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UMPQUA R.

COOS BAY

COQUILLE R.

ROGUE R.

# HYDROGRAPHY of Oregon Estuaries

June 1956  
to September 1958

by  
Wayne V. Burt  
and  
Bruce McAllister

Office of Naval Research  
Contract Nonr 1286(2)  
Project NR 083-102

Data Report No. 3  
Reference 58-6

October 1958

SCHOOL OF SCIENCE  
OREGON STATE COLLEGE  
Corvallis, Oregon

H Y D R O G R A P H Y   O F   O R E G O N   E S T U A R I E S

June 1956 to September 1958

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Data Report No. 3

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Wayne V. Burt  
Oceanographer

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ABSTRACT

Unpublished hydrographic data for Oregon Estuaries (Alsea, Columbia, Coos, Nehalem, Netarts, Siletz, Siuslaw, Tillamook, Umpqua, and Yaquina) which was collected by Oregon State College between June 1956 and September 1958 are tabulated.

## INTRODUCTION

The data presented in this report consists of hydrographic information for ten Oregon Estuaries. Most of these data were collected under the present contract with the assistance of personnel and equipment from the Shellfish Laboratory of the Oregon Fish Commission under the direction of Mr. Dale Snow. The locations of most of the estuaries are shown on the map on the cover. Netarts Estuary is located a few miles south and west of Tillamook Bay.

Data collected prior to June 1956 were presented in: (1) Data Report No. 1, Reference 55-1, Hydrography of Coos Bay, and (2) Data Report No. 2, Reference 56-2, Hydrography of Oregon Estuaries Prior to June 1956. A limited number of these two reports are available for distribution.

## STATION LOCATION

The stations were located in the center of the main channel in each estuary. They are usually listed according to some landmark. In addition, the approximate distance from the ocean is given for each station. These distances are in nautical miles from the ocean up the main channel of each estuary. The ocean is considered to begin at the outer end of the jetties or the outer edge of the mouth of the estuaries.

## DATA

Temperature. Most of the temperature data were obtained with an early model of the Chesapeake Bay Institute conductivity-temperature-indicator. A few data were obtained by placing an ordinary laboratory thermometer in a metal sampling bottle after it had been taken aboard the boat. The accuracy of these data should lie between 0.1 and 0.5°C.

Salinity. Most of the salinity data were obtained with the Chesapeake Bay Institute conductivity-temperature-indicator. A few data were obtained from specific gravity readings made with salinity hydrometers and corrected for temperature. The accuracy of these data should lie between 0.1 and 0.5 ‰.

Tide Stage. An endeavor was made to carry out all sampling at the local time of high water and low water at each station as each tidal stage moved upstream in an estuary. For example, the boat would be on the station nearest the mouth of the estuary approximately thirty minutes before high water was scheduled at that station. Sampling would begin before time of high water. As soon as the station was completed, the

boat would move upstream to the next station and so on to the last station upstream, which was usually completed by thirty minutes after the time of scheduled high water at that station. The boat then returned to the mouth to await the scheduled time of low water there to begin the low water stations. The times, heights, and stages are listed for one position in each estuary for each day of sampling.

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| 3           | Columbia River  | 9-10-57<br>1-9-58<br>5-26-58             | 12          | Siuslaw River   | 7-11-58                                                     |
| 4           | Columbia River  | 5-26-58                                  | 13          | Tillamook River | 10-19-57<br>1-4-58<br>4-9-58<br>7-23-58                     |
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| 9           | Siletz River    | 10-20-57<br>1-3-58<br>4-8-58<br>7-25-58  |             |                 |                                                             |
| 10          | Siletz River    | 7-25-58                                  |             |                 |                                                             |

| Alsea River               |            |          |           | October 8, 1957           |            |          |           | Tides, Waldport, HLW 1.3 0554, HHW 6.3 1216 |            |          |           |            |            |          |           |
|---------------------------|------------|----------|-----------|---------------------------|------------|----------|-----------|---------------------------------------------|------------|----------|-----------|------------|------------|----------|-----------|
| Time PST                  | Depth Feet | Temp. °C | Sal. o/oo | Time PST                  | Depth Feet | Temp. °C | Sal. o/oo | Time PST                                    | Depth Feet | Temp. °C | Sal. o/oo | Time PST   | Depth Feet | Temp. °C | Sal. o/oo |
| Highway Bridge, 0.6 miles |            |          |           | 5.8 miles                 |            |          |           | 8.4 miles                                   |            |          |           | 10.7 miles |            |          |           |
| 1155                      | 0          | 13.5     | ----      | 0820                      | 0          | 14.0     | 8.3       | 0855                                        | 0          | 13.4     | 3.3       | 0925       | 0          | 12.7     | 0.4       |
|                           |            |          |           |                           | 5          | 13.9     | 15.0      |                                             | 5          | 14.3     | 7.8       |            | 5          | 12.9     | 1.2       |
| Waldport, 1.8 miles       |            |          |           |                           | 10B        | 13.9     | 17.5      |                                             | 10         | 14.8     | 11.1      |            | 7B         | 12.9     | 1.6       |
|                           | 0          | 13.7     | 18.2      |                           |            |          |           |                                             | 15B        | 14.8     | 11.8      |            |            |          |           |
|                           | 3B         | 13.6     | 18.3      | 1235                      | 0          | 13.7     | 13.9      |                                             |            |          |           | 1325       | 0          | 13.0     | 0.4       |
| 2.7 miles                 |            |          |           |                           | 5          | 13.4     | 16.4      | 1300                                        | 0          | 14.1     | 6.0       |            | 5          | 13.0     | 1.2       |
| 0740                      | 0          | 13.6     | 12.2      |                           | 10         | 13.4     | 16.7      |                                             | 2.5        | 14.2     | 7.8       |            | 10         | 13.5     | 3.5       |
|                           | 5B         | 13.6     | 12.7      |                           | 15B        | 13.4     | 17.3      |                                             | 5          | 14.3     | 10.2      |            | 12.5       | 13.5     | 4.6       |
| Eckman Slough, 3.0 miles  |            |          |           | Highway Bridge, 7.0 miles |            |          |           |                                             | 10         | 14.3     | 11.7      |            | 15         | 13.5     | 15.0      |
| 1200                      | 0          | 13.6     | ----      | 0840                      | 0          | 13.9     | 6.6       |                                             | 15         | 14.3     | 11.9      | 11.3 miles |            |          |           |
|                           |            |          |           |                           | 5          | 14.2     | 10.5      |                                             | 20         | 14.3     | 12.2      | 1345       | 0          | 12.9     | 0.1       |
| 4.2 miles                 |            |          |           |                           | 10         | 14.2     | 14.6      | Tidewater, 9.7 miles                        |            |          |           |            | 5          | 12.9     | 0.1       |
| 0800                      | 0          | 13.8     | 12.1      |                           | 13B        | 14.2     | 15.1      | 0910                                        | 0          | 12.9     | 1.4       |            | 10B        | 12.9     | 0.1       |
|                           | 5B         | 13.8     | 12.7      | 1245                      | 0          | 14.1     | 11.5      |                                             | 2.5        | 13.1     | 1.8       | 11.9 miles |            |          |           |
| 1220                      |            |          |           |                           | 5          | 13.9     | 12.3      |                                             | 5          | 13.6     | 3.9       | 0940       | 0          | 12.5     | 0.0       |
|                           | 0          | 13.6     | 25.2      |                           | 10         | 13.8     | 14.7      |                                             | 7.5        | 14.6     | 7.4       |            | 3B         | 12.5     | 0.0       |
|                           | 5          | 13.6     | 27.3      |                           | 15         | 13.9     | 16.2      |                                             | 10B        | 15.0     | 8.6       |            |            |          |           |
|                           | 10B        | 13.6     | 27.6      |                           | 18B        | 13.9     | 17.1      | 1315                                        | 0          | 13.6     | 2.4       | 1335       | 0          | 12.7     | 0.0       |
|                           |            |          |           |                           |            |          |           |                                             | 5          | 13.6     | 3.3       |            | 5          | 12.7     | 0.0       |
|                           |            |          |           |                           |            |          |           |                                             | 10B        | 13.6     | 6.1       |            | 7B         | 12.7     | 0.0       |

| Alsea River                |   |      |      | January 25, 1958    |   |     |     | Tides, Waldport, HLW 2.3 1045, LHW 6.2, 1540 |    |      |     |                            |     |     |     |
|----------------------------|---|------|------|---------------------|---|-----|-----|----------------------------------------------|----|------|-----|----------------------------|-----|-----|-----|
| U.S. 101 Bridge, 0.6 miles |   |      |      | Waldport, 1.8 miles |   |     |     | Eckman Slough, 3.0 miles                     |    |      |     | Curtis' Landing, 4.2 miles |     |     |     |
| 1510                       | 0 | 10.8 | 26.0 | 1515                | 0 | 9.3 | 1.1 | 1525                                         | 0  | 10.0 | 0.3 | 1535                       | 0   | 9.4 | 0.2 |
|                            |   |      |      |                     |   |     |     |                                              |    |      |     |                            | 13B | 9.4 | 0.4 |
| 1000                       | 0 | 9.1  | 5.4  | 1010                | 0 | 8.5 | 0.6 | 1145                                         | 0  | 9.2  | 0.0 | 1130                       | 0   | 9.1 | 0.0 |
|                            |   |      |      |                     |   |     |     |                                              | 3B | 9.2  | 0.2 |                            | 8B  | 9.1 | 0.0 |

| Alsea River               |   |      |      | March 25, 1958 |     |      |     | Tides, Waldport, LLW 0.5 0940, LHW 5.7 1605 |     |     |     |                           |     |     |     |
|---------------------------|---|------|------|----------------|-----|------|-----|---------------------------------------------|-----|-----|-----|---------------------------|-----|-----|-----|
| Highway Bridge, 0.6 miles |   |      |      | 4.2 miles      |     |      |     | 5.8 miles                                   |     |     |     | Highway Bridge, 7.0 miles |     |     |     |
| 1015                      | 0 | 10.6 | 13.5 | 0950           | 0   | 9.9  | 0.6 | 1610                                        | 0   | 9.7 | 0.1 | 1625                      | 0   | 9.5 | 0.0 |
|                           |   |      |      |                | 5   | 9.6  | 0.6 |                                             | 5   | 9.8 | 0.2 |                           | 5   | 9.5 | 0.0 |
| 1525                      | 0 | 11.7 | 24.9 |                | 9B  | 9.8  | 3.8 |                                             | 10  | 9.3 | 0.6 |                           | 10  | 9.4 | 0.0 |
|                           |   |      |      |                |     |      |     |                                             | 15  | 9.7 | 8.1 |                           | 15  | 9.4 | 0.0 |
| Waldport, 1.8 miles       |   |      |      | 1555           | 0   | 10.6 | 2.2 |                                             | 16B | 9.8 | 9.0 |                           | 18B | 9.3 | 0.0 |
| 1025                      | 0 | 10.2 | 3.9  |                | 5   | 10.5 | 4.1 |                                             |     |     |     |                           |     |     |     |
|                           |   |      |      |                | 10B | 10.4 | 4.8 |                                             |     |     |     |                           |     |     |     |
| 1540                      | 0 | 11.4 | 16.9 |                |     |      |     |                                             |     |     |     |                           |     |     |     |

| Alsea River                |   |      |      | July 12, 1958 |    |      |      | Tides, Waldport, LHW 5.1 0958, HLW 2.6 1446 |    |      |      |                       |    |      |     |
|----------------------------|---|------|------|---------------|----|------|------|---------------------------------------------|----|------|------|-----------------------|----|------|-----|
| U.S. 101 Bridge, 0.6 miles |   |      |      | 4.2 miles     |    |      |      | 7.0 miles                                   |    |      |      | 9.0 miles             |    |      |     |
| 0630                       | 0 | 15.9 | 23.1 | 0500          | 0  | 20.2 | 4.8  | 0550                                        | 0  | 20.5 | 1.1  | 1150                  | 0  | 22.2 | 0.8 |
|                            |   |      |      |               |    |      |      |                                             |    |      |      |                       | 5  | 21.8 | 1.0 |
| 1020                       | 0 | 12.8 | 33.5 | 1105          | 0  | 19.9 | 14.6 | 1125                                        | 0  | 21.9 | 4.1  |                       | 8  | 21.8 | 1.1 |
|                            |   |      |      |               | 5  | 18.7 | 17.3 |                                             | 5  | 21.2 | 5.0  | Tidewater, 10.0 miles |    |      |     |
| Waldport, 1.8 miles        |   |      |      |               | 8B | 18.6 | 17.8 |                                             | 10 | 20.8 | 10.5 | 1200                  | 0  | 22.2 | 0.2 |
| 0620                       | 0 | 17.8 | 12.4 |               |    |      |      |                                             | 15 | 20.8 | 11.5 |                       | 5  | 22.1 | 0.2 |
|                            |   |      |      | 5.7 miles     |    |      |      |                                             | 17 | 20.8 | 12.1 |                       | 10 | 22.1 | 0.4 |
| 1040                       | 0 | 13.2 | 31.2 | 1115          | 0  | 21.8 | 5.5  | 8.0 miles                                   |    |      |      |                       | 13 | 22.1 | 0.4 |
|                            |   |      |      |               | 5  | 20.8 | 8.1  |                                             | 0  | 22.1 | 1.6  |                       |    |      |     |
|                            |   |      |      |               | 10 | 20.3 | 13.2 | 1140                                        | 5  | 21.2 | 3.6  |                       |    |      |     |
|                            |   |      |      |               | 15 | 20.3 | 15.8 |                                             | 10 | 21.1 | 7.8  |                       |    |      |     |
|                            |   |      |      |               |    |      |      |                                             | 15 | 21.1 | 9.0  |                       |    |      |     |
|                            |   |      |      |               |    |      |      |                                             | 20 | 21.1 | 10.4 |                       |    |      |     |

Columbia River September 10, 1957 Tides, Tongue Point, HLW 0.4 0801, HHW 7.5 1404

| Time<br>PST                        | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                  | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                          | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|------------------------------------|---------------|-------------|--------------|------------------------------|---------------|-------------|--------------|--------------------------------------|---------------|-------------|--------------|----------------------------|---------------|-------------|--------------|
| Red Buoy 14, 3.8 miles             |               |             |              | Skipanon, Buoy 29, 9.0 miles |               |             |              | Red Buoy 40, 13.3 miles              |               |             |              | Buoy 51, 17.6 miles        |               |             |              |
| 0635                               | 0             | 19.4        | 5.2          | 1230                         | 0             | -----       | 8.2          | 0835                                 | 0             | 20.7        | 0.1          | 1414                       | 0             | 21.3        | 0.9          |
|                                    | 5             | 18.5        | 7.7          |                              | 5             | -----       | 8.7          |                                      | 5             | 20.7        | 0.1          |                            | 5             | 21.1        | 0.9          |
|                                    | 10            | 18.0        | 10.5         |                              | 10            | -----       | 9.9          |                                      | 10            | 20.7        | 0.2          |                            | 10            | 21.0        | 1.0          |
|                                    | 15            | 17.9        | 11.4         |                              | 15            | -----       | 15.0         |                                      | 20            | 20.7        | 0.3          |                            | 15            | 21.0        | 1.0          |
|                                    | 20            | 17.8        | 11.8         |                              | 20            | -----       | 20.0         |                                      | 25            | 20.7        | 0.5          |                            | 20            | 21.0        | 1.0          |
|                                    | 25            | 17.6        | 13.0         |                              | 25            | -----       | 20.0         |                                      | 30            | 20.5        | 1.2          |                            | 25B           | 21.0        | 1.0          |
|                                    | 30            | 15.6        | 18.9         |                              | 30            | -----       | 20.1         |                                      | 35            | 20.5        | 1.3          | Red Buoy 5, 18.5 miles     |               |             |              |
|                                    | 35            | 14.6        | 22.0         |                              | 35            | -----       | 20.2         |                                      | 40            | 20.4        | 2.0          | 1453                       | 0             | 21.5        | 0.4          |
|                                    | 40            | 14.0        | 23.7         |                              | 40B           | -----       | 20.3         |                                      | 45B           | 20.3        | 2.1          |                            | 5             | 20.7        | 1.0          |
|                                    | 50            | (14.5)      | 24.3         | Astoria, 11.0 miles          |               |             |              | Astoria, 14.5 miles                  |               |             |              |                            | 10            | 20.7        | 1.1          |
|                                    | 60            | 13.1        | 26.9         | 0805                         | 0             | 20.6        | 1.2          | 1345                                 | 0             | 21.1        | 2.6          |                            | 15            | 20.7        | 1.1          |
| Black Buoy 21, 5.5 miles           |               |             |              |                              | 5             | 20.6        | 1.3          |                                      | 5             | 20.3        | 3.6          |                            | 20            | 20.7        | 1.1          |
| 1201                               | 0             | 17.3        | 16.2         |                              | 10            | 20.5        | 1.6          |                                      | 10            | 19.6        | 5.8          |                            | 25            | 20.7        | 1.1          |
|                                    | 5             | 14.0        | 24.5         |                              | 15            | 20.5        | 1.9          |                                      | 15            | 19.5        | 6.2          |                            | 30            | 20.7        | 1.1          |
|                                    | 10            | 13.6        | 25.6         |                              | 20            | 20.2        | 3.0          |                                      | 20            | 19.4        | 6.5          |                            | 35            | 20.7        | 1.2          |
|                                    | 15            | 12.7        | 27.6         |                              | 25            | 19.9        | 4.3          |                                      | 25            | 19.2        | 7.3          |                            | 40            | 20.7        | 1.2          |
|                                    | 20            | 12.6        | 27.7         |                              | 30            | 19.8        | 4.8          |                                      | 30            | 19.1        | 7.7          |                            | 43B           | 20.7        | 1.3          |
|                                    | 30            | 12.5        | 27.8         |                              | 35            | 19.5        | 5.6          |                                      | 35            | 18.9        | 8.3          | Harrington Point, 19.8 mi. |               |             |              |
|                                    | B             | 12.5        | 28.0         |                              | 40            | 19.3        | 7.0          |                                      | 40            | 18.8        | 8.6          | 1427                       | 0             | 21.1        | 0.0          |
| Black Buoy 25, Pt. Adams 6.8 miles |               |             |              |                              | B             | 18.4        | 10.8         |                                      | 50B           | 18.7        | 8.7          |                            | 5             | 21.1        | 0.0          |
| 0720                               | 0             | 19.7        | 4.9          | Astoria, 11.3 miles          |               |             |              | Black Buoy 43, Tongue Pt. 15.0 miles |               |             |              |                            | 10            | 21.1        | 0.0          |
|                                    | 5             | 19.6        | 5.2          | 1250                         | 0             | 19.9        | 5.8          | 0853                                 | 0             | 20.7        | 0.0          |                            | 15            | 21.1        | 0.0          |
|                                    | 10            | 19.5        | 6.2          |                              | 5             | 19.1        | 7.6          |                                      | 10            | 20.7        | 0.0          |                            | 20            | 21.0        | 0.0          |
|                                    | 15            | 18.7        | 8.7          |                              | 10            | 18.6        | 9.3          |                                      | 20            | 20.7        | 0.0          |                            | 25            | 21.0        | 0.0          |
|                                    | 20            | 17.1        | 14.9         |                              | 15            | 18.1        | 11.8         |                                      | 30            | 20.7        | 0.0          |                            | 30            | 21.0        | 0.0          |
|                                    | 25            | 16.6        | 16.7         |                              | 20            | 17.4        | 13.2         |                                      | 40            | 20.7        | 0.0          |                            | 39B           | 21.0        | 0.0          |
|                                    | 30            | 16.3        | 17.8         |                              | 25            | 16.9        | 15.3         |                                      | 50B           | 20.7        | 0.0          |                            |               |             |              |
|                                    | 35            | 16.2        | 18.3         |                              | 30            | 17.0        | 14.6         |                                      |               |             |              |                            |               |             |              |
|                                    | 40            | 16.2        | 18.4         |                              | 35            | 16.7        | 15.8         |                                      |               |             |              |                            |               |             |              |
|                                    |               |             |              |                              | 40            | 16.5        | 16.7         |                                      |               |             |              |                            |               |             |              |
|                                    |               |             |              |                              | 45B           | 16.5        | 16.8         |                                      |               |             |              |                            |               |             |              |

