2               | -           | -           | -           | -         |
| <i>Trinectes maculatus</i>       | -               | -           | 2           | -           | 1         |
| <i>Etropus crossotus</i>         | -               | -           | -           | -           | -         |
| <i>Sphoeroides parvus</i>        | 2               | -           | -           | -           | -         |
| No. of species                   | 9               | 1           | 9           | 7           | 10        |
| No. of individuals               | 23              | 1           | 383         | 87          | 45        |

Table 55.

| SPECIES                            | STATION COE B-5 |             |             |             |           |
|------------------------------------|-----------------|-------------|-------------|-------------|-----------|
|                                    | Fall 1977       | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
| <i>Anchoa mitchilli</i>            | 3               | 114         | 23          | -           | 2         |
| <i>Brevoortia patronus</i>         | -               | 66          | 5           | -           | 1         |
| <i>Dorosoma petenense</i>          | -               | 44          | -           | -           | -         |
| <i>Harengula penacolae</i>         | -               | -           | -           | -           | 1         |
| <i>Arius felis</i>                 | -               | -           | -           | 1           | 3         |
| <i>Synodus foetens</i>             | -               | -           | -           | -           | 1         |
| <i>Micropogon undulatus</i>        | -               | 2           | 19          | -           | 6         |
| <i>Leiostomus xanthurus</i>        | -               | -           | 11          | -           | 10        |
| <i>Cynoscion arenarius</i>         | -               | -           | 2           | -           | -         |
| <i>Pogonias chromis</i>            | -               | 1           | -           | -           | -         |
| <i>Peprilus alepidotus</i>         | -               | -           | -           | 1           | 2         |
| <i>Selene vomer</i>                | 1               | -           | -           | -           | 1         |
| <i>Archosargus probatocephalus</i> | -               | 2           | 1           | -           | -         |
| <i>Chaetodipterus faber</i>        | 1               | -           | -           | -           | -         |
| <i>Trichiurus lepturus</i>         | -               | -           | 3           | -           | -         |
| <i>Vomer setapinnis</i>            | -               | -           | -           | -           | 3         |
| <i>Etropus crossotus</i>           | 1               | -           | -           | -           | 1         |
| <i>Citharichthys spilopterus</i>   | 1               | -           | -           | -           | 3         |
| <i>Trinectes maculatus</i>         | -               | -           | -           | -           | 2         |
| <i>Sphoeroides parvus</i>          | 1               | -           | -           | -           | -         |
| No. of species                     | 6               | 6           | 7           | 2           | 13        |
| No. of individuals                 | 18              | 229         | 64          | 2           | 36        |

Table 56.

|                                    | STATION COE B-6 |             |             |             |           |
|------------------------------------|-----------------|-------------|-------------|-------------|-----------|
|                                    | Fall 1977       | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
| <i>Anchoa mitchilli</i>            | 113             | 40          | 2           | -           | -         |
| <i>Brevoortia patronus</i>         | -               | 1           | -           | -           | -         |
| <i>Dorosoma petenense</i>          | -               | 5           | -           | -           | -         |
| <i>Arius felis</i>                 | 6               | -           | -           | 1           | 1         |
| <i>Micropogon undulatus</i>        | -               | -           | 15          | -           | 26        |
| <i>Leiostomus xanthurus</i>        | 2               | 2           | 5           | -           | 46        |
| <i>Cynoscion arenarius</i>         | 5               | -           | 1           | -           | -         |
| <i>Menticirrhus americanus</i>     | 4               | -           | -           | -           | -         |
| <i>Synodus foetens</i>             | 4               | -           | -           | -           | -         |
| <i>Peprilus alepidotus</i>         | -               | 1           | -           | -           | -         |
| <i>Sphyraena guachancho</i>        | 1               | -           | -           | -           | -         |
| <i>Chaetodipterus faber</i>        | 1               | -           | -           | -           | 1         |
| <i>Prionotus tribulus</i>          | 2               | -           | -           | -           | -         |
| <i>Archosargus probatocephalus</i> | -               | 2           | -           | -           | -         |
| <i>Etropus crossotus</i>           | 11              | -           | -           | -           | -         |
| <i>Citharichthys spilopterus</i>   | 1               | -           | -           | -           | 4         |
| <i>Sphoeroides parvus</i>          | 38              | -           | -           | -           | -         |
| No. of species                     | 12              | 6           | 3           | 1           | 5         |
| No. of individuals                 | 188             | 51          | 22          | 1           | 77        |

Table 57.

## STATION COE 8-7

|                                    | Fall 1977 | Winter 1978 | Spring 1978 | Summer 1978 | Fall 1978 |
|------------------------------------|-----------|-------------|-------------|-------------|-----------|
| <i>Anchoa hepsetus</i>             | 93        | 37          | 11          | -           | -         |
| <i>A. mitchilli</i>                | 11        | -           | -           | -           | -         |
| <i>Brevoortia patronus</i>         | 1         | 16          | 4           | -           | 1         |
| <i>Dorosoma petenense</i>          | 14        | 9           | -           | -           | -         |
| <i>Arius felis</i>                 | 7         | -           | 6           | 4           | 4         |
| <i>Ictalurus furcatus</i>          | -         | -           | 6           | -           | -         |
| <i>Peprilus alepidotus</i>         | 26        | -           | -           | -           | 2         |
| <i>Porichthys plectrodon</i>       | -         | -           | -           | -           | 1         |
| <i>Urophycis regius</i>            | -         | -           | 1           | -           | -         |
| <i>Synodus foetens</i>             | 1         | -           | -           | -           | -         |
| <i>Peprilus burti</i>              | 3         | -           | -           | -           | -         |
| <i>Micropogon undulatus</i>        | 3         | -           | 223         | 103         | 33        |
| <i>Leiostomus xanthurus</i>        | 35        | -           | 46          | 1           | 11        |
| <i>Cynoscion arenarius</i>         | 6         | -           | 7           | -           | -         |
| <i>Bairdiella chrysura</i>         | -         | 1           | -           | -           | -         |
| <i>Prionotus rubio</i>             | -         | -           | -           | -           | -         |
| <i>Trichiurus lepturus</i>         | -         | -           | 6           | -           | -         |
| <i>Archosargus probatocephalus</i> | -         | 2           | -           | -           | -         |
| <i>Vomer setapinnis</i>            | 1         | -           | -           | -           | -         |
| <i>Chloroscombrus chrysus</i>      | 1         | -           | -           | -           | -         |
| <i>Etropus crossotus</i>           | 3         | -           | -           | -           | 1         |
| <i>Trinectes maculatus</i>         | -         | -           | 1           | -           | -         |
| <i>Citharichthys spilopterus</i>   | -         | -           | -           | -           | 3         |
| <i>Sphoeroides parvus</i>          | 11        | -           | -           | -           | -         |
| No. of species                     | 15        | 5           | 10          | 3           | 10        |
| No. of individuals                 | 216       | 65          | 311         | 108         | 58        |