Columbia River January 9, 1958 Tides, Tongue Point, HLW 1.9 1001, HHW 8.5 1546

|                    |     |      |      |                        |     |      |      |                        |     |     |      |                                 |     |     |      |
|--------------------|-----|------|------|------------------------|-----|------|------|------------------------|-----|-----|------|---------------------------------|-----|-----|------|
| Buoy 14, 3.8 miles |     |      |      | Buoy 21, 5.7 miles     |     |      |      | Young's Bay, 9.6 miles |     |     |      | Astoria Yacht Basin, 13.4 miles |     |     |      |
| 0900               | 0   | 6.4  | 10.2 | 1455                   | 0   | 9.8  | 29.7 | 1000                   | 0   | 5.1 | 1.6  | 1030                            | 0   | 5.0 | 0.1  |
|                    | 5   | 6.9  | 10.4 |                        | 5   | 9.9  | 30.3 |                        | 5   | 5.2 | 1.6  |                                 | 5   | 4.9 | 0.1  |
|                    | 11  | 7.2  | 14.8 |                        | 11  | 10.2 | 31.6 |                        | 11  | 5.3 | 3.2  |                                 | 11  | 5.0 | 0.1  |
|                    | 16  | 7.9  | 17.6 |                        | 16  | 10.2 | 31.7 |                        | 16  | 5.6 | 5.2  |                                 | 16  | 5.0 | 0.2  |
|                    | 23  | ---  | ---  |                        | 23  | 10.3 | 31.8 |                        | 23  | 6.0 | 7.9  |                                 | 23  | 4.9 | 0.3  |
|                    | 28  | ---  | ---  |                        | 28  | 10.2 | 31.8 |                        | 28  | 6.2 | 8.8  |                                 | 28  | 5.0 | 1.0  |
|                    | 34  | 8.7  | 22.9 |                        | 34  | 10.2 | 31.8 |                        | 34  | 6.3 | 9.3  |                                 | 34  | 5.4 | 3.6  |
|                    | 45B | 9.0  | 24.4 |                        | 40B | 10.2 | 31.8 |                        | 45B | 6.8 | 11.2 |                                 | 40B | 7.0 | 13.4 |
| 1440               |     |      |      | Tansy Point, 8.3 miles |     |      |      | 1525                   |     |     |      | Tongue Point, 15.1 miles        |     |     |      |
|                    | 0   | 9.9  | 30.1 | 0945                   | 0   | 5.3  | 2.6  |                        | 5   | --- | ---  | 1045                            | 0   | 5.0 | 0.0  |
|                    | 5   | 10.0 | 30.2 |                        | 5   | 5.3  | 3.0  |                        | 11  | --- | ---  |                                 | 5   | 5.0 | 0.0  |
|                    | 11  | 10.1 | 30.4 |                        | 11  | 5.7  | 5.5  |                        | 16  | --- | ---  |                                 | 11  | 5.0 | 0.0  |
|                    | 16  | 10.2 | 31.5 |                        | 16  | 5.8  | 6.1  |                        | 23  | --- | ---  |                                 | 16  | 5.0 | 0.0  |
|                    | 23  | 10.3 | 31.7 |                        | 23  | 6.1  | 8.4  |                        | 28  | 8.5 | 22.6 |                                 | 23  | 5.0 | 0.0  |
|                    | 28  | 10.3 | 31.9 |                        | 28  | 6.4  | 10.0 |                        | 34  | 8.5 | 22.6 |                                 | 28  | 5.0 | 0.0  |
|                    | 34  | 10.4 | 31.9 |                        | 34  | 6.5  | 11.1 |                        | 45B | 8.5 | 22.7 |                                 | 35B | 5.1 | 0.1  |
| Buoy 21, 5.7 miles |     |      |      |                        | 50  | 7.7  | 16.8 | Astoria, 11.6 miles    |     |     |      |                                 |     |     |      |
| 0920               | 0   | 5.8  | 5.7  | 1510                   | 0   | 8.7  | 23.2 | 1015                   | 0   | 5.0 | 0.5  |                                 |     |     |      |
|                    | 5   | 6.0  | 8.4  |                        | 5   | 8.7  | 23.2 |                        | 5   | 5.0 | 0.5  |                                 |     |     |      |
|                    | 11  | 6.9  | 12.0 |                        | 11  | 8.8  | 23.2 |                        | 11  | 5.1 | 1.3  |                                 |     |     |      |
|                    | 16  | 7.1  | 14.5 |                        | 16  | 8.9  | 24.3 |                        | 16  | 5.2 | 2.4  |                                 |     |     |      |
|                    | 23  | 7.4  | 15.6 |                        | 23  | 9.2  | 26.7 |                        | 23  | 5.4 | 4.1  |                                 |     |     |      |
|                    | 28  | 7.9  | 19.3 |                        | 28  | 9.4  | 27.9 |                        | 28  | 5.9 | 7.9  |                                 |     |     |      |
|                    | 34B | 8.8  | 21.6 |                        | 34  | 9.4  | 28.1 |                        | 34  | 6.2 | 8.5  |                                 |     |     |      |
|                    |     |      |      |                        | 45B | 9.4  | 28.1 |                        | 50B | 6.9 | 13.1 |                                 |     |     |      |

Columbia River May 26, 1958 Tides, Tongue Point, LHW 7.0 0648, LLW 0.7 1323

|                         |    |      |      |              |    |      |     |                        |    |      |      |                        |    |      |     |
|-------------------------|----|------|------|--------------|----|------|-----|------------------------|----|------|------|------------------------|----|------|-----|
| Clatsop Spit, 3.7 miles |    |      |      | Clatsop Spit |    |      |     | Point Adams, 5.7 miles |    |      |      | Point Adams, 5.7 miles |    |      |     |
| 0530                    | 0  | 15.9 | 1.2  | 1200         | 0  | 16.0 | 2.1 | 0545                   | 0  | 15.7 | 0.0  | 1220                   | 0  | 16.3 | 1.1 |
|                         | 10 | 15.1 | 6.1  |              | 10 | 15.8 | 2.3 |                        | 10 | 15.9 | 1.6  |                        | 10 | 16.2 | 1.1 |
|                         | 20 | 11.7 | 17.3 |              | 20 | 15.3 | 3.0 |                        | 20 | 12.0 | 24.6 |                        | 20 | 16.2 | 1.1 |
|                         | 30 | 10.1 | 32.7 |              | 30 | 14.8 | 7.2 |                        | 30 | 10.4 | 31.4 |                        | 30 | 16.2 | 1.3 |
|                         | 40 | 9.8  | 33.2 |              | 40 | 14.6 | 9.1 |                        | 40 | 10.4 | 31.8 |                        | 35 | ---  | --- |
|                         | 50 | 9.7  | 33.3 |              | 50 | 14.5 | 9.3 |                        |    |      |      |                        |    |      |     |

Columbia River May 26, 1958

| Time<br>PST            | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST            | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST              | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|------------------------|---------------|-------------|--------------|------------------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|--------------------------|---------------|-------------|--------------|
| Tansy Point, 8.2 miles |               |             |              | Tansy Point, 8.2 miles |               |             |              | 0640        |               |             |              | Astoria Y.C., 13.3 miles |               |             |              |
| 0605                   | 0             | 16.2        | 0.0          | 1240                   | 0             | 16.4        | 0.0          |             | 0             | 16.3        | 0.0          | 0655                     | 0             | 16.3        | 0.0          |
|                        | 10            | 16.2        | 0.0          |                        | 10            | 16.3        | 0.0          |             | 10            | 16.2        | 0.0          |                          | 10            | 16.2        | 0.0          |
|                        | 20            | 16.0        | 0.2          |                        | 20            | 16.3        | 0.0          |             | 25            | 15.9        | 2.8          |                          | 20            | 16.2        | 0.0          |
|                        | 30            | 15.1        | 6.9          |                        | 30            | 16.3        | 0.0          |             | 30            | 15.6        | 4.0          |                          | 30            | 16.1        | 0.0          |
|                        | 40            | 11.9        | 24.1         |                        | 40            | 16.3        | 0.0          |             | 35            | 15.2        | 5.4          |                          | 40B           | 16.1        | 0.0          |
|                        | 48B           | 11.9        | 25.2         |                        | 46B           | 16.3        | 0.0          |             | 40            | 15.0        | 9.3          |                          |               |             |              |
|                        |               |             |              |                        |               |             |              |             | 50B           | 12.6        | 19.8         |                          |               |             |              |
|                        |               |             |              | Lower Sands, 9.4 miles |               |             |              |             |               |             |              |                          |               |             |              |
|                        |               |             |              | 0625                   | 0             | 16.3        | 0.0          |             |               |             |              |                          |               |             |              |
|                        |               |             |              |                        | 10            | 16.3        | 0.0          |             |               |             |              |                          |               |             |              |
|                        |               |             |              |                        | 20            | 16.0        | 0.1          |             |               |             |              |                          |               |             |              |
|                        |               |             |              |                        | 30            | 14.0        | 12.3         |             |               |             |              |                          |               |             |              |
|                        |               |             |              |                        | 40B           | 11.6        | 26.8         |             |               |             |              |                          |               |             |              |

Coos Estuary June 27, 1956 Tides, Empire, LLW 0.3 0851, LHW 5.1 1531

| Time<br>PST                | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST            | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo           | Time<br>PST               | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |  |
|----------------------------|---------------|-------------|--------------|------------------------|---------------|-------------|--------------|----------------------------|---------------|-------------|------------------------|---------------------------|---------------|-------------|--------------|--|
| Sunset Beach               |               |             |              | Sitka Dock, 3 miles    |               |             |              | North Bend Dock, 9.5 miles |               |             |                        | Millington Boom, 15 miles |               |             |              |  |
| 0835                       | 0             | 13.2        | 23.1         | 0910                   | 0             | 15.5        | 28.2         | 0955                       | 0             | 18.5        | 20.1                   | 1035                      | 0             | 19.6        | 16.1         |  |
|                            |               |             |              | 10                     | 15.0          | 28.2        |              | 12                         | 18.3          | 20.9        |                        | 10                        | 19.5          | 16.1        |              |  |
| Lighthouse Beach           |               |             |              | 19                     | 13.8          | 29.7        |              | 25                         | 17.9          | 22.5        |                        | 1610                      | 0             | 19.4        | 18.2         |  |
| 1410                       | 0             | 12.5        | 32.8         | 1450                   | 0             | 10.1        | 33.1         | 1330                       | 0             | 16.2        | 27.3                   | 15                        | 18.5          | 19.7        |              |  |
| Charleston Dock, 1.5 miles |               |             |              | 13                     | 9.6           | 33.1        |              | 15                         | 16.0          | 27.7        | Catching Slough        |                           |               |             |              |  |
| 0850                       | 0             | 15.7        | 30.1         | 25                     | 9.6           | 33.1        |              | 31                         | 15.8          | 27.8        | 1050                   | 0                         | 20.4          | 4.7         |              |  |
| 6                          | 15.8          | 30.6        |              | Empire Dock, 4.4 miles |               |             |              | Mouth Coos River, 14 miles |               |             |                        | 14                        | 19.8          | 5.9         |              |  |
| 1430                       | 0             | 10.9        | 32.7         | 0930                   | 0             | 16.0        | 26.9         | 1012                       | 0             | 19.5        | 13.6                   | 1625                      | 0             | 19.2        | 22.1         |  |
| 12                         | 10.6          | 32.8        |              | 11                     | 16.2          | 27.3        |              | 12                         | 19.0          | 16.2        |                        | 20                        | 19.3          | 22.1        |              |  |
|                            |               |             |              | 15                     | ----          | 27.3        |              | 24                         | 18.4          | 20.4        | Tug Dock               |                           |               |             |              |  |
|                            |               |             |              | 1310                   | 0             | 12.6        | 31.8         | 1545                       | 0             | 17.6        | 24.1                   | 1100                      | 0             | 20.5        | 1.5          |  |
|                            |               |             |              | 10                     | 10.9          | 32.4        |              | 15                         | 17.5          | 24.4        |                        | 7                         | 20.2          | 1.7         |              |  |
|                            |               |             |              | 21                     | 10.8          | 32.5        |              | 31                         | 17.5          | 24.6        | Coos River High School |                           |               |             |              |  |
|                            |               |             |              |                        |               |             |              |                            |               |             |                        | 1645                      | 0             | 20.9        | 2.3          |  |
|                            |               |             |              |                        |               |             |              |                            |               |             |                        | 13                        | 20.9          | 3.3         |              |  |

Coos Estuary October 5, 1957 Tides, Empire, HHW 5.8 1041, HLW 1.5 1700

|                        |      |      |      |                        |     |      |      |                     |     |      |       |                      |     |      |      |
|------------------------|------|------|------|------------------------|-----|------|------|---------------------|-----|------|-------|----------------------|-----|------|------|
| Charleston, 1.4 miles  |      |      |      | North Point            |     |      |      | North Bend          |     |      |       | Eastside, 12.9 miles |     |      |      |
| 1630                   | 0    | 13.9 | 33.4 | 1715                   | 0   | 14.6 | 30.1 | 1735                | 0   | 15.4 | 25.0  | 1755                 | 0   | 15.6 | 24.8 |
|                        | 5    | 13.9 | 33.4 |                        | 5   | 14.5 | 30.1 |                     | 5   | 15.3 | 27.2  |                      | 5   | 15.6 | 27.5 |
|                        | 10   | 13.8 | 33.4 |                        | 10  | 14.5 | 30.1 |                     | 10  | 15.1 | 27.3  |                      | 10  | 16.3 | 28.0 |
|                        |      |      |      |                        | 15  | 14.5 | 30.1 |                     | 15  | 15.1 | 28.1  |                      | 15  | 16.3 | 28.0 |
| North Point, 7.8 miles |      |      |      |                        | 20  | 14.5 | 30.1 |                     | 20  | 15.2 | 28.7  |                      | 20  | 16.3 | 28.1 |
| 1205                   | 0    | 13.9 | 33.0 |                        | 25  | 14.5 | 30.1 |                     | 25  | 15.2 | 28.9  |                      | 25  | 15.8 | 29.0 |
|                        | 5    | 13.9 | 33.1 |                        | 30  | 14.4 | 30.2 |                     | 30  | 15.2 | 29.1  |                      | 27B | 15.7 | 29.7 |
|                        | 10   | 13.9 | 33.2 |                        | 33B | 14.4 | 30.2 |                     | 32B | 15.2 | 29.2  |                      |     |      |      |
|                        | 15   | 13.9 | 33.3 |                        |     |      |      |                     |     |      |       |                      |     |      |      |
|                        | 20   | 13.8 | 33.3 | North Bend, 10.0 miles |     |      |      | Marshfield Channel, |     |      |       |                      |     |      |      |
|                        | 25   | 13.8 | 33.4 | 1225                   | 0   | 14.2 | 30.8 | 12.1 miles          |     |      |       |                      |     |      |      |
|                        | 30   | 13.8 | 33.4 |                        | 5   | 14.2 | 31.9 | 1245                | 0   | 14.7 | 29.7  |                      |     |      |      |
| 35B                    | 13.8 | 33.4 |      |                        | 10  | 14.2 | 32.2 |                     | 5   | 14.7 | ----- |                      |     |      |      |
|                        |      |      |      |                        | 15  | 14.3 | 32.2 |                     | 10  | 14.7 | 31.0  |                      |     |      |      |
|                        |      |      |      |                        | 20  | 14.3 | 32.2 |                     | 13B | 14.7 | 31.1  |                      |     |      |      |
|                        |      |      |      |                        | 25  | 14.2 | 32.2 |                     |     |      |       |                      |     |      |      |
|                        |      |      |      |                        | 30  | 14.2 | 32.4 |                     |     |      |       |                      |     |      |      |
|                        |      |      |      |                        | 35B | 14.2 | 32.5 |                     |     |      |       |                      |     |      |      |

Coos Estuary January 26, 1958 Tides, Empire, HLW 2.1 1135, LHW 4.8 1652

|                       |      |      |      |                       |      |      |      |                        |     |      |      |                      |     |      |      |
|-----------------------|------|------|------|-----------------------|------|------|------|------------------------|-----|------|------|----------------------|-----|------|------|
| Sunset Beach          |      |      |      | Sitka Dock, 3.0 miles |      |      |      | North Point, 7.8 miles |     |      |      | North Bend           |     |      |      |
| 0935                  | 0    | 10.2 | 25.1 | 1110                  | 0    | 9.8  | 13.6 | 1150                   | 0   | 9.5  | 9.4  | 1655                 | 0   | 9.9  | 12.6 |
|                       |      |      |      |                       | 10   | 10.5 | 22.8 |                        | 5   | 9.5  | 11.5 |                      | 5   | 9.9  | 13.9 |
| 1845                  | 0    | 11.3 | 28.1 |                       | 20   | 11.0 | 27.8 |                        | 10  | 9.6  | 12.2 |                      | 10  | 10.0 | 15.3 |
|                       |      |      |      |                       | 25   | 11.1 | 28.8 |                        | 15  | 9.9  | 15.6 |                      | 15  | 10.1 | 17.2 |
| Bastendorf Beach      |      |      |      |                       | 29   | 11.2 | 29.3 |                        | 20  | 10.0 | 17.1 |                      | 20  | 10.1 | 18.6 |
| 1015                  | 0    | 11.0 | 31.1 |                       |      |      |      |                        | 25  | 10.1 | 17.9 |                      | 25  | 10.2 | 19.2 |
|                       |      |      |      | 1605                  | 0    | 11.0 | 22.7 |                        | 30  | 10.3 | 20.2 | Coos Bay, 11.6 miles |     |      |      |
| 1915                  | 0    | ---- | 32.3 |                       | 5    | 11.3 | 27.7 |                        | 33B | 10.9 | 26.9 | 1225                 | 0   | 9.1  | 0.8  |
| Charleston, 1.4 miles |      |      |      |                       | 10   | 11.5 | 31.4 | 1640                   | 0   | 10.1 | 13.6 |                      | 5   | 9.0  | 1.1  |
| 1050                  | 0    | 10.1 | 17.5 |                       | 15   | 11.5 | 31.8 |                        | 5   | 10.3 | 15.7 |                      | 10  | 9.4  | 7.8  |
|                       | 5    | 10.6 | 24.7 |                       | 20   | 11.5 | 31.9 |                        | 10  | 10.4 | 20.5 |                      | 15  | 9.4  | 8.9  |
|                       | 10   | 10.7 | 26.7 |                       | 25   | 11.6 | 32.0 |                        | 15  | 10.4 | 21.6 |                      | 20  | 9.5  | 9.7  |
|                       | 15   | 10.8 | 27.1 |                       | 30   | 11.5 | 32.0 |                        | 20  | 10.5 | 22.7 |                      | 25  | 9.7  | 12.1 |
|                       | 20   | 10.9 | 28.2 |                       | 34B  | 11.5 | 32.0 |                        | 25  | 10.6 | 23.2 |                      | 30  | 9.7  | 13.8 |
| 23B                   | 11.1 | 29.1 |      | Empire, 4.5 miles     |      |      |      |                        | 30  | 10.6 | 23.8 |                      | 33B | 9.8  | 13.9 |
|                       |      |      |      | 1125                  | 0    | 9.7  | 12.3 | North Bend, 9.7 miles  |     |      |      | Marshfield Channel,  |     |      |      |
| 1550                  | 0    | 11.6 | 32.3 |                       | 5    | 9.8  | 15.2 | 1210                   | 0   | 9.3  | 4.5  | 12.8 miles           |     |      |      |
|                       | 5    | 11.6 | 32.3 |                       | 10   | 9.9  | 16.9 |                        | 5   | 9.2  | 6.6  | 1240                 | 0   | 9.1  | 0.0  |
|                       | 10   | 11.6 | 32.3 |                       | 15   | 10.4 | 21.3 |                        | 10  | 9.4  | 7.1  |                      | 5   | 9.0  | 0.1  |
|                       | 15   | 11.6 | 32.3 |                       | 20   | 10.7 | 25.1 |                        | 15  | 9.4  | 7.5  |                      | 8B  | 9.0  | 0.1  |
|                       | 20   | 11.6 | 32.3 |                       | 25   | 10.9 | 26.0 |                        | 20  | 9.7  | 12.4 |                      |     |      |      |
|                       | 25   | 11.6 | 32.3 |                       | 30   | 11.1 | 28.4 |                        | 21B | 9.7  | 12.6 |                      |     |      |      |
|                       | 30   | 11.6 | 32.3 |                       | 35   | 11.1 | 28.7 |                        |     |      |      |                      |     |      |      |
| 35B                   | 11.6 | 32.3 |      | 36B                   | 11.1 | 28.7 |      |                        |     |      |      |                      |     |      |      |
|                       |      |      |      | 1620                  | 0    | 10.6 | 17.5 |                        |     |      |      |                      |     |      |      |
|                       |      |      |      |                       | 5    | 10.9 | 23.2 |                        |     |      |      |                      |     |      |      |
|                       |      |      |      |                       | 10   | 10.9 | 25.2 |                        |     |      |      |                      |     |      |      |
|                       |      |      |      |                       | 15   | 11.1 | 28.2 |                        |     |      |      |                      |     |      |      |
|                       |      |      |      |                       | 20   | 11.0 | 28.3 |                        |     |      |      |                      |     |      |      |

Coos Estuary March 22, 1958 Tides, Empire, LLW 0.6 0807, LHW 5.4 1421

| Time PST              | Depth Feet | Temp. °C | Sal. o/oo | Time PST               | Depth Feet | Temp. °C | Sal. o/oo | Time PST              | Depth Feet | Temp. °C | Sal. o/oo | Time PST                     | Depth Feet | Temp. °C | Sal. o/oo |
|-----------------------|------------|----------|-----------|------------------------|------------|----------|-----------|-----------------------|------------|----------|-----------|------------------------------|------------|----------|-----------|
| Sunset Beach          |            |          |           | Empire, 4.5 miles      |            |          |           | North Point           |            |          |           | Coos Bay, 11.6 miles         |            |          |           |
| 1825                  | 0          | 11.2     | 27.6      | 0900                   | 0          | 11.0     | 20.4      | 1510                  | 0          | 11.3     | 24.3      | 0955                         | 0          | 9.9      | 4.2       |
|                       |            |          |           |                        | 5          | 11.0     | 22.2      |                       | 5          | 11.2     | 24.8      |                              | 2.5        | 10.0     | 5.1       |
| 1325                  | 0          | 11.7     | 31.9      |                        | 10         | 11.0     | 22.7      |                       | 10         | 11.2     | 25.7      |                              | 5          | 10.2     | 6.6       |
|                       |            |          |           |                        | 15         | 11.0     | 22.8      |                       | 15         | 11.1     | 26.2      |                              | 7.5        | 10.6     | 11.9      |
| Bastendorf Beach      |            |          |           |                        | 18B        | 11.0     | 22.9      |                       | 20         | 11.1     | 26.8      |                              | 10B        | 10.9     | 14.3      |
| 1850                  | 0          | 11.1     | 32.4      |                        |            |          |           |                       | 25         | 11.1     | 26.9      |                              |            |          |           |
|                       |            |          |           | 1450                   | 0          | 11.6     | 28.6      |                       | 30         | 11.1     | 26.9      | 1540                         | 0          | 10.8     | 12.2      |
| 1350                  | 0          | 11.6     | 32.4      |                        | 5          | 11.2     | 31.4      |                       | 35B        | 11.1     | 27.0      |                              | 5          | 11.0     | 17.7      |
|                       |            |          |           |                        | 10         | 11.2     | 32.0      |                       |            |          |           |                              | 10         | 11.0     | 18.4      |
| Charleston, 1.4 miles |            |          |           |                        | 15         | 11.1     | 32.3      | North Bend, 9.7 miles |            |          |           |                              | 16         | 11.0     | 18.7      |
| 0835                  | 0          | 11.1     | 24.7      |                        | 20         | 11.1     | 32.3      | 0940                  | 0          | 10.4     | 11.1      |                              | 17B        | 11.0     | 18.8      |
|                       | 5          | 11.1     | 25.7      |                        | 22B        | 11.1     | 32.3      |                       | 5          | 10.5     | 14.2      | Marshfield Channel, 12.8 mi. |            |          |           |
|                       | 10         | 11.1     | 26.8      | North Point, 7.8 miles |            |          |           |                       | 10         | 10.5     | 14.8      |                              | 0          | 9.7      | 1.1       |
|                       | 15         | 11.1     | 27.5      | 0925                   | 0          | 10.8     | 16.1      |                       | 15         | 10.5     | 15.3      | 1005                         | 0          | 9.6      | 1.7       |
|                       | 20         | 11.0     | 27.8      |                        | 5          | 10.8     | 17.0      |                       | 20         | 10.7     | 16.3      |                              | 5          | 9.6      | 1.7       |
|                       | 25         | 11.0     | 28.1      |                        | 10         | 10.8     | 17.6      |                       | 25         | 11.0     | 17.9      |                              | 10         | 9.6      | 1.8       |
|                       | 30         | 11.0     | 28.2      |                        | 15         | 10.9     | 18.2      |                       | 30         | 11.0     | 18.0      |                              | 15         | 9.6      | 1.9       |
|                       | 34B        | 11.1     | ----      |                        | 20         | 10.9     | 18.4      |                       | 35B        | 11.0     | 18.1      |                              | 20         | 9.6      | 1.9       |
|                       |            |          |           |                        | 25         | 10.9     | 18.7      | 1525                  | 0          | 11.2     | 22.4      |                              | 24B        | 9.6      | 1.9       |
| 1425                  | 0          | 11.5     | 32.3      |                        | 30         | 11.0     | 18.8      |                       | 5          | 11.2     | 22.8      | 1555                         | 0          | 11.1     | 12.8      |
|                       | 5          | 11.1     | 32.4      |                        | 35B        | 11.0     | 18.9      |                       | 10         | 11.1     | 23.4      |                              | 5          | 11.1     | 13.0      |
|                       | 10         | 11.1     | 32.4      |                        |            |          |           |                       | 15         | 11.1     | 23.7      |                              | 10         | 10.8     | 13.2      |
|                       | 20         | 11.1     | 32.4      |                        |            |          |           |                       | 20         | 11.1     | 24.0      |                              | 15         | 10.8     | 15.3      |
|                       | 30         | 11.1     | 32.4      |                        |            |          |           |                       | 25         | 11.1     | 24.2      |                              | 20         | 10.8     | 15.7      |
|                       | 40         | 11.1     | 32.4      |                        |            |          |           |                       | 30         | 11.1     | 24.5      |                              | 25         | 10.8     | 16.1      |
|                       | 48B        | 11.1     | 32.4      |                        |            |          |           |                       | 35         | 11.1     | 24.5      |                              | 30         | 10.8     | 16.5      |
|                       |            |          |           |                        |            |          |           |                       | 38B        | 11.1     | 24.5      |                              | 36B        | 10.9     | 16.7      |
|                       |            |          |           |                        |            |          |           |                       |            |          |           | Coos River, 14.2 miles       |            |          |           |
|                       |            |          |           |                        |            |          |           |                       |            |          |           | 1605                         | 0          | 10.3     | 4.2       |
|                       |            |          |           |                        |            |          |           |                       |            |          |           |                              | 5          | 10.4     | 6.1       |
|                       |            |          |           |                        |            |          |           |                       |            |          |           |                              | 10         | 10.4     | 11.8      |
|                       |            |          |           |                        |            |          |           |                       |            |          |           |                              | 15         | 10.6     | 12.2      |
|                       |            |          |           |                        |            |          |           |                       |            |          |           |                              | 18B        | 10.7     | 12.3      |

Coos Estuary June 27, 1958 Tides, Empire, LHW 4.4 0949, HLW 1.8 1501

|                            |     |      |      |                        |     |      |      |                                |     |      |      |                              |     |      |      |
|----------------------------|-----|------|------|------------------------|-----|------|------|--------------------------------|-----|------|------|------------------------------|-----|------|------|
| Sunset Beach (June 28)     |     |      |      | Empire, 4.5 miles      |     |      |      | North Bend, 9.9 miles          |     |      |      | Marshfield Channel, 12.8 mi. |     |      |      |
| 0915                       | 0   | ---- | 32.3 | 0955                   | 0   | ---- | 32.0 | 1030                           | 0   | 18.4 | 26.3 | 1555                         | 0   | 18.6 | 13.5 |
|                            |     |      |      |                        | 5   | ---- | 32.1 |                                | 5   | 18.2 | 26.9 |                              | 5   | 18.5 | 13.9 |
| 1350                       | 0   | 21.3 | 32.0 |                        | 10  | ---- | 32.4 |                                | 10  | 17.9 | 27.2 |                              | 10  | 18.5 | 15.0 |
|                            |     |      |      |                        | 15  | ---- | 32.8 |                                | 15  | 17.6 | 27.5 |                              | 15  | 18.5 | 16.2 |
| Bastendorf Beach (June 28) |     |      |      |                        | 20  | ---- | 32.9 |                                | 20  | 17.5 | 27.8 |                              | 20  | 18.5 | 16.6 |
| 0935                       | 0   | ---- | 32.7 |                        | 22B | ---- | 32.9 |                                | 25  | 17.4 | 28.0 |                              | 23B | 18.4 | 16.9 |
|                            |     |      |      |                        |     |      |      |                                | 30  | 17.4 | 28.0 | First Bridge, 13.8 miles     |     |      |      |
| 1415                       | 0   | 16.1 | 32.9 | 1445                   | 0   | ---- | 28.5 |                                | 35  | 17.4 | 28.0 | 1105                         | 0   | 19.3 | 22.3 |
|                            |     |      |      |                        | 5   | ---- | 29.6 |                                | 37B | 17.4 | 28.0 |                              | 5   | 19.2 | 22.4 |
|                            |     |      |      |                        | 10  | ---- | 29.8 |                                |     |      |      |                              | 10  | 19.1 | 22.5 |
| Charleston, 1.4 miles      |     |      |      |                        | 15  | ---- | 29.9 | 1530                           | 0   | 17.6 | 22.4 |                              | 15  | 19.1 | 22.5 |
| 0925                       | 0   | ---- | 33.1 |                        | 20  | ---- | 29.9 |                                | 5   | 17.4 | 23.7 |                              | 20  | 19.1 | 22.6 |
|                            | 5   | ---- | 33.1 |                        | 23B | ---- | 29.9 |                                | 10  | 17.5 | 24.3 |                              | 24B | 19.1 | 22.6 |
|                            | 10  | ---- | 33.1 | North Point, 7.8 miles |     |      |      |                                | 15  | 17.5 | 24.6 |                              |     |      |      |
|                            | 15  | ---- | 33.1 | 1020                   | 0   | 16.8 | 29.0 |                                | 20  | 17.1 | 25.0 | 1605                         | 0   | 19.2 | 7.1  |
|                            | 20  | ---- | 33.2 |                        | 5   | 16.6 | 29.2 |                                | 25  | 16.7 | 25.0 |                              | 5   | 19.1 | 7.5  |
|                            | 25  | ---- | 33.2 |                        | 10  | 16.4 | 29.4 |                                | 30  | 16.5 | 26.2 |                              | 10  | 19.0 | 7.8  |
|                            | 30  | ---- | 33.2 |                        | 15  | 16.2 | 29.6 |                                | 33B | 16.1 | 26.8 |                              | 15  | 18.9 | 8.4  |
|                            | 35  | ---- | 33.2 |                        | 20  | 16.1 | 29.8 | Coos Bay, 11.6 miles           |     |      |      |                              | 20B | 18.9 | 9.5  |
|                            | 40  | ---- | 33.2 |                        | 25  | 16.1 | 29.8 | 1045                           | 0   | 20.0 | 20.8 | Bridge, 15.2 miles           |     |      |      |
|                            | 44B | ---- | 33.2 |                        | 30  | 16.1 | 29.9 |                                | 5   | 18.5 | 24.7 | 1115                         | 0   | 22.3 | 12.3 |
| 1425                       | 0   | ---- | 31.6 |                        | 35  | 16.0 | 29.9 |                                | 10  | 18.4 | 25.3 |                              | 5   | 21.7 | 17.7 |
|                            | 5   | ---- | 31.8 |                        | 40B | 16.0 | 29.9 |                                | 14B | 18.3 | 25.5 |                              | 10  | 21.7 | 17.9 |
|                            | 10  | ---- | 31.9 | 1515                   | 0   | 17.2 | 24.8 |                                |     |      |      |                              | 15  | 21.6 | 18.0 |
|                            | 15  | ---- | 32.1 |                        | 5   | 17.1 | 26.3 | 1545                           | 0   | 18.4 | 17.5 |                              | 16B | 21.6 | 18.0 |
|                            | 20  | ---- | 32.2 |                        | 10  | 16.8 | 26.8 |                                | 5   | 18.4 | 18.8 |                              |     |      |      |
|                            | 25  | ---- | 32.2 |                        | 15  | 16.4 | 26.9 |                                | 14B | 18.3 | 19.7 | 1615                         | 0   | 19.5 | 2.8  |
|                            | 30  | ---- | 32.2 |                        | 20  | 16.4 | 27.2 | Marshfield Channel, 12.8 miles |     |      |      |                              | 5   | 19.4 | 3.5  |
|                            | 35  | ---- | 32.3 |                        | 25  | 16.1 | 27.9 | 1055                           | 0   | 19.1 | 21.3 |                              | 10  | 19.3 | 4.2  |
|                            | 40  | ---- | 32.3 |                        | 27B | 16.0 | 28.0 |                                | 5   | 19.1 | 23.7 |                              | 11B | 19.3 | 4.3  |
|                            | 45  | ---- | 32.3 |                        |     |      |      |                                | 10  | 19.1 | 23.7 |                              |     |      |      |
|                            | 50B | ---- | 32.3 |                        |     |      |      |                                | 15  | 19.1 | 23.8 |                              |     |      |      |
|                            |     |      |      |                        |     |      |      |                                | 19B | 19.0 | 23.8 |                              |     |      |      |

Nehalem River September 11, 1957 Tides, Nehalem, HLW 1.6 0854, HHW 6.8 1501

| Time<br>PST                | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST       | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                    | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                    | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|----------------------------|---------------|-------------|--------------|-------------------|---------------|-------------|--------------|--------------------------------|---------------|-------------|--------------|--------------------------------|---------------|-------------|--------------|
| Jetty Boathouse, 0.6 miles |               |             |              | Ruins             |               |             |              | 8.2 miles                      |               |             |              | Mohler RR Bridge, 11.2 miles   |               |             |              |
| 0733                       | 0             | 13.1        | 31.0         | 1340              | 0             | 11.4        | 32.9         | 1431                           | 0             | 19.4        | 13.2         | 1504                           | 0             | 19.6        | 1.9          |
|                            | 5             | 13.0        | 31.2         |                   | 5             | 10.5        | 33.4         |                                | 5             | 18.8        | 15.6         |                                | 5             | 19.6        | 2.6          |
|                            | 10            | 13.0        | 31.2         |                   | 10            | 10.4        | 33.5         |                                | 10            | 18.1        | 16.8         |                                | 10            | 19.7        | 3.1          |
|                            | 15B           | 12.9        | 31.0         |                   | 16B           | 10.3        | 33.6         |                                | 15            | 18.1        | 17.0         |                                | 14B           | 19.7        | 3.2          |
|                            |               |             |              |                   |               |             |              |                                | 23B           | 18.1        | 17.2         |                                |               |             |              |
| Brighton, 1.5 miles        |               |             |              | Bridge, 5.5 miles |               |             |              | 9.3 miles                      |               |             |              | 11.6 miles                     |               |             |              |
| 1323                       | 0             | 10.4        | 33.5         | 0825              | 0             | 18.5        | 12.6         |                                |               |             |              | 0935                           | 0             | 18.8        | 0.0          |
|                            | 5             | 10.4        | 33.5         |                   | 2.5           | 18.4        | 13.3         | 1440                           | 0             | ----        | 7.4          |                                | 3B            | 18.8        | 0.0          |
|                            | 10            | 10.4        | 33.5         |                   | 5             | 18.3        | 16.5         |                                | 3             | 19.2        | 9.5          |                                |               |             |              |
|                            | 14B           | 10.4        | 33.5         |                   | 7.5           | 17.9        | 19.0         |                                | 5             | 19.0        | 11.6         | Foley Creek Bridge, 12.0 miles |               |             |              |
|                            |               |             |              |                   | 10B           | ----        | 21.8         |                                | 12B           | 18.7        | 12.7         | 1518                           | 0             | 19.4        | 0.0          |
| 2.0 miles                  |               |             |              |                   |               |             |              |                                |               |             |              |                                | 5             | 19.4        | 0.1          |
| 0745                       | 0             | 14.5*       | 27.0**       | 1414              | 0             | 16.2        | 25.7         | Mohler Auto Bridge, 10.4 miles |               |             |              | 10B                            | 19.4          | 0.1         |              |
|                            | 5             | ----        | 27.0         |                   | 5             | 15.5        | 26.8         | 0916                           | 0             | 19.0        | 0.6          |                                |               |             |              |
|                            | 11B           | ----        | 27.0         |                   | 10            | 15.4        | 27.3         |                                | 3             | 19.1        | 1.2          |                                |               |             |              |
|                            |               |             |              |                   | 16B           | 15.3        | 27.3         |                                | 6B            | 19.1        | 1.4          |                                |               |             |              |
| Ruins, 3.8 miles           |               |             |              |                   |               |             |              |                                |               |             |              |                                |               |             |              |
| 0810                       | 0             | 16.5*       | 19.0**       | 0903              | 0             | 19.1        | 3.8          | 1456                           | 0             | 20.0        | 3.8          |                                |               |             |              |
|                            | 5             | ----        | 21.0         |                   | 2.5           | 19.1        | 4.2          |                                | 3             | 19.9        | 4.2          |                                |               |             |              |
|                            | 10B           | ----        | 22.5         |                   | 5             | 19.1        | 5.7          |                                | 5             | 19.4        | 6.7          |                                |               |             |              |
|                            |               |             |              |                   | 7.5           | 19.0        | 10.8         |                                | 10B           | 19.3        | 8.0          |                                |               |             |              |
|                            |               |             |              |                   | 11B           | 18.7        | 15.5         |                                |               |             |              |                                |               |             |              |

Nehalem River January 10, 1958 Tides, Nehalem, HLW 1.7 1051, LHW 6.7 1553

|                     |     |      |      |                  |     |      |      |                    |     |      |      |                        |     |     |      |
|---------------------|-----|------|------|------------------|-----|------|------|--------------------|-----|------|------|------------------------|-----|-----|------|
| Jetty, 0.6 miles    |     |      |      | 2.3 miles        |     |      |      | Ruins              |     |      |      | Auto Bridge, 5.5 miles |     |     |      |
| 0920                | 0   | 8.0  | 14.7 | 0945             | 0   | 7.3  | 10.0 | 1440               | 0   | 7.6  | 10.0 | 1020                   | 0   | 6.3 | 0.0  |
|                     | 5   | 8.5  | 18.3 |                  | 5   | 7.3  | 10.3 |                    | 5   | 9.2  | 24.4 |                        | 5   | 6.3 | 0.0  |
|                     | 10  | 8.5  | ---  |                  | 10  | 7.6  | 13.3 |                    | 10  | 10.0 | 29.7 |                        | 10  | 6.3 | 0.1  |
|                     | 12B | 8.5  | 20.2 |                  | 14B | 8.1  | 17.7 |                    | 15B | 10.0 | 29.8 |                        | 14B | 6.3 | 0.1  |
| 1410                |     |      |      | 1430             |     |      |      | Wheeler, 4.3 miles |     |      |      | 1500                   |     |     |      |
|                     | 0   | 10.6 | 32.3 |                  | 0   | 10.5 | 31.8 | 1010               | 0   | 6.4  | 0.8  |                        | 0   | 6.5 | 0.9  |
|                     | 5   | 10.6 | 32.3 |                  | 5   | 10.5 | 32.0 |                    | 5   | 6.3  | 1.0  |                        | 5   | 6.9 | 4.5  |
|                     | 9B  | 10.6 | 32.3 |                  | 10  | 10.5 | 32.0 |                    | 10B | 6.3  | 1.0  |                        | 10  | 7.6 | 11.4 |
| Brighton, 1.3 miles |     |      |      |                  | 15B | 10.5 | 32.0 |                    |     |      |      |                        | 15  | 7.8 | 13.3 |
| 0935                | 0   | 7.6  | 12.7 | Ruins, 3.6 miles |     |      |      | Wheeler, 4.3 miles |     |      |      |                        | 17B | 7.8 | 14.3 |
|                     | 5   | 8.1  | 17.0 | 1000             | 0   | 6.5  | 3.0  | 1450               | 0   | ---  | 9.8  | 6.5 miles              |     |     |      |
|                     | 9B  | 8.5  | 20.8 |                  | 5   | 6.6  | 4.0  |                    | 1   | 7.8  | 11.7 | 1515                   | 0   | 6.3 | 0.1  |
| 1420                |     |      |      |                  | 7   | 7.1  | 8.3  |                    | 2   | 8.1  | 15.0 |                        | 5   | 6.3 | 0.3  |
|                     | 0   | 10.6 | 31.9 |                  | 9B  | 7.8  | 14.9 |                    | 3   | 8.1  | 15.8 |                        | 8B  | 6.3 | 0.4  |
|                     | 5   | 10.6 | 32.3 |                  |     |      |      |                    | 5   | 8.2  | 16.4 | 7.2 miles              |     |     |      |
|                     | 9B  | 10.6 | 32.3 |                  |     |      |      |                    | 10  | 8.4  | 18.3 | 1510                   | 0   | 6.2 | 0.0  |
|                     |     |      |      |                  |     |      |      |                    | 15  | 8.4  | 18.9 |                        | 5   | 6.2 | 0.0  |
|                     |     |      |      |                  |     |      |      |                    | 18B | 8.4  | 19.0 |                        | 10  | 6.2 | 0.0  |
|                     |     |      |      |                  |     |      |      |                    |     |      |      |                        | 15  | 6.2 | 0.0  |
|                     |     |      |      |                  |     |      |      |                    |     |      |      |                        | 22B | 6.2 | 0.0  |

Nehalem River April 10, 1958 Tides, Nehalem, LLW -0.4 1256, LHW 5.5 1905

|                     |     |      |      |           |     |      |      |                    |     |      |     |                           |      |      |     |
|---------------------|-----|------|------|-----------|-----|------|------|--------------------|-----|------|-----|---------------------------|------|------|-----|
| Jetty, 0.5 miles    |     |      |      | Brighton  |     |      |      | Ruins, 3.6 miles   |     |      |     | Wheeler                   |      |      |     |
| 1100                | 0   | 10.4 | 9.9  | 1650      | 0   | 12.1 | 26.2 | 1140               | 0   | 9.7  | 0.1 | 1705                      | 0    | 10.7 | 0.2 |
|                     | 5   | 10.4 | ---  |           | 5   | 12.0 | 31.4 |                    | 5   | 9.7  | 0.1 |                           | 5    | 10.7 | 0.3 |
|                     | 10  | 10.4 | ---  |           | 10  | 12.0 | 31.4 |                    | 6B  | 9.7  | 0.1 |                           | 10   | 10.7 | 0.4 |
|                     | 14B | 10.4 | 11.3 |           | 12B | 12.0 | 31.4 |                    |     |      |     |                           | 15   | 10.7 | 0.4 |
| 1640                |     |      |      | 2.3 miles |     |      |      | 1700               |     |      |     | 16B                       |      |      |     |
|                     | 0   | 11.9 | 32.3 |           | 0   | 9.7  | 1.1  |                    | 0   | 11.0 | 1.4 |                           | 10.7 | 0.4  |     |
|                     | 5   | 11.9 | 32.3 | 1120      | 0   | 9.7  | 1.1  |                    | 5   | 10.8 | 1.7 | Highway Bridge, 5.5 miles |      |      |     |
|                     | 10  | 11.9 | 32.3 |           | 5   | 10.4 | 3.9  |                    | 10  | 10.8 | 1.8 | 1715                      | 0    | 11.0 | 0.0 |
|                     | 16B | 11.9 | 32.3 |           | 8B  | 10.5 | 4.2  |                    | 12B | 10.8 | 1.8 |                           | 5    | 10.5 | 0.0 |
| Brighton, 1.3 miles |     |      |      | 1655      |     |      |      | Wheeler, 4.3 miles |     |      |     |                           |      |      |     |
| 1110                | 0   | 10.3 | 6.4  |           | 0   | 11.8 | 12.3 | 1150               | 0   | 9.9  | 0.0 |                           | 10   | 10.4 | 0.0 |
|                     | 5   | 10.3 | 7.1  |           | 5   | 11.7 | 25.7 |                    | 5   | 9.9  | 0.1 |                           | 15   | 10.3 | 0.0 |
|                     | 10  | 10.3 | 7.2  |           | 10B | 11.7 | 27.4 |                    | 8B  | 9.9  | 0.1 |                           | 18B  | 10.3 | 0.0 |
|                     | 11B | 10.3 | 7.2  |           |     |      |      |                    |     |      |     |                           |      |      |     |

\*Temperature interpolated

\*\*Salinity based on interpolated temperature

Nehalem River July 24, 1958 Tides, Nehalem, LHW 4.9 0704, HLW 1.4 1308

| Time<br>PST         | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST        | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST        | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST               | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|---------------------|---------------|-------------|--------------|--------------------|---------------|-------------|--------------|--------------------|---------------|-------------|--------------|---------------------------|---------------|-------------|--------------|
| 0910                | 0             | 9.6         | 33.5         | 0945               | 0             | 18.7        | 17.8         | 1000               | 0             | 19.2        | 13.3         | 1020                      | 0             | 21.4        | 0.7          |
| 1.3 miles, Brighton |               |             |              | 4.3 miles, Wheeler |               |             |              | 6.5 miles, Nehalem |               |             |              | 10.4 miles, Mohler Bridge |               |             |              |
| 3.6 miles, Ruins    |               |             |              |                    |               |             |              |                    |               |             |              | 12.0 miles, Foley Creek   |               |             |              |
| 0935                | 0             | 16.1        | 24.8         |                    |               |             |              |                    |               |             |              | 1035                      | 0             | 20.9        | 0.0          |

Netarts Bay January 5, 1958 Tides, Barview, HHW 8.5 1105, LLW -1.1 1835

|           |   |     |     |           |   |      |      |           |   |     |      |                 |   |     |      |
|-----------|---|-----|-----|-----------|---|------|------|-----------|---|-----|------|-----------------|---|-----|------|
| 0.2 miles |   |     |     | 0.9 miles |   |      |      | 2.2 miles |   |     |      | 3.4 miles       |   |     |      |
| 1115      | 0 | 9.8 | 1.1 | 1100      | 0 | ---- | 31.6 | 1140      | 0 | 9.6 | 31.6 | 1150            | 0 | 8.5 | 29.5 |
|           |   |     |     |           |   |      |      |           |   |     |      | 4.8 miles       |   |     |      |
|           |   |     |     |           |   |      |      |           |   |     |      | 1205 0 6.8 13.9 |   |     |      |

Netarts Bay July 24, 1958 Tides, Barview, HLW 1.4 1208, HHW 7.6 1829

|           |     |      |      |           |   |      |      |           |   |      |      |           |   |      |      |
|-----------|-----|------|------|-----------|---|------|------|-----------|---|------|------|-----------|---|------|------|
| 0.9 miles |     |      |      | 2.2 miles |   |      |      | 2.8 miles |   |      |      | 3.4 miles |   |      |      |
| 1600      | 0   | 10.4 | 34.2 | 1610      | 0 | 13.5 | 33.7 | 1620      | 0 | 10.9 | 33.8 | 1635      | 0 | 12.4 | 33.7 |
|           | 5   | 10.4 | 34.2 |           |   |      |      |           |   |      |      |           |   |      |      |
|           | 10  | 10.3 | 34.2 |           |   |      |      |           |   |      |      |           |   |      |      |
|           | 12B | 10.3 | 34.2 |           |   |      |      |           |   |      |      |           |   |      |      |

| Siletz River              |       |       |      | October 20, 1957       |       |       |      | Tides Kernville, HHW 5.9 1017, LLW 4.1 1710 |       |       |      |            |       |       |      |
|---------------------------|-------|-------|------|------------------------|-------|-------|------|---------------------------------------------|-------|-------|------|------------|-------|-------|------|
| Time                      | Depth | Temp. | Sal. | Time                   | Depth | Temp. | Sal. | Time                                        | Depth | Temp. | Sal. | Time       | Depth | Temp. | Sal. |
| PST                       | Feet  | °C    | o/oo | PST                    | Feet  | °C    | o/oo | PST                                         | Feet  | °C    | o/oo | PST        | Feet  | °C    | o/oo |
| Siletz Bar, 0.0 miles     |       |       |      | Coyote Rock, 3.5 miles |       |       |      | 6.0 miles                                   |       |       |      | 7.5 miles  |       |       |      |
| 1405                      | 0     | 13.9  | 32.4 | 1500                   | 0     | 13.1  | 13.1 | 1110                                        | 0     | 13.3  | 10.8 | 1540       | 0     | 12.4  | 0.0  |
|                           | 5B    | 14.1  | 32.7 |                        | 5     | 13.0  | 15.7 |                                             | 5     | 13.1  | 12.2 |            | 5     | 12.4  | 0.0  |
|                           |       |       |      |                        | 8B    | 12.9  | 19.2 |                                             | 10    | 13.0  | 12.4 |            | 10    | 12.4  | 0.0  |
|                           |       |       |      |                        |       |       |      |                                             | 14B   | 13.0  | 12.6 |            | 13B   | 12.4  | 0.1  |
| Cutler City, 1.0 miles    |       |       |      | 4.2 miles              |       |       |      | 1525                                        |       |       |      | 9.0 miles  |       |       |      |
| 0955                      | 0     | 13.9  | 33.2 | 1055                   | 0     | 13.2  | 18.8 |                                             | 0     | 12.9  | 2.9  | 1145       | 0     | 12.8  | 0.4  |
|                           | 5     | 13.9  | 33.2 |                        | 5     | 13.1  | 24.4 |                                             | 5     | 12.9  | 3.7  |            | 5     | 12.7  | 0.5  |
|                           | 8B    | 13.9  | 33.2 |                        | 10    | 13.1  | 25.6 |                                             | 9B    | 12.9  | 4.3  |            | 10    | 12.7  | 0.6  |
| 1425                      | 0     | 13.8  | 31.1 |                        | 15    | 13.1  | 27.9 | 7.5 miles                                   |       |       |      |            | 13B   | 12.6  | 0.6  |
|                           | 3B    | 13.8  | 31.1 |                        | 20    | 13.1  | 28.4 | 1125                                        | 0     | 13.2  | 3.8  |            |       |       |      |
| Kernville Bridge, 2.2 mi. |       |       |      |                        | 25    | 13.1  | 28.5 |                                             | 5     | 13.0  | 5.2  | 10.0 miles |       |       |      |
| 1010                      | 0     | 13.8  | 32.9 |                        | 31B   | 13.1  | 28.6 |                                             | 10    | 13.0  | 5.7  | 1155       | 0     | 12.5  | 0.0  |
|                           | 5     | 13.9  | 33.0 | 1510                   | 0     | 13.1  | 8.6  |                                             | 15    | 13.0  | 5.7  |            | 5     | 12.5  | 0.0  |
|                           | 10    | 13.9  | 33.1 |                        | 5     | 13.1  | 8.9  |                                             | 20    | 13.0  | 5.8  |            | 10    | 12.4  | 0.0  |
|                           | 15B   | 13.9  | 33.1 |                        | 10    | 13.1  | 9.2  |                                             | 25    | 13.0  | 5.8  |            | 15    | 12.4  | 0.0  |
| 1435                      | 0     | 13.2  | 21.5 |                        | 15    | 13.0  | 11.2 |                                             | 28B   | 13.0  | 5.8  |            | 20    | 12.4  | 0.0  |
|                           | 5     | 13.2  | 23.2 |                        | 20    | 12.9  | 29.7 |                                             |       |       |      |            | 25    | 12.4  | 0.0  |
|                           | 10    | 13.2  | 25.9 |                        | 25    | 13.0  | 30.2 |                                             |       |       |      |            | 30B   | 12.4  | 0.0  |
|                           | 13B   | 12.7  | 27.8 |                        | 28B   | 13.0  | 30.3 |                                             |       |       |      |            |       |       |      |

| Siletz River           |    |      |      | January 3, 1958      |     |      |      | Tides, Kernville, HHW 6.7 1028, LLW -0.3 1813 |     |     |      |           |     |     |     |
|------------------------|----|------|------|----------------------|-----|------|------|-----------------------------------------------|-----|-----|------|-----------|-----|-----|-----|
| Taft, 0.1 miles        |    |      |      | Kernville, 2.2 miles |     |      |      | 2.9 miles                                     |     |     |      | 4.2 miles |     |     |     |
| 1100                   | 0  | 8.4  | 9.4  | 1130                 | 0   | 8.4  | 0.1  | 1550                                          | 0   | 8.0 | 0.0  | 1215      | 0   | 7.8 | 0.0 |
|                        |    |      |      |                      | 5   | 8.4  | 5.3  |                                               | 5   | 8.0 | 0.0  |           | 5   | 7.8 | 0.0 |
| 1510                   | 0  | ---- | 12.6 |                      | 10  | 8.5  | 10.0 |                                               | 10B | 8.0 | 0.0  |           | 10  | 7.8 | 0.0 |
| Cutler City, 1.0 miles |    |      |      | 1535                 | 0   | 8.0  | 0.3  | Coyote Rock, 3.5 miles                        |     |     |      |           | 15  | 7.8 | 0.0 |
| 1110                   | 0  | 8.4  | 8.8  |                      | 5   | 8.0  | 0.4  | 1200                                          | 0   | 7.7 | 0.0  |           | 20  | 7.8 | 0.0 |
|                        | 5B | 10.8 | 31.7 |                      |     |      |      |                                               | 5   | 7.7 | 0.2  |           | 22B | 7.8 | 0.0 |
| 1520                   | 0  | 9.3  | 0.1  | 2.9 miles            |     |      |      |                                               | 10  | 7.8 | 0.3  |           |     |     |     |
|                        | 3B | 9.2  | 14.8 | 1145                 | 0   | 8.3  | 0.0  |                                               | 15  | 7.8 | 1.2  |           |     |     |     |
|                        |    |      |      |                      | 5   | 7.8  | 0.0  |                                               | 20  | 8.3 | 10.5 |           |     |     |     |
|                        |    |      |      |                      | 10  | 7.9  | 3.2  |                                               | 23B | 8.4 | 11.9 |           |     |     |     |
|                        |    |      |      |                      | 15  | 8.6  | 12.8 |                                               |     |     |      |           |     |     |     |
|                        |    |      |      |                      | 20B | 10.1 | 27.2 |                                               |     |     |      |           |     |     |     |

| Siletz River    |     |       |       | April 8, 1958          |     |      |      | Tides, Kernville, LLW -0.5 1050, LHW 4.6 1654 |     |      |      |                        |     |      |      |
|-----------------|-----|-------|-------|------------------------|-----|------|------|-----------------------------------------------|-----|------|------|------------------------|-----|------|------|
| Taft, 0.1 miles |     |       |       | Cutler City, 1.0 miles |     |      |      | Kernville, 2.2 miles                          |     |      |      | 2.9 miles              |     |      |      |
| 0930            | 0   | 10.4  | 6.7   | 0945                   | 0   | 10.3 | 5.0  | 1000                                          | 0   | 9.7  | 0.0  | 1605                   | 0   | 10.8 | 1.1  |
|                 | 5   | ----- | ----- |                        | 5   | 10.3 | 5.0  |                                               | 5   | 9.7  | 0.0  |                        | 5   | 11.1 | 6.9  |
|                 | 10  | 10.5  | 8.4   |                        | 7B  | 10.3 | 5.0  |                                               | 10B | 9.7  | 0.0  |                        | 10  | 11.6 | 18.0 |
|                 | 13B | 10.5  | 8.6   |                        |     |      |      |                                               |     |      |      |                        | 13B | 11.7 | 21.1 |
| 1535            | 0   | 12.1  | 32.0  | 1545                   | 0   | 11.9 | 31.3 | 1555                                          | 0   | 10.9 | 3.2  | Coyote Rock, 3.5 miles |     |      |      |
|                 |     |       |       |                        | 5   | 11.9 | 31.3 |                                               | 5   | 11.8 | 18.6 | 1610                   | 0   | 10.0 | 0.1  |
|                 |     |       |       |                        | 10  | 11.9 | 31.3 |                                               | 10  | 12.0 | 28.6 |                        | 5   | 10.0 | 0.1  |
|                 |     |       |       |                        | 11B | 11.9 | 31.3 |                                               | 15B | 12.0 | 29.0 |                        | 10  | 10.0 | 0.1  |
|                 |     |       |       |                        |     |      |      |                                               |     |      |      |                        | 15  | 10.0 | 0.1  |
|                 |     |       |       |                        |     |      |      |                                               |     |      |      |                        | 20B | 10.0 | 0.1  |

| Siletz River           |     |      |      | July 25, 1958          |     |      |      | Tides, Kernville, LHW 3.8 0840, HLW 2.0 1410 |      |      |      |           |     |      |      |
|------------------------|-----|------|------|------------------------|-----|------|------|----------------------------------------------|------|------|------|-----------|-----|------|------|
| Cutler City, 1.0 miles |     |      |      | 3.8 miles              |     |      |      | Coyote Rock, 4.5 miles                       |      |      |      | 6.0 miles |     |      |      |
| 0740                   | 0   | 8.6  | 34.0 | 0755                   | 0   | 16.2 | 20.9 | 1150                                         | 0    | 18.8 | 16.3 | 0820      | 0   | 19.8 | 12.4 |
|                        | 5   | 8.6  | 34.0 |                        | 5   | 15.7 | 23.0 |                                              | 5    | 18.5 | 16.8 |           | 5   | 19.5 | 13.5 |
|                        | 7B  | 8.6  | 34.0 |                        | 10  | 15.3 | 23.9 |                                              | 10   | 17.5 | 18.8 |           | 10  | 19.4 | 13.8 |
|                        |     |      |      |                        | 13B | 15.3 | 23.9 |                                              | 15   | 16.4 | 21.4 |           | 15  | 19.3 | 13.9 |
| Kernville, 2.5 miles   |     |      |      |                        |     |      |      |                                              | 20   | 15.0 | 23.9 |           | 17B | 19.3 | 14.0 |
| 0745                   | 0   | 12.1 | 29.0 | 1145                   | 0   | 17.6 | 19.2 | 5.2 miles                                    |      |      |      | 1230      |     |      |      |
|                        | 5   | 10.1 | 33.6 |                        | 5   | 16.1 | 21.2 | 0810                                         | 0    | 18.3 | 16.1 |           | 0   | 21.4 | 7.6  |
|                        | 10  | 10.0 | 33.7 |                        | 10  | 12.7 | 28.2 |                                              | 5    | 18.0 | 16.9 |           | 5   | 20.7 | 8.8  |
|                        | 15B | 10.0 | 33.7 |                        | 15  | 10.0 | 33.0 |                                              | 10   | 18.0 | 17.1 |           | 10  | 19.1 | 11.7 |
| 1135                   | 0   | 15.0 | 24.3 |                        | 17B | 9.5  | 33.8 |                                              | 15   | 17.8 | 17.3 |           | 14B | 18.9 | 14.2 |
|                        | 5   | 13.5 | 27.6 | Coyote Rock, 4.5 miles |     |      |      |                                              | 20   | 17.7 | 17.6 | 7.1 miles |     |      |      |
|                        | 10  | 8.6  | 34.0 | 0805                   | 0   | 17.8 | 18.0 |                                              | 24B  | 17.4 | 18.3 | 0830      | 0   | 21.1 | 8.0  |
|                        | 11B | 8.6  | 34.0 |                        | 5   | 17.5 | 18.4 |                                              |      |      |      |           | 5   | 20.7 | 8.4  |
|                        |     |      |      |                        | 10  | 17.4 | 18.7 |                                              |      |      |      |           | 10  | 20.7 | 8.5  |
|                        |     |      |      |                        | 15  | 17.3 | 19.0 |                                              |      |      |      |           | 15  | 20.6 | 8.6  |
|                        |     |      |      |                        | 20  | 17.3 | 19.1 |                                              |      |      |      |           | 18B | 20.6 | 8.7  |
|                        |     |      |      |                        | 22B | 17.3 | 19.1 |                                              |      |      |      |           |     |      |      |
|                        |     |      |      |                        |     |      |      |                                              | 1210 | 0    | 19.9 | 13.5      |     |      |      |
|                        |     |      |      |                        |     |      |      |                                              |      | 5    | 19.8 | 13.9      |     |      |      |
|                        |     |      |      |                        |     |      |      |                                              |      | 10   | 19.7 | 14.1      |     |      |      |
|                        |     |      |      |                        |     |      |      |                                              |      | 14   | 18.4 | 16.4      |     |      |      |

Siletz River July 25, 1958 Tides, Kernville, LHW 3.8 0840, HLW 2.0 1410

| Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|
| 7.1 miles   |               |             |              | 8.4 miles   |               |             |              | 9.8 miles   |               |             |              | 11.0 miles  |               |             |              |
| 1240        | 0             | 22.2        | 5.0          | 0845        | 0             | 21.6        | 4.2          | 0900        | 0             | 22.0        | 1.3          | 0910        | 0             | 21.3        | 0.4          |
|             | 5             | 21.5        | 5.9          |             | 5             | 21.4        | 5.1          |             | 5             | 21.1        | 1.6          |             | 5             | 21.3        | 0.4          |
|             | 10            | 20.9        | 7.6          |             | 10            | 21.3        | 5.2          |             | 10            | 21.1        | 1.6          |             | 7B            | 21.3        | 0.4          |
|             | 11B           | 20.9        | 7.7          |             | 13B           | 21.3        | 5.2          |             | 15            | 21.1        | 1.7          |             |               |             |              |
|             |               |             |              |             |               |             |              |             | 17B           | 21.0        | 1.7          |             |               |             |              |

| Siuslaw River       |            |          |           | October 7, 1957    |            |          |           | Tides, Florence, HLW 1.1 0551, HHW 6.2 1148 |            |          |           |                      |            |          |           |
|---------------------|------------|----------|-----------|--------------------|------------|----------|-----------|---------------------------------------------|------------|----------|-----------|----------------------|------------|----------|-----------|
| Time PST            | Depth Feet | Temp. °C | Sal. o/oo | Time PST           | Depth Feet | Temp. °C | Sal. o/oo | Time PST                                    | Depth Feet | Temp. °C | Sal. o/oo | Time PST             | Depth Feet | Temp. °C | Sal. o/oo |
| 1.5 miles           |            |          |           | 4.9 miles          |            |          |           | 8.0 miles                                   |            |          |           | 13.0 miles           |            |          |           |
| 0625                | 0          | 14.3     | 19.3      | 0655               | 0          | 15.3     | 12.2      | 1225                                        | 0          | 15.6     | 12.4      | 1315                 | 0          | 16.0     | 2.6       |
|                     | 5          | 14.3     | 19.6      |                    | 5B         | 15.3     | 13.6      |                                             | 5          | 15.2     | 13.0      |                      | 5          | 15.7     | 3.0       |
|                     | 10         | 14.1     | 20.7      |                    |            |          |           |                                             | 10         | 15.1     | 13.4      |                      | 10         | 15.7     | 3.2       |
|                     | 12B        | 14.1     | 21.1      |                    |            |          |           |                                             | 15         | 15.0     | 13.6      |                      | 15B        | 15.7     | 3.3       |
| 1115 0 13.3 34.0    |            |          |           | 1150 0 14.0 27.6   |            |          |           | 10.0 miles                                  |            |          |           | 14.0 miles           |            |          |           |
|                     | 5          | 13.3     | 34.0      |                    | 5          | 13.6     | 31.2      | 1245                                        | 0          | 16.0     | 9.3       | 0815                 | 0          | 13.2     | 0.1       |
|                     | 10         | 13.3     | 34.0      |                    | 10B        | 13.6     | 31.4      |                                             | 5          | 15.7     | 10.0      |                      | 5          | 13.2     | 0.1       |
|                     | 16B        | 13.3     | 34.0      | Cushman, 6.5 miles |            |          |           |                                             | 10         | 15.7     | 10.0      |                      | 8B         | 13.2     | 0.1       |
| Florence, 3.7 miles |            |          |           | 0705               | 0          | 15.6     | 8.9       |                                             | 15         | 15.7     | 10.1      | 15.0 miles           |            |          |           |
| 0640                | 0          | 14.5     | 15.4      |                    | 5          | 15.7     | 9.7       |                                             | 20B        | 15.7     | 10.1      | 0805                 | 0          | 12.5     | 0.0       |
|                     | 5          | 14.6     | 16.7      |                    | 10         | 15.7     | 10.5      |                                             |            |          |           |                      | 5B         | 12.5     | 0.0       |
|                     | 10         | 14.6     | 16.8      |                    | 20B        | 15.6     | 11.2      | 11.0 miles                                  |            |          |           | 1330 0 14.0 0.2      |            |          |           |
|                     | 15         | 14.5     | 17.0      | 1210               | 0          | 14.4     | 20.0      | 0740                                        | 0          | 15.7     | 3.0       |                      | 5          | 13.7     | 0.3       |
|                     | 20         | 14.5     | 17.0      |                    | 5          | 14.3     | 20.2      |                                             | 5          | 15.6     | 3.2       |                      | 10B        | 13.7     | 0.4       |
|                     | 25         | 14.5     | 17.2      |                    | 10         | 14.2     | 20.7      |                                             | 9B         | 15.6     | 3.5       | Mapleton, 16.0 miles |            |          |           |
|                     | 30         | 14.4     | 17.3      |                    | 15         | 14.2     | 20.8      | 1255                                        | 0          | 16.5     | 7.1       | 1340                 | 0          | 12.9     | 0.0       |
|                     | 37B        | 14.4     | 17.4      |                    | 20         | 14.2     | 20.9      |                                             | 5          | 16.0     | 7.4       |                      | 5          | ---      | 0.0       |
| 1125 0 13.4 33.6    |            |          |           |                    | 25B        | 14.2     | 21.0      |                                             | 10         | 15.9     | 7.6       |                      | 10         | ---      | 0.0       |
|                     | 5          | 13.3     | 34.0      | 8.0 miles          |            |          |           |                                             | 15B        | 15.9     | 7.8       |                      | 15B        | 13.3     | 0.0       |
|                     | 10         | 13.3     | 34.0      | 0720               | 0          | 15.8     | 6.2       | 13.0 miles                                  |            |          |           |                      |            |          |           |
|                     | 15         | 13.3     | 34.0      |                    | 5          | 15.9     | 6.5       | 0755                                        | 0          | 14.2     | 0.7       |                      |            |          |           |
|                     | 16B        | 13.3     | 34.0      |                    | 10         | 15.9     | 6.6       |                                             | 5          | 14.3     | 0.8       |                      |            |          |           |
|                     |            |          |           |                    | 15         | 15.9     | 7.3       |                                             | 10B        | 14.5     | 1.0       |                      |            |          |           |
|                     |            |          |           |                    | 20B        | 15.9     | 8.2       |                                             |            |          |           |                      |            |          |           |

| Siuslaw River       |            |          |           | January 28, 1958 |            |          |           | Tides, Florence, HHW 6.4 0627, LLW 1.4 1355 |            |          |           |           |            |          |           |
|---------------------|------------|----------|-----------|------------------|------------|----------|-----------|---------------------------------------------|------------|----------|-----------|-----------|------------|----------|-----------|
| Time PST            | Depth Feet | Temp. °C | Sal. o/oo | Time PST         | Depth Feet | Temp. °C | Sal. o/oo | Time PST                                    | Depth Feet | Temp. °C | Sal. o/oo | Time PST  | Depth Feet | Temp. °C | Sal. o/oo |
| Entrance, 0.5 miles |            |          |           | 1.4 miles        |            |          |           | 2.3 miles                                   |            |          |           | 4.4 miles |            |          |           |
| 0720                | 0          | 9.9      | 5.8       | 1225             | 0          | 9.1      | 0.8       | 1240                                        | 0          | 9.0      | 0.1       | 0830      | 0          | 9.1      | 0.4       |
|                     | 5          | 10.7     | 20.8      |                  | 5          | 9.2      | 1.1       |                                             | 5          | 9.0      | 0.2       |           | 5          | 9.1      | 0.5       |
|                     | 9B         | 10.5     | 22.7      |                  | 10         | 9.3      | 1.3       |                                             | 10         | 9.0      | 0.2       |           | 10         | 9.2      | 1.4       |
| 1215 0 9.3 3.0      |            |          |           |                  | 15         | 9.4      | 1.5       |                                             | 15B        | 9.0      | 0.2       |           | 15         | 10.0     | 12.9      |
|                     | 5          | 9.3      | 3.4       | 1.7 miles        |            |          |           | 2.9 miles                                   |            |          |           |           | 17B        | 9.9      | 14.1      |
|                     | 10         | 9.4      | 4.0       | 1230             | 0          | 9.0      | 0.3       | 0810                                        | 0          | 9.1      | 1.6       | 5.6 miles |            |          |           |
|                     | 15         | 9.4      | 4.3       |                  | 5          | 9.0      | 0.4       |                                             | 5          | 9.3      | 2.8       | 0840      | 0          | 9.0      | 0.0       |
|                     | 20B        | 9.4      | 4.5       |                  | 10         | 9.2      | 0.8       |                                             | 10         | 9.7      | 7.2       |           | 5          | 8.9      | 0.0       |
| 1.4 miles           |            |          |           |                  | 14B        | 9.3      | 1.0       |                                             | 15         | 11.0     | 23.1      |           | 10         | 8.9      | 0.0       |
| 0735                | 0          | 9.5      | 4.6       | 2.3 miles        |            |          |           |                                             | 20         | 11.2     | 26.7      |           | 15         | 8.9      | 0.0       |
|                     | 5          | 9.7      | 6.9       | 0755             | 0          | 9.4      | 2.2       | Florence, 3.7 miles                         |            |          |           |           | 20         | 8.9      | 0.0       |
|                     | 10         | 11.0     | 25.6      |                  | 5          | 9.6      | 5.0       | 0820                                        | 0          | 9.2      | 0.8       |           | 25B        | 8.9      | 0.0       |
|                     |            |          |           |                  | 10         | 10.2     | 12.6      |                                             | 5          | 9.1      | 0.9       |           |            |          |           |
|                     |            |          |           |                  | 12B        | 10.4     | 17.0      |                                             | 10         | 9.1      | 1.5       |           |            |          |           |
|                     |            |          |           |                  |            |          |           |                                             | 15         | 9.4      | 5.2       |           |            |          |           |
|                     |            |          |           |                  |            |          |           |                                             | 20         | 10.0     | 12.7      |           |            |          |           |
|                     |            |          |           |                  |            |          |           |                                             | 21B        | 10.0     | 13.1      |           |            |          |           |

| Siuslaw River    |            |          |           | March 24, 1958      |            |          |           | Tides, Florence, HLW 0.4 0930, LHW 4.9 1534 |            |          |           |           |            |          |           |
|------------------|------------|----------|-----------|---------------------|------------|----------|-----------|---------------------------------------------|------------|----------|-----------|-----------|------------|----------|-----------|
| Time PST         | Depth Feet | Temp. °C | Sal. o/oo | Time PST            | Depth Feet | Temp. °C | Sal. o/oo | Time PST                                    | Depth Feet | Temp. °C | Sal. o/oo | Time PST  | Depth Feet | Temp. °C | Sal. o/oo |
| Bar, 0.5 miles   |            |          |           | 2.5 miles           |            |          |           | 4.5 miles                                   |            |          |           | 6.5 miles |            |          |           |
| 0835             | 0          | 10.2     | 14.2      | 1410                | 0          | 11.0     | 31.9      | 0915                                        | 0          | 9.6      | 2.4       | 1455      | 0          | 10.0     | 3.6       |
|                  | 5          | 10.2     | 15.0      |                     | 5          | 11.0     | 32.0      |                                             | 5          | 9.8      | 2.5       |           | 5          | 10.0     | 3.8       |
|                  | 10         | 10.2     | 15.1      |                     | 7B         | 11.0     | 32.0      |                                             | 10         | 9.8      | 2.5       |           | 10         | 10.0     | 4.0       |
|                  | 15         | 10.2     | 15.3      |                     |            |          |           |                                             | 14B        | 9.8      | 2.6       |           | 15         | 10.0     | 4.1       |
|                  | 20         | 10.3     | 16.0      | Florence, 3.6 miles |            |          |           |                                             |            |          |           |           | 20         | 10.0     | 4.3       |
|                  | 22B        | 10.3     | 16.1      | 0905                | 0          | 9.7      | 4.6       | 1445                                        | 0          | 10.3     | 10.3      |           | 25         | 10.0     | 4.6       |
| 1.4 miles        |            |          |           |                     | 5          | 9.8      | ---       |                                             | 5          | 10.2     | 11.7      |           | 28B        | 10.0     | 4.7       |
| 0845             | 0          | 10.1     | 10.6      |                     | 10         | 9.8      | ---       |                                             | 10         | 10.2     | 11.8      | 8.0 miles |            |          |           |
|                  | 5          | 10.1     | 11.3      |                     | 15         | 9.8      | ---       |                                             | 15         | 10.2     | 12.0      | 1505      | 0          | 9.9      | 0.0       |
|                  | 10         | 10.1     | 12.5      |                     | 20         | 9.8      | 5.8       |                                             | 20B        | 10.2     | 12.0      |           | 5          | 9.9      | 0.0       |
|                  | 15         | 10.1     | 12.5      |                     | 25         | 9.8      | 5.8       | 5.6 miles                                   |            |          |           |           | 10         | 9.9      | 0.0       |
|                  | 16B        | 10.1     | 12.5      |                     | 30         | 9.8      | 5.8       | 0925                                        | 0          | 9.7      | 0.7       |           | 15         | 9.9      | 0.0       |
| 1400 0 11.1 32.3 |            |          |           |                     | 32B        | 9.8      | 5.8       |                                             | 5          | 9.7      | 0.8       |           | 19B        | 10.0     | 0.0       |
|                  |            |          |           | 1435                | 0          | 10.8     | 24.3      |                                             | 10         | 9.7      | 0.8       |           |            |          |           |
| 2.5 miles        |            |          |           |                     | 5          | 10.8     | 28.8      |                                             | 15         | 9.7      | 0.8       |           |            |          |           |
| 0855             | 0          | 9.9      | 8.2       |                     | 10         | 10.8     | 29.2      | 1455                                        | 0          | 10.1     | 6.9       |           |            |          |           |
|                  | 5          | 9.9      | 9.0       |                     | 15         | 10.8     | 30.0      |                                             | 5          | 10.1     | 7.2       |           |            |          |           |
|                  | 10B        | 10.0     | 9.1       |                     | 20         | 10.9     | 30.0      |                                             | 10         | 10.1     | 7.3       |           |            |          |           |
|                  |            |          |           |                     | 25         | 10.9     | 30.0      |                                             | 15         | 10.1     | 7.5       |           |            |          |           |
|                  |            |          |           |                     | 27B        | 10.9     | 30.0      |                                             | 20B        | 10.1     | 7.6       |           |            |          |           |

Siusslaw River July 11, 1958 Tides, Florence, LHW 3.9 0852, HLW 2.2 1417

| Time<br>PST         | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|---------------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|
| 2.5 miles           |               |             |              | 5.5 miles   |               |             |              | 8.0 miles   |               |             |              | 11.0 miles  |               |             |              |
| 0935                | 0             | 9.0         | 34.0         | 1005        | 0             | 19.0        | 17.6         | 1030        | 0             | 21.8        | 9.1          | 1055        | 0             | 22.5        | 4.6          |
|                     | 5             | 9.0         | 34.0         |             | 5             | 18.6        | 18.0         |             | 5             | 21.0        | 10.6         |             | 5             | 21.6        | 5.5          |
|                     | 10            | 9.0         | 34.1         |             | 10            | 18.1        | 18.8         |             | 10            | 20.9        | 11.4         |             | 10            | 21.3        | 6.5          |
|                     | 20            | 9.0         | 34.1         |             | 15            | 18.0        | 19.1         |             | 15            | 20.8        | 11.6         |             | 15            | 20.9        | 6.8          |
|                     | 30            | 9.0         | 34.1         |             | 20            | 18.0        | 19.1         |             | 20            | 20.8        | 11.7         |             |               |             |              |
|                     |               |             |              |             |               |             |              |             | 25            | 20.8        | 11.8         | 1510        | 0             | 23.3        | 2.6          |
| 3.6 miles, Florence |               |             |              | 1415        | 0             | 21.4        | 11.2         |             | 28B           | 20.8        | 11.8         |             | 5             | 23.1        | 2.7          |
| 0945                | 0             | 15.8        | 25.0         |             | 5             | 21.4        | 12.1         |             |               |             |              |             | 10            | 22.3        | 3.8          |
|                     | 5             | 14.7        | 26.7         |             | 10            | 20.0        | 14.9         | 1450        | 0             | 22.8        | 6.5          |             | 15            | 21.9        | 5.7          |
|                     | 10            | 12.5        | 30.5         |             | 15            | 19.0        | 17.3         |             | 5             | 22.2        | 6.9          |             |               |             |              |
|                     | 15            | 11.8        | 31.7         |             | 20            | 18.5        | 18.4         |             | 10            | 21.6        | 8.8          | 13.0 miles  |               |             |              |
|                     | 20            | 11.7        | 31.8         |             |               |             |              |             | 15            | 21.2        | 10.6         | 1115        | 0             | 23.6        | 0.9          |
|                     | 25            | 11.7        | 31.9         | 6.5 miles   |               |             |              |             | 20            | 21.2        | 10.7         |             | 5             | 23.2        | 1.0          |
|                     | 30            | 11.4        | 32.1         | 1015        | 0             | 20.8        | 13.9         |             | 22            | 21.2        | 10.8         |             | 10            | 23.0        | 1.2          |
|                     | 35B           | 11.3        | 32.3         |             | 5             | 20.3        | 14.8         |             |               |             |              |             | 15            | 22.8        | 1.7          |
|                     |               |             |              |             | 10            | 19.8        | 15.9         | 9.4 miles   |               |             |              |             |               |             |              |
| 1355                | 0             | 19.5        | 18.0         |             | 15            | 19.7        | 16.2         | 1045        | 0             | 21.7        | 6.8          | 1525        | 0             | 24.6        | 0.2          |
|                     | 5             | 19.3        | 18.7         |             | 20            | 19.7        | 16.2         |             | 5             | 21.3        | 7.2          |             | 5             | 23.9        | 0.4          |
|                     | 10            | 19.1        | 19.1         |             | 25            | 19.7        | 16.3         |             | 10            | 20.9        | 9.3          |             | 10            | 23.5        | 0.8          |
|                     | 15            | 15.1        | 26.2         |             | 27B           | 19.7        | 16.3         |             | 15            | 20.8        | 10.1         |             | 13            | 23.2        | 1.5          |
|                     | 20            | 11.8        | 32.1         |             |               |             |              |             |               |             |              |             |               |             |              |
|                     | 25            | 11.4        | 32.5         | 1435        | 0             | 22.7        | 8.3          | 1500        | 0             | 23.2        | 4.0          | 14.5 miles  |               |             |              |
|                     | 30            | 11.3        | 32.7         |             | 5             | 21.6        | 10.8         |             | 5             | 22.9        | 4.3          | 1125        | 0             | 23.8        | 0.0          |
| 4.5 miles           |               |             |              |             | 10            | 21.2        | 12.0         |             | 10            | 22.2        | 5.7          |             | 5             | 23.6        | 0.0          |
| 0955                | 0             | 17.5        | 22.2         |             | 15            | 20.8        | 13.1         |             | 14            | 21.6        | 7.9          |             | 10            | 23.2        | 0.0          |
|                     | 5             | 16.2        | 23.3         |             | 20            | 20.5        | 14.5         |             |               |             |              |             | 12            | 23.2        | 0.0          |
|                     | 10            | 16.1        | 23.7         |             |               |             |              |             |               |             |              |             |               |             |              |
|                     | 15            | 16.1        | 23.8         |             |               |             |              |             |               |             |              |             |               |             |              |
| 1405                | 0             | 20.4        | 15.4         |             |               |             |              |             |               |             |              |             |               |             |              |
|                     | 5             | 19.1        | 17.9         |             |               |             |              |             |               |             |              |             |               |             |              |
|                     | 10            | 13.2        | 26.9         |             |               |             |              |             |               |             |              |             |               |             |              |

Tillamook River October 19, 1957 Tides, Miami Cove, HHW 6.9 0924, HLW 1.3 1547

| Time PST             | Depth Feet | Temp. °C | Sal. o/oo | Time PST               | Depth Feet | Temp. °C | Sal. o/oo | Time PST                  | Depth Feet | Temp. °C | Sal. o/oo | Time PST           | Depth Feet | Temp. °C | Sal. o/oo |
|----------------------|------------|----------|-----------|------------------------|------------|----------|-----------|---------------------------|------------|----------|-----------|--------------------|------------|----------|-----------|
| Garibaldi, 1.4 miles |            |          |           | Bay City               |            |          |           | Dick Pt.                  |            |          |           | Netarts Bridge     |            |          |           |
| 0945                 | 0          | 13.6     | 33.9      | 1410                   | 0          | 13.9     | 27.0      | 1435                      | 0          | 12.7     | 11.3      | 1510               | 0          | 12.5     | 3.0       |
|                      | 5          | 13.6     | 33.0      |                        | 5B         | 14.0     | 28.2      |                           | 4B         | 12.8     | 13.0      |                    | 5          | 12.3     | 4.1       |
|                      | 10         | 13.6     | 33.0      |                        |            |          |           |                           |            |          |           |                    | 6B         | 12.3     | 4.8       |
|                      | 15         | 13.6     | 33.0      | Kilchis Pt., 4.9 miles |            |          |           | Tillamook, 7.3 miles      |            |          |           | 10.0 miles         |            |          |           |
|                      | 16B        | 13.6     | 33.0      | 1025                   | 0          | 13.3     | 26.3      | 1100                      | 0          | 12.1     | 18.2      | 1115               | 0          | 11.9     | 3.0       |
|                      |            |          |           |                        | 2.5        | 13.3     | 27.7      |                           | 5          | 11.9     | 18.8      |                    | 5          | 11.9     | 3.1       |
| 1355                 | 0          | 13.9     | 32.3      |                        | 5          | 13.3     | 28.9      |                           | 6B         | 11.8     | 18.8      |                    | 9B         | 11.9     | 3.1       |
|                      | 5          | 13.9     | 32.3      |                        | 8B         | 13.3     | 29.2      |                           |            |          |           |                    |            |          |           |
|                      | 10         | 13.8     | 32.2      | 1420                   | 0          | 12.8     | 19.6      | 1500                      | 0          | 12.5     | 4.7       | 1520               | 0          | 12.2     | 0.8       |
|                      | 15         | 13.8     | 32.2      |                        | 3B         | 12.8     | 19.7      |                           | 3B         | 12.5     | 5.5       |                    | 5          | 12.3     | 1.1       |
|                      | 16B        | 13.8     | 32.2      |                        |            |          |           |                           |            |          |           |                    | 10B        | 12.2     | 1.4       |
| Bay City, 3.6 miles  |            |          |           | Dick Pt., 6.2 miles    |            |          |           | Netarts Bridge, 8.8 miles |            |          |           | Bridge, 11.5 miles |            |          |           |
| 1015                 | 0          | 13.5     | 32.6      | 1040                   | 0          | 12.7     | 22.6      | 1140                      | 0          | 12.4     | 6.8       |                    |            |          |           |
|                      | 5          | 13.5     | 32.7      |                        | 5          | 12.5     | 23.2      |                           | 2.5        | 12.1     | 11.8      | 1125               | 0          | 11.8     | 0.5       |
|                      | 10         | 13.5     | 32.9      |                        | 10B        | 12.5     | 23.8      |                           | 5          | 12.1     | 13.2      |                    | 5B         | 11.7     | 0.5       |
|                      | 12B        | 13.5     | 32.9      |                        |            |          |           |                           | 7B         | 12.1     | 14.3      |                    |            |          |           |
|                      |            |          |           |                        |            |          |           |                           |            |          |           | 1530               | 0          | 11.6     | 0.0       |
|                      |            |          |           |                        |            |          |           |                           |            |          |           |                    | 3B         | 11.6     | 0.0       |

Tillamook River January 4, 1958 Tides, Miami Cove, HHW 8.3 1056, LLW -0.8 1826

|           |     |      |      |          |     |      |      |                        |     |     |      |                      |     |     |      |
|-----------|-----|------|------|----------|-----|------|------|------------------------|-----|-----|------|----------------------|-----|-----|------|
| Garibaldi |     |      |      | Bay City |     |      |      | Kilchis Pt., 4.9 miles |     |     |      | Dick Pt.             |     |     |      |
| 1040      | 0   | 8.1  | 30.9 | 1100     | 0   | 8.8  | 10.9 | 1115                   | 0   | 9.1 | 22.2 | 1130                 | 0   | 7.3 | 5.4  |
|           | 5   | 10.4 | 31.5 |          | 5   | 10.2 | 30.9 |                        | 5   | 9.2 | 24.5 |                      | 5   | 8.4 | 18.6 |
|           | 10  | 10.5 | 31.6 |          | 10  | 10.3 | 31.1 |                        | 10  | 9.4 | 26.0 |                      | 10  | 9.5 | 26.1 |
|           | 15  | 10.5 | 31.6 |          | 15  | 10.3 | 31.2 |                        | 12B | 9.5 | 26.2 |                      | 13B | 9.6 | 26.6 |
|           | 20  | 10.5 | 31.7 |          | 17B | 10.3 | 31.2 |                        |     |     |      |                      |     |     |      |
|           | 23B | 10.5 | 31.7 |          |     |      |      | 1610                   | 0   | 7.9 | 8.0  | Tillamook, 7.3 miles |     |     |      |
| 1540      | 0   | 9.6  | 25.8 | 1600     | 0   | 8.5  | 14.7 |                        | 5   | 8.7 | 20.2 | 1200                 | 0   | 7.7 | 2.4  |
|           | 5   | 9.7  | 25.7 |          | 5   | 9.5  | 25.0 |                        | 9B  | 9.0 | 21.3 |                      | 5   | 8.7 | 10.7 |
|           | 10  | 9.7  | ---  |          | 9B  | 9.9  | 29.7 |                        |     |     |      |                      | 10  | 8.9 | 20.8 |
|           |     |      |      |          |     |      |      |                        |     |     |      |                      | 11B | 8.9 | ---  |
|           |     |      |      |          |     |      |      |                        |     |     |      | Netarts Bridge       |     |     |      |
|           |     |      |      |          |     |      |      |                        |     |     |      | 1210                 | 0   | 7.7 | 0.7  |
|           |     |      |      |          |     |      |      |                        |     |     |      |                      | 2.5 | 7.7 | 1.3  |
|           |     |      |      |          |     |      |      |                        |     |     |      |                      | 5   | 7.5 | 6.1  |
|           |     |      |      |          |     |      |      |                        |     |     |      |                      | 10P | 7.9 | 11.6 |

Tillamook River April 9, 1958 Tides, Miami Cove, LLW -0.5 1122, LHW 5.7 1753

|           |     |      |      |             |    |      |      |             |    |      |      |                             |    |      |     |
|-----------|-----|------|------|-------------|----|------|------|-------------|----|------|------|-----------------------------|----|------|-----|
| Garibaldi |     |      |      | Bay City    |    |      |      | Kilchis Pt. |    |      |      | Dick Pt.                    |    |      |     |
| 1025      | 0   | 11.3 | 24.0 | 1045        | 0  | 10.8 | 15.2 | 1640        | 0  | 11.3 | 16.6 | 1645                        | 0  | 11.6 | 4.1 |
|           | 5   | 11.2 | 24.2 |             | 3B | 10.8 | 15.2 |             | 5  | 11.3 | 17.8 |                             | 5  | 11.4 | 8.0 |
|           | 10  | 11.2 | 24.2 |             |    |      |      |             | 7B | 11.3 | 18.1 |                             |    |      |     |
|           | 12B | 11.2 | 24.2 | 1630        | 0  | 11.4 | 22.7 |             |    |      |      | Hoquarten Slough, 7.3 miles |    |      |     |
| 1615      | 0   | 11.4 | 31.6 |             | 5  | 11.3 | 29.6 | Dick Pt.    |    |      |      | 1655                        | 0  | 10.0 | 0.1 |
|           | 5   | 11.4 | 31.6 |             | 8B | 11.3 | 29.6 | 1145        | 0  | 9.9  | 0.0  |                             | 5  | 10.0 | 0.1 |
|           | 10  | 11.4 | 31.6 |             |    |      |      |             | 5  | 10.0 | 0.0  |                             | 6B | 10.0 | 0.1 |
|           | 15  | 11.4 | 31.6 | Kilchis Pt. |    |      |      |             | 7B | 10.0 | 0.0  |                             |    |      |     |
|           | 16B | 11.4 | 31.6 | 1130        | 0  | 9.6  | 0.1  |             |    |      |      |                             |    |      |     |
|           |     |      |      |             | 4B | 9.6  | 0.2  |             |    |      |      |                             |    |      |     |

Tillamook River July 23, 1958 Tides, Miami Cove, HLW 1.0 1140, HHW 7.4 1804

|                      |     |      |      |                        |      |      |      |                             |    |      |      |            |     |      |      |
|----------------------|-----|------|------|------------------------|------|------|------|-----------------------------|----|------|------|------------|-----|------|------|
| Garibaldi, 1.4 miles |     |      |      | Kilchis Pt., 4.9 miles |      |      |      | Hoquarten Slough, 7.3 miles |    |      |      | 10.0 miles |     |      |      |
| 1100                 | 0   | 15.5 | 31.2 | 1410                   | 0    | 19.4 | 19.1 | 1435                        | 0  | 21.6 | 8.0  | 1815       | 0   | 21.8 | 9.3  |
|                      | 5   | 15.1 | 31.2 |                        | 3    | 19.4 | 19.3 |                             | 5  | 21.6 | 8.0  |            | 5   | 21.6 | 9.7  |
|                      | 10  | 14.9 | 31.2 |                        |      |      |      |                             | 7B | 21.5 | 8.0  |            | 10  | 21.5 | 10.1 |
|                      | 15  | 14.9 | 31.2 | Dick Pt., 6.2 miles    |      |      |      |                             |    |      |      |            | 15  | 21.5 | 10.2 |
|                      | 20  | 14.8 | 31.2 | 1420                   | 0    | 20.9 | 12.3 | 1755                        | 0  | 19.9 | 25.2 |            | 19B | 21.5 | 10.2 |
| 1715                 | 0   | 9.2  | 34.1 |                        | 5    | 20.8 | 12.4 |                             | 5  | 19.8 | 25.4 | 11.5 miles |     |      |      |
|                      | 5   | 9.2  | 34.1 |                        | 7B   | 20.8 | 12.5 |                             | 10 | 19.8 | 25.4 | 1825       | 0   | 21.9 | 8.2  |
|                      | 10  | 9.2  | 34.1 | 1745                   | 0    | 19.2 | 28.8 | Netarts Bridge, 8.8 miles   |    |      |      |            | 5   | 21.8 | 8.5  |
|                      | 14B | 9.2  | 34.1 |                        | 5    | 19.1 | 29.0 | 1445                        | 0  | 21.9 | 9.0  |            | 10  | 21.8 | 8.5  |
| Bay City, 3.6 miles  |     |      |      |                        | 10   | 19.0 | 29.0 |                             | 5  | 22.0 | 9.1  |            | 12B | 21.8 | 8.6  |
| 1345                 | 0   | 17.0 | 24.8 | 12B                    | 19.0 | 29.1 |      |                             | 6B | 22.0 | 9.1  |            |     |      |      |
|                      | 6   | 17.0 | 24.8 |                        |      |      |      |                             |    |      |      |            |     |      |      |
| 1730                 | 0   | 10.0 | 34.1 |                        |      |      |      | 1805                        | 0  | 20.0 | 21.6 |            |     |      |      |
|                      | 5   | 10.2 | 34.1 |                        |      |      |      |                             | 5  | 19.9 | 22.2 |            |     |      |      |
|                      | 10  | 10.0 | 34.1 |                        |      |      |      |                             | 9B | 19.9 | 23.0 |            |     |      |      |
|                      | 13  | 9.9  | 34.1 |                        |      |      |      |                             |    |      |      |            |     |      |      |

Umpqua River October 6, 1957 Tides, Gardiner, HHW 6.1 1131, HLW 1.0 1756

| Time<br>PST           | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST         | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST           | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|-----------------------|---------------|-------------|--------------|---------------------|---------------|-------------|--------------|-----------------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|
| Winchester, 1.9 miles |               |             |              | 5.2 miles           |               |             |              | Reedsport, 10.0 miles |               |             |              | 12.1 miles  |               |             |              |
| 1035                  | 0             | 13.1        | 34.5         | 1600                | 0             | 15.0        | 17.5         | 1140                  | 0             | 15.1        | 12.8         | 1200        | 0             | 15.8        | 6.8          |
|                       | 10            | 13.1        | 34.5         |                     | 5             | 14.6        | 20.7         |                       | 5             | 15.2        | 13.1         |             | 5             | 15.8        | 7.4          |
|                       | 20            | 13.1        | 34.5         |                     | 10            | -----       | 23.2         |                       | 10            | 15.1        | 13.7         |             | 10            | 15.8        | 7.4          |
|                       | 30            | 13.1        | 34.5         |                     | 11B           | -----       | 23.2         |                       | 15            | 15.1        | 14.0         |             | 15B           | 15.8        | 7.6          |
|                       | 35B           | 13.1        | 34.5         |                     |               |             |              |                       | 20            | 15.1        | 14.1         |             |               |             |              |
|                       |               |             |              | Gardiner, 7.9 miles |               |             |              |                       | 25B           | 15.1        | 14.1         | 1740        | 0             | 15.8        | 0.9          |
| 1530                  | 0             | 14.3        | 23.5         | 1120                | 0             | 14.7        | 16.5         |                       |               |             |              |             | 5             | 15.8        | 1.0          |
|                       | 5             | 14.1        | 25.0         |                     | 5             | 14.6        | 19.9         | 1720                  | 0             | 15.8        | 3.6          |             | 10B           | 15.8        | 1.1          |
|                       | 10            | 14.1        | 25.5         |                     | 10            | 14.6        | 20.3         |                       | 5             | 15.8        | 3.7          |             |               |             |              |
|                       | 15            | 13.9        | 27.4         |                     | 15            | 14.6        | 20.6         |                       | 10            | 15.8        | 3.8          | 14.5 miles  |               |             |              |
|                       | 20            | 13.8        | 28.0         |                     | 20            | 14.6        | 20.9         |                       | 15            | 15.8        | 3.8          |             |               | 15.8        | 1.3          |
|                       | 25            | 13.7        | 28.6         |                     | 25            | 14.6        | 20.9         |                       | 20            | 15.8        | 3.9          |             | 5B            | 15.8        | 1.5          |
|                       | 27B           | 13.7        | 28.7         |                     | 26B           | 14.6        | 20.9         |                       | 22B           | 15.8        | 3.9          |             |               |             |              |
| 5.2 miles             |               |             |              | 1620                | 0             | 15.3        | 8.0          |                       |               |             |              |             |               |             |              |
| 1055                  | 0             | 13.5        | 29.9         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 5             | 13.4        | 31.4         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 10            | 13.4        | 32.0         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 15            | 13.3        | 32.8         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 20            | 13.3        | 33.0         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 25            | 13.3        | 33.0         |                     |               |             |              |                       |               |             |              |             |               |             |              |
|                       | 26B           | 13.3        | 33.0         |                     |               |             |              |                       |               |             |              |             |               |             |              |

Umpqua River January 27, 1958 Tides, Gardiner, LLW 1.9 1300, LHW 4.5 1822

|                           |     |      |      |                        |                        |      |      |             |           |      |      |           |           |     |     |     |
|---------------------------|-----|------|------|------------------------|------------------------|------|------|-------------|-----------|------|------|-----------|-----------|-----|-----|-----|
| Winchester Bay, 1.7 miles |     |      |      | Jerden Cove, 3.0 miles |                        |      |      | Double Cove |           |      |      | 5.3 miles |           |     |     |     |
| 1625                      | 0   | 8.8  | 3.7  | 1225                   | 0                      | 8.5  | 1.7  | 1240        | 0         | 8.3  | 1.1  | 1255      | 0         | 8.2 | 0.0 |     |
|                           | 5   | 8.8  | 4.2  |                        | 5                      | 8.5  | 2.5  |             | 5         | 8.3  | 1.2  |           | 5         | 8.2 | 0.0 |     |
|                           | 10  | 10.0 | 17.8 |                        | 10                     | 8.6  | 3.3  |             | 10        | 8.4  | 1.2  |           | 10        | 8.2 | 0.0 |     |
|                           | 15  | 10.4 | 21.5 |                        | 15                     | 8.7  | 4.4  |             | 15        | 8.5  | 2.4  |           | 15        | 8.2 | 0.0 |     |
|                           | 20  | 11.1 | 28.1 |                        | 20                     | 8.8  | 5.2  |             | 20        | 8.5  | 3.0  |           | 20        | 8.2 | 0.0 |     |
|                           | 25  | 11.3 | 29.8 |                        | 25                     | 9.3  | 10.7 |             | 25        | 9.0  | 4.6  |           | 24B       | 8.2 | 0.0 |     |
|                           | 30  | 11.3 | 29.9 |                        | 26                     | 10.3 | 17.3 |             | 27        | 9.2  | 11.2 |           |           |     |     |     |
|                           |     |      |      |                        | 27                     | 10.7 | 25.4 |             | 30        | 9.8  | 16.0 | 6.1 miles |           |     |     |     |
| 1210                      | 0   | 8.6  | 2.1  |                        | 28                     | 11.0 | 27.8 |             | 33        | 10.1 | 19.8 | 1705      | 0         | 8.4 | 0.1 |     |
|                           | 5   | 8.5  | 2.7  |                        | 29                     | 11.2 | 28.9 |             | 35B       | 10.5 | 22.7 |           | 5         | 8.3 | 0.2 |     |
|                           | 10  | 8.6  | 3.6  |                        | 30                     | 11.4 | 30.8 |             |           |      |      |           | 10        | 8.3 | 0.3 |     |
|                           | 15  | 8.7  | 4.8  |                        | 32B                    | 11.4 | 31.4 |             | 5.1 miles |      |      |           | 15        | 8.3 | 0.3 |     |
|                           | 20  | 8.3  | 6.1  |                        | Double Cove, 4.1 miles |      |      |             | 1250      | 0    | 8.2  | 0.0       | 20        | 8.3 | 0.4 |     |
|                           | 25  | 9.0  | 8.5  |                        | 1645                   | 0    | 8.6  | 2.5         |           | 5    | 8.2  | 0.0       | 25        | 8.3 | 0.4 |     |
|                           | 27B | 9.2  | 10.2 |                        |                        | 5    | 8.6  | 3.2         |           | 10   | 8.2  | 0.1       |           | 30  | 8.3 | 1.4 |
| Jerden Cove, 3.0 miles    |     |      |      |                        | 10                     | 8.8  | 4.6  |             | 15        | 8.2  | 0.2  |           | 35        | 8.5 | 3.1 |     |
| 1635                      | 0   | 8.6  | 2.5  |                        | 15                     | 9.2  | 10.9 |             | 20B       | 8.4  | 1.0  |           | 37B       | 8.6 | 4.2 |     |
|                           | 5   | 8.6  | 2.7  |                        | 17                     | 9.6  | 14.6 |             | 5.3 miles |      |      |           | 7.1 miles |     |     |     |
|                           | 10  | 8.6  | 3.3  |                        | 20                     | 9.8  | 16.5 |             | 1655      | 0    | 8.5  | 1.3       | 1715      | 0   | 8.2 | 0.0 |
|                           | 15  | 8.8  | 6.4  |                        | 25                     | 10.2 | 20.4 |             |           | 5    | 8.4  | 1.3       |           | 5   | 8.2 | 0.0 |
|                           | 16  | 9.8  | 14.9 |                        | 30                     | 10.2 | 21.1 |             |           | 10   | 8.4  | 1.5       |           | 10  | 8.2 | 0.0 |
|                           | 17  | 10.0 | 18.3 |                        | 32B                    | 10.2 | 21.1 |             |           | 15   | 8.6  | 3.4       |           | 15  | 8.2 | 0.0 |
|                           | 18  | 10.1 | 19.4 |                        |                        |      |      |             |           | 20   | 8.9  | 7.3       |           |     |     |     |
|                           | 19  | 10.2 | 20.0 |                        |                        |      |      |             |           | 22B  | 8.9  | 8.1       |           |     |     |     |
|                           | 20  | 10.4 | 22.9 |                        |                        |      |      |             |           |      |      |           |           |     |     |     |
|                           | 25  | 10.7 | 25.1 |                        |                        |      |      |             |           |      |      |           |           |     |     |     |
|                           | 30  | 10.3 | 25.6 |                        |                        |      |      |             |           |      |      |           |           |     |     |     |
|                           | 31B | 10.8 | 25.6 |                        |                        |      |      |             |           |      |      |           |           |     |     |     |

Umpqua River March 23, 1958 Tides, Gardiner, LLW 0.4 0802, LHW 5.3 1502

| Winchester Bay, 1.7 miles |     |      |      | Jerden Cove, 3.0 miles |      |      |      | Double Pt., 4.1 miles |      |      |      | 5.2 miles |      |     |      |      |
|---------------------------|-----|------|------|------------------------|------|------|------|-----------------------|------|------|------|-----------|------|-----|------|------|
| 0830                      | 0   | 10.3 | 8.8  | 0850                   | 0    | 10.2 | 6.3  | 0910                  | 0    | 10.0 | 2.6  | 0920      | 0    | 9.9 | 1.1  |      |
|                           | 5   | 10.3 | 11.9 |                        | 5    | 10.2 | 7.8  |                       | 5    | 10.0 | 5.0  |           | 5    | 9.8 | 1.6  |      |
|                           | 10  | 10.4 | 13.5 |                        | 10   | 10.2 | 8.9  |                       | 10   | 10.0 | 5.2  |           | 10   | 9.8 | 1.7  |      |
|                           | 15  | 10.4 | 13.9 |                        | 15   | 10.2 | 9.8  |                       | 15   | 10.0 | 5.6  |           | 15   | 9.8 | 1.7  |      |
|                           | 20  | 10.4 | 14.4 |                        | 20   | 10.3 | 10.7 |                       | 20   | 10.1 | 6.4  |           | 20   | 9.8 | 2.0  |      |
|                           | 22B | 10.5 | 15.7 |                        | 25   | 10.4 | 14.1 |                       |      |      |      |           | 25   | 9.8 | 2.8  |      |
|                           |     |      |      |                        | 26B  | 10.4 | 14.4 |                       | 1405 | 0    | 11.4 | 11.4      |      |     |      |      |
| 1345                      | 0   | 11.5 | 32.5 |                        |      |      |      |                       |      | 5    | 11.3 | 27.6      | 1420 | 0   | 11.2 | 15.1 |
|                           | 5   | 11.5 | 32.5 |                        | 1355 | 0    | 11.6 | 18.1                  |      | 10   | 11.4 | 30.5      |      | 5   | 10.9 | 19.6 |
|                           | 10  | 11.5 | 32.5 |                        |      | 5    | 11.5 | 32.0                  |      | 15   | 11.4 | 30.8      |      | 10  | 11.0 | 25.0 |
|                           | 15  | 11.5 | 32.5 |                        |      | 10   | 11.5 | 32.2                  |      | 20   | 11.4 | 31.1      |      | 15  | 11.1 | 27.8 |
|                           | 20  | 11.5 | 32.5 |                        |      | 15   | 11.5 | 32.4                  |      | 25   | 11.4 | 32.1      |      | 20  | 11.1 | 29.1 |
|                           | 25  | 11.5 | 32.5 |                        |      | 20   | 11.5 | 32.4                  |      | 30   | 11.4 | 32.1      |      | 25  | 11.1 | 29.2 |
|                           | 28B | 11.5 | 32.5 |                        |      | 25   | 11.5 | 32.4                  |      | 35B  | 11.4 | 32.1      |      | 27B | 11.1 | 29.2 |
|                           |     |      |      |                        |      | 30B  | 11.5 | 32.4                  |      |      |      |           |      |     |      |      |

| Umpqua River |       |       |      | March 23, 1958      |       |       |      | Tides, Gardiner, LLW 0.4 0802, LHW 5.3 |       |       |      | 1502                  |       |       |      |
|--------------|-------|-------|------|---------------------|-------|-------|------|----------------------------------------|-------|-------|------|-----------------------|-------|-------|------|
| Time         | Depth | Temp. | Sal. | Time                | Depth | Temp. | Sal. | Time                                   | Depth | Temp. | Sal. | Time                  | Depth | Temp. | Sal. |
| PST          | Feet  | °C    | o/oo | PST                 | Feet  | °C    | o/oo | PST                                    | Feet  | °C    | o/oo | PST                   | Feet  | °C    | o/oo |
| 6.1 miles    |       |       |      | Gardiner, 7.1 miles |       |       |      | 8.5 miles                              |       |       |      | Reedsport, 10.0 miles |       |       |      |
| 0925         | 0     | 10.1  | 0.2  | 0935                | 0     | 10.1  | 0.1  | 0945                                   | 0     | 10.3  | 0.0  | 1500                  | 0     | 10.3  | 1.2  |
|              | 5     | 10.0  | 0.5  |                     | 5     | 10.0  | 0.2  |                                        | 10    | 10.2  | 0.0  |                       | 5     | 10.2  | 1.3  |
|              | 10    | 10.0  | 0.5  |                     | 10    | 10.0  | 0.4  |                                        | 20    | 10.1  | 0.0  |                       | 10    | 10.2  | 1.4  |
|              | 20    | 10.0  | 1.3  |                     | 15    | 10.0  | 1.0  |                                        |       |       |      |                       | 15    | 10.2  | 1.5  |
|              | 30    | 9.8   | 1.4  |                     | 20    | 10.0  | 1.5  | 1450                                   | 0     | 10.7  | 4.1  |                       | 20    | 10.2  | 1.7  |
|              | 40B   | 9.8   | 1.6  |                     | 24B   | 10.0  | 2.2  |                                        | 5     | 10.5  | 5.2  |                       | 25    | 10.2  | 1.7  |
|              |       |       |      |                     |       |       |      |                                        | 10    | 10.4  | 5.9  |                       | 26B   | 10.2  | 1.7  |
| 1430         | 0     | 10.7  | 11.4 | 1440                | 0     | 10.9  | 6.3  |                                        | 15    | 10.3  | 6.4  |                       |       |       |      |
|              | 5     | 10.5  | 12.6 |                     | 5     | 10.6  | 8.9  |                                        | 20    | 10.3  | 6.8  |                       |       |       |      |
|              | 10    | 10.5  | 14.4 |                     | 10    | 10.5  | 11.2 |                                        | 25B   | 10.3  | 6.8  |                       |       |       |      |
|              | 15    | 10.6  | 15.8 |                     | 15    | 10.4  | 11.8 |                                        |       |       |      |                       |       |       |      |
|              | 20    | 10.6  | 17.6 |                     | 20    | 10.4  | 12.0 |                                        |       |       |      |                       |       |       |      |
|              | 25    | 10.7  | 20.9 |                     | 25    | 10.4  | 12.4 |                                        |       |       |      |                       |       |       |      |
|              | 27B   | 10.7  | 21.9 |                     | 30    | 10.4  | 12.5 |                                        |       |       |      |                       |       |       |      |
|              |       |       |      |                     | 32B   | 10.4  | 12.6 |                                        |       |       |      |                       |       |       |      |

| Umpqua River              |       |       |      | July 10, 1958 |       |       |      | Tides, Gardiner, LHW 3.9 0809, HLW 1.9 |       |       |      | 1331       |       |       |      |
|---------------------------|-------|-------|------|---------------|-------|-------|------|----------------------------------------|-------|-------|------|------------|-------|-------|------|
| Time                      | Depth | Temp. | Sal. | Time          | Depth | Temp. | Sal. | Time                                   | Depth | Temp. | Sal. | Time       | Depth | Temp. | Sal. |
| PST                       | Feet  | °C    | o/oo | PST           | Feet  | °C    | o/oo | PST                                    | Feet  | °C    | o/oo | PST        | Feet  | °C    | o/oo |
| Winchester Bay, 1.7 miles |       |       |      | 5.1 miles     |       |       |      | 7.1 miles                              |       |       |      | 11.5 miles |       |       |      |
| 1240                      | 0     | 16.5  | 18.6 | 0825          | 0     | 15.8  | 18.8 | 1350                                   | 0     | 20.5  | 9.6  | 0930       | 0     | 21.8  | 2.1  |
|                           | 5     | 16.5  | 19.2 |               | 5     | 14.3  | 24.1 |                                        | 5     | 19.4  | 11.3 |            | 5     | 21.3  | 4.0  |
|                           | 10    | 15.4  | 21.7 |               | 10    | 13.3  | 26.9 |                                        | 10    | 17.4  | 16.5 |            | 10    | 21.1  | 4.6  |
|                           | 15    | 15.0  | 26.0 |               | 15    | 12.9  | 27.9 |                                        | 15    | 14.9  | 22.6 |            | 15    | 20.7  | 6.0  |
|                           | 20    | 13.1  | 27.1 |               | 20    | 12.7  | 28.3 |                                        | 20    | 13.9  | 25.2 |            | 20    | 20.4  | 6.6  |
|                           |       |       |      |               | 25    | 12.7  | 28.4 |                                        | 25    | 13.6  | 25.6 |            | 24B   | 20.2  | 7.1  |
|                           |       |       |      |               | 27    | 12.7  | 28.4 |                                        |       |       |      |            |       |       |      |
| Jerden Cove, 3.0 miles    |       |       |      | 1325          | 0     | 19.3  | 13.9 | 8.5 miles                              |       |       |      | 1435       | 0     | 22.7  | 1.6  |
| 1255                      | 0     | 16.9  | 18.4 |               | 40B   | 12.6  | 30.4 | 0900                                   | 0     | 19.2  | 8.7  |            | 5     | 22.3  | 2.3  |
|                           | 5     | 16.7  | 19.4 |               |       |       |      |                                        | 5     | 16.4  | 18.2 |            | 10    | 21.0  | 4.8  |
|                           | 10    | 16.3  | 20.3 |               |       |       |      |                                        | 10    | 15.7  | 20.2 |            | 15    | 20.6  | 6.0  |
|                           | 15    | 11.9  | 30.1 |               |       |       |      |                                        | 15    | 15.6  | 20.4 |            | 20    | 20.2  | 6.6  |
|                           | 20    | 11.3  | 32.2 |               |       |       |      |                                        | 20    | 15.4  | 20.7 |            | 25    | 20.2  | 6.9  |
|                           | 25    | 9.7   | 33.9 |               |       |       |      |                                        | 25    | 15.3  | 21.1 |            | 30    | 19.9  | 7.8  |
|                           | 30B   | 9.6   | 34.0 |               |       |       |      |                                        | 30    | 15.2  | 21.5 |            |       |       |      |
|                           |       |       |      |               |       |       |      |                                        | 35    | 15.2  | 21.5 |            |       |       |      |
| Double Cove, 4.1 miles    |       |       |      | 6.1 miles     |       |       |      | 1405                                   |       |       |      | 13 miles   |       |       |      |
| 0810                      | 0     | 15.7  | 19.7 | 0840          | 0     | 16.8  | 16.9 |                                        | 0     | 21.4  | 6.0  | 0950       | 0     | 22.7  | 0.7  |
|                           | 5     | 13.3  | 26.6 |               | 5     | 15.4  | 21.1 |                                        | 5     | 20.6  | 8.9  |            | 5     | 22.6  | 1.0  |
|                           | 10    | 11.4  | 31.0 |               | 10    | 14.2  | 24.5 |                                        | 10    | 18.2  | 13.8 |            | 10    | 22.3  | 1.8  |
|                           | 15    | 10.3  | 32.8 |               | 15    | 13.4  | 26.3 |                                        | 15    | 17.6  | 15.0 |            | 15    | 22.0  | 2.6  |
|                           | 20    | 10.1  | 33.1 |               | 17B   | 13.4  | 26.3 |                                        | 20    | 15.9  | 19.7 |            | 20    | 21.8  | 3.1  |
|                           | 25    | 9.9   | 33.8 |               |       |       |      |                                        | 25    | 15.6  | 20.2 |            | 25    | 21.7  | 3.3  |
|                           | 30    | 9.8   | 33.9 |               |       |       |      |                                        |       |       |      |            | 30    | 21.6  | 3.6  |
|                           | 35    | 9.8   | 33.9 |               |       |       |      |                                        |       |       |      |            | 35    | 21.5  | 4.0  |
|                           | 40    | 9.8   | 33.9 |               |       |       |      |                                        |       |       |      |            |       |       |      |
|                           | 45B   | 9.8   | 34.0 |               |       |       |      |                                        |       |       |      |            |       |       |      |
| 1310                      |       |       |      | 7.1 miles     |       |       |      | Reedsport, 10.0 miles                  |       |       |      | 1445       |       |       |      |
|                           | 0     | 17.9  | 16.5 | 0850          | 0     | 17.9  | 14.6 | 0920                                   | 0     | 20.7  | 6.9  |            | 0     | 23.0  | 0.2  |
|                           | 5     | 17.4  | 17.2 |               | 5     | 16.9  | 17.2 |                                        | 5     | 19.8  | 8.9  |            | 5     | 23.0  | 0.2  |
|                           | 10    | 16.0  | 20.1 |               | 10    | 15.9  | 20.1 |                                        | 10    | 18.7  | 12.3 |            | 10    | 23.0  | 0.5  |
|                           | 15    | 14.7  | 23.8 |               | 15    | 14.5  | 23.7 |                                        | 15    | 18.5  | 12.7 |            | 15    | 22.7  | 0.7  |
|                           | 20    | 13.4  | 26.9 |               | 20    | 14.3  | 24.0 |                                        | 20    | 18.3  | 13.2 |            | 20    | 21.8  | 2.1  |
|                           | 25    | 10.7  | 32.3 |               | 25    | 14.2  | 24.5 |                                        | 25    | 18.2  | 13.6 |            | 25    | 21.4  | 3.1  |
|                           | 30    | 9.9   | 33.8 |               | 28B   | 14.2  | 24.6 |                                        |       |       |      |            | 30    | 21.1  | 3.8  |
|                           | 35    | 9.8   | 33.9 |               |       |       |      |                                        |       |       |      |            |       |       |      |
|                           | 40B   | 9.8   | 34.0 |               |       |       |      |                                        | 1420  | 0     | 22.3 | 3.0        |       |       |      |
|                           |       |       |      |               |       |       |      |                                        |       | 5     | 20.8 | 4.2        |       |       |      |
|                           |       |       |      |               |       |       |      |                                        |       | 10    | 18.5 | 9.7        |       |       |      |
|                           |       |       |      |               |       |       |      |                                        |       | 15    | 17.8 | 11.6       |       |       |      |
|                           |       |       |      |               |       |       |      |                                        |       | 20    | 17.5 | 11.9       |       |       |      |

Umpqua River

June 26, 1956

| Time<br>PST            | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST               | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST               | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST                  | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|------------------------|---------------|-------------|--------------|---------------------------|---------------|-------------|--------------|---------------------------|---------------|-------------|--------------|------------------------------|---------------|-------------|--------------|
| C G Boat House         |               |             |              | Double Cove Pt., 4.0 mi.  |               |             |              | Three Mile Light, 7.1 mi. |               |             |              | Scholfield Creek, 9.6 Mi. S. |               |             |              |
| 0803                   | 0             | 13.9        | 17.4E        | 1447                      | 0             | 10.6        | 31.9F        | 1515                      | 0             | 15.3        | 16.1F        | 1558                         | 0             | 18.0        | 6.7F         |
|                        | 25            | 13.6        | 18.5         |                           | 5             | 10.1        | 32.4         |                           | 5             | 13.4        | 21.3         |                              | 5             | 17.9        | 6.8          |
|                        | 48            | 13.2        | 19.5         |                           | 10            | 9.9         | 32.7         |                           | 10            | 13.1        | 22.2         |                              | 10            | 17.6        | 7.8          |
| Red Buoy 6, 1.6 miles. |               |             |              |                           | 15            | 9.7         | 32.9         |                           | 15            | 12.9        | 23.4         |                              | 15            | 17.5        | 8.5          |
| 1410                   | 0             | 11.4        | 27.7         |                           | 20            | 9.6         | 32.9         |                           | 20            | 12.8        | 23.6         |                              | 20            | 17.3        | 8.7          |
|                        | 5             | 9.1         | 32.5         |                           | 30            | 9.6         | 33.0         |                           | 32            | 12.8        | 23.7         |                              | 27            | 17.3        | 8.8          |
|                        | 10            | 9.2         | 33.4         | 0843                      | 0             | 16.5        | 8.5E         | 0921                      | 0             | 18.9        | 0.8E         | 0951                         | 0             | 18.9        | 0.0          |
|                        | 15            | 9.1         | 33.6         |                           | 5             | 16.4        | 8.7          |                           | 5             | 18.6        | 1.0          |                              | 10            | 18.9        | 0.0          |
|                        | 20            | 9.0         | 33.5         |                           | 10            | 16.3        | 8.8          |                           | 10            | 18.6        | 1.1          |                              | 20            | 19.0        | 0.3          |
|                        | 30            | 8.9         | 33.6         |                           | 15            | 16.3        | 8.9          |                           | 15            | 18.6        | 1.1          | RR Bridge, 10.2 mi.          |               |             |              |
| 0812                   | 0             | 14.6        | 15.1E        |                           | 20            | 16.3        | 8.9          |                           | 20            | 18.6        | 1.2          | 1607                         | 0             | 18.5        | 4.7          |
|                        | 5             | 14.2        | 16.3         |                           | 30            | 16.0        | 10.5         |                           | 25            | 17.4        | 4.2          |                              | 5             | 18.0        | 5.9          |
|                        | 10            | 13.9        | 17.3         |                           | 33            | 15.8        | 10.5         |                           | 28            | 17.0        | 5.6          |                              | 10            | 17.9        | 6.2          |
|                        | 15            | 13.4        | 19.0         | Barretts Landing, 5.4 mi. |               |             |              | Gurney Island, 8.2 miles  |               |             |              |                              | 15            | 17.9        | 6.2          |
|                        | 20            | 13.1        | 19.8         | 1505                      | 0             | 11.5        | 28.5         | 1530                      | 0             | 18.6        | 9.1          |                              | 19            | 17.9        | 6.3          |
| Macy Cove, 3.3 miles   |               |             |              |                           | 5             | 10.9        | 30.2         |                           | 5             | 18.4        | 9.5          | 0959                         | 0             | 19.1        | 0.0S         |
| 1428                   | 0             | 9.9         | 31.8         |                           | 10            | 10.6        | 31.0         |                           | 10            | 17.1        | 11.7         |                              | 9             | 19.0        | 0.0          |
|                        | 5             | 9.6         | 33.0         |                           | 15            | 10.6        | 31.0         |                           | 20            | 16.5        | 12.3         | Below Light 8, 11 mi.        |               |             |              |
|                        | 10            | 9.5         | 33.3         |                           | 30            | 10.5        | 31.3         |                           | 30            | 16.0        | 13.5         | 1615                         | 0             | 19.3        | 2.1          |
|                        | 15            | 9.4         | 33.5         |                           | 46            | 10.4        | 31.8         |                           | 59            | 15.9        | 13.9         |                              | 5             | 18.8        | 3.3          |
|                        | 20            | 9.4         | 33.5         | 0854                      | 0             | 17.8        | 4.6E         | 0939                      | 0             | 18.8        | 0.2S         |                              | 10            | 18.6        | 3.4          |
|                        | 25            | 9.4         | 37.5         |                           | 5             | 17.6        | 5.2          |                           | 5             | 18.8        | 0.2          |                              | 15            | 18.5        | 3.5          |
| 0827                   | 0             | 15.9        | 10.6E        |                           | 10            | 17.5        | 5.1          |                           | 10            | 18.9        | 0.2          |                              | 35            | 18.5        | 3.8          |
|                        | 5             | 15.6        | 11.5         |                           | 15            | 17.5        | 5.1          |                           | 20            | 18.8        | 0.2          | Above Light 8, 11.5 mi.      |               |             |              |
|                        | 10            | 15.3        | 12.2         |                           | 21            | 17.0        | 6.3          |                           | 40            | 18.7        | 0.1          | 1622                         | 0             | 19.4        | 1.4          |
|                        | 15            | 15.2        | 12.5         |                           | 39            | 17.2        | 6.1          |                           | 55            | 18.7        | 0.2          |                              | 5             | 19.1        | 1.9          |
|                        | 20            | 15.1        | 13.0         | Four Mile Light, 6.1 mi.  |               |             |              | Red Buoy 22, 9.0 miles    |               |             |              |                              | 10            | 19.0        | 2.1          |
|                        | 24            | 14.9        | 13.5         | 1515                      | 0             | 15.5        | 15.8         | 1545                      | 0             | 17.5        | 9.7          |                              | 15            | 18.9        | 2.3          |
|                        |               |             |              |                           | 5             | 14.6        | 19.1         |                           | 5             | 16.8        | 10.4         |                              | 20            | 18.9        | 2.4          |
|                        |               |             |              |                           | 10            | 12.7        | 25.1         |                           | 10            | 16.8        | 10.7         |                              | 25            | 18.8        | 2.7          |
|                        |               |             |              |                           | 15            | 11.5        | 28.0         |                           | 15            | 16.7        | 10.9         | Bend, 11.8 mi.               |               |             |              |
|                        |               |             |              |                           | 20            | 11.4        | 28.3         |                           | 22            | 16.7        | 10.9         | 1628                         | 0             | 19.4        | 1.0          |
|                        |               |             |              |                           | 35            | 11.3        | 28.8         | 0943                      | 0             | 18.9        | 0.1S         |                              | 5             | 19.4        | 1.0          |
|                        |               |             |              |                           | 55            | 11.2        | 29.0         |                           | 20            | 18.8        | 0.1          |                              | 12            | 19.4        | 1.4          |
|                        |               |             |              | 0911                      | 0             | 18.4        | 2.2E         |                           |               |             |              | 12.5 mi.                     |               |             |              |
|                        |               |             |              |                           | 5             | 18.2        | 2.5          |                           |               |             |              | 1635                         | 0             | 19.4        | 0.4          |
|                        |               |             |              |                           | 10            | 17.5        | 4.5          |                           |               |             |              |                              | 10            | 19.6        | 0.4          |
|                        |               |             |              |                           | 15            | 17.5        | 4.6          |                           |               |             |              |                              | 21            | 19.8        | 0.4          |
|                        |               |             |              |                           | 20            | 17.2        | 5.6          |                           |               |             |              |                              |               |             |              |
|                        |               |             |              |                           | 36            | 16.8        | 6.8          |                           |               |             |              |                              |               |             |              |

| Yaquina River      |       |       |      | October 1, 1957          |       |       |      | Tides, Yaquina, HLW 3.1 1234, HHW 7.2 1821 |       |       |      |                            |       |       |      |
|--------------------|-------|-------|------|--------------------------|-------|-------|------|--------------------------------------------|-------|-------|------|----------------------------|-------|-------|------|
| Time               | Depth | Temp. | Sal. | Time                     | Depth | Temp. | Sal. | Time                                       | Depth | Temp. | Sal. | Time                       | Depth | Temp. | Sal. |
| PST                | Feet  | °C    | o/oo | PST                      | Feet  | °C    | o/oo | PST                                        | Feet  | °C    | o/oo | PST                        | Feet  | °C    | o/oo |
| Newport, 1.2 miles |       |       |      | CMC Boat, 5.0 miles      |       |       |      | Criteser, 9.9 miles                        |       |       |      | 13.2 miles                 |       |       |      |
| 1700               | 0     | 15.5  | 32.5 | 1315                     | 0     | 17.2  | 32.0 | 1405                                       | 0     | 19.0  | 27.5 | 1850                       | 0     | 19.1  | 25.5 |
|                    | 20    | 16.1  | 32.7 |                          | 10    | 16.8  | 32.5 |                                            | 12    | 19.4  | 28.6 |                            |       |       |      |
| Yaquina, 3.7 miles |       |       |      | 1745 0 16.0 32.8         |       |       |      | 1820 0 17.9 29.0                           |       |       |      | 15.0 miles                 |       |       |      |
| 1235               | 0     | 16.3  | 32.3 |                          | 13    | 15.9  | 32.9 |                                            | 15    | 17.7  | 29.8 | 1905                       | 0     | 19.2  | 23.9 |
|                    | 10    | 16.6  | 32.5 | Oregon Oyster, 6.6 miles |       |       |      | Toledo, 11.6 miles                         |       |       |      | Float, 16.4 miles          |       |       |      |
|                    | 15    | 16.6  | 32.8 | 1340                     | 0     | 18.3  | 30.3 | 1445                                       | 0     | 19.4  | 24.4 | 1915                       | 0     | 18.8  | 15.0 |
| 1725               | 0     | 15.7  | 32.8 |                          | 5     | 18.6  | 30.2 |                                            | 7     | 19.4  | 24.6 | Elk City, 19.8 miles       |       |       |      |
|                    |       |       |      |                          |       |       |      | 1835 0 19.2 25.9                           |       |       |      | 1940 0 18.2 3.0            |       |       |      |
|                    |       |       |      |                          |       |       |      |                                            |       |       |      | Gaging Station, 22.5 miles |       |       |      |
|                    |       |       |      |                          |       |       |      |                                            |       |       |      | ---- 0 17.6 0.0            |       |       |      |

| Yaquina River    |     |      |      | October 27, 1957 |     |      |      | Tides, Yaquina, HHW 8.3 1442, LLW -0.3 2153 |   |      |      |                  |   |      |      |
|------------------|-----|------|------|------------------|-----|------|------|---------------------------------------------|---|------|------|------------------|---|------|------|
| Newport          |     |      |      | CMC Boat         |     |      |      | Toledo                                      |   |      |      | 15.0 miles       |   |      |      |
| 1200             | 0   | 13.7 | 32.5 | 1235             | 0   | ---- | ---- | 1345                                        | 0 | 13.8 | 21.7 | 1400             | 0 | 14.0 | 19.5 |
|                  | 19B | 13.7 | 32.5 |                  | 16B | ---- | ---- |                                             |   |      |      |                  |   |      |      |
| 1800 0 14.1 32.4 |     |      |      | 1830 0 13.8 28.6 |     |      |      | 1915 0 14.2 16.1                            |   |      |      | Float            |   |      |      |
| Yaquina          |     |      |      | Criteser         |     |      |      | Slough Bridge, 13.8 miles                   |   |      |      | 1415 0 13.9 14.6 |   |      |      |
| 1220             | 0   | 13.9 | 32.5 | 1320             | 0   | 13.9 | 26.4 | 1930                                        | 0 | 13.7 | 8.6  | 2000             | 0 | 12.2 | 0.7  |
|                  | 23B | 13.7 | 32.5 |                  | 21B | 13.9 | 28.4 | Park, 18.6 miles                            |   |      |      | 1425 0 13.0 2.8  |   |      |      |
| 1815 0 14.2 30.4 |     |      |      | 1850 0 14.0 19.1 |     |      |      |                                             |   |      |      | Elk City         |   |      |      |
|                  |     |      |      |                  |     |      |      |                                             |   |      |      | 1445 0 12.7 0.1  |   |      |      |

| Yaquina River |    |      |      | November 21, 1957 |    |      |      | Tides, Yaquina, HHW 9.4 1124, LLW -1.1 1833 |    |     |      |                       |   |     |     |
|---------------|----|------|------|-------------------|----|------|------|---------------------------------------------|----|-----|------|-----------------------|---|-----|-----|
| Newport       |    |      |      | Yaquina           |    |      |      | Oregon Oyster                               |    |     |      | Toledo                |   |     |     |
| 1120          | 0  | 10.3 | 32.8 | 1645              | 0  | 9.5  | 25.9 | 1735                                        | 0  | 8.7 | 18.7 | 1840                  | 0 | 7.8 | 1.3 |
|               | 23 | 10.8 | 33.2 | CMC Boat,         |    |      |      | Criteser Marine                             |    |     |      | Bridge, 13.8 miles    |   |     |     |
| 1615          | 0  | 10.6 | 32.5 | 1200              | 0  | 10.0 | 30.8 | 1245                                        | 0  | 9.0 | 17.4 | 1325                  | 0 | 8.5 | 4.6 |
|               | 15 | 10.6 | 32.9 |                   | 19 | 10.4 | 32.9 |                                             | 18 | 9.0 | 19.9 | Houseboat, 15.0 miles |   |     |     |
| Yaquina       |    |      |      | 1710 0 9.2 22.2   |    |      |      | 1810 0 8.1 5.9                              |    |     |      | 1340 0 8.1 3.7        |   |     |     |
| 1145          | 0  | 10.2 | 32.7 |                   | 10 | 8.9  | 22.6 |                                             | 10 | 8.2 | 6.2  | Float                 |   |     |     |
|               | 21 | 10.3 | 32.9 | Oregon Oyster     |    |      |      | Toledo                                      |    |     |      | 1405 0 7.5 1.6        |   |     |     |
|               |    |      |      | 1225              | 0  | 9.7  | 27.1 | 1305                                        | 0  | 8.0 | 6.0  |                       |   |     |     |
|               |    |      |      |                   | 12 | 10.0 | 29.4 |                                             | 12 | 8.1 | 9.3  |                       |   |     |     |

| Yaquina River    |    |      |      | December 12, 1957 |    |      |      | Tides, Yaquina, HLW 3.0 1003, HHW 7.7 1541 |    |      |      |                |   |     |     |
|------------------|----|------|------|-------------------|----|------|------|--------------------------------------------|----|------|------|----------------|---|-----|-----|
| Newport          |    |      |      | CMC Boat          |    |      |      | Oregon Oyster                              |    |      |      | Toledo         |   |     |     |
| 0920             | 0  | 10.0 | 28.0 | 1010              | 0  | 9.4  | 18.6 | 1555                                       | 0  | 9.4  | 12.9 | 1105           | 0 | 8.4 | 0.0 |
|                  | 12 | 10.0 | 28.6 |                   | 9  | 9.3  | 23.9 |                                            | 8  | 10.0 | 27.2 |                |   |     |     |
| Yaquina          |    |      |      | 1540 0 10.0 25.9  |    |      |      | Criteser Marine                            |    |      |      | 1630 0 8.7 1.5 |   |     |     |
| 0955             | 0  | 9.5  | 20.1 |                   | 15 | 10.2 | 29.9 | 1045                                       | 0  | 8.4  | 2.0  | Bridge         |   |     |     |
|                  | 14 | 10.0 | 25.9 | Oregon Oyster     |    |      |      |                                            | 9  | 9.2  | 12.7 | 1640 0 8.0 0.0 |   |     |     |
| 1530 0 10.0 28.6 |    |      |      | 1030              | 0  | 9.0  | 11.4 | 1610                                       | 0  | 8.9  | 6.3  |                |   |     |     |
|                  | 19 | 10.8 | 31.4 |                   |    |      |      |                                            | 15 | 9.5  | 16.9 |                |   |     |     |

| Yaquina River    |     |      |      | January 23, 1958 |     |      |      | Tides, Yaquina, HHW 7.6 1409, LLW 0.7 2050 |     |      |      |                 |     |     |     |
|------------------|-----|------|------|------------------|-----|------|------|--------------------------------------------|-----|------|------|-----------------|-----|-----|-----|
| Newport          |     |      |      | Yaquina          |     |      |      | CMC Boat                                   |     |      |      | Criteser Marine |     |     |     |
| 1625             | 0   | 10.3 | 25.2 | 1555             | 0   | 10.1 | 26.5 | 1700                                       | 0   | 10.0 | 24.3 | 1725            | 0   | 9.5 | 4.1 |
|                  | 17B | 10.4 | 28.8 |                  | 12B | 10.2 | 30.3 |                                            | 18B | 10.1 | 27.6 |                 | 13B | 9.4 | 5.9 |
| 1100 0 10.1 28.1 |     |      |      | 1115 0 9.9 23.4  |     |      |      | Oregon Oyster                              |     |      |      | Toledo          |     |     |     |
|                  | 15B | 10.5 | 30.1 |                  |     |      |      | 1715                                       | 0   | 9.7  | 14.4 | 1740 0 9.6 0.0  |     |     |     |

Yaquina River February 13, 1958 Tides, Yaquina, HHW 8.4 0752, LLW 0.2 1520

| Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST   | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo | Time<br>PST     | Depth<br>Feet | Temp.<br>°C | Sal.<br>o/oo |
|-------------|---------------|-------------|--------------|-------------|---------------|-------------|--------------|---------------|---------------|-------------|--------------|-----------------|---------------|-------------|--------------|
| Newport     |               |             |              | Yaquina     |               |             |              | CMC Boat      |               |             |              | Oregon Oyster   |               |             |              |
| 0920        | 0             | 9.5         | 12.7         | 1000        | 0             | 10.0        | 7.5          | 1450          | 0             | 9.4         | 6.6          | 1505            | 0             | 9.9         | 0.4          |
|             | 20            | 10.0        | 17.9         |             | 18            | 9.9         | ----         |               | 9             | 10.1        | 10.1         |                 |               |             |              |
| 1520        | 0             | 10.1        | 7.8          | 1500        | 0             | 10.5        | 7.0          | Oregon Oyster |               |             |              | Criteser Marine |               |             |              |
|             | 15            | 10.5        | 8.0          |             |               |             |              | 0950          | 0             | 9.2         | 2.5          | 1015            | 0             | 9.6         | 0.0          |
|             |               |             |              |             |               |             |              |               | 8             | 10.0        | 15.4         |                 | 16            | 9.4         | 0.0          |

Yaquina River April 3, 1958 Tides, Yaquina, LHW 7.9 1142, HLW 0.4 1748

|         |    |      |      |          |    |      |      |               |    |      |      |                 |    |      |      |
|---------|----|------|------|----------|----|------|------|---------------|----|------|------|-----------------|----|------|------|
| Newport |    |      |      | Yaquina  |    |      |      | CMC Boat      |    |      |      | Criteser Marine |    |      |      |
| 1140    | 0  | 10.8 | 31.8 | 1200     | 0  | 10.9 | 31.0 | 1800          | 0  | 10.8 | 15.4 | 1300            | 0  | 10.5 | 9.6  |
|         | 22 | 11.2 | 31.9 |          |    |      |      |               | 10 | 10.4 | 23.4 |                 | 18 | 10.9 | 13.6 |
| 0730    | 0  | 10.8 | 27.3 | 1745     | 0  | 11.2 | 17.9 | Oregon Oyster |    |      |      | 1825            | 0  | 9.4  | 0.4  |
|         | 14 | 10.8 | 27.5 |          |    |      |      | 1235          | 0  | 10.5 | 19.9 |                 | 11 | 10.0 | 0.6  |
|         |    |      |      | CMC Boat |    |      |      |               | 8  | 10.9 | 26.4 |                 |    |      |      |
|         |    |      |      | 1215     | 0  | 10.5 | 30.6 | 1810          | 0  | 10.0 | 8.4  | Toledo          |    |      |      |
|         |    |      |      |          | 18 | 10.2 | 31.2 |               |    |      |      | 1320            | 0  | 10.6 | 1.2  |

Yaquina Bay May 1, 1958 Tides, Yaquina, LHW 7.1 1043, HLW 0.9 1629

|         |     |      |      |                |     |      |      |               |     |      |      |        |   |      |     |
|---------|-----|------|------|----------------|-----|------|------|---------------|-----|------|------|--------|---|------|-----|
| Newport |     |      |      | Yaquina        |     |      |      | Oregon Oyster |     |      |      | Toledo |   |      |     |
| 1045    | 0   | 12.0 | 32.3 | 1705           | 0   | 15.0 | 15.3 | 1735          | 0   | 15.0 | 6.7  | 1220   | 0 | 14.3 | 1.1 |
|         | 17B | 11.1 | 32.5 |                |     |      |      |               |     |      |      |        |   |      |     |
| 1645    | 0   | 14.3 | 25.9 | CMC Boat Works |     |      |      | Criteser      |     |      |      | 1820   | 0 | 13.2 | 0.0 |
|         | 13B | 14.2 | 27.3 | 1125           | 0   | 13.2 | 26.9 | 1200          | 0   | 14.6 | 7.6  |        |   |      |     |
|         |     |      |      |                | 15B | 12.1 | 32.1 |               | 16B | 15.0 | 10.7 | Bridge |   |      |     |
| Yaquina |     |      |      | 1720           | 0   | 14.8 | 13.1 | 1750          | 0   | 13.5 | 0.7  | 1235   | 0 | 13.3 | 0.0 |
| 1105    | 0   | 12.1 | 31.1 |                | 12B | 14.3 | 22.7 |               | 13B | 14.0 | 0.7  |        |   |      |     |
|         | 15B | 12.2 | 32.4 | Oregon Oyster  |     |      |      |               |     |      |      |        |   |      |     |
|         |     |      |      | 1145           | 0   | 14.3 | 21.8 |               |     |      |      |        |   |      |     |

Yaquina Bay May 15, 1958 Tides, Yaquina, LHW 6.1 1042, HLW 1.8 1612

|         |     |      |      |                |     |      |      |               |     |      |      |          |     |      |      |
|---------|-----|------|------|----------------|-----|------|------|---------------|-----|------|------|----------|-----|------|------|
| Newport |     |      |      | Yaquina        |     |      |      | Oregon Oyster |     |      |      | Criteser |     |      |      |
| 1025    | 0   | 10.3 | 33.6 | 1700           | 0   | 16.0 | 25.2 | 1130          | 0   | 14.9 | 26.1 | 1750     | 0   | 17.2 | 8.5  |
|         | 18B | 9.4  | 33.7 |                |     |      |      |               |     |      |      |          | 11B | 17.4 | 10.5 |
| 1630    | 0   | 12.0 | 31.8 | CMC Boat Works |     |      |      | 1730          | 0   | 17.2 | 18.3 | Toledo   |     |      |      |
|         | 14B | 11.8 | 31.9 | 1110           | 0   | 13.7 | 28.0 |               |     |      |      | 1210     | 0   | 17.8 | 7.1  |
| 1050    | 0   | 13.1 | 29.7 |                | 17B | 11.7 | 31.8 | Criteser      |     |      |      |          |     |      |      |
|         | 14B | 10.0 | 33.5 | 1715           | 0   | 16.5 | 23.4 | 1155          | 0   | 16.9 | 16.2 | 1805     | 0   | 16.4 | 1.5  |
|         |     |      |      |                | 13B | 16.6 | 28.9 |               | 14B | 16.0 | 17.5 |          |     |      |      |
|         |     |      |      |                |     |      |      |               |     |      |      | Bridge   |     |      |      |
|         |     |      |      |                |     |      |      |               |     |      |      | 1225     | 0   | 18.0 | 1.5  |

Yaquina River July 31, 1958  
Tides, Yaquina, LHW 7.1 1321, HLW 2.0 1851

| Location             | Depth<br>Feet | Time<br>PST | Temp.<br>°C | Sal.<br>o/oo |
|----------------------|---------------|-------------|-------------|--------------|
| Newport              | 0             | 1200        | 11.4        | 33.3         |
| Newport              | 14            | 1205        | 10.6        | 33.6         |
| Yaquina              | 0             | 1225        | 11.5        | 33.4         |
| CMC Dock             | 0             | 1245        | 12.8        | 33.3         |
| CMC Dock             | 13            | 1250        | 12.3        | 33.6         |
| Oregon<br>Oyster Co. | 0             | 1305        | 15.8        | 31.5         |
| Criteser<br>Moorage  | 16            | 1335        | 21.8        | 27.8         |
| Toledo               | 0             | 1400        | 23.9        | 21.7         |
| Toledo +<br>2 miles  | 0             | 1410        | 24.2        | 21.2         |
| Toledo +<br>5 miles  | 0             | 1425        | 24.4        | 12.8         |
| Elk City             | 0             | 1440        | 24.2        | 2.5          |

Yaquina River July 9, 1958  
Tides, Yaquina, LLW 3.4 1153, HHW 5.5 1845

| Depth<br>Feet | Time<br>PST | Temp.<br>°C | Sal.<br>o/oo |
|---------------|-------------|-------------|--------------|
| 0             | 1345        | 13.5        | 32.8         |
| 12            | 1350        | 12.4        | 33.2         |
| 0             | 1410        | 18.8        | 29.4         |
| 0             | 1435        | 19.5        | 27.8         |
| 14            | 1430        | 15.7        | 31.9         |
| 0             | 1445        | 20.2        | 26.5         |
| 15            | 1515        | 21.8        | 22.7         |
| 0             | 1535        | 23.0        | 16.2         |
| 0             | 1550        | 23.8        | 10.6         |
| 0             | 1600        | 23.0        | 0.9          |